CITY OF ELK GROVE
CITY COUNCIL STAFF REPORT

AGENDA TITLE: **A Public Hearing to consider 1) a resolution certifying the Supplemental Environmental Impact Report and adopting Findings of Fact for the Climate Compass Project; 2) a resolution adopting amendments to the City of Elk Grove General Plan to incorporate provisions of the Climate Compass Project and make revisions concerning the Implementation Strategy as set forth in Chapter 10 of the General Plan; 3) a resolution adopting the *Climate Compass: A Plan for Implementing Elk Grove's Climate, Sustainability, and Resilience Goals* and authorizing the City Manager to adopt and revise administrative policies to implement the vision, objectives, strategies, and actions outlined in the Climate Compass; and 4) a resolution approving and ratifying the Infrastructure Plan for Fleet Electrification**

MEETING DATE: **June 10, 2026**

PREPARED BY: **Carrie Whitlock, AICP, Long Range Planning Program Manager**

DEPARTMENT HEAD: **Christopher Jordan, AICP, Community Development Director**

RECOMMENDED ACTION:

Staff recommends that the City Council conduct a public hearing to receive information from staff and comments from the public, and then take the following actions:

1) Adopt a resolution certifying the Supplemental Environmental Impact Report and adopting Findings of Fact for the Climate Compass Project;

2) Adopt a resolution approving text amendments to the Elk Grove General Plan for the Climate Compass and making revisions related to the Implementation Strategy as set forth in Chapter 10 of the General Plan; and

3) Adopt a resolution approving the *Climate Compass: A Plan for Implementing Elk Grove's Climate, Sustainability, and Resilience* Goals and authorizing the City Manager to adopt and revise administrative policies to implement the vision, objectives, strategies, and actions outlined in the Climate Compass;

4) Adopt a resolution approving and ratifying the Infrastructure Plan for Fleet Electrification.

BACKGROUND INFORMATION:

Climate Compass

In 2013, the City adopted its first Climate Action Plan (CAP), which was last updated in 2019. The CAP is a plan for reducing greenhouse gas (GHG) emissions consistent with state-adopted targets and a programmatic tiering document under the California Environmental Quality Act (CEQA) for discretionary development. A programmatic tiering document can help reduce time and cost for future development projects that are subject to CEQA.

Since the 2019 CAP was adopted, numerous changes in state law and GHG management have occurred. These include new state regulations, updates to the State Building and Energy Codes, best practices on GHG reduction, and additional scientific discussion on the topic. Some of the key regulations adopted since 2019 include the following:

- Assembly Bill 1279 (AB 1279, 2022), which set a target of carbon neutrality, or net zero GHG emissions, by 2045.
- Establishment of a pathway to achieve the carbon neutrality goal, including updated GHG reduction targets through the California Air Resources Board (CARB) 2022 Scoping Plan.
- Senate Bill 1020 (SB 1020, 2022), which requires that renewable and zero-carbon resources supply 90 percent of all retail sales of electricity by the end of 2035, 95 percent by the end of 2040, and 100 percent by the end of 2045.

- Advanced Clean Cars II Regulations[1], which set a goal for all new passenger cars, trucks, and SUVs sold in California to be 100 percent zero-emission vehicles by 2035.
- Updates to the State Building Standards, including:
  - The 2022 Building Energy Efficiency Standards were adopted by the California Energy Commission (CEC) in 2022 and effective from January 1, 2023 through December 31, 2025.
  - The 2025 Building Energy Efficiency Standards were adopted by CEC in 2025 and went into effect on January 1, 2026. The updated energy efficiency standards include a focus on building decarbonization by emphasizing electric heat pumps for space heating and water heating, extending the benefits of solar photovoltaic and battery storage systems, increased requirements for electric vehicle charging, particularly with multi-family residential buildings, and include demand flexible technology to improve electric grid capacity.

Pursuant to the provisions of the 2019 CAP, and in order to remain consistent with newer state targets and updated legislation, staff initiated work on an update to the CAP in March 2023. The update, titled the *Climate Compass: A Plan for Implementing Elk Grove's Climate, Sustainability, and Resilience Goals* (Climate Compass), ensures the City remains consistent with new state policies and regulations and identifies new programs, technologies, and emissions reduction strategies that can be leveraged to meet the City's GHG reduction goals.

Staff began the update to the CAP with a presentation to City Council to receive general direction on March 22, 2023. As part of the update to the CAP, a series of general information sessions on building energy, transportation, and resilience and smaller emission sectors were presented to City Council in July and August 2024. In addition, an update was provided to City Council on March 12, 2025, to receive direction on draft strategies and actions related to communitywide emissions.

General Plan

State law (Government Code Section 65300, et. seq.) requires each city and county to adopt a comprehensive, long-term general plan for its physical development. The General Plan serves as the blueprint for future growth and

[1] As of June 2025, the U.S. Congress voted to limit California's authority to regulate vehicle emissions under existing programs provided through a waiver of the Clean Air Act. California is challenging the legality of this vote and given the pending litigation, the assumption of these programs remains for the purpose of the Climate Compass.

development, containing policies and programs designed to provide decision makers with a solid basis for future decisions related to land use and development.

The City's current General Plan was adopted in February 2019 following an extensive update process. Since its adoption, the City has undertaken various amendments, including regular "maintenance activities" for compliance with changes in state law and to maintain consistency across City documents. Examples of this "maintenance" work include the 2021 Housing Element update, the 2021 Safety Element update, and the 2025 Open Space Element and the Implementation Work Program updates.

Infrastructure Plan for Fleet Electrification

The purpose of the Infrastructure Plan for Fleet Electrification (the IPFE) is to provide clear, actionable guidance for the electrification of the City's municipal fleet and for infrastructure to support staff and public electric vehicle (EV) charging at City facilities. The intention is to provide near-term guidance that can be enacted over the next five years, with considerations for the longer term. The Plan's overall goal is to transition to a fully zero-emission light-duty fleet over the next decade, provided suitable EVs are available.

The Plan was completed and presented to City Council as an informational item on July 24, 2024.

PLANNING COMMISSION REVIEW:

The Planning Commission reviewed this matter (with the exception of the Infrastructure Plan for Fleet Electrification, which did not require Planning Commission review) at a duly-noticed public hearing on May 7, 2026. One public comment was received in support of the Climate Compass document. After receiving staff's presentation, the Commission voted 4-0 (Singha absent) to recommend adoption to the City Council.

ANALYSIS/DISCUSSION:

Climate Compass

The draft Climate Compass reflects the updated regulatory environment for GHG emission reduction and establishes reduction targets consistent with the 2022 Scoping Plan and AB 1279. The Climate Compass converts these state reduction targets to Elk Grove specific GHG emission reduction targets as follows:

- 39 percent below 2021 levels by 2030 (638,812 MTCO2e); and
- 85 percent below 2021 levels by 2045 (160,976 MTCO2e).

The Climate Compass includes a series of reduction strategies, focused on both communitywide GHG emission reductions and government operations GHG emission reductions. The communitywide GHG emission reductions are organized into 79 specific actions in six focus areas (buildings and energy, transportation, resilience and adaptation, resource consumption, green economy, and climate action commitment). Through implementation of all proposed actions, including state-mandated efforts, the City would achieve and exceed its reduction target for both 2030 and 2045. The forecasted total GHG emissions communitywide would be 585,781 MTCO2e (2.6 MTCO2e per capita) in 2030 and 156,739 MTCO2e (0.5 MTCO2e per capita) in 2045.

The government operations GHG emission reductions are organized into 34 specific municipal actions in four focus areas (buildings and facilities, fleet and employee commute, resilience, and solid waste and water). Through implementation of all proposed actions, including state-mandated efforts, the City would reduce GHG emissions from government operations to 2,050 MTCO2e in 2030 and 282 MTCO2e in 2045. These GHG emission reductions are in line with the communitywide targets of 39 percent below 2021 levels by 2030 and 85 percent below 2021 levels by 2045.

Implementation of the Climate Compass entails administrative policies that will support the vision, objectives, strategies, and actions outlined in the document. This includes, but is not limited to, policies related to electrification of new and existing City facilities, heat-resilient building standards and green building policies, and transitioning to zero-emission fleet vehicles and to low and zero-emission equipment. These administrative policies will support the achievement of the GHG emission reduction targets for government operations and for the community overall.

The Draft Climate Compass, along with the Draft Supplemental Environmental Impact Report (EIR), was circulated for public review beginning June 27, 2025. Based upon public comments received in addition to feedback from regional agencies and additional staff discussions, the Draft Climate Compass was revised. Key revisions include the following:

- An additional section on implementation considerations was added to Chapter 5, Implementation and Monitoring, to provide further context and to support decision-making across all Climate Compass actions, ensuring alignment with overall GHG reduction and adaptation goals.
- Changes to residential building energy efficiency actions to ensure compliance with Assembly Bill 130 (which passed after the draft Climate Compass was released).

- Adjusted language related to several actions to ensure clarity on intent and implementation.
- Removal of action related to financing mechanisms, specifically the Property Assessed Clean Energy (PACE) program, which has been problematic for building owners.

The Climate Compass provides for regular monitoring and updating. Monitoring and tracking progress on implementation is a key priority in the Climate Compass. This is anticipated to take place through an annual progress update (expected to be included with the General Plan Annual Report) and through regular progress updates to the Climate Compass dashboard (elkgrove.gov/cap). Updates to the Climate Compass (approximately every five years) will be needed to incorporate the latest building code requirements and other future state and federal actions.

The Climate Compass is intended to act as a programmatic tiering document, similar to the 2019 CAP. A programmatic tiering document front-loads the analysis needed for many projects, which can decrease the time and money needed for project-level environmental analyses. Future development projects that the City determines are not exempt from CEQA and are subject to environmental review (e.g., an initial study/negative declaration or an EIR is required) can achieve streamlining pursuant to the provisions of CEQA (Guidelines Section 15183.5) by including all applicable GHG reduction measures in the CAP in the project designs and/or as mitigation measures in the environmental document. As a result, projects that rely on the CAP would have a cumulatively less than significant impact on the environment related to GHG emissions.

To continue to utilize the Climate Compass as a programmatic tiering document, a Supplemental EIR has been prepared as an amendment to the City's certified General Plan Update EIR.

Following Planning Commission's recommendation, one modification was made to the Climate Compass document. The wording of implementation action BF-1.1 was adjusted as follows:

> *Adopt a policy that requires all new COEG buildings to be all-electric starting in 2026, and additionally, that requires existing buildings purchased by COEG to be fully electrified ~~within five years of purchase~~ with remodeling/upgrades.*

This adjustment is in the best interest of the City as it provides for a more fiscally responsible implementation while still achieving the overall goal of decarbonizing City facilities.

Textual Modifications to the General Plan Related to the Climate Compass

Textual modifications to Chapter 7, "Community and Resource Protection" and Chapter 10, "Implementation Strategy" of the City's General Plan are intended to ensure consistency between the Climate Compass and the General Plan document. All textual modifications are proposed within the Community and Resource Protection and the Implementation Strategy Chapters, and include the following:

- Identification of recent state legislation on GHG emission reduction targets.
- Addition of the information from the GHG emission inventory for 2021 by sector.
- Adjustments to forecasted and target GHG emission numbers for 2030 and 2045.
- Changes to specific policies to align with Climate Compass actions related to City facilities.
- Edits to two action items in the Implementation Work Program related to zero-emission vehicles to align with updated Climate Compass actions.

Revisions to the General Plan Related to the Implementation Strategy

Revisions to Chapter 10, "Implementation Strategy," of the City's General Plan are intended to replace two action items unintentionally removed from the Implementation Work Program (Table 10-1). The revisions include restoring the following items:

- Action 2.10, conduct a parking study
- Action 2.14, zoning code amendments related to transitional and supportive housing

While these action items have been completed, they need to remain in the Implementation Work Program table to ensure visibility with state requirements for Housing Elements.

Infrastructure Plan for Fleet Electrification (IPFE)

The IPFE includes an evaluation of the City's vehicle fleet for electrification and required energy needs, and an assessment of City facilities to determine the required infrastructure upgrades needed. Further work for each facility

related to detailed design and cost estimation will be needed in preparation for any construction and installation, as the IPFE provides only planning-level information. Additionally, the IPFE will need to be reviewed and adjusted as charging and EV technology continues to change rapidly, and as operational needs of the City evolve.

ENVIRONMENTAL ANALYSIS:

Climate Compass

The California Environmental Quality Act (Section 21000, et. seq. of the California Public Resources Code, hereafter CEQA) requires analysis of agency approvals of discretionary "projects." A "project," under CEQA, is defined as "the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment." The proposed Climate Compass is a project under CEQA.

On February 27, 2019, the City Council adopted the General Plan Update and the 2019 CAP and certified the General Plan Update EIR (SCH No. 2017062058). The General Plan Update EIR programmatically evaluated both the General Plan Update and 2019 CAP as separate documents. On December 13, 2023, the City adopted the General Plan Amendments (GPA) and Update of Vehicle Miles Traveled (VMT) Standards Project (GPAs/VMT Standards Project) and certified the Subsequent EIR to the General Plan Update EIR (2023 Subsequent EIR) (SCH No. 2022020463). The GPAs/VMT Standards Project did not include an update to the 2019 CAP but amended the General Plan with increased residential densities and mixed-use opportunities associated with the creation of the Livable Employment Area Community Plan (LEA Community Plan). The intent of the LEA Community Plan is to connect transportation with land-use planning and design in recognition that the most economically, socially, and environmentally successful communities are walkable and contain a mix of uses. As identified in the 2023 Subsequent EIR, this change in development intensity and other associated to the General Plan results in improved VMT limits by land use designation as well as reduced per capita GHG emissions in 2040 (2.9 MTCO2e per year) as compared to what is identified in the 2019 CAP for 2050 (3.0 MTCO2e per year). This updated version of the General Plan is the foundational land use plan used for the Climate Compass.

The draft environmental document for the Climate Compass has been prepared as a Supplemental EIR pursuant to CEQA Guidelines Section 15163. Per State CEQA Guidelines Section 15163, a lead agency may choose to

prepare a Supplemental EIR when only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation. The Climate Compass is proposed as an update to the City's current CAP as evaluated in the General Plan Update EIR and utilizes the City's current land use plan and map as evaluated in the 2023 Subsequent EIR. As such, the Climate Compass would require minor changes to these previous EIRs, and the City has determined that preparation of a Supplemental EIR to the General Plan Update EIR, as amended by the 2023 Subsequent EIR, is the appropriate CEQA document for the Project.

Per CEQA Guidelines Section 15163(b), the Supplemental EIR need only contain the information necessary to make the previous EIR adequate for the project, as revised. The Draft Supplemental EIR analyzes the potentially significant environmental impacts resulting from implementation of the Climate Compass. As a result of the review of existing information and the scoping process, the Draft Supplemental EIR includes an evaluation of the following two environmental issue areas as well as other CEQA-mandated issues (e.g., cumulative impacts, growth-inducing impacts, significant unavoidable impacts, alternatives):

- energy, and
- greenhouse gas emissions and climate change.

The Supplemental EIR identified that the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan Update EIR, as amended by the 2023 Subsequent EIR.

The City prepared a Notice of Preparation (NOP) and circulated it to public agencies and interested parties (including the general public) on December 6, 2024, with a public scoping meeting held on January 9, 2025. The NOP provided an introduction to the Project and solicited input on the scope and content of the environmental document. Comments were requested by January 15, 2025, consistent with the requirements of the State CEQA Guidelines. The NOP and public comments received and staff responses are included in the Draft Supplemental EIR (Exhibit A to Attachment 1).

On June 27, 2025, concurrent with the public availability of the draft Climate Compass, the City released the Draft Supplemental EIR. The Draft Supplemental EIR was made available for public review and comment on the City's website and at City Hall for a period of 49 days. Public comments on the Draft Supplemental EIR were due to the City on August 15, 2025. A total

of five comment letters were received. Responses to these comments have been prepared by staff and are included in the Final Supplemental EIR.

The Final Supplemental EIR also includes an erratum of changes to the Draft Supplemental EIR as a result of the public comments on the Project, the comments to the Draft Supplemental EIR, and other revisions to the Project as identified by the City. The Final Supplemental EIR indicates that the modifications to the Project are minor in nature and do not cause any change in significant impacts that were analyzed in the Draft Supplemental EIR.

Revisions to the General Plan Related to the Implementation Strategy

The revisions to the General Plan related to the Implementation Strategy were previously included in the General Plan and unintentionally removed when amendments to the Implementation Work Program were undertaken in December 2025. The two specific action items were previously analyzed as part of the Subsequent Environmental Impact Report for the Housing Element Update (SCH No. 2020069032) certified by the City Council on May 12, 2021. Therefore, no further environmental review is necessary pursuant to State CEQA Guidelines Section 15183 (Consistency with a Community Plan, General Plan and Zoning).

ALTERNATIVE ACTIONS:

The City Council may choose to not adopt the proposed Climate Compass. This would leave the current Climate Action Plan, adopted in 2019, in place. This alternative is not recommended as significant changes have been made to reflect the updated regulatory environment for GHG emission reductions. The 2019 CAP reduction measures would be insufficient in achieving the updated state target for 2030 identified in the 2022 Scoping Plan and would remain insufficient in achieving the previous 2050 target identified in Executive Order S-3-05 or the recent 2045 target identified in AB 1279.

The City Council may also choose to not adopt the General Plan revisions for the Climate Compass or the Implementation Strategy. This alternative is not recommended as it would result in inconsistencies between the Climate Compass and the General Plan, and an Implementation Strategy in the General Plan that does not reflect specific actions to be undertaken.

The City Council may also choose to not approve and ratify the IPFE. This alternative is not recommended as implementation of the IPFE is an action identified in the Climate Compass document. The IPFE was presented to City Council on July 24, 2024, as an informational item, along with a request for a budget amendment for CIP project WFC053 to support implementation

of EV infrastructure at City facilities. Not approving and ratifying the IPFE would require revisions to the Climate Compass and the Supplemental EIR documents, incurring additional costs and project delays.

FISCAL IMPACT:

Climate Compass

The cost of preparation of the Climate Compass document, the Supplemental EIR document, and the General Plan amendments has been included over several annual budgets and includes funding from the Development Services fund. Implementation of the Climate Compass includes both City and private actions. For City efforts, a collection of local funds, such as General Fund and user fees as well as grant funding, will be necessary to implement provisions of the Climate Compass. The cost analysis included in the Climate Compass estimated the implementation costs at $53 million over five years, with $21 million associated with existing City programs. The cost estimate did not include a quantification of potential cost savings to the City (for example, reduced municipal utility bills as a result of more energy efficient buildings). Funding to implement actions identified in the Climate Compass will be programmed in future budgets, subject to City Council approval.

For private development, costs are the responsibility of the developer. However, a number of local, state, and federal incentives are available for certain requirements, including design funding and construction incentives from SMUD.

The Climate Compass includes a discussion of available funding opportunities that can be updated over time.

Infrastructure Plan for Fleet Electrification

The cost of preparing the IPFE was covered by funding allocated for this purpose in the American Rescue Plan Act (ARPA) funding the City received. The cost of transitioning the City fleet to EVs and installing charging infrastructure at City facilities was estimated to be $27.1 million over the next 12 years. This investment represents an additional $2.5 million compared to the estimated cost of maintaining the current internal combustion engine fleet over the same period. These costs compare the total cost of ownership, including acquisition, fuel, and maintenance. To offset the transition costs, the City has looked to earmarks and grant opportunities for funding. The City has already received a $1 million federal earmark in FY2023 for the effort that is being programmed through CIP Project WFC053.

ATTACHMENTS:

1. Resolution certifying the Supplemental Environmental Impact Report and adopting Findings of Fact
    a. Exhibit A: Draft Supplemental Environmental Impact Report
    b. Exhibit B: Final Supplemental Environmental Impact Report
    c. Exhibit C: Findings of Fact
2. Resolution adopting amendments to the City of Elk Grove General Plan
    a. Exhibit A: Revisions to the General Plan Related to the Implementation Strategy
    b. Exhibit B: Textual Modifications to the General Plan Related to the Climate Compass
3. Resolution adopting the Climate Compass: A Plan for Implementing Elk Grove's Climate, Sustainability, and Resilience Goals
    a. Exhibit A: Climate Compass Plan Document
4. Resolution approving and ratifying Infrastructure Plan for Fleet Electrification
    a. Exhibit A: Infrastructure Plan for Fleet Electrification

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ELK GROVE CERTIFYING THE SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT FOR THE CITY OF ELK GROVE CLIMATE COMPASS PROJECT AND ADOPTING FINDINGS OF FACT

PROJECT SP0013

WHEREAS, in 2013 the City Council of the City of Elk Grove (City) adopted the first City of Elk Grove Climate Action Plan (CAP); and

WHEREAS, in 2019 the City Council adopted an update to the Elk Grove CAP; and

WHEREAS, with the adoption of the 2019 CAP, the City committed to undertaking updates to the CAP every five years to ensure new programs, technologies, and emissions reductions strategies can be leveraged to meet the City's greenhouse gas (GHG) reduction goals; and

WHEREAS, numerous state and federal regulations and requirements have been adopted since 2019 relative to reducing GHG emissions; and

WHEREAS, the City has prepared a comprehensive update to the 2019 CAP, titled the *Climate Compass: A Plan for Implementing Elk Grove's Climate, Sustainability, and Resilience Goals*; and

WHEREAS, future development projects that the City determines are not exempt from the California Environmental Quality Act (CEQA) and are subject to environmental review (e.g., an initial study/negative declaration or an Environmental Impact Report (EIR) is required) can achieve streamlining pursuant to the provisions of CEQA (Guidelines Section 15183.5) by including all applicable GHG reduction measures in the Climate Compass in the project designs and/or as mitigation measures in the environmental document. As a result, projects that rely on the Climate Compass would have a cumulatively less than significant impact on the environment related to GHG emissions; and

WHEREAS, the City has prepared a Supplemental EIR as part of the Climate Compass development; and

WHEREAS, on December 6, 2024, the City released a Notice of Preparation for the SEIR; and

WHEREAS, on June 27, 2025, the City released the Draft Climate Compass, Draft Supplemental EIR, and a Notice of Availability for the Supplemental EIR, collecting public comments through August 15, 2025; and

WHEREAS, the Planning Commission held a duly-noticed public hearing on May 7, 2026, as required by law to consider all of the information presented by staff, and public testimony presented in writing and at the meeting and voted 4-0 (Singha absent) to recommend approval to the City Council; and

WHEREAS, the City Council held a duly-noticed public hearing on June 10, 2026, as required by law to consider all of the information presented by staff, and public testimony presented in writing and at the meeting.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Elk Grove as follows:

1. Certification of the EIR

A. The City Council hereby certifies that the Draft and Final Supplemental EIR (together the Supplemental EIR, presented as Exhibits A and B respectively, attached hereto and incorporated herein by reference) have been completed in compliance with the requirements of the California Environmental Quality Act.

B. The City Council hereby certifies that the Supplemental EIR was presented to the City Council and that the City Council reviewed and considered the information contained in the Supplemental EIR prior to taking action on the Project.

C. The City Council hereby certifies that the Supplemental EIR reflects the independent judgment and analysis of the City Council.

2. Findings on Impacts

The City Council finds that the Supplemental EIR does not identify any potentially significant impacts that cannot be mitigated to a less than significant level. The City Council makes the findings as set forth in Exhibit C, attached hereto and incorporated herein by reference.

3. Findings on Alternatives

The City Council finds that the alternatives analyzed in the Supplemental EIR are rejected because the alternatives would not achieve the project objectives. The City Council makes the finding as set forth in Exhibit C, attached hereto and incorporated herein by reference.

PASSED AND ADOPTED by the City Council of the City of Elk Grove this 10th day of June 2026

_____
BOBBIE SINGH-ALLEN, MAYOR of the
CITY OF ELK GROVE

ATTEST:

_____
JASON LINDGREN, CITY CLERK

APPROVED AS TO FORM:

_____
JONATHAN P. HOBBS
CITY ATTORNEY

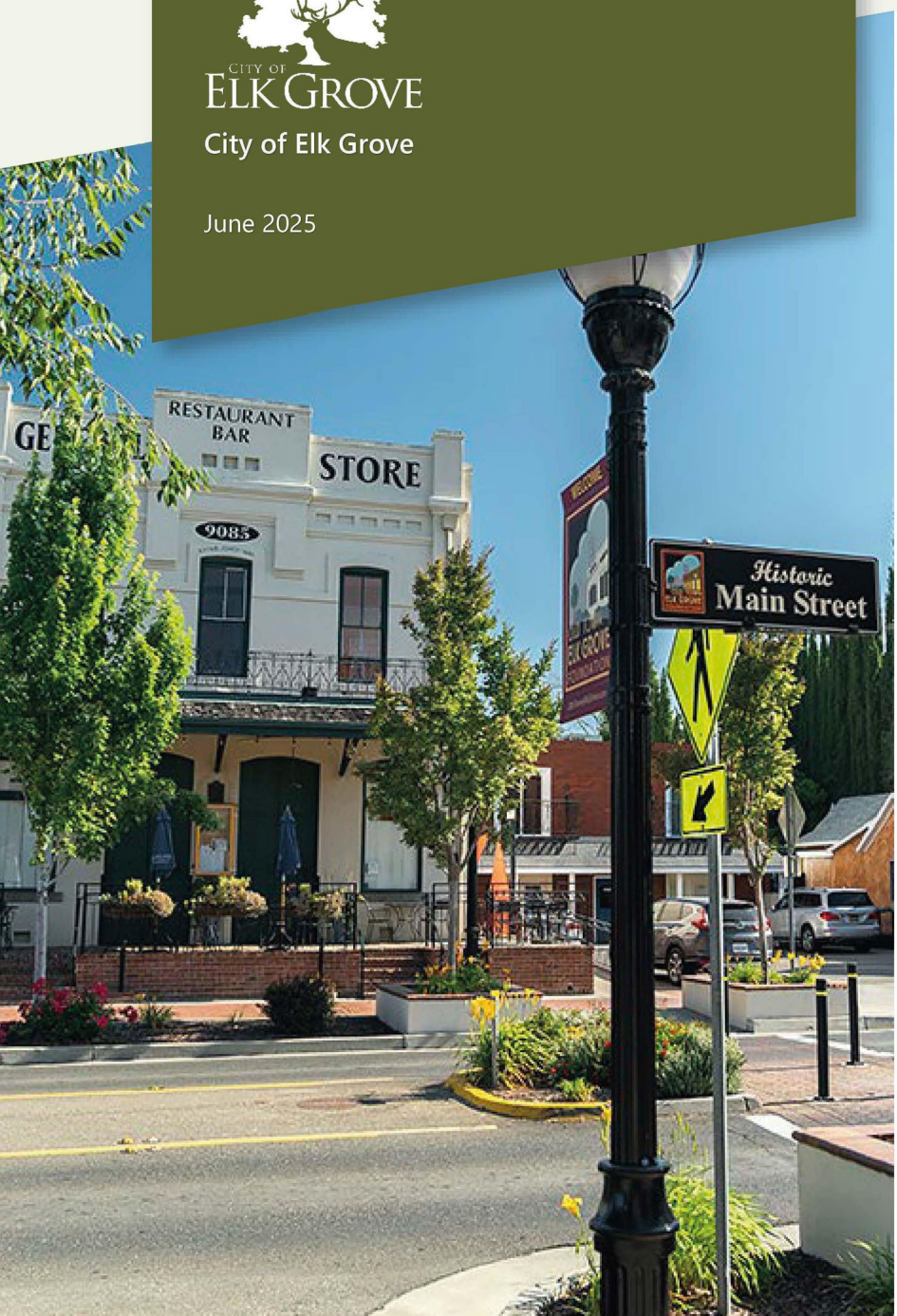
Draft Supplemental Environmental Impact Report for the Climate Compass Project

State Clearinghouse No. 2017062058

Prepared for:

City of Elk Grove

June 2025









Draft Supplemental Environmental Impact Report for the Climate Compass Project

State Clearinghouse No. 2017062058

Prepared for:

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June 2025

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LIST OF ABBREVIATIONS

2019 CAP or 2019 CAP Update	*City of Elk Grove Climate Action Plan 2019 Update*
2022 Scoping Plan	*2022 Scoping Plan for Achieving Carbon Neutrality*
2023 Subsequent EIR	Subsequent EIR to the General Plan EIR
AB	Assembly Bill
ACC II	Advanced Clean Cars II
ACF	Advanced Clean Fleets
BAU	business-as-usual
BE	Buildings and Energy
BEMS	building energy management system
BF	Buildings and Facilities
CAA	Clean Air Act
CAFE	Corporate Average Fuel Economy
CAL FIRE	California Department of Forestry and Fire Protection
CALGreen Code	California Green Building Standards Code
CAP	climate action plan
CARB	California Air Resources Board
CCR	California Code of Regulations
CCSD	Cosumnes Community Services District
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CH_4	methane
Checklist	Climate Compass Consistency Review Checklist
CI	carbon intensity
City	City of Elk Grove
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CPRG	Climate Pollution Reduction Grants
CRCPP	Capital Region Climate Priorities Plan
e-bike	electric bike
EGUSD	Elk Grove Unified School District
EIR	Environmental Impact Report
EO	Executive Order
EPA	US Environmental Protection Agency
EV	electric vehicle
FEC	Fleet and Employee Commute
GE	Green Economy
General Plan EIR	General Plan Update Environmental Impact Report
General Plan	2019 General Plan Update
GHG	greenhouse gas
GPAs/VMT Standards Project	General Plan Amendments and Update of Vehicle Miles Traveled Standards Project
GSAT	global-mean surface air temperature
GWP	global warming potential
HERO	Home Energy Renovation Opportunity
I-5	Interstate 5
ICT	Innovative Clean Transit

IEPR	Integrated Energy Policy Report
IPCC	Intergovernmental Panel on Climate Change
IRP	Integrated Resource Plan
LCFS	Low Carbon Fuel Standard
LEA	Livable Employment Area
$MMTCO_2e$	million metric tons of CO_2-equivalent
MPO	metropolitan planning organization
$MTCO_2e$	metric tons of carbon dioxide equivalent
MTP/SCS	Metropolitan Transportation Plan/Sustainable Communities Strategy
N_2O	nitrous oxide
NHTSA	National Highway Traffic Safety Administration
NLA	no local action
NOP	Notice of Preparation
PACE	Property Assessed Clean Energy
PG&E	Pacific Gas and Electric Company
Plan or Project	proposed Climate Compass
Planning Area	all land within the current city limits as well as the study areas
PM	particulate matter
PRC	Public Resources Code
PUC	Public Utilities Code
PV	photovoltaic
RA	Resilience and Adaptation
RC	Resource Consumption
RTP	regional transportation plan
SacOES	Sacramento County Office of Emergency Services
SACOG 2020 MTP/SCS	Sacramento Area Council of Governments 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy
SACOG	Sacramento Area Council of Governments
SacRT	Sacramento Regional Transit
SacSewer	Sacramento Area Sewer District
SB	Senate Bill
SCS	sustainable communities strategy
SDMP	Storm Drainage Master Plan
SEIR	Supplemental Environmental Impact Report
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMUD	Sacramento Municipal Utility District
SORE	small off-road engine
SR	State Route
STF	Sacramento Tree Foundation
TAC	toxic air contaminants
TACM	Transportation Alternatives and Congestion Management
TR	Transportation
US DOT	US Department of Transportation
VMT	vehicle miles traveled
VRF	variable refrigerant flow
WW	Solid Waste and Water
ZEV	zero-emission vehicles

EXECUTIVE SUMMARY

ES.1 INTRODUCTION

This summary is provided in accordance with California Environmental Quality Act Guidelines (State CEQA Guidelines) Section 15123. As stated in Section 15123(a), "an EIR [environmental impact report] shall contain a brief summary of the proposed action and its consequences. The language of the summary should be as clear and simple as reasonably practical." As required by the guidelines, this chapter includes (1) a summary description of the proposed Climate Compass (Plan); (2) a synopsis of environmental impacts and recommended mitigation measures (Table ES-1, presented at the end of this chapter); (3) identification of the alternatives evaluated and of the environmentally superior alternative; (4) a discussion of the areas of controversy associated with the Plan; and (5) issues to be resolved.

ES.2 SUMMARY DESCRIPTION OF THE PROJECT

The proposed Plan is a comprehensive update to the City of Elk Grove's (City's) current Climate Action Plan (CAP), adopted in 2019. The proposed Plan establishes a roadmap for the City to achieve its greenhouse gas (GHG) emission reduction targets and includes actions and strategies to adapt to anticipated climate-related impacts. In addition, the Plan aligns local efforts with Assembly Bill (AB) 1279 (2021-22 Legislative Session), which requires California to achieve net-zero GHG emissions and an 85 percent reduction in anthropogenic GHG emissions by 2045.

ES.2.1 Project Background

On February 27, 2019, the City adopted the General Plan Update (General Plan) and the 2019 CAP Update (2019 CAP), and certified the General Plan Environmental Impact Report (EIR) (SCH No. 2017062058). Both the General Plan and 2019 CAP were programmatically evaluated within the General Plan EIR as separate documents.

The General Plan established a Planning Area of approximately 31,238 acres (48.8 square miles), which includes all land within the current city limits as well as lands outside the city limits in unincorporated Sacramento County to the south and east that, in the City's judgment, bears relation to its planning efforts (referred to as study areas). The 2019 CAP included an updated communitywide emissions inventory for the General Plan Planning Area, along with updated emissions forecasts for 2020, 2030, and 2050 based on land use activities anticipated with implementation of the General Plan. In addition to the 2019 CAP, the General Plan EIR also evaluated the General Plan; amendments to the East Elk Grove Specific Plan, the East Franklin Specific Plan, and the Laguna Ridge Specific Plan; amendments to the Zoning Code to maintain consistency with the General Plan; and an update to the City's Parks and Recreation Master Plan.

The General Plan EIR concluded that while adoption of the General Plan and the 2019 CAP would primarily result in less than significant impacts related to GHG emissions and energy, significant and unavoidable impacts would occur under the GHG Emissions Appendix G threshold, "Conflict with an Applicable Plan, Policy, or Regulation Adopted for the Purpose of Reducing the Emissions of GHGs." For this Appendix G threshold, the General Plan EIR concluded significant and unavoidable impacts since the adoption and implementation of the General Plan and 2019 CAP would likely not result in sufficient GHG reductions for the city to meet the long-term GHG emission reduction goal for 2050 as stated in Executive Order (EO) S-3-05. The General Plan EIR also evaluated an alternative to the project that included additional measures to the 2019 CAP to further exceed established GHG reduction targets for 2020 and 2030 and allow the city to meet the State's targets for 2050. However, this alternative was not identified as the environmentally superior alternative as the General Plan EIR concluded that it would result in similar impacts, if not greater in certain instances, as the project.

Since its adoption in 2019, the General Plan has been amended seven times, three times with Supplemental /Subsequent EIRs for the Housing and Safety Element Update, the Southeast Industrial Area Specific Plan, and most recently, the General Plan Amendments and Update of Vehicle Miles Traveled (VMT) Standards Project (GPAs/VMT Standards Project). On December 13, 2023, the City adopted the GPAs/VMT Standards Project and certified the Subsequent EIR to the General Plan EIR (2023 Subsequent EIR) (SCH No. 2022020463). The GPAs/VMT Standards Project included amendments to the General Plan for the creation of the Livable Employment Area Community Plan Area; an update to the City's VMT thresholds, including associated changes to the Transportation Analysis Guidelines; revisions to the

South and West Study Areas in the General Plan; incorporation of the Grant Line Road Precise Plan as part of the Rural Area Community Plan; other land use changes; and amendments to the adopted General Plan Mitigation Measures MM 5.5.1a and MM 5.5.1b associated with cultural resource impacts.

The GPAs/VMT Standards Project did not include an update to the 2019 CAP, but amended the General Plan that increased residential densities and mixed-use opportunities associated with the creation of the Livable Employment Area Community Plan (LEA Community Plan). The intent of the LEA Community Plan is to connect transportation with land-use planning and design in recognition that the most economically, socially, and environmentally successful communities are walkable and contain a mix of uses. This land use change was directed in 2019 by the Elk Grove City Council to leverage the value of a planned new thoroughfare, Kammerer Road, beyond its ability to carry vehicle traffic, to lay the foundation for economic development in the form of a 21st century employment center. As identified in its 2023 Subsequent EIR, this change in development intensity and other associated to the General Plan results in improved VMT limits by land use designation (City of Elk Grove 2023:Table 3.9-3) as well as reduced per capita GHG emissions in 2040 (2.9 $MTCO_2e$ per year) as compared to what is identified in the 2019 CAP for 2050 (3.0 $MTCO_2e$ per year) (City of Elk Grove 2023:3.5-4 and 3.5-11). This updated version of the General Plan is the foundational land use plan used for the Climate Compass.

Since its adoption in 2019, the 2019 CAP has been amended three times, including in December 2019 to update solar photovoltaic (PV) requirements (measure BE-7) to be consistent with the 2019 building code; in December 2022 to update electric vehicle (EV) charging requirements (measure TACM-9) to be consistent with the 2022 building code; and, most recently, in December 2024 to update EV charging requirements (measure TACM-9) to be consistent with the 2024 building code and to change the language of measure BE-5 to remove reference to the zero net energy standard for residential buildings and replace it with the decreased energy emissions requirement (City of Elk Grove 2024a). While the first two amendments to the 2019 CAP were exempt from CEQA in accordance with Section 15162 of the State CEQA Guidelines, a General Plan EIR addendum was approved by the City Council on December 11, 2024 for the December 2024 amendment to the 2019 CAP (City of Elk Grove 2024b). The General Plan EIR addendum determined that the December 2024 amendment to the 2019 CAP did not constitute substantial changes, did not change physical circumstances, and did not provide new information of substantial importance that could not have been known at the time of the 2019 CAP was approved and thus, would not result in a new or substantially more severe impact compared to the 2019 CAP as evaluated in the certified General Plan EIR (City of Elk Grove 2024b).

In 2023, the City initiated the development of the Climate Compass as an update to its 2019 CAP in order to establish the City's blueprint for achieving its GHG emissions reduction targets as well as aligning strategies and actions with updated regulatory requirements. The Plan was developed by first preparing a GHG emissions inventory, identifying forecasts and targets, and gathering community input on the city's climate strengths, vulnerabilities, and priorities. After establishing the foundation of the city's GHG forecasts and reduction targets, the City's consultant developed and refined draft GHG emission reduction and adaptation strategies and actions with input from City staff and subject matter experts. Throughout the entire development process of the Draft Plan, the City has engaged the public and stakeholders through workshops, local events, surveys, a climate ambassador program, and the formation of a technical advisory group to gather input and feedback on the components of the Plan.

The Draft Plan, which includes the city's GHG emissions inventory, forecasts, and reduction targets; the finalized communitywide climate strategies and actions; City operations strategies and actions; and the implementation framework for the Plan, has been released for public review concurrently with this Draft SEIR on the City's website: https://elkgrove.gov/cap. For a detailed timeline of the development of the Plan, please refer to Chapter 1, "Introduction," of the Climate Compass.

ES.2.2 Project Objectives

The primary objectives of the Plan are to:

- Develop an updated CAP to align the City's climate action planning with California's GHG reduction goals and relevant regulations aimed at climate mitigation.
- Implement strategies and actions to transition the city away from fossil fuels and realize deep GHG emissions reductions through the near- and long-term future.

- Connect and amplify existing sustainability efforts in a cohesive, impactful plan.
- Incorporate climate adaptation and resilience actions to address the city's most pressing natural and climate-related hazards.
- Develop a CEQA-qualified CAP to provide a mechanism for streamlining project-level GHG emissions analysis consistent with Section 15183.5 of the State CEQA Guidelines and the entitlement process for future sustainability projects and climate-friendly development within the city.
- Communicate climate challenges and opportunities, foster climate education, and empower the community to contribute to solutions.
- Ensure equitable climate action by prioritizing projects and programs that benefit historically underserved communities.
- Develop an updated CAP that is consistent with the recently adopted amendments to the City's General Plan in 2023, which was amended to increase development intensity to improve VMT efficiency and reduce GHG emissions by creating walkable communities with amenities that attract and retain businesses and residents.

ES.2.3 Project Location

The General Plan Planning Area is 48.8 square miles (31,238 acres) and includes all land within the current city limits as well as lands outside the city limits in the four designated study areas (i.e., north, east, south, and west study areas). The Planning Area is generally bounded by Interstate 5 (I-5) on the west; Calvine Road and the City of Sacramento on the north; Grant Line Road and Deer Creek on the east; and Schwinger Road on the south. State Route (SR) 99 traverses north–south, bisecting the city near its center.

Existing land uses within the city limits consist of residential at varying densities, commercial, office, industrial, park, and open space. Within the study areas, existing land uses primarily consist of agricultural lands and rural residential uses. Nearby natural open space and habitat areas include the Stone Lakes National Wildlife Refuge and the Sacramento River to the west, the Cosumnes River Preserve to the south, and the Sacramento Area Sewer District (SacSewer) bufferlands to the northwest. Major roadway access to the City is provided by I-5 and SR 99. Upon adoption, the Plan would serve as the long-term CAP for land uses within the City's jurisdiction within the General Plan Planning Area.

ES.2.4 Project Characteristics

The Plan establishes strategies and actions to reduce GHG emissions generated from current and future activities within the city as well as GHG emissions generated by City facilities and operations. The Plan is structured to align with State and regional laws, policies, regulations, and plans to reduce GHG emissions and improve resilience to climate change-related impacts. State regulations related to GHG emissions that are applicable and were current at the time of the development of the Plan include Senate Bill (SB) 32 (2015-16 Legislative Session), AB 1279, and the California Air Resources Board's (CARB's) *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) at the State level.

The Plan has been developed to provide:

- A baseline of major sources of GHG emissions;
- A projection of future GHG emissions expected to occur within the Planning Area and be generated by City operations;
- Targets for reducing GHG emissions to specified levels that are aligned with State laws and policies; and
- Strategies and actions to reduce GHG emissions to meet the targets.

More specifically, the Plan identifies the following:

- Baseline GHG emissions for the Planning Area and forecasts potential increases in these emissions over time, both for the Planning Area (i.e., "community") and for City operations.
- GHG emissions reduction targets for 2030 and 2045 in alignment with the State's GHG reduction goals as directed by the 2022 Scoping Plan and AB 1279.

- Strategies and actions to achieve the 2030 and 2045 GHG emissions reduction targets for both community and City operations.

ES.3 ENVIRONMENTAL IMPACTS AND RECOMMENDED MITIGATION MEASURES

This Draft SEIR has been prepared pursuant to the CEQA (Public Resources Code [PRC] Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations, Title 14, Chapter 3, Section 15000, et seq.) to evaluate the physical environmental effects of the proposed Plan. The City is the lead agency. The City Council has the principal responsibility for approving and implementing the Plan and for ensuring that the requirements of CEQA have been met.

Table ES-1, presented at the end of this chapter, provides a summary of the environmental impacts for the Plan. The table identifies the level of significance of the impact before mitigation, recommended mitigation measures, and the level of significance of the impact after implementation of the mitigation measures.

For detailed discussions of all Plan impacts and mitigation measures, the reader is referred to the topical environmental analysis in Chapter 3, "Environmental Setting, Impacts, and Mitigation Measures." Cumulative impacts are discussed in Chapter 4, "Cumulative Impacts."

ES.4 SIGNIFICANT AND UNAVOIDABLE IMPACTS

This Draft SEIR has been prepared to evaluate whether implementation of the Plan would result in new or substantially more severe impacts than what was evaluated within the General Plan EIR, as amended by the Subsequent EIR for the GPAs/VMT Standards Project in 2023 (hereinafter referred to as the 2023 Subsequent EIR). The General Plan EIR and 2023 Subsequent EIR identified the following significant and unavoidable impacts:

- Impact 3.1-1: Substantially Degrade Existing Visual Character or Quality of Public Views
- Impact 3.1-2: Create a New Source of Substantial Light or Glare
- Impact 3.2-1: Construction Emissions of Criteria Air Pollutants
- Impact 3.2-2: Operational Air Quality
- Impact 3.2-4: Exposure of Sensitive Receptors to Toxic Air Contaminants
- Impact 3.5-1: Project Generated Greenhouse Gas Emissions
- Impact 3.6-2: Increased Traffic Noise
- Impact 3.8-3: Increased Demand for New Public School Facilities
- Impact 3.9-1: Result in an Exceedance of City of Elk Grove General Plan VMT Thresholds
- Impact 3.10-1: Adverse Impacts on Sufficient Water Supply, Infrastructure, and Treatment
- Impact 3.11-1: Agricultural Resources
- Impact 3.11-2: Biological Resources
- Impact 4-1: Cumulative Visual Resources Impacts
- Impact 4-2: Cumulative Light and Glare Impacts
- Impact 4-3: Cumulative Air Quality Impacts
- Impact 4-6: Cumulative Greenhouse Gas Impacts
- Impact 4-7: Cumulative Traffic Noise Impacts
- Impact 4-8: Cumulative Construction and Development Noise and Vibration Impacts
- Impact 4-12: Cumulative Public School Impacts
- Impact 4-14: Cumulative Impacts on Vehicle Miles Traveled

- Impact 4-17: Cumulative Water Service Impacts
- Impact 4-18: Cumulative Wastewater Impacts
- Impact 4-20: Cumulative Groundwater Use Impacts

As discussed in greater detail in Chapter 3, "Environmental Setting, Impacts, and Mitigation Measures," of this Draft SEIR, adoption and implementation of the Plan would not result in any new or substantially more severe significant impacts than those disclosed in the General Plan EIR, as amended by the 2023 Subsequent EIR. No new or modified mitigation is proposed.

ES.5 ALTERNATIVES TO THE PROPOSED PROJECT

Chapter 5, "Alternatives," of this Draft SEIR provide an evaluation of the alternatives to the Plan as well as the alternatives considered but rejected from further consideration. The following alternatives are evaluated in detail within this Draft SEIR:

- **Alternative 1: No Project Alternative** assumes the Climate Compass would not be adopted and implemented and the City's climate action planning efforts would continue to be guided under the currently adopted 2019 CAP, which is not consistent with statewide GHG reduction goals as identified in the 2022 Scoping Plan, as directed by AB 1279. Under this alternative, the City would not adopt updated strategies and actions to reduce GHG emissions in accordance with these State-mandated reduction targets and future GHG emissions forecasts and reductions would be based on the No Local Action (NLA) scenario from the Climate Compass.
- **Alternative 2**: **Removal of Reach Code Actions Alternative** assumes the Climate Compass would be adopted with the exclusion of Actions BE-1.1 and TR-2.1, both of which require the City to adopt reach codes by 2026, from the Community GHG Emissions Reduction Strategies and associated actions list. Under this alternative, all strategies and associated actions included for City operations under the Climate Compass would remain the same. Specifically, Actions BE-1.1 and TR-2.1 require the City to adopt reach codes encouraging transition from natural gas powered heating and appliances to electric alternatives for new construction and major renovations in both residential and nonresidential development and for electric vehicle (EV) charging, respectively. The adoption of reach codes are voluntary and must be proven to be cost effective and approved by the California Energy Commission.
- **Alternative 3: Transit Expansion Alternative** assumes the Climate Compass would be amended to include a new action (i.e., TR-1.9) to support Community Strategy TR-1, "Decrease Vehicle Miles Traveled," and its associated actions (i.e., TR-1.1 through TR-1.8). The new Action TR-1.9 would be developed to include the expansion of bus services within the city's urban core to support future fixed route transit and/or bus rapid transit extension projects carried forward by the City (e.g., blue line extension project) or by Sacramento Regional Transit (SacRT) (i.e., SacRT on the Move: Short-Range Transit Plan). Under this alternative, the City would work with SacRT to provide financial resources for additional bus lines within the southwestern area of the City. In addition, existing bus headways within the city's urban core would shorten to every 15 minutes to decrease waiting times and increase connectivity to the larger transit system, which in turn would incentivize using the city's alternative transportation system and ultimately decrease VMT and GHG emissions.

ES.6 AREAS OF CONTROVERSY

State CEQA Guidelines Section 15123 requires the summary section of a Draft EIR to identify the areas of controversy known to the lead agency, including issues raised by agencies and the public. A Notice of Preparation (NOP) was circulated for public review in December 2024 and comments pertaining to the Plan, including those that raised areas of controversy, were collected and reviewed as part of preparation of this Draft SEIR (Appendix A). The areas of controversy associated with the Plan are:

- The level of detail required for the Plan's strategies and actions.
- The use of the Plan for streamlining the GHG emissions analysis of future projects.

These issues are each addressed in this Draft SEIR. Any impacts related to these issues are identified either as less than significant or as less than significant after mitigation with the exception of the impacts identified under the heading "Significant and Unavoidable Impacts," above. Issues related to impacts identified as significant and unavoidable remain areas of controversy.

ES.7 ISSUES TO BE RESOLVED

State CEQA Guidelines Section 15123 requires the summary section of a Draft EIR to identify issues to be resolved related to a proposed project. Issues to be resolved for the proposed Plan by the City are identified below, including issues that will not necessarily be resolved through the Draft SEIR:

- Should the Climate Compass be approved as proposed?
- Does this SEIR adequately describe the environmental impacts associated with implementation of the Plan?

Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Energy			
Impact 3.1-1: Result in Wasteful, Inefficient, or Unnecessary Consumption of Energy, During Project Construction or Operation The General Plan EIR, as amended by the 2023 Subsequent EIR, concluded that impacts related to the wasteful, inefficient, or unnecessary consumption of energy would be less than significant. Implementation of the Climate Compass includes electrification and decarbonization of buildings and infrastructure, increasing renewable energy use and storage, reducing energy and resource consumption, improving clean and efficient transportation, and strengthening resilience and adaptation measures (e.g., water efficiency and renewable energy measures), which would reduce energy demand and improve energy efficiency beyond existing measures by the City. As such, implementation of the Climate Compass would not result in a new or more severe impact than what was identified in the General Plan EIR, as amended by the 2023 Subsequent EIR. This impact would remain less than significant.	LTS	No mitigation is required.	LTS
Impact 3.1-2: Conflict with or Obstruct a State or Local Plan for Renewable Energy or Energy Efficiency The General Plan EIR, as amended by the 2023 Subsequent EIR, determined impacts related to conflicting with or obstructing applicable State or local plans for renewable energy and energy efficiency would be less than significant. The Climate Compass has been developed in alignment with applicable State and local plans, policies, and regulations that aim to promote energy efficiency and renewable energy generation. Several strategies and actions of the Climate Compass would directly reduce energy demand from fossil fuels in the building sector within the city through building decarbonization, improved energy efficiency, and increased availability of renewably sourced electricity. Additionally, strategies and actions would deploy additional EV charging and reduce VMT by enhancing roadway connectivity, increasing and improving bicycle and pedestrian infrastructure, and improving transit opportunities. These strategies and actions would reduce the city's dependence on fossil fuel-derived energy, improve energy efficiency, and promote renewable energy usage resulting in consistency with applicable plans, policies, and regulations. As such, implementation of the Climate Compass would not result in a new or more severe impact than what was identified in the General Plan EIR, as amended by the 2023 Subsequent EIR. This impact would remain less than significant.	LTS	No mitigation is required.	LTS
Impact 4-1: Cumulative Impacts Related to Energy As discussed in greater detail in Section 3.1, "Energy," of this Draft SEIR, adoption of the Climate Compass would replace the 2019 CAP with an updated plan that is consistent with current regulations and aligned with Statewide GHG reduction goals as identified in the 2022 Scoping Plan set forth by AB 1279. As identified in the Climate Compass, GHGs in the Planning Area are primarily emitted from sources that combust fossil fuels for energy, such as gasoline and diesel in cars and natural gas in buildings. Implementation of the Plan would, overall, reduce fossil fuel consumption within the Planning Area by increasing energy efficiency and conservation, decarbonizing buildings, using renewable energy technology and sources, reducing VMT, and transitioning to zero-emission vehicles. This decrease in fossil fuel consumption within the Planning Area would result in greater electricity consumption, due to the required transition from on-site fossil fuel–powered energy (i.e., fossil natural gas combustion, diesel and gasoline use). Therefore, overall electricity demand would be expected to continue to increase throughout the Climate Compass's lifetime. Nevertheless, the Climate Compass includes measures and actions requiring investments in the city's renewable energy systems. These measures and actions, combined with the statutory renewable energy requirements of the Renewables Portfolio Standard, which SMUD must meet, would result in a broader availability of renewable energy (e.g., solar, wind) to meet this demand.	LTS	No mitigation is required.	LTS

NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
As described in Section 3.1, SMUD's 2022 Integrated Resource Plan (IRP) and the California Energy Commission's (CEC's) review of the IRP demonstrates that SMUD is capable of meeting the energy profile changes that would occur (i.e., transitioning from fossil fuel energy sources in favor of electricity, especially from renewable sources) with implementation of the Climate Compass. Additionally, the shift towards electricity sourced from renewables under the Climate Compass would be supported by SB 1020, which requires that eligible renewable energy resources and zero-carbon resources supply 90 percent of all retail sales of electricity to California end-use customers by December 31, 2035; 95 percent of all retail sales of electricity to California end-use customers by December 31, 2040; and 100 percent of all retail sales of electricity to California end-use customers by December 31, 2045. Furthermore, the Plan's strategies and actions that require the electrification and decarbonization of buildings and facilities, additional alternative transportation infrastructure, and energy efficiency and water conservation would result in a long-term reduction in energy consumption and the use of nonrenewable energy sources. In addition, as GHG emissions are an inherent result of the generation and consumption of fossil-fuel related energy, plans that reduce fossil-fuel related energy consumption, require all-electric development, increase renewable energy generation, and improve energy efficiency are considered energy-related plans in addition to a GHG-related plan, such as the proposed Climate Compass and the 2022 Scoping Plan. The strategies and actions detailed in the Plan would improve energy efficiency, reduce energy demand (e.g., Action BF-3.1 and Action BF-3.3), and decrease transportation-related fossil fuel consumption (e.g., Action FEC-1.8 and Action FEC-1.3). Furthermore, the Plan would specifically align with the overarching goals of improved energy efficiency and reliance on renewable energy systems established in the Sacramento Area Council of Governments 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy, California Green Building Standards Code, SB 1020, EO B-55-18, SB 743, EO N-79-20, the SMUD's 2030 Zero Carbon Plan, and Appendix D of the 2022 Scoping Plan. Therefore, the Climate Compass would not result in a new or greater contribution to cumulative effects to energy beyond what was identified in the General Plan EIR, as amended by the 2023 Subsequent EIR. As such, the Plan's contribution to the less than significant cumulative impact would remain less than cumulatively considerable as identified in the General Plan EIR, as amended by the 2023 Subsequent EIR.			
Greenhouse Gas Emissions			
Impact 3.2-1: Generate GHG Emissions, Either Directly or Indirectly, That May Have a Significant Impact on the Environment The General Plan EIR determined implementation of the General Plan and the 2019 CAP would result in GHG emissions reductions sufficient to meet the City's GHG reduction targets, which were consistent with the statewide GHG emission reduction targets for 2020 and 2030 as identified in the 2017 Scoping Plan, as established by AB 32 and SB 32. Therefore, impacts were determined to be less than significant. The 2023 Subsequent EIR determined implementation of the GPAs/VMT Standards Project would exceed emissions targets at a higher rate than anticipated as part of the General Plan and as evaluated in the General Plan EIR. Because the GPAs/VMT Standards Project would introduce development not captured in the inventory prepared for the 2019 CAP (i.e., the GPAs/VMT Standards Project introduces land uses inconsistent with the assumptions of the General Plan), the efficacy of the 2019 CAP measures to sufficiently reduce GHG emissions past 2030 would be speculative. For this reason, the 2023 Subsequent EIR determined that impacts would be more severe than those identified in the General Plan EIR. Because the 2019 CAP did not include the most recent regulations (i.e., AB 1279) and no other mitigation was available to reduce GHG impacts, the 2023 Subsequent EIR determined this impact would be significant and unavoidable. Implementation of the Climate Compass would achieve the City's 2030 and 2045 GHG emission reduction goals, consistent with statewide GHG reduction goals as identified in the 2022 Scoping Plan and directed by AB 1279. The Climate Compass would provide	LTS	No mitigation is required.	LTS

NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
the City with the framework to meet its GHG emission reduction targets as development occurs under the General Plan, as amended by the GPAs/VMT Standards Project, beyond the buildout year 2030. Because the Climate Compass would be sufficient in meeting statewide GHG reduction targets, adopting and implementing the Climate Compass would not result in a new or more substantially severe impact than what was identified in the General Plan EIR, as amended by the 2023 Subsequent EIR. Implementation of the Climate Compass would reduce the significant and unavoidable impact from the 2023 Subsequent EIR to less than significant.			
Impact 3.2-2: Conflict With an Applicable Plan, Policy, or Regulation Adopted for the Purpose of Reducing the Emissions of GHGs The General Plan EIR determined that the General Plan and the 2019 CAP would not meet the long-term adjusted statewide emissions reduction goal of 1.4 $MTCO_2e$ per capita by 2050 consistent with EO S-3-05 and the 2017 Scoping Plan, despite the General Plan policies, implementation programs, and 2019 CAP GHG reduction actions to be implemented under the General Plan and 2019 CAP. No additional feasible mitigation was identified beyond compliance with the 2019 CAP and proposed General Plan policies. Therefore, the General Plan EIR concluded that the impacts related to meeting the long-term GHG reduction goal for 2050 would be significant and unavoidable. The 2023 Subsequent EIR determined that development under the GPAs/VMT Standards Project would extend past the 2019 CAP GHG reduction target year of 2030 into 2040 and beyond. Because the GPAs/VMT Standards Project would facilitate development beyond the 2030 target year and that GHG reduction targets have become more stringent since adoption of the 2019 CAP and certification of the General Plan EIR (i.e., AB 1279), the General Plan and the 2019 CAP would not be sufficient to meet the State's long-term targets beyond 2030. As such, the 2023 Subsequent EIR determined implementation of the GPAs/VMT Standards Project would result in a substantially more severe impact than what was addressed in the General Plan EIR, and impacts would remain significant and unavoidable. The Climate Compass would achieve the City's overall goal to reduce GHG emissions consistent with statewide GHG reduction goals as established in the 2022 Scoping Plan, as set forth by AB 1279. In addition, the Climate Compass would be consistent with and support a variety of other State and local plans, policies, and regulations related to the reduction of GHG emissions. Therefore, the Climate Compass would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. Furthermore, the Climate Compass would provide the mechanism for the City to achieve its long-term GHG reduction goals past 2030 consistent with current regulations, which was identified in the 2023 Subsequent EIR as necessary to address the city's long-term GHG impacts. For these reasons, adoption and implementation of the Climate Compass would result in a substantially less severe impact than what was identified in the General Plan EIR and the 2023 Subsequent EIR, and as such, this impact would be reduced to less than significant.	LTS	No mitigation is required.	LTS

NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Impact 4-2: Cumulative Impacts Related to Greenhouse Gas Emissions and Climate Change As discussed in greater detail in Section 3.2, "Greenhouse Gas Emissions And Climate Change," of this Draft SEIR, adoption and implementation of the Climate Compass would achieve the City's 2030 and 2045 GHG emission reduction goals consistent with statewide GHG reduction goals as identified in the 2022 Scoping Plan set by AB 1279. Despite minor construction and operational GHG emissions occurring with the implementation of the Climate Compass, the Plan would reduce overall GHG emissions from sources in the community and City operations. Notably, the majority of GHG reductions would be achieved through the community GHG reduction strategies and their associated actions detailed in Table 2-14 of Chapter 2, "Project Description." The total estimated community GHG emissions reductions from all quantified strategies and actions would be 386,053 $MTCO_2e$ in 2030 and 356,645 $MTCO_2e$ in 2045. While constituting a smaller portion of the City's GHG reductions, the total estimated City operations GHG emissions reductions from all quantified strategies and action would be 4,425 $MTCO_2e$ in 2030 and 5,949 $MTCO_2e$ in 2045. In addition, while implementation of the Plan would achieve the City's GHG emissions reduction targets for 2030 and 2045, the Plan also provides the City with a surplus of GHG emissions reductions. Overall, GHG emissions would be substantially reduced in 2030 and 2045 compared to the "no local action" (NLA) scenario (i.e., implementation of the General Plan without implementation of the strategies and actions included in the Climate Compass). In addition, the Climate Compass would be consistent with and support a variety of other State and local plans, policies, and regulations related to the reduction of GHG emissions. Therefore, the Climate Compass would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. Furthermore, the Climate Compass would provide the mechanism for the City to achieve its long-term GHG reduction goals past 2030 consistent with current regulations, which was identified in the 2023 Subsequent EIR as necessary to address the City's long-term GHG impacts. As such, the Climate Compass would result in a substantially reduced contribution to cumulative effects related to GHG emissions and climate change compared to what was identified in the General Plan EIR, as amended by the 2023 Subsequent EIR. As such, the Plan's contribution to this significant cumulative impact would be reduced to less than cumulatively considerable.	LTS	No mitigation is required.	LTS

NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable

1 INTRODUCTION

The proposed Climate Compass (Plan) is a comprehensive update to the City of Elk Grove's (City) current Climate Action Plan (CAP), adopted in 2019. The proposed Plan establishes a roadmap for the City to achieve its greenhouse gas (GHG) emission reduction targets and includes actions and strategies to adapt to anticipated climate-related impacts. In addition, the Plan aligns local efforts with Assembly Bill (AB) 1279, which requires California to achieve net-zero GHG emissions by 2045 and an 85 percent reduction in anthropogenic GHG emissions by 2045.

This Draft Supplemental Environmental Impact Report (SEIR) is being prepared as an amendment to the City's certified General Plan Update Environmental Impact Report (General Plan EIR) (SCH No. 2017062058), which programmatically evaluated both the General Plan Update (General Plan) and the 2019 CAP Update (2019 CAP) as separate documents. This Draft SEIR has been prepared under the direction of the City in accordance with the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000 et seq.) and the State CEQA Guidelines. This chapter of the Draft SEIR provides information on:

- the Project requiring environmental analysis (background and synopsis);
- the Project's relationship to the current regulatory context and General Plan EIR;
- the type, purpose, and intended uses of the Draft SEIR;
- the agency roles and responsibilities;
- the public and environmental review process;
- the scope of this Draft SEIR;
- the organization of the Draft SEIR; and
- the standard terminology.

1.1 PROJECT OVERVIEW

1.1.1 Project Background

In 2023, the City initiated the development of the Plan as an update to its 2019 CAP in order to establish the City's blueprint for achieving its GHG emissions reduction targets as well as aligning strategies and actions with updated regulatory requirements (i.e., AB 1279). Plan development has consisted of preparing a GHG emissions inventory, identifying forecasts and targets, and gathering community input on the city's climate strengths, vulnerabilities, and priorities. After establishing the foundation of the city's GHG forecasts and reduction targets, the City developed and refined draft GHG emission reduction and adaptation strategies and actions with input from City staff and subject matter experts. Throughout the entire development process of the Draft Plan, City staff has engaged the public and stakeholders through workshops, local events, surveys, a climate ambassador program, and the formation of a technical advisory group to gather input and feedback on the components of the Plan. The Draft Plan, which includes the city's GHG emission inventory, forecasts, and reduction targets; the finalized communitywide and City operations climate strategies and actions; and the implementation framework for the Plan, has been released for public review concurrently with this Draft SEIR on the City's website at: https://elkgrove.gov/cap**.** For a detailed timeline of the development of the Plan, please refer to Chapter 1, "Introduction," of the Climate Compass.

1.1.2 Project Description

The following provides a brief summary and overview of the Plan. Chapter 2, "Project Description," of this Draft SEIR includes a detailed description of the Project, including maps and graphics.

The Project would:

- Develop an updated CAP to align the City's climate action planning with California's GHG reduction goals and relevant regulations aimed at climate mitigation.
- Implement strategies and actions to transition the city away from fossil fuels and realize deep GHG emissions reductions through the near- and long-term future.
- Connect and amplify existing sustainability efforts in a cohesive, impactful plan.
- Incorporate climate adaptation and resilience actions to address the city's most pressing natural and climate-related hazards.
- Develop a CEQA-qualified CAP to provide a mechanism for streamlining project-level GHG emissions analysis consistent with Section 15183.5 of the State CEQA Guidelines and the entitlement process for future sustainability projects and climate-friendly development within the city.
- Communicate climate challenges and opportunities, foster climate education, and empower the community to contribute to solutions.
- Ensure equitable climate action by prioritizing projects and programs that benefit historically underserved communities.
- Develop an updated CAP that is consistent with the recently adopted amendments to the City's General Plan in 2023, which was amended to increase development intensity to improve VMT efficiency and reduce GHG emissions by creating walkable communities with amenities that attract and retain businesses and residents.

1.2 REGULATORY CONTEXT

1.2.1 Relationship to Climate Action Planning Legislation

Climate-related legislation has been adopted at multiple levels of government, with State climate regulations and goals providing guidance and examples for local government actions to reduce GHG emissions. In California, AB 32, enacted in 2006, established the United States' first comprehensive, long-term approach to addressing climate change. AB 32 led to the development of State programs and standards, such as the Advanced Clean Cars Standard and Renewables Portfolio Standard, that target GHG emissions reductions from cars and trucks, electricity production, fuels, and other sources. Since the passage of AB 32, the State has continued to enact complementary legislation that addresses GHG emissions from specific sectors including land use, transportation, energy, and water, as well as environmental justice and public health issues. Enacted in 2016, Senate Bill (SB) 32 established the State's 2030 GHG emissions reduction target at 40 percent below 1990 levels. Executive Order (EO) S-3-05 called for statewide GHG emissions to be reduced to 80 percent below 1990 levels by 2050.

More recently, AB 1279 was enacted in 2022 and requires the State to achieve net zero GHG emissions no later than 2045, as well as statewide anthropogenic GHG emissions to be reduced to at least 85 percent below 1990 levels by 2045. Specifically, AB 1279 requires the California Air Resources Board (CARB) to work with other State agencies to develop and implement comprehensive strategies, policies, and regulations to meet this target. These efforts will focus on reducing emissions across various sectors, including energy, transportation, industry, and agriculture, while also prioritizing equity and protecting vulnerable communities.

To support the goals of AB 1279, CARB released the *Final 2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) on November 16, 2022. The 2022 Scoping Plan traces the pathway for the State to achieve the AB 1279 targets. The 2022 Scoping Plan details strategies to reduce GHG emissions across sectors such as energy, transportation, industry, agriculture, and natural and working lands. Building on previous plans, it incorporates the latest scientific findings, technological advancements, and policy developments to guide the state toward a sustainable, low-carbon future. The plan emphasizes transitioning to clean energy sources, electrifying transportation and buildings, reducing

vehicle miles traveled (VMT), and implementing nature-based solutions to sequester carbon. It also emphasizes environmental justice as an essential component of climate action to ensure all communities benefit equitably.

Local land use agencies often choose to align their climate action and adaptation plans with statewide targets and strategies outlined in the 2022 Scoping Plan. Collaborating with State agencies, community organizations, and other stakeholders also helps with plan implementation and progress toward achieving local GHG reduction targets.

1.2.2 Relationship to the City of Elk Grove General Plan EIR, as Amended by the 2023 Subsequent EIR

On February 27, 2019, the City adopted the General Plan and the 2019 CAP and certified the General Plan EIR (SCH No. 2017062058). The General Plan EIR programmatically evaluated both the General Plan and 2019 CAP as separate documents.

The 2019 CAP was developed to be consistent and aligned with the goals identified in the 2017 Scoping Plan to meet the statewide GHG emission reduction targets for 2020 and 2030, as established by AB 32 and SB 32. Based on the regulatory setting at the time, the 2019 CAP included an updated communitywide emissions inventory for the city along with updated emissions forecasts for 2020, 2030, and 2050 based on land use activities anticipated with implementation of the General Plan. In addition to the 2019 CAP, the General Plan EIR evaluated the General Plan; amendments to the East Elk Grove Specific Plan, the East Franklin Specific Plan, and the Laguna Ridge Specific Plan; amendments to the Zoning Code to maintain consistency with the General Plan; and an update to the City's Parks and Recreation Master Plan.

Since its adoption in 2019, the 2019 CAP has been amended three times, including in December 2019 to update solar photovoltaic (PV) requirements (measure BE-7) to be consistent with the 2019 building code; in December 2022 to update electric vehicle (EV) charging requirements (measure TACM-9) to be consistent with the 2022 building code; and, most recently, in December 2024 to update EV charging requirements (measure TACM-9) to be consistent with the 2024 building code and to change the language of measure BE-5 to remove reference to the zero net energy standard for residential buildings and replace it with the decreased energy emissions requirement (City of Elk Grove 2024a). While the first two amendments to the 2019 CAP were exempt from CEQA in accordance with Section 15162 of the State CEQA Guidelines, a General Plan EIR addendum was approved by the City Council on December 11, 2024 for the December 2024 amendment to the 2019 CAP (City of Elk Grove 2024b). The General Plan EIR addendum determined that the December 2024 amendment to the 2019 CAP did not constitute substantial changes, did not change physical circumstances, and did not provide new information of substantial importance that could not have been known at the time of the 2019 CAP was approved and thus, would not result in a new or substantially more severe impact compared to the 2019 CAP as evaluated in the certified General Plan EIR (City of Elk Grove 2024b).

Since its adoption in 2019, the General Plan has been amended seven times, three times with Supplemental /Subsequent EIRs for the Housing and Safety Element Update, the Southeast Industrial Area Specific Plan, and most recently, the General Plan Amendments and Update of VMT Standards Project (GPAs/VMT Standards Project). On December 13, 2023, the City adopted the GPAs/VMT Standards Project and certified the Subsequent EIR to the General Plan EIR (2023 Subsequent EIR) (SCH No. 2022020463). The GPAs/VMT Standards Project included amendments to the General Plan for the creation of the Livable Employment Area Community Plan Area; an update to the City's VMT thresholds, including associated changes to the Transportation Analysis Guidelines; revisions to the South and West Study Areas in the General Plan; incorporation of the Grant Line Road Precise Plan as part of the Rural Area Community Plan; for other land use changes; and amendments to the adopted General Plan Mitigation Measures MM 5.5.1a and MM 5.5.1b associated with cultural resource impacts.

The GPAs/VMT Standards Project did not include an update to the 2019 CAP, but amended General Plan that increased residential densities and mixed-use opportunities associated with the creation of the Livable Employment Area Community Plan (LEA Community Plan). The intent of the LEA Community Plan is to connect transportation with land-use planning and design in recognition that the most economically, socially, and environmentally successful communities are walkable and contain a mix of uses. This land use change was directed in 2019 by the Elk Grove City

Council to leverage the value of a planned new thoroughfare, Kammerer Road, beyond its ability to carry vehicle traffic, to lay the foundation for economic development in the form of a 21st century employment center. As identified in its 2023 Subsequent EIR, this change in development intensity and other associated to the General Plan results in improved VMT limits by land use designation (City of Elk Grove 2023:Table 3.9-3) as well as reduced per capita GHG emissions in 2040 (2.9 $MTCO_2e$ per year) as compared to what is identified in the 2019 CAP for 2050 (3.0 $MTCO_2e$ per year) (City of Elk Grove 2023:3.5-4 and 3.5-11). This updated version of the General Plan is the foundational land use plan used for the Climate Compass.

1.3 TYPE, PURPOSE, AND INTENDED USES OF THIS DRAFT SEIR

Pursuant to Section 15163 of the State CEQA Guidelines, a supplemental EIR should be prepared if an EIR has been certified for a project, but one or more of the following conditions are met.

(a) The Lead or Responsible Agency may choose to prepare a supplement to an EIR rather than a subsequent EIR if:

  (1) Any of the conditions described in Section 15162 would require the preparation of a subsequent EIR, and

  (2) Only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation.

(b) The supplement to the EIR need contain only the information necessary to make the previous EIR adequate for the project as revised.

(c) A supplement to an EIR shall be given the same kind of notice and public review as is given to a draft EIR under Section 15087.

(d) A supplement to an EIR may be circulated by itself without recirculating the previous draft or final EIR.

(e) When the agency decides whether to approve the project, the decision-making body shall consider the previous EIR as revised by the supplemental EIR. A finding under Section 15091 shall be made for each significant effect shown in the previous EIR as revised.

The Climate Compass is proposed as an update to the City's current CAP as evaluated in the General Plan EIR and utilizes the City's current land use plan and map as evaluated in the 2023 Subsequent EIR. As such, the Plan would require minor changes to these previous EIRs, and the City has determined that preparation of a SEIR to the General Plan EIR, as amended by the 2023 Subsequent EIR, is the appropriate CEQA document for the Project.

The Draft and Final versions of General Plan EIR are available for review through the City and online at the following location: https://www.elkgrove.gov/general-plan/general-plan-documents.

The Draft 2023 Subsequent EIR for the GPAs/VMT Standards Project is available for review through the Governor's Office of Land Use and Climate Innovation CEQAnet Web Portal at: https://ceqanet.opr.ca.gov/2022020463/2. The Final 2023 Subsequent EIR is available for review on the City's website at: https://www.elkgrove.gov/sites/default/files/city-files/Departments/strategic_planning/kammerer-road-urban-design-study/elk-grove-gp-amendment-fseir-2023-08-18.pdf.

An EIR is a public informational document used in the planning and decision-making process. An EIR assesses the environmental effects related to the planning, construction, and/or operation of a project and indicates ways to reduce or avoid significant environmental impacts. An EIR also discloses significant environmental impacts that cannot be avoided; any growth-inducing impacts of a project; effects found not to be significant; and significant cumulative impacts of past, present, and reasonably foreseeable future projects in combination with the impacts of the project.

As an informational document for decision makers, a Draft SEIR is not intended to recommend either approval or disapproval of a project. CEQA requires the decision makers to balance the benefits of a project against its unavoidable environmental impacts. If environmental impacts are identified as significant and unavoidable (i.e., no feasible mitigation is available to reduce the impact to a less-than-significant level), the City may still approve the project if it believes that social, economic, or other benefits outweigh the unavoidable impacts. The City would then be required to make findings

and state, in writing, the specific reasons for approving the project, based on information in the Draft SEIR and other information in the administrative record. In accordance with Section 15093 of the State CEQA Guidelines, the document containing such reasons is called a "statement of overriding considerations."

The program-level analysis in this SEIR considers the broad environmental effects of the Plan. This SEIR will be used to evaluate subsequent projects and activities under the Plan or used to tier future consistent projects' GHG analysis (refer to Section 2.5.2, "Future Streamlining of GHG Emissions Analysis at the Project-Level," in Chapter 2, "Project Description"). This SEIR is intended to provide the information and environmental analysis necessary to assist public agency decision-makers in considering approval of the Climate Compass. Additional environmental review under CEQA may be required for subsequent projects and would be generally based on the subsequent project's consistency with the Plan and the analysis in this SEIR, as required under CEQA. It may be determined that some future projects or activities under the Plan may be exempt from further environmental review. When subsequent projects or activities under the Plan are proposed, the City will examine the projects or activities to determine whether their effects were adequately analyzed in the General Plan EIR and this SEIR (CEQA Guidelines Section 15168(c)). If the projects or activities would have no effects beyond those disclosed in this SEIR, no further CEQA compliance would be required.

1.4 AGENCY ROLES AND RESPONSIBILITIES

The City is the lead agency responsible for approving the Climate Compass and for ensuring that the requirements of CEQA have been met. After the public review process for the SEIR is complete, the City Council will determine whether to certify the SEIR (see State CEQA Guidelines Sections 15090) and approve the Project.

A trustee agency is a State agency that has jurisdiction by law over natural resources that are held in trust for the people of the State of California. There are no trustee agencies applicable to the Climate Compass.

Responsible agencies are public agencies, other than the lead agency, that have discretionary-approval responsibility for reviewing, carrying out, or approving elements of a project. Responsible agencies should participate in the lead agency's CEQA process, review the lead agency's CEQA document, and use the document when making a decision on project elements. There are no agencies other than the City that have approval or permitting authority for the Project. However, implementation of the Project could involve many responsible agencies, depending on the details of a future project. The following are some of the agencies that could be required to act as responsible agencies for subsequent projects under the Plan:

- Sacramento Metropolitan Air Quality Management District,
- Sacramento Area Sewer District,
- Sacramento Municipal Utility District,
- Sacramento County Water Agency,
- Elk Grove Water District,
- Cosumnes Community Services District, and
- Elk Grove Unified School District.

1.5 PUBLIC AND ENVIRONMENTAL REVIEW PROCESS

The Notice of Preparation (NOP) for the Climate Compass was distributed for public review between December 6, 2024 and January 15, 2025. A public scoping meeting was held on January 9, 2025. The NOP is available at the City's website at https://www.elkgrove.gov/planning/environmental-review. The purpose of the NOP and the scoping meeting was to provide notification that the Draft SEIR for the Plan was being prepared and to solicit input on the scope and content of the environmental document. The NOP and comments obtained in response to the NOP are included in Appendix A of this Draft SEIR.

The City initiated consultation with tribal governments affiliated with the Planning Area in accordance with AB 52. In December 2024, the City sent consultation letters to the following tribes:

- Buena Vista Rancheria of Me-Wuk Indians;
- Calaveras Band of Mi-Wuk Indians;
- Chicken Ranch Rancheria of Me-Wuk Indians;
- Ione Band of Miwok Indians;
- Jackson Rancheria Band of Miwuk Indians;
- Nashville Enterprise Miwok-Maidu-Nishinam Tribe;
- Pakan'yani Maidu of Strawberry Valley Rancheria;
- United Auburn Indian Community of the Auburn Rancheria; and
- Wilton Rancheria.

The City did not receive any requests for tribal consultation in response to the AB 52 notification letters. As a result, no tribal cultural resources have been identified relative to the Plan.

This Draft SEIR is being circulated for public review and comment for a period of 45 days. During this period, comments from the general public as well as organizations and agencies on the environmental issues raised within the Draft SEIR may be submitted to the lead agency.

Upon completion of the public review and comment period for the Draft SEIR, a Final SEIR will be prepared that will include both written and oral comments on the Draft SEIR received during the public-review period, responses to those comments, and any revisions to the Draft SEIR made in response to public comments. The Draft SEIR and Final SEIR will comprise the SEIR for the Project.

Before adopting the Plan, the lead agency is required to certify that the SEIR has been completed in compliance with CEQA, that the decision-making body reviewed and considered the information in the SEIR, and that the SEIR reflects the independent judgment of the lead agency.

1.6 SCOPE OF THIS DRAFT SEIR

This Draft SEIR analyzes the potentially significant environmental impacts resulting from implementation of the Climate Compass. See Chapter 2, "Project Description," for a complete discussion of the proposed Plan, including the City's GHG emissions inventory, forecasts, and GHG emission reduction targets and how they align with State targets and goals. As a result of the review of existing information and the scoping process, this Draft SEIR includes an evaluation of the following two environmental issue areas as well as other CEQA-mandated issues (e.g., cumulative impacts, growth-inducing impacts, significant unavoidable impacts, alternatives):

- energy, and
- greenhouse gas emissions and climate change.

Under the CEQA statutes and the State CEQA Guidelines, a lead agency may limit an EIR's discussion of environmental effects when such effects are not considered potentially significant (PRC Section 21002.1[e]; State CEQA Guidelines Sections 15128, 15143). Information used to determine which impacts would be potentially significant was derived from review of the Plan; review of applicable planning documents and CEQA documentation; feedback from public and agency consultation; and comments received on the NOP (see Appendix A of this Draft SEIR). Environmental issue areas determined not to warrant detailed analysis due to the nature of the Plan are discussed in greater detail in Chapter 3, "Environmental Setting, Impacts, and Mitigation Measures," of this Draft SEIR.

1.7 ORGANIZATION OF THIS DRAFT SEIR

This Draft SEIR is organized into chapters, as identified and briefly described below. Chapters are further divided into sections (e.g., Chapter 3, "Environmental Impacts and Mitigation Measures" and Section 3.1, "Energy"):

- The "Executive Summary": This chapter introduces the Project; provides a summary of the environmental review process, effects found not to be significant, and key environmental issues; and lists significant impacts and mitigation measures to reduce significant impacts to a less-than-significant level, if applicable.
- Chapter 1, "Introduction": This chapter provides a description of the lead and responsible agencies, the legal authority and purpose for the document, and the public review process.
- Chapter 2, "Project Description": This chapter describes the location, background, and goals and objectives for the Climate Compass Project, and describes the project elements in detail.
- Chapter 3, "Environmental Impacts": The sections in this chapter evaluate the expected environmental impacts generated by the Climate Compass, arranged by subject area (e.g., energy, GHG emissions and climate change). In each subsection of Chapter 3, the regulatory background, existing conditions, analysis methodology, and thresholds of significance are described. The anticipated changes to the existing conditions after implementation of the project are then evaluated for each subject area. For any significant or potentially significant impact that would result from Project implementation, mitigation measures are presented and the level of impact significance after mitigation is identified. Environmental impacts are numbered sequentially within each section (e.g., Impact 3.1-1, Impact 3.1-2, etc.). Any required mitigation measures are numbered to correspond to the impact numbering; therefore, the mitigation measure for Impact 3.1-2 would be Mitigation Measure 3.1-2. This chapter also identifies the environmental effects not found to be significant consistent with State CEQA Guidelines Section 15128.
- Chapter 4, "Cumulative Impacts": This chapter provides information required by CEQA regarding cumulative impacts that would result from implementation of the Climate Compass, as well as other past, present, and probable future projects.
- Chapter 5, "Alternatives": This chapter evaluates alternatives to the Climate Compass, including alternatives considered but eliminated from further consideration, the No Project Alternative, and two Plan alternatives, consisting of the Removal of Reach Codes Actions Alterative and the Transit Expansion Alternative. The environmentally superior alternative is identified.
- Chapter 6, "Other CEQA Sections": This chapter evaluates growth-inducing impacts, and irreversible and irretrievable commitment of resources, as well as discloses any significant and unavoidable adverse impacts.
- Chapter 7, "Report Preparers": This chapter identifies the preparers of the document.
- Chapter 8, "References": This chapter identifies the organizations and persons consulted during preparation of this Draft SEIR and the documents and individuals used as sources for the analysis.

1.8 STANDARD TERMINOLOGY

This Draft SEIR uses the following standard terminology:

- "No impact" means no change from existing conditions (no mitigation is needed).
- "Less-than-significant impact" means no substantial adverse change in the physical environment (no mitigation is needed).
- "Potentially significant impact" means a substantial adverse change in the environment that might occur (mitigation is recommended because potentially significant impacts are treated as significant).
- "Significant impact" means a substantial adverse change in the physical environment that would occur (mitigation is recommended).
- "Significant and unavoidable impact" means a substantial adverse change in the physical environment that would occur and that cannot be avoided, even with the implementation of all feasible mitigation.

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2 PROJECT DESCRIPTION

The proposed Climate Compass (Plan) is a comprehensive update to the City of Elk Grove's (City's) current Climate Action Plan (CAP), adopted in 2019. The proposed Plan establishes a roadmap for the City to achieve its greenhouse gas (GHG) emission reduction targets and includes actions and strategies to adapt to anticipated climate-related impacts. In addition, the Plan aligns local efforts with Assembly Bill (AB) 1279, which requires California to achieve net-zero GHG emissions by 2045 and an 85 percent reduction in anthropogenic GHG emissions by 2045.

2.1 PROJECT BACKGROUND AND NEED

On February 27, 2019, the City adopted the General Plan and the 2019 CAP and certified the General Plan EIR (SCH No. 2017062058). Both the General Plan and 2019 CAP were programmatically evaluated within the General Plan EIR as separate documents.

The General Plan established a Planning Area of approximately 31,238 acres (48.8 square miles), which includes all land within the current city limits as well as lands outside the city limits in unincorporated Sacramento County to the south and east that, in the City's judgement, bears relation to its planning efforts (referred to as study areas). The 2019 CAP included an updated communitywide emissions inventory for the General Plan Planning Area, along with updated emissions forecasts for 2020, 2030, and 2050 based on land use activities anticipated with implementation of the General Plan. In addition to the 2019 CAP, the General Plan EIR also evaluated the General Plan; amendments to the East Elk Grove Specific Plan, the East Franklin Specific Plan, and the Laguna Ridge Specific Plan; amendments to the Zoning Code to maintain consistency with the General Plan; and an update to the City's Parks and Recreation Master Plan.

The General Plan EIR concluded that while adoption of the General Plan and the 2019 CAP would primarily result in less than significant impacts related to GHG emissions and energy, significant and unavoidable impacts would occur under the General Plan EIR threshold, "Conflict with an Applicable Plan, Policy, or Regulation Adopted for the Purpose of Reducing the Emissions of GHGs" consistent with Appendix G of the State CEQA Guidelines. For this threshold, the General Plan EIR concluded significant and unavoidable impacts since the adoption and implementation of the General Plan and 2019 CAP would likely not result in sufficient GHG reductions for the city to meet the long-term GHG emission reduction goal for 2050 as stated in Executive Order (EO) S-3-05. The General Plan EIR also evaluated an alternative to the project that included additional measures to the 2019 CAP to further exceed established GHG reduction targets for 2020 and 2030 and allow the city to meet the State's targets for 2050. However, this alternative was not identified as the environmentally superior alternative as the General Plan EIR concluded that it would result in similar impacts, if not greater in certain instances, as the project.

Since its adoption in 2019, the 2019 CAP has been amended three times, including in December 2019 to update solar photovoltaic (PV) requirements (measure BE-7) to be consistent with the 2019 building code; in December 2022 to update electric vehicle (EV) charging requirements (measure TACM-9) to be consistent with the 2022 building code; and, most recently, in December 2024 to update EV charging requirements (measure TACM-9) to be consistent with the 2024 building code and to change the language of measure BE-5 to remove reference to the zero net energy standard for residential buildings and replace it with the decreased energy emissions requirement (City of Elk Grove 2024a). While the first two amendments to the 2019 CAP were exempt from CEQA in accordance with Section 15162 of the State CEQA Guidelines, a General Plan EIR addendum was approved by the City Council on December 11, 2024 for the December 2024 amendment to the 2019 CAP (City of Elk Grove 2024b). The General Plan EIR addendum determined that the December 2024 amendment to the 2019 CAP did not constitute substantial changes, did not change physical circumstances, and did not provide new information of substantial importance that could not have been known at the time of the 2019 CAP was approved and thus, would not result in a new or substantially more severe impact compared to the 2019 CAP as evaluated in the certified General Plan EIR (City of Elk Grove 2024b).

Since its adoption in 2019, the General Plan has been amended seven times, three times with Supplemental /Subsequent EIRs for the Housing and Safety Element Update, the Southeast Industrial Area Specific Plan, and most recently, the

General Plan Amendments and Update of Vehicle Miles Traveled (VMT) Standards Project (GPAs/VMT Standards Project). On December 13, 2023, the City adopted the GPAs/VMT Standards Project and certified the Subsequent EIR to the General Plan EIR (2023 Subsequent EIR) (SCH No. 2022020463). The GPAs/VMT Standards Project included amendments to the General Plan for the creation of the Livable Employment Area Community Plan Area; an update to the City's VMT thresholds, including associated changes to the Transportation Analysis Guidelines; revisions to the South and West Study Areas in the General Plan; incorporation of the Grant Line Road Precise Plan as part of the Rural Area Community Plan; for other land use changes; and amendments to the adopted General Plan Mitigation Measures MM 5.5.1a and MM 5.5.1b associated with cultural resource impacts.

The GPAs/VMT Standards Project did not include an update to the 2019 CAP, but amended the General Plan that increased residential densities and mixed-use opportunities associated with the creation of the Livable Employment Area Community Plan (LEA Community Plan). The intent of the LEA Community Plan is to connect transportation with land-use planning and design in recognition that the most economically, socially, and environmentally successful communities are walkable and contain a mix of uses. This land use change was directed in 2019 by the Elk Grove City Council to leverage the value of a planned new thoroughfare, Kammerer Road, beyond its ability to carry vehicle traffic, to lay the foundation for economic development in the form of a 21st century employment center. As identified in the 2023 Subsequent EIR, this change in development intensity and other associated to the General Plan results in improved VMT limits by land use designation (City of Elk Grove 2023:Table 3.9-3) as well as reduced per capita GHG emissions in 2040 (2.9 $MTCO_2e$ per year) as compared to what is identified in the 2019 CAP for 2050 (3.0 $MTCO_2e$ per year) (City of Elk Grove 2023:3.5-4 and 3.5-11). This updated version of the General Plan is the foundational land use plan used for the Climate Compass.

In 2023, the City initiated the development of the Climate Compass as an update to its 2019 CAP in order to establish the City's blueprint for achieving its GHG emissions reduction targets as well as aligning strategies and actions with updated regulatory requirements (i.e., AB 1279). The Plan was developed by first preparing a GHG emissions inventory, identifying forecasts and targets, and gathering community input on the city's climate strengths, vulnerabilities, and priorities. After establishing the foundation of the city's GHG forecasts and reduction targets, the City's consultant developed and refined draft GHG emission reduction and adaptation strategies and actions with input from City staff and subject matter experts. Throughout the entire development process of the Draft Plan, the City and its consultants have engaged the public and stakeholders through workshops, local events, surveys, a climate ambassador program, and the formation of a technical advisory group to gather input and feedback on the components of the Plan.

The Draft Climate Compass, which includes the city's GHG emission inventory, forecasts, and reduction targets; the finalized communitywide climate strategies and action; City operations strategies and actions; and the implementation framework for the Plan, has been released for public review concurrently with this Draft SEIR on the City's website: https://elkgrove.gov/cap. For a detailed timeline of the development of the Climate Compass, please refer to Chapter 1, "Introduction," of the Plan.

2.2 PROJECT OBJECTIVES

The primary objectives of the Plan are to:

- Develop an updated CAP to align the City's climate action planning with California's GHG reduction goals and relevant regulations aimed at climate mitigation.
- Implement strategies and actions to transition the city away from fossil fuels and realize deep GHG emissions reductions through the near- and long-term future.
- Connect and amplify existing sustainability efforts in a cohesive, impactful plan.
- Incorporate climate adaptation and resilience actions to address the city's most pressing natural and climate-related hazards.
- Develop a CEQA-qualified CAP to provide a mechanism for streamlining project-level GHG emissions analysis consistent with Section 15183.5 of the State CEQA Guidelines and the entitlement process for future sustainability projects and climate-friendly development within the city.

- Communicate climate challenges and opportunities, foster climate education, and empower the community to contribute to solutions.
- Ensure equitable climate action by prioritizing projects and programs that benefit historically underserved communities.
- Develop an updated CAP that is consistent with the recently adopted amendments to the City's General Plan in 2023, which was amended to increase development intensity to improve VMT efficiency and reduce GHG emissions by creating walkable communities with amenities that attract and retain businesses and residents.

2.3 PROJECT LOCATION

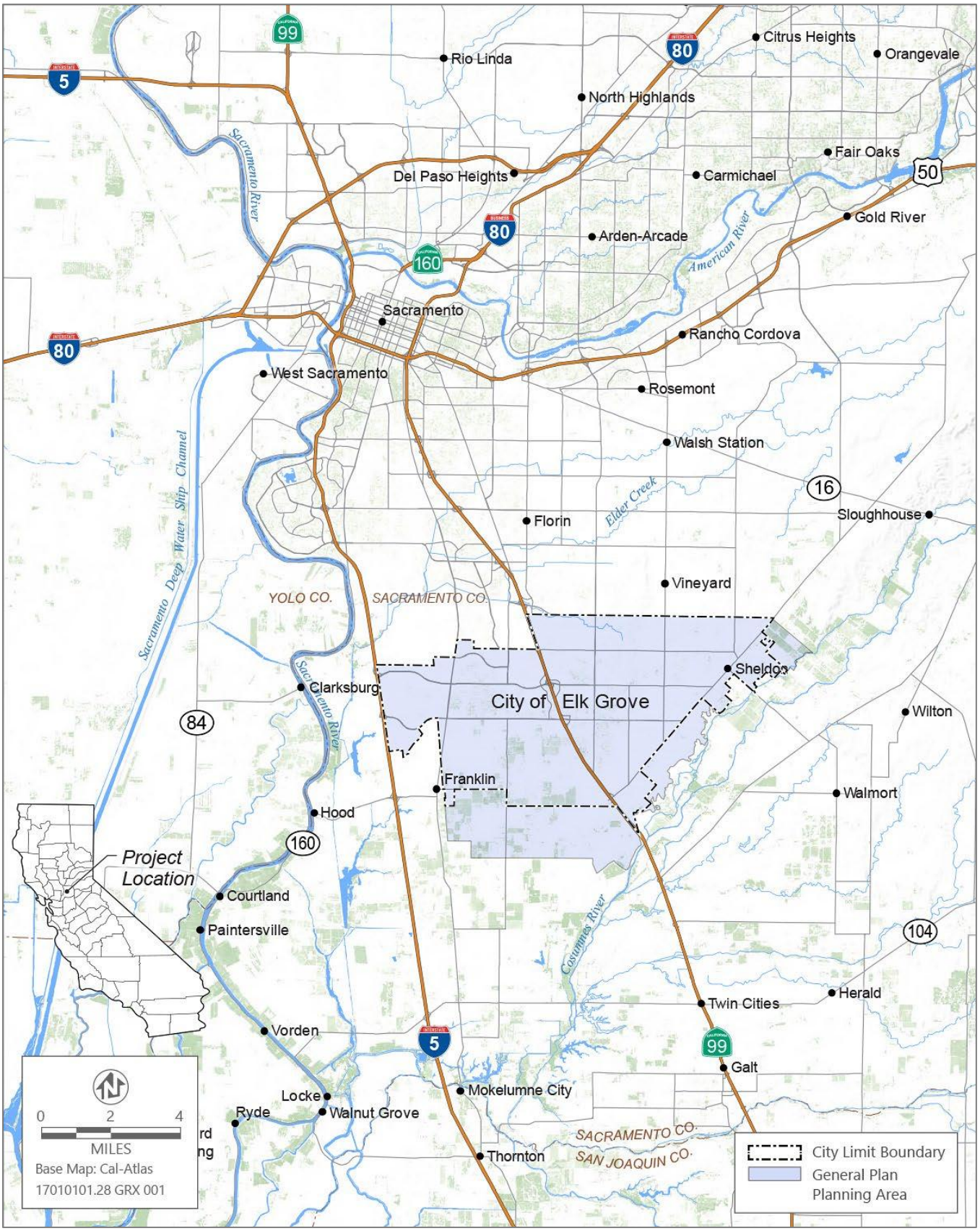
The General Plan established a Planning Area of approximately 31,238 acres (48.8 square miles), which includes all land within the current city limits as well as lands outside the city limits in unincorporated Sacramento County to the south and east that, in the City's judgement, bears relation to its planning efforts (referred to as study areas) (Figure 2-1). Specifically, the city of Elk Grove consists of approximately 27,336 acres (42.7 square miles), while approximately 3,902 acres (6.1 square miles) are located within the study areas. The Planning Area is located in the middle of Sacramento County. The Planning Area is generally bounded by Interstate 5 (I-5) on the west; Calvine Road and the City of Sacramento on the north; Grant Line Road and Deer Creek on the east; and Eschinger Road on the south. State Route (SR) 99 traverses north–south, bisecting the city near its center.

Existing land uses within the city limits consist of residential at varying densities, commercial, office, industrial, park, and open space. Within the study areas, existing land uses primarily consist of agricultural lands and rural residential uses. Nearby natural open space and habitat areas include the Stone Lakes National Wildlife Refuge and the Sacramento River to the west, the Cosumnes River Preserve to the south, and the Sacramento Area Sewer District (SacSewer) bufferlands to the northwest. Major roadway access to the City is provided by I-5 and SR 99. Upon adoption, the Plan is intended to serve as the long-term CAP for land uses within the Planning Area.

2.4 PROJECT CHARACTERISTICS

The Climate Compass contains six chapters and technical appendices, which provide additional details on the topics covered in the Plan. A brief summary of the main components of the Plan is provided below:

- **Chapter 1, Introduction:** Provides an introduction to the Climate Compass as well as to the overall climate action planning process and key methodologies and terms. This chapter also provides an overview of the development of the Plan to date, including summarizing public and agency input, as well as how the Plan fits in with the State's larger climate planning efforts.
- **Chapter 2, GHG Inventory and Targets:** Provides the foundation for the Climate Compass, presenting the City's GHG emissions inventory, emissions forecasts, and the targets for reducing emissions in line with State and local goals.
- **Chapter 3, Climate Action Strategies:** Addresses the comprehensive strategies and actions the City would implement to reduce GHG emissions across various sectors, such as energy, transportation, land use, and waste management, while also promoting community resilience and adaptation to climate change impacts.
- **Chapter 4, City Operations:** Focuses on the strategies and actions the City would adopt to reduce GHG emissions from City operations.
- **Chapter 5, Implementation and Monitoring:** Details the implementation framework for the Climate Compass, including timelines, funding strategies, partnerships, and the monitoring and reporting processes to ensure the Plan's success.
- **Chapter 6, Work Cited:** Provides the sources used in the development of the Plan.
- **Appendices** include more detailed information on GHG emissions inventories and forecasts, strategy quantification, and supporting documents, such as a cost analysis and funding and financing roadmap.



Source: Ascent 2024.

Figure 2-1 Project Location

The Plan establishes strategies and actions to reduce GHG emissions generated from current and future activities within the city as well as GHG emissions generated by City facilities and operations. The Plan is structured to align with State and regional laws, policies, regulations, and plans to reduce GHG emissions and improve resilience to climate change-related impacts. State regulations related to GHG emissions that are applicable and were current at the time of the development of the Plan include Senate Bill (SB) 32, AB 1279, and the California Air Resources Board's (CARB's) *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) at the State level.

The Plan has been developed to provide:

- A baseline of major sources of GHG emissions;
- A projection of future GHG emissions expected to occur within the Planning Area and be generated by City operations;
- Targets for reducing GHG emissions to specified levels that are aligned with State laws and policies; and
- Strategies and actions to reduce GHG emissions to meet the targets.

More specifically, the Plan identifies the following:

- Baseline GHG emissions for the Planning Area and forecasts potential increases in these emissions over time, both for the Planning Area (i.e., "community") and for City operations.
- GHG emissions reduction targets for 2030 and 2045 in alignment with the State's GHG reduction goals as directed by the 2022 Scoping Plan and AB 1279.
- Strategies and actions to achieve the 2030 and 2045 GHG emissions reduction targets for both community and City operations.

Each key component of the Climate Compass is discussed in greater detail below.

2.4.1 Greenhouse Gas Emissions Inventory

2021 COMMUNITY GHG EMISSIONS INVENTORY

As discussed in Chapter 2, "Greenhous Gas Emissions Inventory, Forecasts, and Targets," of the Climate Compass, the foundation of the Plan is the community GHG emissions inventory, which identifies and quantifies the sources and quantities of GHG emissions generated from activities within the City's jurisdiction. Development of the community GHG emissions inventory provides the City an understanding of sources and quantities of GHG emissions currently being generated within the jurisdiction as well as allows reduction targets to be established and reduction measures to be quantified. In addition, the community GHG emissions inventory provides a framework to track emissions over time and assess the effectiveness of CAP implementation. The community GHG emissions inventory evaluated activities within the city in 2021, which was the most recent data available at the start of the Climate Compass development process in 2023.

The community GHG emissions inventory quantifies three primary GHGs [carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O)] across seven sectors: building energy, on-road transportation, off-road vehicles and equipment, solid waste, water supply, wastewater treatment, and agriculture (Table 2-1).

Table 2-1 Elk Grove Community GHG Emissions Sectors

Emissions Sector	Description
Building Energy	Emissions from the energy used to power, heat, and cool residential and commercial buildings.
On-Road Transportation	Emissions from cars, trucks, and other vehicles driving on roads in Elk Grove.
Off-Road Vehicles and Equipment	Emissions from vehicles and equipment used off-road, such as construction and landscaping equipment.
Solid Waste	Emissions from the disposal and decomposition of waste generated by the community.

Emissions Sector	Description
Water Supply	Emissions from the energy used to pump, treat, and distribute water used in Elk Grove.
Wastewater Treatment	Emissions from the processes and energy used to collect, treat, and discharge wastewater.
Agriculture	Emissions from farming activities, such as crop growth, livestock, and fertilizer use within Elk Grove.

Source: City of Elk Grove 2025: Table 2-1.

While CO_2 is the primary GHG emitted in California and is the most recognized GHG, CH_4 and N_2O are also addressed within the CAP. To simplify discussion of these emissions collectively, CAPs use a measurement known as carbon dioxide equivalent (CO_2e). The CO_2e measurement translates each GHG to CO_2 by weighting it by its relative global warming potential. For example, according to the Intergovernmental Panel on Climate Change, CH_4 and N_2O are 27.9 and 273 times more potent, respectively, than carbon dioxide in their ability to trap heat in the atmosphere (IPCC 2021). Converting these gases into CO_2e allows consideration of all the gases in comparable terms and makes it easier to communicate how various sources and types of GHG emissions contribute to global warming. A metric ton of carbon dioxide equivalent ($MTCO_2e$) is the standard measurement of the amount of GHG emissions produced and released into the atmosphere.

The GHG emissions inventory estimated community emissions were 1,039,181 $MTCO_2e$ in 2021 (Table 2-2). Most community GHG emissions in the city came from just two sectors: on-road transportation and building energy. On-road transportation, which includes cars, trucks, and other vehicles driving within the city, accounted for more than half (56 percent) of all GHG emissions. Building energy, which encompasses both residential and commercial buildings, made up another 38 percent of emissions. Together, these two sectors were responsible for 94 percent of the city's total community GHG emissions. The remaining 6 percent of community GHG emissions came from solid waste disposal, off-road vehicles and equipment, wastewater treatment, water supply, and agricultural activities within the city limits.

Table 2-2 2021 Elk Grove Community GHG Emissions Inventory

Sector	GHG Emissions ($MTCO_2e$)	Percent of Total
On-Road Transportation	586,220	56%
Building Energy (Includes Residential and Nonresidential)	398,365	38%
Solid Waste	20,222	2%
Off-Road Vehicles and Equipment	18,341	2%
Wastewater Treatment	2,957	<1%
Water Supply	2,802	<1%
Agriculture	10,275	1%
Total	**1,039,181**	**100%**

Notes: Totals may not sum exactly due to independent rounding. GHG = greenhouse gas; $MTCO_2e$ = metric tons of carbon dioxide equivalent.

Source: City of Elk Grove 2025: Table 2-3.

Comparison of 2013 to 2021 Community GHG Emissions Inventories

In order to track community GHG emissions reduction efforts, the Climate Compass includes a comparison of the City's community GHG emissions inventories from 2013 and 2021 (Table 2-3). Table 2-3 presents the total community emissions for both inventory years by sector as well as the percent change in emissions from 2013 to 2021. It should be noted that a change in methodology related to how to calculate the community GHG emissions inventory occurred between the two inventory years, which has resulted in a more comprehensive calculation for certain sectors (i.e., On-Road and Off-Road Transportation and Agriculture) in the 2021 GHG emissions inventory.

Table 2-3 2013 and 2021 Elk Grove Community GHG Emissions Inventory Comparison

Sector	2013 GHG Emissions ($MTCO_2e$)	2021 GHG Emissions ($MTCO_2e$)	Percent Change 2013 to 2021
On-Road and Off-Road Transportation[1]	523,680	604,560	+15%
Building Energy	361,260	398,365	+10%

Sector	2013 GHG Emissions ($MTCO_2e$)	2021 GHG Emissions ($MTCO_2e$)	Percent Change 2013 to 2021
Solid Waste	26,260	20,222	-23%
Water Supply and Wastewater Treatment	7,177	5,759	-20%
Agriculture[2]	1,020	10,275	+907%
Total	**919,407**	**1,039,181**	**+13%**

Notes: Totals may not sum exactly due to independent rounding. GHG = greenhouse gas; $MTCO_2e$ = metric tons of carbon dioxide equivalent.

[1] The increase in on-road transportation emissions is due to a change in the travel model used for each inventory, along with the methods to quantify emissions. The City saw an overall increase in vehicle miles traveled which exceeded the benefits of cleaner vehicles over the 9-year period.

[2] This significant increase is due to building energy from agricultural operations being included in the agriculture sector in the 2021 community inventory. The 2013 community inventory only included emissions from livestock management, fertilizer application, and agricultural equipment.

Source: City of Elk Grove 2025.

A per capita comparison for the 2013 and 2021 community GHG emissions inventories is also included in the Climate Compass (Table 2-4). This comparison accounts for the population growth the city experienced since 2013, which consists of an increase in residents, from 163,093 to 179,287. While the city's population increased by roughly 10 percent, community GHG emissions per capita only increased by 2.8 percent over the same period.

Table 2-4 2013 and 2021 Elk Grove Community GHG Emissions Inventory Per Capita Comparison

Sector	2013 GHG Emissions Per Capita ($MTCO_2e$)	2021 GHG Emissions Per Capita ($MTCO_2e$)	Percent Change 2013 to 2021
On-Road and Off-Road Transportation[1]	3.21	3.37	+5%
Building Energy	2.22	2.22	0%
Solid Waste	0.16	0.11	-30%
Water Supply and Wastewater Treatment	0.04	0.03	-27%
Agriculture[2]	0.01	0.06	+816%
Total	**5.64**	**5.80**	**+2.9%**

Notes: Totals may not sum exactly due to independent rounding. GHG = greenhouse gas; $MTCO_2e$ = metric tons of carbon dioxide equivalent.

[1] The increase in emissions is due to a 29 percent increase in VMT from 2013 to 2021, as emissions factors for on-road transportation decreased between the two inventory years.

[2] This significant increase is due to building energy from agricultural operations being included in the agriculture sector in the 2021 community inventory.

Source: City of Elk Grove 2025.

2021 CITY OPERATIONS GHG EMISSIONS INVENTORY

As discussed in Chapter 4, "City Operations," in addition to the community GHG emission inventory, the Climate Compass also identified and quantified the sources and quantities of GHG emissions generated from City operations. Similar to the community GHG emissions inventory, the City operations GHG emissions inventory evaluated operation of government facilities and infrastructure within the city in 2021, which was the most recent data available at the start of the Climate Compass development process in 2023. The City operations GHG emissions inventory estimated GHG emissions in eight sectors: buildings and facilities, streetlights and traffic signals, employee commute, vehicle fleet, solid waste, water supply, wastewater treatment, and process and fugitive emissions (Table 2-5).

Table 2-5 Elk Grove City Operations GHG Emissions Sectors

Sector	Description
Buildings and Facilities	Emissions from electricity, natural gas, and diesel use in City-owned buildings, including parks and other facilities.
Streetlights and Traffic Signals	Emissions from electricity used to power streetlights and traffic signals.
Employee Commute	Emissions from fuel used by City employees commuting to and from work.
Vehicle Fleet	Emissions from fuel consumption in City-owned and operated on-road vehicles and off-road equipment.

Sector	Description
Solid Waste	Emissions from the decomposition of City operations-generated mixed and organic waste in landfills.
Water Supply	Emissions from electricity used to supply, treat, and distribute water for City operations.
Wastewater Treatment	Emissions from treating City operations-generated wastewater, including process emissions and energy use.
Process and Fugitive Emissions	Emissions from leakage in the natural gas distribution system.

Notes: GHG = greenhouse gas.

Source: City of Elk Grove 2025.

The GHG emissions inventory estimated GHG emissions generated by City operations were 4,275 $MTCO_2e$ in 2021 (Table 2-6). Buildings and facilities were the largest contributor at 41 percent of emissions, followed by streetlights and traffic signals (21 percent), employee commute (20 percent), and vehicle fleet (14 percent). The remaining sources (i.e., solid waste, water supply, wastewater treatment, and process and fugitive emissions) collectively accounted for about 4 percent of total emissions.

Table 2-6 2021 Elk Grove City Operations GHG Emissions Inventory

Sector	GHG Emissions ($MTCO_2e$)	Percent of Total
Buildings and Facilities	1,741	41%
Streetlights and Traffic Signals	893	21%
Employee Commute	835	20%
Vehicle Fleet	620	14%
Solid Waste	139	3%
Water Supply	9	<1%
Wastewater Treatment	7	<1%
Process and Fugitive Emissions	32	1%
Total	**4,275**	**100%**

Notes: Totals may not sum exactly due to independent rounding. GHG = greenhouse gas; $MTCO_2e$ = metric tons of carbon dioxide equivalent.

Source: City of Elk Grove 2025.

Comparison of 2019 to 2021 City Operations GHG Emissions Inventories

In order to track how the City has been achieving its GHG emissions reduction efforts, the Climate Compass included a comparison of City operations GHG emissions inventories from 2019 and 2021, as 2019 was the most recent time a municipal inventory was completed. Table 2-7 presents the total emissions for each inventory year by sector as well as the percent change in municipal GHG emissions from 2019 to 2021.

Table 2-7 2019 and 2021 Elk Grove City Operations GHG Emissions Inventory

Sector	2019 GHG Emissions ($MTCO_2e$)	2021 GHG Emissions ($MTCO_2e$)	Percent Change 2019 to 2021
Buildings and Facilities[1]	643	1,741	+171%
Streetlights and Traffic Signals	617	893	+45%
Employee Commute	1,143	835	-27%
Vehicle Fleet	909	620	-32%
Solid Waste	83	139	+68%
Water Supply[2]	N/A	9	N/A
Wastewater Treatment	34	7	-80%
Process and Fugitive Emissions[3]	5	32	+540%
Total	**3,434**	**4,725**	**+25%**

Notes: Totals may not sum exactly due to independent rounding. GHG = greenhouse gas; $MTCO_2e$ = metric tons of carbon dioxide equivalent; N/A = not available.

[1] This increase is due to a higher electricity emissions factor and higher natural gas use in 2021 associated with new City facilities.

[2] This sector was not assessed in the 2019 City operations inventory.

[3] This increase is due to higher natural gas use in 2021 associated with new City facilities.

Source: City of Elk Grove 2025.

2.4.2 GHG Emissions Forecasts

GHG emissions forecasts are modeled estimates of future emissions levels based on current trends in activity, population, and job growth. These forecasts also account for known regulatory actions by federal and State agencies, which are expected to reduce GHG emissions in the future. Emissions forecasts provide insight into the scale of local GHG emissions reductions required to achieve targets, factoring in anticipated reductions from regulatory actions. The GHG emission forecasts consists of two scenarios: the "business-as-usual" (BAU) scenario and the "no local action" (NLA) scenario. The BAU forecast assumes that no new State or federal actions will be taken after 2021 to reduce GHG emissions. This scenario only accounts for growth factors that could affect emissions in each sector, such as population or employment changes. Conversely, the NLA scenario adjusts the BAU forecast to consider the impact of existing State and federal laws and regulations on the city's future GHG emissions.

COMMUNITY GHG EMISSIONS FORECASTS

Both the community BAU and NLA forecast scenarios provide estimates of the city's GHG emissions for the years 2030 and 2045, which align with the GHG reduction targets set by important State laws, such as SB 32 and AB 1279.

BAU Forecast

The community BAU forecast estimates GHG emissions based on assessing how emissions generated by community activities would change over time without federal, State, or local action. The community BAU forecast only includes expected employment and population changes in the future. Based on 2021 GHG emissions levels, this scenario estimates annual GHG emissions in the city will increase steadily and rise by approximately 28 percent in 2030, and 71 percent in 2045 (Table 2-8). While the community NLA forecast provides a more realistic scenario for future GHG emissions, the community BAU forecast offers the basis for understanding the GHG impact due to an anticipated increase in population, vehicle activity, and other growth factors within the city.

Table 2-8 Elk Grove Community GHG Emissions Inventory and BAU Forecasts ($MTCO_2e$)

Sector	2021	2030	2045
On-Road Transportation	586,220	718,743	926,109
Residential Building Energy	271,900	347,631	466,486
Nonresidential Building Energy	126,465	193,762	298,428
Solid Waste	20,222	26,034	36,165
Off-Road Vehicles and Equipment	18,341	25,296	36,158
Agriculture[1]	10,275	4,372	1,154
Wastewater Treatment	2,957	6,707	9,317
Water Supply	2,802	3,731	5,183
Total	**1,039,181**	**1,326,277**	**1,779,000**
Percent Change from 2021 Levels	-	28%	71%

Notes: Total may not sum exactly due to independent rounding. BAU = business-as-usual; GHG = greenhouse gas; $MTCO_2e$ = metric tons of carbon dioxide equivalent.

[1] Agricultural emissions are anticipated to decrease under the business-as-usual forecast because the acres in agricultural production in the city limits are anticipated to decrease over the coming decades.

Source: City of Elk Grove 2025.

NLA Forecast

The community NLA forecast evaluates how the city's GHG emissions would change over time, accounting for legislative actions at the federal and State levels, such as regulatory requirements to increase vehicle fuel efficiency (Table 2-9). This forecast scenario provides the City with the information needed to focus efforts on specific emissions sectors and sources with the most GHG reduction opportunities.

Table 2-9 Legislative Reductions Used in NLA Forecast

Source	Legislative Reduction	Description	Sector(s) Applied
State	SB 100 (The 100 Percent Clean Energy Act of 2018)	Requires that 60 percent of retail electricity sold in California must come from renewable or zero-carbon resources by 2030 and 100 percent by 2045.	Residential and Nonresidential Building Energy
State	SB 1020 (Clean Energy, Jobs, and Affordability Act of 2022)	Requires eligible renewable and zero-carbon energy resources to supply 90 percent of California's retail electricity sales by the end of 2035, 95 percent by the end of 2040, and 100 percent by the end of 2045. Additionally, it requires that 100 percent of electricity procured for state agencies come from these sources by the end of 2035.	Residential and Nonresidential Building Energy
State	California's Building Energy Efficiency Standards (2019 and 2022 Title 24, Part 6)	Effective January 1, 2023, new residential and nonresidential buildings in California must comply with energy efficiency standards set by the California Energy Commission. The 2022 standards require energy-efficient building practices focused on decarbonization, emphasizing the use of electric heat pumps for space and water heating, and promoting the integration of photovoltaic and battery storage systems along with other demand-flexible technologies to work with heat pumps.	Residential and Nonresidential Building Energy
State	Advanced Clean Car I Regulations	Establishes GHG emission reduction standards for model years 2017 through 2025 that are more stringent than federal CAFE standards.	On-Road Transportation
State	Advanced Clean Cars II Regulations[1]	Establishes a target for all new passenger cars, trucks, and SUVs sold in California to be 100 percent zero-emission vehicles by 2035.	On-Road Transportation
State	Advanced Clean Fleets[2]	Starting in 2036, all medium- and heavy-duty trucks used in local government fleets in California must be zero emissions with limited exceptions. In addition, local government fleet owners must also purchase electric trucks on an accelerated timeline.	On-Road Transportation
State	Truck and Bus Regulation	Requires diesel trucks and buses that operate in California to be upgraded to reduce GHG emissions.	On-Road Transportation
Federal	Fuel Efficiency Standards for Medium- and Heavy-Duty Vehicles	Establishes fuel efficiency standards for medium- and heavy-duty engines and vehicles.	On-Road Transportation
Federal	EPA Off-Road Compression-Ignition Engine Standards	Establishes standards for phasing of EPA diesel engine tiers for off-road compression-ignition equipment.	Off-Road Vehicles and Equipment

Notes: CAFE = Corporate Average Fuel Economy; EPA = US Environmental Protection Agency; GHG = greenhouse gas; SB = Senate Bill.

[1] As of June 2025, the U.S. Congress voted to limit California's authority to regulate vehicle emissions under existing programs provided through a waiver of the Clean Air Act. California is challenging the legality of this vote and given the pending litigation, the assumption of these programs remains for the purpose of the Elk Grove *Climate Compass*.

[2] On January 13, 2025, CARB withdrew its request for a waiver and authorization for the addition of the Advanced Clean Fleets (ACF) Regulation to its emissions control program. As of June 2025, CARB is evaluating next steps and is not enforcing the existing portions of the ACF Regulation that require a federal waiver or authorization, such as the portions of the ACF Regulation that apply to high priority and drayage fleets. However, not all elements of the ACF Regulation require a federal waiver or authorization and the State and local government fleets portion of the ACF Regulation remains unaffected. The ACF Regulation is only applied to the City of Elk Grove government operations' emissions forecast.

Source: City of Elk Grove 2025.

Accounting for the legislative reductions described in Table 2-9, the NLA forecast indicates that the City's community GHG emissions are expected to decline from 2021 levels through 2045 (Table 2-10). It is important to note that legislative reductions are constantly evolving, so the NLA forecast is from a specific point in time and are likely to change.

Table 2-10 Elk Grove Community GHG Emissions Inventory and NLA Forecast ($MTCO_2e$)

Sector	2021	2030	2045
On-Road Transportation	586,220	449,118	166,840
Residential Building Energy	271,900	299,782	178,777
Nonresidential Building Energy	126,465	152,746	55,643
Solid Waste	20,222	26,034	36,165
Off-Road Vehicles and Equipment	18,341	25,296	36,158
Agriculture	10,275	3,869	575
Wastewater Treatment	2,957	6,707	9,317
Water Supply	2,802	2,875	0
Total	**1,039,181**	**966,427**	**483,475**
Percent Change from 2021 Levels	-	-7%	-53%

Notes: Total may not sum exactly due to independent rounding. BAU = business-as-usual; GHG = greenhouse gas; $MTCO_2e$ = metric tons of carbon dioxide equivalent.

Source: City of Elk Grove 2025.

CITY OPERATIONS GHG EMISSIONS FORECASTS

The following BAU and NLA forecasts provide estimates of the City's operational GHG emissions for the years 2030 and 2045 using the 2021 City operations GHG inventory baseline.

BAU Forecast

The City operations BAU forecast estimates GHG emissions for all sectors based on predicted growth in City employment (Table 2-11). This forecast scenario assumes the continuation of current behaviors and activities within City operations and that no additional efforts or legislative actions beyond what has already been implemented would be made to reduce GHG emissions in the future. The City operations BAU forecast estimates GHG emissions would increase through 2045, given no further GHG reduction efforts beyond 2021.

Table 2-11 Elk Grove City Operations GHG Emissions Inventory and BAU Forecasts (Annual $MTCO_2e$)

Sector	2021	2030	2045
Buildings and Facilities	1,741	2,304	2,987
Streetlights and Traffic Signals	893	1,136	1,532
Employee Commute	835	1,104	1,432
Vehicle Fleet	620	820	1,064
Solid Waste	139	184	239
Water Supply	9	12	16
Wastewater Treatment	7	8	11
Process and Fugitive Emissions	32	42	55
Total	**4,275**	**5,611**	**7,334**
Percent Change from 2021 Levels	—	+31%	+72%

Notes: Total may not sum exactly due to independent rounding. BAU = business-as-usual; GHG = greenhouse gas; $MTCO_2e$ = metric tons of carbon dioxide equivalent.

Source: City of Elk Grove 2025.

NLA Forecast

The NLA scenario forecasts GHG emissions for City operations, accounting for employment growth and the legislative actions at the State and federal levels, is summarized in Table 2-9. This forecast helps the City prioritize GHG emissions sectors and sources when developing strategies and actions for operational GHG emissions reduction. Accounting for State and federal legislative actions, GHG emissions from City operations are expected to slightly increase by 2030 with the city's rapid population growth and then decline by 2045 as anticipated reductions from regulations will outpace expected city growth (Table 2-12).

Table 2-12 Elk Grove City Operations GHG Emissions Inventory and NLA Forecasts (Annual $MTCO_2e$)

Sector	2021	2030	2045
Buildings and Facilities	1,741	2,054	1,588
Streetlights and Traffic Signals	893	907	0
Employee Commute	835	769	201
Vehicle Fleet	620	578	646
Solid Waste	139	184	239
Water Supply	9	9	0
Wastewater Treatment	7	7	3
Process and Fugitive	32	42	55
Total	**4,275**	**4,550**	**2,732**
Percent Change from 2021 Levels	—	*+6%*	*-36%*

Notes: Total may not sum exactly due to independent rounding. BAU = business-as-usual; GHG = greenhouse gas; $MTCO_2e$ = metric tons of carbon dioxide equivalent.

Source: City of Elk Grove 2025.

2.4.3 GHG Emissions Reduction Targets

The Climate Compass includes GHG emissions reduction targets consistent with State GHG targets as set by applicable State legislation (i.e., SB 32 and AB 1279) and the 2022 Scoping Plan. SB 32 requires the State to develop and implement a strategy for achieving a statewide GHG emissions reduction target 40 percent below 1990 levels by 2030. AB 1279 requires the State to develop and implement a strategy for achieving a statewide GHG emissions reduction target of 85 percent below 1990 levels for anthropogenic emissions[1], as well as net zero GHG emissions by 2045 or sooner and net negative emissions thereafter. As directed in SB 32 and AB 1279, the State aims to reduce annual GHG emissions to:

- 40 percent reduction below 1990 levels by 2030 (target per SB 32);
- 85 percent reduction in anthropogenic emissions below 1990 levels by 2045 (target per AB 1279); and
- net zero GHG emissions by 2045 (target per AB 1279).

The 2022 Scoping Plan showed that to meet these ambitious targets by 2045, a steeper reduction for interim years is required compared to under SB 32. The 2022 Scoping Plan showed that if statewide GHG emissions reductions are to remain on a trajectory of 85 percent reduction by 2045, statewide emissions must be reduced by 48 percent below 1990 levels by 2030.

Because 1990 GHG emissions data are not available for the city, the Climate Compass' GHG emissions reduction targets were developed relative to the 2021 GHG emissions inventory and established in proportion with statewide reduction for all emissions sectors relevant to the City's jurisdiction, consistent with CARB guidance (refer to Section 2.4.1, "GHG

[1] "Anthropogenic emissions" are GHG emissions caused by human activities. These activities include the burning of fossil fuels, deforestation, land use and land use changes, livestock production, fertilization, waste management, and industrial processes.

Emissions Inventory"). Estimating equivalent reductions needed from the 2021 baseline, the city's GHG emissions reduction targets aim to reduce emissions to:

- 39 percent below 2021 levels by 2030 (638,812 $MTCO_2e$); and
- 85 percent below 2021 levels by 2045 (160,976 $MTCO_2e$).

Refer to Chapter 2, "Greenhouse Gas Emissions Inventory, Forecasts, and Targets," and Chapter 4, "City Operations," of the Climate Compass for a detailed description on the methodology of determining the community and City operations GHG emissions reduction targets.

2.4.4 GHG Emissions Reduction Strategies and Actions

The Climate Compass includes strategies and actions intended to reduce the amount of GHG emissions occurring within the city and from City operations as well as to address the city's most pressing natural and climate-related hazards. To be effective and meet the city's GHG emissions reduction targets, these strategies and actions must be within the City's jurisdiction to implement and must supplement existing regulations from the federal or State government, be achievable, and be capable of being monitored for progress over time with clear pathways and metrics for helping City staff achieve determined GHG reduction levels within the timeline of established targets.

The following strategies and actions include implementing actions that result in quantifiable reductions of GHG emissions that provide other co-benefits such as improved community equity and resilience, improved community health and air quality, enhanced infrastructure reliability, and increased economic diversity.

COMMUNITY GHG EMISSIONS REDUCTION STRATEGIES AND ACTIONS

In order to determine whether State and federal regulations alone are sufficient to achieve the community GHG emissions reduction targets, a GHG emissions gap analysis was conducted to determine if additional local actions are required to achieve the GHG emissions reduction targets (Tables 2-13). The city's 2030 target requires community GHG emissions to be reduced by 327,615 $MTCO_2e$ in 2030. The 2045 target requires that community emissions be reduced by 322,498 $MTCO_2e$.

Table 2-13 Elk Grove Community GHG Emissions Gap Analysis ($MTCO_2e$)

	2021	2030	2045
BAU Emissions	1,039,181	1,326,277	1,779,000
NLA Emissions	1,039,181	966,427	483,474
Target Percent below 2021 Levels	N/A	39%	85%
Target Annual Emissions	N/A	638,812	160,976
Emissions Gap	N/A	327,615	322,498

Notes; BAU = business-as-usual; GHG = greenhouse gas; $MTCO_2e$ = metric tons of carbon dioxide equivalent; N/A = not applicable.

Source: City of Elk Grove 2025.

In order to achieve the community GHG emissions reduction targets, the Plan includes 21 strategies centered around six focus areas and are further supported with specific actions defining activities, programs, policies, community partnerships, or projects the City would implement to achieve GHG mitigation and adaptation goals (Table 2-14). In addition, where quantifiable, measurable outcomes are also provided on a strategy-by-strategy basis to serve as milestones for the City to achieve their community GHG emissions reduction goals for 2030 and 2045. The community GHG reduction strategies and actions are summarized below.

Buildings and Energy

The buildings and energy sector accounts for 38 percent of Elk Grove's total community GHG emissions, where 68 percent of building and energy emissions come from residential buildings and 32 percent from nonresidential buildings.

The proposed Plan addresses the buildings and energy sector by including strategies and associated actions that reduce energy use from both new and existing buildings. New residential development offers opportunities to incorporate energy-efficient designs and all-electric systems from the design phase while practical retrofit solutions and energy efficiency upgrades are essential for existing residential developments. Similarly, new commercial development can integrate advanced energy systems during the planning phase, while older commercial and industrial buildings require targeted strategies to reduce energy consumption through retrofitting and upgrades. While State legislation will support emissions reductions in the buildings and energy sector, implementation of the Climate Compass would require Elk Grove to adopt forward-looking building standards and collaborating with SMUD, which would promote a low-carbon built environment that supports more livable, resilient, and affordable communities while helping the City to meet its 2030 and 2045 GHG targets.

Transportation

The transportation sector is Elk Grove's largest source of GHG emissions, making up 58 percent of total community emissions. On-road vehicles contribute 56 percent of communitywide emissions and off-road sources contribute 2 percent. VMT is a primary driver of on-road transportation emissions as how far people travel often depends on community design and the transportation options available. The Climate Compass strategies and associated actions aim to reduce reliance on driving by encouraging more compact, connected development, expanding reliable public transit, and creating safer, more inviting streets for walking and biking. In addition to reducing VMT, these strategies and associated actions also support a transition to cleaner vehicles by expanding the City's EV charging network, providing EV incentives, and addressing emissions from off-road vehicles and equipment.

In addition, the proposed Plan includes strategies and associated actions that require collaboration across agencies and levels of government, including but not limited with the Sacramento Regional Transit District (SacRT) and Elk Grove Unified School District (EGUSD), to expand transit access, improve safety on routes to school, and increase EV charging at homes and community hubs. While State policies and emerging technologies will help improve vehicle efficiency, implementation of the Climate Compass would help to reduce car dependency and shaping a more sustainable transportation system within the city.

Resilience and Adaptation

While the resilience and adaptation strategies are not directly reflected in the City's community GHG emissions inventory and forecast, they offer benefits that strengthen community wellbeing. Building resilience means enhancing the City's ability to prepare for, respond to, and recover from climate hazards, particularly for vulnerable populations who face disproportionate impacts. The proposed Plan's resilience and adaptation strategies and associated actions include improving emergency response systems, strengthening infrastructure, and implementing natural solutions such as expanding urban forests and green stormwater management. These strategies and associated actions address immediate risks while building long-term capacity to withstand climate challenges. By prioritizing adaptation now, the City can avoid costly damages and future disruptions, improving quality of life and protecting infrastructure, community health, economic stability, and natural systems across the city.

Resource Consumption

Resource consumption in the city focuses on how materials and natural resources are used, managed, and ultimately discarded or reused. The resource consumption sector accounts for a relatively small portion of the city's community GHG emissions, roughly 2 percent from solid waste and less than 1 percent from water use. Sustainable resource management is essential to building a resilient community. By rethinking how materials flow through our economy and daily lives, the City can reduce environmental effects while creating value from what was previously considered waste. California's SB 1383 is a critical mandate in this effort, requiring jurisdictions to reduce organic waste disposal by 75 percent and recover 20 percent of edible food for human consumption by 2025. This regulation drives many of the City's waste diversion strategies while also supporting the transition to more circular systems, where materials maintain their highest utility through repeated use cycles. The Climate Compass includes strategies and associated actions that promote implementing more efficient resource management strategies, such as increased organic waste diversion, increased circular economy, and water conservation measures.

Green Economy

Similar to resilience and adaptation strategies, green economy strategies are not directly reflected in the City's community GHG emissions inventory and forecast, but they offer benefits that strengthen community wellbeing and economic resilience. The Climate Compass includes strategies and associated actions that support transitioning to a green economy, including supporting green businesses to make the city more attractive to innovative companies, create quality local jobs, and develop a workforce skilled in sustainable practices. Although green economy strategies may not directly reduce GHG emissions, they are essential for building the foundation that enables and accelerates climate action across all sectors. This approach recognizes that as California continues its transition away from fossil fuels, communities that proactively invest in green industries will be better positioned for long-term economic resilience. A green economy removes barriers to sustainable business development, connects local businesses with resources and recognition programs, and ensures that economic opportunities in emerging green sectors are accessible to all residents.

Climate Action Commitment

While other sections focus on technical solutions and policy frameworks, the climate action commitment strategies and associated actions emphasize that meaningful climate action ultimately relies on community awareness, engagement, and consistent tracking. Implementation of these strategies and associated actions promote thoughtfully designed outreach, education, and tracking key performance indicators to allow the City to monitor the success of the Climate Compass within the community.

Table 2-14 Elk Grove Community GHG Emissions Reduction Strategies Actions, and Measurable Outcomes

Strategy	Action
Buildings and Energy (BE)	
Strategy BE-1: Electrify and Decarbonize Buildings Measurable Outcomes - 50% of new residential development all electric by 2030 and 100% by 2045. - 50% of new nonresidential development all electric by 2030 and 100% by 2045. - 14% of existing residential buildings retrofitted to be all electric by 2030 and 68% by 2045. - 9% of existing nonresidential buildings retrofitted to be all electric by 2030 and 46% by 2045. - 2,778 low-income housing units replace gas-powered HVAC units with heat pumps HVAC and heat pump water heaters by 2030. - 27% of existing single-unit residential install heat pumps when replacing air conditioners by 2030 and 100% by 2045.	**Action BE-1.1:** Adopt by ordinance a new building reach code based on cost-effectiveness studies, stakeholder outreach, and California Energy Commission approval that must be met by all residential and nonresidential new construction and major renovations. **Action BE-1.2:** Develop a comprehensive building energy retrofit plan to transition existing residential and nonresidential buildings to all-electric. **Action BE-1.3:** Explore partnerships with regional organizations or grant opportunities to develop a funding mechanism (e.g., revolving loan fund, grant program) to provide low-interest loans to low-income residents to cover the time-of-replacement/emergency replacement of water heaters and/or HVAC units with electric options. **Action BE-1.4:** Partner with SMUD to explore offering on-bill financing or pay-as-you-save programs specifically for building electrification projects. **Action BE-1.5:** Adopt voluntary CALGreen measures that encourage heat pump space conditioning installations when air conditioners are replaced in existing single-unit residential.
Strategy BE-2: Increase Density and Expand Affordable Housing Measurable Outcomes - 11% reduction in VMT along major transit corridors due to increased density by 2030, continuing through 2045.	**Action BE-2.1:** Prepare and adopt land use plan and zoning revisions that increase the allowed density and intensity of development along the city's major transit corridors.

Strategy	Action
Strategy BE-3: Increase Local Renewable Energy Use and Storage Measurable Outcomes - 100% carbon-free electricity for all end uses in the city by 2030, continuing through 2045.	**Action BE-3.1:** Support and coordinate with SMUD in executing its 2030 Zero Carbon Plan. **Action BE-3.2:** Partner with SMUD to expand and strengthen existing participation incentives for their Virtual Power Plant Pilot Program, where customers' private solar and battery storage systems can be aggregated and utilized as a renewable, resilient, and reliable backup power supply during emergencies or peak demand periods.
Strategy BE-4: Reduce Energy Consumption and Energy Burden Measurable Outcomes - Not quantified	**Action BE-4.1:** Establish a program that connects owners and occupants of residential and nonresidential buildings to existing energy audit and weatherization programs (e.g., California's Low-Income Weatherization Program) and resources, and additionally, helps to determine eligibility. **Action BE-4.2:** Partner with SMUD to promote and expand upon their Home Performance Program, which bundles various residential energy efficiency upgrades (e.g., heating and cooling systems, heat pump water heaters, air sealing, and insulation) to deliver more savings, comfort, and rebate options. **Action BE-4.3:** Coordinate with SMUD to promote their Energy Assistance Program Rate for low-income residential customers, which provides a monthly discount on a qualified customer's energy bill, to ensure all eligible residents are enrolled at this rate.
Transportation (TR)	
Strategy TR-1: Decrease Vehicle Miles Traveled Measurable Outcomes - 45 miles of new sidewalks installed by 2030. - 50 miles of new bike lanes installed by 2030. - 147 miles of new bike lanes installed by 2045. - 2.3% VMT reduction achieved by 2030 through transit system upgrades and 15% VMT reduction by 2045. - 1% reduction in commute VMT achieved by 2030 through the development of local Transportation Management Agency, continuing through 2045.	**Action TR-1.1:** Implement the infrastructure, programmatic, and policy recommendations included in the Bicycle, Pedestrian, and Trails Master Plan. **Action TR-1.2:** Coordinate with Sacramento Regional Transit (SacRT) to improve the city's public transit system by increasing reliability and accessibility as well as by adding amenities such as seating, lighting, tree cover, and real-time arrival information displays. Extend service hours and routes to better serve residential areas, employment centers, and popular destinations, with a focus on "Transportation-Based Priority Populations" as identified by Caltrans' Transportation Equity Index. **Action TR-1.3:** Develop a local Transportation Management Agency, which works with residences and businesses to provide education on transit and alternative transportation services and programs, and provides other supportive programs that work to reduce VMT. **Action TR-1.4:** Expand an electric bike (e-bike) incentive program to encourage residents to purchase and use e-bikes for commuting and local trips instead of driving. Incentives will be provided as subsidies or discounts on e-bike purchases. **Action TR-1.5:** Partner with Elk Grove Unified School District (EGUSD) to establish and better monitor Safe Routes to School programs aimed at promoting safe walking, biking, and other active transportation modes for students and families. **Action TR-1.6:** Work with existing multi-unit building owners and require new multi-unit developments to install e-bike charging and secure bicycle parking in multifamily residential developments. **Action TR-1.7:** Develop public awareness campaigns promoting the benefits of active transportation, public transit, and ridesharing. **Action TR-1.8:** Identify opportunities to create new ingress and egress pathways for bicycles and pedestrians within existing residential subdivisions. Require new developments to double the number of pathways compared to current standards.

Strategy	Action
Strategy TR-2: Increase Zero-Emission Vehicle (ZEV) Adoption Measurable Outcomes - Transition to 25% light-duty electric and plug-in hybrid electric vehicles by 2030 and 87% by 2045. - Increase commercial EVs by 65% by 2030 and by 90% by 2045.	**Action TR-2.1:** Adopt a reach code for EV charging to meet CALGreen Tier 1 requirements to require new commercial development to equip parking spaces with EV charging receptacles. **Action TR-2.2:** Conduct a citywide study to identify optimal locations for public and multifamily residential EV charging stations based on traffic patterns, proximity to major destinations, equity, and existing electrical infrastructure. **Action TR-2.3:** Formalize a partnership with SMUD to collaborate on EV infrastructure planning, defining shared goals, responsibilities, and a framework for coordinating EV infrastructure planning, rate structures, incentive programs, and educational initiatives. **Action TR-2.4:** Require new publicly accessible (non-car-lock) fueling stations to install one DC fast charger for each two fuel dispenser positions. This requirement may also satisfy the EV charger requirements for any on-site convenience store. **Action TR-2.5:** Partner with SMUD to promote ZEVs and provide information on available incentives.
Strategy TR-3: Reduce Off-Road Transportation Emissions Measurable Outcomes - Require 100% of diesel-powered construction equipment to use renewable diesel in 2030 and 2045. - 5% of gas-powered landscaping equipment replaced with zero-emission alternatives every year through 2035.	**Action TR-3.1:** Require all construction projects starting in 2026 and later to use renewable diesel in diesel-powered construction equipment. **Action TR-3.2:** Prohibit the use of fossil-fuel-powered generators at construction sites in all discretionary projects. **Action TR-3.3:** Provide vouchers to business owners (e.g., landscaping businesses) to convert or replace their gasoline-powered gardening equipment, such as lawnmowers, leaf blowers, and hedge trimmers, with electric or other zero-emission alternative equipment. Work with waste collectors and Sacramento Metropolitan Air Quality Management District (SMAQMD) to ensure proper disposal and/or reuse of gasoline-powered landscaping equipment.
Resilience and Adaptation (RA)	
Strategy RA-1: Improve Climate and Emergency Preparedness Measurable Outcomes - Not quantified	**Action RA-1.1:** Adopt an ordinance for post-disaster recovery and reconstruction that includes provisions for debris clearance, damage assessment, demolitions, re-occupancy and building moratorium criteria, fee waivers and deferrals, for repair and reconstruction. **Action RA-1.2:** Utilize the "Sacramento Ready" website as a local climate resilience toolkit, partnering with Sacramento County Office of Emergency Services (SacOES), local businesses, and CBOs to distribute informational materials (pertaining to climate and emergency preparedness) to residents, which would be available in multiple languages and include specific considerations for those who may be more vulnerable (e.g., children, individuals with access and functional needs), along with keeping one's home or business safe.
Strategy RA-2: Build Capacity for Current and Future Flooding Measurable Outcomes - Not quantified	**Action RA-2.1:** Coordinate with Cosumnes Community Services District (CCSD) to identify potential locations for future large-scale, low-maintenance rain or pollinator gardens within the city (emulating the Elk Grove Rain Garden Plaza across from Colton Park), which can provide a range of benefits, such as reduced flooding, improved water quality, improved aesthetics, and being utilized as wildlife habitat. **Action RA-2.2:** Continue to implement and work with developers to update as needed, the Storm Drainage Master Plan (SDMP) and ensure that candidate watershed projects and future development proposals associated with the City's storm drainage and flood control collection system are consistent with the City objectives.
Strategy RA-3: Protect Populations from Wildfire Smoke Measurable Outcomes - Not quantified	**Action RA-3.1:** Coordinate with the SMAQMD, and other local and regional agencies and organizations to develop a strategy for the widespread awareness and adoption of mobile applications (e.g., Smoke Spotter, AirNow), which can help populations prepare for wildfire smoke events. **Action RA-3.2:** In partnership with Sacramento County Public Health and SMAQMD, develop a policy with established criteria and procedures to distribute N95 masks during or in anticipation of wildfire smoke events or prolonged periods of poor air quality.

Strategy	Action
Strategy RA-4: Reduce Exposure to Extreme Heat and Mitigate the Urban Heat Island Effect Measurable Outcomes - 1% of existing residential units install radiant barriers or cool roofs when re-roofing by 2030, continuing through 2045.	**Action RA-4.1:** Evaluate and consider establishing requirements for the use of heat mitigation measures in the public realm, particularly in common community gathering spaces (e.g., playgrounds, parks). Requirements may include the incorporation of: (1) building design features (e.g., varied building heights; setbacks from sidewalks; vertical and horizontal shade features); (2) cooling materials, treatments, and coatings (e.g., for rooftops); (3) multiple layers of shading to maximize coverage throughout the day; and (4) street trees and landscaping. **Action RA-4.2:** Develop and implement a cool pavement "roadmap" to expand the use of cool pavement across the city. The roadmap will identify pilot locations, potential funding sources, and performance-tracking mechanisms. **Action RA-4.3**: Establish a program to assist and incentivize residential and nonresidential building owners in retrofitting existing buildings with cool roofs or green roofs, underscoring the array of co-benefits they have to offer aside from mitigating the urban heat island effect, such as reduced energy costs. As part of the program, consider developing guidelines and linking to an array of external resources for proper maintenance and responsible disposal. **Action RA-4.4:** Partner with SacRT to study the feasibility of designing and installing bus shelters that offer protection and relief from heat, considering an array of measures and features. **Action RA-4.5:** Seek funding to further implement heat-mitigating public amenities, such as drinking fountains, water mister/spray areas, and shade structures in parks and other community gathering areas throughout the city, in collaboration with CCSD, EGUSD, and other appropriate partners.
Strategy RA-5: Expand the Urban Tree Canopy Measurable Outcomes - 953 trees must be planted annually by 2030 through 2045.	**Action RA-5.1:** Adopt an ordinance to require new development to plant an appropriate number of trees on site to provide a 50 percent canopy cover over parking surfaces and a 20 percent canopy cover over the remainder of the site. Exemptions to the ordinance may be provided in cases where tree canopy may conflict with solar photovoltaic system siting on the development site, LID features, when conflicting with the Solar Shade Control Act, or on a case-by-case basis for industrial locations. **Action RA-5.2:** Develop and adopt an Urban Forest Master Plan to sustainably manage and increase tree canopy across the city, which includes or identifies: (1) potential new tree planting sites with a priority emphasis on areas with low canopy coverage (i.e., under 15 percent); (2) native tree species and design guidelines; and (3) best practices in watering and maintenance practices, along with street and park tree preservation. **Action RA-5.3:** In coordination with the Sacramento Tree Foundation (STF), develop and annually update a work plan to identify and budget for specific tree planting and maintenance projects for implementation each year consistent with the goals and targets of the Citywide Urban Forest Master Plan. **Action RA-5.4:** Consider updates to the Tree Preservation and Protection Regulations to improve effectiveness and ensure enhancement of tree canopy. **Action RA-5.5:** Continue to partner with STF to strengthen the city's public and private tree canopy through the increased usage and/or expansion of existing programs, such as "Sacramento Shade," which currently offers a free landscape assessment and up to 10 free shade trees for SMUD customers (e.g., homeowners, renters, and businesses), among other programs

Strategy	Action
Strategy RA-6: Expand Nature-Based Solutions Measurable Outcomes - Not quantified	**Action RA-6.1:** Encourage EGUSD to identify opportunities for schoolyard and campus greening projects. Enhance integration of schoolyard greening efforts with environmental education curricula to foster environmental awareness and engagement among students. **Action RA-6.2:** Investigate opportunities to establish new parks, greenways, and trail networks to connect existing green spaces and ensure all residents have access to nature. **Action RA-6.3:** Explore incentivizing climate smart land management in the rural area of the city. **Action RA-6.4:** Evaluate rural lands for current and historical carbon storage (including mapping and modeling), the potential for future carbon sequestration with restoration, avoided conversion, or management, and the stability of the stored carbon and risk of carbon loss due to climate change or land use change.
Resource Consumption	
Strategy RC-1: Increase Organic Waste Diversion Measurable Outcomes - Achieve a citywide waste diversion target of 80% by 2030 and by 95% by 2045.	**Action RC-1.1:** Expand the City's existing organic recycling program for multifamily complexes, schools, and commercial businesses, by increasing access to centralized organic waste dumpsters and providing resources for implementing and/or improving source separation of food waste. **Action RC-1.2:** Develop an edible food recovery program that encourages food generators (e.g., grocery stores, restaurants, and food service distributors) to execute private agreements with qualified food recovery organizations. **Action RC-1.3:** Encourage residents and businesses to actively participate in the City's food waste recycling program through increased education and outreach.
Strategy RC-2: Promote a Circular Economy Measurable Outcomes - Not quantified	**Action RC-2.1:** Use the Sacramento County waste characterization study to provide information or actionable recommendations for waste reduction and diversion of residents and businesses in Elk Grove. **Action RC-2.2:** Advance opportunities for reusing, repurposing, and sharing durable goods through partnering with the Sacramento Public Library to expand the Library of Things Program, providing information to residents and businesses related to relevant online platforms (e.g., Buy Nothing, TooGoodToGo, Olio, Vinted, etc.) and increasing public awareness of the Reuse Room at the SWCC. **Action RC-2.3:** Continue to incentivize residents and businesses to reduce the amount of waste they generate and send to landfills through waste collection fee adjustments that increase fees for solid waste containers and do not charge fees for additional recycling and organic waste containers that are included in garbage service. **Action RC-2.4:** Perform a Circular Economy Baseline Assessment of the City's existing waste streams, resource flows, and economic activities to identify opportunities for infrastructure, projects, and materials to be maintained as long as possible and identify areas with the highest potential for circularity.
Strategy RC-3: Reduce Water Use Measurable Outcomes - Reduce water consumption by 5% by 2030 and by 20% by 2045.	**Action RC-3.1:** Expand the use of recycled water in Elk Grove by extending services into areas planned for service and explore expansion as part of new development areas. **Action RC-3.2:** Continue collaborating with Elk Grove Water District, Sacramento County Water Agency, and other water providers to participate in regional water-saving initiatives, encourage voluntary water conservation measures, and share best practices for water conservation strategies. **Action RC-3.3:** Mandate water efficiency standards for new construction that require water-neutral development for projects expected to exceed the historical water use of a parcel. **Action RC-3.4:** Regularly review and update the Water Efficient Landscape Ordinance to comply with evolving State laws.

Strategy	Action
Green Economy	
Strategy GE-1: Support Green Businesses Measurable Outcomes - Not quantified	**Action GE-1.1:** Prioritize the retention, expansion, and attraction of green industry businesses and businesses utilizing sustainable practices resulting in an innovative, low-carbon economy. **Action GE-1.2:** Create programs, policies, and incentives that increase retention, expansion, and attraction of green industry and sustainable businesses. **Action GE-1.3:** Connect businesses with organizations that recognize sustainability efforts and provide resources like environmental updates, incentives, and educational tools. **Action GE-1.4:** Support green industry and sustainable businesses in meeting their hiring needs while prioritizing the training and employment of Elk Grove residents in green jobs.
Climate Action Commitment	
Strategy CA-1: Conduct Meaningful Community Outreach Measurable Outcomes - Not quantified	**Action CA-1.1:** Implement the Climate Ambassador Program as a permanent program, which recruits and trains volunteers to serve as local sustainability champions and educators. **Action CA-1.2:** Develop a neighborhood resilience committee program to increase connectedness among the community and provide support during climate hazard events. **Action CA-1.3:** Continue to encourage and connect residents with Property Assessed Clean Energy (PACE) programs, such as the Home Energy Renovation Opportunity (HERO) and CaliforniaFirst, which serve as an innovative mechanism for financing energy efficiency and renewable energy improvements on residential and commercial properties. **Action CA-1.4:** Partner with SMUD to establish a comprehensive community outreach and education campaign to raise awareness about the benefits of building electrification, available incentives and programs, and the importance of decarbonizing the building sector. **Action CA-1.5:** Partner with SMUD to promote its Residential, Neighborhood, and Commercial SolarShares programs, which allow residential customers, commercial customers, and developers to purchase renewably sourced electricity without having a solar system on site. **Action CA-1.6:** Work with regional partner agencies and utilities, such as SMAQMD and SMUD, to promote rebates and incentives for installing both residential and nonresidential renewable energy (e.g., solar) and battery storage systems.
Strategy CA-2: Provide Community Education on Public Health and Wellbeing Measurable Outcomes - Not quantified	**Action CA-2.1:** Develop an educational campaign to raise awareness about the benefits of electric landscaping equipment. **Action CA-2.2:** Develop informational materials to provide information to residents and businesses to support the city's tree canopy. **Action CA-2.3:** Partner with CBOs, such as the Elk Grove Community Garden and Learning Center and the Food Literacy Center, to expand gardening and healthy food education opportunities for individuals and families. **Action CA-2.4:** Promote circular economy awareness through educational campaigns and programs to educate residents and businesses about circular principles and encourage them to adopt circular practices and behaviors. **Action CA-2.5:** Promote California's Clean Off-Road Equipment Voucher Program for professional landscape services, which provides vouchers to purchase zero-emission landscaping equipment.

Strategy	Action
Strategy CA-3: Provide Community Education on Water Efficiency Measurable Outcomes - Not quantified	**Action CA-3.1:** Promote the use of smart water management technologies (e.g., smart irrigation controllers, leak detection devices, and real-time water monitoring systems) that provide real-time data on water usage and encourage water conservation. **Action CA-3.2:** Continue conducting public education and outreach to raise awareness about the significance of water conservation, offer practical tips for reducing water consumption, and emphasize the opportunities accessible to residents for decreasing water usage.
Strategy CA-4: Measure and Manage Climate Action Progress Measurable Outcomes - Not quantified	**Action CA-4.1:** Prepare and publish an annual report summarizing the City's progress towards its GHG reduction and adaptation goals, using the KPIs and other relevant metrics. Include narratives highlighting key accomplishments, challenges, lessons learned, and case studies of successful projects and initiatives. Present the report to the City Council to inform future climate action and adaptation-related budget and policy decisions. **Action CA-4.2:** Regularly update data on progress towards the City's climate action and adaptation goals, including KPIs, in a clear and transparent manner for community members. **Action CA-4.3:** Conduct regular surveys, focus groups, and assessments to collect participant feedback and gauge shifts in knowledge, attitudes, and behaviors about sustainability. **Action CA-4.4:** Establish a dedicated Climate Action Coordinator position within the City to lead climate, resilience and sustainability initiatives across the City that include (1) supporting implementation of the Climate Compass, (2) collaborating across departments and stakeholders on opportunities to achieve the climate, resilience and sustainability goals, (3) building partnerships with businesses, community organizations, educational institutions, and residents, and (4) pursuing funding and resource opportunities.

Source: City of Elk Gove 2025.

In order to determine whether these community GHG emissions reduction strategies and actions would achieve the reduction targets, GHG emissions reductions were quantified for the years of 2030 and 2045 based on the methodology used to derive the reduction targets, which aligns with the California Governor's Office of Land Use and Climate Innovation General Plan Guidelines (Table 2-15). It should be noted that while GHG emissions reductions were quantified for strategies wherever supporting data and reasonable assumptions were available to support calculations, certain strategies were not quantifiable because of lack of available data or quantification methods. However, these strategies would still be expected to reduce GHG emissions.

Table 2-15 Community GHG Emissions Reduction Strategies

Strategy Number	Strategy Name	GHG Reductions ($MTCO_2e$)	
		2030	2045
Buildings and Energy (BE)			
BE-1	Electrify and Decarbonize Buildings	36,436	199,967
BE-2	Increase Density and Expand Affordable Housing	Included in TR-1	Included in TR-1
BE-3	Increase Local Renewable Energy Use and Storage	280,438	0
BE-4	Reduce Energy Consumption and Energy Burden	Included in BE-1	Included in BE-1
	Buildings and Energy Subtotal	**316,875**	**199,967**
Transportation (TR)			
TR-1	Decrease Vehicle Miles Traveled	4,864	5,281
TR-2	Increase Zero-Emission Vehicle Adoption	49,607	110,886
TR-3	Reduce Off-Road Transportation Emissions	9,542	10,856
	Transportation Subtotal	**64,013**	**127,023**

Strategy Number	Strategy Name	GHG Reductions ($MTCO_2e$)	
		2030	2045
Resilience and Adaptation (RA)			
RA-1	Improve Climate and Emergency Preparedness	N/A	N/A
RA-2	Build Capacity for Current and Future Flooding	N/A	N/A
RA-3	Protect Populations from Wildfire Smoke	N/A	N/A
RA-4	Reduce Exposure to Extreme Heat and Mitigate the Urban Heat Island Effect	Included in RA-5	Included in RA-5
RA-5	Expand the Urban Tree Canopy	185	880
RA-6	Expand Nature-Based Solutions	NA	NA
	Resilience and Adaptation Subtotal	**185**	**880**
Resource Consumption (RC)			
RC-1	Increase Organic Waste Diversion	4,755	28,775
RC-2	Promote a Circular Economy	Included in RC-1	Included in RC-1
RC-3	Reduce Water Use	140	0
	Resource Consumption Subtotal	**4,895**	**28,775**
Green Economy (GE)			
GE-1	Support Green Businesses	N/A	N/A
	Green Economy Subtotal	**N/A**	**N/A**
Climate Action Commitment (CA)			
CA-1	Conduct Meaningful Community Outreach	N/A	N/A
CA-2	Provide Community Education on Public Health and Wellbeing	N/A	N/A
CA-3	Provide Community Education on Water Efficiency	N/A	N/A
CA-4	Measure and Manage Climate Action Progress	N/A	N/A
	Climate Action Commitment Subtotal	**N/A**	**N/A**
	Total Reductions from Strategies	**385,968**	**356,645**
	Reduction Needed to Meet Target	*327,615*	*322,498*
	Target Met?	Yes	Yes
	Remaining Gap to Target	-58,353	-34,148

Notes: Total may not sum exactly due to independent rounding. GHG = greenhouse gas; $MTCO_2e$ = metric tons of carbon dioxide equivalent; N/A = not applicable.

Source: City of Elk Grove 2025.

The total estimated community GHG emissions reductions from all strategies quantified would be 385,968 $MTCO_2e$ in 2030 and 356,645 $MTCO_2e$ in 2045. The total estimated reductions from all GHG emissions reduction strategies would be sufficient to meet the 2030 and 2045 targets.

CITY OPERATIONS GHG EMISSIONS REDUCTION STRATEGIES AND ACTIONS

To reduce GHG emissions associated with City operations, the Plan identifies eight strategies with supporting actions within four categories (Table 2-16). In addition, where quantifiable, measurable outcomes are also provided on a strategy-by-strategy basis to serve as milestones for the City to achieve their community GHG emissions reduction goals for 2030 and 2045. The City operations GHG community reduction strategies and actions are summarized below.

Buildings and Facilities

Municipal buildings and facilities represent the largest source of GHG emissions in City operations, accounting for 41 percent of the total City operations GHG emissions. Under the approach of the Climate Compass, the City's effort to decarbonize its facilities focuses on three interconnected pathways: electrification, renewable energy integration, and enhanced efficiency. By transforming its building portfolio, the City can demonstrate the practical implementation of climate solutions, such as installing LED lighting and smart thermostats, while improving operational resilience and reducing long-term energy costs. These improvements extend beyond emissions reductions; they create healthier workspaces for employees, showcase innovative technologies to the community, and strengthen infrastructure against climate impacts.

Fleet and Employee Commute

Fleet and employee commute make up the second largest share of City operational emissions, with fleet vehicles and employee commute together accounting for 34 percent of total City operation GHG emissions. Fleet electrification takes advantage of rapidly improving vehicle technologies and declining costs while reducing maintenance needs and simplifying operations. A mix of incentives, infrastructure improvements, and flexible work arrangements for employee commutes can reduce single-occupancy vehicle trips while boosting staff morale. The proposed Plan's complementary strategies offer multiple, adaptable pathways for reducing emissions based on departmental needs and operational priorities. Transitioning City operations to a low-carbon transportation system aligns with broader regional mobility trends and infrastructure investments. By partnering with regional agencies to expand charging infrastructure, the City can achieve greater network coverage at a lower cost. Similarly, employee commute programs that connect with regional transit efforts offer more comprehensive travel options for staff.

Resilience

For Elk Grove, climate-related hazards include prolonged droughts, extreme heat events, wildfire smoke, and increased flood risks, all of which can potentially disrupt essential services and damage critical infrastructure. While resilience strategies are not directly reflected in the City operations GHG emissions inventory and forecast, they offer benefits that strengthen community and employee wellbeing. The Climate Compass includes strategies and associated actions that recognizes that resilience should be embedded in day-to-day operations, not as a standalone effort. Climate-informed planning and design decisions today can deliver long-term benefits while helping to reduce future risks and costs. Thoughtful integration of resilience into infrastructure planning, maintenance practices, and emergency preparedness creates a more adaptive municipal system that can meet today's needs while staying responsive to evolving climate conditions.

Solid Waste and Water

Water and waste management activities account for 4 percent of total City operations GHG emissions. Water systems require energy throughout their lifecycle—from pumping and treatment to distribution—while organic waste in landfills generates methane. Although these areas represent a smaller portion of emissions compared to other sectors, reducing water use and promoting sustainable waste management deliver benefits far beyond emissions reduction and are essential to advancing the City's broader resources consumption goals.

Water conservation across municipal operations is a necessary response to California's increasingly variable climate. City buildings, parks, and landscaped medians offer opportunities to showcase water efficiency strategies. The Climate Compass includes strategies and associated actions that promote smart irrigation systems, drought-tolerant landscaping, and facility water audits to help reduce consumption while maintaining essential services and public amenities. These efforts strengthen resilience during drought and restrictions, lower utility costs, and are visible examples of effective conservation.

Complementing a resource-conscious approach, sustainable waste management practices improve the flow and handling of materials. Enhanced recycling and composting programs, environmentally preferable purchasing policies, and waste reduction initiatives help the City reduce disposal costs and environmental impacts. These efforts support the City's broader goals of promoting a circular economy, where materials are reused, repurposed, or recycled to their highest value, advancing operational efficiency and resource stewardship.

Table 2-16 Elk Grove City Operations GHG Emissions Reduction Strategies, Actions, and Measurable Outcomes

Strategy	Action
Buildings and Facilities (BF)	
Strategy BF-1: Electrify and Decarbonize City Buildings and Facilities Measurable Outcomes - Retrofit 20% of existing City buildings to all electric by 2030 and 100% by 2045. - Replace 10% of existing diesel backup generators with zero-emission alternatives by 2030 and 100% by 2045.	**Action BF-1.1:** Adopt a policy that requires all new City buildings to be all-electric starting in 2026, and additionally, that requires existing buildings purchased by the City to be fully electrified within five years of purchase. **Action BF-1.2:** Develop and implement a roadmap outlining the necessary steps and timeline for electrifying all existing City buildings and facilities, including a detailed inventory of current building systems, and a prioritized list of buildings for electrification based on factors such as age of equipment, energy use intensity, and necessary electrification measures. The roadmap should also include cost estimates, potential funding sources, and projected energy savings and GHG emissions reductions for each project. **Action BF-1.3:** Conduct a feasibility study and cost analysis of replacing the natural-gas-powered pool heating system at the Aquatics Center with an electric or other zero-emission heating system, and based on findings, implement the replacement as soon as feasibly possible.
Strategy BF-2: Increase Renewable Energy Use and Storage Measurable Outcomes - 100% of electricity used by City buildings and facilities is carbon-free by 2030, continuing through 2045.	**Action BF-2.1:** In coordination with SMUD, ensure that electricity used at City buildings and facilities, along with electricity used for streetlights and traffic lights, is sourced from renewable sources to the maximum extent possible. **Action BF-2.2:** Continue to install solar and battery storage systems on suitable City buildings and facilities, prioritizing installations based on solar potential, historic energy consumption, roof condition, available site area, and potential cost savings. **Action BF-2.3:** Procure renewable diesel for use in all diesel-powered generators by 2030 and transition to carbon-free backup power supplies by 2045.
Strategy BF-3: Reduce Energy Consumption Measurable Outcomes - Not quantified	**Action BF-3.1:** Develop and adopt a green building policy requiring all new City buildings to meet or exceed CALGreen Tier 1 standards, establishing requirements for energy-efficient design, renewable energy integration, water conservation, and sustainable materials use. **Action BF-3.2:** Phase in the installation of a building energy management system(s) (BEMS) in City buildings and facilities that provide real-time monitoring and control of energy usage, allowing for optimization of heating, cooling, and lighting systems. Each BEMS will include smart sensors, automated controls, and data analytics capabilities to identify energy-saving opportunities. Phasing should start with the largest energy-consuming buildings and facilities and gradually expand to all facilities. Include required training and technical support to properly use each system. **Action BF-3.3:** Conduct an audit of HVAC systems in all existing City buildings and develop a schedule for end of useful life replacement of outdated systems with high-efficiency models, including features like variable refrigerant flow (VRF) systems and appropriately placed smart thermostats, and implementing regular maintenance to ensure optimal performance. **Action BF-3.4:** Establish a retro-commissioning program for all existing City buildings, which encompasses a systematic process to identify and implement operational and maintenance improvements, and aims to optimize building systems, reduce energy consumption, improve occupant comfort, and extend equipment life.
Fleet and Employee Commute (FEC)	
Strategy FEC-1: Reduce City Employee Commute VMT Measurable Outcomes - 11% reduction in employee commute trips by 2030 and 23% by 2045.	**Action FEC-1.1:** Conduct regular City employee commute surveys (i.e., every 2-3 years) to understand commute patterns and quantify associated trips and VMT and to incorporate findings into future GHG inventory updates. **Action FEC-1.2:** Develop an employee carpool matching system that is integrated into the City's intranet, which would allow employees to input their commute details and preferences and match them with suitable carpool partners. Provide incentives for regular use of the system, including City merchandise, or small quarterly stipends. **Action FEC-1.3:** Partner with SacRT to establish a program offering monthly public transit passes to City employees.

Strategy	Action
	Action FEC-1.4: Establish a guaranteed ride home program that provides rides for City employees in the form of vouchers for rideshare or taxi services up to a certain number of times per year. The program would be intended for employees who use more sustainable transportation modes for their commute, such as public transit, carpooling, biking, or walking, and would prevent employees from being stranded in the event of public transit schedule changes, damage to their bicycle, or other unexpected situations. **Action FEC-1.5:** Conduct a review of City buildings and facilities to identify opportunities to increase amenities that encourage biking, such as bicycle parking/storage, shelters, end-of-trip facilities (e.g., repair stands, bicycle wash stations, showers, locker rooms), and electric bicycle charging infrastructure. **Action FEC-1.6:** Launch an annual VMT reduction challenge for City employees, which would encourage departments or teams to compete in reducing their collective VMT over a set period each year by offering prize incentives for the winning team(s). **Action FEC-1.7:** Establish an e-bike lending library for City employees to use as an alternative to vehicle use for intracity travel during work hours. **Action FEC-1.8:** Develop and implement an incentive program for City employees who purchase a bike/e-bike for their commute (e.g., walking, biking). Incentives may include City merchandise, reimbursement up to a specified amount for the purchase of a bike/e-bike, or other benefits that are correlated with the number of days commuted using active transportation modes.
Strategy FEC-2: Shift to Clean On-Road and Off-Road Vehicles and Equipment Measurable Outcomes - Sufficient EV charging infrastructure installed to support 25% of employee vehicles as EV/PHEV by 2030 and 97% by 2045. - 20% of the City's fleet is EV by 2030 and 100% by 2045.	**Action FEC-2.1:** Continue to implement the Infrastructure Plan for Fleet Electrification (and future updates) to transition the City's vehicle fleet to ZEVs (mostly EVs) and to continue scaling up and providing ongoing maintenance for the infrastructure required to support an all-electric City fleet, including the deployment of EV charging stations at appropriate locations. **Action FEC-2.2:** Develop a policy to require greater use of low- and zero-emissions off-road vehicles and encourage electric equipment (e.g., landscaping, construction) for City-owned equipment, City-funded projects, and City contractors.
Resilience (RS)	
Strategy RS-1: Protect the City's Assets and Utilize City Facilities to Protect the Community from Climate Hazards Measurable Outcomes - Not quantified	**Action RS-1.1:** Conduct an updated, comprehensive climate change vulnerability assessment specific to the City's physical assets (e.g., buildings, facilities) and planned Capital Improvement Program projects, and based on findings, develop a prioritized list of City assets requiring climate adaptation interventions. **Action RS-1.2:** Develop a policy that establishes heat-resilient building standards for all new City construction and major renovations, which addresses aspects such as green/cool roofs, enhanced insulation, and passive cooling design elements. **Action RS-1.3:** Retrofit existing City buildings and facilities to improve their resilience to climate hazards, such as extreme heat and extreme precipitation. Determine and implement solutions that are tailored and feasible for each building or facility. **Action RS-1.4:** Develop a policy mandating the consideration of future climate projections in Capital Improvement Program projects that includes a checklist of resilience measures to be considered for different types of projects (e.g., buildings, roads, parks). **Action RS-1.5:** Install cool pavement and permeable pavement on all City parking lots to help reduce the urban heat island effect and provide additional flood protection, prioritizing permeable pavement in lots or areas that are more flood-prone. Test different types of cool and permeable pavement materials, and based on results, develop guidelines for broader implementation throughout the city. **Action RS-1.6:** Plant shade trees and add other heat-mitigating amenities around City buildings and facilities, such as reflective pathway surfaces, more shaded seating areas, hydration stations, and misters, among other amenities.

Strategy	Action
	Action RS-1.7: Implement rigorous preventive maintenance schedules for all City infrastructure to enhance their longevity, bolster their resilience, and reduce the need for new materials (i.e., for premature repairs and replacement).
Solid Waste and Water (WW)	
Strategy WW-1: Reduce Water Use Measurable Outcomes - Reduce outdoor water consumption by 10% by 2030 and by 30% by 2045. - Reduce indoor water consumption by 10% by 2030 and by 20% by 2045.	**Action WW-1.1:** Develop and implement a plan to gradually replace water-intensive landscaping (e.g., turfgrass that is not intended for recreational use) at City and CCSD-managed facilities and parks with native, drought-tolerant plants and/or permeable hardscaping, which should include a phased and prioritized implementation schedule. As part of plan implementation, update City's landscape guidelines to reflect appropriate planting and maintenance guidance for drought-tolerant landscaping. **Action WW-1.2:** Upgrade all City and CCSD-managed irrigation systems to smart, weather-based systems that use real-time weather data and soil moisture sensors to optimize watering schedules and reduce overwatering, and develop a maintenance and monitoring program to ensure long-term efficiency. **Action WW-1.3:** Conduct periodic water use audits for all City buildings and facilities, which will help to identify leaks, inefficient fixtures, and opportunities for water reuse. Based on regular audit results, develop a list of water-saving upgrades and needed operational changes.
Strategy WW-2: Practice Sustainable Waste Management Measurable Outcomes - Achieve a 65% waste diversion rate at City facilities by 2030 and by 80% by 2045.	**Action WW-2.1:** Conduct a review of existing City procurement and operational practices and adopt practices that further avoid the generation of waste, such as using reusable materials, compostable products, and reduced packaging. Additionally, develop training for City employees on sustainable purchasing, procurement, and operations to maximize avoidance of waste generation, and conduct periodic waste audits to measure the success of existing efforts and inform potential changes to policies or procedures, as necessary. **Action WW-2.2:** Increase recycling and organic waste diversion at all City buildings and facilities by inventorying and identifying needs for additional recycling and food waste bins and appropriate signage and education opportunities (e.g., regular staff presentations, mini workshops) to inform/educate employees and the public on proper waste disposal and recycling. **Action WW-2.3:** Institutionalizes a sustainable events policy that requires zero waste at events hosted by the City. **Action WW-2.4:** Adopt a policy that requires minimum recycled content in construction materials for all City construction and maintenance projects, and includes the development of a preferred materials list. Regularly update the policy to reflect advancements in recycled material technology and availability.

Source: City of Elk Gove 2025.

To determine whether these strategies and actions would achieve the GHG emissions reduction targets for City operations, GHG emissions reductions were quantified for the years of 2030 and 2045 based on the methodology used to derive the reduction targets (Table 2-17). It should be noted that while GHG emissions reductions were quantified for strategies wherever supporting data and reasonable assumptions were available to support calculations, certain strategies were not quantifiable because of lack of available data or quantification methods. However, these strategies would still be expected to reduce GHG emissions.

The total estimated GHG emissions reductions from all City strategies quantified would be 2,501 $MTCO_2e$ in 2030 and 2,450 $MTCO_2e$ in 2045. As such, the total estimated reductions from all City operations GHG emissions reduction strategies would be sufficient to meet the 2030 and 2045 targets.

Table 2-17 Elk Grove City Operations GHG Emissions Gap Analysis ($MTCO_2e$)

Strategy Number	Category	Strategy	GHG Reductions ($MTCO_2e$)	
			2030	2045
BF-1	Buildings and Facilities	Electrify and Decarbonize City Buildings and Facilities	262	1,588
BF-2		Increase Renewable Energy Use and Storage	1,762	0
BF-3		Reduce Energy Consumption	N/A	N/A

Strategy Number	Category	Strategy	GHG Reductions ($MTCO_2e$)	
			2030	2045
FEC-1	Fleet and Employee Commute	Reduce City Employee VMT	87	45
FEC-2		Shift to Clean On-Road and Off-Road Vehicles and Equipment	369	722
RS-1	Resilience	Protect City Assets and Utilize City Facilities to Protect the Community from Climate Hazards	N/A	N/A
WW-1	Solid Waste and Water	Reduce Water Use	1	0
WW-2		Practice Sustainable Waste Management	20	94
		Total Reductions from Strategies	**2,501**	**2,450**
		Reduction Needed to Meet Target	1,923	2,070
		Target Met?	Yes	Yes
		Remaining Gap to Target	-578	-380

Notes: Total may not sum exactly due to independent rounding. GHG = greenhouse gas; $MTCO_2e$ = metric tons of carbon dioxide equivalent; N/A = not applicable; VMT = vehicle miles traveled.

Source: City of Elk Grove 2025.

2.4.5 Evaluation of Plan Elements

The Climate Compass is a policy document that does not propose any specific development or any other specific physical change to the environment. No growth would result from implementation of the Plan as it does not influence the rate of growth anticipated in the General Plan (including the Housing Element). No changes to General Plan land use designations, zoning, or land use–specific projects are proposed as part of the Plan. In addition, the Plan does not include strategies or actions that would result in the construction of new or extension of existing roadways within the city. Future developments related to the Plan would be subject to project-level environmental review.

The proposed GHG emission reduction strategies and actions represent the component of the project that could result in physical impacts on the environment. For this reason, the strategies and actions are the focus of the analysis in this SEIR. As summarized above, the strategies and actions proposed in the Plan provide a range of potential tools, from proposed ordinances, plans, and support of legislation to specific programs designed to reduce GHG emissions within the city and from City operations.

The analysis that follows assumes that all Plan measures and actions would be implemented and focuses on the measures and actions with potential to result in physical environmental impacts. The potential environmental effects of all strategies and actions are considered in this SEIR, whether the Plan quantifies reductions from the strategy or action or the strategy or action supports GHG emissions reductions in an unquantifiable way. Furthermore, this SEIR does not speculate about site-specific physical impacts that could occur if and when a specific site improvement is proposed in the future as the exact location of future projects are unknown at this time. Rather, this SEIR considers the types of impacts that could occur with implementation of the proposed GHG emissions reduction strategies and actions. The analysis of impacts that would result from implementation of the Plan is conducted at the program-level, and specific projects that implement the strategies and actions established by the Plan and require discretionary approval would be subject to subsequent CEQA review at the project-level.

2.5 RESPONSIBILITIES FOR CLIMATE COMPASS IMPLEMENTATION

The Climate Compass includes regular monitoring to track and report progress toward achieving GHG emissions reductions targets. After adoption, the City's Civic Innovation and Sustainability Division will maintain the Plan. This division will coordinate with other City departments to facilitate and oversee implementation, including tracking and reporting on the progress of each strategy and action. Staff members will track progress relative to the expected quantified outcomes of each GHG reduction strategy and action, using the Implementation and Monitoring Program

described and summarized in Chapter 5 of the Plan. The Implementation and Monitoring Program includes all strategies and actions (i.e., community and City operations) that would contribute to the achievement of the City's reduction targets and goals as well as measurable outcomes, implementation timelines, City department leads, enforcement mechanisms, estimated GHG reduction potential, relative costs, and potential funding sources. Refer to Chapter 5, "Implementation and Monitoring," of the Climate Compass for a detailed description of these components.

The City will conduct annual monitoring beginning one year after approval of the Plan to track progress and identify where further efforts and additional resources may be needed. Annual monitoring reports will include the status of measure implementation using monitoring metrics to show progress in meeting the reduction targets.

2.5.1 Qualified GHG Emissions Reduction Plan

Section 15183.5(b) of the State CEQA Guidelines states that project-specific environmental documents can find that project-level GHG emissions would not be cumulatively considerable if the project complies with the requirements of a qualified GHG emissions reduction plan. To meet the requirements of State CEQA Guidelines Section 15183.5(b), a qualified GHG emissions reduction plan must do the following:

(1) Plan Elements. A plan for the reduction of greenhouse gas emissions should:

- (A) Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area;
- (B) Establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable;
- (C) Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area;
- (D) Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level;
- (E) Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels;
- (F) Be adopted in a public process following environmental review.

The Climate Compass fulfills the requirements of a qualified GHG emissions reduction plan in accordance with Section 15183.5(b) of the State CEQA Guidelines. The Plan includes the City's GHG emissions inventory, GHG emissions forecasts, and GHG emissions targets. The Plan also provides specific GHG emission reduction strategies and actions that collectively achieve the emissions targets and requires the City to conduct annual progress reporting as part of the Plan's implementation. Lastly, the Plan is a discretionary project which must undergo environmental review pursuant to CEQA and is therefore subject to public review. Based on the criteria established in Section 15183.5(b) of the State CEQA Guidelines, the Climate Compass would constitute a qualified GHG emissions reduction plan.

2.5.2 Future Streamlining of GHG Emissions Analysis at the Project-Level

Under CEQA, projects that required discretionary approval must disclose whether they would generate GHG emissions that would have a significant impact on the environment, or if they would conflict with a plan or regulation adopted to reduce emissions. As discussed above in Section 2.5.1, "Qualified GHG Emissions Reduction Plan," Section 15183.5 of the State CEQA Guidelines establishes a mechanism for agencies to prepare a plan for the reduction of GHG emissions that analyzes and mitigates the effects of GHG emissions at a programmatic level. Once adopted, the Climate Compass would serve as the City's approved GHG emissions reduction plan for all new community and municipal development within the Planning Area.

Since the Climate Compass has been prepared in accordance with Section 15183.5(b)(1) of the State CEQA Guidelines, this Draft SEIR provides the appropriate level of environmental review to allow future projects to tier from and streamline their analysis of GHG emissions. Future projects that are consistent with the General Plan could show consistency with the Plan via a Climate Compass Consistency Review Checklist (Consistency Review Checklist) and thus, could streamline their GHG analysis.

All environmental documents that rely on the Consistency Review Checklist to reduce GHG emissions would be required to identify those requirements specified in the Plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project. Consistent with State CEQA Guidelines 15168, because this SEIR does not provide project-level review of specific development projects within the Planning Area, future discretionary activities may require subsequent CEQA analysis if their impacts are not adequately considered and mitigated, as necessary, within this SEIR. If there is substantial evidence that the effects of a particular project may be cumulatively considerable notwithstanding the project's compliance with the specified requirements in the Climate Compass, a CEQA analysis of GHG emissions would be prepared for the project.

Therefore, the qualified Climate Compass, this SEIR, and the Consistency Review Checklist work together to provide the programmatic environmental review and streamlining mechanism for evaluating the GHG emissions of future development projects. The Consistency Review Checklist would be used only for projects that wish to streamline their CEQA GHG impact analysis pursuant to CEQA Guidelines sections 15064(h)(3), 15064.4 and 15183.5(b)(2).

2.5.3 Project Consistency with Applicable Plans

The Climate Compass was developed in the context of existing regional and City plans that support the reduction of GHG emissions as well as prepare the city for climate-related hazards and effects. The Plan is consistent with the following plans:

- City of Elk Grove General Plan;
- City of Elk Grove Local Hazard Mitigation Plan;
- City of Elk Grove Community Mobility Resiliency Plan;
- City of Elk Grove Bike, Pedestrian, and Trails Master Plan;
- SMAQMD’s Capital Region Climate Priorities Plan; and
- SMUD's 2030 Zero Carbon Plan.

2.6 INTENDED USES OF THIS SEIR

The SEIR will serve as an informational document for decision-makers and the public. The City Council will review and consider the information contained in the SEIR pursuant to its evaluation of whether to approve the project. The SEIR is not intended to recommend either approval or denial of a project. If the project will have significant and unavoidable environmental impacts (i.e., no feasible mitigation is available to reduce the impact to a less-than-significant level), the City Council may still approve the project if it believes that social, economic, or other benefits outweigh the unavoidable impacts. The City Council would then be required to make findings and state, in writing, the specific reasons for approving the project, based on information in the SEIR and other information in the administrative record.

2.7 REQUIRED PROJECT APPROVALS

The discretionary actions associated with the Climate Compass include the following:

- Review of the Climate Compass by the Elk Grove Planning Commission;
- Certification of the SEIR for the Climate Compass by the Elk Grove City Council; and
- Adoption of the Climate Compass by the Elk Grove City Council.

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3 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

This chapter is organized by environmental resource topic. Each resource topic is addressed in a separate section that presents an integrated discussion of the existing conditions (including environmental setting and regulatory setting) associated with the resource, potential environmental effects of the Plan on the resource, and mitigation measures to reduce significant effects.

Cumulative and growth-inducing impacts are discussed in Chapter 4, "Cumulative Impacts," and Chapter 6, "Other CEQA-Mandated Sections," respectively.

APPROACH TO THE ENVIRONMENTAL ANALYSIS

Sections 3.1 and 3.2 of this Draft SEIR present a discussion of the regulatory background, existing conditions, environmental impacts associated with implementation of the Plan, mitigation measures to reduce the level of impact, and residual level of significance (i.e., after application of mitigation, including impacts that would remain significant and unavoidable after application of all feasible mitigation measures). Issues evaluated in these sections consist of the environmental topics identified for review in the Notice of Preparation (NOP) prepared for the Plan (see Appendix A of this Draft SEIR). Chapter 4 of this Draft SEIR, "Cumulative Impacts," presents an analysis of the Plan's impacts considered together with those of other past, present, and probable future projects producing related impacts, as required by Section 15130 of the State CEQA Guidelines. Chapter 5, "Alternatives," presents a reasonable range of alternatives and evaluates the environmental effects of those alternatives relative to the Plan, as required by Section 15126.6 of the State CEQA Guidelines. Chapter 6, "Other CEQA-Mandated Sections," includes an analysis of the Plan's growth inducing impacts, as required by Section 21100(b)(5) of CEQA.

The remainder of this chapter addresses the following resource topics:

- Section 3.1, "Energy"; and
- Section 3.2, "Greenhouse Gas Emissions and Climate Change,"

Section 3.1 and 3.2 of this Draft SEIR generally include the following components.

Regulatory Setting: This subsection presents information on the laws, regulations, plans, and policies relevant to each resource topic, including federal, State, regional, and City regulations that address potentially adverse environmental impacts.

Environmental Setting: This subsection presents the existing environmental conditions within the General Plan Planning Area (i.e., land uses within the city limits and the four study areas outside city limits), as appropriate, in accordance with State CEQA Guidelines Section 15125. This setting generally serves as the baseline against which environmental impacts are evaluated. The NOP for the Plan was issued on December 6, 2024. Typically, and in accordance with State CEQA Guidelines Section 15125, the date on which the NOP is issued is considered appropriate for establishing the baseline, and the NOP date is used as the baseline in this Draft SEIR. This includes the planned development potential and policy provisions set forth in the adopted General Plan, as amended.

Environmental Impacts and Mitigation Measures: In accordance with the State CEQA Guidelines (CCR Sections 15126, 15126.2, and 15143), this section identifies the method of analysis to determine whether an impact may occur, and the thresholds of significance used to determine the level of significance of the environmental impacts for each resource topic. The thresholds of significance are based on the checklist presented in Appendix G of the most recently adopted State CEQA Guidelines (December 28, 2018), best available data, applicable regulatory standards, and local practice and standards. The level of each impact is determined by analyzing the effect of the Plan on the defined baseline conditions and comparing it to the applicable significance threshold. Each impact discussion also includes a summary of the relevant impact analysis and conclusion provided in the General Plan EIR, as amended by the 2023 Subsequent

EIR to the General Plan EIR (2023 Subsequent EIR) for the General Plan Amendments and Update of Vehicle Miles Traveled (VMT) Standards Project (GPAs/VMT Standards Project). The impact discussion concludes by determining whether the Plan would result in a new significant effect or more severe impact than what was identified in the General Plan EIR, as amended by the 2023 Subsequent EIR, pursuant to State CEQA Guidelines 15163.

Project impacts and mitigation measures are numbered sequentially in each subsection (e.g., Impact 3.1-1, Impact 3.1-2, Impact 3.1-3, etc.). A summary impact statement precedes a more detailed discussion of each environmental impact. The discussion presents the analysis, rationale, and substantial evidence upon which conclusions are drawn regarding the level of significance of the impact.

An impact would be considered "less than significant" if it would not involve a substantial adverse change in the physical environment. An impact would be "potentially significant" or "significant" if it could or clearly would, respectively, result in a substantial adverse change in the physical environment; both are treated the same under CEQA in terms of procedural requirements and the need to identify feasible mitigation.

This Draft SEIR identifies feasible mitigation measures that could avoid, minimize, rectify, reduce, or compensate for potentially significant or significant adverse impacts (PRC Section 21081.6[b]). Mitigation measures are not required for effects found to be less than significant. Where feasible mitigation for a significant or potentially significant impact is available, it is described in this Draft SEIR following the impact, along with its effectiveness at addressing the impact. Each identified mitigation measure is labeled numerically to correspond with the impact it addresses. Where feasible mitigation is not sufficient to reduce an impact to a less-than-significant level, the impact is identified as significant and unavoidable. The final determination of the level of significance of each impact is presented in bold text in the impact summary and at the end of each impact discussion.

References: The full references associated with the references cited in Sections 3.1 and 3.2 are presented in Chapter 8, "References," organized by chapter or section number.

EFFECTS FOUND NOT TO BE SIGNIFICANT

CEQA allows a lead agency to limit the detail of discussion of environmental effects that are not potentially significant (PRC Section 21100, CCR Section 15128). No impacts would occur to the environmental resources listed below with adoption and implementation of the Climate Compass, as described below. Accordingly, these environmental resources are not addressed in later sections of this Draft SEIR.

Mineral Resources

No significant mineral resources have been identified in the Planning Area. There are no sites in the Planning Area used for mineral extraction, nor any sites designated as an important mineral recovery site. Therefore, there would be no impact on mineral resources with implementation of the Plan. This impact is not discussed further in this Draft SEIR.

Seiche, Tsunami, and Mudflow

The Planning Area's location (inland, away from any water bodies) and topography (relatively flat) ensure that there would be no impact related to seiche, tsunami, or mudflow. Therefore, this impact is not discussed further in this Draft SEIR.

Wildfire

The Planning Area is not located in or near a Very High Fire Hazard Severity Zone; however, a small eastern portion of the Planning Area is within a High Fire Hazard Severity Zone (CAL FIRE 2025). Due to the nature of the Climate Compass as a GHG emissions reduction plan, implementation of the Plan would not introduce new housing within the Planning Area and does not include any land use or zoning changes. Furthermore, while the Plan includes strategies and actions to reduce GHG emissions, these strategies and actions also provide co-benefits that increase climate hazards resilience,

water conservation, reduced fossil fuel consumption, and use of renewable energy sources, which help to reduce wildfire risks. Therefore, implementation of the Plan would not exacerbate wildfire risks and no significant impact related to wildfire would occur. This issue is not discussed further in this Draft SEIR.

ENVIRONMENTAL EFFECTS ADEQUATELY ADDRESSED IN THE GENERAL PLAN EIR, AS AMENDED BY THE 2023 SUBSEQUENT EIR

In accordance with Section 15163(b) of the State CEQA Guidelines, a lead agency may limit the level of detail within a supplemental EIR to that only required necessary to make the previous EIR adequate for the project as revised. As discussed in Section ES.4, "Significant and Unavoidable Impacts," of this Draft SEIR, the General Plan EIR, as amended by the 2023 Subsequent EIR, determined significant and unavoidable impacts would occur to the following environmental resources: aesthetics; air quality; agriculture; biological resources; noise and vibration; public services and recreation; transportation; and utilities and services systems. Adopted mitigation measures from the General Plan EIR, as amended by the 2023 Subsequent EIR (i.e., Mitigation Measures 3.11-X) only apply to the Livable Employment Area (LEA) Community Plan Area. All other environmental resources were determined to result in less than significant impacts.

As demonstrated below, since the impact determinations from the General Plan EIR, as amended by the 2023 Subsequent EIR, for the aforementioned environmental resources remain unchanged with implementation of the proposed Climate Compass, a detailed analysis is not warranted as the previous evaluation in the General Plan EIR, as amended by the 2023 Subsequent EIR, remains adequate for the Plan.

Aesthetics

The General Plan EIR, as amended by the 2023 Subsequent EIR, determined implementation of the General Plan and 2019 Climate Action Plan Update (2019 CAP) would result in significant and unavoidable impacts related to degrading existing visual character and the quality of public views as well as creating new sources of light and glare (2023 Subsequent EIR Impacts 3.1-1 and 3.1-2 and Cumulative Impacts 4-2 and 4-3). No significant impacts were identified for impacts to scenic vistas or state scenic highways.

Implementation of the strategies and actions of the Climate Compass would include activities such as the installation of new small-scale facilities, such as electric vehicle (EV) charging stations, solar photovoltaic or battery storage systems; construction of cool roofs and pavements; retrofitting older infrastructure and facilities with newer, more energy efficient technology; and planting more community trees. These types of facilities would be visible within the community as well as on the roof of buildings but would be similar in size, visual character, use of materials, and form to existing facilities of similar nature, such as existing EV chargers, mechanical equipment, and other facilities and improvements that are associated with urban and rural development. Furthermore, these types of facilities are similar in nature as those described in the 2019 CAP and evaluated within the General Plan EIR, as amended by the 2023 Subsequent EIR.

The Plan includes Strategy BE-2 "Increase Density and Expand Affordable Housing," which calls for the City to increase allowed density and intensity of planned development along the City's major transit corridors as a means to increase residential uses in proximity to non-residential uses and alternative transportation to reduce VMT. However, since the Plan is not growth-inducing, implementation of this strategy would not change the development potential of the Planning Area but rather would redistribute the growth that can already occur under the current land use plan of the General Plan, as amended by the GPAs/VMT Standards Project and evaluated within the 2023 Subsequent EIR. Therefore, the Climate Compass would not result in new features of substantial height, bulk, or massing that would result in substantial long-term damage to visual quality that were not considered in the General EIR or the 2023 Subsequent EIR. For these reasons, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of aesthetics is warranted.

Agriculture and Forestry Resources

The General Plan EIR and the 2023 Subsequent EIR, evaluated the conversion of agricultural lands and determined impacts to be significant and unavoidable (Impact 3.11-1). There are no areas in the Planning Area zoned as forest or timberland. The Climate Compass does not include any land use or zoning changes and implementation of the Plan would not result in the conversion of agricultural land to non-agricultural uses. For these reasons, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of agriculture and forestry resources is warranted.

Air Quality

The General Plan EIR, as amended by the 2023 Subsequent EIR, determined implementation of the General Plan and 2019 CAP would result in significant and unavoidable impacts related to construction emissions of criteria air pollutants, operational air quality, and exposure of sensitive receptors to toxic air contaminants (TACs) (2023 Subsequent EIR Impacts 3.2-1, 3.2-2, and 3.2-4 and Cumulative Impact 4.3).

Implementation of the strategies and actions of the Climate Compass would involve the construction and operation of new small-scale facilities, such as EV charging stations, solar photovoltaic or battery storage systems; construction of cool roofs and pavements; and retrofitting older infrastructure and facilities with newer, more energy efficient technology. While the Climate Compass includes strategies and associated actions based on newer technologies and updated reach codes, the types of facilities that would be constructed and operated under the Plan are similar in nature to those described in the 2019 CAP and air pollutant emissions from development activities evaluated within the General Plan EIR, as amended by the 2023 Subsequent EIR. Therefore, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of air quality is warranted.

Archaeological, Historical, and Tribal Cultural Resources

The General Plan EIR, as amended by the 2023 Subsequent EIR, determined implementation of the General Plan and 2019 CAP would result in less than significant impacts to archaeological, historical, and tribal cultural resources with implementation of adopted General Plan Mitigation Measure MM 5.5.1a and MM 5.5.1b (2023 Subsequent EIR Impacts 3.3-1 through 3.3-4 and Cumulative Impact 4-4).

Implementation of the Climate Compass could have the potential to adversely affect historical resources through construction of energy efficiency improvements and building retrofits (Strategy BF-3, Actions BE-1.2, BF-3.3, BF-3.5, RS-1.3), which could involve minor changes to the exterior (e.g., rooftop solar panels) or interior (e.g., water heating and space heating and cooling systems) of existing buildings. Compliance with adopted General Plan Mitigation Measure MM 5.5.1b would mitigate potentially significant impacts to historical resources to less than significant through retention of the buildings historic features. In addition, all ground disturbing activities associated with implementation of the Climate Compass would comply with applicable regulations and adopted General Plan Mitigation Measure MM 5.5.1a, which would ensure impacts to archaeological and tribal cultural resources and human remains are less than significant. Therefore, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of archaeological, historical, and tribal cultural resources is warranted.

Biological Resources

The General Plan EIR, as amended by the 2023 Subsequent EIR, determined impacts to biological resources to be significant and unavoidable (2023 Subsequent EIR Impact 3.11-2).

Implementation of the Climate Compass would result in minor improvements and building retrofits, which could require ground disturbing activities, including minor grading and shallow excavation, within the Planning Area. Construction activities are expected to occur in previously disturbed, developed areas, such as roadways and parking lots that lack natural habitat and where candidate, sensitive, or special-status species or their habitats are not present. Therefore, implementation of the Climate Compass would not cause a substantial adverse direct or indirect effect to special-status species. Because implementation of the Climate Compass would occur in previously disturbed, developed areas, implementation of the Climate Compass would not occur in areas where riparian habitat or other sensitive natural communities, protected wetlands, wildlife corridors, and protected biological resources are present. Therefore, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of biological resources is warranted.

Geology and Soils

The General Plan EIR, as amended by the 2023 Subsequent EIR, determined impacts to geology and soils, including paleontological resources, would be less than significant with implementation of adopted General Plan Mitigation Measure MM 5.6.5 (2023 Subsequent EIR Impact 3.11-3).

Implementation of the Climate Compass would result in minor improvements and building retrofits, which could require ground disturbing activities, including minor grading and shallow excavation, within the Planning Area. All ground disturbing activities would comply with all applicable regulations related to geology and seismicity standards. Due to the nature of the Plan, the Climate Compass would not introduce new residential uses into the Planning Area and thus, would not increase the risk of geologic hazards on people. Furthermore, due to the shallow excavation depths required to implement the strategies and actions of the Plan, it is unlikely ground disturbing activities would encounter paleontological resources; however, in the event paleontological resources are encountered, implementation of adopted General Plan Mitigation Measure MM 5.6.5, which requires halting grading and construction work within 50 feet of discovered paleontological resources until a qualified paleontologist can evaluate the resource and prepare a recovery plan, would ensure impacts are reduced to less than significant. Therefore, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of geology and soils is warranted.

Hazards and Hazardous Materials

The General Plan EIR, as amended by the 2023 Subsequent EIR, determined impacts related to hazards and hazardous materials would be less than significant with implementation of adopted General Plan Mitigation Measures MM 5.5.2, and 3.11-12 through 3.11-14 (2023 Subsequent EIR Impact 3.11-4).

The Climate Compass is not a growth-inducing plan and as such, would not change the density of development evaluated within the General Plan EIR, as amended by the 2023 Subsequent EIR. The Plan would not introduce a new land use that could create hazards and would not increase density of development that could result in an increased transport or use of hazardous materials. Construction and/or operation activities associated with implementation of the Climate Compass could involve the use, handling, transporting, or disposal of hazardous materials, such as activities involving removal of existing pavement; repaving surfaces; and installing landscaping and other amenities. In addition, future activities implemented under the Plan could be located on an identified hazardous waste or materials site. However, compliance with all applicable regulations would ensure impacts associated with hazardous materials would be minimized. In addition, implementation of adopted General Plan Mitigation Measure MM 5.5.2, which requires the preparation of Phase I environmental site assessments for properties within the Planning Area that have not been previously evaluated prior to approval of improvement plans, grading permits, and/or demolition permits, would ensure hazardous materials are properly assessed prior to development activities. For construction and operation activities specifically within the LEA Community Plan Area, Mitigation Measures 3.11-12 through 3.11-14 would require a soil contaminant evaluation with each improvement plan and/or grading plan application; sampling for asbestos prior to

the issuance of demolition permits for existing onsite structures constructed prior to 1979; and sampling of all loose and peeling paint prior to the issuance of demolition permits for existing onsite structures that were constructed prior to 1970. The City would also consult with SMUD to determine whether onsite transformers are to be abandoned, moved, upgraded, etc. prior to approval of improvement plans and/or a grading permit for development of properties that contain transformers. Therefore, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of hazards and hazardous materials is warranted.

Hydrology and Water Quality

The General Plan EIR, as amended by the 2023 Subsequent EIR, determined impacts related to hydrology and water quality would be less than significant with implementation of General Plan adopted Mitigation Measures 3.11-15 through 3.11-16 (2023 Subsequent EIR Impact 3.11-5).

The Climate Compass measures involving construction activity would require minor grading, excavation, and other ground disturbance associated with removing existing pavement; repaving parking surfaces; and installing solar and battery storage systems, landscaping, street furniture, and other amenities. Ground-disturbing activities, which could, depending on their location, potentially cause soil erosion which in turn can contaminate nearby surface water. However, compliance with State and local water quality regulations designed to control erosion and protect water quality during construction would ensure impacts during construction would be minimized. In addition, the Plan includes strategies and actions that require installation of permeable pavements and hardscapes, which would allow for groundwater percolation and recharge within the Planning Area. Furthermore, the Plan is not growth-inducing and thus would not increase demand on surface and groundwater supplies. Therefore, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of hydrology and water quality is warranted.

Land Use and Planning

The General Plan EIR, as amended by the 2023 Subsequent EIR, determined impacts related to land use and planning quality would be less than significant (2023 Subsequent EIR Impact 3.11-6).

The Climate Compass does not include any land use or zoning changes and would not change the extent or character of the land use plan from what was evaluated in the General Plan EIR, as amended by the 2023 Subsequent EIR. Because the footprint of development within the Planning Area has not changed from the 2023 Subsequent EIR and the Climate Compass is not a growth-inducing plan, there would be no additional land use and planning impacts as a result of adoption and implementation of the Plan. Therefore, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of land use and planning is warranted.

Noise and Vibration

The General Plan EIR, as amended by the 2023 Subsequent EIR, determined impacts related to increased traffic noise would be significant and unavoidable (2023 Subsequent EIR Impact 3.6-2 and Cumulative Impacts 4-7 and 4-8).

Construction and operational noise sources generated by activities associated with the implementation of the Climate Compass would be relatively minimal due to their mechanical nature (e.g., EV charging stations, HVAC retrofits, solar and battery storage systems, etc.). Construction and operational noise levels generated by activities associated with the implementation of the Climate Compass would be within the levels evaluated within the General Plan EIR, as amended by the 2023 Subsequent EIR. Implementation of the Plan would not increase traffic noise as some strategies and actions redirect existing trucks and modes of alternative transportation in more sustainable manners. In addition, the Plan

requires the City to reduce VMT community-wide and in City operations, which would help to reduce traffic noise. Therefore, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of noise and vibration is warranted.

Population and Housing

The General Plan EIR, as amended by the 2023 Subsequent EIR, determined impacts related to population and housing would be less than significant (2023 Subsequent EIR Impact 3.7-1).

The Climate Compass is not a growth-inducing plan and as such, would not change the density of development within the Planning Area evaluated within the General Plan EIR, as amended by the 2023 Subsequent EIR. The Plan would not introduce new residential uses within the Planning Area, which would result in new residents or housing. Because the footprint of development within the Planning Area has not changed from the 2023 Subsequent EIR and the Climate Compass is not a growth-inducing plan, there would be no additional population and housing impacts as a result of adoption and implementation of the Plan. Therefore, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of population and housing is warranted.

Public Services and Recreation

The General Plan EIR, as amended by the 2023 Subsequent EIR, determined impacts related to public service and recreation would be less than significant, with the exception of impacts related to increased demand for new public school facilities which would be significant and unavoidable (2023 Subsequent EIR Impact 3.8-3 and Cumulative Impact 4-12).

The Climate Compass is not a growth-inducing plan and as such, would not change the density of development within the Planning Area evaluated within the General Plan EIR, as amended by the 2023 Subsequent EIR. The Plan would not introduce new residential uses within the Planning Area, which would result in new residents or housing. Since the Plan would not introduce new residents or housing, implementation of the Plan would not increase demand for new public school facilities beyond what was evaluated within the General Plan EIR, as amended by the 2023 Subsequent EIR. Therefore, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of public services and recreation is warranted.

Transportation

The General Plan EIR, as amended by the 2023 Subsequent EIR, determined impacts related to an exceedance of General Plan VMT thresholds would be significant and unavoidable (2023 Subsequent EIR Impact 3.9-1 and Cumulative Impact 4-14).

Implementation of the Climate Compass would not physically disrupt any existing bicycle, pedestrian, or transit facilities, nor adversely affect planned bicycle, pedestrian, or transit facilities identified in local planning documents such as the General Plan and the Bicycle, Pedestrian, and Trails Master Plan. Rather, Climate Compass strategies and actions would enhance the environment for pedestrians and bicyclists by expanding facilities for alternative modes of transportation, encouraging use, and increasing safety. Climate Compass strategies and actions that could result in construction activities would be required to meet all applicable standards related to encroachment and traffic control (i.e., Sections 6-13 and 6-14.02 of the City's Standard Construction Specifications). Additionally, all subsequent physical improvement projects would be required to meet City's Standard Construction Specifications and Improvement Standards as well as all State and City standards related to emergency vehicle access. While the types of facilities proposed to be constructed under the Plan are anticipated to be small-scale, project plans would be subject to review by emergency service agencies and City staff to ensure safety standards are met, as deemed necessary.

Implementation of the strategies and actions of the Climate Compass would not induce population or employment growth and, therefore, would not generate long-term increases in VMT. The types of small construction projects necessary to implement the Plan would not generate substantial automobile trips, and most construction trips would be truck trips that are not included in the CEQA Guideline definition of VMT. Implementation of the Climate Compass would involve policies and programs to increase the use of alternative forms of transportation as well as reduce overall VMT in the Planning Area. The Climate Compass quantified the reduction in community VMT based on implementation of the community transportation strategies and associated actions and determined the Plan would reduce communitywide VMT by 3.3 percent in 2030 and by 15 percent in 2045 (refer to Climate Compass Appendix C for details about the quantification approach and reduction estimates). Additional community and City operations strategies and actions also aid in reducing VMT by promoting alternative transportation; increasing accessibility to bicycle, pedestrian, and transit facilities; and installing new alternative transportation systems (e.g., 45 miles of new sidewalk and 50 miles of new bike lanes must be installed by 2030). Therefore, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of transportation is warranted.

Utilities and Service Systems

The General Plan EIR, as amended by the 2023 Subsequent EIR, determined impacts related to sufficient water supply, infrastructure, and treatment would be significant and unavoidable (2023 Subsequent EIR Impact 3.10-1). The General Plan EIR, as amended by the 2023 Subsequent EIR, also determined cumulative impacts related to water service, wastewater, and groundwater use would be significant and unavoidable (2023 Subsequent EIR Cumulative Impacts 4-17, 4-18, and 4-20).

The Climate Compass is not a growth-inducing plan and as such, would not change the density of development within the Planning Area evaluated within the General Plan EIR, as amended by the 2023 Subsequent EIR. The Plan would not introduce new residential uses within the Planning Area, which would result in new residents or housing. Since the Plan would not introduce new residents or housing, implementation of the Plan would not increase demand on water service, wastewater service, and groundwater use beyond what was evaluated within the General Plan EIR, as amended by the 2023 Subsequent EIR. Furthermore, the Plan's strategies and associated actions promote water conservation and efficiency in community and City operations, which would help to reduce demand on water service and groundwater use within the Planning Area. Therefore, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of utilities and service systems is warranted.

3.1 ENERGY

This section describes the existing conditions for energy within the City of Elk Grove (city) General Plan Planning Area, which includes all land within the current city limits as well as the study areas outside the city limits and evaluates the potential effects that implementation of the Climate Compass (Plan) may have on energy. Specifically, this section evaluates whether implementing the Plan would result in an environmental impact related to the wasteful, inefficient, or unnecessary consumption of energy resources, and assesses the Plan's consistency with applicable state or local plans related to renewable energy or energy efficiency.

Comments regarding energy were received from SMAQMD during the NOP scoping period regarding consideration of how the Plan would meet requirements for cooking appliances, space heating, and water heating appliances as a means to achieving full building electrification; consideration of requirements regarding the addition of solar photovoltaic canopies over new parking lots as a new design standard; and consideration of the addition of a new measure that installs pedestrian-friendly infrastructure throughout the city of Elk Grove to support active transportation. Comments from city residents expressed support for the Climate Compass, specifically about the Plan's building energy and transportation focus areas.

Relevant information from the General Plan Environmental Impact Report (EIR) (SCH No. 2017062058), as amended in 2023 by the Subsequent EIR for to the General Plan EIR (2023 Subsequent EIR) for the General Plan Amendments and Update of Vehicle Miles Traveled Standards Project (GPAs/VMT Standards Project) (SCH No. 2022020463), has been incorporated into this section as applicable and necessary.

3.1.1 Regulatory Setting

FEDERAL

Commercial Trucks and Buses Standards

The US Environmental Protection Agency (EPA) and the National Highway Traffic Safety Administration (NHTSA) have set fuel economy and greenhouse gas (GHG) emission standards for medium- and heavy-duty vehicles. In 2011, EPA and NHTSA finalized a joint rule that established a national program to reduce GHG emissions and improve the fuel economy for new medium- and heavy-duty vehicles manufactured in model years 2014 through 2018. In 2016, EPA and NHTSA finalized Phase 2 standards, which require fuel efficiency improvements and pollution reduction for medium- and heavy-duty vehicles, model years 2019 through 2027. On March 29, 2024, a final rule was issued to revise existing standards to reduce GHG emissions from heavy-duty vehicles in model year 2027 and set new, more stringent standards for model years 2028 through 2032 (EPA 2024).

Non-Road Compression-Ignition Engine Standards

EPA established a series of increasingly strict emission standards for new non-road diesel engines. Tier 1 standards were phased in on newly manufactured equipment from 1996 through 2000, depending on the engine horsepower category. Tier 2 standards were phased in on newly manufactured equipment from 2001 through 2006. Tier 3 standards were phased in on newly manufactured equipment from 2006 through 2008. Tier 4 standards, which require advanced emission control technology to attain them, were phased in between 2008 and 2015 (EPA 2025).

STATE

Assembly Bill 802: Whole-Building Energy Data Access and Benchmarking Program Requirements

Assembly Bill (AB) 802, signed into law in October 2015, establishes a California statewide program for benchmarking and publicly disclosing building energy use for commercial, multifamily, and mixed-use buildings 50,000 square feet or larger.

Commercial buildings were required to begin reporting starting June 2018, and multifamily and mixed-use buildings were required to begin reporting starting June 2019. Public disclosure started one year after reporting began. AB 802 replaces AB 1103, a transaction-based benchmarking and disclosure policy that experienced low compliance rates because of difficulties accessing whole-building energy usage information. Therefore, as part of AB 802, utilities are required to provide whole-building aggregated building consumption information to building owners upon request (CEC n.d.).

Executive Order N-79-20

Executive Order (EO) N-79-20 directs the state to scale out the sales of internal combustion engines to 100 percent zero-emission vehicles (ZEVs) sales by 2035. This target helps put the state on a path to carbon neutrality by 2045. By setting the target year to 2035, EO N-79-20 provides time for automakers to scale up and market new ZEVs, as well as further impetus for the providers of charging and refueling infrastructure, electric utilities, and others to plan for and support the increasing consumer demand for these vehicles.

Integrated Energy Policy Report

SB 1389 (Chapter 568, Statutes of 2002) required the California Energy Commission (CEC) to "conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices. CEC shall use these assessments and forecasts to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety" (PRC Section 25301[a]). This work culminated in preparing the first Integrated Energy Policy Report (IEPR).

CEC adopts an IEPR every two years and updates it every other year. The 2023 IEPR, the most recent IEPR, was adopted in February 2024. The 2023 IEPR summarizes California's priority energy issues, outlining strategies and recommendations to further the State's goal of ensuring reliable, affordable, and environmentally responsible energy sources. Energy topics covered in the report include progress toward statewide renewable energy targets and issues facing future renewable development; efforts to increase energy efficiency in existing and new buildings; progress by utilities in achieving energy efficiency targets and potential; improving coordination among the State's energy agencies; streamlining power plant licensing processes; results of preliminary forecasts of electricity, natural gas, and transportation fuel supply and demand; future energy infrastructure needs; the need for research and development efforts to statewide energy policies; and issues facing California's nuclear power plants (CEC 2024a).

Renewable Energy

SB 100 of 2018 sets a three-stage compliance period requiring all California utilities, including independently owned utilities, energy service providers, and community choice aggregators, to generate 52 percent of their electricity from renewables by December 31, 2027; 60 percent by December 31, 2030; and 100 percent carbon-free electricity by December 31, 2045. On September 16, 2022, SB 1020 was signed into law. This bill supersedes the goals of SB 100 by requiring that eligible renewable energy resources and zero-carbon resources supply 90 percent of all retail sales of electricity to California end-use customers by December 31, 2035, 95 percent of all retail sales of electricity to California end-use customers by December 31, 2040, and 100 percent of all retail sales of electricity to California end-use customers by December 31, 2045.

Senate Bill 350: Clean Energy and Pollution Reduction Act of 2015

The Clean Energy and Pollution Reduction Act of 2015 (SB 350) requires doubling the energy efficiency savings in electricity and natural gas for retail customers through energy efficiency and conservation by December 31, 2030.

Climate Change Scoping Plan

The California Legislature enacted AB 1279 in 2022, which establishes the policy of the State to achieve carbon neutrality as soon as possible, but no later than 2045; to maintain net negative GHG emissions thereafter; and to ensure that by 2045, statewide anthropogenic GHG emissions are reduced by at least 85 percent below 1990 levels. CARB released the Final *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) on November 16, 2022, as directed by AB 1279 (CARB 2022). The 2022 Scoping Plan traces the pathway for the State to achieve the goals set forth in AB 1279 and includes several regulations, plans, and policies directed to reduce energy consumption, improve energy efficiency, and increase renewable energy resources within the State. CARB adopted the 2022 Scoping Plan on December 16, 2022.

California Energy Efficiency Action Plan

The *2021 California Building Decarbonization Assessment* is the initial report addressing the mandates codified in AB 3232 (Friedman, Chapter 373, Statutes of 2018). The report analyzes scenarios to reduce GHG emissions by at least 40 percent by 2030 and identifies several strategies that will lead to significant emission reductions related to electricity and natural gas use in buildings, as well as from refrigerants. The strategies include electrification, electricity generation decarbonization, energy efficiency, refrigerant leakage reduction, distributed energy resources, decarbonizing the gas system, and demand flexibility. The assessment shows that California can achieve significantly more than a 40 percent reduction by 2030 through these strategies.

California Building Energy Efficiency Standards (Title 24, Part 6)

California's energy consumption of new residential and nonresidential buildings is regulated by the California Code of Regulations Title 24, Part 6, Building Energy Efficiency Standards (California Energy Code). CEC updates the California Energy Code every three years with more stringent design requirements for reduced energy consumption, resulting in fewer GHG emissions. The 2022 California Energy Code went into effect on January 1, 2023. The 2022 California Energy Code advances the onsite energy generation progress started in the 2019 California Energy Code by encouraging electric heat pump technology and use, establishing electric-ready requirements when natural gas is installed, expanding solar photovoltaic (PV) system and battery storage standards, and strengthening ventilation standards to improve indoor air quality. CEC estimates that the 2022 California Energy Code will save consumers $1.5 billion and reduce GHGs by 10 million metric tons of carbon dioxide-equivalent over the next 30 years (CEC 2022).

The 2025 Building Energy Efficiency Standards (2025 California Energy Code) were adopted on September 11, 2024, and will go into effect on January 1, 2026. According to CEC, the 2025 California Energy Code puts particular emphasis on encouraging efficient electric heat pump technology for space and water heating in newly constructed single-family, multifamily, and select nonresidential building types, replacing end-of-life rooftop heating, ventilation, and air-conditioning units of a specific size with high efficiency systems, establishing electric-ready requirements for commercial kitchens and some multifamily buildings, updating solar and storage standards for buildings to make clean energy available for onsite use while minimizing exports to the electrical grid, and increasing ventilation standards to improve indoor air quality in multifamily buildings. CEC estimates that the 2025 California Energy Code is projected to save $4.8 billion in energy costs over its lifetime and reduce GHG by about 4 million metric tons, equivalent to the annual energy consumption of over half a million homes (CEC 2024b).

California Green Building Standards (Title 24, Part 11)

The California Green Building Standards Code, also known as the CALGreen Code, is a portion of the California Building Code developed by CEC that consists of both voluntary and mandatory requirements related to green building standards for statewide residential and nonresidential construction. The voluntary provisions of the CALGreen Code often guide the adoption of local reach codes by cities and counties. The current version is the 2022 CALGreen Code, which took effect on January 1, 2023. Compared to the 2019 CALGreen Code, the 2022 CALGreen Code strengthened sections pertaining to electric vehicle (EV) and bicycle parking, water efficiency and conservation, and material conservation and resource efficiency, among other sections of the CALGreen Code. The CALGreen Code sets design requirements equivalent to or more stringent than those of the California Energy Code for energy efficiency, water efficiency, waste diversion, and indoor air quality. These codes are adopted by local agencies that enforce building codes and are used as guidelines by State agencies for meeting the requirements of EO B-18-12.

The 2025 CALGreen Code was adopted on September 11, 2024, and goes into effect on January 1, 2026. Relative to the 2022 CALGreen Code, the 2025 version includes increased requirements for EV charging infrastructure (i.e., a higher percentage of parking spaces that must be equipped with EV chargers and more stringent requirements for the types of chargers that must be installed) in both residential and nonresidential buildings. The 2025 CALGreen Code also includes required analysis of embodied carbon in building materials, which was not required under the 2022 CALGreen Code. Lastly, the 2025 CALGreen Code includes updates to energy efficiency standards aimed at further reducing energy consumption in buildings and promoting the use of renewable energy sources.

California Appliance Efficiency Requirements (Title 20)

These efficiency requirements apply to appliances sold in California to promote the use of energy- and water-efficiency appliances, setting standards for minimum levels of operating efficiency and other cost-effective measures. After standards are adopted, CEC informs stakeholders and manufacturers of the final appliance efficiency testing requirements, certification instructions, and procedures to comply with the standards. To be sold or offered for sale in California, appliance manufacturers selling their products are required to test them at CEC-approved laboratories and receive third-party certification. Once certified, manufacturers are required to submit their documentation and data to CEC to be uploaded into the agency's online Modernized Appliance Efficiency Database System. A regulated appliance that is not certified cannot be legally sold or offered for sale in California.

Legislation Associated with Greenhouse Gas Reduction

For details about legislation associated with GHG reduction, which has co-benefits related to reduced energy demand and increased energy efficiency, see the regulatory setting of Section 3.2, "Greenhouse Gas Emissions and Climate Change."

LOCAL

Sacramento Municipal Utility District

In July 2020, the Sacramento Municipal Utility District (SMUD) Board of Directors adopted a climate emergency declaration which committed to working toward an ambitious goal of delivering 100 percent zero-carbon electricity by 2030. The 2030 Clean Energy Vision is SMUD's overarching goal to reach zero-carbon emissions in its power supply by 2030. The 2030 Zero Carbon Plan, adopted March 30, 2021, is the roadmap for SMUD to achieve the zero-carbon goal through 100 percent renewable generation by 2030, 15 years in advance of the State-mandated Renewables Portfolio Standard. SMUD released the recent 2030 Zero Carbon Plan Progress Report in September 2024.

SMUD's 2022 Integrated Resource Plan (IRP) details the utility's long-term plan to meet the area's energy demand reliably and cost-effectively, while also meeting the various regulatory requirements, including GHG reduction targets and renewable energy procurement requirements. SB 350 (De León, Chapter 547, Statutes of 2015), (Public Utilities Code [PUC] Section 9622) requires CEC to review the IRP of identified publicly owned utilities to ensure they meet various requirements specified in the law. In 2024, CEC staff reviewed the 2022 IRP, which included the 2030 Zero Carbon Plan discussed above, for consistency with the requirements of PUC Section 9621 and ultimately concluded that the 2022 IRP (CEC 2024c):

- meets the GHG emission reduction requirements of PUC Section 9621(b)(1) and the renewable energy procurement requirement of PUC Section 9621(b)(2),
- meets planning goals related to retail rates, reliability, transmission, and distribution systems as set forth in PUC Section 9621(b)(3),
- considered the role of existing renewable generation, grid operational efficiencies, energy storage, and two distributed resources (including energy efficiency) in helping to ensure the utility's energy and reliability needs in the hours that encompass the peak hour as set forth in PUC Section 9621(c), and
- addressed the procurement requirements for energy efficiency and demand response, energy storage, transportation electrification, portfolio diversification, and resource adequacy as set forth in PUC Section 9621(d).

City of Elk Grove General Plan

The *City of Elk Grove General Plan* contains the following policies and standards related to energy that apply to the Plan (City of Elk Grove 2018):

- **Policy NR-6-1:** Promote energy efficiency and conservation strategies to help residents and businesses save money and conserve valuable resources.
- **Policy NR-6-3:** Promote innovation in energy efficiency.

- **Policy NR-6-5:** Promote energy conservation measures in new development to reduce on-site emissions and seek to reduce the energy impacts from new residential and commercial projects through investigation and implementation of energy efficiency measures during all phases of design and development.
- **Policy NR-6-6:** Encourage renewable energy options that are affordable and benefit all community members.
- **Policy NR-6-7:** Encourage the use of solar energy systems in homes, commercial businesses, and City facilities as a form of renewable energy.
- **Policy H-2-3:** Support energy-conserving programs in the production and rehabilitation of affordable housing to reduce household energy costs, improve air quality, and mitigate potential impacts of climate change in the region.
- **Policy ER-6-11:** Seek to provide the community with information relating to sustainability, climate change, and innovative development strategies.

City of Elk Grove Climate Action Plan

In February 2019, the City adopted the *City of Elk Grove Climate Action Plan 2019 Update* (2019 CAP), which was most recently amended in December 2024. The 2019 CAP includes GHG emission reduction targets as well as GHG emission reduction strategies and implementation measures to help the City reach these targets. The reduction strategies address GHG emissions associated with transportation and land use, energy, water, waste management and recycling, agriculture, and open space. Through implementation of all measures in the 2019 CAP, including State-mandated efforts, the City would achieve and exceed its reduction target of reaching 4.1 $MTCO_2e$ by 2030. However, even with all reduction measures implemented, annual 2050 per capita emissions would be 3 $MTCO_2e$ and remain above the 1.4 $MTCO_2e$ long-term goal set for 2050 (City of Elk Grove 2019: 4-3). As discussed in the 2019 CAP, "additional technological advances across multiple sectors would be required to reduce emission further, combined with additional regulatory actions at the State or federal levels." Further, the City "would need to identify new or modified GHG reduction measures that would achieve longer-term, post-2030 targets that may be set by the State or others in the future" (City of Elk Grove 2018: 5.7-37).

3.1.2 Environmental Setting

ENERGY TYPES AND SOURCES

Electricity is supplied to the city by SMUD, and natural gas by Pacific Gas and Electric Company (PG&E). California relies on a regional power system composed of a diverse mix of natural gas, renewable, hydroelectric, and nuclear generation resources. The state's transportation sector accounts for nearly two-fifths of California's total energy consumption. The industrial sector uses about one-fourth of the state's total energy, the residential sector accounts for one-fifth, and the commercial sector uses slightly less than one-fifth (EIA 2024). In 2023, renewable resources, including hydroelectric power and small-scale solar power, supplied 54 percent of California's in-state electricity generation. Natural gas fueled another 39 percent, and nuclear power provided almost all the rest (EIA 2024). In 2023, SMUD provided its customers enrolled in its base plan with 45 percent eligible renewable energy (i.e., biomass combustion, geothermal, small-scale hydroelectric, solar, and wind) and 33 percent and 22 percent from large-scale hydroelectric and natural gas, respectively (SMUD 2024). The contribution of in- and out-of-state power plants depends on the precipitation that occurred in the previous year, the corresponding amount of available hydroelectric power, and other factors.

ALTERNATIVE FUELS

A variety of alternative fuels (e.g., renewable natural gas, electricity, hydrogen, and renewable diesel) are used to reduce demand for petroleum-based fuel. The use of these fuels is encouraged through various statewide regulations and plans (e.g., Low Carbon Fuel Standard, 2022 Scoping Plan). See Section 3.2, "Greenhouse Gas Emissions and Climate Change," for additional information pertaining to these regulations and plans.

California has a growing number of alternative fuel vehicles through the joint efforts of the CEC, CARB, local air districts, federal government agencies, transit agencies, utilities, and other public and private entities. As of March 2025, there are 3,606 total EV chargers located in Sacramento County (CEC 2024a).

ENERGY USE FOR TRANSPORTATION

In 2022, the transportation sector comprised California's largest end-use energy sector, totaling 42.6 percent, followed by the industrial sector, totaling 22.5 percent, the residential sector 17.6 percent, and the commercial sector 17.4 percent (EIA 2024). The transportation sector uses approximately 90 percent of the petroleum consumed in the state (EIA 2024). CEC reported retail sales of 448 million and 45 million gallons of gasoline and diesel, respectively, in Sacramento County in 2021 (the most recent data available) (CEC 2024b).

ENERGY USE AND CLIMATE CHANGE

Scientists and climatologists have produced evidence that the burning of fossil fuels by vehicles, power plants, industrial facilities, residences, and commercial facilities has led to an increase in the Earth's temperature. For an analysis of GHG production and an evaluation of whether implementing the Climate Compass would result in an environmental impact related to climate change, see Section 3.2, "Greenhouse Gas Emissions and Climate Change."

3.1.3 Impact Analysis

SIGNIFICANCE CRITERIA

Thresholds of significance are based on Appendix G of the State CEQA Guidelines. The Plan would result in an impact on energy resources if it would:

- result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during construction or operation; or
- conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

METHODOLOGY

This Draft SEIR considers the broad environmental implications of implementing the Plan, on a conceptual basis, and does not provide a project-level assessment. Impacts related to energy were analyzed qualitatively based on a review of the strategies and actions contained in the Plan and their potential to result in physical changes to the environment if the Plan is approved and implemented. This issue area was analyzed in the context of existing laws and regulations, as well as policies adopted in the General Plan, and the extent to which these existing regulations and policies adequately address and minimize the potential for impacts associated with the implementation of the Plan. The impact analysis also focuses on whether approval and implementation of the Plan would result in new or more severe energy impacts than those disclosed in the General Plan EIR, as amended by the 2023 Subsequent EIR for the GPAs/VMT Standards Project.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.1-1: Result in Wasteful, Inefficient, or Unnecessary Consumption of Energy, During Project Construction or Operation

The General Plan EIR, as amended by the 2023 Subsequent EIR, concluded that impacts related to the wasteful, inefficient, or unnecessary consumption of energy would be less than significant. Implementation of the Climate Compass includes electrification and decarbonization of buildings and infrastructure, increasing renewable energy use and storage, reducing energy and resource consumption, improving clean and efficient transportation, and strengthening resilience and adaptation measures (e.g., water efficiency and renewable energy measures), which would reduce energy demand and improve energy efficiency beyond existing measures by the City. As such, implementation of the Climate Compass would not result in a new or more severe impact than what was identified in the General Plan EIR, as amended by the 2023 Subsequent EIR. This impact would remain **less than significant**.

General Plan EIR and 2023 Subsequent EIR Determination

Regarding construction-related energy, the General Plan EIR determined that energy consumption would be temporary and, consequently, would not require additional capacity, increased peak, or base period demands for electricity or other forms of energy. Regarding operational energy impacts, the General Plan EIR concluded that land uses developed and operated under the General Plan would increase energy consumption. However, the General Plan EIR determined that impacts related to the wasteful, inefficient, or unnecessary consumption of energy would be less than significant. because future development under the General Plan would comply with applicable California energy efficiency and green building standards. In addition, the 2019 CAP set zero net energy requirements in 2020 and 2030 for residential and commercial development. However, in December 2024, the City amended the 2019 CAP to remove reference to the zero net energy standard for residential buildings and replaced it with a decreased energy emissions requirement (City of Elk Grove 2024).

The 2023 Subsequent EIR determined that implementation of the GPAs/VMT Standards Project would consume additional energy supplies during construction in the form of gasoline and diesel fuel consumption. However, this energy expenditure would not be considered wasteful compared to other construction projects. Operation of development facilitated by the GPAs/VMT Standards Project would also result in additional energy consumption but would be required to comply with the most recent California energy codes and subject to the energy efficiency actions of the 2019 CAP (Impact 3.4-1). Implementation of the GPAs/VMT Standards Project would be required to comply with these standards and, therefore, would not result in new or substantially more severe energy impacts than what was identified in the General Plan EIR. Therefore, it was determined that impacts would remain less than significant.

Proposed Climate Compass Impact Analysis

The Climate Compass is a policy-level document that does not include any land use or zoning changes; site-specific development, designs, or proposals; nor does it grant any entitlements for development that would result in environmental impacts. Rather, the Climate Compass would commit the City to more sustainably develop projects that could already occur under the General Plan, as amended. As a policy document, the Climate Compass requires increased electrification and decarbonization of buildings and infrastructure, increased renewable energy use and storage, reduced energy and resource consumption, improved clean and efficient transportation, strengthened resilience and adaptation measures, support for the green economy, and enhanced public education and outreach around climate issues.

To achieve the Climate Compass's GHG reduction and sustainability goals, the Plan contains GHG emissions reduction strategies and actions for both the community and City operations. The majority of the Plan's strategies and actions identify the need for the City to adopt new codes, ordinances, and development requirements to enforce more energy- or water-efficient building design and renewable energy infrastructure; transition City fleets and equipment to zero-emission and/or electric or decarbonized options; require the preparation of detailed plans to identify specific next steps to accomplish the long-term goals; and implement new programs to address regulatory compliance and improve City-provided services.

Once adopted, implementation of the Plan's strategies and actions may require construction and/or operational activities, which could result in environmental impacts related to energy consumption. The following analysis evaluates the potential for implementation of the proposed Climate Compass strategies and actions that may require construction and/or operation to result in wasteful, inefficient, or unnecessary consumption of energy resources.

Construction

While the majority of the Climate Compass strategies and actions provide the policy framework for the City, implementation of Actions FEC-2.1, TR-2.1, TR-2.4, RS-1.5, TR-1.1, TR-1.2, BF-2.2, RS-1.3, RS-1.6, and WW-1.2 could directly result in construction activities. These activities could include, but not be limited to, installation of new EV charging stations with residential and municipal parking lots as part of new codes and ordinances (Actions FEC-2.1, TR-2.1, TR-2.4); promotion of cool pavement and permeable pavement on all municipal parking lots (Action RS-1.5); development of transportation infrastructure as detailed in the Bicycle, Pedestrian, and Trails Master Plan (Action TR-1.1); construction of transit amenities such as seating, lighting, tree cover, and real-time public transit arrival information displays (Action TR-1.2); construction of renewable energy generation and storage projects at municipal facilities (Action BF-2.2); retrofitting existing municipal buildings and facilities to improve their resilience to climate hazards (Action RS-1.3), installation of shade amenities such as trees and shade structures (Action RS-1.6); and upgrading municipal irrigation systems to be more water efficient (Action WW-1.2). This contrasts with other actions, such as establishing or expanding programs, facilitating partnerships with utilities or state agencies, developing educational campaigns, or creating incentive programs that do not directly require activities that would result in construction.

Implementing these strategies and actions could increase electricity demand, consumption of fuels, and use of non-renewable resources during construction through using fuels for activities such as construction crew commutes, operation of construction equipment, and material delivery. Demand for energy resources during construction would vary throughout the construction period and generally cease upon completion. However, construction activities required for these are typically short-term and involve minor disturbances in previously developed areas. In addition, future projects implementing these Climate Compass strategies and actions would not involve large amounts of labor or extensive use of construction equipment, and as such, would not require significant worker or construction truck trips, which result in large amounts of energy consumption. Construction equipment (e.g., backhoes, front loaders, pavers, bulldozers, and skid steers) may also be used. Still, this equipment would likely be used intermittently and for relatively short periods, resulting in short-term diesel fuel and gasoline consumption. This energy expenditure would not be considered wasteful compared to other construction projects.

Furthermore, implementing Plan Actions FEC-2.2 and TR-3.2 would reduce fossil fuel consumption during construction. Action FEC-2.2 would develop a policy to require greater use of low- and zero-emission off-road vehicles and encourage electric equipment (e.g., landscaping, construction) for City-owned equipment, City-funded projects, and City contractors, reducing energy use. Implementing Action TR-3.2 would prohibit the use of fossil-fuel-powered generators at construction sites in all discretionary projects. These actions would help minimize fossil fuel combustion in construction equipment during the implementation of the other actions identified above.

Therefore, while construction activities would result in short-term energy consumption, implementation of the Climate Compass strategies and actions, such as Actions FEC-2.2 and TR-3.2, would minimize effects related to construction-related fossil fuel consumption.

Operation

Occasional operation and maintenance activities, such as maintenance vehicle use, equipment and facilities repair and replacement, tree watering and trimming, landscaping and vegetation management, and irrigation and water usage inspections, would be required in response to implementation of some actions included within the Climate Compass (e.g., Actions RA-5.2, RA-5.3, RA-6.1, RS-1.6, WW-1.1, and WW-1.2). These operation and maintenance activities would occur on an intermittent schedule, and a minimal basis, and would be anticipated to be accomplished with existing City personnel in conjunction with existing maintenance activities. While these types of maintenance and operation activities would result in energy consumption, energy use would be short-term and infrequent and would be made as efficient as feasible by utilizing energy-efficient technology, equipment, infrastructure, and fuels. Actions which would increase operational energy efficiency include Action 3.1, expands the use of recycled water that could be used for vegetation

watering, Action BF-3, involves auditing and replacing outdated HVAC systems in all existing City buildings with high-efficiency models, and Action FEC-2.2, develops a policy to require greater use of low- and zero-emissions off-road vehicles and encourage electric equipment, including City-owned landscaping equipment. Therefore, energy consumption associated with these types of operation and maintenance activities would be minimal.

As identified in the Climate Compass, GHGs in the city are primarily emitted from sources that combust fossil fuels for energy, such as gasoline and diesel fuels in cars and natural gas in buildings. Thus, the Plan aims to reduce GHG emissions by reducing fossil fuel use and improving energy efficiency in the community and in City operations. Notably, the majority of GHG reductions associated with the Plan would be achieved through strategies and actions that target reductions to fossil fuel consumption and improvements in energy efficiency in the community. This is because community operations emit a greater amount of GHGs than city operations and thus require more vigorous improvements to energy efficiency and reductions in fossil fuels. In regard to increasing energy efficiency and reduced energy demand in community buildings, the Plan includes Strategies BE-1, "Electrify and Decarbonize Buildings," BE-3, "Increase Local Renewable Energy Use and Storage," and BE-4, "Reduce Energy Consumption and Energy Burden," and subsequent actions (BE-1.1 through BE-1.5, BE-3.1 through BE-3.2, and BE-4.1 through BE-4.3), which would result in decreased dependency on fossil gas within the community building sector, while also promoting energy efficiency through adherence to voluntary standards of the CALGreen Code and partnerships with SMUD. By increasing the use of electricity (including electricity sourced from renewables) and decreasing the use of fossil fuel combustion, implementation of the Plan would also reduce the combustion of fossil fuels used for building energy in the community. For a comprehensive list of community-building energy-related strategies, their associated actions, and the measurable outcomes related to their implementation, see Table 2-14 in Chapter 2, "Project Description."

In regard to reducing fuel consumption used in the transportation sector, the Plan requires the reduction of VMT in the Planning Area and for City employees (e.g., Strategy TR-1 and Actions TR-1.1 through TR-1.8; Strategy TR-2 and Actions TR-2.1 through TR-2.5). For a comprehensive list of all community transportation-related strategies, their associated actions, and the measurable outcomes related to their implementation, see Table 2-14 in Chapter 2, "Project Description." To further support the goals of a cleaner transportation sector, the Plan directs the city to provide alternative transportation programs and policies to incentivize the use of these services. For example, Action TR-1.2 establishes required coordination with Sacramento Regional Transit (SacRT) to improve the public transit system by increasing reliability and accessibility and adding amenities such as seating, lighting, tree cover, and real-time arrival information displays. This action also looks to extend service hours and routes, which would help to better serve residential areas, employment centers, and popular destinations. By increasing reliability and accessibility, more residents would use alternative transportation regularly, which would help reduce VMT while reducing fossil fuel consumption by using alternative transportation instead of single-occupant vehicles.

The strategies and actions of the Climate Compass would also reduce energy consumption related to the treatment and transport of water. For example, Action RC-3.4 requires the regular review and update of the City's Water Efficient Landscape Ordinance to comply with evolving State laws, ensuring water conservation and efficiency measures would be updated based on industry standards. Through these and similar actions, the Climate Compass would reduce operational energy consumption related to the processing and transport of water by increasing water efficiency. For a comprehensive list of all community water-related strategies, their associated actions, and the measurable outcomes related to their implementation, see Tables 2-14 and 2-16 in Chapter 2, "Project Description."

As stated previously, the majority of fossil fuel reductions and energy efficiency improvements under the Plan are attributable to community GHG reduction strategies and actions. However, the municipal GHG reduction strategies and actions detailed in Table 2-16 of Chapter 2, "Project Description," would achieve reductions of 2,501 $MTCO_2e$ in 2030 and 2,450 $MTCO_2e$ in 2045. These reductions would be achieved through strategies and actions similar to those identified above, such as Action BF-3.1, which proposes the development and adoption of a green building policy requiring all new municipal buildings to meet or exceed CALGreen Tier 1 standards, establishing requirements for energy-efficient design, renewable energy integration, water conservation, and sustainable materials use. Other reduction strategies and actions involve reducing VMT, and therefore fossil fuel consumption, associated with City employees (Strategy FEC-1 and Actions FEC-1.1 through FEC-1.8). Strategy FEC-2 and Actions FEC-2.1 and FEC-2.2 commit to shifting to clean on- and off-road municipal vehicles and equipment, further reducing fossil fuel consumption

related to City operations. Energy efficiency improvements would also be made through actions such as Action WW-1.2, which would involve upgrading all City irrigation systems to smart, weather-based systems that use real-time weather data and soil moisture sensors to optimize watering schedules and reduce overwatering, and additionally, develop a maintenance and monitoring program to ensure long-term efficiency. This would reduce energy consumption related to the transport and treatment of water used at City facilities.

For these reasons, while implementation of the Climate Compass may require energy consumption for operation and maintenance, implementation of the Plan's strategies and actions would not involve long-term physical changes that could result in wasteful, inefficient, or unnecessary energy consumption.

Implementation of the Climate Compass would require short-term construction and long-term operation and maintenance activities that would consume energy resources, especially in the form of fossil fuel combustion However, implementation of the Plan would, overall, reduce fossil fuel consumption within the Planning Area by increasing energy efficiency and conservation, utilizing renewable energy technology and sources, and transitioning to electrification, decarbonization, and near-zero and zero-emission vehicles. This decrease in fossil fuel consumption within the Planning Area would result in greater electricity consumption, due to the required transition from on-site fossil fuel–powered energy (i.e., natural gas combustion, diesel and gasoline use). Therefore, overall electricity demand is expected to continue to increase throughout the Climate Compass's lifetime. Nevertheless, the Climate Compass includes measures and actions requiring investments in the city's renewable energy systems. These measures and actions, combined with the statutory renewable energy requirements of the Renewable Portfolio Standard, which SMUD must meet, would result in a broader availability of renewable energy (e.g., solar, wind, hydroelectric power) to meet this demand.

As stated above in Section 3.1.1, "Regulatory Setting," the 2022 IRP and CEC's review of the IRP demonstrates that SMUD is capable of accommodating the energy profile changes that would occur (i.e., transitioning from fossil fuel energy sources in favor of electricity, especially from renewable sources) with implementation of the Climate Compass. Additionally, the shift towards electricity sourced from renewables under the Climate Compass would be supported by SB 1020, which requires that eligible renewable energy resources and zero-carbon resources supply 90 percent of all retail sales of electricity to California end-use customers by December 31, 2035, 95 percent of all retail sales of electricity to California end-use customers by December 31, 2040, and 100 percent of all retail sales of electricity to California end-use customers by December 31, 2045. Furthermore, the Plan's strategies and actions that require the electrification and decarbonization of buildings and facilities, additional alternative transportation infrastructure, and energy efficiency and water conservation would result in a long-term reduction in energy consumption and the use of nonrenewable energy sources.

The General Plan EIR, as amended by the 2023 Subsequent EIR, concluded that impacts related to the wasteful, inefficient, or unnecessary consumption of energy would be less than significant. As demonstrated above, implementation of the Climate Compass would not result in a new or substantially more severe energy impact than what was addressed in the General Plan EIR, as amended by the 2023 Subsequent EIR. Therefore, impacts related to the wasteful, inefficient, or unnecessary consumption of energy would remain **less than significant**.

Mitigation Measures

No mitigation is required.

Impact 3.1-2: Conflict with or Obstruct a State or Local Plan for Renewable Energy or Energy Efficiency

The General Plan EIR, as amended by the 2023 Subsequent EIR, determined impacts related to conflicting with or obstructing applicable State or local plans for renewable energy and energy efficiency would be less than significant. The Climate Compass has been developed in alignment with applicable State and local plans, policies, and regulations that aim to promote energy efficiency and renewable energy generation. Several strategies and actions of the Climate Compass would directly reduce energy demand from fossil fuels in the building sector within the city through building decarbonization, improved energy efficiency, and increased availability of renewably sourced electricity. Additionally, strategies and actions would deploy additional EV charging and reduce VMT by enhancing roadway connectivity, increasing and improving bicycle and pedestrian infrastructure, and improving transit opportunities. These strategies and actions would reduce the city's dependence on fossil fuel-derived energy, improve energy efficiency, and promote renewable energy usage resulting in consistency with applicable plans, policies, and regulations. As such, implementation of the Climate Compass would not result in a new or more severe impact than what was identified in the General Plan EIR, as amended by the 2023 Subsequent EIR. This impact would remain **less than significant**.

General Plan EIR and 2023 Subsequent EIR Determination

The General Plan EIR evaluated the consistency of land uses proposed under the General Plan against applicable renewable energy and energy efficiency plans, including the 2019 CAP. The General Plan EIR concluded that because several of the 2019 CAP measures would result in reduced energy demand and reduced GHG emissions, the General Plan would be consistent with the 2019 CAP. The 2019 CAP, though designed to reduce GHG emissions, concurrently played a role in improving energy efficiency and enhancing renewable energy resources and thus would be considered a plan for renewable energy or energy efficiency. Therefore, the General Plan EIR determined impacts related to conflicting with or obstructing applicable State or local plans for renewable energy and energy efficiency would be less than significant.

The 2023 Subsequent EIR determined that while implementation of the GPAs/VMT Standards Project could increase energy demands, future development would be required to comply with the requirements of the California Energy Code and the measures of the 2019 CAP related to energy efficiency, which would reduce overall energy demand (Impact 3.4-2). As a result, implementation of the GPAs/VMT Standards Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, the Subsequent EIR determined that the GPAs/VMT Standards Project would not result in a new or substantially more severe impact than what was identified in the General Plan EIR and impacts would remain less than significant.

Proposed Climate Compass Impact Analysis

While the Climate Compass's overarching objective is to reduce GHG emissions, strategies and actions in the Climate Compass have the co-benefit of increasing energy efficiency, reducing the use of fossil fuels, and requiring increased renewable energy generation. Strategies BE-1, "Electrify and Decarbonize Buildings," and BE-4, "Reduce Energy Consumption and Energy Burden," and subsequent actions (BE-1.1 through BE-1.5 and BE-4.1 through BE-4.3) would result in decreased dependency on natural gas within the community building sector, while promoting energy efficiency through adherence to voluntary standards of the CALGreen Code and partnerships with SMUD. Similarly, Strategy BE-3, "Increase Local Renewable Energy Use and Storage," and its supporting actions (i.e., BE-3.1 and BE-3.2) would both reduce indirect GHG emissions in the community from the use of renewable energy systems and promote the availability of renewable energy generation within the city. Examples of measurable outcomes under these strategies include the requirement for 50 percent of new residential development to be all electric by 2030 and 100 percent by 2045 under BE-1, and 100 percent carbon-free electricity for all end uses in the city by 2030 and continuing through 2045 under BE-3. Energy consumption from the community's transportation sector (i.e., gasoline and diesel fuel) would also be reduced through Strategies TR-1, "Decrease Vehicle Miles Traveled," TR-2, "Increase Zero-Emission Vehicle Adoption," and TR-3, "Reduce Off-Road Transportation Emissions." Strategy TR-1 requires that a 2.3 percent VMT reduction must be achieved by 2030 through transit system upgrades and a 15 percent VMT reduction by 2045, while a 1 percent reduction in commute VMT must be achieved by 2030 through the development of a local Transportation Management Agency, continuing through 2045. Strategy TR-2 requires the transition to 25 percent light-duty electric

and plug-in hybrid electric vehicles by 2030 and 87 percent by 2045, as well as an increase in commercial EVs by 65 percent by 2030 and 90 percent by 2045. These strategies would require the deployment of EV charging infrastructure and incentive opportunities, as well as investments to enhance the city's bicycle, pedestrian, and trails network; public transit; and electric bike purchases through additional charging infrastructure and rebate programs.

As discussed above, reductions in fossil fuel consumption and improvements in energy efficiency would also occur through strategies and actions related to City operations, though to a lesser degree than fossil fuel reductions and energy efficiency improvements from community-focused strategies and actions. Examples include Strategy FEC-1**,** **"**Reduce COEG Employee Commute VMT," and Strategy FEC-2, "Shift to Clean On-Road and Off-Road Vehicles and Equipment," and subsequent actions (Actions FEC-1.1 through FEC-1.8 and FEC-2.1 through 2.2). These strategies and actions would result in shifting to clean on- and off-road municipal vehicles and equipment, launching an annual VMT reduction challenge for City employees, developing a local Transportation Management Agency to reduce VMT, establishing an e-bike lending library for City employees to use as an alternative to vehicle use, partnering with the Sacramento Regional Transit District to establish a program offering monthly public transit passes to City employees, and establishing a ride home program that would provide rides for City employees in the form of vouchers for rideshare or taxi services up to a certain number of times per year. Additionally, Strategy BF-1 would reduce fossil fuel consumption in City buildings and facilities through actions such as Action BF-1.3, which would involve conducting a feasibility study and cost analysis of replacing the natural gas–powered pool heating system at the Aquatics Center with an electric, or other zero emission, heating system, and based on findings, implement the replacement as soon as feasibly possible.

By implementing these strategies, the Plan would be consistent with and support a variety of State and local plans, policies, and regulations that aim to reduce fossil-fuel consumption by improving energy efficiency and reducing per-capita energy consumption. The plans, policies, and regulations with which the Climate Compass would be consistent include the SACOG 2020 MTP/SCS, California Green Building Standards Code, 2023 IEPR, SB 1020, AB 1279, EO N-79-20, SMUD's 2030 Zero Carbon Plan and 2022 IRP, and Appendix D of the 2022 Scoping Plan.

As GHG emissions are an inherent result of the generation and consumption of fossil-fuel related energy, plans that reduce fossil-fuel related energy consumption, require all-electric development, increase renewable energy generation, and improve energy efficiency are considered an energy-related plans in addition to a GHG-related plan, such as the proposed Climate Compass and the 2022 Scoping Plan. The strategies and actions detailed above would improve energy efficiency and reduce energy demand (e.g., Action BF-3.1 and Action BF-3.3) as well as decrease transportation-related fossil fuel consumption (e.g., Action FEC-1.8 and Action FEC-1.3), and would specifically align with the overarching goals of improved energy efficiency and reliance on renewable energy systems enumerated in the aforementioned plans. Therefore, the Climate Compass would not conflict with any state or local plan for renewable energy or energy efficiency over what was already disclosed in the General Plan EIR and the 2023 Subsequent EIR. As such, implementation of the Climate Compass would not result in a new or substantially more severe impact than what was identified in the General Plan EIR, as amended by the 2023 Subsequent EIR. Therefore, impacts related to conflicting with or obstructing any State or local plans for renewable energy or energy efficiency would remain **less than significant**.

Mitigation Measures

No mitigation is required.

3.2 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

This section presents a summary of the current state of climate change science and greenhouse gas (GHG) emissions sources in California; a summary of applicable regulations; a discussion of the quantified GHG emissions from the Climate Compass (Plan); and a discussion of the Plan's potential contribution to global climate change. This section also describes the existing conditions for GHG emissions within the City of Elk Grove (city) General Plan Planning Area, which includes all land within the current city limits as well as the study areas (Planning Area) outside the city limits and evaluates the potential effects that implementation of the Climate Compass may have on GHG emissions and climate change. Energy impacts are evaluated in Section 3.1, "Energy," of this Draft SEIR.

For the purposes of this analysis, GHG emissions are measured as metric tons of carbon dioxide equivalent ($MTCO_2e$). The atmospheric impact of a GHG is based on that gas's global warming potential (GWP). GWP is a measure of the heat-trapping ability of one unit of a gas over a specific timeframe relative to one unit of carbon dioxide (CO_2). The GWP of CO_2 is one (EPA 2025). The GHG calculations that comprise the emissions reduction targets, inventory, and projections of the Climate Compass use GWP values from the Intergovernmental Panel on Climate Change's (IPCC's) Sixth Assessment Report (GHG Protocol 2024).

Comments concerning GHGs were received from the Sacramento Metropolitan Air Quality Management District (SMAQMD) during the NOP scoping process regarding consideration of how the Plan would meet requirements for cooking appliances, space heating, and water heating appliances as a means to achieving full building electrification; consideration of requirements regarding the addition of solar photovoltaic canopies over new parking lots as a new design standard; and consideration of the addition of a new measure that installs pedestrian-friendly infrastructure throughout Elk Grove to support active transportation. Comments from city residents expressed support for the Climate Compass, specifically about the Plan's building energy and transportation focus areas.

Relevant information from the General Plan Environmental Impact Report (EIR) (SCH No. 2017062058), as amended in 2023 by the Subsequent EIR for to the General Plan EIR (2023 Subsequent EIR) for the General Plan Amendments and Update of Vehicle Miles Traveled Standards Project (GPAs/VMT Standards Project) (SCH No. 2022020463), has been incorporated into this section as applicable and necessary.

3.2.1 Regulatory Setting

FEDERAL

In *Massachusetts et al. v. Environmental Protection Agency et al.*, 549 U.S. 497 (2007), the Supreme Court of the United States concluded that CO_2 is an air pollutant as defined under the federal Clean Air Act (CAA) and that the US Environmental Protection Agency (EPA) has the authority to regulate GHG emissions. In 2010, EPA started to address GHG emissions from stationary sources through its New Source Review permitting program, including operating permits for "major sources" issued under Title V of the CAA.

Commercial Trucks and Buses Standards

The EPA and the National Highway Traffic Safety Administration (NHTSA) have set fuel economy and greenhouse gas (GHG) emission standards for medium- and heavy-duty vehicles. In 2011, EPA and NHTSA finalized a joint rule that established a national program to reduce GHG emissions and improve the fuel economy for new medium- and heavy-duty vehicles manufactured in model years 2014 through 2018. In 2016, EPA and NHTSA finalized Phase 2 standards, which require fuel efficiency improvements and pollution reduction for medium- and heavy-duty vehicles, model years 2019 through 2027. On March 29, 2024, a final rule was issued to revise existing standards to reduce GHG emissions from heavy-duty vehicles in model year 2027 and set new, more stringent standards for model years 2028 through 2032 (EPA 2024).

Non-Road Compression-Ignition Engine Standards

EPA established a series of increasingly strict emission standards for new non-road diesel engines. Tier 1 standards were phased in on newly manufactured equipment from 1996 through 2000, depending on the engine horsepower category. Tier 2 standards were phased in on newly manufactured equipment from 2001 through 2006. Tier 3 standards were phased in on newly manufactured equipment from 2006 through 2008. Tier 4 standards, which require advanced emission control technology to attain them, were phased in between 2008 and 2015 (EPA 2025).

STATE

Statewide GHG Emission Targets and Climate Change Scoping Plan

Reducing GHG emissions in California has been the State government's focus for approximately two decades. GHG emission targets established by the State legislature include reducing statewide GHG emissions to 1990 levels by 2020 (Assembly Bill [AB] 32 of 2006) and reducing them to 40 percent below 1990 levels by 2030 (Senate Bill [SB] 32 of 2016).

These targets were superseded by the enactment of AB 1279 in 2022, which establishes the policy of the state to achieve carbon neutrality as soon as possible, but no later than 2045; to maintain net negative GHG emissions thereafter; and to ensure that by 2045, statewide anthropogenic GHG emissions are reduced by at least 85 percent below 1990 levels.

CARB released the Final 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) on November 16, 2022, as directed by AB 1279 (CARB 2022). The 2022 Scoping Plan traces the pathway for the State to achieve the goals set forth in AB 1279 and includes several regulations, plans, and policies directed to reduce energy consumption, improve energy efficiency, and increase renewable energy resources within the State. CARB adopted the 2022 Scoping Plan on December 16, 2022.

As summarized below, the State has also passed more detailed legislation addressing GHG emissions associated with transportation, solid waste, electricity generation, and energy consumption.

Transportation-Related Standards and Regulations

As part of its Advanced Clean Cars program, CARB established more stringent GHG emission standards and fuel efficiency standards for fossil fuel–powered on-road vehicles than EPA. In addition, the program's zero-emission vehicle (ZEV) regulation required battery, fuel cell, and plug-in hybrid electric vehicles (EVs) to account for up to 15 percent of California's new vehicle sales by 2025. The Advanced Clean Cars II (ACC II) Program was adopted by CARB in August 2022 and provides the regulatory framework for ensuring the sales requirement goal of EO N-79-20 to ultimately reach 100 percent ZEV sales in the state by 2035 (CARB 2025). To support increased EV use, AB 2127 requires the California Energy Commission (CEC) to biennially assess the EV charging infrastructure needed to meet the state's goals of putting at least 5 million zero-emission vehicles on California roads by 2030 and reducing GHG emissions to 40 percent below 1990 levels by 2030.

CARB adopted the Low Carbon Fuel Standard (LCFS) in 2007 to reduce California's transportation fuels' carbon intensity (CI). Low-CI fuels emit less CO_2 than other fossil fuel–based fuels such as gasoline and fossil diesel. The LCFS applies to fuels used by on-road motor vehicles and off-road vehicles, including construction equipment (Wade, pers. comm., 2017).

CARB adopted the Advanced Clean Trucks Regulation in June 2020, which aims to accelerate the sales of heavy-duty EVs and consists of two parts: a manufacturer component and a fleet reporting component. Manufacturers are required to sell an increasing percentage of heavy-duty zero-emission vehicles between 2024 and 2035. By 2035, 40 percent of Class 8 truck purchases will be required to be zero-emission. Fleets with 50 or more vehicles will be required to report on their fleet's composition and activities to inform CARB in crafting new strategies to hasten the adoption of ZEVs (CARB 2020).

CARB's 2022 Advanced Clean Fleets (ACF) regulation was developed to reduce diesel particulate matter (PM) by transitioning medium- and heavy-duty trucks to fully electric by 2045. At the time of the writing of this Draft SEIR,

California has withdrawn its request for a waiver and authorization for the addition of the ACF regulation to its emissions control program (CARB 2025b). CARB is not enforcing the existing portions of the ACF regulation that require a federal waiver or authorization, such as those of the ACF regulation that apply to high-priority and drayage fleets. However, not all elements of the ACF regulation require a federal waiver or authorization (CARB 2025b). The State and local government fleets portion of the ACF regulation remain unaffected.

CARB's Innovative Clean Transit (ICT) regulation (13 CCR Section 2023) requires all public transit agencies to transition to a 100 percent zero-emissions bus fleet gradually and encourages them to provide innovative first and last mile connectivity and improved mobility for transit riders. The ICT regulation requires that 25 percent of new bus purchases for large transit agencies be zero-emission starting in 2023, extending to 100 percent in 2029. ICT requires that 25 percent of small transit agencies' new bus purchases be zero-emission, starting in 2026, extending to 100 percent in 2029.

In addition to tailpipe emissions and transportation fuels, the State legislature has passed regulations to reduce the amount on-road vehicles are driven. Since passage of SB 375 in 2008, CARB requires metropolitan planning organizations (MPOs) to develop and adopt sustainable communities strategies (SCSs) as a component of the federally prepared regional transportation plans (RTPs) to show reductions in GHG emissions from passenger cars and light-duty trucks in their respective regions for 2020 and 2035. These plans link land use and housing allocation to transportation planning and related mobile-source emissions. The Sacramento Area Council of Governments (SACOG) serves the Planning Area as the MPO for Sacramento, Placer, El Dorado, Yuba, Sutter, and Yolo counties, excluding those lands located in the Tahoe Basin. SACOG completed and adopted its most recent 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS), demonstrating that it achieved its targets in November 2019. In October of 2020, CARB prepared the *Evaluation of the Sacramento Area Council of Governments' SB 375 2020 Sustainable Communities Strategy* where CARB staff reviewed and ultimately accepted SACOG's determination that its 2020 SCS would meet the target of a 19 percent reduction by 2035, compared to 2005 levels (CARB 2020). SACOG is currently preparing the 2025 Blueprint, which aims to achieve various federal, state, regional, and local policy objectives related to development, transportation, and GHG emission reduction while considering financial, growth, and regulatory constraints. The 2025 Blueprint update revisits the regional growth projections, development patterns, and transportation investments that served as the foundation of the 2020 MTP/SCS.

Legislation Associated with Electricity Generation

The State has passed legislation requiring the increasing use of renewables to produce consumer electricity. California utilities are required to generate 52 percent of their electricity from renewables by 2027 (SB 100 of 2018); 60 percent by 2030 (also SB 100 of 2018); and 100 percent by 2045 (also SB 100 of 2018). On September 16, 2022, SB 1020 was signed into law. This bill supersedes the goals of SB 100 by requiring that eligible renewable energy resources and zero-carbon resources supply 90 percent of all retail sales of electricity to California end-use customers by December 31, 2035, 95 percent of all retail sales of electricity to California end-use customers by December 31, 2040, and 100 percent of all retail sales of electricity to California end-use customers by December 31, 2045.

California Building Energy Efficiency Standards (Title 24, Part 6)

California's energy consumption by new residential and nonresidential buildings is regulated by the California Code of Regulations Title 24, Part 6, Building Energy Efficiency Standards (California Energy Code). CEC updates the California Energy Code every three years with more stringent design requirements for reduced energy consumption, resulting in fewer GHG emissions. The 2022 California Energy Code went into effect on January 1, 2023. The 2022 California Energy Code advances the energy conservation and onsite energy generation progress started in the 2019 California Energy Code by encouraging electric heat pump technology and use, establishing electric-ready requirements when natural gas is installed, expanding solar photovoltaic (PV) system and battery storage standards, and strengthening ventilation standards to improve indoor air quality. CEC estimates that the 2022 California Energy Code will save consumers $1.5 billion and reduce GHGs by 10 million metric tons of carbon dioxide-equivalent over the next 30 years (CEC 2022).

The 2025 Building Energy Efficiency Standards (2025 California Energy Code) were adopted on September 11, 2024, and will go into effect on January 1, 2026. According to CEC, the 2025 California Energy Code puts particular emphasis

on encouraging efficient electric heat pump technology for space and water heating in newly constructed single-family, multifamily, and select nonresidential building types, replacing end-of-life rooftop heating, ventilation, and air-conditioning units of a specific size with high efficiency systems, establishing electric-ready requirements for commercial kitchens and some multifamily buildings, updating solar and storage standards for buildings to make clean energy available for onsite use while minimizing exports to the electrical grid, and increasing ventilation standards to improve indoor air quality in multifamily buildings. CEC estimates that the 2025 California Energy Code is projected to save $4.8 billion in energy costs over its lifetime and reduce GHG by about 4 million metric tons, equivalent to the annual energy consumption of over half a million homes (CEC 2024a).

California Green Building Standards

The California Green Building Standards Code, also known as the CALGreen Code, is a portion of the California Building Code developed by CEC that consists of both voluntary and mandatory requirements related to green building standards for statewide residential and nonresidential construction. The voluntary provisions of the CALGreen Code often guide the adoption of local reach codes by incorporated cities and unincorporated counties. The current version is the 2022 CALGreen Code, which took effect on January 1, 2023. Compared to the 2019 CALGreen Code, the 2022 CALGreen Code strengthened sections pertaining to EV and bicycle parking, water efficiency and conservation, and material conservation and resource efficiency, among other sections of the CALGreen Code. The CALGreen Code sets design requirements equivalent to or more stringent than those of the California Energy Code for energy efficiency, water efficiency, waste diversion, and indoor air quality. These codes are adopted by local agencies that enforce building codes and are used as guidelines by State agencies for meeting the requirements of EO B-18-12.

The 2025 CALGreen Code was adopted on September 11, 2024, and goes into effect on January 1, 2026. Relative to the 2022 CALGreen Code, the 2025 version includes increased requirements for EV charging infrastructure (i.e., a higher percentage of parking spaces that must be equipped with EV chargers and more stringent requirements for the types of chargers that must be installed) in both residential and non-residential buildings. The 2025 CALGreen Code also includes required analysis of Embodied Carbon in Building Materials, which was not required under the 2022 CALGreen Code. Lastly, the 2025 CALGreen Code includes updates to energy efficiency standards aimed at further reducing energy consumption in buildings and promoting the use of renewable energy sources.

Senate Bill 1383 and the Short-Lived Climate Pollutant Reduction Strategy

In September 2016, SB 1383 (Lara, Chapter 395, Statutes of 2016) was signed into law, establishing methane emissions reduction targets in a statewide effort to reduce emissions of short-lived climate pollutants in various sectors of California's economy. Regarding solid waste, SB 1383 establishes targets to achieve a 75 percent reduction in the volume of statewide disposal of organic waste by 2025. The law grants the California Department of Resources Recycling and Recovery regulatory authority required to achieve the organic waste disposal reduction targets. It established an additional target: not less than 20 percent of currently disposed edible food is to be recovered for human consumption by 2025.

Assembly Bill 1346

On October 9, 2021, AB 1346 was signed by Governor Newsom. AB 1346 prohibits the sale of new gasoline-powered equipment under 25 gross horsepower (known as small off-road engines [SOREs]) as of January 1, 2024. SOREs are primarily used in gas-powered lawn equipment, such as leaf blowers, lawnmowers, chainsaws, and pressure washers, but also extend to generators and other emergency response equipment. The bill does not ban the operation of SOREs already owned or purchased prior to 2024.

LOCAL

Sacramento Metropolitan Air Quality Management District

SMAQMD is the primary agency responsible for addressing air quality concerns in Sacramento County. SMAQMD recommends methods for analyzing project-generated GHGs in CEQA analyses and offers potential GHG reduction actions for land use development projects. SMAQMD developed thresholds of significance to provide a uniform scale

to measure the significance of GHG emissions from land use and stationary source projects in compliance with CEQA to align with the statewide GHG target of 40 percent below 1990 levels by 2030, with the passage of SB 32 for land use development projects (SMAQMD 2021).

SMAQMD also provides guidance for program-level analysis of general plans and area plans. SMAQMD recommends that program-level analyses "incorporate development policies, standards, and mitigation actions achieving GHG reductions that result in a less-than-significant impact with respect to GHG emissions, this could alleviate the need to evaluate and mitigate GHGs at the project level for projects that are found to be consistent with the general or area plan" (SMAQMD 2020). This recommendation for program-level analysis can be satisfied through the development of a qualified climate action plan (CAP) (i.e., a GHG reduction plan meeting the criteria of the State CEQA Guidelines Section 15183.5[b]) that accompanies a general plan.

In March of 2024, SMAQMD submitted its Capital Region Climate Priorities Plan (CRCPP) under EPA's Climate Pollution Reduction Grants (CPRG) program. The CRCPP outlines 24 climate measures that would create substantial GHG emission reductions and co-benefits, including advancing equity and opportunities in the clean energy transition. The CRCPP encourages infill development, building electrification and vehicle decarbonization, active modes of transportation, energy resiliency, carbon sequestration, and forest and ecosystem health. The CRCPP is intended to guide the Sacramento region closer to carbon neutrality by 2030 by advancing electric power sector improvements, especially regarding renewable energy deployments and battery storage.

Sacramento Municipal Utility District

In July 2020, the Sacramento Municipal Utility District (SMUD) Board of Directors adopted a climate emergency declaration committed to working toward an ambitious goal of delivering zero-carbon electricity by 2030. The 2030 Clean Energy Vision is SMUD's overarching goal to reach zero-carbon emissions in its power supply by 2030. The 2030 Zero Carbon Plan, adopted March 30, 2021, is the roadmap for SMUD to achieve the zero-carbon goal through 100 percent renewable generation by 2030, 15 years in advance of the State-mandated Renewables Portfolio Standard (SMUD 2021). SMUD released the recent 2030 Zero Carbon Plan Progress Report in September 2024 (SMUD 2024).

SMUD's 2022 Integrated Resource Plan (IRP) details the utility's long-term plan to meet the area's energy demand reliably and cost-effectively, while also meeting the various regulatory requirements, including GHG reduction targets and renewable energy procurement requirements. SB 350 (De León, Chapter 547, Statutes of 2015), (Public Utilities Code [PUC] Section 9622) requires CEC to review the IRP of identified publicly owned utilities to ensure they meet various requirements specified in the law. In 2024, CEC staff reviewed the 2022 IRP, which included the 2030 Zero Carbon Plan discussed above, for consistency with the requirements of PUC Section 9621 and ultimately concluded that the 2022 IRP (CEC 2024b):

- meets the GHG emission reduction requirements of PUC Section 9621(b)(1) and the renewable energy procurement requirement of PUC Section 9621(b)(2);
- meets planning goals related to retail rates, reliability, transmission, and distribution systems as set forth in PUC Section 9621(b)(3);
- considered the role of existing renewable generation, grid operational efficiencies, energy storage, and two distributed resources (including energy efficiency) in helping to ensure the utility's energy and reliability needs in the hours that encompass the peak hour as set forth in PUC Section 9621(c); and
- addressed the procurement requirements for energy efficiency and demand response, energy storage, transportation electrification, portfolio diversification, and resource adequacy as set forth in PUC Section 9621(d).

City of Elk Grove General Plan

The *City of Elk Grove General Plan* contains the following goals and policies related to GHG emissions and climate change that apply to the Plan (City of Elk Grove 2019a):

- **Policy NR-4-3:** Implement and support programs that reduce mobile source emissions.

- **Policy NR-4-4**: Promote pedestrian/bicycle access and circulation to encourage residents to use alternative modes of transportation in order to minimize direct and indirect emissions of air contaminants.
- **Policy NR-4-5:** Emphasize demand management strategies that seek to reduce single-occupant vehicle use in order to achieve State and federal air quality plan objectives.
- **Policy NR-4-6**: Offer a public transit system that is an attractive alternative to the use of private motor vehicles.

GOAL NR-5: Reduced Greenhouse Gas Emissions That Align With Local, State, And Other Goals

- **Policy NR-5-1:** By 2030, reduce per capita emissions greenhouse gas emissions to 4.1 $MTCO_2e$. By 2050, reduce per capita greenhouse gas emissions 1.4 $MTCO_2e$ to meet the State's 2050 greenhouse gas emissions reduction goals.
- **Policy NR-5-2:** Improve the health and sustainability of the community through improved regional air quality and reduction of greenhouse gas emissions that contribute to climate change.
- **Policy NR-5-3:** Support efforts by the Sacramento Metropolitan Air Quality Management District and the California Air Resources Board to decrease greenhouse gas emissions from stationary sources.
- **Policy NR-5-4:** Preserve, protect, and enhance, as appropriate, the community's carbon sequestration resources to improve air quality and reduce net carbon emissions.

GOAL NR-6: Reduced Energy Demand And Increased Renewable Sources

- **Policy NR-6-1:** Promote energy efficiency and conservation strategies to help residents and businesses save money and conserve valuable resources.
- **Policy NR-6-2**: Improve energy efficiency by identifying savings measures for City facilities in building materials and operations.
- **Policy NR-6-3:** Promote innovation in energy efficiency.
- **Policy NR-6-5:** Promote energy conservation measures in new development to reduce on-site emissions and seek to reduce the energy impacts from new residential and commercial projects through investigation and implementation of energy efficiency measures during all phases of design and development.
- **Policy NR-6-6:** Encourage renewable energy options that are affordable and benefit all community members.
- **Policy NR-6-7:** Encourage the use of solar energy systems in homes, commercial businesses, and City facilities as a form of renewable energy.

GOAL SD-2: Green Building

- **Policy SD-2-1:** Incorporate green building techniques and best management practices in the site design, construction, and renovation of all public projects.
- **Policy H-2-3:** Support energy-conserving programs in the production and rehabilitation of affordable housing to reduce household energy costs, improve air quality, and mitigate potential impacts of climate change in the region.
- **Policy ER-6-11:** Seek to provide the community with information relating to sustainability, climate change, and innovative development strategies.

City of Elk Grove Climate Action Plan

In February 2019, the City adopted the *City of Elk Grove Climate Action Plan 2019 Update* (2019 CAP), which was most recently amended in December 2024. The 2019 CAP includes GHG emission reduction targets as well as GHG emission reduction strategies and implementation measures to help the City reach these targets. The reduction strategies address GHG emissions associated with transportation and land use, energy, water, waste management and recycling, agriculture, and open space. Through implementation of all measures in the 2019 CAP, including State-mandated efforts, the City would achieve and exceed its per capita reduction target of 4.1 $MTCO_2e$ by 2030. However, even with all reduction measures implemented, annual 2050 per capita emissions would be 3 $MTCO_2e$ and remain above the 1.4 $MTCO_2e$ long-term goal set for 2050 (City of Elk Grove 2019b: 4-3). As discussed in the 2019 CAP, "additional

technological advances across multiple sectors would be required to reduce emission further, combined with additional regulatory actions at the State or federal levels." Further, the City "would need to identify new or modified GHG reduction measures that would achieve longer-term, post-2030 targets that may be set by the State or others in the future" (City of Elk Grove 2018: 5.7-37).

3.2.2 Environmental Setting

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the atmosphere from space. A portion of the radiation is absorbed by the earth's surface, and a smaller portion of this radiation is reflected toward space. The absorbed radiation is then emitted from the earth as low-frequency infrared radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on Earth.

Prominent GHGs contributing to the greenhouse effect are CO_2, methane, nitrous oxide (N_2O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Human-caused emissions of these GHGs in excess of natural ambient concentrations are found to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. The likely range of human-induced warming in global-mean surface air temperature (GSAT) in 2010–2019 relative to 1850–1900 is 0.8°C–1.3°C, encompassing the observed warming of 0.9°C–1.2°C, while the change attributable to natural forcings is only −0.1°C to +0.1°C. It is very likely that human-induced greenhouse gas increases were the main driver of tropospheric warming since comprehensive satellite observations started in 1979, and virtually certain that human-induced greenhouse gas forcing is the primary driver of the observed changes in hot and cold extremes on the global scale (IPCC 2021).

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas most pollutants with localized air quality effects have relatively short atmospheric lifetimes (approximately 1 day), GHGs have long atmospheric lifetimes (1 year to several thousand years). GHGs persist in the atmosphere long enough to be dispersed around the globe. Although the lifetime of any GHG molecule depends on multiple variables and cannot be determined with any certainty, it is understood that more CO_2 is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration. Of the total annual human-caused CO_2 emissions, approximately 56 percent are estimated to be sequestered through ocean and land uptake every year, averaged over the last 50 years, whereas the remaining 44 percent of human-caused CO_2 emissions remain stored in the atmosphere (IPCC 2023).

The quantity of GHGs in the atmosphere responsible for climate change is not precisely known, but it is considered to be enormous. No single project alone would measurably contribute to an incremental change in the global average temperature or to global or local climates or microclimates. From the standpoint of CEQA, GHG impacts relative to global climate change are inherently cumulative.

Greenhouse Gas Emissions Sources and Sinks

Emissions of CO_2 are byproducts of fossil fuel combustion. Methane, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices, landfills, and forest fires. N_2O is also largely attributable to agricultural practices and soil management. CO_2 sinks, or reservoirs, include soil, vegetation, and the ocean, which absorb CO_2 through sequestration and dissolution (CO_2 dissolving into the water) and are two of the most common processes for removing CO_2 from the atmosphere.

GREENHOUSE GAS EMISSION SOURCES

In 2022, statewide emitting activities accounted for 371.1 million metric tons of CO_2-equivalent ($MMTCO_2e$), 10.2 $MMTCO_2e$ lower than 2021 levels and 59.9 $MMTCO_2e$ below the 2020 GHG limit of 431 $MMTCO_2e$ (CARB 2024a). In 2014, statewide GHG emissions dropped below the 2020 GHG limit and have remained below the limit since that time. Overall trends in the *California Greenhouse Gas Emissions from 2000 to 2022: Trends of Emissions and Other Indicators* demonstrate that the CI of California's economy (the amount of carbon emissions per million dollars of gross state product [GSP]) is declining. From 2000 to 2022, the CI of California's economy decreased by 54.8 percent while the GSP increased by 77.5 percent. California's GSP increased 0.7 percent in 2022. Emissions per GSP declined by 3.1 percent from 2021 to 2022 (CARB 2024b). Overall trends in the AB 32 GHG Inventory also continue to demonstrate that the CI of California's economy is declining. The continuation of the downward GHG emissions trend from 2021 to 2022 indicates that the increase in emissions from 2020 to 2021 is likely an anomaly caused by broader economic trends related to the COVID-19 pandemic and associated recovery (CARB 2024b).

As discussed previously, GHG emissions are attributable in large part to human activities. In California, the transportation, industry, and electricity generation sectors are the largest GHG emission producers (Table 3.2-1).

Table 3.2-1 Statewide GHG Emissions by Economic Sector (2022)

Sector	Percent
Transportation	39
Industrial	23
Electricity generation (in state)	11
Electricity generation (imports)	5
Agriculture	8
Residential	8
Commercial	6
Not specified	<1

Source: CARB 2024c.

Within the Planning Area, on-road transportation, and building energy (including residential and nonresidential), constitute the greatest sources of community-generated GHG emissions (Table 3.2-2). For municipal operations, buildings and facilities, streetlights and traffic signals, employee commutes, and the City's vehicle fleet comprise the majority of the GHG emissions (Table 3.2-3).

Table 3.2-2 2021 Elk Grove Community GHG Emissions Inventory

Sector	GHG Emissions ($MTCO_2e$)	Percent of Total
On-Road Transportation	586,220	56%
Building Energy (Includes Residential and Nonresidential)	398,365	38%
Solid Waste	20,222	2%
Off-Road Vehicles and Equipment	18,341	2%
Wastewater Treatment	2,957	<1%
Water Supply	2,802	<1%
Agriculture	10,275	1%
Total	**1,039,181**	**100%**

Notes: Totals may not sum exactly due to independent rounding. GHG = greenhouse gas; $MTCO_2e$ = metric tons of carbon dioxide equivalent.

Source: City of Elk Grove 2024: Table 2-2.

Table 3.2-3 2021 Elk Grove City Operations GHG Emissions Inventory

Sector	$MTCO_2e$	Percent of Total
Buildings and Facilities	1,741	41%
Streetlights and Traffic Signals	893	21%
Employee Commute	835	20%
Vehicle Fleet	620	14%
Solid Waste	139	3%
Water Supply	9	<1%
Wastewater Treatment	7	<1%
Process and Fugitive Emissions	32	1%
Total	**4,275**	**100%**

Notes: Totals may not sum exactly due to independent rounding. GHG = greenhouse gas; $MTCO_2e$ = metric tons of carbon dioxide equivalent.

Source: City of Elk Grove 2024.

3.2.3 Impact Analysis

METHODOLOGY

The Climate Compass is a policy document that does not propose specific future projects. Therefore, this draft SEIR considers the broad environmental implications of implementing the Climate Compass conceptually and does not provide a project-level assessment. Impacts related to GHG emissions and climate change are based on the Climate Compass's strategies and actions as well as the quantified GHG emissions inventory, forecasts, and targets, and their potential to result in physical changes to the environment if the Plan is implemented. Impacts related to GHG emissions and climate change were analyzed in the context of existing laws and regulations, as well as policies adopted in the General Plan, and the extent to which these existing regulations and policies adequately address and minimize the potential for impacts associated with the implementation of the Climate Compass. The impact analysis also focuses on whether approval and implementation of the Climate Compass would result in new or more severe GHG impacts than those disclosed in the General Plan EIR, as amended by the 2023 Subsequent EIR for the GPAs/VMT Standards Project.

While the Climate Compass would update and replace the City's current Climate Action Plan (i.e., 2019 CAP), the city's CAP is not included as an element of the General Plan; instead, the 2019 CAP was programmatically evaluated alongside the General Plan in the General Plan EIR as two separate documents. However, because the Climate Compass would provide the policy framework to address the city's GHG emissions reduction goals for the Planning Area as established in the General Plan, as amended, the Plan would meet SMAQMD's guidance for program-level analysis.

THRESHOLDS OF SIGNIFICANCE

The issue of global climate change is inherently cumulative, and therefore, the Plan's impact on climate change is addressed only as a cumulative impact.

With respect to GHG emissions, State CEQA Guidelines Section 15064.4(a) states that lead agencies "shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions resulting from a project. The State CEQA Guidelines note that an agency has the discretion to either quantify a project's GHG emissions or rely on a "qualitative analysis or performance-based standards" (Section 15064.4[a]). A lead agency may use a "model or methodology" to estimate GHG emissions and has the discretion to select the model or methodology it considers "most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change" (Section 15064.4[c]). The State CEQA Guidelines provide that the lead

agency should consider the following when determining the significance of impacts from GHG emissions on the environment (Section 15064.4[b]):

- The extent a project may increase or reduce GHG emissions as compared to the existing environmental setting.
- Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

As stated above, the Plan is a policy document and does not propose any specific future projects. However, some strategies and their associated actions under the Plan would result in construction and operations-related activities. At this programmatic level, it is not possible to estimate exact quantities of construction– and operations-related emissions related to the implementation of the Plan. Details necessary for estimating construction and operational emissions, such as location, scale, phasing, and exact equipment types and numbers, are not known at this type and level of analysis. Therefore, this analysis uses a qualitative approach to determine whether implementing the Climate Compass could result in GHG-related impacts based on the criteria above.

However, this qualitative analysis does discuss the City's quantified 2021 baseline GHG emissions inventory and future projections for 2030 and 2045, which were calculated as part of the Plan development. This analysis considers both a business-as-usual (BAU) scenario and a "no local action" (NLA) scenario as calculated for and presented in the Plan. The BAU scenario is an emissions forecast for the years 2030, 2035, 2040, and 2045 that indicates how community emissions would increase in the absence of laws and regulations (e.g., State standards for renewable energy and vehicle fuel efficiency) and without any additional actions by the City to reduce emissions. This scenario accounts for the population, housing, and employment growth expected for the city through the year 2045. Conversely, the NLA scenario adjusts the BAU forecast to consider the impact of existing State (e.g., SB 1020, Advanced Clean Cars I and II, and Title 24 Building Energy Standards updates) and federal laws and regulations on the city's future GHG emissions.

As shown in Table 2-8 on Chapter 2, "Project Description," of this Draft SEIR, the Climate Compass estimates that the city's community BAU emissions would reach approximately 1.3 $MMTCO_2e$ by 2030 and approximately 1.8 $MMTCO_2e$ by 2045. As shown in Table 2-10 in Chapter 2, "Project Description," of this Draft SEIR, the Plan estimates that the city's community NLA emissions would reach 966,427 $MTCO_2e$ by 2030 and 483,474 $MTCO_2e$ by 2045.

Consistent with statewide GHG targets (i.e., AB 32 and AB 1279), the city's GHG emissions with Plan implementation have been compared to the following future targets:

1. 39 percent below 2021 levels by 2030, which is equivalent to the statewide 2030 target of 48 percent below 1990 levels per the 2022 Scoping Plan scenario.
2. 85 percent below 2021 levels by 2045, which aligns with the statewide 2045 target of 85 percent below 1990 levels as codified in AB 1279 and included in the 2022 Scoping Plan.

Notably, this analysis does not include evaluation of the interim target years of 2035 and 2040 because no statewide plans or legislation in place require GHG reductions in those years. In addition, as codified in AB 1279 and included in the 2022 Scoping Plan, statewide carbon neutrality is to be achieved by 2045 or sooner. The Climate Compass's 2045 target of 85 percent below 2021 levels aligns with the statewide 2045 target, as codified in AB 1279 and the 2022 Scoping Plan. This is because the City's 2045 target of 85 percent below 2021 levels is equivalent to an 85 percent reduction below 1990 levels, which aligns with the State of California's target of 85 percent below 1990 levels. Consequently, the Climate Compass is equivalent to the State target.

For calculation details, assumptions, and tables related to the 2021 baseline GHG inventory, projections of 2030 and 2045 emissions, and strategies and actions, refer to the Climate Compass on the City's website at: https://elkgrove.gov/cap.

GHG impacts have been evaluated by assessing whether the Climate Compass conflicts with applicable GHG emissions reduction strategies and local actions approved or adopted by CARB, SMAQMD, SACOG, and others. The 2022 Scoping

Plan, SACOG's 2020 MTP/SCS, and General Plan policies and goals all apply to the Plan and all are intended to reduce GHG emissions to exceed the statewide target for 2030 set forth in SB 32 and meet the statewide target for 2045 outlined in AB 1279. Therefore, the significance of the contribution of the Climate Compass's GHG emissions has been evaluated consistently with State CEQA Guidelines Section 15064.4(b)(2) by considering whether the Plan would conflict with applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions (e.g., CARB's 2022 Scoping Plan).

State CEQA Guidelines Section 15064.4(b)(3) states that a lead agency "may consider a project's consistency with the State's long-term climate goals or strategies" when determining the significance of a project's impacts. Additionally, in *Center for Biological Diversity v. Department of Fish and Wildlife* (2015) 62 Cal.4th 204, the California Supreme Court sanctioned the use of such a threshold. The court found that assessing a project's GHG impacts based on a consistency with a GHG emission reduction plan threshold of significance is legally permissible under CEQA.

State CEQA Guidelines Section 15064 and relevant portions of Appendix G recommend that a lead agency consider a project's consistency with relevant, adopted plans and discuss any inconsistencies with applicable regional plans, including plans to reduce GHG emissions. Using the criteria of Appendix G of the State CEQA Guidelines, the Plan would result in a cumulatively considerable contribution to climate change if it would:

- generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or
- conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.2-1: Generate GHG Emissions, Either Directly or Indirectly, That May Have a Significant Impact on the Environment

The General Plan EIR determined implementation of the General Plan and the 2019 CAP would result in GHG emissions reductions sufficient to meet the City's GHG reduction targets, which were consistent with the statewide GHG emission reduction targets for 2020 and 2030 as identified in the 2017 Scoping Plan, as established by AB 32 and SB 32. Therefore, impacts were determined to be less than significant.

The 2023 Subsequent EIR determined implementation of the GPAs/VMT Standards Project would exceed emissions targets at a higher rate than anticipated as part of the General Plan and as evaluated in the General Plan EIR. Because the GPAs/VMT Standards Project would introduce development not captured in the inventory prepared for the 2019 CAP (i.e., the GPAs/VMT Standards Project introduces land uses inconsistent with the assumptions of the General Plan), the efficacy of the 2019 CAP measures to sufficiently reduce GHG emissions past 2030 would be speculative. For this reason, the 2023 Subsequent EIR determined that impacts would be more severe than those identified in the General Plan EIR. Because the 2019 CAP did not include the most recent regulations (i.e., AB 1279) and no other mitigation was available to reduce GHG impacts, the 2023 Subsequent EIR determined this impact would be significant and unavoidable.

Implementation of the Climate Compass would achieve the City's 2030 and 2045 GHG emission reduction goals, consistent with statewide GHG reduction goals as identified in the 2022 Scoping Plan and directed by AB 1279. The Climate Compass would provide the City with the framework to meet its GHG emission reduction targets as development occurs under the General Plan, as amended by the GPAs/VMT Standards Project, beyond the buildout year 2030. Because the Climate Compass would be sufficient in meeting statewide GHG reduction targets, adopting and implementing the Climate Compass would not result in a new or more substantially severe impact than what was identified in the General Plan EIR, as amended by the 2023 Subsequent EIR. Implementation of the Climate Compass would reduce the significant and unavoidable impact from the 2023 Subsequent EIR to **less than significant**.

General Plan EIR and 2023 Subsequent EIR Determination

The General Plan EIR determined that while development under the General Plan would result in construction and operational GHG emissions that would contribute to climate change on a cumulative basis, the General Plan and the 2019 CAP would result in GHG emissions reductions sufficient to meet the City's GHG reduction targets. And because the targets were consistent with the statewide GHG emission reduction targets for 2020 and 2030 as identified in the 2017 Scoping Plan, as established by AB 32 and SB 32, impacts were determined to be less than significant.

The 2023 Subsequent EIR determined that operation of the GPAs/VMT Standards Project would generate approximately 17,426 $MTCO_2e$/year or 2.9 $MTCO_2e$ per capita in 2040 (i.e., assumed first full year of operation). As concluded in the 2023 Subsequent EIR, although implementation of the GPAs/VMT Standards Project would result in both direct and indirect GHG emissions, the 2019 CAP and associated General Plan policies would reduce emissions consistent with local GHG emissions reduction targets that were developed in consideration of the statewide 2030 reduction target established by SB 32 and the 2017 Scoping Plan. Unmitigated GHG emissions were determined to increase as a result of the GPAs/VMT Standards Project due to the construction and operation of new development allowed by the amended land use plan. However, the 2019 CAP's 2050 GHG forecast included new emissions from regional population growth, additional households, and changes in driving behaviors, thus accounting for this increase in unmitigated emissions. Therefore, the 2019 CAP measures were developed considering the growth identified in the 2023 SEIR and adjusted accordingly to achieve the GHG reduction targets set forth by SB 32 and Executive Order S-3-05.

Nevertheless, development under the GPAs/VMT Standards Project would extend past 2030 to 2040 and beyond. While the 2019 CAP established a long-term reduction target for 2050 of 1.4 $MTCO_2e$ per capita, the measures identified in the 2019 CAP were not sufficient to meet this target. The 2023 Subsequent EIR noted this is in large part because the gap between an unmitigated BAU scenario and adjusted BAU could not be accurately depicted at the time of preparing the 2019 CAP due to the uncertainty of the nature and breadth of regulatory mechanisms that the State would enact to achieve long-term targets extending to 2050, as well as available technology and systems. For instance, the regulatory landscape during the preparation of the 2019 CAP did not encompass the targets set forth by AB 1279 (i.e., reduce anthropogenic emissions by 85 percent below 1990 levels by 2045 and maintain net negative emissions after 2045) and the 2022 Scoping Plan because it was completed prior to the adoption of both the legislation and the 2022 Scoping Plan. Therefore, the 2023 Subsequent EIR determined that the 2019 CAP did not address the State's more recent long-term GHG reduction targets.

With new long-term targets that are more aggressive than and supersede the State's previous long-term targets of reducing emissions by 80 percent below 1990 levels by 2050, the GPAs/VMT Standards Project was determined to exceed emissions targets at a higher rate than anticipated as part of the General Plan and as evaluated in the General Plan EIR. Because the GPAs/VMT Standards Project would introduce development not captured in the inventory prepared for the 2019 CAP (i.e., the GPAs/VMT Standards Project introduces land uses inconsistent with the assumptions of the General Plan), the efficacy of the 2019 CAP measures to sufficiently reduce GHG emissions past 2030 would be speculative. For this reason, the 2023 Subsequent EIR determined that impacts would be more severe than those identified in the General Plan EIR. Because the 2019 CAP did not include the most recent regulations (i.e., AB 1279) and no other mitigation was available to reduce GHG impacts, the 2023 Subsequent EIR determined this impact would be significant and unavoidable.

Proposed Climate Compass Impact Analysis

The Climate Compass is a policy document that does not include any land use or zoning changes; site-specific development, designs, or proposals; nor does it grant any entitlements for development that would result in environmental impacts. Instead, the Climate Compass would commit the City to more sustainably develop projects that could already occur under the General Plan, as amended. As a policy document, the Climate Compass requires increased electrification and decarbonization of buildings and infrastructure, increased renewable energy use and storage, reduced energy and resource consumption, improved clean and efficient transportation, strengthened resilience and adaptation measures, support for the green economy, and enhanced public education and outreach around climate issues. Once adopted, implementation of the Plan's strategies and actions could require construction and/or operational activities, which could have the potential to directly or indirectly emit GHG emissions.

Construction

The strategies and actions that may require construction activities and as such, have the potential to directly or indirectly emit GHG emissions, include but not limited to, installation of new EV charging stations with residential and municipal parking lots as part of new codes and ordinances (Actions FEC-2.1, TR-2.1, TR-2.4); promoting installation of cool pavement and permeable pavement on all municipal parking lots (Action RS-1.5); development of transportation infrastructure as detailed in the Bicycle, Pedestrian, and Trails Master Plan (Action TR-1.1); construction of amenities such as seating, lighting, tree cover, and real-time public transit arrival information displays (Action TR-1.2); construction of new renewable energy generation and storage projects on municipal buildings (Action BF-2.2); retrofitting existing municipal buildings and facilities to improve their resilience to climate hazards (Action RS-1.3), installation of shade amenities such as trees and shade structures (Action RS-1.6); and upgrading municipal-owned and Cosumnes Community Services District-managed irrigation systems to be more water efficient (Action WW-1.2).

Construction efforts anticipated to support these activities would generally be small in scale, utilize hand tools and small machinery with limited use of heavy-duty construction equipment, and require minimal numbers of construction workers and associated worker vehicle trips. To provide a point of reference for the scale of construction activities that would occur under the Plan, project-level construction emissions under the Plan would not be expected to result in GHG emissions in excess of SMAQMD's project-level GHG emissions thresholds (i.e., 1,100 $MTCO_2e$/year) on an individual basis.

Furthermore, implementation of the Climate Compass would reduce GHG emissions generated during construction activities, including those associated with implementing the actions it contains. Action FEC-2.2 encourages the development of a policy to require greater use of low- and zero-emission off-road vehicles and encourages electric equipment (e.g., landscaping, construction) for City-owned equipment, City-funded projects, and City contractors. Additionally, Strategy TR-3 would reduce off-road transportation emissions through Action TR-3.1, which would require all construction projects starting in 2025 and later to use renewable diesel in diesel-powered construction equipment, and Action TR-3.2, which would prohibit the use of fossil-fuel-powered generators at construction sites in all discretionary projects. Action WW-2.4 promotes the adoption of a policy that would require minimum recycled content in construction materials for all municipal construction and maintenance projects, which would reduce GHG emissions associated with producing new construction materials.

Moreover, all potential emissions sources and activity types associated with implementing the Plan are consistent with those previously evaluated in the General Plan EIR and the 2023 Subsequent EIR. Any additional emissions from the construction of projects to facilitate the strategies and actions of the Climate Compass would be inherently short-term, negligible, and offset by the emissions reductions realized from the operational GHG benefits of the Climate Compass. Therefore, GHG emissions generated from construction activities implementing the Climate Compass would be minimal.

Operations

The Climate Compass includes strategies and actions that could generate operational GHG emissions when implemented. Occasional operation and maintenance activities, such as maintenance vehicle use, equipment and facilities repair and replacement, tree watering and trimming, landscaping and vegetation management, and irrigation and water usage inspections, would be required in response to implementation of some actions included within the Climate Compass (e.g., Actions RA-5.2, RA-5.3, RA-6.1, RS-1.6, WW-1.1, and WW-1.2). These operation and maintenance activities would occur on an intermittent schedule where activities are minimal and anticipated to be accomplished with existing City personnel in conjunction with existing maintenance activities. While these types of maintenance and operation activities would generate GHG emissions, the increase in these emissions would be minimal, and overall operational GHG emissions would not substantially increase.

However, implementation of Strategy RC-1, "Increase Organic Waste Diversion" and Strategy WW-2, "Practice Sustainable Waste Management" and subsequent actions (Actions RC-1.1 through RC-1.3 and WW-2.2) could indirectly generate operational GHG emissions. Action WW-2.2 would increase recycling and organic waste diversion at all municipal buildings, while Strategy RC-1 and its associated actions would increase organic waste diversion in the community. As a result, the Climate Compass may indirectly result in expanded local capacity for composting and

processing of organic waste, which could, in turn, result in additional truck hauling trips to support the increased local composting capacity. However, the additional truck trips would be diverted from landfills within the county and would not necessarily constitute new truck trips. If an increase in truck trips were to occur from the implementation of Actions WW-2.2 and Strategy RC-1, the emissions associated with such trips would be offset by the emissions reductions achieved through the avoidance of fugitive methane emissions, a more potent GHG as compared to CO_2, from the decomposition of organic matter at landfills.

Despite some operational emissions occurring with the implementation of the Climate Compass, the Plan would reduce overall GHG emissions from sources in the community and City operations. Notably, the majority of GHG reductions would be achieved through the community GHG reduction strategies and actions detailed in Table 2-14 of Chapter 2, "Project Description." The total estimated community GHG emissions reductions from all strategies quantified would be 385,968 $MTCO_2e$ in 2030 and 356,645 $MTCO_2e$ in 2045. Thus, there would be greater overall reductions to fossil fuel consumption and improvements in energy efficiency related to the implementation of the community GHG reduction strategies and their associated actions relative to energy-related reductions and improvements related to municipal-focused strategies and actions (2,501 $MTCO_2e$ in 2030 and 2,450 $MTCO_2e$ in 2045).

The Plan's transportation-related strategies and actions would reduce mobile-source emissions in the community by encouraging the reduction of VMT per capita and increased EV usage to reduce the consumption of fossil fuels. Implementation of Strategy TR-1, "Decrease Vehicle Miles Traveled," Strategy TR-2, "Increase Zero-Emission Vehicle (ZEV) Adoption," Strategy TR-3, "Reduce Off-Road Transportation Emissions," and subsequent actions (Actions TR-1.1 through TR-1.8, TR-2.1 through TR-2.5, TR-3.1 and TR-3.3) would reduce community-generated transportation GHG emissions by reducing VMT, encouraging ZEVs and EVs, incentivizing electrification of equipment, and increasing public awareness around public and alternative transportation programs and services.

Municipal transportation-related GHG emissions would be reduced through the implementation of Strategy FEC-1, "Reduce COEG Employee Commute VMT," and Strategy FEC-2, "Shift to Clean On-Road and Off-Road Vehicles and Equipment," and subsequent actions (Actions FEC-1.1 through FEC-1.8 and FEC-2.1 through 2.2). These strategies and actions would result in shifting to clean on- and off-road municipal vehicles and equipment, launching an annual VMT reduction challenge for City employees, developing a local Transportation Management Agency to reduce VMT; establishing an e-bike lending library for City employees to use as an alternative to vehicle use; partnering with the Sacramento Regional Transit District to establish a program offering monthly public transit passes to City employees; and establishing a ride home program that would provide rides for City employees in the form of vouchers for rideshare or taxi services up to a certain number of times per year.

The Climate Compass would be beneficial in terms of reducing energy-related GHG emissions as implemented through community Strategies BE-1, BE-3, and BE-4 and subsequent actions (BE-1.1 through BE-1.5, BE-3.1 through BE-3.2, and BE-4.1 through BE-4.3) and municipal Strategies BF-1, BF-2, and BF-3, and subsequent actions (BF-1.1 through BF-1.3, BF-2.1 through BF-2.3, and BF-3.1 through BF-3.4). For example, implementation of Action BE-1.1 recommends adoption of a new ordinance that establishes a new building reach code based on cost-effectiveness studies, stakeholder outreach, and CEC approval that all residential and nonresidential new construction and major renovations must meet. Action BE-1.2 requires developing a comprehensive building energy retrofit plan to transition existing residential and nonresidential buildings to all-electric.

Strategies and actions to reduce energy-related GHG emissions would also be implemented for municipal operations. For example, implementation of Action BF-1.1 would involve adopting a policy that requires all new City buildings to be all-electric starting in 2026 and would require existing buildings purchased by the City to be fully electrified within 5 years of purchase. Action BF-2.1 would ensure that electricity used for City buildings, facilities, streetlights, and traffic lights is sourced from renewable sources to the maximum extent possible. Action BF-3.1 would develop and adopt a green building policy requiring all new City buildings to meet or exceed CALGreen Tier 1 certification standards, establishing requirements for energy-efficient design, renewable energy integration, water conservation, and sustainable materials use. By increasing the use of electricity and decreasing the use of natural gas combustion, the Climate Compass would reduce GHG emissions by reducing the combustion of fossil fuels used for building utilities.

Therefore, while operation and maintenance activities associated with implementing the Climate Compass could generate GHG emissions, emissions would be relatively minimal and compensated for by the long-term GHG emission reductions from the Plan itself.

Summary

The Climate Compass would comply with current regulatory standards, including those adopted after the General Plan EIR was certified (i.e., AB 1279), establishing more stringent reduction targets than those evaluated in the General Plan EIR and the 2023 Subsequent EIR. The overall net benefit of the Climate Compass related to permanent reductions in GHG emissions throughout the Planning Area would be far greater than any short-term, minor construction- and operation-related GHG emissions. Furthermore, as the Climate Compass does not include any land use or zoning changes to the current General Plan land use plan, adoption of the Plan would not change the level of development contemplated under the General Plan, as amended by the GPAs/VMT Standards Project, and as evaluated in the 2023 Subsequent EIR. Instead, the Climate Compass would promote more sustainable development that could already occur under the General Plan, as amended by the GPAs/VMT Standards Project. As such, the Climate Compass would not be growth-inducing or generate GHG emissions greater than identified for the General Plan, as amended by the GPAs/VMT Standards Project.

As discussed above and in greater detail in Chapter 2, "Project Description," the Climate Compass includes: 1) BAU scenario to demonstrate how emissions would change over time without federal, State, or local action; and 2) NLA scenarios to demonstrate how GHG emissions would change over time, accounting for legislative actions at the federal and State levels (i.e., without local actions). Comparison of these two scenarios demonstrate the effectiveness of the State and federal legislative actions at reducing GHG emissions and provides local jurisdictions with the ability to identify if additional GHG emissions reductions are needed to achieve local GHG emission reduction targets. If additional GHG emissions reductions are needed, local jurisdictions develop local actions to address reducing these additional GHG emissions (i.e., a CAP).

The Climate Compass establishes separate GHG emissions reduction goals for community and municipal operations sources. To achieve the City's 2030 and 2045 community GHG emission reduction targets, community GHG emissions would need to be reduced by 327,615 $MTCO_2e$ in 2030 and be reduced by 322,498 $MTCO_2e$ in 2045 (refer to Table 2-13, "Elk Grove Community GHG Emission Gap ($MTCO_2e$)" in Chapter 2, "Project Description"). The Climate Compass quantified GHG emission reductions from the community strategies and actions to determine whether these actions would be sufficient to meet the City's 2030 and 2045 reduction goals (refer to Table 2-15, "Community GHG Emissions Reduction Strategies," in Chapter 2, "Project Description"). Total reductions from the implementation of the Climate Compass community GHG emission reduction strategies and actions would be 385,968 $MTCO_2e$ in 2030 and 356,645 $MTCO_2e$ in 2045. Therefore, the total estimated reductions from the community GHG emissions reduction strategies and actions would be sufficient to meet the City's 2030 and 2045 targets.

Regarding the City's 2030 and 2045 municipal operations GHG emissions reduction targets, GHG emissions from municipal operations would need to be reduced by 1,923 $MTCO_2e$ in 2030 and be reduced by 2,070 $MTCO_2e$ in 2045 (refer to Table 2-17, "Elk Grove Municipal Operations GHG Emission Gap Analysis ($MTCO_2e$)" in Chapter 2, "Project Description"). The Climate Compass quantified GHG emission reductions from the municipal strategies and actions to determine whether these actions would be sufficient to meet the City's 2030 and 2045 reduction goals. Total reductions from implementation of the Climate Compass municipal operations GHG emission reduction strategies and actions would be 2,501 $MTCO_2e$ in 2030 and 2,450 $MTCO_2e$ in 2045. Therefore, the total estimated reductions from the municipal operations GHG emissions reduction strategies and actions would be sufficient to meet the City's 2030 and 2045 targets.

Notably, the emissions reductions quantified by the Climate Compass would occur alongside the enactment of other environmental regulations that would achieve GHG emissions reductions independent of the Climate Compass; this is accounted for in the NLA scenarios also modeled in the Climate Compass. As citywide emissions trend down through 2045 in the NLA scenario, implementation of the Climate Compass would serve to further reduce GHG emissions. Therefore, emissions reductions achieved by the Climate Compass in 2045 would be less than the emissions reductions achieved in 2030 because the City could achieve fewer GHG emissions beyond those otherwise required through legislation.

As demonstrated above, adoption and implementation of the Climate Compass would achieve the City's 2030 and 2045 GHG emission reduction goals, consistent with statewide GHG reduction goals as identified in the 2022 Scoping Plan, as directed by AB 1279. Adoption of the Climate Compass would replace the 2019 CAP, which is not consistent with current statewide GHG emissions reduction targets and would provide the City the roadmap to meet its GHG emission reduction targets as development occurs under the General Plan, as amended by the GPAs/VMT Standards Project, beyond the buildout year of 2030. Overall, GHG emissions would be substantially reduced in 2030 and 2045 compared to the NLA scenario (i.e., implementation of the General Plan without implementation of the strategies and actions included in the Climate Compass). Since the Climate Compass would be sufficient in meeting statewide GHG reduction targets, adoption and implementation of the Climate Compass would result in a substantially less severe impact than what was identified in the General Plan EIR and the 2023 Subsequent EIR, and as such, this impact would be reduced to **less than significant**.

Mitigation Measures

No mitigation is required.

Impact 3.2-2: Conflict With an Applicable Plan, Policy, or Regulation Adopted for the Purpose of Reducing the Emissions of GHGs

The General Plan EIR determined that the General Plan and the 2019 CAP would not meet the long-term adjusted statewide emissions reduction goal of 1.4 $MTCO_2e$ per capita by 2050 consistent with EO S-3-05 and the 2017 Scoping Plan, despite the General Plan policies, implementation programs, and 2019 CAP GHG reduction actions to be implemented under the General Plan and 2019 CAP. No additional feasible mitigation was identified beyond compliance with the 2019 CAP and proposed General Plan policies. Therefore, the General Plan EIR concluded that the impacts related to meeting the long-term GHG reduction goal for 2050 would be significant and unavoidable.

The 2023 Subsequent EIR determined that development under the GPAs/VMT Standards Project would extend past the 2019 CAP GHG reduction target year of 2030 into 2040 and beyond. Because the GPAs/VMT Standards Project would facilitate development beyond the 2030 target year and that GHG reduction targets have become more stringent since adoption of the 2019 CAP and certification of the General Plan EIR (i.e., AB 1279), the General Plan and the 2019 CAP would not be sufficient to meet the State's long-term targets beyond 2030. As such, the 2023 Subsequent EIR determined implementation of the GPAs/VMT Standards Project would result in a substantially more severe impact than what was addressed in the General Plan EIR, and impacts would remain significant and unavoidable.

The Climate Compass would achieve the City's overall goal to reduce GHG emissions consistent with statewide GHG reduction goals as established in the 2022 Scoping Plan, as set forth by AB 1279. In addition, the Climate Compass would be consistent with and support a variety of other State and local plans, policies, and regulations related to the reduction of GHG emissions. Therefore, the Climate Compass would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. Furthermore, the Climate Compass would provide the mechanism for the City to achieve its long-term GHG reduction goals past 2030 consistent with current regulations, which was identified in the 2023 Subsequent EIR as necessary to address the city's long-term GHG impacts. For these reasons, adoption and implementation of the Climate Compass would result in a substantially less severe impact than what was identified in the General Plan EIR and the 2023 Subsequent EIR, and as such, this impact would be reduced to **less than significant**.

General Plan EIR and 2023 Subsequent EIR Determination

The General Plan EIR determined that while development under the General Plan would result in construction and operational GHG emissions that would contribute to climate change on a cumulative basis, the General Plan and the 2019 CAP would result in GHG emissions reductions sufficient to meet the City's GHG reduction targets. And because the targets were consistent with the statewide GHG emission reduction targets for 2020 and 2030 as identified in the 2017 Scoping Plan, as established by AB 32 and SB 32, impacts were determined to be less than significant.

The 2023 Subsequent EIR determined that operation of the GPAs/VMT Standards Project would generate approximately 17,426 $MTCO_2e$/year or 2.9 $MTCO_2e$ per capita in 2040 (i.e., assumed first full year of operation). As concluded in the

2023 Subsequent EIR, although implementation of the GPAs/VMT Standards Project would result in both direct and indirect GHG emissions, the 2019 CAP and associated General Plan policies would reduce emissions consistent with local GHG emissions reduction targets that were developed in consideration of the statewide 2030 reduction target established by SB 32 and the 2017 Scoping Plan. Unmitigated GHG emissions were determined to increase as a result of the GPAs/VMT Standards Project due to the construction and operation of new development allowed by the amended land use plan. However, the 2019 CAP's 2050 GHG forecast included new emissions from regional population growth, additional households, and changes in driving behaviors, thus accounting for this increase in unmitigated emissions. Therefore, the 2019 CAP measures were developed in consideration of the growth identified in the 2023 SEIR and adjusted accordingly to achieve the GHG reduction targets set forth by SB 32 and Executive Order S-3-05.

Nevertheless, development under the GPAs/VMT Standards Project would extend past 2030 to 2040 and beyond. While the 2019 CAP established a long-term reduction target for 2050 of 1.4 $MTCO_2e$ per capita, the measures identified in the 2019 CAP were not sufficient to meet this target. The 2023 Subsequent EIR noted this is in large part because the gap between an unmitigated BAU scenario and adjusted BAU could not be accurately depicted at the time of preparing the 2019 CAP due to the uncertainty of the nature and breadth of regulatory mechanisms that the State would enact to achieve long-term targets extending to 2050, as well as available technology and systems. For instance, the regulatory landscape during the preparation of the 2019 CAP did not encompass the targets set forth by AB 1279 (i.e., reduce anthropogenic emissions by 85 percent below 1990 levels by 2045 and maintain net negative emissions after 2045) and the 2022 Scoping Plan because it was completed prior to the adoption of both the legislation and the 2022 Scoping Plan. Therefore, the 2023 Subsequent EIR determined that the 2019 CAP did not address the State's more recent long-term GHG reduction targets.

With new long-term targets that are more aggressive than and supersede the State's previous long-term targets of reducing emissions by 80 percent below 1990 levels by 2050, the GPAs/VMT Standards Project was determined to exceed emissions targets at a higher rate than anticipated as part of the General Plan and as evaluated in the General Plan EIR. Because the GPAs/VMT Standards Project would introduce development not captured in the inventory prepared for the 2019 CAP (i.e., the GPAs/VMT Standards Project introduces land uses inconsistent with the assumptions of the General Plan), the efficacy of the 2019 CAP measures to sufficiently reduce GHG emissions past 2030 would be speculative. For this reason, the 2023 Subsequent EIR determined that impacts would be more severe than those identified in the General Plan EIR. Because the 2019 CAP did not include the most recent regulations (i.e., AB 1279) and no other mitigation was available to reduce GHG impacts, the 2023 Subsequent EIR determined this impact would be significant and unavoidable.

Proposed Climate Compass Impact Analysis

Sacramento Area Council of Governments Metropolitan Transportation Plan/Sustainable Communities Strategy

In 2019, SACOG adopted an update to its MTP/SCS that establishes policies and implementation actions for GHG emissions reductions in the on-road transportation sector, consistent with statewide targets set by CARB pursuant to SB 375. The Climate Compass strategies and actions have been developed to be consistent with policy priorities discussed in Chapter 2, "Policies and Implementation," of the 2020 MTP/SCS. These actions include those that would result in new facilities such as new EV charging stations (Actions FEC-2.1, TR-2.1, and TR-2.4) and additional minor bicycle and pedestrian infrastructure (Action TR-1.1), as well as actions that would reduce single-occupancy vehicle trips by encouraging alternative transportation such as public transit, biking, and walking (Actions FEC-1.6, TR-1.3, FEC-1.8, and FEC-1.3). Therefore, the Climate Compass would be aligned with the targets set by CARB and SACOG for GHG emissions reduction goals and includes Climate Compass actions consistent with SACOG policy priorities. As such, implementation of the Climate Compass would not conflict with the regional MTP/SCS.

California Green Building Standards Code

The Climate Compass would be consistent with the requirements of the CALGreen Code, which include building energy and water efficiency improvements. The Climate Compass includes strategies and actions that would implement both new and existing building energy efficiency improvements, decarbonize new and existing buildings, and improve energy efficiency and water efficiency. For example, Action BE-1.5 recommends adoption of voluntary CALGreen measures that encourage heat pump installations when air conditioners are replaced in existing single-unit residential,

while Action TR-2.1 recommends adoption of a reach code for EV charging to meet CALGreen Tier 1 requirements, require new commercial development to equip parking spaces with EV charging receptacles. Action BF-3.1 proposes developing and adopting a green building policy requiring all new municipal buildings to meet or exceed CALGreen Tier 1 standards, establishing requirements for energy-efficient design, renewable energy integration, water conservation, and sustainable materials use. Through the implementation of these strategies and actions, the Plan would be consistent with the mandatory requirements of the CALGreen Code.

Federal, State, and Regional Regulations, Plans, and Standards

The Climate Compass supports other State and regional regulations, plans, and standards that aim to further reduce GHG emissions. Action BF-2.2, which encourages the installation of on-site renewable energy systems, would also support regulations regarding the increased use of renewables for electricity production (i.e., SB 100 and SB 1020). The Plan's actions that would reduce VMT and require EV infrastructure (e.g., Actions TR-2.1, TR-2.4, FEC-1.3, FEC-1.6, FEC-1.4, and FEC-2.1) would also support legislation and regulations regarding carbon neutrality goals (AB 1279, Advanced Clean Cars II, and EO N-79-20). Other actions (WW-2.2 and RC-1.1) would increase the diversion of organic waste from both City and community land uses and subsequently result in increased composting to support solid waste reduction. These would support State regulations regarding reduction of organic waste disposal (i.e., SB 1383 and the Short-Lived Climate Pollutant Reduction Strategy).

Regarding energy efficiency and electrification, the Climate Compass would include actions such as BF-1.1, which would adopt a policy that requires all new municipal buildings to be all-electric starting in 2026 and would require existing buildings purchased by the City to be fully electrified within 5 years of purchase. Action BE-1.2 would develop a comprehensive building energy retrofit plan to transition existing residential and nonresidential buildings to all-electric. Lastly, Action BF-2.2 would prioritize solar and battery storage system installations on suitable municipal buildings and facilities based on solar potential, historic energy consumption, roof condition, available site area, and potential cost savings. By increasing the use of electricity, especially that which is sourced from renewables, and decreasing the use of natural gas combustion, the Climate Compass would reduce countywide GHG emissions by reducing the combustion of fossil fuels used for building utilities.

Actions that support the increased utilization and generation of renewable energy would also support the renewable energy goals of SMUD's 2030 Zero Carbon Plan, which aims to achieve the zero-carbon goal through 100 percent renewable generation by 2030.

2022 Scoping Plan, SB 32, and AB 1279

The Climate Compass's GHG emissions reduction targets are consistent with the statewide GHG targets codified in SB 32 and AB 1279 and utilized in the 2022 Scoping Plan. Because 1990 GHG emissions data are not available for the City, the Climate Compass's GHG emissions reduction targets were developed relative to the 2021 GHG emissions inventory and established in proportion with statewide reduction for all emissions sectors relevant to the City's jurisdiction, consistent with CARB guidance (refer to Section 2.4.1, "GHG Emissions Inventory"). The Climate Compass's 2030 target of 39 percent below 2021 levels exceeds the statewide 2030 target as codified in SB 32. Notably, while not codified legislatively, the 2022 Scoping Plan includes a statewide revised target for 2030 of a 48 percent reduction from a 1990 statewide inventory compared to SB 32's 40 percent goal. Consequently, the Climate Compass is more stringent than the legislatively mandated State target compared to both 1990 and per-capita emissions levels. The Climate Compass's 2030 target is derived using the 2022 Scoping Plan's recommendation that local land use developments contribute their "fair share" of emissions reductions to the statewide GHG target for 2030. This is consistent with the recommendation made in the California Association of Environmental Professionals' 2016 white paper for "Substantial Progress" thresholds for land use development to show consistency with statewide targets (AEP 2016).

The Climate Compass's 2045 target sets the City on a trend to achieve its fair share of California's 2045 carbon neutrality target. Therefore, pursuant to State CEQA Guidelines Section 15064.4(b)(3), the Climate Compass's 2045 target represents the level below which GHG emissions would not be cumulatively considerable through 2045. Finally, the Climate Compass's 2045 aspirational goal of carbon neutrality aligns with the statewide 2045 carbon neutrality target stipulated in AB 1279. As discussed above in Impact GHG-1, the City is forecast to achieve these targets. Consistency

with the 2022 Scoping Plan and the State's legislative GHG emissions reduction targets is an appropriate metric to determine the significance of the Climate Compass's GHG emissions.

Appendix D of the 2022 Scoping Plan identifies three key priority areas for GHG reductions by local governments: VMT Reduction, Transportation Electrification, and Building Decarbonization. As explained below, the Climate Compass's strategies and actions are consistent with the reduction strategy recommendations in CARB's 2022 Scoping Plan.

The VMT Reduction priority area aims to reduce fossil fuel consumption and GHG emissions from the transportation sector by promoting land use planning principles and project design features that can reduce VMT. As discussed above, the Climate Compass includes numerous actions that would collectively reduce VMT, such as Actions TR-1.2, TR-1.4, FEC-1.2, FEC-1.6, and FEC-1.8. These actions involve increasing public transit and rideshare ridership, implementing VMT-reduction incentive programs for COEG employees, and improving active transportation (e.g., biking, walking) infrastructure (TR-1.1). Additionally, the Climate Compass does not propose land uses, such as offices, residences, or industrial, that would increase employment or population in the region and would not induce growth-related VMT to the region. Therefore, the Plan would be consistent with the VMT Reduction priority strategy identified by the 2022 Scoping Plan.

The Transportation Electrification priority area aims to reduce fossil fuel consumption and GHG emissions from the transportation sector by increasing EV use. Appendix D of the 2022 Scoping Plan includes strategies for achieving success in this priority area, which are: conversion of local government fleets to ZEVs and providing EV charging at public sites, and the development of an ecosystem for ZEVs that incorporates the implementation of additional refueling infrastructure to support the transition to ZEVs. As discussed above, the Climate Compass includes actions such as Actions FEC-2.1, TR-2.1, and TR-2.4, which would collectively increase the implementation and use of EV infrastructure in the community and for municipal operations. Implementation of these actions would involve requiring new publicly accessible fueling stations to install one direct current fast charger for each two fuel dispenser positions, adopting a reach code for EV charging to meet CALGreen Tier 1 requirements to require new commercial development to equip parking spaces with EV charging stations, and implementing the *Infrastructure Plan for Fleet Electrification* to transition the City's vehicle fleet to ZEVs (mostly EVs). Additionally, these actions would result in the continued scaling up and ongoing maintenance for the infrastructure required to support an all-electric City fleet, including deploying EV charging stations at appropriate locations. Therefore, the Climate Compass would be consistent with the Transportation Electrification priority area identified by the 2022 Scoping Plan.

Regarding the Building Decarbonization priority area, the Climate Compass includes actions such as BF-1.1, BF-2.1, and BE-1.2. These actions would involve adopting a policy that requires all new municipal buildings to be all-electric starting in 2026 (while also requiring that existing buildings purchased by the City to be fully electrified within 5 years of purchase), ensuring that electricity used at municipal buildings and facilities, along with electricity used for streetlights and traffic lights, is sourced from renewable sources to the maximum extent possible, and developing a comprehensive building energy retrofit plan to transition existing residential and nonresidential buildings to all-electric. These actions would reduce overall GHG emissions for the generation and consumption of energy during the operation of buildings within the city and would be consistent with this priority area identified in the 2022 Scoping Plan.

Summary

As demonstrated above, the Climate Compass would achieve the City's overall goal to reduce GHG emissions in alignment with statewide GHG reduction goals established in the 2022 Scoping Plan as directed by AB 1279. In addition, the Climate Compass would be consistent with and support a variety of other State and local plans, policies, and regulations related to the reduction of GHG emissions. Therefore, the Climate Compass would not conflict with any applicable plan, policy, or regulation adopted to reduce GHG emissions. Furthermore, the Climate Compass would provide the mechanism for the City to achieve its long-term GHG reduction goals past 2030 consistent with current regulations, which was identified in the 2023 Subsequent EIR as necessary to address the City's long-term GHG impacts. Therefore, implementation of the Climate Compass would result in a less severe impact than what was identified in the General Plan EIR and the 2023 Subsequent EIR and impacts would be reduced to **less than significant**.

Mitigation Measures

No mitigation is required.

4 CUMULATIVE IMPACTS

4.1 INTRODUCTION TO THE CUMULATIVE ANALYSIS

This Draft SEIR provides an analysis of cumulative impacts of the proposed Plan, as required by Section 15130 of the California Environmental Quality Act (CEQA) Guidelines. The goal of such an exercise is twofold: first, to determine whether the overall long-term impacts of all such projects would be cumulatively significant; and second, to determine whether the incremental contribution to any such cumulatively significant impacts by the Plan would be "cumulatively considerable" (and thus significant). (See State CEQA Guidelines Sections 15130[a]–[b], Section 15355[b], Section 15064[h], and Section 15065[c]; and *Communities for a Better Environment v. California Resources Agency* [2002] 103 Cal. App. 4th 98, 120.) In other words, the required analysis intends first to create a broad context in which to assess cumulative impacts, viewed on a geographic scale beyond the Plan area itself, and then to determine whether the Plan's incremental contribution to any significant cumulative impacts from all projects is itself significant (i.e., "cumulatively considerable").

Cumulative impacts are defined in State CEQA Guidelines Section 15355 as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." A cumulative impact occurs from "the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects." Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time" (State CEQA Guidelines Section 15355[b]).

4.2 CUMULATIVE IMPACT ANALYSIS METHODOLOGY

Consistent with State CEQA Guidelines Section 15130, the discussion of cumulative impacts in this Draft SEIR focuses on significant and potentially significant cumulative impacts. Section 15130(b) of the State CEQA Guidelines provides, in part, the following:

> [t]he discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.

A proposed project is considered to have a significant cumulative effect if:

- the cumulative effects of development without the project are not significant and the project's additional impact is substantial enough, when added to the cumulative effects, to result in a significant impact; or
- the cumulative effects of development without the project are already significant and the project contributes measurably to the effect.

The term "measurably" is subject to interpretation. The standards used herein to determine measurability are that the impact must be noticeable to a reasonable person, or must exceed an established threshold of significance (defined throughout the resource sections in Chapter 3 of this Draft SEIR).

The State CEQA Guidelines (Section 15130) identify two basic methods for establishing the cumulative environment in which the project is to be considered: the use of a list of past, present, and probable future projects, or the use of adopted projections from a general plan, other regional planning document, or a certified EIR for such a planning document. This analysis uses the planning document approach, as described further below.

The cumulative impact analysis provided in this chapter evaluates whether the Plan could result in potentially new cumulatively considerable impacts or an increase in the severity of previously identified cumulative impacts that were

identified in the General Plan EIR and the Subsequent EIR to the General Plan EIR (2023 Subsequent EIR) for the General Plan Amendments and Update of Vehicle Miles Traveled (VMT) Standards Project (GPAs/VMT Standards Project) pursuant to State CEQA Guidelines Section 15162(b).

4.3 CUMULATIVE SETTING

On February 27, 2019, the City adopted the 2019 General Plan Update (General Plan) and the 2019 CAP Update (2019 CAP) and certified the General Plan Update Environmental Impact Report (General Plan EIR) (SCH No. 2017062058), which programmatically evaluated both documents separately. The General Plan established a Planning Area of approximately 31,238 acres (48.8 square miles), which includes all land within the current city limits as well as lands outside the city limits in unincorporated Sacramento County to the south and east that, in the City's judgment, bears relation to its planning efforts (referred to as study areas).The General Plan EIR evaluated the buildout scenario of the General Plan, which was estimated based on the land uses within the city limits and the four study areas (i.e., the Planning Area). Assuming future annexation and development of the four study areas, buildout of the Planning Area under the General Plan would result in a maximum of 102,865 dwelling units, 332,254 residents, and 122,155 jobs.

Since its adoption in 2019, the General Plan and the General Plan EIR have been amended seven times, three times with Supplemental /Subsequent EIRs for the Housing and Safety Element Update, the Southeast Industrial Area Specific Plan, and most recently, the GPAs/VMT Standards Project. In January 2021, the General Plan Land Use Diagram was amended as part of the adoption of the Southeast Industrial Area Specific Plan associated with annexation. The Southeast Industrial Area includes 561 acres south of Grant Line Road and east of the Union Pacific Railroad tracks and State Route 99 within the City's sphere of influence. The Southeast Industrial Area was designated as Public Open Space/Recreation in the General Plan, which was amended to a designation of Light Industrial uses, resulting in a reduction of recreation and mixed General Commercial and Office uses. The SEIR prepared for the Southeast Industrial Area Specific Plan considered impacts associated with annexation and buildout of the Southeast Industrial Area.

In May 2021, the adoption of the 2021 Housing Element Update amended the General Plan Land Use Diagram to allow for an additional 2,745 dwelling units and an increase in population of 8,773 persons above what was assumed in the General Plan and evaluated in the General Plan EIR.

On December 13, 2023, the City adopted the GPAs/VMT Standards Project and certified the 2023 Subsequent EIR (SCH No. 2022020463). The GPAs/VMT Standards Project included amendments to the General Plan for the creation of the Livable Employment Area Community Plan Area; to update the City's VMT thresholds, including associated changes to the Transportation Analysis Guidelines; revisions to the South and West Study Areas in the General Plan; incorporation of the Grant Line Road Precise Plan as part of the Rural Area Community Plan; for other land use changes; and amendments to the adopted General Plan Mitigation Measures MM 5.5.1a and MM 5.5.1b associated with cultural resource impacts. Under the GPAs/VMT Standards Project, buildout of the Planning Area under the General Plan would result in a maximum of 104,716 dwelling units, 338,233 residents, and 123,923 jobs.

4.4 ANALYSIS OF CUMULATIVE IMPACTS

The General Plan represents the cumulative development scenario for the reasonably foreseeable future in the City as it establishes the policy framework for growth and development of the City and supporting public service and infrastructure improvements. Therefore, since the Climate Compass has been developed based on the buildout assumptions of the General Plan as amended by the GPAs/VMT Standards Project, the analysis presented in this Draft SEIR generally represents a cumulative analysis of Elk Grove as a whole over the General Plan planning horizon as described above in Section 4.3, "Cumulative Setting."

As indicated above, CEQA requires that an EIR include an assessment of the cumulative impacts that could be associated with project implementation. This assessment involves examining project-related effects on the environment in the context of similar effects that have been caused by past or existing projects, as well as the anticipated effects of future projects. An EIR must discuss the cumulative impacts of a project when its incremental effect will be cumulatively considerable. Although project-related impacts may be individually minor, the cumulative effects of these impacts, in

combination with the impacts of other projects, could be significant under CEQA and must be addressed (CEQA Guidelines, Section 15130[a]). Section 15130(a)(3) states that an EIR may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable, and thus not significant, if a project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact. Section 15130(b) indicates that the level of detail of the cumulative analysis need not be as great as for the project impact analyses; that it should reflect the severity of the impacts and their likelihood of occurrence; and that it should be focused, practical, and reasonable.

The following sections contain a discussion of the cumulative effects anticipated from implementation of the Climate Compass, together with related projects and planned development, for each of the environmental issue areas evaluated in this Draft SEIR. The analysis herein analyzes whether the residual impacts of the Plan would cause a cumulatively significant impact or would contribute considerably to an existing or anticipated (without the Plan) cumulatively significant effects that were identified in General Plan EIR, as amended by the 2023 Subsequent EIR. Where the Plan would contribute to a cumulatively significant impact, additional mitigation is recommended where necessary and/or feasible.

4.4.1 Energy

The geographic area considered for cumulative impacts related to energy use includes the Sacramento Municipal Utility District (SMUD) and Pacific Gas and Electric Company (PG&E) service areas. SMUD and PG&E employ various programs and mechanisms to support the provision of electricity and natural gas services to new development and recoup new infrastructure costs. Connection fees are typically charged through standard billing for services.

Planned and approved projects would receive electricity service from SMUD and natural gas service from PG&E. These projects would consume energy related to transportation (i.e., gasoline and diesel consumption for passenger vehicles, trucks, buses, and other vehicles) and construction. These projects would be required to implement energy efficiency measures in accordance with the current building code (e.g., Title 24 standards or better) to reduce energy demand from buildings and would likely implement transportation demand management considerations to reduce vehicle trips and miles traveled, which would reduce fuel consumption. Moreover, cumulative projects located within the Planning Area would be required to comply with the policies and actions of the General Plan, as amended, and 2019 CAP (or the adopted CAP at the time of project approval) as they relate to energy efficiency. Therefore, implementation of development would not result in a significant cumulative energy impact related to the wasteful or inefficient use of energy.

GENERAL PLAN EIR AND 2023 SUBSEQUENT EIR DETERMINATION

The General Plan EIR determined that construction-related energy expenditures would be less than significant due to the inherent short-term nature of construction. The General Plan EIR also determined that operational energy usage would be less than significant because future development would comply with applicable future versions of the California Energy Code and due to the implementation of the policies and actions of the General Plan and the 2019 CAP that would reduce energy consumption. Therefore, the General Plan EIR less than cumulatively considerable energy impacts from buildout of the General Plan.

The 2023 Subsequent EIR determined implementation of the GPAs/VMT Standards Project would be subject to the energy efficiency actions of the current building code (e.g., Title 24 standards or better) and the 2019 CAP and would not result in a substantial increase in energy use or wasteful energy use beyond what was evaluated in the General Plan EIR. In addition, the 2023 Subsequent EIR determined the more densely operated land uses proposed under the GPAs/VMT Standards Project would improve the energy efficiency of the City's residences on a per capita basis as compared to the less dense land uses included under the General Plan. Therefore, the 2023 Subsequent EIR determined the GPAs/VMT Standards Project would not result in a new or greater contribution of cumulative effects to energy use beyond what was identified in the General Plan EIR. As such, the 2023 Subsequent EIR concluded the GPAs/VMT Standards Project's contribution to the less than significant cumulative impact would remain less than cumulatively considerable as identified in the General Plan EIR.

PROPOSED CLIMATE COMPASS CUMULATIVE ANALYSIS

Impact 4-1: Cumulative Impacts Related to Energy

As discussed in greater detail in Section 3.1, "Energy," of this Draft SEIR, adoption of the Climate Compass would replace the 2019 CAP with an updated plan that is consistent with current regulations and aligned with Statewide GHG reduction goals as identified in the 2022 Scoping Plan set forth by AB 1279. As identified in the Climate Compass, GHGs in the Planning Area are primarily emitted from sources that combust fossil fuels for energy, such as gasoline and diesel in cars and natural gas in buildings. Implementation of the Plan would, overall, reduce fossil fuel consumption within the Planning Area by increasing energy efficiency and conservation, decarbonizing buildings, using renewable energy technology and sources, reducing VMT, and transitioning to zero-emission vehicles. This decrease in fossil fuel consumption within the Planning Area would result in greater electricity consumption, due to the required transition from on-site fossil fuel–powered energy (i.e., fossil natural gas combustion, diesel and gasoline use). Therefore, overall electricity demand would be expected to continue to increase throughout the Climate Compass's lifetime. Nevertheless, the Climate Compass includes measures and actions requiring investments in the city's renewable energy systems. These measures and actions, combined with the statutory renewable energy requirements of the Renewables Portfolio Standard, which SMUD must meet, would result in a broader availability of renewable energy (e.g., solar, wind) to meet this demand.

As described in Section 3.1, SMUD's 2022 Integrated Resource Plan (IRP) and the California Energy Commission's (CEC's) review of the IRP demonstrates that SMUD is capable of meeting the energy profile changes that would occur (i.e., transitioning from fossil fuel energy sources in favor of electricity, especially from renewable sources) with implementation of the Climate Compass. Additionally, the shift towards electricity sourced from renewables under the Climate Compass would be supported by SB 1020, which requires that eligible renewable energy resources and zero-carbon resources supply 90 percent of all retail sales of electricity to California end-use customers by December 31, 2035; 95 percent of all retail sales of electricity to California end-use customers by December 31, 2040; and 100 percent of all retail sales of electricity to California end-use customers by December 31, 2045. Furthermore, the Plan's strategies and actions that require the electrification and decarbonization of buildings and facilities, additional alternative transportation infrastructure, and energy efficiency and water conservation would result in a long-term reduction in energy consumption and the use of nonrenewable energy sources.

In addition, as GHG emissions are an inherent result of the generation and consumption of fossil-fuel related energy, plans that reduce fossil-fuel related energy consumption, require all-electric development, increase renewable energy generation, and improve energy efficiency are considered energy-related plans in addition to a GHG-related plan, such as the proposed Climate Compass and the 2022 Scoping Plan. The strategies and actions detailed in the Plan would improve energy efficiency, reduce energy demand (e.g., Action BF-3.1 and Action BF-3.3), and decrease transportation-related fossil fuel consumption (e.g., Action FEC-1.8 and Action FEC-1.3). Furthermore, the Plan would specifically align with the overarching goals of improved energy efficiency and reliance on renewable energy systems established in the Sacramento Area Council of Governments 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy, California Green Building Standards Code, SB 1020, EO B-55-18, SB 743, EO N-79-20, SMUD's 2030 Zero Carbon Plan, and Appendix D of the 2022 Scoping Plan.

Therefore, the Climate Compass would not result in a new or greater contribution to cumulative effects to energy beyond what was identified in the General Plan EIR, as amended by the 2023 Subsequent EIR. As such, the Plan's contribution to the less than significant cumulative impact would remain **less than cumulatively considerable** as identified in the General Plan EIR, as amended by the 2023 Subsequent EIR.

4.4.2 Greenhouse Gas Emissions and Climate Change

Climate change is a global phenomenon. No single project alone would measurably contribute to an incremental change in the global average temperature or to global or local climates or microclimates. From the standpoint of CEQA, GHG impacts relative to global climate change are inherently cumulative.

GENERAL PLAN EIR AND 2023 SUBSEQUENT EIR DETERMINATION

The General Plan EIR determined that while development that would occur under the General Plan would result in construction- and operational-related GHG emissions that contribute to climate change, the General Plan and 2019 CAP would result in GHG emissions reductions sufficient in meeting the GHG reduction targets and goals that were developed to be consistent and aligned with the goals identified in the 2017 Scoping Plan to meet the statewide GHG emission reduction targets for 2020 and 2030, as established by AB 32 and SB 32. Therefore, the General Plan EIR determined that impacts related to generating GHG emissions until target year 2030 would be less than significant.

However, the General Plan EIR determined that the General Plan and the 2019 CAP would not meet the long-term adjusted statewide emissions reduction goal of 1.4 metric tons of carbon dioxide equivalent per capita by 2050 consistent with EO S-3-05 and the 2017 Scoping Plan, despite the General Plan policies, implementation programs, and 2019 CAP GHG reduction actions to be implemented under the General Plan and 2019 CAP. Therefore, the General Plan EIR concluded impacts related to meeting the long-term GHG reduction goal for 2050 would be significant and unavoidable.

The 2023 Subsequent EIR determined that with new long-term targets that are more aggressive than and supersede the State's previous long-term targets of reducing emissions by 80 percent below 1990 levels by 2050, the GPAs/VMT Standards Project would exceed emissions targets at a higher rate than anticipated as part of the General Plan and as evaluated in the General Plan EIR. Because the GPAs/VMT Standards Project would introduce development not captured in the inventory prepared for the 2019 CAP (i.e., the GPAs/VMT Standards Project introduces land uses inconsistent with the assumptions of the General Plan) the efficiency of the 2019 CAP measures would be more speculative. Therefore, with the change in the regulatory landscape the 2023 Subsequent EIR concluded that the GPAs/VMT Standards Project would result in a greater contribution to cumulative effects related to GHG emissions and climate change beyond what was identified in the General Plan EIR. Therefore, the GPAs/VMT Standards Project's contribution to the significant cumulative impact would be cumulatively considerable and significant and unavoidable.

PROPOSED CLIMATE COMPASS CUMULATIVE ANALYSIS

Impact 4-2: Cumulative Impacts Related to Greenhouse Gas Emissions and Climate Change

As discussed in greater detail in Section 3.2, "Greenhouse Gas Emissions And Climate Change," of this Draft SEIR, adoption and implementation of the Climate Compass would achieve the City's 2030 and 2045 GHG emission reduction goals consistent with statewide GHG reduction goals as identified in the 2022 Scoping Plan set by AB 1279. Despite minor construction and operational GHG emissions occurring with the implementation of the Climate Compass, the Plan would reduce overall GHG emissions from sources in the community and City operations. Notably, the majority of GHG reductions would be achieved through the community GHG reduction strategies and their associated actions detailed in Table 2-14 of Chapter 2, "Project Description." The total estimated community GHG emissions reductions from all quantified strategies and actions would be 385,968 $MTCO_2e$ in 2030 and 356,645 $MTCO_2e$ in 2045. While constituting a smaller portion of the City's GHG reductions, the total estimated City operations GHG emissions reductions from all quantified strategies and action would be 2,501 $MTCO_2e$ in 2030 and 2,450 $MTCO_2e$ in 2045. In addition, while implementation of the Plan would achieve the City's GHG emissions reduction targets for 2030 and 2045, the Plan also provides the City with a surplus of GHG emissions reductions. Overall, GHG emissions would be substantially reduced in 2030 and 2045 compared to the "no local action" (NLA) scenario (i.e., implementation of the General Plan without implementation of the strategies and actions included in the Climate Compass).

In addition, the Climate Compass would be consistent with and support a variety of other State and local plans, policies, and regulations related to the reduction of GHG emissions. Therefore, the Climate Compass would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. Furthermore, the Climate Compass would provide the mechanism for the City to achieve its long-term GHG reduction goals past 2030 consistent with current regulations, which was identified in the 2023 Subsequent EIR as necessary to address the City's long-term GHG impacts. As such, the Climate Compass would result in a substantially reduced contribution to cumulative effects related to GHG emissions and climate change compared to what was identified in the General Plan EIR, as amended by the 2023 Subsequent EIR. As such, the Plan's contribution to this significant cumulative impact would be reduced to **less than cumulatively considerable**.

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5 ALTERNATIVES

5.1 INTRODUCTION

The California Code of Regulations (CCR) Section 15126.6(a) (State CEQA Guidelines) requires EIRs to describe "… a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather, it must consider a range of potentially feasible alternatives that will avoid or substantially lessen the significant adverse impacts of a project, and foster informed decision making and public participation. An EIR is not required to consider alternatives that are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason." This section of the State CEQA Guidelines also provides guidance regarding what the alternatives analysis should consider. Subsection (b) further states the purpose of the alternatives analysis is as follows:

> Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code [PRC] Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.

The State CEQA Guidelines require that the EIR include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative must be discussed, but in less detail than the significant effects of the project as proposed (CCR Section 15126.6[d]).

The State CEQA Guidelines further require that the "no project" alternative be considered (CCR Section 15126.6[e]). The purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving a proposed project with the impacts of not approving the proposed project. If the no project alternative is the environmentally superior alternative, CEQA requires that the EIR "…shall also identify an environmentally superior alternative among the other alternatives." (CCR Section 15126[e][2]).

In defining "feasibility" (e.g., "… feasibly attain most of the basic objectives of the project …"), CCR Section 15126.6(f) (1) states, in part:

> Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). No one of these factors establishes a fixed limit on the scope of reasonable alternatives.

In determining what alternatives should be considered in the EIR, it is important to consider the objectives of the project, the project's significant effects, and unique project considerations. These factors are crucial to the development of alternatives that meet the criteria specified in Section 15126.6(a). Although, as noted above, EIRs must contain a discussion of "potentially feasible" alternatives, the ultimate determination as to whether an alternative is feasible or infeasible is made by the lead agency's decision-making body, here the City of Elk Grove. (See PRC Sections 21081.5, 21081[a] [3].)

5.2 CONSIDERATIONS FOR SELECTION OF ALTERNATIVES

5.2.1 Attainment of Project Objectives

The primary objectives of the Climate Compass are to:

- Develop an updated CAP to align the City's climate action planning with California's greenhouse gas (GHG) emissions reduction goals and relevant regulations aimed at climate mitigation.
- Implement strategies and actions to transition the city away from fossil fuels and realize deep GHG emissions reductions through the near- and long-term future.
- Connect and amplify existing sustainability efforts in a cohesive, impactful plan.
- Incorporate climate adaptation and resilience actions to address the city's most pressing natural and climate-related hazards.
- Develop a CEQA-qualified climate action plan to provide a mechanism for streamlining project-level GHG emissions analysis consistent with Section 15183.5 of the State CEQA Guidelines and the entitlement process for future sustainability projects and climate-friendly development within the city.
- Communicate climate challenges and opportunities, foster climate education, and empower the community to contribute to solutions.
- Ensure equitable climate action by prioritizing projects and programs that benefit historically underserved communities.
- Develop an updated CAP that is consistent with the recently adopted amendments to the City's General Plan in 2023, which was amended to increase development intensity to improve VMT efficiency and reduce GHG emissions by creating walkable communities with amenities that attract and retain businesses and residents.

5.2.2 Environmental Impacts of the Climate Compass Project

Sections 3.1 through 3.2 of this Draft SEIR address the environmental impacts of implementation of the proposed Climate Compass Project. Potentially feasible alternatives were developed with consideration of avoiding or lessening the significant, and potentially significant, adverse impacts of the project, as identified in Chapter 3 of this Draft SEIR and summarized below. If an environmental issue area analyzed in this Draft SEIR is not addressed below, it is because no significant impacts were identified for that issue area. No significant and unavoidable environmental impacts or potentially significant impacts that could be reduced to less-than-significant levels with mitigation resulting from the project were identified.

5.3 ALTERNATIVES CONSIDERED BUT NOT EVALUATED FURTHER

As described above, State CEQA Guidelines Section 15126.6(c) provides that the range of potential alternatives for the project shall include those that could feasibly accomplish most of the basic objectives of the project, and could avoid or substantially lessen one or more of the significant effects. Alternatives that fail to meet the fundamental project purpose need not be addressed in detail in an EIR. (*In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* (2008) 43 Cal.4th 1143, 1165-1167.)

In determining what alternatives should be considered in the EIR, it is important to acknowledge the objectives of the project, the project's significant effects, and unique project considerations. These factors are crucial to the development of alternatives that meet the criteria specified in Section 15126.6(a). Although, as noted above, EIRs must contain a discussion of "potentially feasible" alternatives, the ultimate determination as to whether an alternative is feasible or infeasible is made by lead agency decision-maker(s). (See Pub. Resources Code, § 21081(a)(3).) At the time of action on the project, the decision-maker(s) may consider evidence beyond that found in this EIR in addressing such

determinations. The decision-maker(s), for example, may conclude that a particular alternative is infeasible (i.e., undesirable) from a policy standpoint, and may reject an alternative on that basis provided that the decision-maker(s) adopts a finding, supported by substantial evidence, to that effect, and provided that such a finding reflects a reasonable balancing of the relevant economic, environmental, social, and other considerations supported by substantial evidence. (*City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 401, 417; *California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 998.)

The EIR should also identify any alternatives that were considered by the lead agency but were rejected during the planning or scoping process and briefly explain the reasons underlying the lead agency's determination.

The following alternatives were considered by the City but are not evaluated further in this Draft SEIR.

5.3.1 Land Use Intensification Alternative

This alternative would consist of implementation of the Climate Compass as proposed as well as adopting amendments to the City's General Plan land use designations to increase residential densities and provide additional opportunities for mixed-use development that promote a pattern of development that further reduces VMT and resultant GHG emissions. As described in Chapter 2, "Project Description," the City adopted the General Plan Amendments and Update of Vehicle Miles Traveled (VMT) Standards Project (GPAs/VMT Standards Project) in 2023 that increased residential densities and mixed-use opportunities associated with the creation of the Livable Employment Area Community Plan (LEA Community Plan). The intent of the LEA Community Plan is to connect transportation with land-use planning and design in recognition that the most economically, socially, and environmentally successful communities are walkable and contain a mix of uses. This land use change was directed in 2019 by the Elk Grove City Council to leverage the value of a planned new thoroughfare, Kammerer Road, beyond its ability to carry vehicle traffic, to lay the foundation for economic development in the form of a 21st century employment center. As identified in the 2023 Subsequent EIR, this change in development intensity and other associated to the General Plan results in improved VMT limits by land use designation (City of Elk Grove 2023:Table 3.9-3) as well as reduced per capita GHG emissions in 2040 (2.9 $MTCO_2e$ per year) as compared to what is identified in the 2019 CAP for 2050 (3.0 $MTCO_2e$ per year) (City of Elk Grove 2023:3.5-4 and 3.5-11). Thus, land use intensification efforts to improve VMT and reduce GHG emissions have already been enacted by the City and are the foundational land use plan used for the Climate Compass. As such, consideration of this alternative has been eliminated from further analysis.

5.3.2 Alternative Locations

State CEQA Guidelines Section 15126.6(f)(2) states that the "key question and first step" in analysis of alternatives is whether any significant impacts would be avoided or substantially lessened by moving the project to an alternative location.

The Climate Compass establishes strategies and actions to reduce GHG emissions generated from current and future activities within the city as well as GHG emissions generated by City facilities and operations. The Plan is structured to align with State and regional laws, policies, regulations, and plans to reduce GHG emissions and improve resilience to climate change-related impacts. State and regional regulations related to GHG emissions that are applicable and were current at the time of the development of the Plan include Senate Bill (SB) 32, AB 1279, and the California Air Resources Board's (CARB's) *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) at the State level, and Sacramento Municipal Utility District's (SMUD's) 2030 Zero Carbon Plan at the regional level. Because the Climate Compass is intended to address City GHG emissions, an alternative site where the Project could be implemented would not be feasible or appropriate. The City only has jurisdiction over lands within its legal boundaries. As such, consideration of an alternative location has been eliminated from further analysis.

5.3.3 Carbon Offset Alternative

Under this alternative, a carbon offset mitigation program that provides objective standards to determine which carbon offset programs qualify as producing sufficiently real, permanent, quantifiable, verifiable, enforceable, and additional reductions in GHG emissions and includes quantifiable measurements such as compliance with the offset protocols approved by CARB or a qualified registry could be considered on a project-specific basis for City operations, capital improvement projects, and private development.

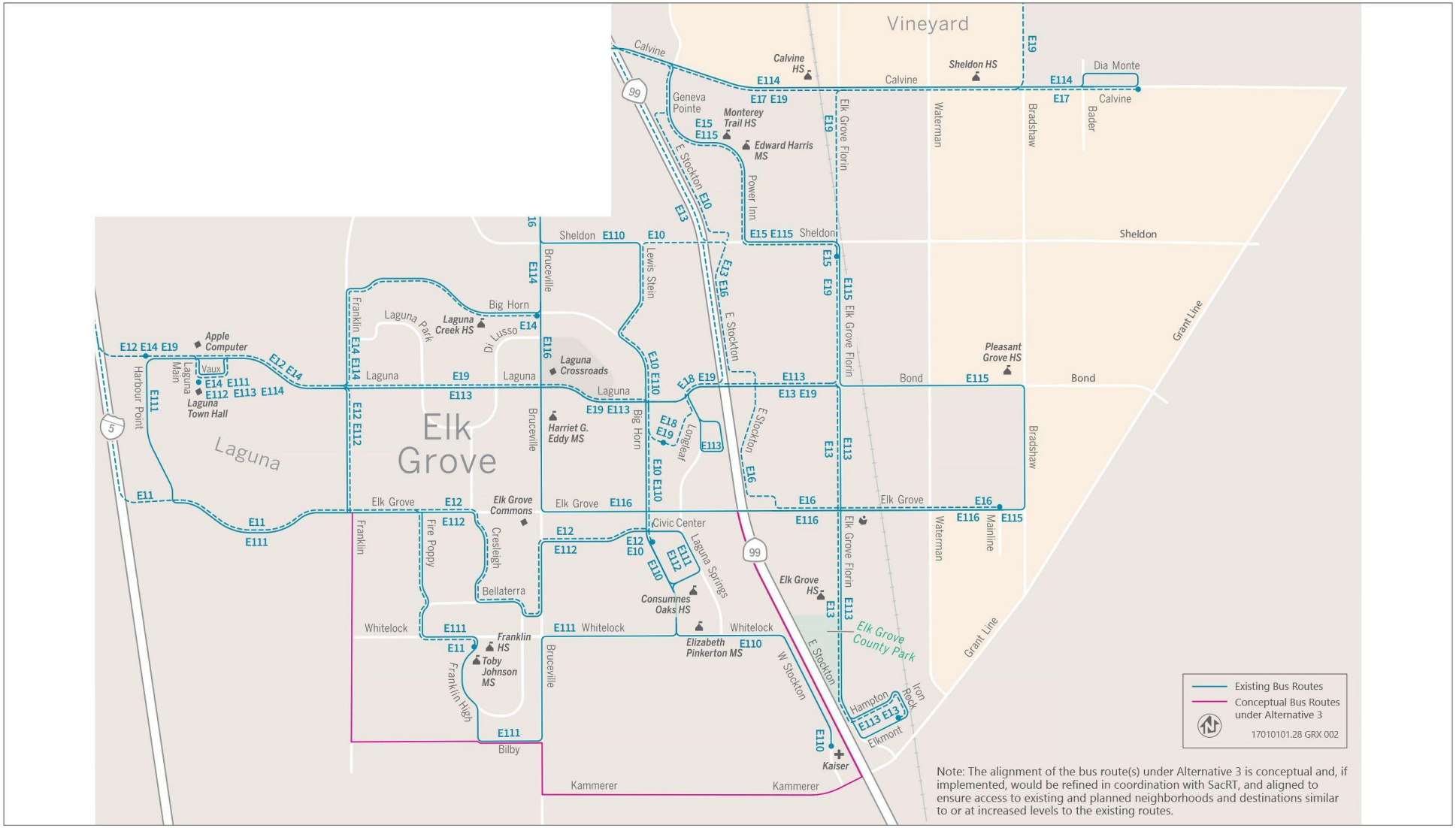
The Climate Compass aligns with State and regional laws, policies, regulations, and plans to reduce GHG emissions and improve resilience to climate change-related impacts without the use of carbon offsets; therefore, incorporating the purchase of carbon offset credits to reduce GHG emissions is not required to meet the project objectives. As such, consideration of this alternative has been eliminated from further analysis.

5.4 ALTERNATIVES SELECTED FOR DETAILED ANALYSIS

The three alternatives listed below present a reasonable range of alternatives to the Climate Compass. The analysis in this section focuses on significant impacts attributable to each alternative and the ability of each alternative to meet basic project objectives. The three alternatives evaluated in this Draft SEIR are as follows:

- **Alternative 1: No Project Alternative** assumes the Climate Compass would not be adopted and implemented and the City's climate action planning efforts would continue to be guided under the currently adopted 2019 CAP, which is not consistent with statewide GHG reduction goals as identified in the 2022 Scoping Plan, as directed by AB 1279. Under this alternative, the City would not adopt updated strategies and actions to reduce GHG emissions in accordance with these State-mandated reduction targets and future GHG emissions forecasts and reductions would be based on the No Local Action (NLA) scenario from the Climate Compass.
- **Alternative 2: Removal of Reach Code Actions Alternative** assumes the Climate Compass would be adopted with the exclusion of Actions BE-1.1 and TR-2.1, both of which require the City to adopt reach codes by 2026, from the Community GHG Emissions Reduction Strategies and associated actions list. Under this alternative, all strategies and associated actions included for City operations under the Climate Compass would remain the same. Specifically, Actions BE-1.1 and TR-2.1 require the City to adopt reach codes encouraging transition from natural gas powered heating and appliances to electric alternatives for new construction and major renovations in both residential and nonresidential development and for electric vehicle (EV) charging, respectively. The adoption of reach codes are voluntary and must be proven to be cost effective and approved by the California Energy Commission (CEC).
- **Alternative 3: Transit Expansion Alternative** assumes the Climate Compass would be amended to include a new action (i.e., TR-1.9) to support Community Strategy TR-1, "Decrease Vehicle Miles Traveled," and its associated actions (i.e., TR-1.1 through TR-1.8). The new Action TR-1.9 would be developed to include the expansion of bus services within the southwestern area of the City to support future fixed route light rail transit and/or bus rapid transit extension projects carried forward by the City in partnership with Sacramento Regional Transit (SacRT) (i.e., Blue Line/Bus Rapid Transit extension project or other future projects implemented under SacRT on the Move: Short-Range Transit Plan). Under this alternative, the City would work with SacRT to provide financial resources for additional bus line(s) within the southwestern area of the City (refer to Figure 5-1). In addition, the headways of the existing bus routes that run within city limits would be shorten to every 15 minutes to decrease wait times and increase connectivity to the larger transit system, which in turn would incentivize using the City's alternative transportation system and ultimately decrease VMT and GHG emissions.

Further details on these alternatives, and an evaluation of environmental effects relative to the proposed Plan are provided below.



Source: Sacramento Regional Transit 2021; adapted by Ascent in 2025.

Figure 5-1 Alternative 3 – Transit Expansion Alternative

5.4.1 Alternative 1: No Project

Alternative 1, the No Project Alternative, assumes the Climate Compass would not be adopted and implemented and the City's future climate action planning efforts would continue to be guided under the currently adopted 2019 CAP, which is not consistent with statewide GHG reduction goals as identified in the 2022 Scoping Plan, as directed by AB 1279, as well as by federal and State legislative actions. Under this alternative, the City would not adopt updated local strategies and actions to reduce GHG emissions in accordance with these State-mandated reduction targets and future GHG emissions forecasts and reductions would be based on the NLA scenario from the Climate Compass.

As discussed in Chapter 2, "Project Description," of this Draft SEIR, the NLA scenario accounts for population and employment growth within the Planning Area as well as the legislative actions at the federal and State levels, such as regulatory requirements to increase vehicle fuel efficiency (refer to Table 2-9 in Chapter 2, "Project Description," for the full list of legislative reductions used in the NLA scenario). As shown in Table 5-1, based on NLA scenario modeling, the City's community GHG emissions are anticipated to decline from 2021 levels through 2045, with GHG emissions decreasing by 7 percent from 2021 levels by 2030 and by 53 percent from 2021 levels by 2045.

Table 5-1 Elk Grove Community GHG Emissions Inventory and NLA Forecast ($MTCO_2e$)

Sector	2021	2030	2045
On-Road Transportation	586,220	449,118	166,840
Residential Building Energy	271,900	299,782	178,777
Nonresidential Building Energy	126,465	152,746	55,643
Solid Waste	20,222	26,034	36,165
Off-Road Vehicles and Equipment	18,341	25,296	36,158
Agriculture	10,275	3,869	575
Wastewater Treatment	2,957	6,707	9,317
Water Supply	2,802	2,875	0
Total	**1,039,181**	**966,427**	**483,475**
Percent Change from 2021 Levels		-7%	-53%

Notes: Total may not sum exactly due to independent rounding. BAU = business-as-usual; GHG = greenhouse gas; $MTCO_2e$ = metric tons of carbon dioxide equivalent; NLA = No Local Action.

Source: City of Elk Grove 2025.

As shown in Table 5-2, based on NLA scenario modeling, the City's operational GHG emissions are anticipated to increase by 6 percent from 2021 levels by 2030 but would decrease by 36 percent from 2021 levels by 2045.

Table 5-2 Elk Grove City Operations GHG Emissions Inventory and NLA Forecasts (Annual $MTCO_2e$)

Sector	2021	2030	2045
Buildings and Facilities	1,741	2,054	1,588
Streetlights and Traffic Signals	893	907	0
Employee Commute	835	769	201
Vehicle Fleet	620	578	646
Solid Waste	139	184	239
Water Supply	9	9	0
Wastewater Treatment	7	7	3
Process and Fugitive	32	42	55
Total	**4,275**	**4,550**	**2,732**
Percent Change from 2021 Levels	—	*+6%*	*-36%*

Notes: Total may not sum exactly due to independent rounding. GHG = greenhouse gas; NLA = No Local Action; $MTCO_2e$ = metric tons of carbon dioxide equivalent;.

Source: City of Elk Grove 2025.

ENERGY

As discussed in Section 3.1, "Energy," the Climate Compass would result in less-than-significant environmental impacts related to wasteful, inefficient, or unnecessary consumption of energy and would not conflict with or obstruct plans for renewable energy or energy efficiency. Under Alternative 1, the City's climate action planning efforts would continue to be guided solely under the currently adopted 2019 CAP as well as by federal and State legislative actions, and thus under Alternative 1 the benefits of the Climate Compass to energy would not occur. For example, this alternative would not reduce reliance on fossil fuels to the same extent as the proposed Plan. Because a new CAP would not be adopted and implemented under Alternative 1, which would include updated strategies and associated actions related to more stringent building code requirements which in turn improve energy efficiency, community and City operations would continue to use fossil fuel energy sources, including natural gas, diesel, and gasoline at greater levels than with the implementation of the Plan's actions. Without a new CAP, Alternative 1 lacks a mechanism that requires the City to transition from fossil fuel energy use to carbon-free energy use outside of the requirements of the legislative actions.

As discussed in Section 3.1, "Energy," of the Draft SEIR, SMUD is required to procure increasing levels of carbon-free energy sources, driven by the requirements of SB 100 and SB 1020. Collectively, SB 100 and SB 1020 require utility providers to supply 90 percent of electricity from eligible renewable energy resources and zero-carbon resources by December 31, 2035; 95 percent by December 31, 2040; and 100 percent by December 31, 2045. SMUD's 2022 Integrated Resource Plan demonstrates that SMUD is capable of meeting these requirements. Additionally, SMUD adopted its 2030 Zero Carbon Plan, which is the roadmap for SMUD to achieve a 100 percent carbon-free electricity supply by 2030, 15 years in advance of the SB 100 requirements. The Climate Compass complements the goals of these legislative actions by helping to achieve SMUD's 2030 Zero Carbon Plan through increasing building and vehicle electrification and installing renewable energy sources. The transition to carbon-free electricity as the main source of energy provides public health benefits through improved air quality by reducing fossil fuel combustion in the city.

While residential and nonresidential development under Alternative 1 would be required to comply with applicable federal and State legislative actions over the long-term (i.e., through 2045) similar to the Climate Compass, Alternative 1 would not provide the same level of long-term reduction in fossil fuel energy consumption and use of carbon-free energy sources as this alternative does not include the proposed Plan's strategies and actions that require the electrification and decarbonization of buildings and facilities, additional EV infrastructure, and energy efficiency and water conservation. In addition, Alternative 1 would also not provide the same level of public health or energy efficiency benefits to the City as the Climate Compass. Therefore, Alternative 1 would have a **greater** impact on energy consumption than the Climate Compass but would still result in less-than-significant environmental impacts related to wasteful, inefficient, or unnecessary consumption of energy and would not conflict with or obstruct plans for renewable energy or energy efficiency.

GREENHOUSE GAS EMISSIONS

As discussed in Section 3.2, "Greenhouse Gas Emissions and Climate Change," the Climate Compass would result in less-than-significant environmental impacts related to GHGs and climate change. As shown above, under the NLA scenario, the City's community GHG emissions are anticipated to decline from 2021 levels through 2045, with GHG emissions decreasing by 7 percent from 2021 levels by 2030 and by 53 percent from 2021 levels by 2045 (Table 5-1). The City's operational GHG emissions are anticipated to increase by 6 percent from 2021 levels by 2030 but would decrease by 36 percent from 2021 levels by 2045 (Table 5-2). Accounting for applicable federal and State legislative actions, GHG emissions from City operations are expected to slightly increase by 2030 from 2021 levels with the city's anticipated population growth and then decline by 2045 with the benefits of legislative actions outpacing the city's growth. Although Alternative 1 would not develop a new CAP that would be consistent with statewide GHG reduction goals as identified in the 2022 Scoping Plan, as directed by AB 1279, this alternative would continue to reduce GHG emissions, although to a much lesser degree than the Climate Compass, within the City throughout the foreseeable future as demonstrated in Tables 5-1 and 5-2. However, this alternative would not meet the City's 2030 and 2045 GHG reduction targets, which would be considered a potentially significant impact. To mitigate this potentially significant impact to a less-than-significant level, a CAP or similar type of plan would need to be developed for the City to provide the strategies and associated actions to serve as the mechanism to reduce GHG emissions consistent with statewide

GHG reduction goals as identified in the 2022 Scoping Plan, as directed by AB 1279. However, because the purpose of this alternative is to examine an alternative that does not implement the project, this mitigation has been deemed infeasible and therefore, this impact would be significant and unavoidable. As such, Alternative 1 would result in a **greater** GHG emissions impact compared to the Climate Compass.

5.4.2 Alternative 2: Removal of Reach Code Actions Alternative

Alternative 2 would be the same as the proposed Plan but would remove Actions BE-1.1 and TR-2.1 from the Community GHG Emissions Reduction Strategies and associated actions list. All strategies and associated actions included for City operations under the proposed Plan would remain the same under this alternative. Actions BE-1.1 and TR-2.1 require the City to adopt reach codes[1] encouraging transition from natural gas powered heating and appliances to electric alternatives for new construction and major renovations in both residential and nonresidential development and for EV charging, respectively. The adoption of reach codes are voluntary, must be cost effective, and are required to be submitted for approval by the CEC.

Table 5-3 shows the GHG emissions reductions quantified for Alternative 2's community GHG emissions reduction strategies and associated actions. As shown in the table, the total estimated community GHG emissions reductions from all strategies quantified would be 335,558 $MTCO_2e$ in 2030 and 356,645 $MTCO_2e$ in 2045. As such, without the development and adoption of building electrification and EV charging reach codes (i.e., Actions BE-1.1 and TR-2.1), the City would still be able to meet its 2030 and 2045 GHG reduction targets.

Table 5-3 Alternative 2 Community GHG Emissions Reduction Strategies

Strategy Number	Strategy Name	GHG Reductions ($MTCO_2e$) 2030	GHG Reductions ($MTCO_2e$) 2045
Buildings and Energy (BE)			
BE-1	Electrify and Decarbonize Buildings	28,957	199,967
BE-2	Increase Density and Expand Affordable Housing	Included in TR-1	Included in TR-1
BE-3	Increase Local Renewable Energy Use and Storage	280,438	0
BE-4	Reduce Energy Consumption and Energy Burden	Included in BE-1	Included in BE-1
	Buildings and Energy Subtotal	**307,396**	**199,967**
Transportation (TR)			
TR-1	Decrease Vehicle Miles Traveled	4,911	5,281
TR-2	Increase Zero-Emission Vehicle Adoption	8,630	110,886
TR-3	Reduce Off-Road Transportation Emissions	9,542	10,856
	Transportation Subtotal	**23,082**	**127,023**
Resilience and Adaptation (RA)			
RA-1	Improve Climate and Emergency Preparedness	N/A	N/A
RA-2	Build Capacity for Current and Future Flooding	N/A	N/A
RA-3	Protect Populations from Wildfire Smoke	N/A	N/A
RA-4	Reduce Exposure to Extreme Heat and Mitigate the Urban Heat Island Effect	Included in RA-5	Included in RA-5
RA-5	Expand the Urban Tree Canopy	185	880
RA-6	Expand Nature-Based Solutions	NA	NA
	Resilience and Adaptation Subtotal	**185**	**880**

[1] A reach code is a local amendment to the California Building Code (CBC). In California, local governments have the authority to adopt amendments to the California Building Standards Code, commonly known as "Title 24" of the California Code of Regulations. These local amendments are often referred to as reach codes because they require performance that exceeds that of the minimum State code. There are two categories of reach codes: 1) Prescriptive Codes, which require one or more specific energy efficiency or renewable energy measures; and 2) Performance Codes, which require buildings to perform more efficiently than Title 24, Part 6 Energy Standards, allowing applicants flexibility in project designs (CECS 2025).

Strategy Number	Strategy Name	GHG Reductions ($MTCO_2e$) 2030	GHG Reductions ($MTCO_2e$) 2045
Resource Consumption (RC)			
RC-1	Increase Organic Waste Diversion	4,755	28,775
RC-2	Promote a Circular Economy	Included in RC-1	Included in RC-1
RC-3	Reduce Water Use	140	0
	Resource Consumption Subtotal	**4,895**	**28,775**
Green Economy (GE)			
GE-1	Support Green Businesses	N/A	N/A
	Green Economy Subtotal	**N/A**	**N/A**
Climate Action Commitment (CA)			
CA-1	Conduct Meaningful Community Outreach	N/A	N/A
CA-2	Provide Community Education on Public Health and Wellbeing	N/A	N/A
CA-3	Provide Community Education on Water Efficiency	N/A	N/A
CA-4	Measure and Manage Climate Action Progress	N/A	N/A
	Climate Action Commitment Subtotal	**N/A**	**N/A**
	Total Reductions from Strategies	**335,558**	**356,645**
	Reduction Needed to Meet Target	*327,615*	*322,498*
	Target Met?	Yes	Yes
	Remaining Gap to Target	-7,943	-34,148

Notes: Total may not sum exactly due to independent rounding. GHG = greenhouse gas; $MTCO_2e$ = metric tons of carbon dioxide equivalent; N/A = not applicable.

Source: City of Elk Grove 2025.

ENERGY

As discussed in Section 3.1, "Energy," the Climate Compass would result in less-than-significant environmental impacts related to wasteful, inefficient, or unnecessary consumption of energy and would not conflict with or obstruct plans for renewable energy or energy efficiency. Alternative 2 would provide similar levels of benefits to energy efficiency and consumption as the Climate Compass, with the exception of the Building and Energy and Transportation focus areas due to the elimination of Actions BE-1.1 and TR-2.1. Because Actions BE-1.1 and TR-2.1 require the City to adopt reach codes encouraging transition from natural gas powered heating and appliances to electric alternatives for new construction and major renovations in both residential and nonresidential development and for EV charging, respectively, the effects of these reach codes are captured in the 2030 GHG emissions reductions since these types of building features are anticipated to become a part of the provisions of the building code over the long-term (i.e., 2045). Under Alternative 2, the removal of the reach code based on the elimination of Action BE-1.1 would result in additional natural gas use in new residential and nonresidential development within the city. The use of new natural gas would increase fossil fuel energy consumption in the City and would not be consistent with the overall goal of the Climate Compass to reduce reliance on fossil fuel energy sources and improve energy efficiency. In addition, under this alternative, the removal of the reach code based on the elimination of Action TR-2.1 would remove the City's ability to increase EV charging infrastructure requirements based on the characteristics of new commercial development above the mandatory provisions of the CALGreen Code. While the elimination of Action TR-2.1 would not necessarily generate additional energy consumption, it would remove the mechanism the City could use to make new development include EV infrastructure above the mandatory provisions of CALGreen Code. Therefore, while Alternative 2 would generally be similar to the Climate Compass, this alternative would have **greater** impacts on energy than the Climate Compass.

GREENHOUSE GAS EMISSIONS

As discussed in Section 3.2, "Greenhouse Gas Emissions and Climate Change," the Climate Compass would result in less-than-significant environmental impacts related to GHGs and climate change. Under Alternative 2, the removal of Actions BE-1.1 and TR-2.1 would reduce the total estimated community GHG emissions reductions from all strategies quantified in 2030 to 335,558 $MTCO_2e$, compared to 385,968 $MTCO_2e$ under the Climate Compass. Specifically, the total estimated community GHG emissions reductions associated with Strategy BE-1 and associated actions would be reduced to 28,957 $MTCO_2e$ under Alternative 2, compared to 36,436 $MTCO_2e$ under the Climate Compass. The total estimated community GHG emissions reductions associated with Strategy TR-2 and associated actions would be reduced to 8,630 $MTCO_2e$ under Alternative 2, compared to 49,607 $MTCO_2e$ under the Climate Compass. In total, by eliminating Actions BE-1.1 and TR-2.1, Alternative 2 would not provide 50,410 $MTCO_2e$ of GHG emissions reductions for 2030 that is provided under the Climate Compass. While this alternative would still meet the City's 2030 and 2045 GHG reduction targets, Alternative 2 would not provide as large of a buffer for the City to meet its 2030 GHG reduction target (i.e., -7,943 $MTCO_2e$ under Alternative 2 compared to -58,353 $MTCO_2e$ under the Climate Compass for 2030). Estimated community GHG emissions reductions under Alternative 2 would be the same as projected for the Climate Compass in 2045 as the provisions of the reach codes included in Actions BE-1.1 and TR-2.1 are anticipated to become a part of the provisions of the building code over the long-term. Therefore, Alternative 2 would have **greater** impacts on GHG emissions than the Climate Compass.

5.4.3 Alternative 3: Transit Expansion Alternative

Alternative 3 assumes the Climate Compass would be amended to include a new action (i.e., TR-1.9) to support Community Strategy TR-1, "Decrease Vehicle Miles Traveled," and its associated actions (i.e., TR-1.1 through TR-1.8). The new Action TR-1.9 would be developed to include the expansion of bus services within the southwestern area of the City to support future fixed route light rail transit and/or bus rapid transit extension projects carried forward by the City in partnership with SacRT (i.e., Blue Line/Bus Rapid Transit extension project or other future projects implemented under SacRT on the Move: Short-Range Transit Plan). Under this alternative, the City would work with SacRT to provide financial resources for additional bus line(s) within the southwestern area of the City (refer to Figure 5-1). In addition, the headways of the existing bus routes that run within city limits would be shortened to every 15 minutes to decrease wait times and increase connectivity to the larger transit system, which in turn would incentivize using the City's alternative transportation system and ultimately decrease VMT and GHG emissions.

ENERGY

As discussed in Section 3.1, "Energy," the Climate Compass would result in less-than-significant environmental impacts related to wasteful, inefficient, or unnecessary consumption of energy and would not conflict with or obstruct plans for renewable energy or energy efficiency. Under Alternative 3, the new Action TR-1.9 would require the City to coordinate with SacRT to add bus routes within the urban core of the city and increase existing bus headways to every 15 minutes to improve connectivity between the regional transit system and local transit system. Implementation of Action TR-1.9 would help to further reduce reliance on fossil fuel energy consumption by expanding alternative transportation services within the city to areas currently not fully served by transit as well as increase the frequency to help incentivize the use of such services. By increasing reliability and accessibility, more residents are anticipated to use alternative transportation regularly, which would help reduce VMT and reduce fossil fuel consumption in single-occupancy vehicles. While increasing bus routes and headways would promote the use of alternative transportation, it is speculative at this time to determine if this alternative would be different enough from the Climate Compass, from an impact perspective, to differentiate from the benefits of the proposed Plan. Therefore, this alternative would result in **similar** impacts to energy as the Climate Compass.

GREENHOUSE GAS EMISSIONS

As discussed in Section 3.2, "Greenhouse Gas Emissions and Climate Change," the Climate Compass would result in less-than-significant environmental impacts related to GHGs and climate change. Because Alternative 3 was not modeled as part of the Climate Compass and did not include separate VMT modeling to quantify the potential GHG emissions reductions that could be provided by this alternative, this alternative has been evaluated qualitatively. Increasing the number of bus routes under this alternative would be expected to result in additional GHG emissions reductions as the new bus routes would be along roadways that currently do not have bus routes and are located in proximity to the planned blue line extension in the City's General Plan, where they would provide alternative transportation services to new residents/areas of the city and help to further reduce VMT-generated GHG emissions by increasing alternative transportation services in the city. While increasing bus routes and headways would increase the frequency and timing of the local bus system and would help to improve connectivity within the City and with the regional transit system, it is speculative at this time to determine if increasing existing bus headways would result in additional GHG emissions reductions that are substantial enough to differentiate from the benefits of the Climate Compass. Therefore, this alternative would result in **similar** impacts to GHGs and climate change as the Climate Compass.

5.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

As illustrated in Table 5-4, below, Alternative 3, Transit Expansion Alternative, would be the environmentally superior alternative because this alternative would be similar to the Climate Compass but would include an additional action to expand the transit system to improve connectivity between the local and regional transit and bus systems. Although the environmental impacts would be similar to the proposed project, implementation of Alternative 3 would promote use of the city's alternative transportation system and ultimately decrease VMT and single occupancy vehicle trips while also further reducing VMT-generated GHG emissions. However, implementation of this alternative would require further coordination with SacRT on changes to transit service operations and additional funding resources that may not ultimately be available.

Table 5-4 Summary of Environmental Effects of the Alternatives Relative to the Proposed Climate Compass

Environmental Topic	Proposed Project	Alternative 1: No Project Alternative	Alternative 2: Removal of Reach Code Actions Alternative	Alternative 3: Transit Expansion Alternative
Energy	LTS	Greater	Greater	Similar
Greenhouse Gas Emissions	LTS	Greater	Greater	Similar

6 OTHER CEQA-MANDATED SECTIONS

6.1 GROWTH INDUCEMENT

Section 21100(b)(5) of the State California Environmental Quality Act (CEQA) Guidelines specifies that the growth-inducing impacts of a project must be addressed in an EIR. Section 15126.2(e) of the State CEQA Guidelines provides the following guidance for assessing growth-inducing impacts of a project:

> Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a wastewater treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also, discuss the characteristics of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

A project can induce growth directly, indirectly, or both. Direct growth inducement would result if a project involved construction of new housing. Indirect growth inducement would result, for instance, if implementing a project resulted in any of the following:

- substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises) that would encourage development of new housing for employees;
- substantial short-term employment opportunities (e.g., construction employment) that indirectly stimulates the need for additional housing and services to support the new temporary employment demand; and/or
- removal of an obstacle to additional growth and development, such as removing a constraint on a required public utility or service (e.g., construction of a major sewer line with excess capacity through an undeveloped area). Infrastructure projects could also indirectly stimulate growth by enhancing access to properties or increasing their desirability for development.

Growth inducement itself is not an environmental effect but may foreseeably lead to environmental effects. If substantial growth inducement occurs, it can result in secondary environmental effects, such as increased demand for housing, demand for other community and public services and infrastructure capacity, increased traffic and noise, degradation of air or water quality, degradation or loss of plant or animal habitats, conversion of agricultural and open-space land to urban uses, and other effects.

6.1.1 Growth-Inducing Impacts of the Climate Compass

The General Plan established a Planning Area of approximately 31,238 acres (48.8 square miles), which includes all land within the current city limits as well as lands outside the city limits in unincorporated Sacramento County to the south and east that, in the City of Elk Grove's (City's) judgment, bears relation to its planning efforts (referred to as study areas). As discussed in the City's General Plan Update Environmental Impact Report (General Plan EIR) (SCH No. 2017062058), approximately 45,397 new housing units could be accommodated under the General Plan land use plan within the Planning Area under buildout conditions. Under buildout conditions, the City's population would be estimated to grow by approximately 155,282 residents to a total of 332,254 residents. While the General Plan EIR recognized that future urban development outside of the City limits may be appropriate to accommodate future growth and identified Study Areas as possible annexation areas for the City to accommodate such growth, these areas were not included within the environmental analysis of the General Plan EIR.

To evaluate the environmental impacts of the most recent amendment to the General Plan for the General Plan Amendments and Update of Vehicle Miles Traveled (VMT) Standards Project (GPAs/VMT Standards Project), a subsequent EIR to the General Plan EIR (2023 Subsequent EIR) (SCH No. 2022020463) was prepared. As discussed in the 2023 Subsequent EIR, the GPAs/VMT Standards Project amended the City's land use plan and map, which included the identified Study Areas discussed in the General Plan EIR, to accommodate approximately 1,851 new housing units and approximately 5,979 residents within the Planning Area. The 2023 Subsequent EIR determined that while implementation of the GPAs/VMT Standards Project would facilitate development beyond Sacramento Area Council of Governments' (SACOG's) population and housing projections for 2040, the GPAs/VMT Standards Project did not assume full buildout conditions would occur by 2040 because full buildout is unlikely as it would require that every lot in Elk Grove be developed to its maximum potential. Additionally, because SACOG would update their population projections to reflect new forecasts for each city in the region during their next planning update, this update would account for the amendment to the City's General Plan and would align regional and local forecasts. Furthermore, future development under the GPAs/VMT Standards Project would be dispersed throughout the Planning Area to specific growth areas and would not change the boundaries of the Planning Area. Therefore, the 2023 Subsequent EIR determined there would be no new significant growth and growth impacts would not be more severe than those identified in the General Plan EIR.

POPULATION GROWTH

The Climate Compass is a planning document that does not include any land use or zoning changes; site-specific development, designs, or proposals; nor does it grant any entitlements for development that would result in environmental impacts. Rather, the Climate Compass would promote more sustainable development that could already occur under the General Plan, as amended. As a planning document, the Climate Compass would generally encourage electrification and decarbonization of buildings and infrastructure, increase renewable energy use and storage, reduce energy and resource consumption, improve clean and efficient transportation, strengthen resilience and adaptation measures, support green economy, and enhance public education and outreach around climate issues.

The Plan is not by itself directly growth inducing because it does not increase densities or modify intensities of allowable land uses and does not directly include site-specific projects that would induce population growth. No changes to the current General Plan land use designations are proposed under the Climate Compass. The Climate Compass establishes the framework for the City to achieve its GHG emission reduction targets and includes strategies and actions to adapt to anticipated climate-related impacts. Adoption and implementation of the Plan would not facilitate development of residential uses within the city and as such would not directly generate population growth.

While implementation of some of the strategies and actions contained in the Plan may result in future improvements to alternative modes of transportation, such as new bicycle lanes or pedestrian paths or improved alternative transportation routes and programs, the Plan would not facilitate the development of new roadways that could create or increase wholesale access to any areas within the city. Rather, these future improvements would reduce GHG emissions by improving multimodal transportation options throughout the city to increase connectivity and reduce VMT. Therefore, adoption and implementation of the Climate Compass would not indirectly generate population growth by constructing new infrastructure that would provide access to new, developable areas of the city.

Strategies and actions that commit the City to work with partners to promote and support on-site renewable energy generation and storage are intended to increase renewable energy generation and use in the city. The Plan encourages more sustainable, energy efficient development within the city, where development would be able to use renewable energy to power on-site facilities or improve the City's ability to use renewable energy for municipal operations. However, the Plan does not propose to replace existing utility services with large-scale renewable energy projects, which could indirectly induce population growth.

As explained further in Chapter 2, "Project Description," the Climate Compass has been prepared consistent with the tiering and streamlining provisions of State CEQA Guidelines Section 15183.5, which allows for streamlining future project-specific GHG emissions analyses where projects considered by the City are within the buildout assumptions included in a GHG reduction plan and can demonstrate consistency with the CAP measures and actions. As a secondary

process to the Climate Compass once adopted, the City would develop the Climate Compass Consistency Review Checklist to provide a process and evidence by which subsequent development projects would demonstrate consistency with the Plan. If subsequent projects are found to be consistent with the Climate Compass (and within the growth projections assumed therein), then the environmental documents prepared for these projects can rely upon and incorporate by reference the cumulative GHG analysis for the Climate Compass, as presented in this Draft SEIR. However, if a project is not consistent with the General Plan, as amended, or its land use designations, then it would not be eligible for streamlining and require project-specific analysis and environmental review.

The streamlining provision may reduce the need for subsequent development projects that are within the scope of projected growth to undertake project-specific analysis of GHG emissions and identify mitigation measures. However, establishing a program for addressing cumulative emissions from the community would not facilitate growth or indirectly remove obstacles to growth. Therefore, to the extent that future projects streamline GHG analyses through demonstrated consistency with the Climate Compass, would not result in indirect inducement of growth beyond the scope of the General Plan EIR, as amended by the 2023 Subsequent EIR.

ECONOMIC GROWTH

Implementation of the Climate Compass would likely result in some capital improvements and may result in incentivization of energy efficiency and renewable energy improvements, expansion of alternatively fueled vehicles, water conservation improvements, and expansion of waste diversion services. These actions could result in a small number of new jobs, specifically related to construction and maintenance services, but are not expected to result in a substantial increase in the demand for additional housing or public services. These jobs would likely be filled by the existing labor pool within the city, and are, therefore, not expected to be growth inducing.

6.2 SIGNIFICANT AND UNAVOIDABLE ADVERSE IMPACTS

Section 15126.2(b) of the State CEQA Guidelines requires EIRs to include a discussion of the significant environmental effects that cannot be avoided if a project is implemented. As demonstrated within Chapter 3, "Environmental Setting, Impacts, And Mitigation Measures," and Chapter 4, "Cumulative Impacts," of this Draft SEIR, adoption and implementation of the Climate Compass would not result in any significant and unavoidable impacts. Furthermore, implementation of the Climate Compass would result in less severe impacts than those disclosed in the General Plan EIR, as amended by the 2023 Subsequent EIR.

6.3 SIGNIFICANT AND IRREVERSIBLE ENVIRONMENTAL CHANGES

State CEQA Guidelines Section 15126.2(c) requires that an EIR evaluate the commitment of nonrenewable resources that would be considered irreversible by future generations. An example of this type of commitment may include the construction of a roadway that would provide access to previously inaccessible environmental lands. Irretrievable commitments of resources should be evaluated to ensure that such current consumption is justified. In addition, Section 15126.2(b) of the State CEQA Guidelines indicates that potentially significant energy implications of a project shall be considered in an EIR to the extent relevant and applicable to the project. This Draft SEIR considers the use of energy in Section 3.1, "Energy," which should be referred to for a comprehensive evaluation of energy use related to the Climate Compass.

As previously described, the Climate Compass identifies the strategies and actions that would need to be undertaken to reduce GHG emissions consistent with State legislative requirements and local targets and goals and would not result in growth-inducing impacts. As described in Section 2.2, "Project Objectives," in Chapter 2, "Project Description," the primary focus of the Plan is to comprehensively update the City's current CAP to align with California's GHG reduction goals and relevant regulations aimed at climate mitigation. The Plan generally encourages electrification and decarbonization of buildings and infrastructure, increases renewable energy use and storage, reduces energy and resource consumption, improves clean and efficient transportation, strengthens resilience and adaptation measures, supports a green economy, and enhances public education and outreach around climate issues. Some of the actions

may indirectly result in the construction of some improvements that would require the use of fuel and building materials during construction; however, the result of the improvements would be a long-term reduction in energy consumption and a reduction in the use of nonrenewable energy sources. Continued operation and maintenance of some of the facilities may require the use of additional fuel and water consumption; however, such use would be insignificant compared to the overall reduction in use of these resources that would result from implementation of the Climate Compass. Therefore, no significant irreversible environmental changes would occur.

7 REPORT PREPARERS

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Appendix A

Notice of Preparation and
Comment Letters

CITY OF ELK GROVE
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NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT

DATE:	**December 6, 2024**
TO:	**Responsible and Trustee Agencies, Organizations, and Interested Parties**
LEAD AGENCY:	**City of Elk Grove** **Contact: Carrie Whitlock, Strategic Planning and Innovation Program Manager** **8401 Laguna Palms Way** **Elk Grove, CA 95758**
PROJECT:	**Climate Compass Project**
APPLICANT:	**City of Elk Grove**
COMMENT PERIOD:	**December 6, 2024 to January 15, 2025**

In discharging its duties under Section 15021 of the California Environmental Quality Act (CEQA) Guidelines, the City of Elk Grove (hereinafter "City" or "Elk Grove"), as lead agency, intends to prepare a Supplemental Environmental Impact Report (SEIR) to the General Plan Update Environmental Impact Report (GPU EIR) (SCH No. 2017062058), as updated by the General Plan Amendments and Update to Vehicle Miles Traveled Standards Subsequent EIR (State Clearinghouse No. 2022020463) (hereinafter referred to collectively as the GPU EIR), for the update to its 2019 Climate Action Plan (CAP), referred to now as the Climate Compass (the "Project"). Since the City made the determination that a SEIR would be appropriate based on a preliminary review of the Project, an initial study has not been prepared pursuant with CEQA Guidelines Section 15063(a). In accordance with Section 15082 of the CEQA Guidelines, this Notice of Preparation (NOP) provides a Project Description, location, and the probable environmental effects of implementation of the proposed Project.

The NOP will be circulated for a 30-day public review and comment period, which extends from December 6, 2024 to January 15, 2025. The City is soliciting comments regarding the scope and content of the SEIR as they relate to other agencies' statutory responsibilities in connection with the proposed Project, as well as comments from interested members of the public. The City will rely on responsible and trustee agencies to provide information relevant to the analysis of resources falling within the jurisdiction of such agencies. The City welcomes public input during the review period. If the City has not received either a response or a well-justified request for additional time by a responsible agency or the Governor's Office of Land Use and Climate Innovation (formerly known as the Office of Planning and Research) by the end of the review period, the City may presume that each responsible and trustee agency and the Office of Land Use and Climate Innovation had no response to make (CEQA Guidelines, Section 15082(b)(2)).

Comments may be submitted in writing during the review period and addressed to:

City of Elk Grove
Office of Strategic Planning and Innovation
c/o Carrie Whitlock
8401 Laguna Palms Way
Elk Grove, CA 95758
cwhitlock@elkgrovecity.org

This NOP is also posted at: https://www.elkgrovecity.org/planning/environmental-review

CEQA provides for a lead agency to facilitate one or more scoping meetings, which provide additional opportunity for determining the scope and content of the SEIR. The City will host a scoping meeting on January 9, 2025, from 6 pm at City of Elk Grove, Council Chambers, 8400 Laguna Palms Way, Elk Grove, CA 95758. Information related to the proposed Project, including how to access Project documents and how to participate in the public review process will be provided at the scoping meeting.

PROJECT LOCATION AND SETTING

The Climate Compass is intended to serve as the long-term climate action plan for the City of Elk Grove. The City is approximately 43 square miles and is generally bounded by Interstate 5 (I-5) on the west; Calvine Road and the City of Sacramento on the north; Grant Line Road on the east; and Kammerer Road on the south. State Route (SR) 99 runs north–south, bisecting the City near its center (refer to Figure 1). Existing land uses include a mix of agriculture, residential, nonresidential (commercial, office, and industrial), parks and open space, civic/institutional, public and quasi-public spaces, roadways, and other infrastructure, and vacant land.

PROJECT DESCRIPTION

The City prioritizes climate action in both communitywide and in City operations. In 2013, the City adopted its first CAP as a citywide plan to reduce greenhouse gas (GHG) emissions. The 2013 CAP was updated in 2019 to incorporate state-recommended targets and monitor progress from its previous iteration. The Climate Compass is proposed as an update to the 2019 CAP.

The Climate Compass establishes a roadmap for the City to achieve its GHG emission reduction targets and includes actions and strategies to adapt to anticipated climate-related impacts. The plan intends to enhance the quality of life for all residents, promote equity, and strengthen community resilience in the face of a changing climate. In addition, the Project aligns local efforts with Assembly Bill (AB) 1279, which requires California to achieve net-zero GHG emissions by 2045 and an 85 percent reduction in anthropogenic GHG emissions by 2045.

The Climate Compass is comprised of the following six chapters and appendices:

- **Chapter 1, Introduction:** this chapter provides an introduction to the Climate Compass as well as to the overall climate action planning process and key methodologies and terms. This chapter also provides on overview of the development of the Climate Compass to date, including summarizing public and agency input, as well as how the plan fits in with the State's larger climate planning efforts.
- **Chapter 2, GHG Inventory and Targets:** this chapter provides the foundation for the Climate Compass, presenting the City's GHG emissions inventory, emissions forecasts, and the targets for reducing emissions in line with State and local goals.
- **Chapter 3**, **Climate Action Strategies:** this chapter addresses the comprehensive strategies and actions the City would implement to reduce GHG emissions across various sectors, such as energy, transportation, land use, and waste management, while also promoting community resilience and adaptation to climate change impacts.
- **Chapter 4, City Operations:** this chapter focuses on the strategies and actions the City would adopt to reduce GHG emissions from government operations.
- **Chapter 5, Implementation and Monitoring:** this chapter details the implementation framework for the Climate Compass, including timelines, funding strategies, partnerships, and the monitoring and reporting processes to ensure the plan's success.
- **Chapter 6, Work Cited:** this chapter provides the sources used in the development of the plan.
- **Appendices** include more detailed information on GHG emissions inventories and forecasts, strategy quantification, and supporting documents, such as a cost analysis and funding and financing roadmap.

As detailed within Chapter 3, the Climate Compass includes various strategies and actions that aid in mitigating GHG emissions and promote adapting to climate impacts in the community. The strategies are centered around six focus areas and are further supported with specific actions defining activities, programs, policies, community partnerships, or projects the City would implement to achieve GHG mitigation and adaptation goals. The six focus areas and proposed strategies include:

1) Building Energy
   - Strategy BE-1: Electrify and Decarbonize Buildings
   - Strategy BE-2: Increase Density and Expand Affordable Housing
   - Strategy BE-3: Increase Local Renewable Energy Use and Storage
   - Strategy BE-4: Reduce Energy Consumption and Energy Burden
2) Transportation
   - Strategy TR-1: Decrease Vehicle Miles Traveled
   - Strategy TR-2: Increase Zero-Emission Vehicle (ZEV) Adoption
   - Strategy TR-3: Reduce Off-Road Transportation Emissions
3) Resilience and Adaptation
   - Strategy RA-1: Improve Climate and Emergency Preparedness
   - Strategy RA-2: Building Capacity for Current and Future Flooding
   - Strategy RA-3: Protect Populations from Wildfire Smoke
   - Strategy RA-4: Reduce Exposure to Extreme Heat and Mitigate the Urban Heat Island Effect
   - Strategy RA-5: Expand the Tree Canopy
   - Strategy RA-6: Expand Nature-Based Solutions
4) Resource Consumption
   - Strategy RC-1: Increase Organic Waste Diversion
   - Strategy RC-2: Promote Circular Economy
   - Strategy RC-3: Reduce Water Use
5) Green Economy
   - Strategy GE-1: Support Green Businesses
   - Strategy GE-2: Develop a Green Workforce
6) Climate Action Commitment
   - Strategy CA-1: Conduct Meaningful Community Outreach
   - Strategy CA-4: Provide Community Education on Public Health and Wellbeing
   - Strategy CA-5: Provide Community Education on Water Efficiency
   - Strategy CA-6: Identify Metrics for Success

While the strategies and actions included in the Climate Compass are primarily intended to mitigate GHG emissions and promote adaptation, many of them would also result in one or more co-benefits related to community resilience, economic diversity, equity, air pollution reduction, health and wellbeing, infrastructure reliability, and resource preservation.

PROBABLE ENVIRONMENTAL EFFECTS

The Draft SEIR to the City's GPU EIR will evaluate whether implementing the proposed Project would potentially result in one or more significant environmental effects. Due to the nature of the proposed Project, the following issue areas will be addressed in detail within the Draft SEIR:

- energy, and
- greenhouse gases emissions and climate change.

In regard to all other environmental issue areas, the Project is not anticipated to result in new significant impacts or substantially increase the severity of significant environmental impacts evaluated in the GPU EIR. For this reason, the following environmental issue areas will be briefly discussed within the Draft SEIR to disclose the rationale why the proposed Project would not result in foreseeable significant environmental impacts from those disclosed in the GPU EIR:

- aesthetics;
- agricultural resources;
- air quality;
- biological resources;
- archaeological, historical, and tribal cultural resources;
- geology, soils, mineral resources, and paleontology;
- hazards and hazardous materials;
- hydrology and water quality;
- noise and vibration;
- population and housing;
- public services and recreation;
- utilities and service systems;
- transportation; and
- wildfire.



Source: adapted by Ascent in 2024.

Figure 1 Project Location

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
North Central Region
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670-4599
(916) 358-2900
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

January 14, 2025

Carrie Whitlock
Strategic Planning and Innovation Program Manager
City of Elk Grove
Office of Strategic Planning and Innovation
8401 Laguna Palms Way
Elk Grove, CA 95758
cwhitlock@elkgrovecity.org

Subject: CLIMATE COMPASS PROJECT
DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT (DSEIR)
SCH No. 2017062058

Dear Carrie Whitlock:

The California Department of Fish and Wildlife (CDFW) received and reviewed the Notice of Preparation of a Draft Supplemental Environmental Impact Report (DSEIR) from the City of Elk Grove for the Climate Compass Project (Project) in Sacramento County pursuant the California Environmental Quality Act (CEQA) statute and guidelines.[1]

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish, wildlife, plants and their habitats. Likewise, CDFW appreciates the opportunity to provide comments regarding those aspects of the Project that it, by law, may need to exercise its own regulatory authority under the Fish and Game Code (Fish & G. Code).

CDFW ROLE

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a).). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Fish & G. Code, § 1802.). Similarly, for purposes of CEQA, CDFW provides, as available, biological expertise during public agency

1 CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW may also act as a Responsible Agency under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority. (Fish & G. Code, § 1600 et seq.) Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), the project proponent may seek related take authorization as provided by the Fish and Game Code.

PROJECT DESCRIPTION SUMMARY

The Project site is located within the boundaries of the City of Elk Grove (the City) which is generally bounded by Interstate 5 (I-5) on the west; Calvine Road and the City of Sacramento on the north; Grant Line Road on the east; and Kammerer Road on the south. State Route (SR) 99 runs north–south, bisecting the City near its center.

The Project consists of updating the 2019 Climate Action Plan (CAP) to establish a roadmap for the City to achieve its greenhouse gas (GHG) emission reduction targets and includes actions and strategies to adapt to anticipated climate-related impacts. The plan intends to enhance the quality of life for all residents, promote equity, and strengthen community resilience in the face of a changing climate. In addition, the Project aligns local efforts with Assembly Bill (AB) 1279, which requires California to achieve net-zero GHG emissions by 2045 and an 85 percent reduction in anthropogenic GHG emissions by 2045.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations presented below to assist the City in adequately identifying and/or mitigating the Project's significant, or potentially significant, impacts on biological resources. The comments and recommendations are also offered to enable CDFW to adequately review and comment on the proposed Project with respect to impacts on biological resources. CDFW recommends that the forthcoming DSEIR address the following:

Project Description

The Project description should include the whole action as defined in the CEQA Guidelines § 15378. As required by § 15126.6 of the CEQA Guidelines, the DSEIR should include an appropriate range of reasonable and feasible alternatives that would attain most of the basic Project objectives and avoid or minimize significant impacts to resources under CDFW's jurisdiction.

Assessment of Biological Resources

Section 15125(c) of the CEQA Guidelines states that knowledge of the regional setting of a project is critical to the assessment of environmental impacts and that special emphasis should be placed on environmental resources that are rare or unique to the region. To enable CDFW staff to adequately review and comment on the Project, the DSEIR should include a complete assessment of the flora and fauna within and adjacent to the Project footprint, with emphasis on identifying rare, threatened, endangered, and other sensitive species and their associated habitats. CDFW recommends the DSEIR specifically include:

1. A general assessment of all habitat types located within the Project footprint, and a generalized map that identifies the location of each habitat type. CDFW recommends that floristic, alliance- and/or association-based mapping and assessment be completed following, *The Manual of California Vegetation*, second edition (Sawyer 2009). Adjoining habitat areas should also be included in this assessment where site activities could lead to direct or indirect impacts offsite. Habitat mapping at the alliance level will help establish baseline vegetation conditions.

2. A general biological inventory of the fish, amphibian, reptile, bird, and mammal species that are present or have the potential to be present within each habitat type onsite and within adjacent areas that could be affected by the Project. CDFW recommends that the California Natural Diversity Database (CNDDB), as well as previous studies performed in the area, be consulted to assess the potential presence of sensitive species and habitats. A nine United States Geologic Survey 7.5-minute quadrangle search is recommended to determine what may occur in the region, larger if the Project area extends past one quad (see *Data Use Guidelines* on the CDFW webpage www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data). Please review the webpage for information on how to access the database to obtain current information on any previously reported sensitive species and habitat, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code, in the vicinity of the Project. CDFW recommends that CNDDB Field Survey Forms be completed and submitted to CNDDB to document survey results. Online forms can be obtained and submitted at: https://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data.

   Please note that CDFW's CNDDB is not exhaustive in terms of the data it houses, nor is it an absence database. CDFW recommends that it be used as a starting point in gathering information about the *potential presence* of species within the general area of the Project site. Other sources for identification of species and habitats near or adjacent to the Project area should include, but may not be limited to, State and federal resource agency lists, California Wildlife Habitat Relationship System, California Native Plant Society Inventory, agency contacts, environmental documents for other projects in the vicinity, academics, and professional or scientific organizations.

3. An inventory of rare, threatened, endangered, and other sensitive species potentially located within the Project footprint and within offsite areas with the potential to be affected, including California Species of Special Concern and California Fully Protected Species (Fish & G. Code § § 3511, 4700, 5050, and 5515). Species to be addressed should include all those which meet the CEQA definition (CEQA Guidelines § 15380). The inventory should address seasonal variations in use of the Project area and should not be limited to resident species. CDFW recommends the City rely on survey and monitoring protocols and guidelines available at: www.wildlife.ca.gov/Conservation/Survey-Protocols. Alternative survey protocols may be warranted; justification should be provided to substantiate why an alternative protocol is necessary. Acceptable species-specific survey procedures should be developed in consultation with CDFW and the U.S. Fish and Wildlife Service, where necessary. Some aspects of the Project may warrant periodic updated surveys for certain sensitive taxa, particularly if the Project is proposed to occur over a protracted time frame, or in phases, or if surveys are completed during periods of drought or deluge.

4. Information on the regional setting that is critical to an assessment of environmental impacts, with special emphasis on resources that are rare or unique to the region (CEQA Guidelines § 15125[c]).

Analysis of Direct, Indirect, and Cumulative Impacts to Biological Resources

The DSEIR should provide a thorough discussion of the Project's potential direct, indirect, and cumulative impacts on biological resources. To ensure that Project impacts on biological resources are fully analyzed, the following information should be included in the DSEIR:

1. The DSEIR should define the threshold of significance for each impact and describe the criteria used to determine whether the impacts are significant (CEQA Guidelines, § 15064, subd. (f)). The DSEIR must demonstrate that the significant environmental impacts of the Project were adequately investigated and discussed, and it must permit the significant effects of the Project to be considered in the full environmental context.

2. A discussion of potential impacts from lighting, noise, human activity, and wildlife-human interactions created by Project activities especially those adjacent to natural areas, exotic and/or invasive species occurrences, and drainages. The DSEIR should address Project-related changes to drainage patterns and water quality within, upstream, and downstream of the Project site, including: volume, velocity, and frequency of existing and post-Project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and post-Project fate of runoff from the Project site.

3. A discussion of potential indirect Project impacts on biological resources, including resources in areas adjacent to the Project footprint, such as nearby public lands (e.g., National Forests, State Parks, etc.), open space, adjacent

natural habitats, riparian ecosystems, wildlife corridors, and any designated and/or proposed reserve or mitigation lands (e.g., preserved lands associated with a Conservation or Recovery Plan, or other conserved lands).

4. A cumulative effects analysis developed as described under CEQA Guidelines section 15130. The DSEIR should discuss the Project's cumulative impacts on natural resources and determine if that contribution would result in a significant impact. The DSEIR should include a list of present, past, and probable future projects producing related impacts to biological resources or shall include a summary of the projections contained in an adopted local, regional, or statewide plan, that consider conditions contributing to a cumulative effect. The cumulative analysis shall include impact analysis of vegetation and habitat reductions within the area and their potential cumulative effects. Please include all potential direct and indirect Project-related impacts to riparian areas, wetlands, wildlife corridors or wildlife movement areas, aquatic habitats, sensitive species and/or special-status species, open space, and adjacent natural habitats in the cumulative effects analysis.

CDFW supports Project activities that help reduce GHG emissions to reduce climate change, especially if the Project activities avoid or minimize impacts to sensitive biological resources and effectively conserve wetlands, riparian forests, oak woodlands, streams, and other sensitive habitats.

Mitigation Measures for Project Impacts on Biological Resources

The DSEIR should include appropriate and adequate avoidance, minimization, and/or mitigation measures for all direct, indirect, and cumulative impacts that are expected to occur as a result of the Project. CDFW also recommends the environmental documentation provide scientifically supported discussion regarding adequate avoidance, minimization, and/or mitigation measures to address the Project's significant impacts upon fish and wildlife and their habitat. In order for mitigation measures to be effective, they must be specific, enforceable, and feasible actions that will improve environmental conditions. When proposing measures to avoid, minimize, or mitigate impacts, CDFW recommends consideration of the following:

1. *Fully Protected Species*: Several Fully Protected Species (Fish & G. Code § 3511 and 4700) have the potential to occur within or adjacent to the Project area, including, but not limited to: California black rail (*Laterallus jamaicensis coturniculus*), golden eagle (*Aquila chrysaetos*), white-tailed kite (*Elanus leucurus*), ringtail (*Genus Bassariscus*), and wolverine (*Gulo luscus*). Project activities described in the DSEIR should be designed to completely avoid any fully protected species. CDFW recommends that the City include in the analysis how appropriate avoidance, minimization and mitigation measures will reduce indirect impacts to fully protected species.

2. *Species of Special Concern*: Several Species of Special Concern (SSC) have the potential to occur within or adjacent to the Project area, including, but not limited to: western spadefoot (*Spea hammondii*), burrowing owl (*Athene cunicularia*),

western pond turtle (*Emys marmorata*), and loggerhead shrike (*Lanius ludovicianus*). Project activities described in the DSEIR should be designed to avoid any SSC. CDFW recommends the City include in the analysis how appropriate avoidance, minimization and mitigation measures will reduce impacts to SSC.

3. *Sensitive Plant Communities*: CDFW considers sensitive plant communities to be imperiled habitats having both local and regional significance. Plant communities, alliances, and associations with a statewide ranking of S-1, S-2, S-3, and S-4 should be considered sensitive and declining at the local and regional level. These ranks can be obtained by querying the CNDDB and are included in *The Manual of California Vegetation* (Sawyer 2009). The DSEIR should include measures to fully avoid and otherwise protect sensitive plant communities from Project-related direct and indirect impacts.

4. *Mitigation*: CDFW considers adverse Project-related impacts to sensitive species and habitats to be significant to both local and regional ecosystems, and the DSEIR should include mitigation measures for adverse Project-related impacts to these resources. Mitigation measures should emphasize avoidance and reduction of Project impacts. For unavoidable impacts, onsite habitat restoration, enhancement, or permanent protection should be evaluated and discussed in detail. If onsite mitigation is not feasible or would not be biologically viable and therefore would not adequately mitigate the loss of biological functions and values, offsite mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed.

   The DSEIR should include measures to perpetually protect the targeted habitat values within mitigation areas from direct and indirect adverse impacts in order to meet mitigation objectives to offset Project-induced qualitative and quantitative losses of biological values. Specific issues that should be addressed include restrictions on access, proposed land dedications, long-term monitoring and management programs, control of illegal dumping, water pollution, increased human intrusion, etc.

   The City identified expanding the tree canopy in the 2019 CAP as a sustainability planning strategy which sequesters carbon dioxide from the atmosphere by focusing on habitat preservation, increasing urban forest, and creating air quality improvements through pollutant sequestration. CDFW supports Project activities that provide carbon storage in natural and working lands to mitigate GHG emissions. CDFW recommends that carbon storage involves the usage of native trees and shrubs to restore the natural habitats of special-status species such as riparian forests and oak woodlands. CDFW recognizes potential City's concerns about the increased risk of wildfires from the plantings due to climate change, so CDFW recommends that native fire-resistant species be considered as part of the planting palette suchlike California buckeyes (*Aesculus californica*).

The NOP also discussed preparation for increased flooding resulting from climate change involving building capacity for current and future flooding. CDFW recommends that some of the improvements be focused on improvement of fish habitats. Project activities that benefit fish species, such as restoring degraded channels and floodplains to original form and function, removing natural barriers to increase spawning habitat, and protecting and improving wetland-fed streams that maintain higher summer flows can also create new flood capacity and increase water retention. In addition, restoring and replanting concrete lined channels and bared disturbed areas (around streams) to act as flood protection, improve water quality, and prevent erosion/sedimentation would help deal with climate change effects. CDFW strongly supports these Project activities as they increase stream habitat resiliency as well as provide restored habitat for local native species.

5. *Habitat Revegetation/Restoration Plans*: Plans for restoration and revegetation should be prepared by persons with expertise in the regional ecosystems and native plant restoration techniques. Plans should identify the assumptions used to develop the proposed restoration strategy. Each plan should include the following parameters: (a) the location of restoration sites and assessment of appropriate reference sites; (b) the plant species to be used, sources of local propagules, container sizes, and seeding rates; (c) a schematic depicting the mitigation area; (d) a local seed and cuttings and planting schedule; (e) a description of the irrigation methodology; (f) measures to control exotic vegetation on site; (g) specific success criteria; (h) a detailed monitoring program; (i) contingency measures should the success criteria not be met; and (j) identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity. Monitoring of restoration areas should extend across a sufficient time frame to ensure that the new habitat is established, self-sustaining, and capable of surviving drought.

   CDFW recommends that local onsite propagules from the Project area and nearby vicinity be collected and used for restoration purposes. Onsite seed collection should be appropriately timed to ensure the viability of the seeds when planted. Onsite vegetation mapping at the alliance and/or association level should be used to develop appropriate restoration goals and local plant palettes. Reference areas should be identified to help guide restoration efforts. Specific restoration plans should be developed for various Project components as appropriate. Restoration objectives should include protecting special habitat elements or re-creating them in areas affected by the Project. Examples may include retention of woody material, logs, snags, rocks, and brush piles. Fish and Game Code sections 1002, 1002.5 and 1003 authorize CDFW to issue permits for the take or possession of plants and wildlife for scientific, educational, and propagation purposes. Please see our website for more information on Scientific Collecting Permits at www.wildlife.ca.gov/Licensing/Scientific-Collecting#53949678-regulations-.

   Another area of restoration mitigation opportunity is invasive plant species

management. Many rare, threatened, and endangered native plants are more susceptible to extinction caused by climate change due principally to small population sizes and limited suitable habitat types. While some animals have the ability to move when conditions become unfavorable, plants are immobile and thus cannot as easily adapt to a quickly changing environment. Climate change may alter plant life stages such as leaf emergence or flowering period which may hinder survival and reproduction. Some studies estimate that endemic plant species' ranges may shift up to 90 miles under intense climate change, but this shift may be a slow process relative to a rapidly changing climate. Furthermore, plants that are restricted to extremely specific habitats are especially at risk because while the climatic environment may shift, the soil and nutrient environment will not. Invasive plant species pose a threat to native plants because invasives tend to do well in the changing conditions that climate change is thought to promote, and those invasives may then out-compete rare plants for vital resources. Invasive species management should aim to conserve and manage large areas of protected habitat for plants, which may rely on dispersal and a variety of habitat gradients and varied microsites to cope with the changing environment. Efforts should focus on reducing the negative effects of non-native invasive plant species like preventing the introduction of these species into the natural habitats of the City, detecting and responding to introductions when they occur, and preventing the spread of invasive plant species that have become established.

6. *Nesting Birds*: Please note that it is the City responsibility to comply with all applicable laws related to nesting birds and birds of prey. Migratory non-game native bird species are protected by international treaty under the federal Migratory Bird Treaty Act (MBTA) of 1918, as amended (16 U.S.C. 703 *et seq.*). CDFW implemented the MBTA by adopting the Fish and Game Code section 3513. Fish and Game Code sections 3503, 3503.5 and 3800 provide additional protection to nongame birds, birds of prey, their nests and eggs. Sections 3503, 3503.5, and 3513 of the Fish and Game Code afford protective measures as follows: section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the Fish and Game Code or any regulation made pursuant thereto; section 3503.5 states that is it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by the Fish and Game Code or any regulation adopted pursuant thereto; and section 3513 states that it is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

   Potential habitat for nesting birds and birds of prey is present within the Project area. The Project should disclose all potential activities that may incur a direct or indirect take to nongame nesting birds within the Project footprint and its vicinity. Appropriate avoidance, minimization, and/or mitigation measures to avoid take must be included in the DSEIR.

CDFW recommends the DSEIR include specific avoidance and minimization measures to ensure that impacts to nesting birds or their nests do not occur. Project-specific avoidance and minimization measures may include, but not be limited to: Project phasing and timing, monitoring of Project-related noise (where applicable), sound walls, and buffers, where appropriate. The DSEIR should also include specific avoidance and minimization measures that will be implemented should a nest be located within the Project site. In addition to larger, protocol level survey efforts (e.g., Swainson's hawk surveys) and scientific assessments, CDFW recommends a final preconstruction survey be required no more than three (3) days prior to vegetation clearing or ground disturbance activities, as instances of nesting could be missed if surveys are conducted earlier.

7. *Moving out of Harm's Way*: The Project is anticipated to result in the clearing of natural habitats that support native species. To avoid direct mortality, the City should state in the DSEIR a requirement for a qualified biologist with the proper handling permits, which will be retained to be onsite prior to and during all ground- and habitat-disturbing activities. Furthermore, the DSEIR should describe that the qualified biologist with the proper permits may move out of harm's way special-status species or other wildlife of low or limited mobility that would otherwise be injured or killed from Project-related activities, as needed. The DSEIR should also describe qualified biologist qualifications and authorities to stop work to prevent direct mortality of special-status species. CDFW recommends fish and wildlife species be allowed to move out of harm's way on their own volition, if possible, and to assist their relocation as a last resort. It should be noted that the temporary relocation of onsite wildlife does not constitute effective mitigation for habitat loss.

8. *Translocation of Species*: CDFW generally does not support the use of relocation, salvage, and/or transplantation as the sole mitigation for impacts to rare, threatened, or endangered species as these efforts are generally experimental in nature and largely unsuccessful. Therefore, the DSEIR should describe additional mitigation measures utilizing habitat restoration, conservation, and/or preservation, in addition to avoidance and minimization measures, if it is determined that there may be impacts to rare, threatened, or endangered species.

The DSEIR should incorporate mitigation performance standards that would ensure that impacts are reduced to a less-than-significant level. Mitigation measures proposed in the DSEIR should be made a condition of approval of the Project. Please note that obtaining a permit from CDFW by itself with no other mitigation proposal may constitute mitigation deferral. CEQA Guidelines section 15126.4, subdivision (a)(1)(B) states that formulation of mitigation measures should not be deferred until some future time. To avoid deferring mitigation in this way, the DSEIR should describe avoidance, minimization and mitigation measures that would be implemented should the impact occur.

California Endangered Species Act

CDFW is responsible for ensuring appropriate conservation of fish and wildlife resources including threatened, endangered, and/or candidate plant and animal species, pursuant to CESA. CDFW recommends that a CESA Incidental Take Permit (ITP) be obtained if the Project has the potential to result in "take" (Fish & G. Code § 86 defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") of State-listed CESA species, either through construction or over the life of the Project.

State-listed species with the potential to occur in the area include, but are not limited to: bald eagle (*Haliaeetus leucocephalus*), bank swallow (*Riparia riparia*), Boggs Lake hedge-hyssop (*Gratiola heterosepala*), California tiger salamander - central California DPS (*Ambystoma californiense pop. 1*), giant garter snake (*Thamnophis gigas*), least Bell's vireo (*Vireo bellii pusillus*), Mason's lilaeopsis (*Lilaeopsis masonii*), Sacramento Orcutt grass (*Orcuttia viscida*), slender Orcutt grass (*Orcuttia tenuis*), Swainson's hawk (*Buteo swainsoni*), tricolored blackbird (*Agelaius tricolor*), and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*). Candidate state-listed species with the potential to occur in the area includes burrowing owl (*Athene cunicularia*) and Crotch's bumble bee (*Bombus crotchii*).

The DSEIR should disclose the potential of the Project to take State-listed species and how the impacts will be avoided, minimized, and mitigated. Please note that mitigation measures that are adequate to reduce impacts to a less-than significant level to meet CEQA requirements may not be enough for the issuance of an ITP. To facilitate the issuance of an ITP, if applicable, CDFW recommends the DSEIR include measures to minimize and fully mitigate the impacts to any State-listed species the Project has potential to take. CDFW encourages early consultation with staff to determine appropriate measures to facilitate future permitting processes and to engage with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service to coordinate specific measures if both State and federally listed species may be present within the Project vicinity.

Native Plant Protection Act

The Native Plant Protection Act (Fish & G. Code §1900 *et seq*.) prohibits the take or possession of State-listed rare and endangered plants, including any part or product thereof, unless authorized by CDFW or in certain limited circumstances. Take of State-listed rare and/or endangered plants due to Project activities may only be permitted through an ITP or other authorization issued by CDFW pursuant to California Code of Regulations, Title 14, section 786.9 subdivision (b).

Lake and Streambed Alteration Program

The DSEIR should generally identify all perennial, intermittent, and ephemeral rivers, streams, lakes, other hydrologically connected aquatic features, and any associated biological resources/habitats present within the entire Project footprint (including utilities, access and staging areas). The environmental document should analyze all potential temporary, permanent, direct, indirect and/or cumulative impacts to the above-

mentioned features and associated biological resources/habitats that may occur because of the Project. If it is determined the Project will result in significant impacts to these resources the DSEIR shall propose appropriate avoidance, minimization and/or mitigation measures to reduce impacts to a less-than-significant level.

Section 1602 of the Fish and Game Code requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following:

1. Substantially divert or obstruct the natural flow of any river, stream or lake;

2. Substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or

3. Deposit debris, waste or other materials where it may pass into any river, stream or lake.

Please note that "any river, stream or lake" includes those that are episodic (i.e., those that are dry for periods of time) as well as those that are perennial (i.e., those that flow year-round). This includes ephemeral streams and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water.

If upon review of an entity's notification, CDFW determines that the Project activities may substantially adversely affect an existing fish or wildlife resource, a Lake and Streambed Alteration (LSA) Agreement will be issued which will include reasonable measures necessary to protect the resource. CDFW's issuance of an LSA Agreement is a "project" subject to CEQA (see Pub. Resources Code 21065). To facilitate issuance of an LSA Agreement, if one is necessary, the DSEIR should fully identify the potential impacts to the lake, stream, or riparian resources, and provide adequate avoidance, mitigation, and monitoring and reporting commitments. Early consultation with CDFW is recommended, since modification of the Project may avoid or reduce impacts on fish and wildlife resources. All LSA Notification types must be submitted online through CDFW's Environmental Permit Information Management System (EPIMS). For more information about EPIMS, please visit https://wildlife.ca.gov/Conservation/Environmental-Review/EPIMS. More information about LSA Notifications, paper forms and fees may be found at https://www.wildlife.ca.gov/Conservation/Environmental-Review/LSA.

Please note that other agencies may use specific methods and definitions to determine impacts to areas subject to their authorities. These methods and definitions often do not include all needed information for CDFW to determine the extent of fish and wildlife resources affected by activities subject to Notification under Fish and Game Code section 1602. Therefore, CDFW does not recommend relying solely on methods developed specifically for delineating areas subject to other agencies' jurisdiction (such as United States Army Corps of Engineers) when mapping lakes, streams, wetlands, floodplains, riparian areas, etc. in preparation for submitting a Notification of an LSA.

CDFW relies on the lead agency environmental document analysis when acting as a responsible agency issuing an LSA Agreement. CDFW recommends lead agencies coordinate with us as early as possible, since potential modification of the proposed Project may avoid or reduce impacts to fish and wildlife resources and expedite the Project approval process.

The following information will be required for the processing of an LSA Notification and CDFW recommends incorporating this information into any forthcoming CEQA document(s) to avoid subsequent documentation and Project delays:

1. Mapping and quantification of lakes, streams, and associated fish and wildlife habitat (e.g., riparian habitat, freshwater wetlands, etc.) that will be temporarily and/or permanently impacted by the Project, including impacts from access and staging areas. Please include an estimate of impact to each habitat type.

2. Discussion of specific avoidance, minimization, and mitigation measures to reduce Project impacts to fish and wildlife resources to a less-than-significant level. Please refer to section 15370 of the CEQA Guidelines.

Based on review of Project materials, aerial photography and observation of the site from public roadways, the Project site supports streams (Elk Grove/Laguna Creek, Deer Creek, Franklin Creek, and their tributaries), lakes, and their associated tributaries and riparian habitat. CDFW recommends the DSEIR fully identify the Project's potential impacts to the stream and/or its associated vegetation and wetlands.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database, which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to CNDDB. The CNNDB field survey form can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data. The completed form can be submitted online or mailed electronically to CNDDB at the following email address: CNDDB@wildlife.ca.gov.

FILING FEES

The Project, as proposed, would have an effect on fish and wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the City and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code § 711.4; Pub. Resources Code, § 21089.)

CONCLUSION

Pursuant to Public Resources Code sections 21092 and 21092.2, CDFW requests written notification of proposed actions and pending decisions regarding the Project. Written notifications shall be directed to: California Department of Fish and Wildlife North Central Region, 1701 Nimbus Road, Rancho Cordova, CA 95670 or emailed to R2CEQA@wildlife.ca.gov.

CDFW appreciates the opportunity to comment on the Notice of Preparation of the DSEIR for the Climate Compass Project and recommends that the City address CDFW's comments and concerns in the forthcoming DSEIR. CDFW personnel are available for consultation regarding biological resources and strategies to minimize impacts.

If you have any questions regarding the comments provided in this letter, or wish to schedule a meeting and/or site visit, please contact Harvey Tran, Senior Environmental Scientist (Specialist) at (916) 358-4035 or harvey.tran@wildlife.ca.gov.

Sincerely,

Tanya Sheya
Environmental Program Manager

ec: Dylan Wood, Senior Environmental Scientist (Supervisory)
Harvey Tran, Senior Environmental Scientist (Specialist)
California Department of Fish and Wildlife

Office of Planning and Research, State Clearinghouse, Sacramento

REFERENCES

Sawyer, J. O., T. Keeler-Wolf, and J. M. Evens. 2009. A Manual of California Vegetation, 2nd ed. California Native Plant Society Press, Sacramento, California. http://vegetation.cnps.org/

14 January 2025

Carrie Whitlock
City of Elk Grove
8401 Laguna Palms Way
Elk Grove, CA 95758
cwhitlock@elkgrovecity.org

COMMENTS TO REQUEST FOR REVIEW FOR THE NOTICE OF PREPARATION FOR THE DRAFT ENVIRONMENTAL IMPACT REPORT, CLIMATE COMPASS PROJECT, SCH#2017062058, SACRAMENTO COUNTY

Pursuant to the State Clearinghouse's 6 December 2024 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Notice of Preparation for the Draft Environmental Impact Report* for the Climate Compass Project, located in Sacramento County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

I. Regulatory Setting

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by

the State Water Resources Control Board (State Water Board), Office of Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues. For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:
http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/

Antidegradation Considerations
All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Implementation Policy is available on page 74 at:
https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf

In part it states:

Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.

This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

II. Permitting Requirements

Construction Storm Water General Permit
Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit), Construction General Permit Order No. 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). For more information on the Construction General Permit, visit the State Water Resources Control Board website at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits[1]
The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml

Industrial Storm Water General Permit
Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 2014-0057-DWQ. For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml

Clean Water Act Section 404 Permit
If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACE). If a Section 404 permit is required by the USACE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements. If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACE at (916) 557-5250.

[1] Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications. For more information on the Water Quality Certification, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_certification/

Waste Discharge Requirements – Discharges to Waters of the State

If USACE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation. For more information on the Waste Discharges to Surface Water NPDES Program and WDR processes, visit the Central Valley Water Board website at:https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface_water/

Projects involving excavation or fill activities impacting less than 0.2 acre or 400 linear feet of non-jurisdictional waters of the state and projects involving dredging activities impacting less than 50 cubic yards of non-jurisdictional waters of the state may be eligible for coverage under the State Water Resources Control Board Water Quality Order No. 2004-0004-DWQ (General Order 2004-0004). For more information on the General Order 2004-0004, visit the State Water Resources Control Board website at: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2004/wqo/wqo2004-0004.pdf

Dewatering Permit

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Threat General Order) 2003-0003 or the Central Valley Water Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Threat Waiver) R5-2018-0085. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Threat Waiver and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2018-0085.pdf

Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Limited Threat Discharges to Surface Water* (Limited Threat General Order). A complete Notice of Intent must be submitted to the Central Valley Water Board to obtain coverage under the Limited Threat General Order. For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf

NPDES Permit

If the proposed project discharges waste that could affect the quality of surface waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit. For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/help/permit/

If you have questions regarding these comments, please contact me at (916) 464-4684 or Peter.Minkel2@waterboards.ca.gov.

Peter G. Minkel
Engineering Geologist

cc: State Clearinghouse unit, Governor's Office of Planning and Research, Sacramento

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

January 15, 2025

Carrie Whitlock, Strategic Planning and Innovation Program Manager
City of Elk Grove
8401 Laguna Palms Way
Elk Grove, CA 95758
cwhitlock@elkgrovecity.org

Subject: Notice of Preparation of a Supplemental Environmental Impact Report for the Elk Grove Climate Compass

Dear Ms. Whitlock:

Thank you for routing the Notice of Preparation (NOP) of an Environmental Impact Report (EIR) for the Elk Grove Climate Action Plan (CAP) to the Sacramento Metropolitan Air Quality Management District (Sac Metro Air District) for review. The City is preparing a Supplemental Environmental Impact Report (SEIR) to the General Plan Update EIR for the update to the 2019 CAP, now known as the Climate Compass. The Climate Compass is timely and provides an opportunity for the City to accelerate its greenhouse gas (GHG) emissions reduction efforts. For the first time, global temperatures in 2024 exceeded 1.5 degrees Celsius above pre-industrial levels – a limit set by the 2015 Paris Agreement to bolster the global response to the threat of climate change.[1] Moreover, the last 10 years have been the hottest on record, and the Intergovernmental Panel on Climate Change projects more intense and frequent climate and weather extremes from global warming of 1.5 degrees Celsius above pre-industrial levels. This warming is continuing to cause drastic long-term changes that are affecting Californians all over the state. It is critical for the City to mitigate its GHG emissions and Sac Metro Air District intends to review the prepared SEIR for the Climate Compass with this frame of reference. Please accept the following comments which aim to strengthen the Climate Compass, maximize carbon sequestration, and increase the City's GHG reductions.

Building Energy

- Building energy represents 38 percent of the City's communitywide emissions and is the second largest emissions sector in the 2021 GHG inventory.
    - For Strategy BE-1: Electrify and Decarbonize Buildings, we recommend that the City analyze including requirements for cooking appliances, space heating, and water heating appliances as a pathway to unlocking full electrification. Natural gas infrastructure releases harmful pollutants directly into the home exposing residents to levels of pollution that in some cases are higher than the outdoor ambient air quality

[1] World Meteorological Organization, WMO Confirms 2024 as Warmest Year on Record at About 1.55°C Above Pre-industrial Level, January 10, 2025, https://wmo.int/media/news/wmo-confirms-2024-warmest-year-record-about-155degc-above-pre-industrial-level

standards. Additional air emission reductions could be achieved through the transition to induction cooktops which improve indoor air quality. We recommend that the City explore all feasible options to eliminate natural gas infrastructure in residential and commercial buildings to improve public health and increase emissions reduction.

- Sac Metro Air District suggests that the City focus on electrifying its New Growth Areas at an accelerated rate by requiring new construction to be pre-wired for full electrification. California's 2022 Scoping Plan for Achieving Carbon Neutrality relies on local governments to rapidly electrify development to address GHG emissions associated with the built environment. In addition to the Scoping Plan calling for electrification as a method of achieving statewide climate goals, by not electrifying New Growth Areas, the City would be inconsistent with the Scoping Plan. Additionally, all-electric development is a cost-effective way to meet building electrification goals as new all-electric construction typically results in energy savings for building owners and residents.

- For Strategy BE-3: Increase Local Renewable Energy Use and Storage, the City should analyze requiring the addition of solar photovoltaic canopies over new parking lots as a new design standard. Combining shade with electric vehicle (EV) charging infrastructure increases EV charging efficiency and reduces battery degradation. In addition to providing a renewable source of energy for EV charging, solar photovoltaic shade structures over parking lots are a heat mitigation strategy since less heat is absorbed by the pavement and the parked vehicles. The shade that is provided can also reduce the evaporation of volatile organic compounds from the fuel tanks of conventional cars and reduce the amount of energy that is spent on air conditioning within the vehicle.[2]

Transportation

- On-road transportation represents the largest emissions sector in the City's 2021 GHG inventory.
  - Strategy TR-1: Decrease Vehicle Miles Traveled (VMT) would improve walkability and pedestrian access to public transit. Sac Metro Air District recommends that the City investigate the addition of a new measure that installs pedestrian-friendly infrastructure throughout Elk Grove to support active transportation. Studies show that higher temperatures increase VMT and GHGs as travelers forgo active transportation in favor of driving. In Fresno, CA, transit ridership decreased as temperatures increased, with some potential riders avoiding travel or switching to single-occupancy vehicle use.[3] Sac Metro Air District recommends incorporating infrastructure for heat mitigation such as tree shading, solar canopies, shade structures, and the installation of cool pavements and cool walls at transit stops to improve rider comfort, safety, and accessibility. As pedestrians walk, bike, or skate to public transit stations, a pedestrian-friendly active modes measure that creates safe and welcoming environments for active transportation would bolster their use of transit services and reduce the reliance on single-occupancy vehicles.

[2] Sac Metro Air District, CivicWell, Capital Region Urban Heat Island Mitigation Plan, 2019, https://www.airquality.org/LandUseTransportation/Documents/UHI%20Mitigation%20Plan.pdf
[3] Sac Metro Air District, CivicWell, Capital Region Urban Heat Island Mitigation Project Summary Report, 2020, https://www.airquality.org/LandUseTransportation/Documents/UHI%20Project%20Summary%20Report.pdf

- The City could further reduce communitywide VMT and GHG emissions by incorporating the "Land Use Improvements" measure from Sacramento's Capital Region Climate Priorities Plan (CRCPP)[4] into the Climate Compass. This measure reduces the dependency on single-occupancy vehicle use by increasing residential density through infill housing and mixed-use development. Living near jobs, schools, supermarkets, and medical care facilities decreases travel distances and results in fewer or shorter vehicle trips.
- As Elk Grove expands its city limits, a continued focus on smart growth would allow it to deepen GHG reductions and reach its climate goals within its New Growth Areas. Smart growth is the use of development strategies that preserve community health, the surrounding natural environment, air and water quality, and other resources by reusing developed land, designing compact and walkable neighborhoods, preserving open space, supporting community involvement in design, and providing multiple transportation options. Smart growth policies can reduce VMT and emissions from passenger vehicles as key destinations are sited near public transit and are within walking and biking distance from residences. Smart growth also has the added benefit of reducing the urban heat island effect in cities.

Resilience and Adaptation

- Sac Metro Air District's Urban Heat Island Project[5] modeled urban heat islands in the Sacramento region and evaluated various strategies to combat the effects of heat on urban populations. Along with increasing tree canopy, the project found that strategies such as installing cool roofs and cool pavements deployed at the local and regional scale provide effective heat mitigation for neighborhoods impacted by urban heat islands. By increasing the albedo/solar reflectance of existing surfaces using high albedo materials like sealants and coatings in combination with increased vegetation cover, neighborhoods can experience cooler temperatures.[6] Urban heat islands can cause substantial adverse effects on humans, both directly and indirectly, but by mitigating the impacts of urban heat islands, the City can create a more livable and sustainable urban environment for its residents. The following recommendations would boost the efficacy of Strategy RA-4: Reduce Exposure to Extreme Heat and Mitigate the Urban Heat Island Effect.
    - Extreme heat is deadlier than other natural hazards making it crucial for local jurisdictions to provide heat mitigation for new and existing infrastructure in areas impacted by urban heat islands. The City should encourage cool roof adoption by exploring the implementation of a local ordinance that requires the installation of roofs with a solar reflectance index (SRI) of either 78 for low-rise or high-rise residential buildings with a roof slope of ≤ 2:12, or an SRI of 20 for low-rise or high-rise residential

[4] Sac Metro Air District, Capital Region Climate Priorities Plan, March 2024, https://www.airquality.org/residents/climate-change/climate-pollution-reduction-grants
[5] Sac Metro Air District, Urban Heat Island Project, 2020 https://www.airquality.org/businesses/climate-change/urban-heat-island
[6] Sac Metro Air District, Atmospheric Modeling for the Development of a Regional Heat Pollution Reduction Plan – Technical Project Report, February 2020, https://www.airquality.org/LandUseTransportation/Documents/Altostratus_Final_Report.pdf

buildings with a roof slope of > 2:12. If adopted at scale, cool roofs can reduce peak energy demand and increase grid stability.

- In areas with low albedo, installing cool pavements or covering traditional pavements with sealants that have an albedo between 0.30 or 0.35 can reduce the amount of heat that the pavement absorbs and reflects. The City should consider requiring road repair and new roadway improvement projects to install cool pavements with an albedo between 0.30 to 0.35 to avoid glare for drivers and pedestrians. To assist with community planning, the City could look to the CRCPP and the 2024 CAPCOA Handbook which includes the "Install Cool Pavement" measure.[7] The implementation of this quantified measure could reduce energy use for cooling in surrounding buildings thus reducing the GHG emissions associated with electricity consumption. Tracking the replacement of traditional pavement with highly reflective pavement could be a key performance indicator for this measure.

- Under the communitywide business-as-usual scenario and the communitywide legislative-adjusted business-as-usual scenario for the GHG emissions forecast, agricultural emissions are expected to decrease from 2021 levels through 2050 as the agricultural production acreage within city limits declines over the coming decades.
  - Although the City has plans to continue to develop agricultural lands, it should consider the benefits of keeping agricultural lands viable using sustainable farming practices that can sequester more carbon than developed land. The City could implement a carbon stock program that assesses the amount of carbon that could be sequestered through the year 2050 on these preserved agricultural lands. A carbon stock program that monitors the amount of carbon that is sequestered and how much has historically been sequestered would justify the preservation of agricultural lands. Furthermore, incentivizing sustainable farming practices in rural areas of the city could reduce VMT by keeping crops local. The addition of the Carbon Sequestration Program/Carbon Farming measure from the CRCPP could reduce GHG emissions through the conservation, maintenance, and restoration of natural resources on ranches and farmland. Sac Metro Air District recommends integrating these suggestions into a broadened Strategy RA-6: Expand Nature-Based Solutions in the Climate Compass. If the City continues to develop agricultural lands, it should consider doing so through smart growth that increases the density of all-electric housing near public transit and other sustainable transportation options to reduce GHG emissions.

Sac Metro Air District looks forward to reviewing the draft SEIR and the Climate Compass. We hope that our recommendations assist the City in its development of a robust plan to mitigate GHG emissions and address the current and future impacts of climate change in the Sacramento region.

If you have questions regarding these comments, please contact Brianna Moland, Climate Coordinator, at bmoland@airquality.org or (916) 317-0821.

[7] California Air Pollution Control Officers Association, 2024 Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity, 2024, https://www.airquality.org/ClimateChange/Documents/2024%20Handbook%20Update_AB434.pdf

Sincerely,

Brianna Moland

Brianna Moland
Climate Coordinator, CEQA and Land Use Section
Sac Metro Air District

cc: Paul Philley, AICP, Program Manager
Carolyn Tran, Air Quality Planner/Analyst

CALIFORNIA
NATIVE PLANT SOCIETY
2707 K Street, Suite 1, Sacramento, CA 95816-5130 (916) 447.2677 www.cnps.org

Protecting
California's native
flora since 1965

January 15, 2025

City of Elk Grove
Attn: Carrie Whitlock
8401 Laguna Palms Way
Elk Grove, CA, 95758

Submitted via email to: cwhitlock@elkgrovecity.org

Re: Sacramento Valley Chapter of the California Native Plant Society Comments on Climate Compass Project

Dear Ms. Whitlock,

Thank you for the opportunity to comment on the Climate Compass Project. The following comments are submitted on behalf of the California Native Plant Society (CNPS), Sacramento Chapter. CNPS's mission is to protect California's native plant heritage and preserve it for future generations through the application of science, research, education, and conservation. The Sacramento Valley Chapter focuses on these issues within the Greater Sacramento Valley.

We applaud the City of Elk Grove for creating a roadmap for reducing greenhouse gas emissions and increasing resilience within the City of Elk Grove through the development of the Climate Compass Project. It is our understanding that the Climate Compass Project will address Resilience and Adaptation, and Resource Consumption in addition to traditional topics such as Transportation and Green Energy.

Building Capacity for Current and Future Flooding

We strongly support efforts that integrate increased floodwater storage capacity and conveyance with natural systems. Wetlands, healthy connected floodplains, and wide riparian corridors provide space for fragile habitats which host numerous native plant and animal species while functioning as green infrastructure which can help protect built infrastructure during storm events. Floodwater storage basins are an underutilized opportunity to support seasonal wetland species while creating greenspace while simultaneously serving as infrastructure.

Expand the Tree Canopy

We strongly encourage the use of native tree species to expand the canopy with the City. Native tree species are adapted to the local climate and do not require supplemental irrigation once established. Use of the correct species and cultivars can create a win-win by creating space for native birds and insects while establishing a robust and aesthetically pleasing canopy for the

community. The Sacramento Valley Chapter could assist in recommending appropriate species that would be successful based on the planting location and maintenance level.

Expand Nature-Based Solutions

We commend the City of Elk Grove on seeking to expand the use of Nature Based Solutions. Nature Based Solutions have the potential to create more resilient infrastructure that can recover function following storm damage resulting in reduced costs in the long term. Natural and Nature Based Solutions also create opportunities for recreation and habitat opportunities for native plants.

Reduce Water Use

California native plants can be an effective option for waterwise landscaping while remaining aesthetically pleasing and helping to re-establish the heritage presence lost to development. With the right combination of native plants, landscaping that uses little to no supplemental irrigation can be achieved which can result in substantial cost savings in the long-term. The Sacramento Valley Chapter has a wealth of information and experience designing and maintaining native plant landscapes, including in urban environments.

In conclusion, the Sacramento Valley Chapter is offering to collaborate with the City of Elk Grove where possible and remain engaged in this project by providing local knowledge to incorporate California native plants as fully as possible. Thank you for the opportunity to comment on this project and please contact me if you have any questions.

Sincerely,

Lorena Guerrero
Chair, Conservation Committee
California Native Plants Society, Sacramento Valley Chapter
volunteersvcnps@gmail.com

From: Katie McCammon <katie.mccammon@350sacramento.org>
Sent: Thursday, January 16, 2025 2:16 PM
To: Carrie Whitlock <cwhitlock@elkgrovecity.org>
Cc: Rosie Yacoub <rayacoub@yahoo.com>; Oscar Balaguer <oscarbal@hotmail.com>
Subject: Re: NOP comments

[EXTERNAL EMAIL]

Hi Carrie,

Apologies, it has been a back and forth on this and I misunderstood what Rosie was providing. It sounds like she shared comments on "strategy" but the only comment from 350 Sac CAP team at this point is *concern that the CAP will exclude land use and transportation from the final document*. Our team strongly supports including these items in the final CAP.

This is all I have from our team at this time. I am still in the learning stages of CAP and won't try to make any technical comments on behalf of the organization.

We look forward to talking more on the EG CAP as it develops!

Thank you,
Katie

On Wed, Jan 15, 2025 at 3:27 PM Carrie Whitlock <cwhitlock@elkgrovecity.org> wrote:

> Hi Katie,
>
> I just wanted to reach out and see if we should still expect some NOP comments today from you all.
>
> Thanks,
> CW



Carrie Whitlock, AICP (she/her)
Strategic Planning & Innovation Program Manager / Strategic Planning & Innovation
City Manager's Office

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From: Eugene Lee <eugeneenergy22@gmail.com>
Sent: Wednesday, January 15, 2025 10:09 PM
To: Carrie Whitlock <cwhitlock@elkgrovecity.org>
Subject: NOP Comments

[EXTERNAL EMAIL]

To: Carrie Whitlock

Thank you for the opportunity to provide comments to the NOP.

As an Elk Grove resident, I strongly support the Climate Compass. Elk Grove is an active growing community requiring intentional actions to mitigate climate change effects in our city.

I support the proposed Compass chapters and the six focus areas. Specifically,

Building Energy
I support Idea Res-New-1, Idea Res-Ex-1, Idea Non-Res-New-1, and Idea NonRes-Ex-1 as proposed in the Agenda Item No. 9.1 - Staff Report dated August 14, 2024.

Transportation
I support the Concept Strategies 1-3 and Actions as presented in the Agenda Item No. 9.3 - Staff Report dated August 28, 2024.

Resilience and Adaptation
With respect to climate and emergency preparedness, I recommend the specific strategies reflect sufficient communication infrastructure and methods to address the needs and safety of all residents, particularly the aged, low-income, and non-English speaking. I also recommend actions to mitigate negative effects on low-income and disadvantaged neighborhoods.

Resource Consumption and Green Economy
I strongly support the proposed strategies.

Climate Action Commitment
I recommend that the strategy incorporate a commitment to promote climate justice and equity. The Compass should benefit all residents and businesses regardless of location and economic condition.

Thank you for your consideration.

--
Eugene Lee
Commissioner
Sacramento Environmental Commission

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EXHIBIT B

ASCENT

Final Supplemental Environmental Impact Report for the Climate Compass Project

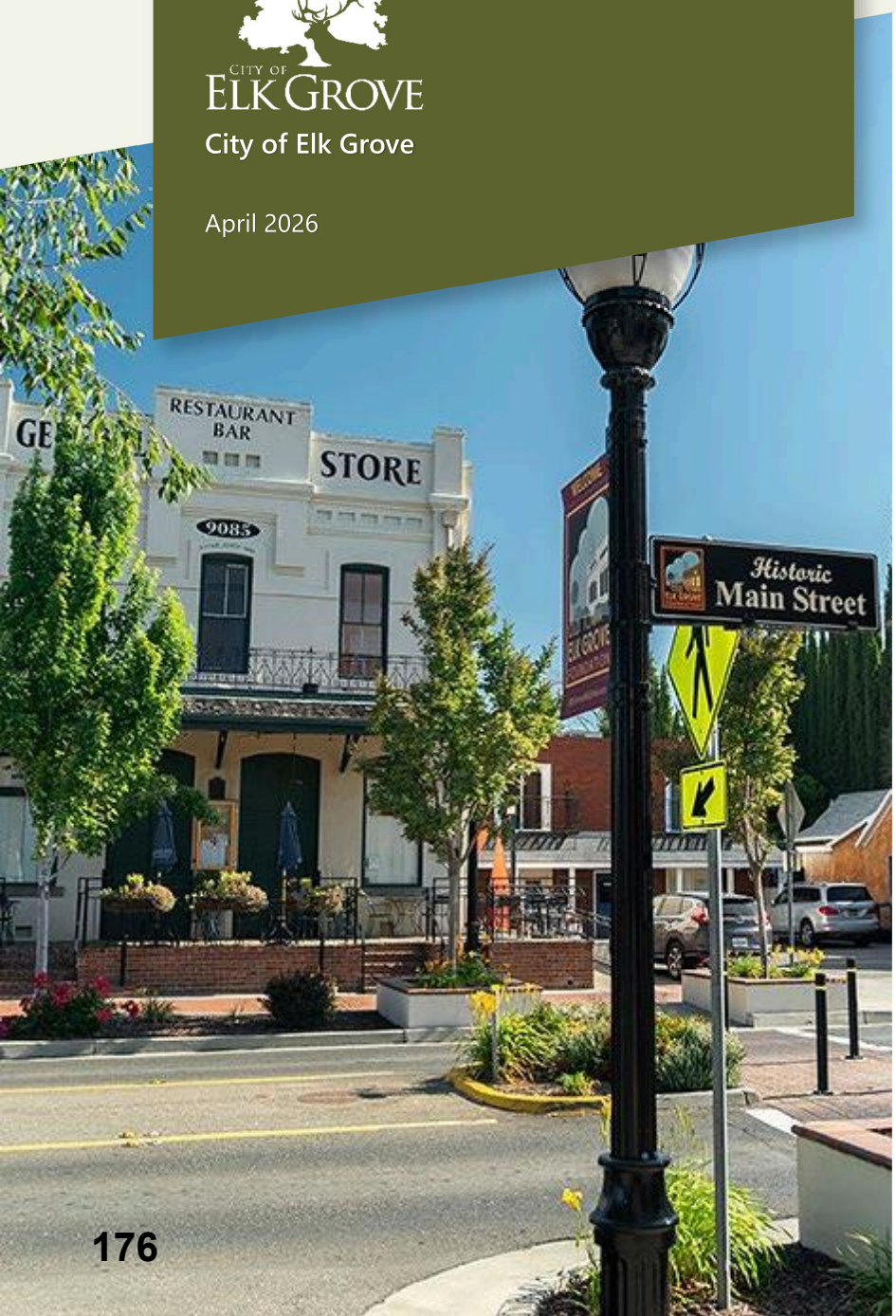
State Clearinghouse No. 2017062058

Prepared for:

CITY OF ELK GROVE

City of Elk Grove

April 2026









Final Supplemental Environmental Impact Report for the Climate Compass Project

State Clearinghouse No. 2017062058

Prepared for:

City of Elk Grove
Office of Strategic Planning and Innovation
8401 Laguna Palms Way
Elk Grove, CA 95758

Contact:

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April 2026

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Appendix A	Comment Letters on the Draft SEIR
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LIST OF ABBREVIATIONS

BMPs	Best Management Practices
BIA	Building Industry Association
CARB's	California Air Resources Board's
CEQA	California Environmental Quality Act
City	City of Elk Grove
Plan	Climate Compass
GHG	greenhouse gas
LID	Low Impact Development
MEP	maximum extent practicable
$MTCO_2e$	metric tons of carbon dioxide equivalent
HEEHRA	Multi-Family Home Electrification and Appliance Rebates
NPDES	National Pollutant Discharge Elimination System
OAL	Office of Administrative Law
Sac Metro Air District	Sacramento Metropolitan Air Quality Management District
SB	Senate Bill
SWPPP	Storm Water Pollution Prevention Plan
SEIR	Supplemental Environmental Impact Report
TAG	Technical Advisory Group
USACE	United States Army Corps of Engineers
VMT	vehicle miles traveled
WDR	Waste Discharge Requirement

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1 INTRODUCTION

This final supplemental environmental impact report (Final SEIR) has been prepared by the City of Elk Grove (City), as lead agency, in accordance with the requirements of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines Section 15132. This Final SEIR contains responses to comments received on the draft supplemental environmental impact report (Draft SEIR) for the proposed Climate Compass (Plan). The Plan is a comprehensive update to the City's current Climate Action Plan (CAP), adopted in 2019. The proposed Plan establishes a roadmap for the City to achieve its greenhouse gas (GHG) emission reduction targets and includes actions and strategies to adapt to anticipated climate-related impacts. In addition, the Plan aligns local efforts with Assembly Bill (AB) 1279, which requires California to achieve net-zero GHG emissions by 2045 and an 85 percent reduction in anthropogenic GHG emissions by 2045.

This Final SEIR consists of the Draft SEIR and this document (response to comments document), which includes comments on the Draft SEIR, responses to those comments, and revisions to the Draft SEIR. The SEIR is an amendment to the City's certified General Plan Update EIR (General Plan EIR) (SCH No. 2017062058), which programmatically evaluated both the General Plan Update (General Plan) and the 2019 CAP Update (2019 CAP) as separate documents.

1.1 PURPOSE AND INTENDED USES OF THIS FINAL SEIR

CEQA requires a lead agency that has prepared a Draft EIR (or SEIR) to consult with and obtain comments from responsible and trustee agencies that have jurisdiction by law with respect to the project, and to provide the public with an opportunity to comment on the Draft EIR (or SEIR). The Final EIR (or SEIR) is the mechanism for responding to these comments. This Final SEIR has been prepared to respond to comments received on the Draft SEIR, which are reproduced in this document; and to present corrections, revisions, and other clarifications and amplifications to the Draft SEIR made in response to these comments and as a result of the City's ongoing planning efforts. The Final SEIR will be used to support the City's decision regarding whether to approve the Climate Compass.

This Final SEIR will also be used by CEQA responsible and trustee agencies to ensure that they have met their requirements under CEQA before deciding whether to approve or permit Project elements over which they have jurisdiction. It may also be used by other state, regional, and local agencies that may have an interest in resources that could be affected by the Project or that have jurisdiction over portions of the Project.

Responsible, trustee, and interested agencies include:

- Sacramento Metropolitan Air Quality Management District,
- Sacramento Area Sewer District,
- Sacramento Municipal Utility District,
- Sacramento County Water Agency,
- Elk Grove Water District,
- Cosumnes Community Services District, and
- Elk Grove Unified School District.

1.2 PROJECT LOCATION

The General Plan Planning Area is 48.8 square miles (31,238 acres) and includes all land within the current city limits as well as lands outside the city limits in the four designated study areas (i.e., north, east, south, and west study areas). The Planning Area is generally bounded by Interstate 5 (I-5) on the west; Calvine Road and the City of Sacramento on the north; Grant Line Road and Deer Creek on the east; and Eschwinger Road on the south. State Route (SR) 99 traverses north–south, bisecting the city near its center.

Existing land uses within the city limits consist of residential at varying densities, commercial, office, industrial, park, and open space. Within the study areas, existing land uses primarily consist of agricultural lands and rural residential uses. Nearby natural open space and habitat areas include the Stone Lakes National Wildlife Refuge and the Sacramento River to the west, the Cosumnes River Preserve to the south, and the Sacramento Area Sewer District (SacSewer) bufferlands to the northwest. Major roadway access to the City is provided by I-5 and SR 99. Upon adoption, the Plan would serve as the long-term CAP for land uses within the City's jurisdiction within the General Plan Planning Area.

1.3 PROJECT OBJECTIVES

The primary objectives of the Plan are to:

- Develop an updated CAP to align the City's climate action planning with California's GHG reduction goals and relevant regulations aimed at climate mitigation.
- Implement strategies and actions to transition the city away from fossil fuels and realize deep GHG emissions reductions through the near- and long-term future.
- Connect and amplify existing sustainability efforts in a cohesive, impactful plan.
- Incorporate climate adaptation and resilience actions to address the city's most pressing natural and climate-related hazards.
- Develop a CEQA-qualified CAP to provide a mechanism for streamlining project-level GHG emissions analysis consistent with Section 15183.5 of the State CEQA Guidelines and the entitlement process for future sustainability projects and climate-friendly development within the city.
- Communicate climate challenges and opportunities, foster climate education, and empower the community to contribute to solutions.
- Ensure equitable climate action by prioritizing projects and programs that benefit historically underserved communities.
- Develop an updated CAP that is consistent with the recently adopted amendments to the City's General Plan in 2023, which was amended to increase development intensity to improve vehicle miles traveled (VMT) efficiency and reduce GHG emissions by creating walkable communities with amenities that attract and retain businesses and residents.

1.4 SUMMARY DESCRIPTION OF THE PROJECT

The Plan establishes strategies and actions to reduce GHG emissions generated from current and future activities within the city as well as GHG emissions generated by City facilities and operations. The Plan is structured to align with State and regional laws, policies, regulations, and plans to reduce GHG emissions and improve resilience to climate change-related impacts. State regulations related to GHG emissions that are applicable and were current at the time of the development of the Plan include Senate Bill (SB) 32 (2015-16 Legislative Session), AB 1279, and the California Air Resources Board's (CARB's) *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) at the State level.

The Plan has been developed to provide:

- A baseline of major sources of GHG emissions;
- A projection of future GHG emissions expected to occur within the Planning Area or be generated by City operations;
- Targets for reducing GHG emissions to specified levels that are aligned with State laws and policies; and
- Strategies and actions to reduce GHG emissions to meet the targets.

More specifically, the Plan identifies the following:

- Baseline GHG emissions for the Planning Area and forecasts potential increases in these emissions over time, both for the Planning Area (i.e., "community") and for City operations.
- GHG emissions reduction targets for 2030 and 2045 in alignment with the State's GHG reduction goals as directed by the 2022 Scoping Plan and AB 1279.
- Strategies and actions to achieve the 2030 and 2045 GHG emissions reduction targets for both community and City operations.

1.5 MAJOR CONCLUSIONS OF THE ENVIRONMENTAL ANALYSIS

The Draft SEIR evaluates whether implementation of the Plan would result in new or substantially more severe impacts than what was evaluated within the General Plan EIR, as amended by the Subsequent EIR for the GPAs/VMT Standards Project in 2023 (hereinafter referred to as the 2023 Subsequent EIR). The General Plan EIR and 2023 Subsequent EIR identified a number of significant and unavoidable impacts. As discussed in greater detail in Chapter 3, "Environmental Setting, Impacts, and Mitigation Measures," of the Draft SEIR, adoption and implementation of the Plan would not result in any new or substantially more severe significant impacts than those disclosed in the General Plan EIR, as amended by the 2023 Subsequent EIR. No new or modified mitigation is proposed.

1.6 CEQA PUBLIC REVIEW PROCESS

On June 27, 2025, the City released the Draft SEIR for a 49-day public review and comment period. The Draft SEIR was submitted to the State Clearinghouse for distribution to reviewing agencies; posted on the City's website (https://www.elkgrove.gov/planning/environmental-review and https://elkgrove.gov/planning-resources-and-policies/climate-action-plan); and was made available at City Hall at 8401 Laguna Palms Way. A notice of availability (NOA) of the Draft SEIR was published in the local newspaper (the *Elk Grove Citizen*) and distributed by the City to a project-specific mailing list.

A public meeting was held at 6:00 pm on July 22, 2025, to provide an overview of the Draft SEIR. No comments were received during the public meeting.

As a result of these notification efforts, written comments were received from two agencies, one organization, and two individuals on the content of the Draft SEIR. Chapter 2, "Responses to Comments," identifies these commenting parties, their respective comments, and responses to these comments. None of the comments received, or the responses provided, constitute "significant new information" by CEQA standards (State CEQA Guidelines Section 15088.5).

1.7 ORGANIZATION OF THE FINAL SEIR

This Final SEIR is organized as follows:

Chapter 1, "Introduction," describes the purpose of the Final SEIR, summarizes the proposed Climate Compass and the major conclusions of the Draft SEIR, provides an overview of the CEQA public review process, and describes the content of the Final SEIR.

Chapter 2, "Responses to Comments," contains a list of all parties who submitted comments on the Draft SEIR during the public review period, comments received, and responses to the comments.

Chapter 3, "Revisions to the Draft SEIR," presents revisions to the Draft SEIR text made to amplify, clarify or make minor modifications or corrections.

Chapter 4, "References," identifies the documents used as sources for the analysis.

Chapter 5, "List of Preparers," identifies the lead agency contacts as well as the preparers of this Final SEIR.

Appendix A contains copies of the comment letters received during the public review period.

Appendix B contains the textual edits proposed for Chapter 7, "Community and Resource Protection," of the City's General Plan to ensure internal consistency between the General Plan and the updated GHG emissions inventory and projections included in the Climate Compass.

2 RESPONSES TO COMMENTS

This chapter contains reproduced comments from letters received during the public review period for the Draft SEIR, which concluded on August 15, 2025. In conformance with Section 15088(a) of the State CEQA Guidelines, written responses were prepared addressing comments on environmental issues received from reviewers of the Draft SEIR.

The comment letters below are reproduced exactly as they were submitted. Spelling, grammatical, and other errors in the original letters have not been corrected. Copies of the comment letters are provided in Appendix A.

2.1 LIST OF COMMENTERS ON THE DRAFT SEIR

Table 2-1 presents the list of commenters, including the numerical designation for each comment letter received, the author of the comment letter, and the date of the comment letter.

Table 2-1 List of Commenters

Letter No.	Commenter	Date
	AGENCIES	
A1	Central Valley Regional Water Quality Control Board Peter Minkel, Engineering Geologist	August 15, 2025
A2	Sacramento Metropolitan Air Quality Management District Brianna Moland, Climate Coordinator, CEQA and Land Use Section	August 15, 2025
	ORGANIZATIONS	
O1	North State Building Industry Association Vance Jarrard, Government & Public Affairs Advocate	August 14, 2025
	INDIVIDUALS	
I1	Lynn Wheat	August 5, 2025
I2	Mi Nguyen	August 8, 2025

2.2 COMMENTS AND RESPONSES

The written individual comments received on the Draft SEIR and the responses to those comments are provided below. The comment letters are reproduced verbatim in their entirety. No edits have been made to the original comments, and spelling, grammatical, and other errors have been retained.

2.2.1 Agencies

Letter A1 Central Valley Regional Water Quality Control Board

Peter Minkel, Engineering Geologist
August 15, 2025

Comment A1-1

Pursuant to the State Clearinghouse's 27 June 2025 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the Request for Review for the Supplemental Environmental Impact Report for the City of Elk Grove Climate Compass Project, located in Sacramento County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

I. Regulatory Setting

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources Control Board (State Water Board), Office of Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues. For more information on the Water Quality Control Plan for the Sacramento and San Joaquin River Basins, please visit our website:

http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/

Antidegradation Considerations

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Implementation Policy is available on page 74 at: https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf

In part it states:

- Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.

This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

II. Permitting Requirements

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit), Construction General Permit Order No. 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). For more information on the Construction General Permit, visit the State Water Resources Control Board website at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits1

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at: http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at: http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml

[1] Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

Industrial Storm Water General Permit

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 2014-0057-DWQ. For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACE). If a Section 404 permit is required by the USACE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements. If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACE at (916) 557-5250.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications. For more information on the Water Quality Certification, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_certification/

Waste Discharge Requirements – Discharges to Waters of the State

If USACE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation. For more information on the Waste Discharges to Surface Water NPDES Program and WDR processes, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface_water/

Projects involving excavation or fill activities impacting less than 0.2 acre or 400 linear feet of non-jurisdictional waters of the state and projects involving dredging activities impacting less than 50 cubic yards of non-jurisdictional waters of the state may be eligible for coverage under the State Water Resources Control Board Water Quality Order No. 2004-0004-DWQ (General Order 2004-0004). For more information on the General Order 2004-0004, visit the State Water Resources Control Board website at: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2004/wqo/wqo2004-0004.pdf

Dewatering Permit

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Threat General Order) 2003-0003 or the Central Valley Water Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Threat Waiver) R5-2018-0085. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at: http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Threat Waiver and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2018-0085.pdf

Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for Limited Threat Discharges to Surface Water (Limited Threat General Order). A complete Notice of Intent must be submitted to the Central Valley Water Board to obtain coverage under the Limited Threat General Order. For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf

NPDES Permit

If the proposed project discharges waste that could affect the quality of surface waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit. For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/help/permit/

If you have questions regarding these comments, please contact me at (916) 464-4684 or Peter.Minkel2@waterboards.ca.gov.

Response A1-1

The comment provides a summary of the Water Board's authority, the Basin Plan, and permitting requirements. No specific issues related to the content, analysis, or conclusions in the Draft SEIR are raised in this comment. No further response is required.

Letter A2 Sacramento Metropolitan Air Quality Management District

Brianna Moland, Climate Coordinator, CEQA and Land Use Section
August 15, 2025

Comment A2-1

Thank you for routing the Draft Supplemental Environmental Impact Report (SEIR) for the Elk Grove Climate Compass Project to the Sacramento Metropolitan Air Quality Management District (Sac Metro Air District) for review. The Climate Compass is the City of Elk Grove's roadmap for implementing its climate, sustainability, and resilience goals, and it outlines climate action strategies to facilitate the achievement of greenhouse gas (GHG) reduction targets that are consistent with statewide climate goals. Climate action planning is an important tool for reducing GHG emissions and increasing climate resiliency. In 2024, global average surface temperature rose more than 1.5 degrees Celsius above pre-industrial levels. As temperatures continue to rise, local jurisdictions have the power to reduce their contributions to climate change by identifying and implementing measures that decrease or eliminate their GHG emissions. The City recognizes that it will need to take bold and ambitious action to combat the adverse effects of climate change and embed resiliency in its operations. Sac Metro Air District is providing the following comments to help improve and strengthen the Climate Compass and assist the City in its pursuit of 327,615 metric tons of carbon dioxide equivalent ($MTCO_2e$) reduced by 2030 and 322,498 $MTCO_2e$ reduced by 2045.

Response A2-1

The comment is an introductory statement and does not address the content, analysis, or conclusions in the Draft SEIR. Responses to specific comments concerning environmental issues are provided below.

Comment A2-2

Draft SEIR Comments

- The SEIR states that implementation of the Climate Compass would not result in any significant and unavoidable impacts. Emissions resulting from implementation of the Climate Compass would be insignificant compared to the overall reductions. To achieve the 2030 and 2045 GHG reduction targets, the City would need to guarantee implementation of the climate action strategies at the scale proposed in the Climate Compass. Sac Metro Air District applauds the inclusion of the Implementation and Monitoring Program and annual monitoring reports with monitoring metrics to track progress and identify where additional actions or resources may be necessary for implementation. With this viable implementation program, the City is holding itself accountable to community members and other stakeholders who are relying on the City to successfully implement each climate action strategy and meet the 2030 and 2045 targets. Sac Metro Air District looks forward to working with the City to implement these measures and achieve these climate goals.

Response A2-2

The comment provides a summary of the Climate Compass and its potential impacts. No specific issues related to the content, analysis, or conclusions in the Draft SEIR are raised in this comment. Responses to specific comments concerning environmental issues are provided below.

Comment A2-3

General Climate Compass Comments

- Using consistent language between the Climate Compass and the Climate Compass Dashboard would reduce confusion for the reader. The City uses "key performance indicators" and "objectives" to refer to quantifiable metrics that would track progress for each strategy. It was not clear if the objectives listed in Chapter 3: Climate Action Strategies and the key performance indicators listed on the Climate Compass Dashboard are supposed to be the same. Please provide clarification if there is a difference between the objectives and the key performance indicators.

- The Climate Compass states that "some strategies and actions could not be quantified or assigned key performance indicators due to limited data or a lack of suitable methods. "Unquantified or supporting measures can help the City implement quantified measures. Strategy CA-4 – Measure and Manage Climate Action Progress allows the City to document progress through annual reports that summarize GHG reduction efforts and key performance indicators. Sac Metro Air District believes that Strategy CA-4 could be used to track progress on supportive measures, ensuring that the City is in the best position to achieve deeper GHG emission reductions. Strategy CA-4 could also be used to create metrics specifically for tracking progress on the City Operations climate action strategies, which currently do not include performance metrics or key performance indicators.

Specific Climate Compass Comments

Strategy BE-1 – Electrify and Decarbonize Buildings

- In the objectives for Strategy BE-1, consider stating which appliances will be transitioned to zero-emission appliances. By intentionally naming zero-emission cooktops as an alternative and eliminating combustion appliances, the City could improve air quality, safety, and public health. Combustion fireplaces increase the risk of respiratory infections, chronic lung disease, lung cancer, heart disease, stroke, type 2 diabetes, and premature mortality.[1] Combustion stoves release hazardous air pollutants including methane, and they result in waste heat that could compound heat-related illnesses during high heat events.[2] Under Action BE-1.2, Sac Metro Air District recommends listing zero-emission alternatives for all combustion appliances used for space and water heating, cooking, and wood-burning.
  - To track progress in achieving the 2030 and 2045 objectives, the City could include the number and type of appliances that have transitioned to zero-emission alternatives.

[1] American Lung Association. 2022. Literature Review on the Impacts of Residential Combustion: Final Report. https://www.lung.org/getmedia/2786f983-d971-43ad-962b-8370c950cbd6/ICF_Impacts-of-Residential-Combustion_FINAL_071022.pdf

[2] Lebel, E. et al. 2022. Methane and NOx Emissions from Natural Gas Stoves, Cooktops, and Ovens in Residential Homes. ACS Publications. https://pubs.acs.org/doi/10.1021/acs.est.1c04707 -3

- Given current regulatory uncertainties regarding the passage of new reach codes, the City could provide resources that are useful tools for achieving additional GHG emission reductions. Building electrification incentive resources like the Multi-Family Home Electrification and Appliance Rebates (HEEHRA) (https://techcleanca.com/incentives/heehrarebates/) and Rewiring America's incentive calculator (https://homes.rewiringamerica.org/calculator) could assist with the implementation of Action BE-1.2.
- Action BE-1.2 and the proposed building energy retrofit plan should promote a whole-house approach for more efficient building electrification. Sac Metro Air District recommends that new construction be pre-wired for full electrification. In addition to lowering residents' utility bills, all-electric residential and commercial buildings typically result in energy savings for both building owners and residents.

Strategy BE-3 – Increase Local Renewable Energy Use and Storage

- In support of Strategy BE-3, Sac Metro Air District recommends adding the quantified "Onsite Solar Canopies" measure included in Sacramento's Comprehensive Capital Region Climate Priorities Plan.[3] This measure installs shade structure solar energy systems over parking lot areas and shifts electricity consumption from electricity providers to onsite renewable energy. A key performance indicator for this measure could include tracking the electricity generated by the solar energy systems.
  - Solar shade structures offer electric vehicle charging opportunities, and can keep electric vehicles cool, protecting their battery health and charging speeds. For any commercial parking lots where tree shading is not feasible, Sac Metro Air District recommends the installation of solar canopies to reduce urban heat islands, generate local renewable energy, and provide shade for parked vehicles.

[3] Sac Metro Air District. 2025. Comprehensive Capital Region Climate Priorities Plan. https://www.airquality.org/residents/climate-change/climate-pollution-reduction-grants -3 cont

- Action BE-3.1 calls for coordinating with SMUD in executing its 2030 Zero Carbon Plan. Please include specific actions the City would take in partnership with SMUD to maker renewable energy and battery storage upgrades more accessible for residents and businesses.
- Action BE-3.2 supports additional battery storage systems as a reliable backup power supply during emergencies or peak demand periods. To increase the projected GHG emission reductions from Action BE-3.2, the City could adopt the quantified "Battery Storage-Supported Microgrids" measure included in Sacramento's Comprehensive Capital Region Climate Priorities Plan. This measure adds onsite lithium-ion battery storage units to store excess renewable energy when paired with renewable energy systems such as solar energy systems. This measure increases local energy resilience since lithium-ion batteries are ideal for managing peak demands and provide short-term local back up power during power outages. A key performance indicator could include tracking the number of megawatts of battery storage installed.

Strategy TR-1 – Decrease Vehicle Miles Traveled

- The Climate Compass states that 93% of households have access to a car in Elk Grove. If residents do not see active transportation infrastructure as accessible or comfortable, they will drive to their destination instead. To shift behavior and encourage residents to use active transportation, the City should take steps to make sidewalks and bike lanes more pedestrian friendly. Shade infrastructure enhances pedestrian networks by making sidewalks more accessible and comfortable for a greater number of pedestrians. A new climate resilient street design standard could be developed to ensure that these sidewalks and bike lanes include proper shade infrastructure to reduce urban heat and facilitate active transportation. Sac Metro Air District also recommends prioritizing sidewalk and bike lane improvements in neighborhoods disproportionately impacted by urban heat.
- One of the objectives for Strategy TR-1 is to install 45 miles of new sidewalks and 50miles of new bike lanes. The City should clarify if these sidewalks and bike lanes are in addition to what is outlined in the City's Bicycle, Pedestrian, and Trails Master Plan. If they are additional, the City should develop a new implementing action specific to the installation of the new sidewalks and bike lanes. The new action should describe what type of bike lanes are planned, what criteria will be used to site the bike lanes, and how the sidewalks and bike lanes will be shaded.

Strategy TR-2 – Increase Zero-Emission Vehicle Adoption

- Through Action TR-2.2, the City would conduct a citywide study to identify optimal locations for public and multi-family residential EV charging stations. The City should consider coupling EV charging infrastructure with solar canopies over parking lots for increased shading and to offset EV charging costs. Sac Metro Air District also recommends including actions to address the electrification of medium- and heavy-duty vehicles and hydrogen fuel cell vehicles and related infrastructure.

Strategy TR-3 – Reduce Off-Road Transportation Emissions

- Sac Metro Air District is supportive of the transition to electric or hybrid alternatives. Renewable diesel use should be limited to instances where electric or hybrid alternatives are unavailable.
- The City should describe how emissions from agricultural equipment are captured in the Climate Compass.

Strategy RA-4 – Reduce Exposure to Extreme Heat and Mitigate the Urban Heat Island Effect

- When determining requirements for the use of cooling materials in the public realm, please consider thermal exposure for pedestrians. Cool pavements can be a useful urban heat island mitigation measure to reduce regional air temperature, but they should only be prioritized in paved areas where people are not likely to congregate, such as major freeways, highways, arterial roads and parking lots. Highly reflective materials may increase thermal load on pedestrians in the absence of adequate shade, and cool pavement installation should be avoided in unshaded plazas or areas with high pedestrian traffic, children's play areas, and outdoor patios.

- Sac Metro Air District applauds the City for using MaRTy, the mobile biometeorological instrument, to measure the mean radiant temperature of outdoor public spaces. The City should continue to use information from MaRTy to reduce extreme heat exposure for pedestrians, and Sac Metro Air District will remain a partner to the City as it builds amore heat resilient transportation system.

Thank you for the opportunity to review the draft SEIR and the Climate Compass. We hope that our recommendations and suggestions assist the City as it finalizes the Climate Compass which will serve as a citywide roadmap for climate mitigation and adaptation at a time when we urgently need sustained climate action.

If you have questions regarding these comments, please contact Brianna Moland, Climate Coordinator, at bmoland@airquality.org or (916) 317-0821.

Response A2-3

The comment addresses the draft Climate Compass and does not address the content, analysis, or conclusions in the Draft SEIR. This comment is not related to the adequacy of the CEQA document; therefore, no revisions to the Draft SEIR are necessary in response to this comment. As appropriate, adjustments have been made to the Climate Compass related to comments received. Revisions to the Climate Compass include the addition of implementation considerations (Chapter 5) and changes to five actions. The changed actions include the following:

- Revised BE-1.1 to remove residential from new construction reach code and added voluntary actions to encourage additional energy efficiency for new residential construction.
- Adjusted BE-1.3 to include broader support for energy efficiency upgrades for low-income households.
- Revised BE-1.5 to remove residential from existing building air conditioner to heat pump reach code.
- Removed CA-1.3.
- Adjusted RS-1.5 to provide for cool strategies or permeable pavement at City facilities.

2.2.2 Organizations

Letter O1 North State Building Industry Association

Vance Jarrard, Government & Public Affairs Advocate
August 14, 2025

Comment O1-1

On behalf of the North State Building Industry Association (BIA), representing more than 500 member companies in the homebuilding industry, I am writing to respectfully oppose the adoption of the City's Climate Compass unless the language expressing the City's intent to adopt a reach code is removed. As a participant in the City's Technical Advisory Group (TAG) that helped shape the Climate Compass, I appreciate how much work has gone into the formation of this document and the goals it strives to achieve. However, pursuing a reduction in greenhouse gas emissions through a reach code hinders the ability to create an attainable housing supply. Further, committing to the pursuit of a reach code at this time puts the City on a path that is ultimately unknowable.

The recent passage of AB 130 prohibits local governments from adopting reach codes until 2031, making any statement of intent premature and effectively meaningless for the next six years. Including such language now sends an unnecessary signal that the City is committed to imposing additional requirements at the earliest possible opportunity, regardless of future conditions. Those conditions could include the exacerbation of an already challenging affordability crisis. In today's volatile global economy, the cost of construction materials can change drastically in short periods of time, and it is impossible to predict what these costs will be six years from now. Committing today to a policy that could substantially increase housing costs in the future is speculative, risky, and directly contradicts the sentiment the City Council expressed at the public workshops held on this matter.

We also do not know what California's building codes will look like in 2031. State standards will almost certainly continue to evolve, and without knowing how far they will go, any current commitment to a future reach code lacks a factual basis. Such intent could prove redundant if state requirements already meet or exceed what a future reach code might impose.

For these reasons, we urge the Council to remove any reference to a reach code from the Climate Compass. This will allow the City to revisit the issue when it is legally permissible and when there is greater clarity on economic conditions and future state building standards. Until that time, the BIA and its members are committed to continuing to work with the City to create a reliable and efficient supply of attainable housing.

Response O1-1

The comment addresses the draft Climate Compass and does not address the content, analysis, or conclusions in the Draft SEIR. Therefore, no revisions to the Draft SEIR are necessary in response to this comment. As appropriate, adjustments have been made to the Climate Compass related to comments received; refer to Response A2-3 above.

The Draft SEIR included an alternative that removes reach code actions. See "Alternative 2: Removal of Reach Code Actions Alternative," which is described in Chapter 5, "Alternatives," of the Draft SEIR. As described therein, while this alternative would still meet the City's 2030 and 2045 greenhouse gas (GHG) reduction targets, Alternative 2 would not provide as large of a buffer for the City to meet its 2030 GHG reduction target compared to the Climate Compass.

2.2.3 Individuals

Letter I1 Lynn Wheat

August 5, 2025

Comment I1-1

I have reviewed the SEIR and have a question: Does this plan eliminate any of the existing significant and unavoidable impacts as identified under ES.4?

Response I1-1

The significant and unavoidable impacts listed in the Draft SEIR Executive Summary on pages ES-4 and ES-5 are the significant and unavoidable impacts that were identified in the General Plan EIR and 2023 Subsequent EIR. As discussed in Chapter 3, "Environmental Setting, Impacts, and Mitigation Measures," of the Draft SEIR, adoption and implementation of the Plan would not result in any new or substantially more severe significant impacts than those disclosed in the General Plan EIR, as amended by the 2023 Subsequent EIR. Furthermore, implementation of the Climate Compass would result in less severe GHG impacts than those disclosed in the General Plan EIR, as amended by the 2023 Subsequent EIR. For example, regarding Impact 3.2-1, "Generate GHG Emissions, Either Directly or Indirectly, That May Have a Significant Impact on the Environment," the Draft SEIR states on page 3.2-11:

- Implementation of the Climate Compass would achieve the City's 2030 and 2045 GHG emission reduction goals, consistent with statewide GHG reduction goals as identified in the 2022 Scoping Plan and directed by AB 1279. The Climate Compass would provide the City with the framework to meet its GHG emission reduction targets as development occurs under the General Plan, as amended by the GPAs/VMT Standards Project, beyond the buildout year 2030. Because the Climate Compass would be sufficient in meeting statewide GHG reduction targets, adopting and implementing the Climate Compass would not result in a new or more substantially severe impact than what was identified in the General Plan EIR, as amended by the 2023 Subsequent EIR. Implementation of the Climate Compass would reduce the significant and unavoidable impact from the 2023 Subsequent EIR to **less than significant**.

Furthermore, regarding Impact 3.2-2, "Conflict With an Applicable Plan, Policy, or Regulation Adopted for the Purpose of Reducing the Emissions of GHGs," the Draft SEIR states on page 3.2-16:

- The Climate Compass would achieve the City's overall goal to reduce GHG emissions consistent with statewide GHG reduction goals as established in the 2022 Scoping Plan, as set forth by AB 1279. In addition, the Climate Compass would be consistent with and support a variety of other State and local plans, policies, and regulations related to the reduction of GHG emissions. Therefore, the Climate Compass would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. Furthermore, the Climate Compass would provide the mechanism for the City to achieve its long-term GHG reduction goals past 2030 consistent with current regulations, which was identified in the 2023 Subsequent EIR as necessary to address the city's long-term GHG impacts. For these reasons, adoption and implementation of the Climate Compass would result in a substantially less severe impact than what was identified in the General Plan EIR and the 2023 Subsequent EIR, and as such, this impact would be reduced to less than significant.

As shown in the above excerpts from the Draft SEIR, implementation of the Climate Compass would result in less severe GHG impacts than those disclosed in the General Plan EIR, as amended by the 2023 Subsequent EIR.

Comment I1-2

I notice under a number of strategies actions are described however measurable outcomes are not quantified. I believe for a plan to be successful some means of measurement needs to be identified for implementation of the actions.

Unfortunately, I will be out of town and unable to attend the Planning Commission meeting for the overview of the Climate Compass Draft SEIR.

Response I1-2

The comment addresses the draft Climate Compass and does not address the content, analysis, or conclusions in the Draft SEIR. Therefore, no revisions to the Draft SEIR are necessary in response to this comment. As appropriate, adjustments have been made to the Climate Compass related to comments received; refer to Response A2-3 above.

Letter I2 Mi Nguyen

August 8, 2025

Comment I2-1

I am an Elk Grove resident and I would like to provide feedback on the Climate Compass Draft SEIR. Specifically, I am interested in sharing my opinion regarding Strategy TR-1: Decrease Miles Traveled, focusing on the plans around installing new bike lanes.

I sincerely hope that our leaders will not overlook that new bike lanes alone will not reduce vehicle miles traveled - it is the installation of safe bike infrastructure that will encourage residents to choose a petrol-free travel option. Furthermore, safe bike infrastructure has the cascading effect of reduced carbon emissions, reduced road maintenance, and safer transportation for all.

Currently, there are existing lanes in Elk Grove that are technically marked as bike lanes, whether with solid white lines and/or green paint, but I, along with many fellow bike riders, feel unsafe riding on them.

A couple initial reasons for this:

- Many bike lane are drawn too narrow for cars to safely pass us.
- Most bike lanes are physically unprotected. The only road I've encountered with protected bike lanes are on Franklin Blvd - though those lanes have a separate maintenance issue where there is often debris and occasional glass that makes it unsafe for biking.
- Many fellow bike riders would agree that paint alone is not infrastructure, and we would love to see the city invest in infrastructure that makes it safe enough for families to ride together in the bike lane.

Some examples of bike infrastructure:

- Building one-way bike lanes
- Bike lanes wide enough to enable 2 bikers to ride side by side comfortably
- For roads with speeds of 30+mph, install heavy duty physical separators such as raised curbs or bollards

There is currently no bike lane within Elk Grove that I would feel safe biking with a younger child, and in order to promote car-free travel within a family friendly city, that should be a priority. I would be grateful if this could all be considered in the detailed plans of the Climate Compass.

Thank you so much for your time and consideration.

Response I2-1

The comment addresses the draft Climate Compass and does not address the content, analysis, or conclusions in the Draft SEIR. Therefore, no revisions to the Draft SEIR are necessary in response to this comment. As appropriate, adjustments have been made to the Climate Compass related to comments received; refer to Response A2-3 above.

3 REVISIONS TO THE DRAFT SEIR

This chapter presents specific text changes made to the Draft SEIR since its publication and public review. The changes are presented in the order in which they appear in the original Draft SEIR and are identified by the Draft SEIR page number. As discussed in Chapter 2, "Response to Comments," of this Final SEIR, no changes to the Draft SEIR were necessary in response to any of the comments received on the Draft SEIR. The revisions to the Draft SEIR made below are to align the Final SEIR with the final version of the Climate Compass, where the majority of textual updates are related to adjustments in the wording of several action items and additional language related to anticipated implementation.

While there are textual updates to the Draft SEIR contained within this chapter, this information clarifies and expands on information in the Draft SEIR and does not constitute "significant new information" that identifies changes in environmental impacts requiring recirculation of the Draft SEIR. (See the Public Resources Code Section 21092.1 and State CEQA Guidelines Section 15088.5.) "Significant new information," as defined in State CEQA Guidelines Section 15088.5(a), means information added to an EIR (or SEIR) that changes the EIR (or SEIR) so as to deprive the public of a meaningful opportunity to comment on a "substantial adverse environmental effect" or a "feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement." Therefore, the addition of these textual edits do not trigger a recirculation of the Draft SEIR pursuant to Section 15088.5 of the CEQA Guidelines.

3.1 REVISIONS TO CHAPTER 2, PROJECT DESCRIPTION

To update the Final SEIR to align with the final Climate Compass, Action BE-1.1 on page 2-15 of the Draft SEIR is revised as follows:

Original:

Action BE-1.1: Adopt by ordinance a new building reach code based on cost-effectiveness studies, stakeholder outreach, and California Energy Commission approval that must be met by all residential and nonresidential new construction and major renovations.

Revised:

Action BE-1.1a: Adopt by ordinance a new building reach code (based on cost-effectiveness studies, stakeholder outreach, and subject to California Energy Commission approval) setting energy efficiency standards that must be met by all nonresidential new construction and major renovations.

Action BE-1.1b: Promote and encourage voluntary actions for the construction of new residential buildings that provide greater energy efficiency and reduced GHG emissions than otherwise required by the building codes.

To update the Final SEIR to align with the final Climate Compass, Action BE-1.3 on page 2-15 of the Draft SEIR is revised as follows:

Original:

Action BE-1.3: Explore partnerships with regional organizations or grant opportunities to develop a funding mechanism (e.g., revolving loan fund, grant program) to provide low-interest loans to low-income residents to cover the time-of-replacement/emergency replacement of water heaters and/or HVAC units with electric options.

Revised:

Action BE-1.3: Explore partnerships with regional organizations or grant opportunities to develop a funding mechanism (e.g., revolving loan fund, grant program) to support low-income households with covering the

cost of time-of-replacement/emergency replacement of water heaters and/or HVAC units with electric options, as well as any necessary electrical upgrades.

To update the Final SEIR to align with the final Climate Compass, Action BE-1.5 on page 2-15 of the Draft SEIR is revised as follows:

Original:

Action BE-1.5: Adopt voluntary CALGreen measures that encourage heat pump space conditioning installations when air conditioners are replaced in existing single-unit residential.

Revised:

Action BE-1.5: Adopt by ordinance a standard that is compliant with State and Federal law for the conversion of HVAC to heat pump systems for existing nonresidential buildings.

To update the Final SEIR to align with the final Climate Compass, Action TR-2.1 on page 2-17 of the Draft SEIR is revised as follows:

Original:

Action TR-2.1: Adopt a reach code for EV charging to meet CALGreen Tier 1 requirements to require new commercial development to equip parking spaces with EV charging receptacles.

Revised:

Action TR-2.1: Adopt an ordinance requiring higher EV charging infrastructure for new commercial development.

To update the Final SEIR to align with the final Climate Compass, Action TR-2.4 on page 2-17 of the Draft SEIR is revised as follows:

Original:

Action TR-2.4: Require new publicly accessible (non-car-lock) fueling stations to install one DC fast charger for each two fuel dispenser positions. This requirement may also satisfy the EV charger requirements for any on-site convenience store.

Revised:

Action TR-2.4: Require new publicly accessible (non-card-lock) fueling stations to include one DC fast charger for each two fuel dispenser positions, with a minimum of one half of the required DCFC chargers to be installed and the remainder of the spaces to be EV Capable. This requirement may also satisfy the EV requirements for any on-site convenience store.

To update the Final SEIR to align with the final Climate Compass, the measurable outcomes listed under Strategy BE-1, "Electrify and Decarbonize Buildings," in the Buildings and Energy subsection of Table 2-14, "Elk Grove Community GHG Emissions Reduction Strategies, Actions, and Measurable Outcomes," on page 2-15 of the Draft SEIR are revised as follows:

Original:

Buildings and Energy (BE)	
Strategy BE-1: Electrify and Decarbonize Buildings Measurable Outcomes ▶ 50% of new residential development all electric by 2030 and 100% by 2045. ▶ 50% of new nonresidential development all electric by 2030 and 100% by 2045. ▶ 14% of existing residential buildings retrofitted to be all electric by 2030 and 68% by 2045. ▶ 9% of existing nonresidential buildings retrofitted to be all electric by 2030 and 46% by 2045. ▶ 2,778 low-income housing units replace gas-powered HVAC units with heat pumps HVAC and heat pump water heaters by 2030. ▶ 27% of existing single-unit residential install heat pumps when replacing air conditioners by 2030 and 100% by 2045.	**Action BE-1.1:** Adopt by ordinance a new building reach code based on cost-effectiveness studies, stakeholder outreach, and California Energy Commission approval that must be met by all residential and nonresidential new construction and major renovations. **Action BE-1.2:** Develop a comprehensive building energy retrofit plan to transition existing residential and nonresidential buildings to all-electric. **Action BE-1.3:** Explore partnerships with regional organizations or grant opportunities to develop a funding mechanism (e.g., revolving loan fund, grant program) to provide low-interest loans to low-income residents to cover the time-of-replacement/emergency replacement of water heaters and/or HVAC units with electric options. **Action BE-1.4:** Partner with SMUD to explore offering on-bill financing or pay-as-you-save programs specifically for building electrification projects. **Action BE-1.5:** Adopt voluntary CALGreen measures that encourage heat pump space conditioning installations when air conditioners are replaced in existing single-unit residential.

Revised:

Buildings and Energy (BE)	
Strategy BE-1: Electrify and Decarbonize Buildings Measurable Outcomes ▶ 50% of new residential development all electric by 2030 and 100% by 2045. ▶ 50% of new nonresidential development all electric by 2030 and 100% by 2045. ▶ 14% of existing residential buildings retrofitted to be all electric by 2030 and 68% by 2045. ▶ 9% of existing nonresidential buildings retrofitted to be all electric by 2030 and 46% by 2045. ▶ 2,778 low-income housing units replace gas-powered HVAC units with heat pumps HVAC and heat pump water heaters by 2045. ▶ 100% of existing single-unit residential install heat pumps when replacing air conditioners by 2045.	**Action BE-1.1:** Adopt by ordinance a new building reach code based on cost-effectiveness studies, stakeholder outreach, and California Energy Commission approval that must be met by all residential and nonresidential new construction and major renovations. **Action BE-1.2:** Develop a comprehensive building energy retrofit plan to transition existing residential and nonresidential buildings to all-electric. **Action BE-1.3:** Explore partnerships with regional organizations or grant opportunities to develop a funding mechanism (e.g., revolving loan fund, grant program) to provide low-interest loans to low-income residents to cover the time-of-replacement/emergency replacement of water heaters and/or HVAC units with electric options. **Action BE-1.4:** Partner with SMUD to explore offering on-bill financing or pay-as-you-save programs specifically for building electrification projects. **Action BE-1.5:** Adopt voluntary CALGreen measures that encourage heat pump space conditioning installations when air conditioners are replaced in existing single-unit residential.

To update the Final SEIR to align with the final Climate Compass, the actions listed under Strategy CA-1, "Conduct Meaningful Community Outreach," in the Climate Action Commitment subsection of Table 2-14, "Elk Grove Community GHG Emissions Reduction Strategies, Actions, and Measurable Outcomes," on page 2-20 of the Draft SEIR are revised as follows:

Original:

Climate Action Commitment	
Strategy CA-1: Conduct Meaningful Community Outreach Measurable Outcomes ▶ Not quantified	**Action CA-1.1:** Implement the Climate Ambassador Program as a permanent program, which recruits and trains volunteers to serve as local sustainability champions and educators. **Action CA-1.2:** Develop a neighborhood resilience committee program to increase connectedness among the community and provide support during climate hazard events. **Action CA-1.3:** Continue to encourage and connect residents with Property Assessed Clean Energy (PACE) programs, such as the Home Energy Renovation Opportunity (HERO) and CaliforniaFirst, which serve as an innovative mechanism for financing energy efficiency and renewable energy improvements on residential and commercial properties. **Action CA-1.4:** Partner with SMUD to establish a comprehensive community outreach and education campaign to raise awareness about the benefits of building electrification, available incentives and programs, and the importance of decarbonizing the building sector. **Action CA-1.5:** Partner with SMUD to promote its Residential, Neighborhood, and Commercial SolarShares programs, which allow residential customers, commercial customers, and developers to purchase renewably sourced electricity without having a solar system on site. **Action CA-1.6:** Work with regional partner agencies and utilities, such as SMAQMD and SMUD, to promote rebates and incentives for installing both residential and nonresidential renewable energy (e.g., solar) and battery storage systems.

Revised:

Climate Action Commitment	
Strategy CA-1: Conduct Meaningful Community Outreach Measurable Outcomes ▶ Not quantified	**Action CA-1.1:** Implement the Climate Ambassador Program as a permanent program, which recruits and trains volunteers to serve as local sustainability champions and educators. **Action CA-1.2:** Develop a neighborhood resilience committee program to increase connectedness among the community and provide support during climate hazard events. **Action CA-1.3:** Partner with SMUD to establish a comprehensive community outreach and education campaign to raise awareness about the benefits of building electrification, available incentives and programs, and the importance of decarbonizing the building sector. **Action CA-1.4:** Partner with SMUD to promote its Residential, Neighborhood, and Commercial SolarShares programs, which allow residential customers, commercial customers, and developers to purchase renewably sourced electricity without having a solar system on site. **Action CA-1.5:** Work with regional partner agencies and utilities, such as SMAQMD and SMUD, to promote rebates and incentives for installing both residential and nonresidential renewable energy (e.g., solar) and battery storage systems.

To update the Final SEIR to align with the projected GHG emissions reductions of the final Climate Compass, Table 2-15, "Community GHG Emissions Reduction Strategies," and the corresponding paragraph on pages 2-21 and 2-22 of the Draft SEIR are revised as follows:

Original:

Table 2-15 Community GHG Emissions Reduction Strategies

Strategy Number	Strategy Name	GHG Reductions ($MTCO_2e$)	
		2030	2045
Buildings and Energy (BE)			
BE-1	Electrify and Decarbonize Buildings	36,436	199,967
BE-2	Increase Density and Expand Affordable Housing	Included in TR-1	Included in TR-1
BE-3	Increase Local Renewable Energy Use and Storage	280,438	0
BE-4	Reduce Energy Consumption and Energy Burden	Included in BE-1	Included in BE-1
	Buildings and Energy Subtotal	**316,875**	**199,967**
Transportation (TR)			
TR-1	Decrease Vehicle Miles Traveled	4,864	5,281
TR-2	Increase Zero-Emission Vehicle Adoption	49,607	110,886
TR-3	Reduce Off-Road Transportation Emissions	9,542	10,856
	Transportation Subtotal	**64,013**	**127,023**
Resilience and Adaptation (RA)			
RA-1	Improve Climate and Emergency Preparedness	N/A	N/A
RA-2	Build Capacity for Current and Future Flooding	N/A	N/A
RA-3	Protect Populations from Wildfire Smoke	N/A	N/A
RA-4	Reduce Exposure to Extreme Heat and Mitigate the Urban Heat Island Effect	Included in RA-5	Included in RA-5
RA-5	Expand the Urban Tree Canopy	185	880
RA-6	Expand Nature-Based Solutions	NA	NA
	Resilience and Adaptation Subtotal	**185**	**880**
Resource Consumption (RC)			
RC-1	Increase Organic Waste Diversion	4,755	28,775
RC-2	Promote a Circular Economy	Included in RC-1	Included in RC-1
RC-3	Reduce Water Use	140	0
	Resource Consumption Subtotal	**4,895**	**28,775**
Green Economy (GE)			
GE-1	Support Green Businesses	N/A	N/A
	Green Economy Subtotal	**N/A**	**N/A**
Climate Action Commitment (CA)			
CA-1	Conduct Meaningful Community Outreach	N/A	N/A
CA-2	Provide Community Education on Public Health and Wellbeing	N/A	N/A
CA-3	Provide Community Education on Water Efficiency	N/A	N/A

Strategy Number	Strategy Name	GHG Reductions ($MTCO_2e$)	
		2030	2045
CA-4	Measure and Manage Climate Action Progress	N/A	N/A
	Climate Action Commitment Subtotal	**N/A**	**N/A**
	Total Reductions from Strategies	**385,968**	**356,645**
	Reduction Needed to Meet Target	*327,615*	*322,498*
	Target Met?	Yes	Yes
	Remaining Gap to Target	-58,353	-34,148

Notes: Total may not sum exactly due to independent rounding. GHG = greenhouse gas; $MTCO_2e$ = metric tons of carbon dioxide equivalent; N/A = not applicable.

Source: City of Elk Grove 2025.

The total estimated community GHG emissions reductions from all strategies quantified would be 385,968 $MTCO_2e$ in 2030 and 356,645 $MTCO_2e$ in 2045. The total estimated reductions from all GHG emissions reduction strategies would be sufficient to meet the 2030 and 2045 targets.

Revised:

Table 2-15 Community GHG Emissions Reduction Strategies

Strategy Number	Strategy Name and Quantified Actions[1]	GHG Reductions ($MTCO_2e$) 2030	GHG Reductions ($MTCO_2e$) 2045
Buildings and Energy (BE)			
BE-1	Electrify and Decarbonize Buildings	30,882	176,030
BE-2	Increase Density and Expand Affordable Housing	Included in TR-1	Included in TR-1
BE-3	Increase Local Renewable Energy Use and Storage	280,438	0
BE-4	Reduce Energy Consumption and Energy Burden	Included in BE-1	Included in BE-1
	Buildings and Energy Subtotal	**311,321**	**176,030**
Transportation (TR)			
TR-1	Decrease Vehicle Miles Traveled	4,864	5,281
TR-2	Increase Zero-Emission Vehicle Adoption	49,607	110,886
TR-3	Reduce Off-Road Transportation Emissions	9,542	10,856
	Transportation Subtotal	**64,013**	**127,023**
Resilience and Adaptation (RA)			
RA-1	Improve Climate and Emergency Preparedness	N/A	N/A
RA-2	Build Capacity for Current and Future Flooding	N/A	N/A
RA-3	Protect Populations from Wildfire Smoke	N/A	N/A
RA-4	Reduce Exposure to Extreme Heat and Mitigate the Urban Heat Island Effect	Included in RA-5	Included in RA-5
RA-5	Expand the Urban Tree Canopy	185	880
RA-6	Expand Nature-Based Solutions	Included in RA-5	Included in RA-5
	Resilience and Adaptation Subtotal	**185**	**880**

Strategy Number	Strategy Name and Quantified Actions[1]	GHG Reductions ($MTCO_2e$) 2030	GHG Reductions ($MTCO_2e$) 2045
Resource Consumption (RC)			
RC-1	Increase Organic Waste Diversion	4,755	28,775
RC-2	Promote a Circular Economy	Included in RC-1	Included in RC-1
RC-3	Reduce Water Use	140	0
	Resource Consumption Subtotal	**4,895**	**28,775**
Green Economy (GE)			
GE-1	Support Green Businesses	N/A	N/A
	Green Economy Subtotal	**N/A**	**N/A**
Climate Action Commitment (CAC)			
CA-1	Conduct Meaningful Community Outreach	N/A	N/A
CA-2	Provide Community Education on Public Health and Wellbeing	N/A	N/A
CA-3	Provide Community Education on Water Efficiency	N/A	N/A
CA-4	Measure and Manage Climate Action Progress	N/A	N/A
	Climate Action Commitment Subtotal	**N/A**	**N/A**
Total Reductions from Strategies		**380,646**	**333,017**
Reduction Needed to Meet Target		327,615	322,498
Target Met?		**Yes**	**Yes**
Remaining Gap to Target		-53,031	-10,519

Notes: Total may not sum exactly due to independent rounding. GHG = greenhouse gas; $MTCO_2e$ = metric tons of carbon dioxide equivalent; N/A = not applicable.

Source: City of Elk Grove 2026.

The total estimated community GHG emissions reductions from all strategies quantified would be 380,646 $MTCO_2e$ in 2030 and 333,017 $MTCO_2e$ in 2045. The total estimated reductions from all GHG emissions reduction strategies would be sufficient to meet the 2030 and 2045 targets.

To update the Final SEIR to align with the final Climate Compass, Action BF-1.1 on page 2-24 of the Draft SEIR is revised as follows:

Original:

Action BF-1.1: Adopt a policy that requires all new City buildings to be all-electric starting in 2026, and additionally, that requires existing buildings purchased by the City to be fully electrified within five years of purchase.

Revised:

Action BF-1.1: Adopt a policy that requires all new City buildings to be all-electric starting in 2026, and additionally, that requires existing buildings purchased by the City to be fully electrified with remodeling/upgrades.

To update the Final SEIR to align with the final Climate Compass, Action RS-1.5 on page 2-25 of the Draft SEIR is revised as follows:

Original:

Action RS-1.5: Install cool pavement and permeable pavement on all City parking lots to help reduce the urban heat island effect and provide additional flood protection, prioritizing permeable pavement in lots or areas

that are more flood-prone. Test different types of cool and permeable pavement materials, and based on results, develop guidelines for broader implementation throughout the city.

Revised:

Action RS-1.5: Install cooling strategies and/or permeable pavement on COEG parking lots to help reduce the urban heat island effect and provide additional flood protection, prioritizing permeable pavement in lots or areas that are more flood prone. Test different types of cool and permeable pavement materials, and based on results, develop guidelines for broader implementation throughout the city.

To provide additional information, the following paragraph has been added to Subsection 2.5.3, "Project Consistency with Applicable Plans," to discuss the textual modifications made to the Chapter 7, "Community and Resource Protection," of the City's General Plan to ensure internal consistency with the Climate Compass:

Original:

The Climate Compass was developed in the context of existing regional and City plans that support the reduction of GHG emissions as well as prepare the city for climate-related hazards and effects. The Plan is consistent with the following plans:

- City of Elk Grove General Plan;
- City of Elk Grove Local Hazard Mitigation Plan;
- City of Elk Grove Community Mobility Resiliency Plan;
- City of Elk Grove Bike, Pedestrian, and Trails Master Plan;
- SMAQMD's Capital Region Climate Priorities Plan; and
- SMUD's 2030 Zero Carbon Plan.

Revised:

The Climate Compass was developed in the context of existing regional and City plans that support the reduction of GHG emissions as well as prepare the city for climate-related hazards and effects. The Plan is consistent with the following plans:

- City of Elk Grove General Plan;
- City of Elk Grove Local Hazard Mitigation Plan;
- City of Elk Grove Community Mobility Resiliency Plan;
- City of Elk Grove Bike, Pedestrian, and Trails Master Plan;
- SMAQMD's Capital Region Climate Priorities Plan; and
- SMUD's 2030 Zero Carbon Plan.

Upon adoption of the Climate Compass, Chapter 7, "Community and Resource Protection," of the City's General Plan would be textually modified to ensure internal consistency between the General Plan and the updated GHG emissions inventory and projections included in the Plan. The proposed textual modifications to the General Plan are included as Appendix B of the Draft EIR.

3.2 REVISIONS TO CHAPTER 3, ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

To update the Final SEIR to align with the terminology of the final Climate Compass, the second full paragraph under "Air Quality" on page 3-4 of the Draft SEIR is revised as follows:

Original:

Implementation of the strategies and actions of the Climate Compass would involve the construction and operation of new small-scale facilities, such as EV charging stations, solar photovoltaic or battery storage systems; construction of cool roofs and pavements; and retrofitting older infrastructure and facilities with newer, more energy efficient technology. While the Climate Compass includes strategies and associated actions based on newer technologies and updated reach codes, the types of facilities that would be constructed and operated under the Plan are similar in nature to those described in the 2019 CAP and air pollutant emissions from development activities evaluated within the General Plan EIR, as amended by the 2023 Subsequent EIR. Therefore, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of air quality is warranted.

Revised:

Implementation of the strategies and actions of the Climate Compass would involve the construction and operation of new small-scale facilities, such as EV charging stations, solar photovoltaic or battery storage systems; construction of cool roofs and pavements; and retrofitting older infrastructure and facilities with newer, more energy efficient technology. While the Climate Compass includes strategies and associated actions based on newer technologies and new energy efficiency standards, the types of facilities that would be constructed and operated under the Plan are similar in nature to those described in the 2019 CAP and air pollutant emissions from development activities evaluated within the General Plan EIR, as amended by the 2023 Subsequent EIR. Therefore, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of air quality is warranted.

3.3 REVISIONS TO SECTION 3.1, ENERGY

To update the Final SEIR to align with the terminology of the final Climate Compass, the second full paragraph on page 3.1-8 of the Draft SEIR is revised as follows:

Original:

While the majority of the Climate Compass strategies and actions provide the policy framework for the City, implementation of Actions FEC-2.1, TR-2.1, TR-2.4, RS-1.5, TR-1.1, TR-1.2, BF-2.2, RS-1.3, RS-1.6, and WW-1.2 could directly result in construction activities. These activities could include, but not be limited to, installation of new EV charging stations with residential and municipal parking lots as part of new codes and ordinances (Actions FEC-2.1, TR-2.1, TR-2.4); promotion of cool pavement and permeable pavement on all municipal parking lots (Action RS-1.5); development of transportation infrastructure as detailed in the Bicycle, Pedestrian, and Trails Master Plan (Action TR-1.1); construction of transit amenities such as seating, lighting, tree cover, and real-time public transit arrival information displays (Action TR-1.2); construction of renewable energy generation and storage projects at municipal facilities (Action BF-2.2); retrofitting existing municipal buildings and facilities to improve their resilience to climate hazards (Action RS-1.3), installation of shade amenities such as trees and shade structures (Action RS-1.6); and upgrading municipal irrigation systems to be more water efficient (Action WW-1.2). This contrasts with other actions, such as establishing or expanding programs, facilitating partnerships with utilities or state agencies, developing educational campaigns, or creating incentive programs that do not directly require activities that would result in construction.

Revised:

While the majority of the Climate Compass strategies and actions provide the policy framework for the City, implementation of Actions FEC-2.1, TR-2.1, TR-2.4, RS-1.5, TR-1.1, TR-1.2, BF-2.2, RS-1.3, RS-1.6, and WW-1.2 could directly result in construction activities. These activities could include, but not be limited to, installation of new EV charging stations with commercial and municipal parking lots as part of new codes and ordinances (Actions FEC-2.1, TR-2.1, TR-2.4); promotion of cooling strategies and/or permeable pavement on all municipal-

owned parking lots (Action RS-1.5); development of transportation infrastructure as detailed in the Bicycle, Pedestrian, and Trails Master Plan (Action TR-1.1); construction of transit amenities such as seating, lighting, tree cover, and real-time public transit arrival information displays (Action TR-1.2); construction of renewable energy generation and storage projects at municipal facilities (Action BF-2.2); retrofitting existing municipal buildings and facilities to improve their resilience to climate hazards (Action RS-1.3), installation of shade amenities such as trees and shade structures (Action RS-1.6); and upgrading municipal irrigation systems to be more water efficient (Action WW-1.2). This contrasts with other actions, such as establishing or expanding programs, facilitating partnerships with utilities or state agencies, developing educational campaigns, or creating incentive programs that do not directly require activities that would result in construction.

To update the Final SEIR to align with the terminology of the final Climate Compass, the first full paragraph on page 3.1-9 of the Draft SEIR is revised as follows:

Original:

As identified in the Climate Compass, GHGs in the city are primarily emitted from sources that combust fossil fuels for energy, such as gasoline and diesel fuels in cars and natural gas in buildings. Thus, the Plan aims to reduce GHG emissions by reducing fossil fuel use and improving energy efficiency in the community and in City operations. Notably, the majority of GHG reductions associated with the Plan would be achieved through strategies and actions that target reductions to fossil fuel consumption and improvements in energy efficiency in the community. This is because community operations emit a greater amount of GHGs than city operations and thus require more vigorous improvements to energy efficiency and reductions in fossil fuels. In regard to increasing energy efficiency and reduced energy demand in community buildings, the Plan includes Strategies BE-1, "Electrify and Decarbonize Buildings," BE-3, "Increase Local Renewable Energy Use and Storage," and BE-4, "Reduce Energy Consumption and Energy Burden," and subsequent actions (BE-1.1 through BE-1.5, BE-3.1 through BE-3.2, and BE-4.1 through BE-4.3), which would result in decreased dependency on fossil gas within the community building sector, while also promoting energy efficiency through adherence to voluntary standards of the CALGreen Code and partnerships with SMUD. By increasing the use of electricity (including electricity sourced from renewables) and decreasing the use of fossil fuel combustion, implementation of the Plan would also reduce the combustion of fossil fuels used for building energy in the community. For a comprehensive list of community-building energy-related strategies, their associated actions, and the measurable outcomes related to their implementation, see Table 2-14 in Chapter 2, "Project Description."

Revised:

As identified in the Climate Compass, GHGs in the city are primarily emitted from sources that combust fossil fuels for energy, such as gasoline and diesel fuels in cars and natural gas in buildings. Thus, the Plan aims to reduce GHG emissions by reducing fossil fuel use and improving energy efficiency in the community and in City operations. Notably, the majority of GHG reductions associated with the Plan would be achieved through strategies and actions that target reductions to fossil fuel consumption and improvements in energy efficiency in the community. This is because community operations emit a greater amount of GHGs than city operations and thus require more vigorous improvements to energy efficiency and reductions in fossil fuels. In regard to increasing energy efficiency and reduced energy demand in community buildings, the Plan includes Strategies BE-1, "Electrify and Decarbonize Buildings," BE-3, "Increase Local Renewable Energy Use and Storage," and BE-4, "Reduce Energy Consumption and Energy Burden," and subsequent actions (BE-1.1 through BE-1.5, BE-3.1 through BE-3.2, and BE-4.1 through BE-4.3), which would result in decreased dependency on fossil gas within the community building sector, while also promoting energy efficiency through adoption of energy efficiency standards and partnerships with SMUD. By increasing the use of electricity (including electricity sourced from renewables) and decreasing the use of fossil fuel combustion, implementation of the Plan would also reduce the combustion of fossil fuels used for building energy in the community. For a comprehensive list of community-building energy-related strategies, their associated actions, and the measurable outcomes related to their implementation, see Table 2-14 in Chapter 2, "Project Description."

3.4 REVISIONS TO SECTION 3.2, GREENHOUSE GAS EMISSIONS

To update the Final SEIR to align with the terminology of the final Climate Compass, the first full paragraph on page 3.2-13 of the Draft SEIR is revised as follows:

Original:

The strategies and actions that may require construction activities and as such, have the potential to directly or indirectly emit GHG emissions, include but not limited to, installation of new EV charging stations with residential and municipal parking lots as part of new codes and ordinances (Actions FEC-2.1, TR-2.1, TR-2.4); promoting installation of cool pavement and permeable pavement on all municipal parking lots (Action RS-1.5); development of transportation infrastructure as detailed in the Bicycle, Pedestrian, and Trails Master Plan (Action TR-1.1); construction of amenities such as seating, lighting, tree cover, and real-time public transit arrival information displays (Action TR-1.2); construction of new renewable energy generation and storage projects on municipal buildings (Action BF-2.2); retrofitting existing municipal buildings and facilities to improve their resilience to climate hazards (Action RS-1.3), installation of shade amenities such as trees and shade structures (Action RS-1.6); and upgrading municipal-owned and Cosumnes Community Services District-managed irrigation systems to be more water efficient (Action WW-1.2).

Revised:

The strategies and actions that may require construction activities and as such, have the potential to directly or indirectly emit GHG emissions, include but not limited to, installation of new EV charging stations with residential and municipal parking lots as part of new codes and ordinances (Actions FEC-2.1, TR-2.1, TR-2.4); promoting installation of cooling strategies and/or permeable pavement on all municipal-owned parking lots (Action RS-1.5); development of transportation infrastructure as detailed in the Bicycle, Pedestrian, and Trails Master Plan (Action TR-1.1); construction of amenities such as seating, lighting, tree cover, and real-time public transit arrival information displays (Action TR-1.2); construction of new renewable energy generation and storage projects on municipal buildings (Action BF-2.2); retrofitting existing municipal buildings and facilities to improve their resilience to climate hazards (Action RS-1.3), installation of shade amenities such as trees and shade structures (Action RS-1.6); and upgrading municipal-owned and Cosumnes Community Services District-managed irrigation systems to be more water efficient (Action WW-1.2).

To update the Final SEIR to align with the projected GHG emissions reductions of the final Climate Compass, the second full paragraph on page 3.2-14 of the Draft SEIR is revised as follows:

Original:

Despite some operational emissions occurring with the implementation of the Climate Compass, the Plan would reduce overall GHG emissions from sources in the community and City operations. Notably, the majority of GHG reductions would be achieved through the community GHG reduction strategies and actions detailed in Table 2-14 of Chapter 2, "Project Description." The total estimated community GHG emissions reductions from all strategies quantified would be 385,968 $MTCO_2e$ in 2030 and 356,645 $MTCO_2e$ in 2045. Thus, there would be greater overall reductions to fossil fuel consumption and improvements in energy efficiency related to the implementation of the community GHG reduction strategies and their associated actions relative to energy-related reductions and improvements related to municipal-focused strategies and actions (2,501 $MTCO_2e$ in 2030 and 2,450 $MTCO_2e$ in 2045).

Revised:

Despite some operational emissions occurring with the implementation of the Climate Compass, the Plan would reduce overall GHG emissions from sources in the community and City operations. Notably, the majority of GHG reductions would be achieved through the community GHG reduction strategies and actions detailed in Table 2-14 of Chapter 2, "Project Description." The total estimated community GHG emissions reductions from all strategies quantified would be 380,646 $MTCO_2e$ in 2030 and 333,017 $MTCO_2e$ in 2045. Thus, there would be greater overall reductions to fossil fuel consumption and improvements in energy efficiency related to the implementation of the community GHG reduction strategies and their associated actions relative to

energy-related reductions and improvements related to municipal-focused strategies and actions (2,501 $MTCO_2e$ in 2030 and 2,450 $MTCO_2e$ in 2045).

To update the Final SEIR to align with the terminology of the final Climate Compass, the fourth full paragraph on page 3.2-14 of the Draft SEIR is revised as follows:

Original:

The Climate Compass would be beneficial in terms of reducing energy-related GHG emissions as implemented through community Strategies BE-1, BE-3, and BE-4 and subsequent actions (BE-1.1 through BE-1.5, BE-3.1 through BE-3.2, and BE-4.1 through BE-4.3) and municipal Strategies BF-1, BF-2, and BF-3, and subsequent actions (BF-1.1 through BF-1.3, BF-2.1 through BF-2.3, and BF-3.1 through BF-3.4). For example, implementation of Action BE-1.1 recommends adoption of a new ordinance that establishes a new building reach code based on cost-effectiveness studies, stakeholder outreach, and CEC approval that all residential and nonresidential new construction and major renovations must meet. Action BE-1.2 requires developing a comprehensive building energy retrofit plan to transition existing residential and nonresidential buildings to all-electric.

Revised:

The Climate Compass would be beneficial in terms of reducing energy-related GHG emissions as implemented through community Strategies BE-1, BE-3, and BE-4 and subsequent actions (BE-1.1 through BE-1.5, BE-3.1 through BE-3.2, and BE-4.1 through BE-4.3) and municipal Strategies BF-1, BF-2, and BF-3, and subsequent actions (BF-1.1 through BF-1.3, BF-2.1 through BF-2.3, and BF-3.1 through BF-3.4). For example, implementation of Action BE-1.1 recommends adoption of a new ordinance that requires all new nonresidential construction and major renovations to meet energy efficiency standards, compliant with State and Federal law and based on cost-effectiveness studies, stakeholder input, and CEC approval. Action BE-1.2 requires developing a comprehensive building energy retrofit plan to transition existing residential and nonresidential buildings to all-electric.

To update the Final SEIR to align with the terminology of the final Climate Compass, the last paragraph on page 3.2-17 that continues to page 3.2-18 of the Draft SEIR is revised as follows:

Original:

The Climate Compass would be consistent with the requirements of the CALGreen Code, which include building energy and water efficiency improvements. The Climate Compass includes strategies and actions that would implement both new and existing building energy efficiency improvements, decarbonize new and existing buildings, and improve energy efficiency and water efficiency. For example, Action BE-1.5 recommends adoption of voluntary CALGreen measures that encourage heat pump installations when air conditioners are replaced in existing single-unit residential, while Action TR-2.1 recommends adoption of a reach code for EV charging to meet CALGreen Tier 1 requirements, require new commercial development to equip parking spaces with EV charging receptacles. Action BF-3.1 proposes developing and adopting a green building policy requiring all new municipal buildings to meet or exceed CALGreen Tier 1 standards, establishing requirements for energy-efficient design, renewable energy integration, water conservation, and sustainable materials use. Through the implementation of these strategies and actions, the Plan would be consistent with the mandatory requirements of the CALGreen Code.

Revised:

The Climate Compass would be consistent with the requirements of the CALGreen Code, which include building energy and water efficiency improvements. The Climate Compass includes strategies and actions that would implement both new and existing building energy efficiency improvements, decarbonize new and existing buildings, and improve energy efficiency and water efficiency. For example, Action BE-1.5 recommends adoption of standards for the conversion of HVAC to heat pump systems with reduced GHG emissions that is compliant with State and Federal law. While Action TR-2.1 recommends adoption of an ordinance requiring higher EV charging infrastructure for new commercial development. Action BF-3.1 proposes developing and adopting a green building policy requiring all new municipal buildings to meet or exceed CALGreen Tier 1 standards, establishing requirements for energy-efficient design, renewable energy integration, water conservation, and

sustainable materials use. Through the implementation of these strategies and actions, the Plan would be consistent with the mandatory requirements of the CALGreen Code.

3.5 REVISIONS TO CHAPTER 4, CUMULATIVE IMPACTS

To update the Final SEIR to align with the projected GHG emissions reductions of the final Climate Compass, the first full paragraph under heading "Proposed Climate Compass Cumulative Analysis", on page 4-5 of the Draft SEIR is revised as follows:

Original:

Impact 4-2: Cumulative Impacts Related to Greenhouse Gas Emissions and Climate Change

As discussed in greater detail in Section 3.2, "Greenhouse Gas Emissions And Climate Change," of this Draft SEIR, adoption and implementation of the Climate Compass would achieve the City's 2030 and 2045 GHG emission reduction goals consistent with statewide GHG reduction goals as identified in the 2022 Scoping Plan set by AB 1279. Despite minor construction and operational GHG emissions occurring with the implementation of the Climate Compass, the Plan would reduce overall GHG emissions from sources in the community and City operations. Notably, the majority of GHG reductions would be achieved through the community GHG reduction strategies and their associated actions detailed in Table 2-14 of Chapter 2, "Project Description." The total estimated community GHG emissions reductions from all quantified strategies and actions would be 385,968 $MTCO_2e$ in 2030 and 356,645 $MTCO_2e$ in 2045. While constituting a smaller portion of the City's GHG reductions, the total estimated City operations GHG emissions reductions from all quantified strategies and action would be 2,501 $MTCO_2e$ in 2030 and 2,450 $MTCO_2e$ in 2045. In addition, while implementation of the Plan would achieve the City's GHG emissions reduction targets for 2030 and 2045, the Plan also provides the City with a surplus of GHG emissions reductions. Overall, GHG emissions would be substantially reduced in 2030 and 2045 compared to the "no local action" (NLA) scenario (i.e., implementation of the General Plan without implementation of the strategies and actions included in the Climate Compass).

Revised:

Impact 4-2: Cumulative Impacts Related to Greenhouse Gas Emissions and Climate Change

As discussed in greater detail in Section 3.2, "Greenhouse Gas Emissions And Climate Change," of this Draft SEIR, adoption and implementation of the Climate Compass would achieve the City's 2030 and 2045 GHG emission reduction goals consistent with statewide GHG reduction goals as identified in the 2022 Scoping Plan set by AB 1279. Despite minor construction and operational GHG emissions occurring with the implementation of the Climate Compass, the Plan would reduce overall GHG emissions from sources in the community and City operations. Notably, the majority of GHG reductions would be achieved through the community GHG reduction strategies and their associated actions detailed in Table 2-14 of Chapter 2, "Project Description." The total estimated community GHG emissions reductions from all quantified strategies and actions would be 380,646 $MTCO_2e$ in 2030 and 333,017 $MTCO_2e$ in 2045. While constituting a smaller portion of the City's GHG reductions, the total estimated City operations GHG emissions reductions from all quantified strategies and action would be 2,501 $MTCO_2e$ in 2030 and 2,450 $MTCO_2e$ in 2045. In addition, while implementation of the Plan would achieve the City's GHG emissions reduction targets for 2030 and 2045, the Plan also provides the City with a surplus of GHG emissions reductions. Overall, GHG emissions would be substantially reduced in 2030 and 2045 compared to the "no local action" (NLA) scenario (i.e., implementation of the General Plan without implementation of the strategies and actions included in the Climate Compass).

3.6 REVISIONS TO CHAPTER 5, ALTERNATIVES

Updates to Chapter 5, "Alternatives," reflect changes to the final Climate Compass that include removing nonresidential construction standards related to energy efficiency and EV charging. None of these changes substantially alter Alternative 2 or the conclusions in the Draft SEIR.

To update the Final SEIR to align with the terminology of the final Climate Compass, the second bullet point under Section 5.4, "Alternatives Selected For Detailed Analysis," on page 5-4 of the Draft SEIR is revised as follows:

Original:

- **Alternative 2: Removal of Reach Code Actions Alternative** assumes the Climate Compass would be adopted with the exclusion of Actions BE-1.1 and TR-2.1, both of which require the City to adopt reach codes by 2026, from the Community GHG Emissions Reduction Strategies and associated actions list. Under this alternative, all strategies and associated actions included for City operations under the Climate Compass would remain the same. Specifically, Actions BE-1.1 and TR-2.1 require the City to adopt reach codes encouraging transition from natural gas powered heating and appliances to electric alternatives for new construction and major renovations in both residential and nonresidential development and for electric vehicle (EV) charging, respectively. The adoption of reach codes are voluntary and must be proven to be cost effective and approved by the California Energy Commission (CEC).

Revised:

- **Alternative 2: Removal of Advanced Building Standards Actions Alternative** assumes the Climate Compass would be adopted with the exclusion of Actions BE-1.1, requiring the City to adopt a nonresidential reach code for energy efficiency standard in 2026, and TR-2.1, requiring the City to adopt higher EV charging infrastructure for new commercial development, from the Community GHG Emissions Reduction Strategies and associated actions list. Under this alternative, all strategies and associated actions included for City operations under the Climate Compass would remain the same. Specifically, Actions BE-1.1 and TR-2.1 require all new nonresidential construction and major renovations to meet energy efficiency standards, compliant with State and Federal law and based on cost-effectiveness studies, stakeholder input, and CEC approval, and require higher EV charging infrastructure for new commercial development, respectively.

To update the Final SEIR to align with the final Climate Compass, the two paragraphs and Table 5-3, "Alternative 2 Community GHG Emissions Reduction Strategies," under Section 5.4.2, "Alternative 2: Removal of Reach Code Action Alternatives," on page 5-9 of the Draft SEIR is revised as follows:

Original:

3.6.1 Alternative 2: Removal of Reach Code Actions Alternative

Alternative 2 would be the same as the proposed Plan but would remove Actions BE-1.1 and TR-2.1 from the Community GHG Emissions Reduction Strategies and associated actions list. All strategies and associated actions included for City operations under the proposed Plan would remain the same under this alternative. Actions BE-1.1 and TR-2.1 require the City to adopt reach codes[1] encouraging transition from natural gas powered heating and appliances to electric alternatives for new construction and major renovations in both residential and nonresidential development and for EV charging, respectively. The adoption of reach codes are voluntary, must be cost effective, and are required to be submitted for approval by the CEC.

[1] A reach code is a local amendment to the California Building Code (CBC). In California, local governments have the authority to adopt amendments to the California Building Standards Code, commonly known as "Title 24" of the California Code of Regulations. These local amendments are often referred to as reach codes because they require performance that exceeds that of the minimum State code. There are two categories of reach codes: 1) Prescriptive Codes, which require one or more specific energy efficiency or renewable energy measures; and 2) Performance Codes, which require buildings to perform more efficiently than Title 24, Part 6 Energy Standards, allowing applicants flexibility in project designs (CECS 2025).

Table 5-3 shows the GHG emissions reductions quantified for Alternative 2's community GHG emissions reduction strategies and associated actions. As shown in the table, the total estimated community GHG emissions reductions from all strategies quantified would be 335,558 $MTCO_2e$ in 2030 and 356,645 $MTCO_2e$ in 2045. As such, without the development and adoption of building electrification and EV charging reach codes (i.e., Actions BE-1.1 and TR-2.1), the City would still be able to meet its 2030 and 2045 GHG reduction targets.

Table 5-3 Alternative 2 Community GHG Emissions Reduction Strategies

Strategy Number	Strategy Name	GHG Reductions ($MTCO_2e$) 2030	GHG Reductions ($MTCO_2e$) 2045
Buildings and Energy (BE)			
BE-1	Electrify and Decarbonize Buildings	28,957	199,967
BE-2	Increase Density and Expand Affordable Housing	Included in TR-1	Included in TR-1
BE-3	Increase Local Renewable Energy Use and Storage	280,438	0
BE-4	Reduce Energy Consumption and Energy Burden	Included in BE-1	Included in BE-1
	Buildings and Energy Subtotal	**307,396**	**199,967**
Transportation (TR)			
TR-1	Decrease Vehicle Miles Traveled	4,911	5,281
TR-2	Increase Zero-Emission Vehicle Adoption	8,630	110,886
TR-3	Reduce Off-Road Transportation Emissions	9,542	10,856
	Transportation Subtotal	**23,082**	**127,023**
Resilience and Adaptation (RA)			
RA-1	Improve Climate and Emergency Preparedness	N/A	N/A
RA-2	Build Capacity for Current and Future Flooding	N/A	N/A
RA-3	Protect Populations from Wildfire Smoke	N/A	N/A
RA-4	Reduce Exposure to Extreme Heat and Mitigate the Urban Heat Island Effect	Included in RA-5	Included in RA-5
RA-5	Expand the Urban Tree Canopy	185	880
RA-6	Expand Nature-Based Solutions	NA	NA
	Resilience and Adaptation Subtotal	**185**	**880**
Resource Consumption (RC)			
RC-1	Increase Organic Waste Diversion	4,755	28,775
RC-2	Promote a Circular Economy	Included in RC-1	Included in RC-1
RC-3	Reduce Water Use	140	0
	Resource Consumption Subtotal	**4,895**	**28,775**
Green Economy (GE)			
GE-1	Support Green Businesses	N/A	N/A
	Green Economy Subtotal	**N/A**	**N/A**

Strategy Number	Strategy Name	GHG Reductions ($MTCO_2e$) 2030	GHG Reductions ($MTCO_2e$) 2045
Climate Action Commitment (CA)			
CA-1	Conduct Meaningful Community Outreach	N/A	N/A
CA-2	Provide Community Education on Public Health and Wellbeing	N/A	N/A
CA-3	Provide Community Education on Water Efficiency	N/A	N/A
CA-4	Measure and Manage Climate Action Progress	N/A	N/A
	Climate Action Commitment Subtotal	**N/A**	**N/A**
	Total Reductions from Strategies	**335,558**	**356,645**
	Reduction Needed to Meet Target	*327,615*	*322,498*
	Target Met?	Yes	Yes
	Remaining Gap to Target	-7,943	-34,148

Notes: Total may not sum exactly due to independent rounding. GHG = greenhouse gas; $MTCO_2e$ = metric tons of carbon dioxide equivalent; N/A = not applicable.

Source: City of Elk Grove 2025.

Revised:

3.6.2 Alternative 2: Removal of Advanced Building Standards Actions Alternative

Alternative 2 would be the same as the proposed Plan but would remove Actions BE-1.1 and TR-2.1 from the Community GHG Emissions Reduction Strategies and associated actions list. All strategies and associated actions included for City operations under the proposed Plan would remain the same under this alternative. Actions BE-1.1 and TR-2.1 require the City to adopt a nonresidential reach code for energy efficiency standard in 2026, and a higher EV charging infrastructure requirement for new commercial development. Specifically, Actions BE-1.1 and TR-2.1 require all new nonresidential construction and major renovations to meet energy efficiency standards, compliant with State and Federal law and based on cost-effectiveness studies, stakeholder input, and CEC approval, and require higher EV charging infrastructure for new commercial development, respectively.

Table 5-3 shows the GHG emissions reductions quantified for Alternative 2's community GHG emissions reduction strategies and associated actions. As shown in the table, the total estimated community GHG emissions reductions from all strategies quantified would be 336,414 $MTCO_2e$ in 2030 and 330,508 $MTCO_2e$ in 2045. As such, without the development and adoption of building electrification and EV charging building standards (i.e., Actions BE-1.1 and TR-2.1), the City would still be able to meet its 2030 and 2045 GHG reduction targets.

Table 5-3 Alternative 2 Community GHG Emissions Reduction Strategies

Strategy Number	Strategy Name	GHG Reductions ($MTCO_2e$) 2030	GHG Reductions ($MTCO_2e$) 2045
Buildings and Energy (BE)			
BE-1	Electrify and Decarbonize Buildings	28,652	173,830
BE-2	Increase Density and Expand Affordable Housing	Included in TR-1	Included in TR-1
BE-3	Increase Local Renewable Energy Use and Storage	279,599	0

Strategy Number	Strategy Name	GHG Reductions ($MTCO_2e$) 2030	GHG Reductions ($MTCO_2e$) 2045
BE-4	Reduce Energy Consumption and Energy Burden	Included in BE-1	Included in BE-1
	Buildings and Energy Subtotal	**308,251**	**173,830**
Transportation (TR)			
TR-1	Decrease Vehicle Miles Traveled	4,911	5,281
TR-2	Increase Zero-Emission Vehicle Adoption	8,630	110,886
TR-3	Reduce Off-Road Transportation Emissions	9,542	10,856
	Transportation Subtotal	**23,082**	**127,023**
Resilience and Adaptation (RA)			
RA-1	Improve Climate and Emergency Preparedness	N/A	N/A
RA-2	Build Capacity for Current and Future Flooding	N/A	N/A
RA-3	Protect Populations from Wildfire Smoke	N/A	N/A
RA-4	Reduce Exposure to Extreme Heat and Mitigate the Urban Heat Island Effect	Included in RA-5	Included in RA-5
RA-5	Expand the Urban Tree Canopy	185	880
RA-6	Expand Nature-Based Solutions	NA	NA
	Resilience and Adaptation Subtotal	**185**	**880**
Resource Consumption (RC)			
RC-1	Increase Organic Waste Diversion	4,755	28,775
RC-2	Promote a Circular Economy	Included in RC-1	Included in RC-1
RC-3	Reduce Water Use	140	0
	Resource Consumption Subtotal	**4,895**	**28,775**
Green Economy (GE)			
GE-1	Support Green Businesses	N/A	N/A
	Green Economy Subtotal	**N/A**	**N/A**
Climate Action Commitment (CA)			
CA-1	Conduct Meaningful Community Outreach	N/A	N/A
CA-2	Provide Community Education on Public Health and Wellbeing	N/A	N/A
CA-3	Provide Community Education on Water Efficiency	N/A	N/A
CA-4	Measure and Manage Climate Action Progress	N/A	N/A
	Climate Action Commitment Subtotal	**N/A**	**N/A**
	Total Reductions from Strategies	**336,414**	**330,508**
	Reduction Needed to Meet Target	*327,615*	*322,498*
	Target Met?	Yes	Yes
	Remaining Gap to Target	-8,799	-8,010

Notes: Total may not sum exactly due to independent rounding. GHG = greenhouse gas; $MTCO_2e$ = metric tons of carbon dioxide equivalent; N/A = not applicable.

Source: City of Elk Grove 2026.

To update the Final SEIR to align with the terminology of the final Climate Compass, the energy analysis under Alternative 2 on page 5-10 of the Draft SEIR is revised as follows:

Original:

As discussed in Section 3.1, "Energy," the Climate Compass would result in less-than-significant environmental impacts related to wasteful, inefficient, or unnecessary consumption of energy and would not conflict with or obstruct plans for renewable energy or energy efficiency. Alternative 2 would provide similar levels of benefits to energy efficiency and consumption as the Climate Compass, with the exception of the Building and Energy and Transportation focus areas due to the elimination of Actions BE-1.1 and TR-2.1. Because Actions BE-1.1 and TR-2.1 require the City to adopt reach codes encouraging transition from natural gas powered heating and appliances to electric alternatives for new construction and major renovations in both residential and nonresidential development and for EV charging, respectively, the effects of these reach codes are captured in the 2030 GHG emissions reductions since these types of building features are anticipated to become a part of the provisions of the building code over the long-term (i.e., 2045). Under Alternative 2, the removal of the reach code based on the elimination of Action BE-1.1 would result in additional natural gas use in new residential and nonresidential development within the city. The use of new natural gas would increase fossil fuel energy consumption in the City and would not be consistent with the overall goal of the Climate Compass to reduce reliance on fossil fuel energy sources and improve energy efficiency. In addition, under this alternative, the removal of the reach code based on the elimination of Action TR-2.1 would remove the City's ability to increase EV charging infrastructure requirements based on the characteristics of new commercial development above the mandatory provisions of the CALGreen Code. While the elimination of Action TR-2.1 would not necessarily generate additional energy consumption, it would remove the mechanism the City could use to make new development include EV infrastructure above the mandatory provisions of CALGreen Code. Therefore, while Alternative 2 would generally be similar to the Climate Compass, this alternative would have **greater** impacts on energy than the Climate Compass.

Revised:

As discussed in Section 3.1, "Energy," the Climate Compass would result in less-than-significant environmental impacts related to wasteful, inefficient, or unnecessary consumption of energy and would not conflict with or obstruct plans for renewable energy or energy efficiency. Alternative 2 would provide similar levels of benefits to energy efficiency and consumption as the Climate Compass, with the exception of the Building and Energy and Transportation focus areas due to the elimination of Actions BE-1.1 and TR-2.1. Actions BE-1.1 and TR-2.1 require the City to adopt a nonresidential reach code for energy efficiency standard by 2026, and a higher EV charging infrastructure for new commercial development. Specifically, Actions BE-1.1 and TR-2.1 require all new residential and nonresidential construction and major renovations to meet energy efficiency standards, compliant with State and Federal law and based on cost-effectiveness studies, stakeholder input, and CEC approval and require higher EV charging infrastructure for new commercial development, respectively. As such, the effects of these building standards are captured in the 2030 GHG emissions reductions since these types of building features are anticipated to become a part of the provisions of the building code over the long-term (i.e., 2045). Under Alternative 2, the removal of the building standards based on the elimination of Action BE-1.1 would result in additional natural gas use in new residential and nonresidential development within the city. The use of new natural gas would increase fossil fuel energy consumption in the City and would not be consistent with the overall goal of the Climate Compass to reduce reliance on fossil fuel energy sources and improve energy efficiency. In addition, under this alternative, the removal of the building standards based on the elimination of Action TR-2.1 would remove the City's ability to increase EV charging infrastructure requirements based on the characteristics of new commercial development above the mandatory provisions of the CALGreen Code. While the elimination of Action TR-2.1 would not necessarily generate additional energy consumption, it would remove the mechanism the City could use to make new development include EV infrastructure above the mandatory provisions of CALGreen Code. Therefore, while Alternative 2 would generally be similar to the Climate Compass, this alternative would have **greater** impacts on energy than the Climate Compass.

To update the Final SEIR to align with the terminology of the final Climate Compass, the GHG emission analysis under Alternative 2 on page 5-11 of the Draft SEIR is revised as follows:

Original:

As discussed in Section 3.2, "Greenhouse Gas Emissions and Climate Change," the Climate Compass would result in less-than-significant environmental impacts related to GHGs and climate change. Under Alternative 2, the removal of Actions BE-1.1 and TR-2.1 would reduce the total estimated community GHG emissions reductions from all strategies quantified in 2030 to 335,558 $MTCO_2e$, compared to 385,968 $MTCO_2e$ under the Climate Compass. Specifically, the total estimated community GHG emissions reductions associated with Strategy BE-1 and associated actions would be reduced to 28,957 $MTCO_2e$ under Alternative 2, compared to 36,436 $MTCO_2e$ under the Climate Compass. The total estimated community GHG emissions reductions associated with Strategy TR-2 and associated actions would be reduced to 8,630 $MTCO_2e$ under Alternative 2, compared to 49,607 $MTCO_2e$ under the Climate Compass. In total, by eliminating Actions BE-1.1 and TR-2.1, Alternative 2 would not provide 50,410 $MTCO_2e$ of GHG emissions reductions for 2030 that is provided under the Climate Compass. While this alternative would still meet the City's 2030 and 2045 GHG reduction targets, Alternative 2 would not provide as large of a buffer for the City to meet its 2030 GHG reduction target (i.e., -7,943 $MTCO_2e$ under Alternative 2 compared to -58,353 $MTCO_2e$ under the Climate Compass for 2030). Estimated community GHG emissions reductions under Alternative 2 would be the same as projected for the Climate Compass in 2045 as the provisions of the reach codes included in Actions BE-1.1 and TR-2.1 are anticipated to become a part of the provisions of the building code over the long-term. Therefore, Alternative 2 would have **greater** impacts on GHG emissions than the Climate Compass.

Revised:

As discussed in Section 3.2, "Greenhouse Gas Emissions and Climate Change," the Climate Compass would result in less-than-significant environmental impacts related to GHGs and climate change. Under Alternative 2, the removal of Actions BE-1.1 and TR-2.1 would reduce the total estimated community GHG emissions reductions from all strategies quantified in 2030 to 336,414 $MTCO_2e$, compared to 380,646 $MTCO_2e$ under the Climate Compass. Specifically, the total estimated community GHG emissions reductions associated with Strategy BE-1 and associated actions would be reduced to 28,652 $MTCO_2e$ under Alternative 2, compared to 30,882 $MTCO_2e$ under the Climate Compass. The total estimated community GHG emissions reductions associated with Strategy TR-2 and associated actions would be reduced to 8,630 $MTCO_2e$ under Alternative 2, compared to 49,607 $MTCO_2e$ under the Climate Compass. In total, by eliminating Actions BE-1.1 and TR-2.1, Alternative 2 would not provide 44,232 $MTCO_2e$ of GHG emissions reductions for 2030 that is provided under the Climate Compass. While this alternative would still meet the City's 2030 and 2045 GHG reduction targets, Alternative 2 would not provide as large of a buffer for the City to meet its 2030 and 2045 GHG reduction target (i.e., -8,799 $MTCO_2e$ in 2030 and -8,010 $MTCO_2e$ in 2045 under Alternative 2 compared to -53,031 $MTCO_2e$ in 2030 and -10,519 $MTCO_2e$ in 2045 under the Climate Compass). Therefore, Alternative 2 would have **greater** impacts on GHG emissions than the Climate Compass.

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4 REFERENCES

City of Elk Grove. 2025 (June). City of Elk Grove Climate Compass Draft Supplemental Environmental Impact Report.

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Appendix A

Notice of Preparation and
Comment Letters

CITY OF ELK GROVE
8401 LAGUNA PALMS WAY • ELK GROVE, CALIFORNIA 95758
TEL: 916.683.7111 • FAX: 916.691.3175 • www.elkgrovecity.org

NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT

DATE:	**December 6, 2024**
TO:	**Responsible and Trustee Agencies, Organizations, and Interested Parties**
LEAD AGENCY:	**City of Elk Grove** **Contact: Carrie Whitlock, Strategic Planning and Innovation Program Manager** **8401 Laguna Palms Way** **Elk Grove, CA 95758**
PROJECT:	**Climate Compass Project**
APPLICANT:	**City of Elk Grove**
COMMENT PERIOD:	**December 6, 2024 to January 15, 2025**

In discharging its duties under Section 15021 of the California Environmental Quality Act (CEQA) Guidelines, the City of Elk Grove (hereinafter "City" or "Elk Grove"), as lead agency, intends to prepare a Supplemental Environmental Impact Report (SEIR) to the General Plan Update Environmental Impact Report (GPU EIR) (SCH No. 2017062058), as updated by the General Plan Amendments and Update to Vehicle Miles Traveled Standards Subsequent EIR (State Clearinghouse No. 2022020463) (hereinafter referred to collectively as the GPU EIR), for the update to its 2019 Climate Action Plan (CAP), referred to now as the Climate Compass (the "Project"). Since the City made the determination that a SEIR would be appropriate based on a preliminary review of the Project, an initial study has not been prepared pursuant with CEQA Guidelines Section 15063(a). In accordance with Section 15082 of the CEQA Guidelines, this Notice of Preparation (NOP) provides a Project Description, location, and the probable environmental effects of implementation of the proposed Project.

The NOP will be circulated for a 30-day public review and comment period, which extends from **December 6, 2024 to January 15, 2025**. The City is soliciting comments regarding the scope and content of the SEIR as they relate to other agencies' statutory responsibilities in connection with the proposed Project, as well as comments from interested members of the public. The City will rely on responsible and trustee agencies to provide information relevant to the analysis of resources falling within the jurisdiction of such agencies. The City welcomes public input during the review period. If the City has not received either a response or a well-justified request for additional time by a responsible agency or the Governor's Office of Land Use and Climate Innovation (formerly known as the Office of Planning and Research) by the end of the review period, the City may presume that each responsible and trustee agency and the Office of Land Use and Climate Innovation had no response to make (CEQA Guidelines, Section 15082(b)(2)).

Comments may be submitted in writing during the review period and addressed to:

City of Elk Grove
Office of Strategic Planning and Innovation
c/o Carrie Whitlock
8401 Laguna Palms Way
Elk Grove, CA 95758
cwhitlock@elkgrovecity.org

This NOP is also posted at: https://www.elkgrovecity.org/planning/environmental-review

CEQA provides for a lead agency to facilitate one or more scoping meetings, which provide additional opportunity for determining the scope and content of the SEIR. The City will host a scoping meeting on **January 9, 2025**, from **6 pm** at City of Elk Grove, Council Chambers, 8400 Laguna Palms Way, Elk Grove, CA 95758. Information related to the proposed Project, including how to access Project documents and how to participate in the public review process will be provided at the scoping meeting.

PROJECT LOCATION AND SETTING

The Climate Compass is intended to serve as the long-term climate action plan for the City of Elk Grove. The City is approximately 43 square miles and is generally bounded by Interstate 5 (I-5) on the west; Calvine Road and the City of Sacramento on the north; Grant Line Road on the east; and Kammerer Road on the south. State Route (SR) 99 runs north–south, bisecting the City near its center (refer to Figure 1). Existing land uses include a mix of agriculture, residential, nonresidential (commercial, office, and industrial), parks and open space, civic/institutional, public and quasi-public spaces, roadways, and other infrastructure, and vacant land.

PROJECT DESCRIPTION

The City prioritizes climate action in both communitywide and in City operations. In 2013, the City adopted its first CAP as a citywide plan to reduce greenhouse gas (GHG) emissions. The 2013 CAP was updated in 2019 to incorporate state-recommended targets and monitor progress from its previous iteration. The Climate Compass is proposed as an update to the 2019 CAP.

The Climate Compass establishes a roadmap for the City to achieve its GHG emission reduction targets and includes actions and strategies to adapt to anticipated climate-related impacts. The plan intends to enhance the quality of life for all residents, promote equity, and strengthen community resilience in the face of a changing climate. In addition, the Project aligns local efforts with Assembly Bill (AB) 1279, which requires California to achieve net-zero GHG emissions by 2045 and an 85 percent reduction in anthropogenic GHG emissions by 2045.

The Climate Compass is comprised of the following six chapters and appendices:

- **Chapter 1, Introduction:** this chapter provides an introduction to the Climate Compass as well as to the overall climate action planning process and key methodologies and terms. This chapter also provides on overview of the development of the Climate Compass to date, including summarizing public and agency input, as well as how the plan fits in with the State's larger climate planning efforts.
- **Chapter 2, GHG Inventory and Targets:** this chapter provides the foundation for the Climate Compass, presenting the City's GHG emissions inventory, emissions forecasts, and the targets for reducing emissions in line with State and local goals.
- **Chapter 3**, **Climate Action Strategies:** this chapter addresses the comprehensive strategies and actions the City would implement to reduce GHG emissions across various sectors, such as energy, transportation, land use, and waste management, while also promoting community resilience and adaptation to climate change impacts.
- **Chapter 4, City Operations:** this chapter focuses on the strategies and actions the City would adopt to reduce GHG emissions from government operations.
- **Chapter 5, Implementation and Monitoring:** this chapter details the implementation framework for the Climate Compass, including timelines, funding strategies, partnerships, and the monitoring and reporting processes to ensure the plan's success.
- **Chapter 6, Work Cited:** this chapter provides the sources used in the development of the plan.
- **Appendices** include more detailed information on GHG emissions inventories and forecasts, strategy quantification, and supporting documents, such as a cost analysis and funding and financing roadmap.

As detailed within Chapter 3, the Climate Compass includes various strategies and actions that aid in mitigating GHG emissions and promote adapting to climate impacts in the community. The strategies are centered around six focus areas and are further supported with specific actions defining activities, programs, policies, community partnerships, or projects the City would implement to achieve GHG mitigation and adaptation goals. The six focus areas and proposed strategies include:

1) Building Energy
   - Strategy BE-1: Electrify and Decarbonize Buildings
   - Strategy BE-2: Increase Density and Expand Affordable Housing
   - Strategy BE-3: Increase Local Renewable Energy Use and Storage
   - Strategy BE-4: Reduce Energy Consumption and Energy Burden
2) Transportation
   - Strategy TR-1: Decrease Vehicle Miles Traveled
   - Strategy TR-2: Increase Zero-Emission Vehicle (ZEV) Adoption
   - Strategy TR-3: Reduce Off-Road Transportation Emissions
3) Resilience and Adaptation
   - Strategy RA-1: Improve Climate and Emergency Preparedness
   - Strategy RA-2: Building Capacity for Current and Future Flooding
   - Strategy RA-3: Protect Populations from Wildfire Smoke
   - Strategy RA-4: Reduce Exposure to Extreme Heat and Mitigate the Urban Heat Island Effect
   - Strategy RA-5: Expand the Tree Canopy
   - Strategy RA-6: Expand Nature-Based Solutions
4) Resource Consumption
   - Strategy RC-1: Increase Organic Waste Diversion
   - Strategy RC-2: Promote Circular Economy
   - Strategy RC-3: Reduce Water Use
5) Green Economy
   - Strategy GE-1: Support Green Businesses
   - Strategy GE-2: Develop a Green Workforce
6) Climate Action Commitment
   - Strategy CA-1: Conduct Meaningful Community Outreach
   - Strategy CA-4: Provide Community Education on Public Health and Wellbeing
   - Strategy CA-5: Provide Community Education on Water Efficiency
   - Strategy CA-6: Identify Metrics for Success

While the strategies and actions included in the Climate Compass are primarily intended to mitigate GHG emissions and promote adaptation, many of them would also result in one or more co-benefits related to community resilience, economic diversity, equity, air pollution reduction, health and wellbeing, infrastructure reliability, and resource preservation.

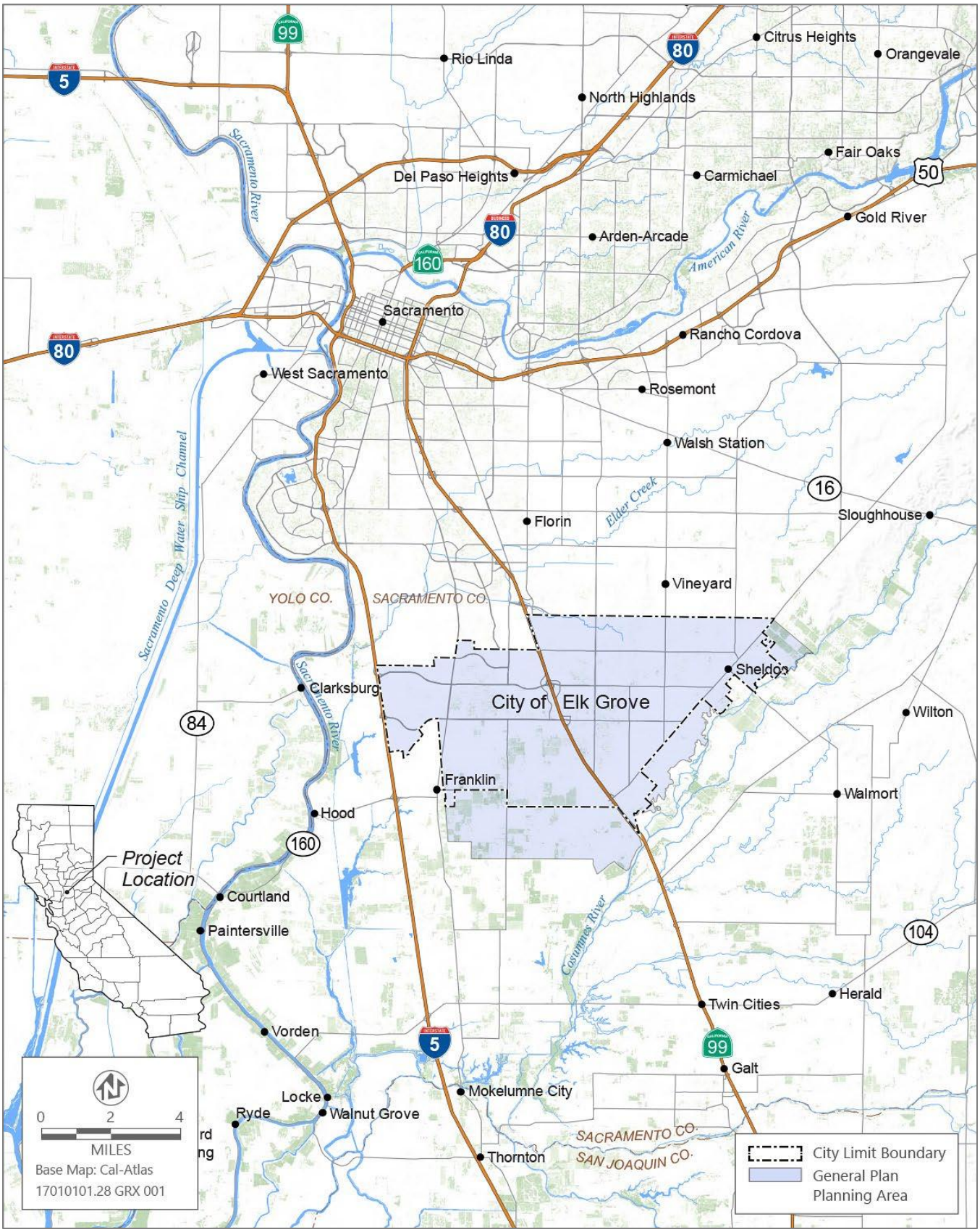
PROBABLE ENVIRONMENTAL EFFECTS

The Draft SEIR to the City's GPU EIR will evaluate whether implementing the proposed Project would potentially result in one or more significant environmental effects. Due to the nature of the proposed Project, the following issue areas will be addressed in detail within the Draft SEIR:

- energy, and
- greenhouse gases emissions and climate change.

In regard to all other environmental issue areas, the Project is not anticipated to result in new significant impacts or substantially increase the severity of significant environmental impacts evaluated in the GPU EIR. For this reason, the following environmental issue areas will be briefly discussed within the Draft SEIR to disclose the rationale why the proposed Project would not result in foreseeable significant environmental impacts from those disclosed in the GPU EIR:

- aesthetics;
- agricultural resources;
- air quality;
- biological resources;
- archaeological, historical, and tribal cultural resources;
- geology, soils, mineral resources, and paleontology;
- hazards and hazardous materials;
- hydrology and water quality;
- noise and vibration;
- population and housing;
- public services and recreation;
- utilities and service systems;
- transportation; and
- wildfire.



Source: adapted by Ascent in 2024.

Figure 1 Project Location

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
North Central Region
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670-4599
(916) 358-2900
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

January 14, 2025

Carrie Whitlock
Strategic Planning and Innovation Program Manager
City of Elk Grove
Office of Strategic Planning and Innovation
8401 Laguna Palms Way
Elk Grove, CA 95758
cwhitlock@elkgrovecity.org

Subject: CLIMATE COMPASS PROJECT
DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT (DSEIR)
SCH No. 2017062058

Dear Carrie Whitlock:

The California Department of Fish and Wildlife (CDFW) received and reviewed the Notice of Preparation of a Draft Supplemental Environmental Impact Report (DSEIR) from the City of Elk Grove for the Climate Compass Project (Project) in Sacramento County pursuant the California Environmental Quality Act (CEQA) statute and guidelines.[1]

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish, wildlife, plants and their habitats. Likewise, CDFW appreciates the opportunity to provide comments regarding those aspects of the Project that it, by law, may need to exercise its own regulatory authority under the Fish and Game Code (Fish & G. Code).

CDFW ROLE

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a).). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Fish & G. Code, § 1802.). Similarly, for purposes of CEQA, CDFW provides, as available, biological expertise during public agency

1 CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW may also act as a Responsible Agency under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority. (Fish & G. Code, § 1600 et seq.) Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), the project proponent may seek related take authorization as provided by the Fish and Game Code.

PROJECT DESCRIPTION SUMMARY

The Project site is located within the boundaries of the City of Elk Grove (the City) which is generally bounded by Interstate 5 (I-5) on the west; Calvine Road and the City of Sacramento on the north; Grant Line Road on the east; and Kammerer Road on the south. State Route (SR) 99 runs north–south, bisecting the City near its center.

The Project consists of updating the 2019 Climate Action Plan (CAP) to establish a roadmap for the City to achieve its greenhouse gas (GHG) emission reduction targets and includes actions and strategies to adapt to anticipated climate-related impacts. The plan intends to enhance the quality of life for all residents, promote equity, and strengthen community resilience in the face of a changing climate. In addition, the Project aligns local efforts with Assembly Bill (AB) 1279, which requires California to achieve net-zero GHG emissions by 2045 and an 85 percent reduction in anthropogenic GHG emissions by 2045.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations presented below to assist the City in adequately identifying and/or mitigating the Project's significant, or potentially significant, impacts on biological resources. The comments and recommendations are also offered to enable CDFW to adequately review and comment on the proposed Project with respect to impacts on biological resources. CDFW recommends that the forthcoming DSEIR address the following:

Project Description

The Project description should include the whole action as defined in the CEQA Guidelines § 15378. As required by § 15126.6 of the CEQA Guidelines, the DSEIR should include an appropriate range of reasonable and feasible alternatives that would attain most of the basic Project objectives and avoid or minimize significant impacts to resources under CDFW's jurisdiction.

Assessment of Biological Resources

Section 15125(c) of the CEQA Guidelines states that knowledge of the regional setting of a project is critical to the assessment of environmental impacts and that special emphasis should be placed on environmental resources that are rare or unique to the region. To enable CDFW staff to adequately review and comment on the Project, the DSEIR should include a complete assessment of the flora and fauna within and adjacent to the Project footprint, with emphasis on identifying rare, threatened, endangered, and other sensitive species and their associated habitats. CDFW recommends the DSEIR specifically include:

1. A general assessment of all habitat types located within the Project footprint, and a generalized map that identifies the location of each habitat type. CDFW recommends that floristic, alliance- and/or association-based mapping and assessment be completed following, *The Manual of California Vegetation*, second edition (Sawyer 2009). Adjoining habitat areas should also be included in this assessment where site activities could lead to direct or indirect impacts offsite. Habitat mapping at the alliance level will help establish baseline vegetation conditions.

2. A general biological inventory of the fish, amphibian, reptile, bird, and mammal species that are present or have the potential to be present within each habitat type onsite and within adjacent areas that could be affected by the Project. CDFW recommends that the California Natural Diversity Database (CNDDB), as well as previous studies performed in the area, be consulted to assess the potential presence of sensitive species and habitats. A nine United States Geologic Survey 7.5-minute quadrangle search is recommended to determine what may occur in the region, larger if the Project area extends past one quad (see *Data Use Guidelines* on the CDFW webpage www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data). Please review the webpage for information on how to access the database to obtain current information on any previously reported sensitive species and habitat, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code, in the vicinity of the Project. CDFW recommends that CNDDB Field Survey Forms be completed and submitted to CNDDB to document survey results. Online forms can be obtained and submitted at: https://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data.

   Please note that CDFW's CNDDB is not exhaustive in terms of the data it houses, nor is it an absence database. CDFW recommends that it be used as a starting point in gathering information about the *potential presence* of species within the general area of the Project site. Other sources for identification of species and habitats near or adjacent to the Project area should include, but may not be limited to, State and federal resource agency lists, California Wildlife Habitat Relationship System, California Native Plant Society Inventory, agency contacts, environmental documents for other projects in the vicinity, academics, and professional or scientific organizations.

3. An inventory of rare, threatened, endangered, and other sensitive species potentially located within the Project footprint and within offsite areas with the potential to be affected, including California Species of Special Concern and California Fully Protected Species (Fish & G. Code § § 3511, 4700, 5050, and 5515). Species to be addressed should include all those which meet the CEQA definition (CEQA Guidelines § 15380). The inventory should address seasonal variations in use of the Project area and should not be limited to resident species. CDFW recommends the City rely on survey and monitoring protocols and guidelines available at: www.wildlife.ca.gov/Conservation/Survey-Protocols. Alternative survey protocols may be warranted; justification should be provided to substantiate why an alternative protocol is necessary. Acceptable species-specific survey procedures should be developed in consultation with CDFW and the U.S. Fish and Wildlife Service, where necessary. Some aspects of the Project may warrant periodic updated surveys for certain sensitive taxa, particularly if the Project is proposed to occur over a protracted time frame, or in phases, or if surveys are completed during periods of drought or deluge.

4. Information on the regional setting that is critical to an assessment of environmental impacts, with special emphasis on resources that are rare or unique to the region (CEQA Guidelines § 15125[c]).

Analysis of Direct, Indirect, and Cumulative Impacts to Biological Resources

The DSEIR should provide a thorough discussion of the Project's potential direct, indirect, and cumulative impacts on biological resources. To ensure that Project impacts on biological resources are fully analyzed, the following information should be included in the DSEIR:

1. The DSEIR should define the threshold of significance for each impact and describe the criteria used to determine whether the impacts are significant (CEQA Guidelines, § 15064, subd. (f)). The DSEIR must demonstrate that the significant environmental impacts of the Project were adequately investigated and discussed, and it must permit the significant effects of the Project to be considered in the full environmental context.

2. A discussion of potential impacts from lighting, noise, human activity, and wildlife-human interactions created by Project activities especially those adjacent to natural areas, exotic and/or invasive species occurrences, and drainages. The DSEIR should address Project-related changes to drainage patterns and water quality within, upstream, and downstream of the Project site, including: volume, velocity, and frequency of existing and post-Project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and post-Project fate of runoff from the Project site.

3. A discussion of potential indirect Project impacts on biological resources, including resources in areas adjacent to the Project footprint, such as nearby public lands (e.g., National Forests, State Parks, etc.), open space, adjacent

natural habitats, riparian ecosystems, wildlife corridors, and any designated and/or proposed reserve or mitigation lands (e.g., preserved lands associated with a Conservation or Recovery Plan, or other conserved lands).

4. A cumulative effects analysis developed as described under CEQA Guidelines section 15130. The DSEIR should discuss the Project's cumulative impacts on natural resources and determine if that contribution would result in a significant impact. The DSEIR should include a list of present, past, and probable future projects producing related impacts to biological resources or shall include a summary of the projections contained in an adopted local, regional, or statewide plan, that consider conditions contributing to a cumulative effect. The cumulative analysis shall include impact analysis of vegetation and habitat reductions within the area and their potential cumulative effects. Please include all potential direct and indirect Project-related impacts to riparian areas, wetlands, wildlife corridors or wildlife movement areas, aquatic habitats, sensitive species and/or special-status species, open space, and adjacent natural habitats in the cumulative effects analysis.

CDFW supports Project activities that help reduce GHG emissions to reduce climate change, especially if the Project activities avoid or minimize impacts to sensitive biological resources and effectively conserve wetlands, riparian forests, oak woodlands, streams, and other sensitive habitats.

Mitigation Measures for Project Impacts on Biological Resources

The DSEIR should include appropriate and adequate avoidance, minimization, and/or mitigation measures for all direct, indirect, and cumulative impacts that are expected to occur as a result of the Project. CDFW also recommends the environmental documentation provide scientifically supported discussion regarding adequate avoidance, minimization, and/or mitigation measures to address the Project's significant impacts upon fish and wildlife and their habitat. In order for mitigation measures to be effective, they must be specific, enforceable, and feasible actions that will improve environmental conditions. When proposing measures to avoid, minimize, or mitigate impacts, CDFW recommends consideration of the following:

1. *Fully Protected Species*: Several Fully Protected Species (Fish & G. Code § 3511 and 4700) have the potential to occur within or adjacent to the Project area, including, but not limited to: California black rail (*Laterallus jamaicensis coturniculus*), golden eagle (*Aquila chrysaetos*), white-tailed kite (*Elanus leucurus*), ringtail (*Genus Bassariscus*), and wolverine (*Gulo luscus*). Project activities described in the DSEIR should be designed to completely avoid any fully protected species. CDFW recommends that the City include in the analysis how appropriate avoidance, minimization and mitigation measures will reduce indirect impacts to fully protected species.

2. *Species of Special Concern*: Several Species of Special Concern (SSC) have the potential to occur within or adjacent to the Project area, including, but not limited to: western spadefoot (*Spea hammondii*), burrowing owl (*Athene cunicularia*),

western pond turtle (*Emys marmorata*), and loggerhead shrike (*Lanius ludovicianus*). Project activities described in the DSEIR should be designed to avoid any SSC. CDFW recommends the City include in the analysis how appropriate avoidance, minimization and mitigation measures will reduce impacts to SSC.

3. *Sensitive Plant Communities*: CDFW considers sensitive plant communities to be imperiled habitats having both local and regional significance. Plant communities, alliances, and associations with a statewide ranking of S-1, S-2, S-3, and S-4 should be considered sensitive and declining at the local and regional level. These ranks can be obtained by querying the CNDDB and are included in *The Manual of California Vegetation* (Sawyer 2009). The DSEIR should include measures to fully avoid and otherwise protect sensitive plant communities from Project-related direct and indirect impacts.

4. *Mitigation*: CDFW considers adverse Project-related impacts to sensitive species and habitats to be significant to both local and regional ecosystems, and the DSEIR should include mitigation measures for adverse Project-related impacts to these resources. Mitigation measures should emphasize avoidance and reduction of Project impacts. For unavoidable impacts, onsite habitat restoration, enhancement, or permanent protection should be evaluated and discussed in detail. If onsite mitigation is not feasible or would not be biologically viable and therefore would not adequately mitigate the loss of biological functions and values, offsite mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed.

   The DSEIR should include measures to perpetually protect the targeted habitat values within mitigation areas from direct and indirect adverse impacts in order to meet mitigation objectives to offset Project-induced qualitative and quantitative losses of biological values. Specific issues that should be addressed include restrictions on access, proposed land dedications, long-term monitoring and management programs, control of illegal dumping, water pollution, increased human intrusion, etc.

   The City identified expanding the tree canopy in the 2019 CAP as a sustainability planning strategy which sequesters carbon dioxide from the atmosphere by focusing on habitat preservation, increasing urban forest, and creating air quality improvements through pollutant sequestration. CDFW supports Project activities that provide carbon storage in natural and working lands to mitigate GHG emissions. CDFW recommends that carbon storage involves the usage of native trees and shrubs to restore the natural habitats of special-status species such as riparian forests and oak woodlands. CDFW recognizes potential City's concerns about the increased risk of wildfires from the plantings due to climate change, so CDFW recommends that native fire-resistant species be considered as part of the planting palette suchlike California buckeyes (*Aesculus californica*).

The NOP also discussed preparation for increased flooding resulting from climate change involving building capacity for current and future flooding. CDFW recommends that some of the improvements be focused on improvement of fish habitats. Project activities that benefit fish species, such as restoring degraded channels and floodplains to original form and function, removing natural barriers to increase spawning habitat, and protecting and improving wetland-fed streams that maintain higher summer flows can also create new flood capacity and increase water retention. In addition, restoring and replanting concrete lined channels and bared disturbed areas (around streams) to act as flood protection, improve water quality, and prevent erosion/sedimentation would help deal with climate change effects. CDFW strongly supports these Project activities as they increase stream habitat resiliency as well as provide restored habitat for local native species.

5. *Habitat Revegetation/Restoration Plans*: Plans for restoration and revegetation should be prepared by persons with expertise in the regional ecosystems and native plant restoration techniques. Plans should identify the assumptions used to develop the proposed restoration strategy. Each plan should include the following parameters: (a) the location of restoration sites and assessment of appropriate reference sites; (b) the plant species to be used, sources of local propagules, container sizes, and seeding rates; (c) a schematic depicting the mitigation area; (d) a local seed and cuttings and planting schedule; (e) a description of the irrigation methodology; (f) measures to control exotic vegetation on site; (g) specific success criteria; (h) a detailed monitoring program; (i) contingency measures should the success criteria not be met; and (j) identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity. Monitoring of restoration areas should extend across a sufficient time frame to ensure that the new habitat is established, self-sustaining, and capable of surviving drought.

   CDFW recommends that local onsite propagules from the Project area and nearby vicinity be collected and used for restoration purposes. Onsite seed collection should be appropriately timed to ensure the viability of the seeds when planted. Onsite vegetation mapping at the alliance and/or association level should be used to develop appropriate restoration goals and local plant palettes. Reference areas should be identified to help guide restoration efforts. Specific restoration plans should be developed for various Project components as appropriate. Restoration objectives should include protecting special habitat elements or re-creating them in areas affected by the Project. Examples may include retention of woody material, logs, snags, rocks, and brush piles. Fish and Game Code sections 1002, 1002.5 and 1003 authorize CDFW to issue permits for the take or possession of plants and wildlife for scientific, educational, and propagation purposes. Please see our website for more information on Scientific Collecting Permits at www.wildlife.ca.gov/Licensing/Scientific-Collecting#53949678-regulations-.

   Another area of restoration mitigation opportunity is invasive plant species

management. Many rare, threatened, and endangered native plants are more susceptible to extinction caused by climate change due principally to small population sizes and limited suitable habitat types. While some animals have the ability to move when conditions become unfavorable, plants are immobile and thus cannot as easily adapt to a quickly changing environment. Climate change may alter plant life stages such as leaf emergence or flowering period which may hinder survival and reproduction. Some studies estimate that endemic plant species' ranges may shift up to 90 miles under intense climate change, but this shift may be a slow process relative to a rapidly changing climate. Furthermore, plants that are restricted to extremely specific habitats are especially at risk because while the climatic environment may shift, the soil and nutrient environment will not. Invasive plant species pose a threat to native plants because invasives tend to do well in the changing conditions that climate change is thought to promote, and those invasives may then out-compete rare plants for vital resources. Invasive species management should aim to conserve and manage large areas of protected habitat for plants, which may rely on dispersal and a variety of habitat gradients and varied microsites to cope with the changing environment. Efforts should focus on reducing the negative effects of non-native invasive plant species like preventing the introduction of these species into the natural habitats of the City, detecting and responding to introductions when they occur, and preventing the spread of invasive plant species that have become established.

6. *Nesting Birds*: Please note that it is the City responsibility to comply with all applicable laws related to nesting birds and birds of prey. Migratory non-game native bird species are protected by international treaty under the federal Migratory Bird Treaty Act (MBTA) of 1918, as amended (16 U.S.C. 703 *et seq.*). CDFW implemented the MBTA by adopting the Fish and Game Code section 3513. Fish and Game Code sections 3503, 3503.5 and 3800 provide additional protection to nongame birds, birds of prey, their nests and eggs. Sections 3503, 3503.5, and 3513 of the Fish and Game Code afford protective measures as follows: section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the Fish and Game Code or any regulation made pursuant thereto; section 3503.5 states that is it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by the Fish and Game Code or any regulation adopted pursuant thereto; and section 3513 states that it is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

   Potential habitat for nesting birds and birds of prey is present within the Project area. The Project should disclose all potential activities that may incur a direct or indirect take to nongame nesting birds within the Project footprint and its vicinity. Appropriate avoidance, minimization, and/or mitigation measures to avoid take must be included in the DSEIR.

CDFW recommends the DSEIR include specific avoidance and minimization measures to ensure that impacts to nesting birds or their nests do not occur. Project-specific avoidance and minimization measures may include, but not be limited to: Project phasing and timing, monitoring of Project-related noise (where applicable), sound walls, and buffers, where appropriate. The DSEIR should also include specific avoidance and minimization measures that will be implemented should a nest be located within the Project site. In addition to larger, protocol level survey efforts (e.g., Swainson's hawk surveys) and scientific assessments, CDFW recommends a final preconstruction survey be required no more than three (3) days prior to vegetation clearing or ground disturbance activities, as instances of nesting could be missed if surveys are conducted earlier.

7. *Moving out of Harm's Way*: The Project is anticipated to result in the clearing of natural habitats that support native species. To avoid direct mortality, the City should state in the DSEIR a requirement for a qualified biologist with the proper handling permits, which will be retained to be onsite prior to and during all ground- and habitat-disturbing activities. Furthermore, the DSEIR should describe that the qualified biologist with the proper permits may move out of harm's way special-status species or other wildlife of low or limited mobility that would otherwise be injured or killed from Project-related activities, as needed. The DSEIR should also describe qualified biologist qualifications and authorities to stop work to prevent direct mortality of special-status species. CDFW recommends fish and wildlife species be allowed to move out of harm's way on their own volition, if possible, and to assist their relocation as a last resort. It should be noted that the temporary relocation of onsite wildlife does not constitute effective mitigation for habitat loss.

8. *Translocation of Species*: CDFW generally does not support the use of relocation, salvage, and/or transplantation as the sole mitigation for impacts to rare, threatened, or endangered species as these efforts are generally experimental in nature and largely unsuccessful. Therefore, the DSEIR should describe additional mitigation measures utilizing habitat restoration, conservation, and/or preservation, in addition to avoidance and minimization measures, if it is determined that there may be impacts to rare, threatened, or endangered species.

The DSEIR should incorporate mitigation performance standards that would ensure that impacts are reduced to a less-than-significant level. Mitigation measures proposed in the DSEIR should be made a condition of approval of the Project. Please note that obtaining a permit from CDFW by itself with no other mitigation proposal may constitute mitigation deferral. CEQA Guidelines section 15126.4, subdivision (a)(1)(B) states that formulation of mitigation measures should not be deferred until some future time. To avoid deferring mitigation in this way, the DSEIR should describe avoidance, minimization and mitigation measures that would be implemented should the impact occur.

California Endangered Species Act

CDFW is responsible for ensuring appropriate conservation of fish and wildlife resources including threatened, endangered, and/or candidate plant and animal species, pursuant to CESA. CDFW recommends that a CESA Incidental Take Permit (ITP) be obtained if the Project has the potential to result in "take" (Fish & G. Code § 86 defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") of State-listed CESA species, either through construction or over the life of the Project.

State-listed species with the potential to occur in the area include, but are not limited to: bald eagle (*Haliaeetus leucocephalus*), bank swallow (*Riparia riparia*), Boggs Lake hedge-hyssop (*Gratiola heterosepala*), California tiger salamander - central California DPS (*Ambystoma californiense pop. 1*), giant garter snake (*Thamnophis gigas*), least Bell's vireo (*Vireo bellii pusillus*), Mason's lilaeopsis (*Lilaeopsis masonii*), Sacramento Orcutt grass (*Orcuttia viscida*), slender Orcutt grass (*Orcuttia tenuis*), Swainson's hawk (*Buteo swainsoni*), tricolored blackbird (*Agelaius tricolor*), and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*). Candidate state-listed species with the potential to occur in the area includes burrowing owl (*Athene cunicularia*) and Crotch's bumble bee (*Bombus crotchii*).

The DSEIR should disclose the potential of the Project to take State-listed species and how the impacts will be avoided, minimized, and mitigated. Please note that mitigation measures that are adequate to reduce impacts to a less-than significant level to meet CEQA requirements may not be enough for the issuance of an ITP. To facilitate the issuance of an ITP, if applicable, CDFW recommends the DSEIR include measures to minimize and fully mitigate the impacts to any State-listed species the Project has potential to take. CDFW encourages early consultation with staff to determine appropriate measures to facilitate future permitting processes and to engage with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service to coordinate specific measures if both State and federally listed species may be present within the Project vicinity.

Native Plant Protection Act

The Native Plant Protection Act (Fish & G. Code §1900 *et seq*.) prohibits the take or possession of State-listed rare and endangered plants, including any part or product thereof, unless authorized by CDFW or in certain limited circumstances. Take of State-listed rare and/or endangered plants due to Project activities may only be permitted through an ITP or other authorization issued by CDFW pursuant to California Code of Regulations, Title 14, section 786.9 subdivision (b).

Lake and Streambed Alteration Program

The DSEIR should generally identify all perennial, intermittent, and ephemeral rivers, streams, lakes, other hydrologically connected aquatic features, and any associated biological resources/habitats present within the entire Project footprint (including utilities, access and staging areas). The environmental document should analyze all potential temporary, permanent, direct, indirect and/or cumulative impacts to the above-

mentioned features and associated biological resources/habitats that may occur because of the Project. If it is determined the Project will result in significant impacts to these resources the DSEIR shall propose appropriate avoidance, minimization and/or mitigation measures to reduce impacts to a less-than-significant level.

Section 1602 of the Fish and Game Code requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following:

1. Substantially divert or obstruct the natural flow of any river, stream or lake;

2. Substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or

3. Deposit debris, waste or other materials where it may pass into any river, stream or lake.

Please note that "any river, stream or lake" includes those that are episodic (i.e., those that are dry for periods of time) as well as those that are perennial (i.e., those that flow year-round). This includes ephemeral streams and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water.

If upon review of an entity's notification, CDFW determines that the Project activities may substantially adversely affect an existing fish or wildlife resource, a Lake and Streambed Alteration (LSA) Agreement will be issued which will include reasonable measures necessary to protect the resource. CDFW's issuance of an LSA Agreement is a "project" subject to CEQA (see Pub. Resources Code 21065). To facilitate issuance of an LSA Agreement, if one is necessary, the DSEIR should fully identify the potential impacts to the lake, stream, or riparian resources, and provide adequate avoidance, mitigation, and monitoring and reporting commitments. Early consultation with CDFW is recommended, since modification of the Project may avoid or reduce impacts on fish and wildlife resources. All LSA Notification types must be submitted online through CDFW's Environmental Permit Information Management System (EPIMS). For more information about EPIMS, please visit https://wildlife.ca.gov/Conservation/Environmental-Review/EPIMS. More information about LSA Notifications, paper forms and fees may be found at https://www.wildlife.ca.gov/Conservation/Environmental-Review/LSA.

Please note that other agencies may use specific methods and definitions to determine impacts to areas subject to their authorities. These methods and definitions often do not include all needed information for CDFW to determine the extent of fish and wildlife resources affected by activities subject to Notification under Fish and Game Code section 1602. Therefore, CDFW does not recommend relying solely on methods developed specifically for delineating areas subject to other agencies' jurisdiction (such as United States Army Corps of Engineers) when mapping lakes, streams, wetlands, floodplains, riparian areas, etc. in preparation for submitting a Notification of an LSA.

CDFW relies on the lead agency environmental document analysis when acting as a responsible agency issuing an LSA Agreement. CDFW recommends lead agencies coordinate with us as early as possible, since potential modification of the proposed Project may avoid or reduce impacts to fish and wildlife resources and expedite the Project approval process.

The following information will be required for the processing of an LSA Notification and CDFW recommends incorporating this information into any forthcoming CEQA document(s) to avoid subsequent documentation and Project delays:

1. Mapping and quantification of lakes, streams, and associated fish and wildlife habitat (e.g., riparian habitat, freshwater wetlands, etc.) that will be temporarily and/or permanently impacted by the Project, including impacts from access and staging areas. Please include an estimate of impact to each habitat type.

2. Discussion of specific avoidance, minimization, and mitigation measures to reduce Project impacts to fish and wildlife resources to a less-than-significant level. Please refer to section 15370 of the CEQA Guidelines.

Based on review of Project materials, aerial photography and observation of the site from public roadways, the Project site supports streams (Elk Grove/Laguna Creek, Deer Creek, Franklin Creek, and their tributaries), lakes, and their associated tributaries and riparian habitat. CDFW recommends the DSEIR fully identify the Project's potential impacts to the stream and/or its associated vegetation and wetlands.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database, which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to CNDDB. The CNNDB field survey form can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data. The completed form can be submitted online or mailed electronically to CNDDB at the following email address: CNDDB@wildlife.ca.gov.

FILING FEES

The Project, as proposed, would have an effect on fish and wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the City and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code § 711.4; Pub. Resources Code, § 21089.)

CONCLUSION

Pursuant to Public Resources Code sections 21092 and 21092.2, CDFW requests written notification of proposed actions and pending decisions regarding the Project. Written notifications shall be directed to: California Department of Fish and Wildlife North Central Region, 1701 Nimbus Road, Rancho Cordova, CA 95670 or emailed to R2CEQA@wildlife.ca.gov.

CDFW appreciates the opportunity to comment on the Notice of Preparation of the DSEIR for the Climate Compass Project and recommends that the City address CDFW's comments and concerns in the forthcoming DSEIR. CDFW personnel are available for consultation regarding biological resources and strategies to minimize impacts.

If you have any questions regarding the comments provided in this letter, or wish to schedule a meeting and/or site visit, please contact Harvey Tran, Senior Environmental Scientist (Specialist) at (916) 358-4035 or harvey.tran@wildlife.ca.gov.

Sincerely,

Tanya Sheya
Environmental Program Manager

ec: Dylan Wood, Senior Environmental Scientist (Supervisory)
Harvey Tran, Senior Environmental Scientist (Specialist)
California Department of Fish and Wildlife

Office of Planning and Research, State Clearinghouse, Sacramento

REFERENCES

Sawyer, J. O., T. Keeler-Wolf, and J. M. Evens. 2009. A Manual of California Vegetation, 2nd ed. California Native Plant Society Press, Sacramento, California. http://vegetation.cnps.org/

14 January 2025

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COMMENTS TO REQUEST FOR REVIEW FOR THE NOTICE OF PREPARATION FOR THE DRAFT ENVIRONMENTAL IMPACT REPORT, CLIMATE COMPASS PROJECT, SCH#2017062058, SACRAMENTO COUNTY

Pursuant to the State Clearinghouse's 6 December 2024 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Notice of Preparation for the Draft Environmental Impact Report* for the Climate Compass Project, located in Sacramento County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

I. Regulatory Setting

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by

the State Water Resources Control Board (State Water Board), Office of Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues. For more information on the Water Quality Control Plan for the Sacramento and San Joaquin River Basins, please visit our website:
http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/

Antidegradation Considerations

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Implementation Policy is available on page 74 at:
https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf

In part it states:

Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.

This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

II. Permitting Requirements

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit), Construction General Permit Order No. 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). For more information on the Construction General Permit, visit the State Water Resources Control Board website at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits[1]
The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml

Industrial Storm Water General Permit
Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 2014-0057-DWQ. For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml

Clean Water Act Section 404 Permit
If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACE). If a Section 404 permit is required by the USACE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements. If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACE at (916) 557-5250.

[1] Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications. For more information on the Water Quality Certification, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_certification/

Waste Discharge Requirements – Discharges to Waters of the State

If USACE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation. For more information on the Waste Discharges to Surface Water NPDES Program and WDR processes, visit the Central Valley Water Board website at:https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface_water/

Projects involving excavation or fill activities impacting less than 0.2 acre or 400 linear feet of non-jurisdictional waters of the state and projects involving dredging activities impacting less than 50 cubic yards of non-jurisdictional waters of the state may be eligible for coverage under the State Water Resources Control Board Water Quality Order No. 2004-0004-DWQ (General Order 2004-0004). For more information on the General Order 2004-0004, visit the State Water Resources Control Board website at: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2004/wqo/wqo2004-0004.pdf

Dewatering Permit

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Threat General Order) 2003-0003 or the Central Valley Water Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Threat Waiver) R5-2018-0085. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Threat Waiver and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2018-0085.pdf

Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Limited Threat Discharges to Surface Water* (Limited Threat General Order). A complete Notice of Intent must be submitted to the Central Valley Water Board to obtain coverage under the Limited Threat General Order. For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf

NPDES Permit

If the proposed project discharges waste that could affect the quality of surface waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit. For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/help/permit/

If you have questions regarding these comments, please contact me at (916) 464-4684 or Peter.Minkel2@waterboards.ca.gov.

Peter G. Minkel
Engineering Geologist

cc: State Clearinghouse unit, Governor's Office of Planning and Research, Sacramento

SACRAMENTO METROPOLITAN
AIR QUALITY
MANAGEMENT DISTRICT

January 15, 2025

Carrie Whitlock, Strategic Planning and Innovation Program Manager
City of Elk Grove
8401 Laguna Palms Way
Elk Grove, CA 95758
cwhitlock@elkgrovecity.org

Subject: Notice of Preparation of a Supplemental Environmental Impact Report for the Elk Grove Climate Compass

Dear Ms. Whitlock:

Thank you for routing the Notice of Preparation (NOP) of an Environmental Impact Report (EIR) for the Elk Grove Climate Action Plan (CAP) to the Sacramento Metropolitan Air Quality Management District (Sac Metro Air District) for review. The City is preparing a Supplemental Environmental Impact Report (SEIR) to the General Plan Update EIR for the update to the 2019 CAP, now known as the Climate Compass. The Climate Compass is timely and provides an opportunity for the City to accelerate its greenhouse gas (GHG) emissions reduction efforts. For the first time, global temperatures in 2024 exceeded 1.5 degrees Celsius above pre-industrial levels – a limit set by the 2015 Paris Agreement to bolster the global response to the threat of climate change.[1] Moreover, the last 10 years have been the hottest on record, and the Intergovernmental Panel on Climate Change projects more intense and frequent climate and weather extremes from global warming of 1.5 degrees Celsius above pre-industrial levels. This warming is continuing to cause drastic long-term changes that are affecting Californians all over the state. It is critical for the City to mitigate its GHG emissions and Sac Metro Air District intends to review the prepared SEIR for the Climate Compass with this frame of reference. Please accept the following comments which aim to strengthen the Climate Compass, maximize carbon sequestration, and increase the City's GHG reductions.

Building Energy

- Building energy represents 38 percent of the City's communitywide emissions and is the second largest emissions sector in the 2021 GHG inventory.
    - For Strategy BE-1: Electrify and Decarbonize Buildings, we recommend that the City analyze including requirements for cooking appliances, space heating, and water heating appliances as a pathway to unlocking full electrification. Natural gas infrastructure releases harmful pollutants directly into the home exposing residents to levels of pollution that in some cases are higher than the outdoor ambient air quality

[1] World Meteorological Organization, WMO Confirms 2024 as Warmest Year on Record at About 1.55°C Above Pre-industrial Level, January 10, 2025, https://wmo.int/media/news/wmo-confirms-2024-warmest-year-record-about-155degc-above-pre-industrial-level

standards. Additional air emission reductions could be achieved through the transition to induction cooktops which improve indoor air quality. We recommend that the City explore all feasible options to eliminate natural gas infrastructure in residential and commercial buildings to improve public health and increase emissions reduction.

- Sac Metro Air District suggests that the City focus on electrifying its New Growth Areas at an accelerated rate by requiring new construction to be pre-wired for full electrification. California's 2022 Scoping Plan for Achieving Carbon Neutrality relies on local governments to rapidly electrify development to address GHG emissions associated with the built environment. In addition to the Scoping Plan calling for electrification as a method of achieving statewide climate goals, by not electrifying New Growth Areas, the City would be inconsistent with the Scoping Plan. Additionally, all-electric development is a cost-effective way to meet building electrification goals as new all-electric construction typically results in energy savings for building owners and residents.

- For Strategy BE-3: Increase Local Renewable Energy Use and Storage, the City should analyze requiring the addition of solar photovoltaic canopies over new parking lots as a new design standard. Combining shade with electric vehicle (EV) charging infrastructure increases EV charging efficiency and reduces battery degradation. In addition to providing a renewable source of energy for EV charging, solar photovoltaic shade structures over parking lots are a heat mitigation strategy since less heat is absorbed by the pavement and the parked vehicles. The shade that is provided can also reduce the evaporation of volatile organic compounds from the fuel tanks of conventional cars and reduce the amount of energy that is spent on air conditioning within the vehicle.[2]

Transportation

- On-road transportation represents the largest emissions sector in the City's 2021 GHG inventory.
  - Strategy TR-1: Decrease Vehicle Miles Traveled (VMT) would improve walkability and pedestrian access to public transit. Sac Metro Air District recommends that the City investigate the addition of a new measure that installs pedestrian-friendly infrastructure throughout Elk Grove to support active transportation. Studies show that higher temperatures increase VMT and GHGs as travelers forgo active transportation in favor of driving. In Fresno, CA, transit ridership decreased as temperatures increased, with some potential riders avoiding travel or switching to single-occupancy vehicle use.[3] Sac Metro Air District recommends incorporating infrastructure for heat mitigation such as tree shading, solar canopies, shade structures, and the installation of cool pavements and cool walls at transit stops to improve rider comfort, safety, and accessibility. As pedestrians walk, bike, or skate to public transit stations, a pedestrian-friendly active modes measure that creates safe and welcoming environments for active transportation would bolster their use of transit services and reduce the reliance on single-occupancy vehicles.

[2] Sac Metro Air District, CivicWell, Capital Region Urban Heat Island Mitigation Plan, 2019, https://www.airquality.org/LandUseTransportation/Documents/UHI%20Mitigation%20Plan.pdf
[3] Sac Metro Air District, CivicWell, Capital Region Urban Heat Island Mitigation Project Summary Report, 2020, https://www.airquality.org/LandUseTransportation/Documents/UHI%20Project%20Summary%20Report.pdf

- The City could further reduce communitywide VMT and GHG emissions by incorporating the "Land Use Improvements" measure from Sacramento's Capital Region Climate Priorities Plan (CRCPP)[4] into the Climate Compass. This measure reduces the dependency on single-occupancy vehicle use by increasing residential density through infill housing and mixed-use development. Living near jobs, schools, supermarkets, and medical care facilities decreases travel distances and results in fewer or shorter vehicle trips.
- As Elk Grove expands its city limits, a continued focus on smart growth would allow it to deepen GHG reductions and reach its climate goals within its New Growth Areas. Smart growth is the use of development strategies that preserve community health, the surrounding natural environment, air and water quality, and other resources by reusing developed land, designing compact and walkable neighborhoods, preserving open space, supporting community involvement in design, and providing multiple transportation options. Smart growth policies can reduce VMT and emissions from passenger vehicles as key destinations are sited near public transit and are within walking and biking distance from residences. Smart growth also has the added benefit of reducing the urban heat island effect in cities.

Resilience and Adaptation

- Sac Metro Air District's Urban Heat Island Project[5] modeled urban heat islands in the Sacramento region and evaluated various strategies to combat the effects of heat on urban populations. Along with increasing tree canopy, the project found that strategies such as installing cool roofs and cool pavements deployed at the local and regional scale provide effective heat mitigation for neighborhoods impacted by urban heat islands. By increasing the albedo/solar reflectance of existing surfaces using high albedo materials like sealants and coatings in combination with increased vegetation cover, neighborhoods can experience cooler temperatures.[6] Urban heat islands can cause substantial adverse effects on humans, both directly and indirectly, but by mitigating the impacts of urban heat islands, the City can create a more livable and sustainable urban environment for its residents. The following recommendations would boost the efficacy of Strategy RA-4: Reduce Exposure to Extreme Heat and Mitigate the Urban Heat Island Effect.
    - Extreme heat is deadlier than other natural hazards making it crucial for local jurisdictions to provide heat mitigation for new and existing infrastructure in areas impacted by urban heat islands. The City should encourage cool roof adoption by exploring the implementation of a local ordinance that requires the installation of roofs with a solar reflectance index (SRI) of either 78 for low-rise or high-rise residential buildings with a roof slope of ≤ 2:12, or an SRI of 20 for low-rise or high-rise residential

[4] Sac Metro Air District, Capital Region Climate Priorities Plan, March 2024, https://www.airquality.org/residents/climate-change/climate-pollution-reduction-grants
[5] Sac Metro Air District, Urban Heat Island Project, 2020 https://www.airquality.org/businesses/climate-change/urban-heat-island
[6] Sac Metro Air District, Atmospheric Modeling for the Development of a Regional Heat Pollution Reduction Plan – Technical Project Report, February 2020, https://www.airquality.org/LandUseTransportation/Documents/Altostratus_Final_Report.pdf

buildings with a roof slope of > 2:12. If adopted at scale, cool roofs can reduce peak energy demand and increase grid stability.

- In areas with low albedo, installing cool pavements or covering traditional pavements with sealants that have an albedo between 0.30 or 0.35 can reduce the amount of heat that the pavement absorbs and reflects. The City should consider requiring road repair and new roadway improvement projects to install cool pavements with an albedo between 0.30 to 0.35 to avoid glare for drivers and pedestrians. To assist with community planning, the City could look to the CRCPP and the 2024 CAPCOA Handbook which includes the "Install Cool Pavement" measure.[7] The implementation of this quantified measure could reduce energy use for cooling in surrounding buildings thus reducing the GHG emissions associated with electricity consumption. Tracking the replacement of traditional pavement with highly reflective pavement could be a key performance indicator for this measure.

- Under the communitywide business-as-usual scenario and the communitywide legislative-adjusted business-as-usual scenario for the GHG emissions forecast, agricultural emissions are expected to decrease from 2021 levels through 2050 as the agricultural production acreage within city limits declines over the coming decades.
  - Although the City has plans to continue to develop agricultural lands, it should consider the benefits of keeping agricultural lands viable using sustainable farming practices that can sequester more carbon than developed land. The City could implement a carbon stock program that assesses the amount of carbon that could be sequestered through the year 2050 on these preserved agricultural lands. A carbon stock program that monitors the amount of carbon that is sequestered and how much has historically been sequestered would justify the preservation of agricultural lands. Furthermore, incentivizing sustainable farming practices in rural areas of the city could reduce VMT by keeping crops local. The addition of the Carbon Sequestration Program/Carbon Farming measure from the CRCPP could reduce GHG emissions through the conservation, maintenance, and restoration of natural resources on ranches and farmland. Sac Metro Air District recommends integrating these suggestions into a broadened Strategy RA-6: Expand Nature-Based Solutions in the Climate Compass. If the City continues to develop agricultural lands, it should consider doing so through smart growth that increases the density of all-electric housing near public transit and other sustainable transportation options to reduce GHG emissions.

Sac Metro Air District looks forward to reviewing the draft SEIR and the Climate Compass. We hope that our recommendations assist the City in its development of a robust plan to mitigate GHG emissions and address the current and future impacts of climate change in the Sacramento region.

If you have questions regarding these comments, please contact Brianna Moland, Climate Coordinator, at bmoland@airquality.org or (916) 317-0821.

[7] California Air Pollution Control Officers Association, 2024 Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity, 2024, https://www.airquality.org/ClimateChange/Documents/2024%20Handbook%20Update_AB434.pdf

Sincerely,

Brianna Moland

Brianna Moland
Climate Coordinator, CEQA and Land Use Section
Sac Metro Air District

cc: Paul Philley, AICP, Program Manager
Carolyn Tran, Air Quality Planner/Analyst

CALIFORNIA
NATIVE PLANT SOCIETY
2707 K Street, Suite 1, Sacramento, CA 95816-5130 (916) 447.2677 www.cnps.org

Protecting
California's native
flora since 1965

January 15, 2025

City of Elk Grove
Attn: Carrie Whitlock
8401 Laguna Palms Way
Elk Grove, CA, 95758

Submitted via email to: cwhitlock@elkgrovecity.org

Re: Sacramento Valley Chapter of the California Native Plant Society Comments on Climate Compass Project

Dear Ms. Whitlock,

Thank you for the opportunity to comment on the Climate Compass Project. The following comments are submitted on behalf of the California Native Plant Society (CNPS), Sacramento Chapter. CNPS's mission is to protect California's native plant heritage and preserve it for future generations through the application of science, research, education, and conservation. The Sacramento Valley Chapter focuses on these issues within the Greater Sacramento Valley.

We applaud the City of Elk Grove for creating a roadmap for reducing greenhouse gas emissions and increasing resilience within the City of Elk Grove through the development of the Climate Compass Project. It is our understanding that the Climate Compass Project will address Resilience and Adaptation, and Resource Consumption in addition to traditional topics such as Transportation and Green Energy.

Building Capacity for Current and Future Flooding

We strongly support efforts that integrate increased floodwater storage capacity and conveyance with natural systems. Wetlands, healthy connected floodplains, and wide riparian corridors provide space for fragile habitats which host numerous native plant and animal species while functioning as green infrastructure which can help protect built infrastructure during storm events. Floodwater storage basins are an underutilized opportunity to support seasonal wetland species while creating greenspace while simultaneously serving as infrastructure.

Expand the Tree Canopy

We strongly encourage the use of native tree species to expand the canopy with the City. Native tree species are adapted to the local climate and do not require supplemental irrigation once established. Use of the correct species and cultivars can create a win-win by creating space for native birds and insects while establishing a robust and aesthetically pleasing canopy for the

community. The Sacramento Valley Chapter could assist in recommending appropriate species that would be successful based on the planting location and maintenance level.

Expand Nature-Based Solutions

We commend the City of Elk Grove on seeking to expand the use of Nature Based Solutions. Nature Based Solutions have the potential to create more resilient infrastructure that can recover function following storm damage resulting in reduced costs in the long term. Natural and Nature Based Solutions also create opportunities for recreation and habitat opportunities for native plants.

Reduce Water Use

California native plants can be an effective option for waterwise landscaping while remaining aesthetically pleasing and helping to re-establish the heritage presence lost to development. With the right combination of native plants, landscaping that uses little to no supplemental irrigation can be achieved which can result in substantial cost savings in the long-term. The Sacramento Valley Chapter has a wealth of information and experience designing and maintaining native plant landscapes, including in urban environments.

In conclusion, the Sacramento Valley Chapter is offering to collaborate with the City of Elk Grove where possible and remain engaged in this project by providing local knowledge to incorporate California native plants as fully as possible. Thank you for the opportunity to comment on this project and please contact me if you have any questions.

Sincerely,

Lorena Guerrero
Chair, Conservation Committee
California Native Plants Society, Sacramento Valley Chapter
volunteersvcnps@gmail.com

From: Katie McCammon <katie.mccammon@350sacramento.org>
Sent: Thursday, January 16, 2025 2:16 PM
To: Carrie Whitlock <cwhitlock@elkgrovecity.org>
Cc: Rosie Yacoub <rayacoub@yahoo.com>; Oscar Balaguer <oscarbal@hotmail.com>
Subject: Re: NOP comments

[EXTERNAL EMAIL]

Hi Carrie,

Apologies, it has been a back and forth on this and I misunderstood what Rosie was providing. It sounds like she shared comments on "strategy" but the only comment from 350 Sac CAP team at this point is *concern that the CAP will exclude land use and transportation from the final document*. Our team strongly supports including these items in the final CAP.

This is all I have from our team at this time. I am still in the learning stages of CAP and won't try to make any technical comments on behalf of the organization.

We look forward to talking more on the EG CAP as it develops!

Thank you,
Katie

On Wed, Jan 15, 2025 at 3:27 PM Carrie Whitlock <cwhitlock@elkgrovecity.org> wrote:

> Hi Katie,
>
> I just wanted to reach out and see if we should still expect some NOP comments today from you all.
>
> Thanks,
> CW

Carrie Whitlock, AICP (she/her)

Strategic Planning & Innovation Program Manager / Strategic Planning & Innovation
City Manager's Office

City of Elk Grove
8401 Laguna Palms Way, Elk Grove, CA 95758
Phone: 916.478.2238
TTY/TDD 888.435.6092
elkgrovecity.org

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From: Eugene Lee <eugeneenergy22@gmail.com>
Sent: Wednesday, January 15, 2025 10:09 PM
To: Carrie Whitlock <cwhitlock@elkgrovecity.org>
Subject: NOP Comments

[EXTERNAL EMAIL]

To: Carrie Whitlock

Thank you for the opportunity to provide comments to the NOP.

As an Elk Grove resident, I strongly support the Climate Compass. Elk Grove is an active growing community requiring intentional actions to mitigate climate change effects in our city.

I support the proposed Compass chapters and the six focus areas. Specifically,

Building Energy
I support Idea Res-New-1, Idea Res-Ex-1, Idea Non-Res-New-1, and Idea NonRes-Ex-1 as proposed in the Agenda Item No. 9.1 - Staff Report dated August 14, 2024.

Transportation
I support the Concept Strategies 1-3 and Actions as presented in the Agenda Item No. 9.3 - Staff Report dated August 28, 2024.

Resilience and Adaptation
With respect to climate and emergency preparedness, I recommend the specific strategies reflect sufficient communication infrastructure and methods to address the needs and safety of all residents, particularly the aged, low-income, and non-English speaking. I also recommend actions to mitigate negative effects on low-income and disadvantaged neighborhoods.

Resource Consumption and Green Economy
I strongly support the proposed strategies.

Climate Action Commitment
I recommend that the strategy incorporate a commitment to promote climate justice and equity. The Compass should benefit all residents and businesses regardless of location and economic condition.

Thank you for your consideration.

--
Eugene Lee
Commissioner
Sacramento Environmental Commission

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Appendix B

Textual Modifications to Chapter 7 of City's General Plan

Proposed Open Space Element Amendments

This appendix presents specific textual modification changes made to Chapter 7, "Community and Resource Protection," of the City of Elk Grove General Plan. The following textual modifications ensure internal consistency between the General Plan and the updated GHG emissions inventory and projections included in the Climate Compass. The changes are presented in the order in which they appear in the original Chapter 7 and are identified by the corresponding page number. The revised text is presented afterwards.

Textual Modification to Chapter 7, "Community and Resource Protection"

To update Chapter 7 of the General Plan to align with the final Climate Compass, the discussion of greenhouse gas emissions and Table 7-1 on pages 7-20 and 7-21 are revised as follows:

Original:

Greenhouse Gas Emissions

Greenhouse gas (GHG) emissions contribute to local air quality concerns. The Global Warming Solutions Act (Assembly Bill [AB] 32) requires that California significantly reduce its emissions of GHGs in order to minimize the impacts of climate change. To ensure the City is taking steps to meet its fair share of the State's GHG reduction goals, Elk Grove has completed an inventory of GHG emissions and adopted a Climate Action Plan (CAP). Table 7-1 categorizes Citywide GHG emissions by sector as of 2013 (listed as metric tons of carbon dioxide equivalents, or MTCO2e) the most recent year for which an inventory has been completed.

The CAP and the General Plan outline GHG emissions reduction targets for future years that are designed to reduce emissions within the Elk Grove community in a manner consistent with State regulations and guidelines. Because GHGs are generated by a variety of sources, a varied approach to reducing GHG emissions is most effective. The CAP inventory of GHG emissions indicate that major emissions sources in the city include residential and commercial/industrial building energy use on-road vehicles, off-road vehicles, solid waste, and wastewater. The CAP establishes that emissions in the baseline year, 2013, were 5.6 MTCO2e per capita and community equaled 918,790 MTCO2e.

TABLE 7-1:
2013 CITYWIDE EMISSIONS BY SECTOR

Sector	2005 MTCO2e	Percent of Total	2013 MTCO2e	Percent of Total
Residential built environment	225,190	28%	231,400	25%
Nonresidential built environment	103,170	13%	129,860	14%
Transportation (on- road vehicles)	348,370	43%	430,340	47%
Off-road equipment	83,800	10%	93,340	10%

Solid waste	36,380	5%	26,260	3%
Water and wastewater	3,070	<1%	6,562	<1%
Agriculture	5,450	<1%	1,030	<1%
Total	808,410	100%	918,790	100%

Source: Compiled by Ascent Environmental 2018

If all community activities were to continue under a business-as-usual scenario with no reduction measures they would reach 1,523,936 MTCO2e by 2030, a 65 percent increase over 2013. However, the CAP estimates that with measures taken as a result of the State's legislative actions emission would reduce those emissions to 4.5 MTCO2e per capita by 2030 and 4.3 MTCO2e per capita by 2050, resulting in community emissions of 888,509 and 978,881 respectively for those years. Measures outlined in the General Plan and CAP would further reduce the community's emissions to 3.8 MTCO2e per capita by 2030 and 3.0 MTCO2e per capita by 2050. These reductions are projected results of twenty-one reduction measures contained in the CAP in three broad policy areas: built environment, resource conservation, and transportation. The greatest percentage of these reductions, 56%, would be achieved through efficiency and renewable energy improvements to the built environment, while resource conservation measures would result in a 12% reduction, and transportation alternatives and congestion management measures would result in a 32% reduction.

Revised:

Greenhouse Gas Emissions

Greenhouse gas (GHG) emissions contribute to local air quality concerns. The California Climate Crisis Act (Assembly Bill [AB] 1279) requires California to achieve net-zero GHG~~s~~ emissions and an 85 percent reduction in anthropogenic GHG emissions by 2045. To ensure the City is taking steps to meet its fair share of the State's GHG reduction goals, Elk Grove has completed an inventory of GHG emissions and adopted a Climate Action Plan (CAP), titled the Climate Compass. Table 7-1 categorizes Citywide GHG emissions by sector as of 2021 (listed as metric tons of carbon dioxide equivalents, or MTCO2e) the most recent year for which an inventory has been completed.

The CAP and the General Plan outline GHG emissions reduction targets for future years that are designed to reduce emissions within the Elk Grove community in a manner consistent with State regulations and guidelines. Because GHGs are generated by a variety of sources, a varied approach to reducing GHG emissions is most effective. The CAP inventory of GHG emissions indicate that major emissions sources in the city include residential and commercial/industrial building energy use and~~,~~ on-road vehicles, with smaller emission sources from off-road vehicles, solid waste, and wastewater. The CAP establishes that emissions in the baseline year, 2021, were 5.8 MTCO2e per capita and community equaled 1,039,181 MTCO2e.

TABLE 7-1:
2021 CITYWIDE EMISSIONS BY SECTOR

Sector	2005 MTCO2e	Percent of Total	2013 MTCO2e	Percent of Total	2021 MTCO2e	Percent of Total
Residential built environment	225,190	28%	231,400	25%	271,900	26%
Nonresidential built environment	103,170	13%	129,860	14%	126,465	12%

Transportation (on-road vehicles)	348,370	43%	430,340	47%	586,220	56%
Off-road equipment	83,800	10%	93,340	10%	18,341	2%
Solid waste	36,380	5%	26,260	3%	20,222	2%
Water and wastewater	3,070	<1%	6,562	<1%	5,759	<1%
Agriculture	5,450	<1%	1,030	<1%	10,275	1%
Total	808,410	100%	918,790	100%	1,039,181	100%

Source: Compiled by Ascent Environmental 2023

If all community activities were to continue under a business-as-usual scenario with no reduction measures they would reach 1,326,277 MTCO2e by 2030, a 28 percent increase over 2021. However, the CAP estimates that with measures taken as a result of the State's legislative actions emission would reduce those emissions to 4.2~~5~~ MTCO2e per capita by 2030 and 1.5 MTCO2e per capita by 2045, resulting in community emissions of 966,427 and 483,474 respectively for those years. Measures outlined in the General Plan and CAP would further reduce the community's emissions to ~~3~~2.8 MTCO2e per capita by 2030 and ~~3.0~~0.5 MTCO2e per capita by 2045~~50~~. These reductions are projected results of twenty-one strategies contained in the CAP in six broad policy areas: built and energy, transportation, resilience and adaptation, resource consumption, green economy, and climate action commitment. The greatest percentage of these reductions, ~~56~~82% in 2030 and 56% in 2045, would be achieved through efficiency and renewable energy improvements to the built environment, while strategies would result in a 17% reduction in 2030 and a 36% reduction in 2045. Other strategies account for less than two percent of GHG reductions in 2030 and less than ten percent in 2045.

To update Chapter 7 of the General Plan to align with the final Climate Compass, the text of Policy NR-5-1 has been updated with the GHG projections and targets of the Climate Compass on pages 7-36 as follows:

Original:

Policy NR-5-1: By 2030, reduce per capita emissions greenhouse gas emissions to 4.1 MTCO2e. By 2050, reduce per capita greenhouse gas emissions 1.4 MTCO2e to meet the State's 2050 greenhouse gas emissions reduction goals.

Revised:

Policy NR-5-1: By 2030, reduce per capita emissions greenhouse gas emissions to 3.8 MTCO2e. By 2045, reduce per capita greenhouse gas emissions 0.5 MTCO2e to meet the State's 2045 greenhouse gas emissions reduction goals.

To update Chapter 7 of the General Plan to align with the final Climate Compass, the text of Standard-6-2.a on page 7-37 has been modified as follows:

Original:

Standard-6-2.a: Design new municipal facilities to meet at a minimum the baseline Leadership in Energy and Environmental Design (LEED) certification criteria.

Revised:

Standard-6-2.a: Design new municipal facilities as all-electric and retrofit existing buildings to be fully electric with equipment upgrades or replacement.

To update Chapter 7 of the General Plan to align with the final Climate Compass, the text of Standard SD-2-1.a on page 7-39 has been modified as follows:

Original:

Standard SD-2-1.a: Require all new municipal developments to exceed State Title 24 Energy Efficiency Standards by 15 percent, to the extent such efficiencies are possible.

Revised:

Standard SD-2-1.a: Design new municipal facilities to meet CALGreen Tier 1 standards.

CEQA Findings of Fact for the City o Elk Grove Climate Compass Supplemental EIR

April 2026

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1 INTRODUCTION

The City of Elk Grove (City), as lead agency, prepared a subsequent environmental impact report (SEIR) for the proposed Climate Compass (Plan). The proposed Plan is a comprehensive update to the City's current Climate Action Plan (CAP), adopted in 2019. The proposed Plan establishes a roadmap for the City to achieve its greenhouse gas (GHG) emission reduction targets and includes actions and strategies to adapt to anticipated climate-related impacts. In addition, the Plan aligns local efforts with Assembly Bill (AB) 1279, which requires California to achieve net-zero GHG emissions by 2045 and an 85 percent reduction in anthropogenic GHG emissions by 2045.

The document consists of the June 2025 Draft SEIR and the April 2026 Final SEIR (State Clearinghouse No. 2017062058) (collectively referred to as the SEIR). The SEIR for the Plan presents an assessment of the reasonably foreseeable and potentially significant adverse environmental effects that may occur from implementation of the Plan beyond what was evaluated in the General Plan Update EIR (General Plan EIR) (State Clearinghouse No. 2017062058), which programmatically evaluated both the General Plan Update (General Plan) and the 2019 CAP Update (2019 CAP) as separate documents. These findings have been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000 et seq.) and its implementing guidelines (CEQA Guidelines) (California Code of Regulations [CCR] Title 14, Section 15000 et seq.). The City is the lead agency under CEQA and the City of Elk Grove City Council (City Council) is the decision-making authority for the Plan. The City Council adopts these findings in that capacity.

2 PROJECT DESCRIPTION

2.1 PROJECT BACKGROUND

In 2023, the City initiated the development of the Plan as an update to its 2019 CAP in order to establish the City's blueprint for achieving its GHG emissions reduction targets as well as aligning strategies and actions with updated regulatory requirements (i.e., AB 1279). Plan development has consisted of preparing a GHG emissions inventory, identifying forecasts and targets, and gathering community input on the city's climate strengths, vulnerabilities, and priorities. After establishing the foundation of the city's GHG forecasts and reduction targets, the City developed and refined draft GHG emission reduction and adaptation strategies and actions with input from City staff and subject matter experts. Throughout the entire development process of the Draft Plan, City staff has engaged the public and stakeholders through workshops, local events, surveys, a climate ambassador program, and the formation of a technical advisory group to gather input and feedback on the components of the Plan. The Draft Plan, which includes the city's GHG emission inventory, forecasts, and reduction targets; the finalized communitywide and City operations climate strategies and actions; and the implementation framework for the Plan, was released for public review concurrently with the Draft SEIR on the City's website at: https://elkgrove.gov/cap. For a detailed timeline of the development of the Plan, please refer to Chapter 1, "Introduction," of the Climate Compass.

2.2 PROJECT LOCATION

The General Plan established a Planning Area of approximately 31,238 acres (48.8 square miles), which includes all land within the current city limits as well as lands outside the city limits in unincorporated Sacramento County to the south and east that, in the City's judgement, bears relation to its planning efforts (referred to as study areas). Specifically, the city of Elk Grove consists of approximately 27,336 acres (42.7 square miles), while approximately 3,902 acres (6.1 square miles) are located within the study areas. The Planning Area is located in the middle of Sacramento County. The Planning Area is generally bounded by Interstate 5 (I-5) on the west; Calvine Road and the City of Sacramento on the north; Grant Line Road and Deer Creek on the east; and Eschinger Road on the south. State Route (SR) 99 traverses north–south, bisecting the city near its center.

Existing land uses within the city limits consist of residential at varying densities, commercial, office, industrial, park, and open space. Within the study areas, existing land uses primarily consist of agricultural lands and rural residential uses. Nearby natural open space and habitat areas include the Stone Lakes National Wildlife Refuge and the Sacramento River to the west, the Cosumnes River Preserve to the south, and the Sacramento Area Sewer District (SacSewer) bufferlands to the northwest. Major roadway access to the City is provided by I-5 and SR 99. Upon adoption, the Plan is intended to serve as the long-term CAP for land uses within the Planning Area.

2.3 OVERVIEW

The following provides a brief summary and overview of the Plan. Chapter 2, "Project Description," of the Draft SEIR includes a detailed description of the Plan, including maps and graphics.

The Plan would:

- Develop an updated CAP to align the City's climate action planning with California's GHG reduction goals and relevant regulations aimed at climate mitigation.
- Implement strategies and actions to transition the city away from fossil fuels and realize deep GHG emissions reductions through the near- and long-term future.
- Connect and amplify existing sustainability efforts in a cohesive, impactful plan.
- Incorporate climate adaptation and resilience actions to address the city's most pressing natural and climate-related hazards.

- Develop a CEQA-qualified CAP to provide a mechanism for streamlining project-level GHG emissions analysis consistent with Section 15183.5 of the State CEQA Guidelines and the entitlement process for future sustainability projects and climate-friendly development within the city.
- Communicate climate challenges and opportunities, foster climate education, and empower the community to contribute to solutions.
- Ensure equitable climate action by prioritizing projects and programs that benefit historically underserved communities.
- Develop an updated CAP that is consistent with the recently adopted amendments to the City's General Plan in 2023, which was amended to increase development intensity to improve vehicle miles traveled (VMT) efficiency and reduce GHG emissions by creating walkable communities with amenities that attract and retain businesses and residents.

2.3.1 Project Characteristics

The Climate Compass contains six chapters and technical appendices, which provide additional details on the topics covered in the Plan. A brief summary of the main components of the Plan is provided below:

- Chapter 1, Introduction: Provides an introduction to the Climate Compass as well as to the overall climate action planning process and key methodologies and terms. This chapter also provides an overview of the development of the Plan to date, including summarizing public and agency input, as well as how the Plan fits in with the State's larger climate planning efforts.
- Chapter 2, GHG Inventory and Targets: Provides the foundation for the Climate Compass, presenting the City's GHG emissions inventory, emissions forecasts, and the targets for reducing emissions in line with State and local goals.
- Chapter 3, Climate Action Strategies: Addresses the comprehensive strategies and actions the City would implement to reduce GHG emissions across various sectors, such as energy, transportation, land use, and waste management, while also promoting community resilience and adaptation to climate change impacts.
- Chapter 4, City Operations: Focuses on the strategies and actions the City would adopt to reduce GHG emissions from City operations.
- Chapter 5, Implementation and Monitoring: Details the implementation framework for the Climate Compass, including timelines, funding strategies, partnerships, and the monitoring and reporting processes to ensure the Plan's success.
- Chapter 6, Work Cited: Provides the sources used in the development of the Plan.
- Appendices include more detailed information on GHG emissions inventories and forecasts, strategy quantification, and supporting documents, such as a cost analysis and funding and financing roadmap.

The Plan establishes strategies and actions to reduce GHG emissions generated from current and future activities within the city as well as GHG emissions generated by City facilities and operations. The Plan is structured to align with State and regional laws, policies, regulations, and plans to reduce GHG emissions and improve resilience to climate change-related impacts. State regulations related to GHG emissions that are applicable and were current at the time of the development of the Plan include Senate Bill (SB) 32, AB 1279, and the California Air Resources Board's (CARB's) *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) at the State level.

The Plan has been developed to provide:

- A baseline of major sources of GHG emissions;
- A projection of future GHG emissions expected to occur within the Planning Area and be generated by City operations;
- Targets for reducing GHG emissions to specified levels that are aligned with State laws and policies; and

- Strategies and actions to reduce GHG emissions to meet the targets.

More specifically, the Plan identifies the following:

- Baseline GHG emissions for the Planning Area and forecasts potential increases in these emissions over time, both for the Planning Area (i.e., "community") and for City operations.
- GHG emissions reduction targets for 2030 and 2045 in alignment with the State's GHG reduction goals as directed by the 2022 Scoping Plan and AB 1279.
- Strategies and actions to achieve the 2030 and 2045 GHG emissions reduction targets for both community and City operations.

2.4 DISCRETIONARY APPROVALS

The discretionary actions associated with the approval Climate Compass include the following:

- Review of the Climate Compass by the Elk Grove Planning Commission;
- Certification of the SEIR for the Climate Compass by the Elk Grove City Council; and
- Adoption of the Climate Compass by the Elk Grove City Council.

Subsequent actions by the City to implement the Climate Compass may include the following:

- Adoption of nonresidential reach codes related to improved energy efficiency standards.
- Adoption of increased electric vehicle charging standards for new commercial development and fueling stations.
- Adoption of land use plan and zoning revisions to increase density along major transit corridors.
- Adoption of a post-disaster recovery and reconstruction ordinance.
- Adoption of updated tree canopy coverage requirements for new development.
- Development of a local Transportation Management Agency to provide education on transit and alternative transportation services and programs.

3 ENVIRONMENTAL REVIEW PROCESS

In accordance with Section 15082 of the State CEQA Guidelines, the City prepared a Notice of Preparation (NOP) of an SEIR on December 6, 2024. It was submitted to the California State Clearinghouse and distributed to interested and affected federal, state, and local agencies; interested parties; and organizations. The NOP was circulated for 41 days, through January 15, 2025. A public scoping meeting was held on January 9, 2025. Concerns raised in response to the NOP and at the scoping meeting were considered during preparation of the Draft SEIR. The NOP and all comments received on the NOP are presented in Appendix A of the Draft SEIR.

AB 52 (Chapter 532, Statutes 2014) requires public agencies to consult with tribes during the CEQA process. A request was made to the California Native American Heritage Commission for a list of applicable tribes, and a notice to nine tribes was circulated in December 2024. No requests for consultation were received by the City within the 30 calendar-day notification period.

The Draft SEIR includes an analysis of the following issue areas:

- energy, and
- greenhouse gas emissions and climate change.

The City published the Draft SEIR for public and agency review on June 27, 2025. A 49-day public review period was provided, ending on August 15, 2025.

Consistent with Section 15202 of the State CEQA Guidelines, the City conducted a public meeting on the Draft SEIR at 6:00 p.m. on July 22, 2025 to provide an overview of the Draft SEIR. During the public review period, the City received comment letters from two agencies, one organization, and two individuals. No comments were received during the public meeting.

Those comments relevant to CEQA were addressed in compliance with the State CEQA Guidelines (Sections 15088, 15132). The Final SEIR was released in April 2026. Public hearings are planned for May and June 2026.

The Final SEIR includes comments received on the Draft SEIR; responses to these comments; and revisions to the Draft SEIR, as necessary, in response to these comments or to amplify or clarify material in the Draft SEIR. The Draft and Final SEIR were made available for public review on the internet at https://www.elkgrove.gov/planning/environmental-review and https://elkgrove.gov/cap. As discussed in Section 4.5, below, none of the changes to the Draft SEIR, or information added to the Draft SEIR, constitutes "significant new information" requiring recirculation of the Draft SEIR pursuant to PRC Section 21092.1 and State CEQA Guidelines Section 15088.5.

4 GENERAL CEQA FINDINGS

4.1 MITIGATION MONITORING AND REPORTING PROGRAM

PRC Section 21081.6(a)(1) requires lead agencies to "adopt a reporting and mitigation monitoring program for the changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment." A mitigation monitoring and reporting program (MMRP) has not been prepared or adopted for the Plan because no new mitigation measures are required. The original mitigation measures identified and analyzed in the General Plan EIR, as amended by the 2023 Subsequent EIR for the General Plan Amendments and Update of VMT Standards Project (GPAs/VMT Standards Project), and subsequently adopted by the City of Elk Grove City Council remain in effect and will continue to be implemented as part of the General Plan.

4.2 CEQA GUIDELINES SECTION 15091 AND 15092 FINDINGS

Based on the foregoing findings and the information contained in the administrative record, the City of Elk Grove City Council has determined that there would be no significant or potentially significant impacts associated with the Plan. Therefore, no mitigation measures are required and there would be no significant and unavoidable impacts. Thus, the City of Elk Grove City Council is not required to adopt a statement of overriding considerations for the Plan.

4.3 CITY OF ELK GROVE CITY COUNCIL INDEPENDENT JUDGMENT

The Final SEIR reflects the City of Elk Grove City Council's independent judgment. The City of Elk Grove City Council has exercised independent judgment in accordance with PRC Section 21082.1(c)(3) in retaining its own environmental consultant in the preparation of the SEIR, as well as reviewing, analyzing, and revising material prepared by the consultant.

Having received, reviewed, and considered the information in the Final SEIR, as well as any and all other information in the record, the City of Elk Grove City Council hereby makes findings pursuant to and in accordance with PRC Sections 21081, 21081.5, and 21081.6.

4.4 NATURE OF FINDINGS

Any findings made by the City of Elk Grove City Council shall be deemed made, regardless of where it appears in this document. All of the language included in this document constitutes findings by the City of Elk Grove City Council, whether or not any particular sentence or clause includes a statement to that effect. The City of Elk Grove City Council intends that these findings be considered as an integrated whole and, whether or not any part of these findings fail to cross-reference or incorporate by reference any other part of these findings, that any finding required or committed to be made by the City of Elk Grove City Council with respect to any particular subject matter of the Final SEIR, shall be deemed to be made if it appears in any portion of these findings.

4.5 RELIANCE ON RECORD

Each and all of the findings and determinations contained herein are based on substantial evidence, both oral and written, contained in the administrative record relating to the Plan.

4.5.1 Record of Proceedings

In accordance with PRC Section 21167.6(e), the record of proceedings for the City of Elk Grove City Council's decision on the Plan includes the following documents:

- The NOP for the Project and all other public notices issued in conjunction with the Project;
- All comments submitted by agencies or members of the public during the comment period on the NOP;
- The Draft SEIR for the Plan and all appendices;
- All comments submitted by agencies or members of the public during the comment period on the Draft SEIR;
- The Final SEIR for the Plan, including comments received on the Draft SEIR, responses to those comments, and appendices;
- Documents cited or referenced in the Draft SEIR and Final SEIR;
- All findings and resolutions adopted by the City Council in connection with the Plan and all documents cited or referred to therein;
- All reports, studies, memoranda, maps, staff reports, or other planning documents relating to the Plan prepared in compliance with the requirements of CEQA and with respect to the City Council's action on the Plan;
- All documents submitted by other public agencies or members of the public in connection with the Plan, up through the close of the final public hearing;
- Any minutes and/or verbatim transcripts of all information sessions, public meetings, and public hearings held in connection with the Plan;
- Any documentary or other evidence submitted at such information sessions, public meetings, and public hearings;
- Any and all resolutions adopted by the City of Elk Grove regarding the Plan, and all staff reports, analyses, and summaries related to the adoption of those resolutions;
- Matters of common knowledge, including, but not limited to federal, state, and local laws and regulations;
- Any documents expressly cited in these findings and any documents incorporated by reference, in addition to those cited above;
- Any other written materials relevant to the City of Elk Grove City Council's compliance with CEQA or its decision on the merits of the Plan, including any documents or portions thereof, that were released for public review, relied upon in the environmental documents prepared for the Plan, or included in the City of Elk Grove City Council non-privileged retained files for the SEIR or Plan;
- Any other materials required for the record of proceedings by PRC Section 21167.6(e); and
- The Notice of Determination.

The City of Elk Grove City Council intends that only those documents relating to the Plan and its compliance with CEQA and prepared, owned, used, or retained by the City of Elk Grove and listed above shall comprise the administrative record for the Plan. Only that evidence was presented to, considered by, and ultimately before the City of Elk Grove City Council prior to reviewing and reaching its decision on the SEIR and Plan.

4.5.2 Custodian of Records

The custodian of the documents or other material that constitute the record of proceedings upon which the City of Elk Grove City Council's decision is based is identified as follows:

City of Elk Grove
City Clerk
8401 Laguna Palms Way
Elk Grove, California 95758

4.5.3 Recirculation Not Required

CEQA Guidelines Section 15088.5 provides the criteria that a lead agency is to consider when deciding whether it is required to recirculate an EIR. Recirculation is required when "significant new information" is added to the EIR after public notice of the availability of a Draft EIR is given, but before certification. (CEQA Guidelines, Section 15088.5[a].) "Significant new information," as defined in State CEQA Guidelines Section 15088.5(a), means information added to an EIR that changes the EIR so as to deprive the public of a meaningful opportunity to comment on a "substantial adverse environmental effect" or a "feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement."

An example of significant new information provided by the State CEQA Guidelines is a disclosure showing that a "new significant environmental impact would result from the Plan or from a new mitigation measure proposed to be implemented;" that a "substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted to reduce the impact to a level of insignificance;" or that a "feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it." (CEQA Guidelines, Section 15088.5[a][1]-[3].)

Recirculation is not required where "the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR." (CEQA Guidelines, Section 15088.5[b].) Recirculation also is not required simply because new information is added to the EIR — indeed, new information is oftentimes added given CEQA's public/agency comment and response process and CEQA's post-Draft EIR circulation requirement of proposed responses to comments submitted by public agencies.

In this legal context, the City of Elk Grove City Council finds that recirculation of the Draft SEIR prior to certification is not required. In addition to providing responses to comments, the Final SEIR includes revisions to expand upon information presented in the Draft SEIR; explain or enhance the evidentiary basis for the Draft SEIR's findings; update information; and to make clarifications, amplifications, updates, or helpful revisions to the Draft SEIR. The Final SEIR's revisions, clarifications and/or updates do not result in any new significant impacts or increase the severity of a previously identified significant impact.

In sum, the Final SEIR demonstrates that the Plan will not result in any new significant impacts or increase the severity of a significant impact, as compared to the analysis presented in the Draft SEIR. The changes reflected in the Final SEIR also do not indicate that meaningful public review of the Draft SEIR was precluded in the first instance. Accordingly, recirculation of the SEIR is not required as revisions to the SEIR are not significant as defined in Section 15088.5 of the State CEQA Guidelines.

4.6 CERTIFICATION OF THE FINAL SEIR

The City of Elk Grove City Council certifies that the Final SEIR has been completed in compliance with CEQA and the State CEQA Guidelines, that the SEIR was presented to the City of Elk Grove City Council, and that the City Council reviewed and considered the information contained therein before approving the Plan, and that the SEIR reflects the independent judgment and analysis of the City of Elk Grove City Council. (CEQA Guidelines Section 15090.)

5 FINDINGS REQUIRED UNDER CEQA

This statement of Findings of Fact (Findings) addresses the environmental effects associated with the Plan. These Findings are made pursuant to CEQA under PRC Sections 21081, 21081.5, and 21081.6 and the State CEQA Guidelines Sections 15091 and 15093.

PRC Section 21081 and State CEQA Guidelines Section 15091 require that the lead agency prepare written findings for identified significant impacts, accompanied by a brief explanation for the rationale for each finding. The City is the lead agency responsible for preparation of the EIR in compliance with CEQA and the State CEQA Guidelines. Section 15091 of the State CEQA Guidelines states, in part, that:

a) No public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding. The possible findings are:

    1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR.

    2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

    3) Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.

In accordance with PRC Section 21081 and State CEQA Guidelines Section 15093, whenever significant impacts cannot be mitigated to below a level of significance, the decision-making agency is required to balance, as applicable, the benefits of the proposed project against its unavoidable environmental risks when determining whether to approve the project. If the benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse effects may be considered "acceptable." In that case, the decision-making agency may prepare and adopt a statement of overriding considerations, pursuant to the State CEQA Guidelines.

Section 15093 of the State CEQA Guidelines state that:

a) CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered "acceptable."

b) When the lead agency approves a project which will result in the occurrence of significant effects which are identified in the final EIR but are not avoided or substantially lessened, the agency shall state in writing the specific reasons to support its action based on the Final EIR and/or other information in the record. The statement of overriding considerations shall be supported by substantial evidence in the record.

c) If an agency makes a statement of overriding considerations, the statement should be included in the record of the project approval and should be mentioned in the notice of determination. This statement does not substitute for, and shall be in addition to, findings required pursuant to Section 15091.

The Final SEIR did not identify any significant or potentially significant impacts associated with the Plan. Therefore, no mitigation measures are required and there would be no significant and unavoidable impacts. Thus, the City of Elk Grove City Council is not required to adopt a statement of overriding considerations for the Plan.

In accordance with CEQA and the State CEQA Guidelines, the City adopts these Findings as part of its certification of the Final SEIR for the Plan. Pursuant to PRC Section 21082.1(c)(3), the City of Elk Grove City Council also finds that the Final SEIR reflects the City Council's independent judgment as the lead agency for the Plan.

6 RELATIONSHIP WITH FINDINGS MADE ASSOCIATED WITH CITY OF ELK GROVE GENERAL PLAN UPDATE EIR AND ADOPTION OF THE GENERAL PLAN

The City certified the City of Elk Grove General Plan EIR and adopted the General Plan on February 27, 2019. This action included the adoption of the Elk Grove General Plan Update CEQA Findings and Statement of Overriding Considerations that addressed significant impacts identified in the General Plan EIR. The General Plan was amended in January 2021 for the City of Elk Grove Multi-Sport Complex and Southeast Industrial Annexation Area Project. This action included adoption of the City of Elk Grove Multi-Sport Complex and Southeast Industrial Annexation Area Project CEQA Findings and Statement of Overriding Considerations that addressed new significant impacts not included in the original General Plan EIR. The General Plan was amended a second time in May 2021 with subsequent amendments in December of 2021 for the 2012-2029 Housing Element and Safety Element Update. This action included the adoption of the 2012-2029 Housing Element and Safety Element Update CEQA Findings and Statement of Overriding Considerations that addressed new significant impacts identified in the 2021-2029 Housing Element and Safety Element Update SEIR that were not included in the original General Plan EIR.

Most recently, the General Plan was amended for the GPAs/VMT Standards Project. On December 13, 2023, the City adopted the GPAs/VMT Standards Project and certified the Subsequent EIR to the General Plan EIR (2023 Subsequent EIR) (State Clearinghouse No. 2022020463). The City also adopted the GPAs/VMT Standards Project CEQA Findings and Statement of Overriding Considerations in December 2023.

The GPAs/VMT Standards Project did not include an update to the 2019 CAP, but amended the General Plan that increased residential densities and mixed-use opportunities. As identified in the 2023 Subsequent EIR, this change in development intensity and other associated to the General Plan results in improved VMT limits by land use designation as well as reduced per capita GHG emissions in 2040 as compared to what is identified in the 2019 CAP for 2050. This updated version of the General Plan is the foundational land use plan used for the Climate Compass.

The Final SEIR identified that the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR.

The City Council readopts the Elk Grove General Plan Update CEQA Findings and Statement of Overriding Considerations, Multi-Sport Complex and Southeast Industrial Annexation Area Project CEQA Findings and Statement of Overriding Considerations, 2012-2029 Housing Element and Safety Element Update Findings and Statement of Overriding Considerations, and GPAs/VMT Standards Project CEQA Findings and Statement of Overriding Considerations for impacts where the Final SEIR did not identify any new significant environment effects or a substantial increase in severity of environmental effects disclosed in the General Plan EIR. The Elk Grove General Plan Update CEQA Findings and Statement of Overriding Considerations, Multi-Sport Complex and Southeast Industrial Annexation Area Project CEQA Findings and Statement of Overriding Considerations, 2012-2029 Housing Element and Safety Element Update Findings and Statement of Overriding Considerations, and GPAs/VMT Standards Project CEQA Findings and Statement of Overriding Considerations are incorporated by reference herein by this reference. They are on file and available from the City Clerk under City Council Resolutions 2019-035, 2021-032, 2021-128, and, and 2023-283, respectively.

7 FINDINGS REGARDING IMPACTS THAT ARE NOT SIGNIFICANT

This section identifies those impacts where the Final SEIR did not identify any new significant environment effects or a substantial increase in severity of environmental effects disclosed in the General Plan EIR.

7.1 SECTION 3.1: ENERGY

Impact 3.1-1: Result in Wasteful, Inefficient, or Unnecessary Consumption of Energy, During Project Construction or Operation

The General Plan EIR, as amended by the 2023 Subsequent EIR, concluded that impacts related to the wasteful, inefficient, or unnecessary consumption of energy would be less than significant. Implementation of the Climate Compass includes electrification and decarbonization of buildings and infrastructure, increasing renewable energy use and storage, reducing energy and resource consumption, improving clean and efficient transportation, and strengthening resilience and adaptation measures (e.g., water efficiency and renewable energy measures), which would reduce energy demand and improve energy efficiency beyond existing measures by the City. As such, implementation of the Climate Compass would not result in a new or more severe impact than what was identified in the General Plan EIR, as amended by the 2023 Subsequent EIR. This impact would remain less than significant. (Draft SEIR pages 3.1-7 through 3.1-10)

MITIGATION MEASURES

No mitigation is required.

FINDING

The City of Elk Grove City Council finds that, based upon substantial evidence in the record, the potential impacts related to the Plan's effects are less than significant, and no mitigation measures are required.

Impact 3.1-2: Conflict with or Obstruct a State or Local Plan for Renewable Energy or Energy Efficiency

The General Plan EIR, as amended by the 2023 Subsequent EIR, determined impacts related to conflicting with or obstructing applicable State or local plans for renewable energy and energy efficiency would be less than significant. The Climate Compass has been developed in alignment with applicable State and local plans, policies, and regulations that aim to promote energy efficiency and renewable energy generation. Several strategies and actions of the Climate Compass would directly reduce energy demand from fossil fuels in the building sector within the city through building decarbonization, improved energy efficiency, and increased availability of renewably sourced electricity. Additionally, strategies and actions would deploy additional electric vehicle (EV) charging and reduce VMT by increasing and improving bicycle and pedestrian infrastructure, and transit opportunities. These strategies and actions would reduce the city's dependence on fossil fuel-derived energy, improve energy efficiency, and promote renewable energy usage resulting in consistency with applicable plans, policies, and regulations. As such, implementation of the Climate Compass would not result in a new or more severe impact than what was identified in the General Plan EIR, as amended by the 2023 Subsequent EIR. This impact would remain less than significant. (Draft SEIR pages 3.1-11 and 3.1-12)

MITIGATION MEASURES

No mitigation is required.

FINDING

The City of Elk Grove City Council finds that, based upon substantial evidence in the record, the potential impacts related to the Plan's effects are less than significant, and no mitigation measures are required.

7.2 SECTION 3.2: GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Impact 3.2-1: Generate GHG Emissions, Either Directly or Indirectly, That May Have a Significant Impact on the Environment

The General Plan EIR determined implementation of the General Plan and the 2019 CAP would result in GHG emissions reductions sufficient to meet the City's GHG reduction targets, which were consistent with the statewide GHG emission reduction targets for 2020 and 2030 as identified in the 2017 Scoping Plan, as established by AB 32 and SB 32. Therefore, impacts were determined to be less than significant.

The 2023 Subsequent EIR determined implementation of the GPAs/VMT Standards Project would exceed emissions targets at a higher rate than anticipated as part of the General Plan and as evaluated in the General Plan EIR. Because the GPAs/VMT Standards Project would introduce development not captured in the inventory prepared for the 2019 CAP (i.e., the GPAs/VMT Standards Project introduces land uses inconsistent with the assumptions of the General Plan), the efficacy of the 2019 CAP measures to sufficiently reduce GHG emissions past 2030 would be speculative. For this reason, the 2023 Subsequent EIR determined that impacts would be more severe than those identified in the General Plan EIR. Because the 2019 CAP did not include the most recent regulations (i.e., AB 1279) and no other mitigation was available to reduce GHG impacts, the 2023 Subsequent EIR determined this impact would be significant and unavoidable.

Implementation of the Climate Compass would achieve the City's 2030 and 2045 GHG emission reduction goals, consistent with statewide GHG reduction goals as identified in the 2022 Scoping Plan and directed by AB 1279. The Climate Compass would provide the City with the framework to meet its GHG emission reduction targets as development occurs under the General Plan, as amended by the GPAs/VMT Standards Project, beyond the buildout year 2030. Because the Climate Compass would be sufficient in meeting statewide GHG reduction targets, adopting and implementing the Climate Compass would not result in a new or more substantially severe impact than what was identified in the General Plan EIR, as amended by the 2023 Subsequent EIR. Implementation of the Climate Compass would reduce the significant and unavoidable impact from the 2023 Subsequent EIR to less than significant. (Draft SEIR pages 3.2-11 through 3.2-16)

MITIGATION MEASURES

No mitigation is required.

FINDING

The City of Elk Grove City Council finds that, based upon substantial evidence in the record, the potential impacts related to the Plan's effects are less than significant, and no mitigation measures are required.

Impact 3.1-2: Conflict With an Applicable Plan, Policy, or Regulation Adopted for the Purpose of Reducing the Emissions of GHGs

The General Plan EIR determined that the General Plan and the 2019 CAP would not meet the long-term adjusted statewide emissions reduction goal of 1.4 metric tons of carbon dioxide equivalent ($MTCO_2e$) per capita by 2050 consistent with Executive Order (EO) S-3-05 and the 2017 Scoping Plan, despite the General Plan policies, implementation programs, and 2019 CAP GHG reduction actions to be implemented under the General Plan and 2019 CAP. No additional feasible mitigation was identified beyond compliance with the 2019 CAP and proposed General Plan policies. Therefore, the General Plan EIR concluded that the impacts related to meeting the long-term GHG reduction goal for 2050 would be significant and unavoidable.

The 2023 Subsequent EIR determined that development under the GPAs/VMT Standards Project would extend past the 2019 CAP GHG reduction target year of 2030 into 2040 and beyond. Because the GPAs/VMT Standards Project would facilitate development beyond the 2030 target year and that GHG reduction targets have become more stringent since adoption of the 2019 CAP and certification of the General Plan EIR (i.e., AB 1279), the General Plan and the 2019 CAP would not be sufficient to meet the State's long-term targets beyond 2030. As such, the 2023 Subsequent EIR determined implementation of the GPAs/VMT Standards Project would result in a substantially more severe impact than what was addressed in the General Plan EIR, and impacts would remain significant and unavoidable.

The Climate Compass would achieve the City's overall goal to reduce GHG emissions consistent with statewide GHG reduction goals as established in the 2022 Scoping Plan, as set forth by AB 1279. In addition, the Climate Compass would be consistent with and support a variety of other State and local plans, policies, and regulations related to the reduction of GHG emissions. Therefore, the Climate Compass would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. Furthermore, the Climate Compass would provide the mechanism for the City to achieve its long-term GHG reduction goals past 2030 consistent with current regulations, which was identified in the 2023 Subsequent EIR as necessary to address the city's long-term GHG impacts. For these reasons, adoption and implementation of the Climate Compass would result in a substantially less severe impact than what was identified in the General Plan EIR and the 2023 Subsequent EIR, and as such, this impact would be reduced to less than significant. (Draft SEIR pages 3.2-16 through 3.2-19)

MITIGATION MEASURES

No mitigation is required.

FINDING

The City of Elk Grove City Council finds that, based upon substantial evidence in the record, the potential impacts related to the Plan's effects are less than significant, and no mitigation measures are required.

7.3 SECTION 3.3: ENVIRONMENTAL IMPACTS ADEQUATLEY ADDRESSED IN GENERAL PLAN AND 2023 SUBSEQUENT EIRS

Based on a review of the information presented in the General Plan EIR, as amended by the 2023 SEIR, the Notice of Preparation, comments received as part of the public scoping process, and additional research and analysis of relevant data during preparation of the Draft SEIR, the following resources previously analyzed in the General Plan EIR, as amended by the 2023 SEIR, were identified as resource areas for which no potentially significant environmental impacts would result from the Plan. Accordingly, these resources were not addressed further in the Final SEIR.

7.3.1 Aesthetics

The General Plan EIR, as amended by the 2023 Subsequent EIR, determined implementation of the General Plan and 2019 CAP would result in significant and unavoidable impacts related to degrading existing visual character and the quality of public views as well as creating new sources of light and glare (2023 Subsequent EIR Impacts 3.1-1 and 3.1-2 and Cumulative Impacts 4-2 and 4-3). No significant impacts were identified for impacts to scenic vistas or state scenic highways.

Implementation of the strategies and actions of the Climate Compass would include activities such as the installation of new small-scale facilities, such as EV charging stations, solar photovoltaic or battery storage systems; construction of cool roofs and pavements; retrofitting older infrastructure and facilities with newer, more energy efficient technology; and planting more community trees. These types of facilities would be visible within the community as well as on the roof of buildings but would be similar in size, visual character, use of materials, and form to existing facilities of similar nature, such as existing EV chargers, mechanical equipment, and other facilities and improvements that are associated with urban and rural development. Furthermore, these types of facilities are similar in nature as those described in the 2019 CAP and evaluated within the General Plan EIR, as amended by the 2023 Subsequent EIR.

The Plan includes Strategy BE-2 "Increase Density and Expand Affordable Housing," which calls for the City to increase allowed density and intensity of planned development along the City's major transit corridors as a means to increase residential uses in proximity to non-residential uses and alternative transportation to reduce VMT. However, since the Plan is not growth-inducing, implementation of this strategy would not change the development potential of the Planning Area but rather would redistribute the growth that can already occur under the current land use plan of the General Plan, as amended by the GPAs/VMT Standards Project and evaluated within the 2023 Subsequent EIR. Therefore, the Climate Compass would not result in new features of substantial height, bulk, or massing that would result in substantial long-term damage to visual quality that were not considered in the General EIR or the 2023 Subsequent EIR. For these reasons, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of aesthetics is warranted. (Draft SEIR page 3-3)

MITIGATION MEASURES

No mitigation is required.

FINDING

The City of Elk Grove City Council finds that, based upon substantial evidence in the record, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of this topic or findings are warranted.

7.3.2 Agriculture and Forestry Resources

The General Plan EIR and the 2023 Subsequent EIR, evaluated the conversion of agricultural lands and determined impacts to be significant and unavoidable (Impact 3.11-1). There are no areas in the Planning Area zoned as forest or timberland. The Climate Compass does not include any land use or zoning changes and implementation of the Plan would not result in the conversion of agricultural land to non-agricultural uses. For these reasons, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of agriculture and forestry resources is warranted. (Draft SEIR page 3-4)

MITIGATION MEASURES

No mitigation is required.

FINDING

The City of Elk Grove City Council finds that, based upon substantial evidence in the record, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of this topic or findings are warranted.

7.3.3 Air Quality

The General Plan EIR, as amended by the 2023 Subsequent EIR, determined implementation of the General Plan and 2019 CAP would result in significant and unavoidable impacts related to construction emissions of criteria air pollutants, operational air quality, and exposure of sensitive receptors to toxic air contaminants (TACs) (2023 Subsequent EIR Impacts 3.2-1, 3.2-2, and 3.2-4 and Cumulative Impact 4.3).

Implementation of the strategies and actions of the Climate Compass would involve the construction and operation of new small-scale facilities, such as EV charging stations, solar photovoltaic or battery storage systems; construction of cool roofs and pavements; and retrofitting older infrastructure and facilities with newer, more energy efficient technology. While the Climate Compass includes strategies and associated actions based on newer technologies and flexible-path energy efficiency standards, the types of facilities that would be constructed and operated under the Plan are similar in nature to those described in the 2019 CAP and air pollutant emissions from development activities evaluated within the General Plan EIR, as amended by the 2023 Subsequent EIR. Therefore, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of air quality is warranted. (Draft SEIR page 3-4)

MITIGATION MEASURES

No mitigation is required.

FINDING

The City of Elk Grove City Council finds that, based upon substantial evidence in the record, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of this topic or findings are warranted.

7.3.4 Archaeological, Historical, and Tribal Cultural Resources

The General Plan EIR, as amended by the 2023 Subsequent EIR, determined implementation of the General Plan and 2019 CAP would result in less than significant impacts to archaeological, historical, and tribal cultural resources with implementation of adopted General Plan Mitigation Measure MM 5.5.1a and MM 5.5.1b (2023 Subsequent EIR Impacts 3.3-1 through 3.3-4 and Cumulative Impact 4-4).

Implementation of the Climate Compass could have the potential to adversely affect historical resources through construction of energy efficiency improvements and building retrofits (Strategy BF-3, Actions BE-1.2, BF-3.3, BF-3.5, RS-1.3), which could involve minor changes to the exterior (e.g., rooftop solar panels) or interior (e.g., water heating and space heating and cooling systems) of existing buildings. Compliance with adopted General Plan Mitigation Measure MM 5.5.1b would mitigate potentially significant impacts to historical resources to less than significant through retention of the

buildings historic features. In addition, all ground disturbing activities associated with implementation of the Climate Compass would comply with applicable regulations and adopted General Plan Mitigation Measure MM 5.5.1a, which would ensure impacts to archaeological and tribal cultural resources and human remains are less than significant. Therefore, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of archaeological, historical, and tribal cultural resources is warranted. (Draft SEIR page 3-4)

MITIGATION MEASURES

No mitigation is required beyond compliance with existing laws, General Plan Policies, and General Plan Mitigation Measures MM 5.5.1a and MM 5.5.1b.

FINDING

The City of Elk Grove City Council finds that, based upon substantial evidence in the record, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of this topic or findings are warranted.

7.3.5 Biological Resources

The General Plan EIR, as amended by the 2023 Subsequent EIR, determined impacts to biological resources to be significant and unavoidable (2023 Subsequent EIR Impact 3.11-2).

Implementation of the Climate Compass would result in minor improvements and building retrofits, which could require ground disturbing activities, including minor grading and shallow excavation, within the Planning Area. Construction activities are expected to occur in previously disturbed, developed areas, such as roadways and parking lots that lack natural habitat and where candidate, sensitive, or special-status species or their habitats are not present. Therefore, implementation of the Climate Compass would not cause a substantial adverse direct or indirect effect to special-status species. Because implementation of the Climate Compass would occur in previously disturbed, developed areas, implementation of the Climate Compass would not occur in areas where riparian habitat or other sensitive natural communities, protected wetlands, wildlife corridors, and protected biological resources are present. Therefore, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of biological resources is warranted. (Draft SEIR pages 3-4 and 3-5)

MITIGATION MEASURES

No mitigation is required.

FINDING

The City of Elk Grove City Council finds that, based upon substantial evidence in the record, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of this topic or findings are warranted.

7.3.6 Geology and Soils

The General Plan EIR, as amended by the 2023 Subsequent EIR, determined impacts to geology and soils, including paleontological resources, would be less than significant with implementation of adopted General Plan Mitigation Measure MM 5.6.5 (2023 Subsequent EIR Impact 3.11-3).

Implementation of the Climate Compass would result in minor improvements and building retrofits, which could require ground disturbing activities, including minor grading and shallow excavation, within the Planning Area. All ground disturbing activities would comply with all applicable regulations related to geology and seismicity standards. Due to the nature of the Plan, the Climate Compass would not introduce new residential uses into the Planning Area and thus, would not increase the risk of geologic hazards on people. Furthermore, due to the shallow excavation depths required to implement the strategies and actions of the Plan, it is unlikely ground disturbing activities would encounter paleontological resources; however, in the event paleontological resources are encountered, implementation of adopted General Plan Mitigation Measure MM 5.6.5, which requires halting grading and construction work within 50 feet of discovered paleontological resources until a qualified paleontologist can evaluate the resource and prepare a recovery plan, would ensure impacts are reduced to less than significant. Therefore, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of geology and soils is warranted. (Draft SEIR page 3-5)

MITIGATION MEASURES

No mitigation is required beyond compliance with existing laws, General Plan Policies, and General Plan Mitigation Measure MM 5.6.5.

FINDING

The City of Elk Grove City Council finds that, based upon substantial evidence in the record, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of this topic or findings are warranted.

7.3.7 Hazards and Hazardous Materials

The General Plan EIR, as amended by the 2023 Subsequent EIR, determined impacts related to hazards and hazardous materials would be less than significant with implementation of adopted General Plan Mitigation Measures MM 5.5.2, and 3.11-12 through 3.11-14 (2023 Subsequent EIR Impact 3.11-4).

The Climate Compass is not a growth-inducing plan and as such, would not change the density of development evaluated within the General Plan EIR, as amended by the 2023 Subsequent EIR. The Plan would not introduce a new land use that could create hazards and would not increase density of development that could result in an increased transport or use of hazardous materials. Construction and/or operation activities associated with implementation of the Climate Compass could involve the use, handling, transporting, or disposal of hazardous materials, such as activities involving removal of existing pavement; repaving surfaces; and installing landscaping and other amenities. In addition, future activities implemented under the Plan could be located on an identified hazardous waste or materials site. However, compliance with all applicable regulations would ensure impacts associated with hazardous materials would be minimized. In addition, implementation of adopted General Plan Mitigation Measure MM 5.5.2, which requires the preparation of Phase I environmental site assessments for properties within the Planning Area that have not been previously evaluated prior to approval of improvement plans, grading permits, and/or demolition permits, would ensure hazardous materials are properly assessed prior to development activities. For construction and operation activities specifically within the LEA Community Plan Area, Mitigation Measures 3.11-12 through 3.11-14 would require a soil contaminant evaluation with each improvement plan and/or grading plan application; sampling for asbestos prior to

the issuance of demolition permits for existing onsite structures constructed prior to 1979; and sampling of all loose and peeling paint prior to the issuance of demolition permits for existing onsite structures that were constructed prior to 1970. The City would also consult with SMUD to determine whether onsite transformers are to be abandoned, moved, upgraded, etc. prior to approval of improvement plans and/or a grading permit for development of properties that contain transformers. Therefore, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of hazards and hazardous materials is warranted. (Draft SEIR pages 3-5 and 3-6)

MITIGATION MEASURES

No mitigation is required beyond compliance with existing laws, General Plan Policies, and General Plan Mitigation Measures MM 5.5.2 and 3.11-12 through 3.11-14.

FINDING

The City of Elk Grove City Council finds that, based upon substantial evidence in the record, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of this topic or findings are warranted.

7.3.8 Hydrology and Water Quality

The General Plan EIR, as amended by the 2023 Subsequent EIR, determined impacts related to hydrology and water quality would be less than significant with implementation of General Plan adopted Mitigation Measures 3.11-15 through 3.11-16 (2023 Subsequent EIR Impact 3.11-5).

The Climate Compass measures involving construction activity would require minor grading, excavation, and other ground disturbance associated with removing existing pavement; repaving parking surfaces; and installing solar and battery storage systems, landscaping, street furniture, and other amenities. Ground-disturbing activities, which could, depending on their location, potentially cause soil erosion which in turn can contaminate nearby surface water. However, compliance with State and local water quality regulations designed to control erosion and protect water quality during construction would ensure impacts during construction would be minimized. In addition, the Plan includes strategies and actions that require installation of permeable pavements and hardscapes, which would allow for groundwater percolation and recharge within the Planning Area. Furthermore, the Plan is not growth-inducing and thus would not increase demand on surface and groundwater supplies. Therefore, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of hydrology and water quality is warranted. (Draft SEIR page 3-6)

MITIGATION MEASURES

No mitigation is required beyond compliance with existing laws, General Plan Policies, and General Plan Mitigation Measures MM 3.11-15 through 3.11-16.

FINDING

The City of Elk Grove City Council finds that, based upon substantial evidence in the record, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of this topic or findings are warranted.

7.3.9 Land Use and Planning

The General Plan EIR, as amended by the 2023 Subsequent EIR, determined impacts related to land use and planning quality would be less than significant (2023 Subsequent EIR Impact 3.11-6).

The Climate Compass does not include any land use or zoning changes and would not change the extent or character of the land use plan from what was evaluated in the General Plan EIR, as amended by the 2023 Subsequent EIR. Because the footprint of development within the Planning Area has not changed from the 2023 Subsequent EIR and the Climate Compass is not a growth-inducing plan, there would be no additional land use and planning impacts as a result of adoption and implementation of the Plan. Therefore, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of land use and planning is warranted. (Draft SEIR page 3-6)

MITIGATION MEASURES

No mitigation is required.

FINDING

The City of Elk Grove City Council finds that, based upon substantial evidence in the record, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of this topic or findings are warranted.

7.3.10 Noise and Vibration

The General Plan EIR, as amended by the 2023 Subsequent EIR, determined impacts related to increased traffic noise would be significant and unavoidable (2023 Subsequent EIR Impact 3.6-2 and Cumulative Impacts 4-7 and 4-8).

Construction and operational noise sources generated by activities associated with the implementation of the Climate Compass would be relatively minimal due to their mechanical nature (e.g., EV charging stations, HVAC retrofits, solar and battery storage systems, etc.). Construction and operational noise levels generated by activities associated with the implementation of the Climate Compass would be within the levels evaluated within the General Plan EIR, as amended by the 2023 Subsequent EIR. Implementation of the Plan would not increase traffic noise as some strategies and actions redirect existing trucks and modes of alternative transportation in more sustainable manners. In addition, the Plan requires the City to reduce VMT community-wide and in City operations, which would help to reduce traffic noise. Therefore, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of noise and vibration is warranted. (Draft SEIR pages 3-6 and 3-7)

MITIGATION MEASURES

No mitigation is required.

FINDING

The City of Elk Grove City Council finds that, based upon substantial evidence in the record, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of this topic or findings are warranted.

7.3.11 Population and Housing

The General Plan EIR, as amended by the 2023 Subsequent EIR, determined impacts related to population and housing would be less than significant (2023 Subsequent EIR Impact 3.7-1).

The Climate Compass is not a growth-inducing plan and as such, would not change the density of development within the Planning Area evaluated within the General Plan EIR, as amended by the 2023 Subsequent EIR. The Plan would not introduce new residential uses within the Planning Area, which would result in new residents or housing. Because the footprint of development within the Planning Area has not changed from the 2023 Subsequent EIR and the Climate Compass is not a growth-inducing plan, there would be no additional population and housing impacts as a result of adoption and implementation of the Plan. Therefore, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of population and housing is warranted. (Draft SEIR page 3-7)

MITIGATION MEASURES

No mitigation is required.

FINDING

The City of Elk Grove City Council finds that, based upon substantial evidence in the record, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of this topic or findings are warranted.

7.3.12 Public Services and Recreation

The General Plan EIR, as amended by the 2023 Subsequent EIR, determined impacts related to public service and recreation would be less than significant, with the exception of impacts related to increased demand for new public school facilities which would be significant and unavoidable (2023 Subsequent EIR Impact 3.8-3 and Cumulative Impact 4-12).

The Climate Compass is not a growth-inducing plan and as such, would not change the density of development within the Planning Area evaluated within the General Plan EIR, as amended by the 2023 Subsequent EIR. The Plan would not introduce new residential uses within the Planning Area, which would result in new residents or housing. Since the Plan would not introduce new residents or housing, implementation of the Plan would not increase demand for new public school facilities beyond what was evaluated within the General Plan EIR, as amended by the 2023 Subsequent EIR. Therefore, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of public services and recreation is warranted. (Draft SEIR page 3-7)

MITIGATION MEASURES

No mitigation is required.

FINDING

The City of Elk Grove City Council finds that, based upon substantial evidence in the record, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of this topic or findings are warranted.

7.3.13 Transportation

The General Plan EIR, as amended by the 2023 Subsequent EIR, determined impacts related to an exceedance of General Plan VMT thresholds would be significant and unavoidable (2023 Subsequent EIR Impact 3.9-1 and Cumulative Impact 4-14).

Implementation of the Climate Compass would not physically disrupt any existing bicycle, pedestrian, or transit facilities, nor adversely affect planned bicycle, pedestrian, or transit facilities identified in local planning documents such as the General Plan and the Bicycle, Pedestrian, and Trails Master Plan. Rather, Climate Compass strategies and actions would enhance the environment for pedestrians and bicyclists by expanding facilities for alternative modes of transportation, encouraging use, and increasing safety. Climate Compass strategies and actions that could result in construction activities would be required to meet all applicable standards related to encroachment and traffic control (i.e., Sections 6-13 and 6-14.02 of the City's Standard Construction Specifications). Additionally, all subsequent physical improvement projects would be required to meet City's Standard Construction Specifications and Improvement Standards as well as all State and City standards related to emergency vehicle access. While the types of facilities proposed to be constructed under the Plan are anticipated to be small-scale, project plans would be subject to review by emergency service agencies and City staff to ensure safety standards are met, as deemed necessary.

Implementation of the strategies and actions of the Climate Compass would not induce population or employment growth and, therefore, would not generate long-term increases in VMT. The types of small construction projects necessary to implement the Plan would not generate substantial automobile trips, and most construction trips would be truck trips that are not included in the CEQA Guideline definition of VMT. Implementation of the Climate Compass would involve policies and programs to increase the use of alternative forms of transportation as well as reduce overall VMT in the Planning Area. The Climate Compass quantified the reduction in community VMT based on implementation of the community transportation strategies and associated actions and determined the Plan would reduce communitywide VMT by 3.3 percent in 2030 and by 15 percent in 2045 (refer to Climate Compass Appendix C for details about the quantification approach and reduction estimates). Additional community and City operations strategies and actions also aid in reducing VMT by promoting alternative transportation; increasing accessibility to bicycle, pedestrian, and transit facilities; and installing new alternative transportation systems (e.g., 45 miles of new sidewalk and 50 miles of new bike lanes must be installed by 2030). Therefore, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of transportation is warranted. (Draft SEIR pages 3-7 and 3-8)

MITIGATION MEASURES

No mitigation is required.

FINDING

The City of Elk Grove City Council finds that, based upon substantial evidence in the record, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of this topic or findings are warranted.

7.3.14 Utilities and Service Systems

The General Plan EIR, as amended by the 2023 Subsequent EIR, determined impacts related to sufficient water supply, infrastructure, and treatment would be significant and unavoidable (2023 Subsequent EIR Impact 3.10-1). The General Plan EIR, as amended by the 2023 Subsequent EIR, also determined cumulative impacts related to water service, wastewater, and groundwater use would be significant and unavoidable (2023 Subsequent EIR Cumulative Impacts 4-17, 4-18, and 4-20).

The Climate Compass is not a growth-inducing plan and as such, would not change the density of development within the Planning Area evaluated within the General Plan EIR, as amended by the 2023 Subsequent EIR. The Plan would not introduce new residential uses within the Planning Area, which would result in new residents or housing. Since the Plan would not introduce new residents or housing, implementation of the Plan would not increase demand on water service, wastewater service, and groundwater use beyond what was evaluated within the General Plan EIR, as amended by the 2023 Subsequent EIR. Furthermore, the Plan's strategies and associated actions promote water conservation and efficiency in community and City operations, which would help to reduce demand on water service and groundwater use within the Planning Area. Therefore, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of utilities and service systems is warranted. (Draft SEIR page 3-8)

MITIGATION MEASURES

No mitigation is required.

FINDING

The City of Elk Grove City Council finds that, based upon substantial evidence in the record, implementation of the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan EIR, as amended by the 2023 Subsequent EIR. No further assessment of this topic or findings are warranted.

7.4 CHAPTER 4: CUMULATIVE IMPACTS

Impact 4-1: Cumulative Impacts Related to Energy

As discussed in greater detail in Section 3.1, "Energy," of the Draft SEIR, adoption of the Climate Compass would replace the 2019 CAP with an updated plan that is consistent with current regulations and aligned with Statewide GHG reduction goals as identified in the 2022 Scoping Plan set forth by AB 1279. As identified in the Climate Compass, GHGs in the Planning Area are primarily emitted from sources that combust fossil fuels for energy, such as gasoline and diesel in cars and natural gas in buildings. Implementation of the Plan would, overall, reduce fossil fuel consumption within the Planning Area by increasing energy efficiency and conservation, decarbonizing buildings, using renewable energy technology and sources, reducing VMT, and transitioning to zero-emission vehicles. This decrease in fossil fuel consumption within the Planning Area would result in greater electricity consumption, due to the required transition from on-site fossil fuel–powered energy (i.e., fossil natural gas combustion, diesel and gasoline use). Therefore, overall electricity demand would be expected to continue to increase throughout the Climate Compass's lifetime. Nevertheless, the Climate Compass includes measures and actions requiring investments in the city's renewable energy systems. These measures and actions, combined with the statutory renewable energy requirements of the Renewables Portfolio Standard, which the Sacramento Municipal Utility District (SMUD) must meet, would result in a broader availability of renewable energy (e.g., solar, wind) to meet this demand.

As described in Section 3.1, SMUD's 2022 Integrated Resource Plan (IRP) and the California Energy Commission's (CEC's) review of the IRP demonstrates that SMUD is capable of meeting the energy profile changes that would occur (i.e., transitioning from fossil fuel energy sources in favor of electricity, especially from renewable sources) with implementation of the Climate Compass. Additionally, the shift towards electricity sourced from renewables under the Climate Compass would be supported by SB 1020, which requires that eligible renewable energy resources and zero-carbon resources supply 90 percent of all retail sales of electricity to California end-use customers by December 31, 2035; 95 percent of all retail sales of electricity to California end-use customers by December 31, 2040; and 100 percent of all retail sales of electricity to California end-use customers by December 31, 2045. Furthermore, the Plan's strategies and actions that require the electrification and decarbonization of buildings and facilities, additional alternative transportation infrastructure, and energy efficiency and water conservation would result in a long-term reduction in energy consumption and the use of nonrenewable energy sources.

In addition, as GHG emissions are an inherent result of the generation and consumption of fossil-fuel related energy, plans that reduce fossil-fuel related energy consumption, require all-electric development, increase renewable energy generation, and improve energy efficiency are considered energy-related plans in addition to a GHG-related plan, such as the proposed Climate Compass and the 2022 Scoping Plan. The strategies and actions detailed in the Plan would improve energy efficiency, reduce energy demand (e.g., Action BF-3.1 and Action BF-3.3), and decrease transportation-related fossil fuel consumption (e.g., Action FEC-1.8 and Action FEC-1.3). Furthermore, the Plan would specifically align with the overarching goals of improved energy efficiency and reliance on renewable energy systems established in the Sacramento Area Council of Governments 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy, California Green Building Standards Code, SB 1020, EO B-55-18, SB 743, EO N-79-20, SMUD's 2030 Zero Carbon Plan, and Appendix D of the 2022 Scoping Plan.

Therefore, the Climate Compass would not result in a new or greater contribution to cumulative effects to energy beyond what was identified in the General Plan EIR, as amended by the 2023 Subsequent EIR. As such, the Plan's contribution to the less than significant cumulative impact would remain less than cumulatively considerable as identified in the General Plan EIR, as amended by the 2023 Subsequent EIR. (Draft SEIR page 4-4)

MITIGATION MEASURES

No mitigation is required.

FINDING

The City of Elk Grove City Council finds that, based upon substantial evidence in the record, the potential impacts related to the Plan's effects are less than significant, and no mitigation measures are required.

Impact 4-2: Cumulative Impacts Related to Greenhouse Gas Emissions and Climate Change

As discussed in greater detail in Section 3.2, "Greenhouse Gas Emissions And Climate Change," of the Draft SEIR, adoption and implementation of the Climate Compass would achieve the City's 2030 and 2045 GHG emission reduction goals consistent with statewide GHG reduction goals as identified in the 2022 Scoping Plan set by AB 1279. Despite minor construction and operational GHG emissions occurring with the implementation of the Climate Compass, the Plan would reduce overall GHG emissions from sources in the community and City operations. Notably, the majority of GHG reductions would be achieved through the community GHG reduction strategies and their associated actions detailed in Table 2-14 of Chapter 2, "Project Description." The total estimated community GHG emissions reductions from all quantified strategies and actions would be 380,646 $MTCO_2e$ in 2030 and 333,017 $MTCO_2e$ in 2045. While constituting a smaller portion of the City's GHG reductions, the total estimated City operations GHG emissions reductions from all quantified strategies and action would be 2,501 $MTCO_2e$ in 2030 and 2,450 $MTCO_2e$ in 2045. In addition, while implementation of the Plan would achieve the City's GHG emissions reduction targets for 2030 and 2045, the Plan also provides the City with a surplus of GHG emissions reductions. Overall, GHG emissions would be substantially reduced in 2030 and 2045 compared to the "no local action" (NLA) scenario (i.e., implementation of the General Plan without implementation of the strategies and actions included in the Climate Compass).

In addition, the Climate Compass would be consistent with and support a variety of other State and local plans, policies, and regulations related to the reduction of GHG emissions. Therefore, the Climate Compass would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. Furthermore, the Climate Compass would provide the mechanism for the City to achieve its long-term GHG reduction goals past 2030 consistent with current regulations, which was identified in the 2023 Subsequent EIR as necessary to address the City's long-term GHG impacts. As such, the Climate Compass would result in a substantially reduced contribution to cumulative effects related to GHG emissions and climate change compared to what was identified in the General Plan EIR, as amended by the 2023 Subsequent EIR. As such, the Plan's contribution to this significant cumulative impact would be reduced to less than cumulatively considerable. (Draft SEIR page 4-5)

MITIGATION MEASURES

No mitigation is required.

FINDING

The City of Elk Grove City Council finds that, based upon substantial evidence in the record, the potential impacts related to the Plan's effects are less than significant, and no mitigation measures are required.

8 FINDINGS REGARDING ALTERNATIVES

Section 15126.6(a) of the State CEQA Guidelines requires the discussion of "a reasonable range of alternatives to a project, or the location of a project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project and evaluate the comparative merits of the alternatives." The Final SEIR identified and considered the following reasonable range of feasible alternatives to the proposed Plan which would be capable, to varying degrees, of reducing identified impacts:

- Alternative 1: No Project Alternative
- Alternative 2: Removal of Flexible Path Energy Efficiency Standards Alternative
- Alternative 3: Transit Expansion Alternative

These alternatives are evaluated for their ability to avoid or substantially lessen the impacts of the proposed Plan identified in the Final SEIR, as well as consideration of their ability to meet the basic objectives of the proposed Plan as described in the Final SEIR.

8.1 ALTERNATIVE 1: NO PROJECT ALTERNATIVE

8.1.1 Description

The No Project Alternative assumes the Climate Compass would not be adopted and implemented and the City's climate action planning efforts would continue to be guided under the currently adopted 2019 CAP, which is not consistent with statewide GHG reduction goals as identified in the 2022 Scoping Plan, as directed by AB 1279. Under this alternative, the City would not adopt updated strategies and actions to reduce GHG emissions in accordance with these State-mandated reduction targets and future GHG emissions forecasts and reductions would be based on the NLA scenario from the Climate Compass. (Draft SEIR page 5-7)

8.1.2 Finding

Implementation of this alternative would result in greater impacts related to energy consumption and GHG emissions compared to the impacts of the Plan. Furthermore, the No Project Alternative would not meet the project objectives, including developing an updated CAP to align the City's climate action planning with California's GHG emissions reduction goals and relevant regulations aimed at climate mitigation or implementing strategies and actions to transition the city away from fossil fuels and realize deep GHG emissions reductions through the near- and long-term future. Therefore, the City of Elk Grove City Council rejects the No Project Alternative as undesirable as it would not meet any of the project objectives and would result in greater environmental impacts compared to the Plan.

8.1.3 Analysis

Under Alternative 1, the City's climate action planning efforts would continue to be guided solely under the currently adopted 2019 CAP as well as by federal and State legislative actions, and, thus, under this alternative, the Plan's benefits related to energy would not occur. For example, this alternative would not reduce reliance on fossil fuels to the same extent as the proposed Plan. Because a new CAP would not be adopted and implemented under Alternative 1, the City would continue to use fossil fuel energy sources, including natural gas, diesel, and gasoline at greater levels than with the implementation of the Plan's actions. Without a new CAP, Alternative 1 lacks a mechanism that requires the City to transition from fossil fuel energy use to carbon-free energy use outside of the requirements of the legislative actions.

While development under Alternative 1 would be required to comply with applicable federal and State legislative actions over the long-term (i.e., through 2045) similar to the Plan, Alternative 1 would not provide the same level of long-term reduction in fossil fuel energy consumption and use of carbon-free energy sources. In addition, Alternative 1 would not provide the same level of public health or energy efficiency benefits to the City as the Plan. Therefore, Alternative 1 would have a greater impact on energy consumption than the Plan.

Regarding GHG emissions, Alternative 1 would continue to reduce GHG emissions, although to a much lesser degree than the Plan, within the City throughout the foreseeable future. However, this alternative would not meet the City's 2030 and 2045 GHG reduction targets, which would be considered a potentially significant impact. To mitigate this potentially significant impact to a less-than-significant level, a CAP or similar type of plan would need to be developed for the City to provide the strategies and associated actions to serve as the mechanism to reduce GHG emissions consistent with statewide GHG reduction goals as identified in the 2022 Scoping Plan, as directed by AB 1279. However, because the purpose of this alternative is to examine an alternative that does not implement the Plan, this mitigation has been deemed infeasible and therefore, this impact would be significant and unavoidable. As such, Alternative 1 would result in a greater GHG emissions impact compared to the Climate Compass. (Draft SEIR pages 5-8 and 5-9)

8.2 ALTERNATIVE 2: REMOVAL OF ADVANCED BUILDING STANDARDS ACTIONS ALTERNATIVE

8.2.1 Description

Alternative 2 assumes the Climate Compass would be adopted with the exclusion of Actions BE-1.1, requiring the City to adopt flexible path energy efficiency standards in 2026, and TR-2.1, requiring the City to adopt higher EV charging infrastructure for new commercial development, from the Community GHG Emissions Reduction Strategies and associated actions list. Under this alternative, all strategies and associated actions included for City operations under the Climate Compass would remain the same. Specifically, Actions BE-1.1 and TR-2.1 require the City to adopt building standards that would require all new residential and nonresidential construction and major renovations to meet flexible path energy efficiency standards, compliant with State and Federal law and based on cost-effectiveness studies, stakeholder input, and CEC approval and require higher EV charging infrastructure for new commercial development, respectively. (Draft SEIR page 5-9 and 5-10)

8.2.2 Finding

For the reasons set forth below and more fully described in Final SEIR and in the record of proceeding, the City of Elk Grove City Council finds that Alternative 2 is undesirable as it would result in greater impacts related to energy and GHG emissions compared to the impacts of the Plan and would not fully meet the project objectives. The City of Elk Grove City Council also finds that this alternative would not provide substantial environmental benefits over the Plan. Therefore, the City of Elk Grove City Council declines to adopt this alternative pursuant to the standards in CEQA and the State CEQA Guidelines.

8.2.3 Analysis

Alternative 2 would provide similar levels of benefits to energy efficiency and consumption compared to the Plan, with the exception of the Building and Energy and Transportation focus areas due to the elimination of Actions BE-1.1 and TR-2.1. Actions BE-1.1 and TR-2.1 require the City to adopt building standards, which would encourage transitioning from natural gas powered heating and appliances to electric alternatives for new construction and major renovations in both residential and nonresidential development and for increased EV charging at commercial uses, respectively. As such, the effects of these building standards are captured in the 2030 GHG emissions reductions since these types of building features are anticipated to become a part of the provisions of the building code over the long-term (i.e., 2045). Under Alternative 2, the removal of the building standard based on the elimination of Action BE-1.1 would result in additional

natural gas use in new development within the City. The use of new natural gas would increase fossil fuel energy consumption in the City and would not be consistent with the overall goal of the Plan to reduce reliance on fossil fuel energy sources and improve energy efficiency. In addition, under this alternative, the removal of the building standard based on the elimination of Action TR-2.1 would remove the City's ability to increase EV charging infrastructure requirements based on the characteristics of new commercial development above the mandatory provisions of the CALGreen Code. While the elimination of Action TR-2.1 would not necessarily generate additional energy consumption, it would remove the mechanism the City could use to make new development include EV infrastructure above the mandatory provisions of CALGreen Code. Therefore, while Alternative 2 would generally be similar to the Plan, this alternative would have greater impacts on energy than the Plan.

Under Alternative 2, the removal of Actions BE-1.1 and TR-2.1 would reduce the total estimated community GHG emissions reductions from all strategies quantified in 2030 to 336,414 $MTCO_2e$, compared to 380,646 $MTCO_2e$ under the Plan. In total, by eliminating Actions BE-1.1 and TR-2.1, Alternative 2 would not provide 44,232 $MTCO_2e$ of GHG emissions reductions for 2030 that is provided under the Plan. While this alternative would still meet the City's 2030 and 2045 GHG reduction targets, Alternative 2 would not provide as large of a buffer for the City to meet its 2030 and 2045 GHG reduction target (i.e., -8,799 $MTCO_2e$ in 2030 and -8,010 $MTCO_2e$ in 2045 under Alternative 2 compared to -53,031 $MTCO_2e$ in 2030 and -10,519 $MTCO_2e$ in 2045 under the Climate Compass). Therefore, Alternative 2 would have greater impacts on GHG emissions than the Plan. (Draft SEIR page 5-10 and 5-11)

8.3 ALTERNATIVE 3: TRANSIT EXPANSION ALTERNATIVE

8.3.1 Description

Alternative 3 assumes the Climate Compass would be amended to include a new action (i.e., TR-1.9) to support Community Strategy TR-1, "Decrease Vehicle Miles Traveled," and its associated actions (i.e., TR-1.1 through TR-1.8). The new Action TR-1.9 would be developed to include the expansion of bus services within the southwestern area of the City to support future fixed route light rail transit and/or bus rapid transit extension projects carried forward by the City in partnership with Sacramento Regional Transit (SacRT) (i.e., Blue Line/Bus Rapid Transit extension project or other future projects implemented under SacRT on the Move: Short-Range Transit Plan). Under this alternative, the City would work with SacRT to provide financial resources for additional bus line(s) within the southwestern area of the City (refer to Figure 5-1 in Chapter 5, "Alternatives"). In addition, the headways of the existing bus routes that run within city limits would be shorten to every 15 minutes to decrease wait times and increase connectivity to the larger transit system, which in turn would incentivize using the City's alternative transportation system and ultimately decrease VMT and GHG emissions. (Draft SEIR page 5-11)

8.3.2 Finding

For the reasons set forth below and more fully described in Final SEIR and in the record of proceeding, the City of Elk Grove City Council finds that while Alternative 3 would meet the project objectives and would result in similar impacts to energy and GHG emissions as the Plan, Alternative 3 is undesirable because it would not provide substantial environmental benefits over the Plan. As described in the Final SEIR, Alternative 3 is identified as the environmentally superior alternative because this alternative would be similar to the Plan but would include an additional action to expand the transit system to improve connectivity between the local and regional transit and bus systems. Implementation of Alternative 3 would promote use of the city's alternative transportation system and ultimately decrease VMT and single occupancy vehicle trips while also further reducing VMT-generated GHG emissions. However, implementation of this alternative would require further coordination with SacRT on changes to transit service operations and additional funding resources that may not ultimately be available or feasible to obtain. Therefore, the City of Elk Grove City Council declines to adopt this alternative pursuant to the standards in CEQA and the State CEQA Guidelines.

8.3.3 Analysis

Under Alternative 3, the new Action TR-1.9 would require the City to coordinate with SacRT to add bus routes within the urban core of the city and increase existing bus headways to every 15 minutes to improve connectivity between the regional transit system and local transit system. Implementation of Action TR-1.9 would help to further reduce reliance on fossil fuel energy consumption by expanding alternative transportation services within the city to areas currently not fully served by transit as well as increase the frequency to help incentivize the use of such services. By increasing reliability and accessibility, more residents are anticipated to use alternative transportation regularly, which would help reduce VMT and reduce fossil fuel consumption in single-occupancy vehicles. While increasing bus routes and headways would promote the use of alternative transportation, it is speculative at this time to determine if this alternative would be different enough from the Plan, from an impact perspective, to differentiate from the Plan's benefits. Therefore, this alternative would result in similar impacts to energy as the Plan.

Increasing the number of bus routes under Alternative 3 would be expected to result in additional GHG emissions reductions as the new bus routes would be along roadways that currently do not have bus routes and are located in proximity to the planned blue line extension in the City's General Plan, where they would provide alternative transportation services to new residents/areas of the city and help to further reduce VMT-generated GHG emissions by increasing alternative transportation services in the city. While increasing bus routes and headways would increase the frequency and timing of the local bus system and would help to improve connectivity within the City and with the regional transit system, it is speculative at this time to determine if increasing existing bus headways would result in additional GHG emissions reductions that are substantial enough to differentiate from the benefits of the Plan. Therefore, this alternative would result in similar impacts to GHGs and climate change as the Plan. (Draft SEIR pages 5-11 and 2-12).

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ELK GROVE FINDING NO FURTHER ENVIRONMENTAL REVIEW IS REQUIRED AND ADOPTING AMENDMENTS TO THE ELK GROVE GENERAL PLAN

General Plan Amendment 2026-1

WHEREAS, in 2013 the City Council of the City of Elk Grove (City) adopted the first Elk Grove Climate Action Plan (CAP); and

WHEREAS, in 2019 the City Council adopted an update to the Elk Grove CAP; and

WHEREAS, the adoption of the 2019 CAP was completed as part of a comprehensive update to the City's General Plan, for which an Environmental Impact Report (EIR) was certified (SCH No 2017062058); and

WHEREAS, in 2021, the City amended the General Plan to adopt the 2021 Housing Element, including amendments to the General Plan Implementation Strategy, and a Subsequent Environmental Impact Report for the Housing Element Update (SCH No. 2020069032) certified by the City Council on May 12, 2021; and

WHEREAS, the City has prepared a comprehensive update to the 2019 CAP, titled the *Climate Compass: A Plan for Implementing Elk Grove's Climate, Sustainability, and Resilience Goals*; and

WHEREAS, amendments to the General Plan are necessary to support adoption of the Climate Compass; and

WHEREAS, the City conducts periodic updates to the Elk Grove General Plan to ensure compliance with current laws, changes in local policy, consistency with adopted plans and programs, changing market conditions, best practices, and to address issues or concerns with current regulations; and

WHEREAS, amendments to the General Plan were identified by staff to reflect corrections to the Implementation Plan for the General Plan; and

WHEREAS, the City determined that the Climate Compass is subject to the California Environmental Quality Act (CEQA), Public Resources Code 21000 et seq. and that an Environmental Impact Report (EIR) shall be prepared to evaluate the potential environmental effects of the Project; and

WHEREAS, the City has prepared a Supplemental EIR (SEIR) as part of the Climate Compass development; and

WHEREAS, on December 6, 2024, the City released a Notice of Preparation for the SEIR; and

WHEREAS, on June 27, 2025, the City released the Draft Climate Compass, Draft Supplemental EIR, and a Notice of Availability for the Supplemental EIR, collecting public comments through August 15, 2025; and

WHEREAS, the Planning Commission held a duly-noticed public hearing on May 7, 2026, as required by law to consider all of the information presented by staff, and public testimony presented in writing and at the meeting and voted 4-0 (Singha absent) to recommend approval to the City Council; and

WHEREAS, the City Council held a duly-noticed public hearing on June 10, 2026, as required by law to consider all of the information presented by staff, and public testimony presented in writing and at the meeting.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Elk Grove hereby finds no further CEQA review is required based upon the following finding:

CEQA – Implementation Strategy Amendments

Finding: No further environmental review is required under the California Environmental Quality Act.

Evidence: The revisions to the General Plan related to the Implementation Strategy were previously included in the General Plan and unintentionally removed when amendments to the Implementation Work Program Table were undertaken in December 2025. The two specific action items were previously analyzed as part of the Subsequent Environmental Impact Report for the Housing Element Update (SCH No. 2020069032) certified by the City Council on May 12, 2021. Therefore, no further environmental review is necessary pursuant to State CEQA Guidelines Section 15183 (Consistency with a Community Plan, General Plan and Zoning).

CEQA – Climate Compact Supporting General Plan Amendments

Finding: A Supplemental EIR has been certified for the Climate Compass in accordance with the California Environmental Quality Act (CEQA) and no further review is required.

Evidence: Approval of the Climate Compass requires a Supplemental EIR. That Supplemental EIR was certified by the City Council on _____ by Resolution _____.

On February 27, 2019, the City Council adopted the General Plan Update and the 2019 CAP and certified the General Plan Update EIR (SCH No. 2017062058). The General Plan Update EIR programmatically evaluated both the General Plan Update and 2019 CAP as separate documents. On December 13, 2023, the City adopted the General Plan Amendments and Update of VMT Standards Project (GPAs/VMT Standards Project) and certified the Subsequent EIR to the General Plan Update EIR (2023 Subsequent EIR) (SCH No. 2022020463). The GPAs/VMT Standards Project did not include an update to the 2019 CAP but amended the General Plan with increased residential densities and mixed-use opportunities associated with the creation of the Livable Employment Area Community Plan (LEA Community Plan). The intent of the LEA Community Plan is to connect transportation with land-use planning and design in recognition that the most economically, socially, and environmentally successful communities are walkable and contain a mix of uses. As identified in the 2023 Subsequent EIR, this change in development intensity and other associated to the General Plan results in improved VMT limits by land use designation as well as reduced per capita GHG emissions in 2040 (2.9 MTCO2e per year) as compared to what is identified in the 2019 CAP for 2050 (3.0 MTCO2e per year). This updated version of the General Plan is the foundational land use plan used for the Climate Compass.

The draft environmental document for the Climate Compass has been prepared as a Supplemental EIR pursuant to CEQA Guidelines Section 15163. Per State CEQA Guidelines Section 15163, a lead agency may choose to prepare a Supplemental EIR

when only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation. The Climate Compass is proposed as an update to the City's current CAP as evaluated in the General Plan Update EIR and utilizes the City's current land use plan and map as evaluated in the 2023 Subsequent EIR. As such, the Climate Compass would require minor changes to these previous EIRs, and the City has determined that preparation of a Supplemental EIR to the General Plan Update EIR, as amended by the 2023 Subsequent EIR, is the appropriate CEQA document for the Project.

Per CEQA Guidelines Section 15163(b), the Supplemental EIR need only contain the information necessary to make the previous EIR adequate for the project, as revised. The Draft Supplemental EIR analyzes the potentially significant environmental impacts resulting from implementation of the Climate Compass. As a result of the review of existing information and the scoping process, the Draft Supplemental EIR includes an evaluation of the following two environmental issue areas as well as other CEQA-mandated issues (e.g., cumulative impacts, growth-inducing impacts, significant unavoidable impacts, alternatives):

- energy, and
- greenhouse gas emissions and climate change.

The Supplemental EIR identified that the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan Update EIR, as amended by the 2023 Subsequent EIR.

The City prepared a Notice of Preparation (NOP) and circulated it to public agencies and interested parties (including the general public) on December 6, 2024, with a public scoping meeting held on January 9, 2025. The NOP provided an introduction to the Project and solicited input on the scope and content of the environmental document. Comments were requested by January 15, 2025, consistent with the requirements of the State CEQA Guidelines. The NOP and public comments received and staff responses are included in the Draft Supplemental EIR.

On June 27, 2025, concurrent with the public availability of the draft Climate Compass, the City released the Draft Supplemental EIR. The Draft Supplemental EIR was made available for public review and comment on the City's website and at City Hall for a period of 49 days. Public comments on the Draft Supplemental EIR were due to the City on August 15, 2025. A total of 5 five comment letters were received. Responses to these comments have been prepared by staff and are included in the Final Supplemental EIR.

The Final Supplemental EIR also includes an erratum of changes to the Draft Supplemental EIR as a result of the public comments on the Project, the comments to the Draft Supplemental EIR, and other revisions to the Project as identified by the City. The Final Supplemental EIR indicates that the modifications to the Project are minor in nature and do not cause any change in significant impacts that were analyzed in the Draft Supplemental EIR.

AND, BE IT FURTHER RESOLVED, that the City Council of the City of Elk Grove hereby adopts revisions to the General Plan related to the Implementation Strategy, attached as Exhibit A and incorporated herein by this reference, based upon the following findings:

Finding: The proposed revisions to the General Plan related to the Implementation Strategy are of substantial benefit to the City and are internally consistent with the General Plan.

Evidence: The proposed revisions to the General Plan are edits to replace action items unintentionally removed from the General Plan. The revisions are intended to correct an inadvertent error in these items being removed from the General Plan and will continue to ensure visibility with State requirements. These items were previously included in the General Plan and only removed in December 2025. They have been previously analyzed as part of the Subsequent Environmental Impact Report for the Housing Element Update (SCH No. 2020069032) certified by the City Council on May 12, 2021. Therefore, no further environmental review is necessary pursuant to State CEQA Guidelines Section 15183 (Consistency with a Community Plan, General Plan and Zoning).

AND, BE IT FURTHER RESOLVED that the City Council of the City of Elk Grove hereby adopts textual modifications to the General Plan related to the Climate Compass. attached as Exhibit B and incorporated herein by this reference, based upon the following findings:

Finding: The proposed textual modifications to the General Plan related to the Climate Compass are of substantial benefit to the City and they are internally consistent with the General Plan.

Evidence: The proposed modifications to the General Plan are textual edits to ensure internal consistency between the General Plan and the updated GHG emissions inventory and projections included in the Climate Compass. The modifications align General Plan language related to GHG emission reduction targets with those set by the State in AB 1279 and with those identified for the City in the Climate Compass. Achieving these GHG emission reduction targets is anticipated to result in environmental and social benefits, such as improved air quality and increased community resilience. The proposed General Plan modifications are of substantial benefit to the City as they identify further reductions in GHG emissions anticipated to occur as a result of the Climate Compass actions and align specific General Plan policies to support those reductions. Additionally, the modifications are internally consistent with the General Plan.

PASSED AND ADOPTED by the City Council of the City of Elk Grove this 10th day of June 2026

BOBBIE SINGH-ALLEN, MAYOR of the
CITY OF ELK GROVE

ATTEST:

JASON LINDGREN, CITY CLERK

APPROVED AS TO FORM:

JONATHAN P. HOBBS
CITY ATTORNEY

Exhibit A
Proposed General Plan Revisions Related to Implementation Strategy

Proposed changes are shown in ~~strikeout~~ (for deleted text) and underline (for added text).

Changes to Chapter 10 Implementation Strategy

Chapter 10 (Implementation Strategy) shall be revised as follows:

Pages 10-18 – 10-29

Action	Related Policies and Standards	Time Frame	Action Lead	Action Support
2. HOUSING PROGRAMS				
2.10 Parking Study Conduct a parking study to determine parking needs for senior housing and affordable housing projects. Based on results, continue to allow flexibility in development standards, such as parking reductions for senior projects, and by allowing development incorporating universal design measures. The City will also review parking requirements for emergency shelters to ensure that parking standards are sufficient to accommodate all staff, provided standards do not require more parking for emergency shelters than other residential or commercial uses within the same zone. Potential Funding Source: City Development Services Fund, SB2/LEAP or REAP Funding	H-2-4, H-3-1	Complete parking study by December 2021, allow flexibility as projects are processed through the Development Services Department. Review parking standards for emergency shelters and amend, if necessary, by December 2021.	Strategic Planning and Innovation	Community Development – Development Services (Planning and Building Divisions)
2.11 ~~2.10~~ Homeless Needs Assessment …				
2.12 ~~2.11~~ Developmental Disability Services …				
2.13 ~~2.12~~ Low-Barrier Navigation Centers …				

2.14 Transitional and Supportive Housing Amend the Zoning Code to comply with Government Code Section 65583(c)(3), which deals with transitional and supportive housing. The City will amend the Zoning Ordinance to allow transitional and supportive housing in the mobile home subdivision (RM-1) and Mobile Home Park Combining District (MHP) zones as a residential use subject only to those restrictions that apply to other residential dwellings of the same type in the same zone. The City will also amend the Zoning Ordinance to allow supportive housing in the Light Industrial (LI) zone, as a residential use subject only to those restrictions that apply to other residential dwellings of the same type in the same zone. Potential Funding Source: City Development Services Fund	H-3-1	Within one year from adoption of the Housing Element	Community Development – Development Services (Planning Division)	
2.15 ~~2.13~~ Affordable Housing Database …				
2.16 ~~2.14~~ Development Incentives for Low Income Households and Special-Needs Groups …				
2.17 ~~2.15~~ Rehabilitation Programs …				
2.18 ~~2.16~~ Utility Assistance …				
2.19 ~~2.17~~ Affirmatively Further Fair Housing …				
2.20 ~~2.18~~ Monitor At-Risk Units …				
2.21 ~~2.19~~ Innovative Housing Options …				
2.22 ~~2.20~~ Housing Choice Voucher Acceptance …				
2.23 ~~2.21~~ Housing Choice Voucher Education …				

Exhibit B
Proposed General Plan Textual Modifications Related to the Climate Compass

Proposed changes are shown in ~~strikeout~~ (for deleted text) and underline (for added text).

Changes to Chapter 7 Community and Resource Protection

Chapter 7 (Community and Resource Protection) shall be revised as follows:

Page 7-20

Greenhouse Gas Emissions

Greenhouse gas (GHG) emissions contribute to local air quality concerns. The California Climate Crisis ~~Global Warming Solutions~~ Act (Assembly Bill [AB] 1279 ~~32~~) requires ~~that~~ California to achieve net-zero ~~significantly reduce its emissions of~~ GHG~~s~~ emissions and an 85 percent reduction in anthropogenic GHG emissions by 2045. ~~in order to minimize the impacts of climate change.~~ To ensure the City is taking steps to meet its fair share of the State's GHG reduction goals, Elk Grove has completed an inventory of GHG emissions and adopted a Climate Action Plan (CAP), titled the Climate Compass. Table 7-1 categorizes Citywide GHG emissions by sector as of 2021 ~~2013~~ (listed as metric tons of carbon dioxide equivalents, or MTCO2e) the most recent year for which an inventory has been completed.

The Climate Compass ~~CAP~~ and the General Plan outline GHG emissions reduction targets for future years that are designed to reduce emissions within the Elk Grove community in a manner consistent with State regulations and guidelines. Because GHGs are generated by a variety of sources, a varied approach to reducing GHG emissions is most effective. The Climate Compass ~~CAP~~ inventory of GHG emissions indicate that major emissions sources in the city include residential and commercial/industrial building energy use and~~,~~ on-road vehicles, with smaller emission sources from off-road vehicles, solid waste, and wastewater. The Climate Compass ~~CAP~~ establishes that emissions in the baseline year, 2021 ~~2013~~, were 5.8~~6~~ MTCO2e per capita and communitywide equaled 1,039,181~~918,790~~ MTCO2e.

TABLE 7-1:
2021 ~~2013~~ CITYWIDE EMISSIONS BY SECTOR

Sector	2005 MTCO2e	Percent of Total	2013 MTCO2e	Percent of Total	2021 MTCO2e	Percent of Total
Residential built environment	225,190	28%	231,400	25%	271,900	26%
Nonresidential built environment	103,170	13%	129,860	14%	126,465	12%
Transportation (on-road vehicles)	348,370	43%	430,340	47%	586,220	56%
Off-road equipment	83,800	10%	93,340	10%	18,341	2%
Solid waste	36,380	5%	26,260	3%	20,222	2%
Water and wastewater	3,070	<1%	6,562	<1%	5,759	<1%
Agriculture	5,450	<1%	1,030	<1%	10,275	1%
Total	808,410	100%	918,790	100%	1,039,181	100%

Source: Compiled by Ascent Environmental ~~2018~~ 2023

If all community activities were to continue under a business-as-usual scenario with no reduction measures they would reach 1,326,277 ~~1,523,936~~ MTCO2e by 2030, a 28 ~~65~~ percent increase over 2021~~13~~. However, the Climate Compass ~~CAP~~ estimates that with measures taken as a result of the State's legislative actions emission would reduce those emissions to 4.2~~5~~ MTCO2e per capita by 2030 and 1.6~~4.3~~ MTCO2e per capita by 2045~~50~~, resulting in community emissions of 966,427 ~~888,509~~ and 483,474 ~~978,881~~ respectively for those years. Measures

outlined in the General Plan and Climate Compass ~~CAP~~ would further reduce the community's emissions to 2.8 ~~3.8~~ MTCO2e per capita by 2030 and 0.5 ~~3.0~~ MTCO2e per capita by 2045 ~~2050~~. These reductions are projected results of twenty-one ~~reduction measures~~ strategies contained in the Climate Compass ~~CAP~~ in ~~three~~ six broad policy areas: buildings and energy ~~built environment~~, transportation, resilience and adaptation, resource consumption ~~conservation~~, green economy, and climate action commitment ~~transportation~~. The greatest percentage of these reductions, ~~56~~82% in 2030 and 52% in 2045, would be achieved through efficiency and renewable energy improvements to the built environment, while ~~resource conservation measures would result in a 12% reduction, and~~ transportation ~~alternatives and congestion management measures~~ strategies would result in a ~~32~~17% reduction in 2030 and a 39% reduction in 2045. Other strategies account for less than two percent of GHG reductions in 2030 and less than ten percent in 2045.

Co-Benefits

Preserving natural resources offers a wide range of co-benefits that extend beyond environmental protection. Co-benefits can be additional social, economic, or environmental benefits derived from a program, policy, or intervention. For example, expanding the urban tree canopy will reduce greenhouse gases by absorbing carbon dioxide, reduce the urban heat island by providing more natural shade and evapotranspiration, and can improve public health and quality of life by encouraging walking, cycling, and other physical activities. Intact natural systems improve public health through better air and water quality, support greater community resilience through providing natural flood control, help reduce greenhouse gas emissions by supporting carbon storage, and create greater local food production through improved soil health. Additionally, protecting natural resources may help advance social equity by ensuring that all communities have access to the environmental, cultural, and health benefits nature provides.

NATURAL RESOURCE MANAGEMENT

In addition to conserving and protecting the natural ecosystem in and around Elk Grove, long-term planning requires careful management of elements of the natural environment that provide resources which residents of Elk Grove use to meet their daily needs. These include the local water supply as well as the generation of energy to power homes and businesses.

GOAL NR-5: REDUCED GREENHOUSE GAS EMISSIONS THAT ALIGN WITH LOCAL, STATE, AND OTHER GOALS

In accordance with State law aimed at combatting climate change, the City will take steps to reduce local GHG emissions, as set forth in Elk Grove's adopted CAP. This includes working to achieve GHG reduction targets related to transportation and energy usage in buildings, as well as coordinating with regional and State agencies to reduce GHG emissions from other stationary sources.

Policies: Green–house Gas Emissions

Policy NR-5-1: By 2030, reduce per capita emissions greenhouse gas emissions to ~~4.1~~ 2.8 MTCO2e. By 2045 ~~2050~~, reduce per capita greenhouse gas emissions to 0.5 ~~1.4~~ MTCO2e to meet the State's 2045 ~~2050~~ greenhouse gas emissions reduction goals.

Policy NR-5-2: Improve the health and sustainability of the community through improved regional air quality and reduction of greenhouse gas emissions that contribute to climate change.

Policy NR-5-3: Support efforts by the Sacramento Metropolitan Air Quality Management District and the California Air Resources Board to decrease greenhouse gas emissions from stationary sources.

Policy NR-5-4: Preserve, protect, and enhance, as appropriate, the community's carbon sequestration resources to improve air quality and reduce net carbon emissions.

GOAL NR-6: REDUCED ENERGY DEMAND AND INCREASED RENEWABLE SOURCES

The City seeks to promote sustainable energy in Elk Grove through

an integrated approach that addresses both the demand and supply sides of the energy equation. This includes steps to reduce energy consumption through energy conservation and efficiency and to encourage the use of energy derived from renewable sources, particularly solar energy.

Elk Grove will need to continue increasing available renewable energy options to meet rising State standards and consumer demands. Investing in renewable energy technologies, incentivizing private clean energy projects, and ensuring ease of installation and use of renewable energy infrastructure will help the City meet or exceed these goals.

Policies: Energy Conservation

Policy NR-6-1: Promote energy efficiency and conservation strategies to help residents and businesses save money and conserve valuable resources.

Policy NR-6-2: Improve energy efficiency by identifying savings measures for City facilities in building materials and operations.

Standard-6-2.a: Construct new municipal facilities as all-electric and retrofit existing buildings to be fully electric with equipment upgrades or replacement. ~~Design new municipal facilities to meet at a minimum the baseline Leadership in Energy and Environmental Design (LEED) certification criteria.~~

Policy NR-6-3: Promote innovation in energy efficiency.

Policy NR-6-4: Explore public-private partnerships to upgrade existing buildings for energy efficiency.

Policy NR-6-5: Promote energy conservation measures in new development to reduce on-site emissions and seek to reduce the energy impacts from new residential and commercial projects through investigation and implementation of energy efficiency measures during all phases of design and development.

Policies: Renewable Energy Resources

Policy NR-6-6: Encourage renewable energy options that are affordable and benefit all community members.

Policy NR-6-7: Encourage the use of solar energy systems in homes, commercial businesses, and City facilities as a form of renewable energy.

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Policies: Sustainability

Policy SD-1-1: Participate in local, regional, and Statewide sustainability efforts and programs that further the goals and policies outlined in the General Plan.

Policy SD-1-2: Assess the City's progress toward achieving its sustainability objectives.

Policy SD-1-3: Promote the use of local and environmentally friendly products and services for municipal purchases and contracts.

Policy SD-1-4: Use funding and financing mechanisms to support sustainability and environmentally friendly government programs.

GOAL SD-2: GREEN BUILDING

Green building techniques are an effective way of reducing the environmental impacts created by development, and green buildings have been shown to use significantly less energy than traditional buildings. These policies demonstrate the City's leadership in promoting green development in Elk Grove.

Policies: Green Building

Policy SD-2-1: Incorporate green building techniques and best management practices in the site design, construction, and renovation of all public projects.

Standard SD-2-1.a: Design new municipal facilities to meet CALGreen Tier 1 standards. ~~Require all new municipal developments to exceed State Title 24 Energy Efficiency Standards by 15 percent, to the extent such efficiencies are possible.~~

Policy SD-2-2: Support innovation and green building best management practices for all new private development.

Changes to Chapter 10 Implementation Strategy

Chapter 10 (Implementation Strategy) shall be revised as follows:

Pages 10-32, 10-33

Action	Related Policies and Standards	Time Frame	Action Lead	Action Support
4. TRANSPORATION PLANS AND PROGRAMS				
4.5 ~~Incentives for Alternative Fueling Stations.~~ ~~Develop incentives and compile information to encourage property owners of existing gas stations to install facilities for alternative/clean fuels, such as hydrogen, biodiesel and EV charging.~~ **EV Infrastructure Partnership**. Formalize a partnership with SMUD to collaborate on EV infrastructure planning, defining shared goals, responsibilities, and a framework for coordinating EV infrastructure planning, rate structures, incentive programs, and educational initiatives.	MOB-7-9, NR-4-3	~~FY 20/21–FY 22/23~~ FY 26/27–FY 27/28	Civic Innovation – Sustainability	~~Economic Development~~ Community Development
4.6 ~~EV Charging Facility Incentives.~~ ~~Partner with SMUD to develop incentives for existing commercial and multifamily residential properties seeking to install electric vehicle charging facilities. Incentives may relate to subsidize or waived fees for City permits and inspections.~~ **EV Infrastructure Planning.** Conduct a citywide study to identify optimal locations for public and multifamily residential EV charging stations based on traffic patterns, proximity to major destinations, equity, and existing electrical infrastructure.	NR-4-3, NR-5-1, NR-5-2	~~FY 20/21–FY 22/23~~ FY 26/27– FY 27/28	~~Civic Innovation – Sustainability~~ Community Development	~~Economic Development~~ ~~Community Development~~ Civic Innovation – Sustainability

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ELK GROVE FINDING NO FURTHER ENVIRONMENTAL REVIEW IS REQUIRED AND ADOPTING THE CLIMATE COMPASS: A PLAN FOR IMPLEMENTING ELK GROVE'S CLIMATE, SUSTAINABILITY, AND RESILIENCE GOALS AND AUTHORIZING THE CITY MANAGER TO ADOPT AND REVISE ADMINISTRATIVE POLICIES TO IMPLEMENT THE VISION, OBJECTIVES, STRATEGIES, AND ACTIONS OUTLINED IN THE CLIMATE COMPASS

PROJECT SP0013

WHEREAS, in 2013 the City Council of the City of Elk Grove (City) adopted the first Elk Grove Climate Action Plan (CAP); and

WHEREAS, in 2019 the City Council adopted an update to the Elk Grove CAP; and

WHEREAS, the adoption of the 2019 CAP was completed as part of a comprehensive update to the City's General Plan, for which an Environmental Impact Report (EIR) was certified (SCH No 2017062058); and

WHEREAS, with the adoption of the 2019 CAP, the City committed to undertaking updates to the CAP every five years to ensure new programs, technologies, and emissions reductions strategies can be leveraged to meet the City's greenhouse gas (GHG) reduction goals; and

WHEREAS, numerous State and Federal regulations and requirements have been adopted since 2019 relative to reducing GHG emissions; and

WHEREAS, the City has prepared a comprehensive update to the 2019 CAP, titled the *Climate Compass: A Plan for Implementing Elk Grove's Climate, Sustainability, and Resilience Goals*; and

WHEREAS, the City determined that the Climate Compass is subject to the California Environmental Quality Act (CEQA), Public Resources Code 21000 et seq. and that an Environmental Impact Report (EIR) shall be prepared to evaluate the potential environmental effects of the Project; and

WHEREAS, the City has prepared a Supplemental Environmental Impact Report (EIR) as part of the Climate Compass development; and

WHEREAS, on December 6, 2024, the City released a Notice of Preparation for the Supplemental EIR; and

WHEREAS, on June 27, 2025, the City released the Draft Climate Compass, Draft Supplemental EIR, and a Notice of Availability for the Supplemental EIR, collecting public comments through August 15, 2025; and

WHEREAS, the Planning Commission held a duly-noticed public hearing on May 7, 2026, as required by law to consider all of the information presented by staff, and public testimony presented in writing and at the meeting and voted 4-0 (Singha absent) to recommend approval to the City Council; and

WHEREAS, the City Council held a duly-noticed public hearing on June 10, 2026, as required by law to consider all of the information presented by staff, and public testimony presented in writing and at the meeting; and

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Elk Grove hereby finds no further CEQA review is required based upon the following finding:

CEQA

Finding: A Supplemental EIR has been certified for the Climate Compass in accordance with the California Environmental Quality Act (CEQA) and no further review is required.

Evidence: Approval of the Climate Compass requires a Supplemental EIR. That Supplemental EIR was certified by the City Council on _____ by Resolution _____.

On February 27, 2019, the City Council adopted the General Plan Update and the 2019 CAP and certified the General Plan Update EIR (SCH No. 2017062058). The General Plan Update EIR programmatically evaluated both the General Plan Update and 2019 CAP as separate documents. On December 13, 2023, the City adopted the General Plan Amendments and Update of VMT Standards Project (GPAs/VMT Standards Project) and certified the Subsequent EIR to the General Plan Update EIR (2023 Subsequent EIR) (SCH No. 2022020463). The GPAs/VMT Standards Project did not include an update to the 2019 CAP but amended the General Plan with increased residential densities and mixed-use opportunities associated with the creation of the Livable Employment Area Community Plan (LEA Community Plan). The intent of the LEA Community Plan is to connect transportation with land-use planning and design in recognition that the most economically, socially, and environmentally successful communities are walkable and contain a mix of uses. As identified in the 2023 Subsequent EIR, this change in development intensity and other associated to the General Plan results in improved VMT limits by land use designation as well as reduced per capita GHG emissions in 2040 (2.9 MTCO2e per year) as compared to what is identified in the 2019 CAP for 2050 (3.0 MTCO2e per year). This updated version of the General Plan is the foundational land use plan used for the Climate Compass.

The draft environmental document for the Climate Compass has been prepared as a Supplemental EIR pursuant to CEQA Guidelines Section 15163. Per State CEQA Guidelines Section 15163, a lead agency may choose to prepare a Supplemental EIR when only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation. The Climate Compass is proposed as an update to the City's current CAP as evaluated in the General Plan Update EIR and utilizes the City's current land use plan and map as evaluated in the 2023 Subsequent EIR. As such, the Climate Compass would require minor changes to these previous EIRs, and the City has determined that preparation of a Supplemental EIR to the General Plan Update EIR, as amended by the 2023 Subsequent EIR, is the appropriate CEQA document for the Project.

Per CEQA Guidelines Section 15163(b), the Supplemental EIR need only contain the information necessary to make the previous EIR adequate for the project, as revised. The Draft Supplemental EIR analyzes the potentially significant environmental impacts resulting from implementation of the Climate Compass. As a result of the

review of existing information and the scoping process, the Draft Supplemental EIR includes an evaluation of the following two environmental issue areas as well as other CEQA-mandated issues (e.g., cumulative impacts, growth-inducing impacts, significant unavoidable impacts, alternatives):

- energy, and
- greenhouse gas emissions and climate change.

The Supplemental EIR identified that the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan Update EIR, as amended by the 2023 Subsequent EIR.

The City prepared a Notice of Preparation (NOP) and circulated it to public agencies and interested parties (including the general public) on December 6, 2024, with a public scoping meeting held on January 9, 2025. The NOP provided an introduction to the Project and solicited input on the scope and content of the environmental document. Comments were requested by January 15, 2025, consistent with the requirements of the State CEQA Guidelines. The NOP and public comments received and staff responses are included in the Draft Supplemental EIR.

On June 27, 2025, concurrent with the public availability of the draft Climate Compass, the City released the Draft Supplemental EIR. The Draft Supplemental EIR was made available for public review and comment on the City's website and at City Hall for a period of 49 days. Public comments on the Draft Supplemental EIR were due to the City on August 15, 2025. A total of 5 five comment letters were received. Responses to these comments have been prepared by staff and are included in the Final Supplemental EIR.

The Final Supplemental EIR also includes an erratum of changes to the Draft Supplemental EIR as a result of the public comments on the Project, the comments to the Draft Supplemental EIR, and other revisions to the Project as identified by the City. The Final Supplemental EIR indicates that the modifications to the Project are minor in nature and do not cause any change in significant impacts that were analyzed in the Draft Supplemental EIR.

AND, BE IT FURTHER RESOLVED that the City Council of the City of Elk Grove hereby adopts the *Climate Compass: A Plan for Implementing Elk Grove's Climate, Sustainability, and Resilience Goals,* attached as Exhibit A and incorporated herein by this reference, based upon the following findings:

Finding: The proposed Climate Compass is of substantial benefit to the City and is consistent with the General Plan.

Evidence: The Climate Compass is consistent with and implements the General Plan. One of the supporting principals of the General Plan vision statement is that the City is "adaptive to and resilient against climate change, is a leader in conservation, and embraces innovations in green technologies." Goal NR-5 provides for "reduced greenhouse gas emissions that align with local, state, and other goals." The Climate Compass updates local strategies and actions to align with state GHG emission reduction targets identified in Assembly Bill 1279 (AB 1279). The strategies and actions outlined in the Climate Compass would provide

more ambitious 2030 and 2045 GHG emission reduction goals, aligned with the state target of 85 percent reduction in anthropogenic GHG emissions by 2045. Existing policies in the General Plan that align with the Climate Compass include: Policy NR-5-2 (Improve the health and sustainability of the community thought improved regional air quality and reduction of greenhouse gas emissions that contribute to climate change); Policy NR-5-4 (Preserve, protect, and enhance, as appropriate, the community's carbon sequestration resources to improve air quality and reduce net carbon emissions); Policy NR-6-1 (Promote energy efficiency and conservation strategies to help residents and businesses save money and conserve valuable resources); Policy NR-6-5 (Promote energy conservation measures in new development to reduce on-site emissions and seek to reduce the energy impacts from new residential and commercial projects through investigation and implementation of energy efficiency measures during all phases of design and development); Policy NR-6-6 (Encourage renewable energy options that are affordable and benefit all community members); and Policy NR-6-7 (Encourage the use of solar energy systems in homes, commercial businesses, and City facilities as a form of renewable energy). Additionally, Goal SD-1 supports sustainable City management, demonstrating the City's leadership in promoting green development and sustainable practices.

AND, BE IT FURTHER RESOLVED that the City Council of the City of Elk Grove hereby authorizes the City Manager to adopt and revise administrative policies to implement the vision, objectives, strategies, and actions outlined in the Climate Compass, including but not limited to actions BF-1.1; BF-3.1; FEC-2.2; RS-1.2; RS-1.4; WW-2.3; and WW-2.4, and to undertake other administrative efforts consistent with the Climate Compass.

PASSED AND ADOPTED by the City Council of the City of Elk Grove this 10th day of June 2026

BOBBIE SINGH-ALLEN, MAYOR of the
CITY OF ELK GROVE

ATTEST:

JASON LINDGREN, CITY CLERK

APPROVED AS TO FORM:

JONATHAN P. HOBBS
CITY ATTORNEY

Exhibit A
Climate Compass Plan Document

Due to length, the Climate Compass Plan Document is being provided under separate cover. Copies may be viewed at the City Clerk's Office or on the City's website

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ELK GROVE APPROVING AND RATIFYING THE INFRASTRUCTURE PLAN FOR FLEET ELECTRIFICATION

WHEREAS, the City of Elk Grove (City) has adopted a comprehensive update to the 2019 Climate Action Plan (CAP), titled the *Climate Compass: A Plan for Implementing Elk Grove's Climate, Sustainability, and Resilience Goals*; and

WHEREAS, as part of the Climate Compass goals, the City is committed to reducing greenhouse gas (GHG) emissions from City operations; and

WHEREAS, the Infrastructure Plan for Fleet Electrification (IPFE) will help to guide the electrification of the City's light-duty municipal fleet and infrastructure needs to support fleet, staff and public electric vehicle charging at City facilities; and

WHEREAS, the City determined that the Climate Compass is subject to the California Environmental Quality Act (CEQA), Public Resources Code 21000 et seq. and that an Environmental Impact Report (EIR) shall be prepared to evaluate the potential environmental effects of the Project; and

WHEREAS, the City has prepared a Supplemental Environmental Impact Report (EIR) (supplemental to the 2019 General Plan EIR, which considered the 2019 Climate Action Plan, SCH No 2017062058) as part of the Climate Compass development, and that Supplemental EIR considered policies for the electrification of the City's vehicle fleet, which is addressed in the Infrastructure Plan for Fleet Electrification; and

WHEREAS, on December 6, 2024, the City released a Notice of Preparation for the Supplemental EIR; and

WHEREAS, on June 27, 2025, the City released the Draft Climate Compass, Draft Supplemental EIR, and a Notice of Availability for the Supplemental EIR, collecting public comments through August 15, 2025; and

WHEREAS, the Infrastructure Plan for Fleet Electrification was included in the Climate Compass as a specific action to support municipal GHG emission reductions; and

WHEREAS, the City Council held a duly-noticed public hearing on June 10, 2026, as required by law to consider all of the information presented by staff, and public testimony presented in writing and at the meeting;

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Elk Grove hereby finds that no further CEQA review is required based upon the following finding:

CEQA

Finding: A Supplemental EIR has been prepared for the Climate Compass in accordance with the California Environmental Quality Act (CEQA), it considered the Infrastructure Plan for Fleet Electrification, and no further environmental review is required.

Evidence: Approval of the Climate Compass requires a Supplemental EIR. That Supplemental EIR was certified by the City Council on _____ by Resolution _____.

The draft environmental document for the Climate Compass has been prepared as a Supplemental EIR pursuant to CEQA Guidelines Section 15163. Per State CEQA Guidelines Section 15163, a lead agency may choose to prepare a Supplemental EIR when only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation. The Climate Compass is proposed as an update to the City's current CAP as evaluated in the General Plan Update EIR and utilizes the City's current land use plan and map as evaluated in the 2023 Subsequent EIR. As such, the Climate Compass would require minor changes to these previous EIRs, and the City has determined that preparation of a Supplemental EIR to the General Plan Update EIR (SCH No. 2017062058), as amended by the 2023 Subsequent EIR, is the appropriate CEQA document for the Project.

The Draft Supplemental EIR includes an evaluation of the following two environmental issue areas as well as other CEQA-mandated issues (e.g., cumulative impacts, growth-inducing impacts, significant unavoidable impacts, alternatives):

- energy, and
- greenhouse gas emissions and climate change.

The Project Description and corresponding analysis in of the Supplemental EIR specifically identified the Infrastructure Plan for Fleet Electrification as an implementing action of the Climate Compass. The Supplemental EIR identified that the Climate Compass would not result in new significant impacts or substantially increase the severity of significant environmental impacts disclosed within the General Plan Update EIR, as amended by the 2023 Subsequent EIR.

The City prepared a Notice of Preparation (NOP) and circulated it to public agencies and interested parties (including the general public) on December 6, 2024, with a public scoping meeting held on January 9, 2025, and comments requested by January 15, 2025. On June 27, 2025, concurrent with the public availability of the draft Climate Compass, the City released the Draft Supplemental EIR with a public review and comment period of 49 days. Public comments on the Draft Supplemental EIR were due to the City on August 15, 2025.

The Final Supplemental EIR also includes an erratum of changes to the Draft Supplemental EIR as a result of the public comments on the Project, the comments to the Draft Supplemental EIR, and other revisions to the Project as identified by the City. The Final Supplemental EIR indicates that the modifications to the Project are minor in nature and do not cause any change in significant impacts that were analyzed in the Draft Supplemental EIR.

AND BE IT FURTHER RESOLVED that the City Council of the City of Elk Grove hereby approves and ratifies the Infrastructure Plan for Fleet Electrification of April 2024, attached as Exhibit A and incorporated herein by this reference, and authorizes the City Manager to revise the Plan consistent with the Climate Compass and to make future updates based upon changes in commercially available vehicles, City fleet needs, and related changes that advance the City's overall objectives for fleet electrification, provided such updates and actions are consistent with the Climate Compass, all as deemed appropriate in the City Manager's discretion.

PASSED AND ADOPTED by the City Council of the City of Elk Grove this 10th day of June 2026

BOBBIE SINGH-ALLEN, MAYOR of the
CITY OF ELK GROVE

ATTEST:

JASON LINDGREN, CITY CLERK

APPROVED AS TO FORM:

JONATHAN P. HOBBS
CITY ATTORNEY

EXHIBIT A



CITY OF ELK GROVE

City of Elk Grove

Infrastructure Plan for Fleet Electrification

APRIL 2024

LIST OF ACRONYMS AND DEFINITION OF TERMS

ACRONYM OR TERM	DESCRIPTION
ACF	Advanced Clean Fleets
ADA	Americans with Disabilities Act
AFC	Alternative fuel corridor
AFV	Alternative fuel vehicle
BESS	Battery energy storage system
BEV	Battery-electric vehicle
CAN	Controller area network
CARB	California Air Resources Board
CCS	One of the different EV charger connector types. Stands for Combined charging system. In the past, CCS has been the most common connector type for DC fast charging of non-Tesla vehicles. This may change over time as more vehicle and charger manufacturers adopt Tesla's NACS charger type.
CCTV	Closed-circuit television
CEC	California Energy Commission
CHAdeMO	A DC fast-charging system and connector used by a few EV manufacturers, such as by Nissan on its Leaf. The CHAdeMO standard has been used by a few OEMs only, with its use expected to further decline.
CHARGING PLUG	A connector of a charging station that can be plugged into an EV. One station may have 1, 2, or more charging plugs
CHARGING STATION	A station designed to dispense electrical energy through its charging cords and plugs to one or more EVs
CVRP	Clean Vehicle Rebate Project
DAC	Disadvantaged community
DC	Direct current
DCFC	Direct current fast charger
DOE	U.S. Department of Energy

ACRONYM OR TERM	DESCRIPTION
DUTY CYCLE	A vehicle's typical duties, such as its daily mileage or key-on time (hours) per day.
EPA	Environmental Protection Agency
EV	Electric vehicle
EVSE	Electric vehicle supply equipment
FCEV	Fuel cell electric vehicle
GFO	Grant funding opportunity
ICE	Internal Combustion Engine – gas/diesel powered vehicles
IRC	Internal Revenue Code
KVA	Kilovolt-ampere
KW	Kilowatt
LCFS	Low Carbon Fuel Standard
LIC	Low-income community
$MTCO_2e$	Metric tons of carbon dioxide equivalent
NACS	One of the different EV charger connector types. Stands for North American Charging Standard and is equivalent to Tesla's charging connector. NACS is currently being certified under the SAE J3400 standard for use by manufacturers beyond Tesla.
NEVI	National Electric Vehicle Infrastructure program
OCPP	Open charge point protocol
OEM	Original Equipment Manufacturer
SMAQMD	Sacramento Metropolitan Air Quality Management District
SOC	State-of-charge; refers to the percent of charge present in a vehicle's battery.
SWCC	Special Waste Collection Center
ZE	Zero-emission
ZEV	Zero-emission vehicle

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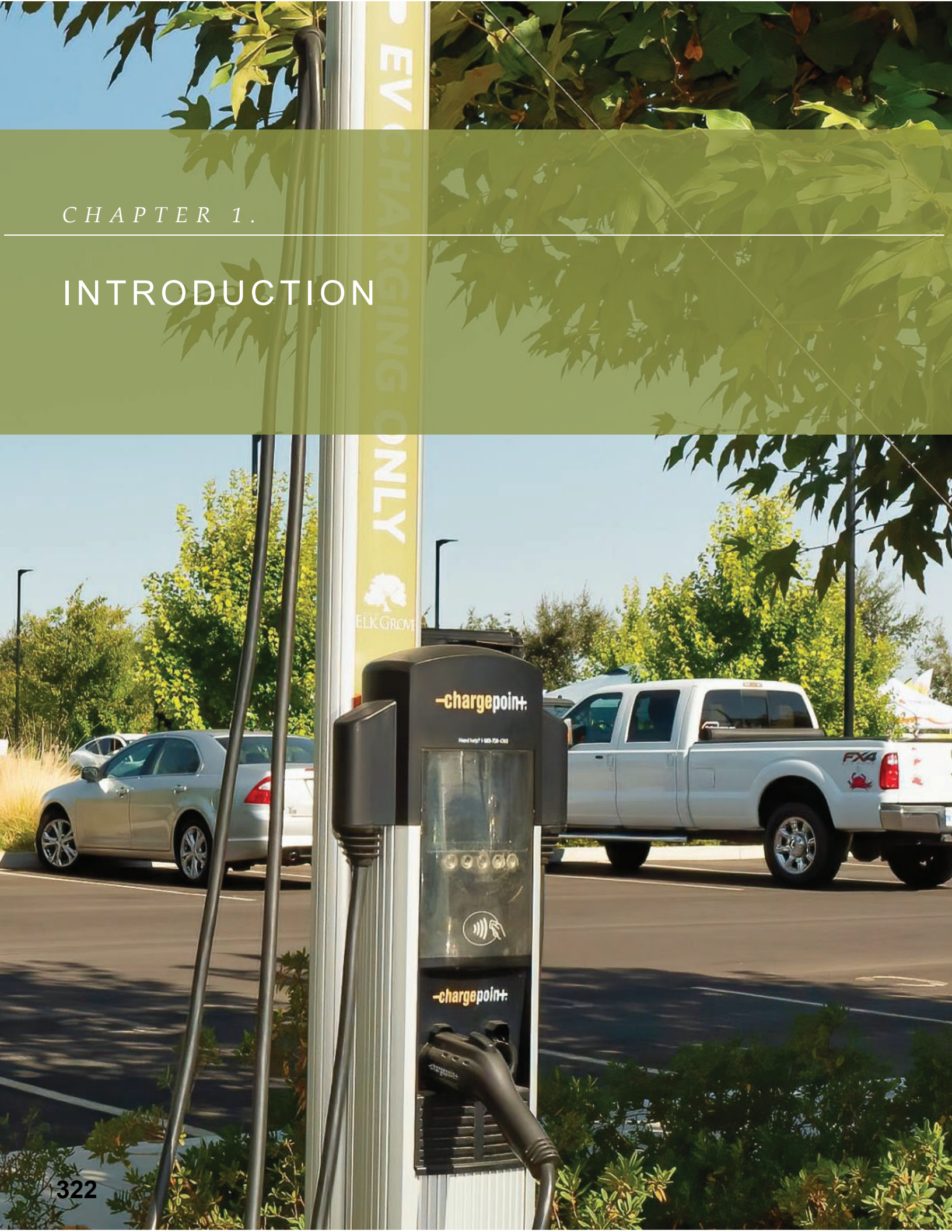
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CHAPTER 1.

INTRODUCTION

CHAPTER 1: INTRODUCTION

The purpose of the City of Elk Grove's Infrastructure Plan for Fleet Electrification (Plan) is to provide clear, actionable guidance for electrification of City of Elk Grove's (City) municipal fleet, and for infrastructure to support staff and public electric vehicle (EV) charging at City facilities. The intention is to provide near-term guidance that can be enacted over the next five years. Given the pace of technology advances with EVs and electric vehicle supply equipment (EVSE), as well as variability in the number of fleet vehicles in the long-term, planning further out would be unreliable. It is recommended that the Plan be reviewed, re-evaluated, and updated in 2027/2028 to provide a more reliable plan for the next five-year period.

The Plan is based on a two-part analysis. The goal of the first part included evaluating the City's vehicle fleet for electrification and required energy. The goal of the second part of the analysis is to assess each City facility to determine required infrastructure upgrade needs. It also evaluates the feasibility of charging infrastructure installation with recommendations for how to implement the recommendations over time including phasing and cost estimates. Further work will be needed for each facility related to design and cost estimation in preparation for any construction and installation, as this document provides only planning-level information. As noted, the specific details outlined for future project phasing should be re-evaluated closer to the timeframe for implementation of those phases, to update for future technology and needs.

This Plan does not address the increases to the City's fleet from expansion of services or operations that are provided directly (internally) to the City, such as contract operations. It also focuses exclusively on light-duty vehicles. For example, the Plan addresses the conversion of police patrol vehicles under the existing fleet makeup. Increases to the fleet from staffing growth are not addressed. Further, the conversion of contract operations, such as street or drainage maintenance, to in-house operations and the equipment needed to provide this service (e.g., vac truck, dump truck) are not included. Other heavy-duty vehicles (e.g., specialty police equipment) are also not addressed.

The Plan provides a roadmap for supporting the conversion of the City light-duty fleet to zero emissions. Transitioning the City's fleet to EVs will help meet sustainability goals and, potentially, reduce costs over the long run. Fleet electrification will reduce the City's carbon footprint significantly, as the vehicle fleet is one of the largest sources of greenhouse gas (GHG) emissions within City operations. Electric vehicles have a lower maintenance and running cost when compared to either internal combustion engine vehicles or hybrid electric vehicles. Over the coming decade, the City anticipates moving the entire light-duty City fleet to electric, provided

suitable electric vehicles are available. At the same time, SMUD is planning to be completely carbon-free in electric generation by 2030, providing the opportunity for the City to be carbon-free for all EVs in the fleet. In order to achieve this goal, sufficient charging infrastructure is critical to maintain the level-of-use needed for City services and operations.

HOW TO USE THIS DOCUMENT

This plan is comprised of three main chapters supplemented by five technical appendices, each of which are explained below.

CHAPTER 1: INTRODUCTION

This chapter introduces the reader to the content and summarizes relevant state and city decarbonization targets.

CHAPTER 2: FLEET VEHICLE ELECTRIFICATION

This chapter provides an in-depth view of Elk Grove's existing vehicle fleet, duty cycle types, distribution across the City's facilities, suitable EVs to replace existing fleet vehicles for energy modeling.

CHAPTER 3: CHARGING & POLICY RECOMMENDATIONS

This chapter includes the main recommendations pertaining to the City's fleet transition towards EVs and the buildout of appropriate charging infrastructure. The chapter documents the recommended strategy for charging of the City's EV fleet, along with a presentation of the recommended charging station quantities by type, location, and installation phase. It also includes a discussion of strategies and technologies to ensure backup-power and resiliency, as well as recommendations related to data collection and best practices.

APPENDIX A: FACILITY-LEVEL ANALYSIS AND RECOMMENDATIONS

This appendix documents in detail the following for each City facility: existing vehicle fleet, existing facility conditions (such as electrical service and parking assignment), charging infrastructure recommendations, a phased implementation strategy, a breakdown of the costs associated with each component including both fleet vehicles and charging infrastructure, and site assessment forms (which summarize the findings and charger installation recommendations

for each site, including graphical illustrations of recommended charger installation locations for fleet and public charging by implementation phase).

Some of the assessed City facilities were additionally identified as suitable for installation of public EV chargers, with detailed recommendations included in the respective sections of this appendix.

APPENDIX B: POTENTIAL FUNDING SOURCES

This chapter summarizes multiple funding opportunities for EVs and EV charging infrastructure. Funding sources include federal, state, and local programs as well as private funding.

APPENDIX C: EV CHARGING STRATEGY OPTIONS

This is a summary of four alternative charging strategies explaining operations, benefits, disadvantages and general recommendations for each.

APPENDIX D: BEST PRACTICES RELATED TO EVS AND EVSE

This appendix summarizes best practices for electrification of municipal fleets based on experience with numerous public agency fleet electrification projects.

APPENDIX E: CAPITAL EXPENDITURE ESTIMATES

This consists of spreadsheets estimating fleet electrification capital expenditures.

CARBON REDUCTION & VEHICLE ELECTRIFICATION TARGETS SUMMARY

A key reason the City is electrifying its fleet and adding EV chargers at City-owned facilities for use by City employees and the public is to reduce vehicle emissions. These actions are among the numerous actions being taken to reduce emissions to achieve specific targets consistent with relevant legislation adopted by the state of California and actions addressed in the City's Climate Action Plan summarized below.

The Advanced Clean Fleets (ACF) regulation applies to medium- and heavy-duty vehicles with a gross vehicle weight of 8,500 lbs. or more. This Plan focuses on light-duty vehicles, which are not covered by the ACF rule.

RELEVANT LEGISLATION	GHG REDUCTION TARGET	MILESTONE
ASSEMBLY BILL 1279	GHG emissions 48% below 1990 levels	2030
	GHG emissions 85% below 1990 levels and statewide carbon neutrality	2045
EXECUTIVE ORDER N-79-20 (2020)	All new passenger cars and trucks in CA shall be zero-emissions	2035
	All new medium- and heavy-duty vehicles in CA shall be zero-emissions	2045
ADVANCED CLEAN FLEETS	Commercial and government vehicle fleets must transition to zero emissions	Varies by fleet and vehicle type, latest by 2042, with few exceptions

CITY OF ELK GROVE TARGETS

The City conducted an inventory of GHG emissions in 2023 and found on-road vehicle emissions to comprise the largest emissions sector, resulting in approximately 586,220 metric tons of carbon dioxide equivalent (MTCO2e) and 56% of the City's total emissions. Off-road vehicles resulted in 18,341 MTCO2e and 2% of total emissions. The transportation sector, including on-road and off-road vehicles, resulted in 604,561 MTCO2e, 58% of the City's total emissions.[1]

The City[2] seeks to comply with the state's targets and provide a healthier and more sustainable environment for residents by reducing the City's annual per-capita GHG levels.

The City vision, articulated in the Elk Grove General Plan, includes being proactive in making daily life healthy and sustainable for residents. The General Plan outlines specific goals and policies that align with this vision and support the transition to a zero-emission fleet, particularly GOAL NR-5: *Reduced GHG Emissions that Align with Local, State, and Other Goals*. This highlights the City's commitment related to sustainability and resource protection and provides direction and vision to maintain a healthy, balanced, and more sustainable community.

[1] City of Elk Grove GHG Inventory Memo, 2024

[2] City of Elk Grove Climate Action Plan, 2019 Update

The primary policy vehicle for achievement of these targets is the Elk Grove Climate Action Plan (CAP), particularly policy TACM-9. EV Charging Requirements:

> *Adopt an electric vehicle (EV) charging station ordinance that establishes minimum EV charging standards for all new residential and commercial development. Increase the number of EV charging stations at municipal facilities throughout the City.*

While this provision focuses primarily on residential and workplace charging, it does contain some language relevant to this project including the following:

- *Install a minimum of two EV charging stations at all major municipal facilities.*
- *Installation of EV charging stations at all public facilities and commercial land uses.*
  - *10 EV charging stations installed in public facilities and commercial land uses by 2020.*
  - *100 EV charging stations installed in public facilities and commercial land uses by 2030.*
  - *200 EV charging stations installed in public facilities and commercial land uses by 2050.*

These figures were adopted with the 2019 CAP, which is currently undergoing an update. The growth in electric vehicle sales in California over the past few years, in addition to more ambitious state targets and the ultimate phase-out of light-duty internal combustion engine (ICE) vehicle sales in California, requires additional consideration of EV charging station needs.

STATE OF CALIFORNIA TARGETS

Under the California Air Resources Board 2022 Scoping Plan for Achieving Carbon Neutrality by 2045, California would achieve the following targets:

- Cut greenhouse gas emissions by 85% below 1990 levels
- 71% reduction in smog-forming air pollution
- Reduce fossil fuel consumption (liquid petroleum) to less than one-tenth of what is used today – a 94% reduction in demand.
- Create 4 million new jobs.

- Save Californians $200 billion in health costs due to pollution in 2045

The top strategy for carbon reduction is through transportation electrification. To achieve this, California will ban new gas car sales by 2035 and expects to gradually phase out the sale of gas cars over the next dozen years. To reach its goal of 100% EV sales on new cars by 2035, California will need to reach 35% EV sales by 2026, 51% by 2028, and 68% by 2030, according to the plan. For reference, EVs comprised 25% of all new vehicle sales in California in 2023, a 29% increase over the previous year[3]. To support these future EVs, California's goals for EV infrastructure include installing 250,000 public and private shared light-duty EV chargers by 2025 and 1.2 million chargers by 2030, including 157,000 chargers for medium- and heavy duty EVs.

SUMMARY

As detailed in the chapters that follow, this document provides an overall strategy for moving forward with transitioning the City fleet to zero emissions and to support EV charging for City staff and the public at City facilities. Over the next 12 years, the cost to transition the fleet to EVs and install charging infrastructure at City facilities is estimated to be $27.1 million. This investment represents an additional $2.5 million compared to the estimated cost of maintaining the current ICE fleet over the same period. The transition is expected to reduce carbon emissions by up to 1,200 metric tons of CO_2e per year, supporting the City's climate goals.

A phased approach allows for gradual implementation and assessment of new technologies along the way to ensure the best fit for staff and the community. Charging infrastructure deployment will be tailored to each facility's electrical system requirements, with an estimated total investment of $5.5M for both fleet and public charging, spread across three phases from 2024 to 2035.

Based on an analysis of the fleet's duty cycle data and the need to ensure resiliency, a total of 186 charging ports, both Level 2 and direct-current fast chargers (DCFC), are recommended to support the City fleet vehicles. The phasing of charger installation concurrent with vehicle electrification will accommodate budgeting and funding constraints and allow for adjustments as technology advances and new information becomes available. Table 1 provides an overview of the number and type of chargers recommended, along with the estimated capital expenditures, by facility.

[3] https://www.veloz.org/q4-2023-data-shows-a-29-percent-year-over-year-increase/?mc_cid=4fde63c25e&mc_eid=1d72498587

TABLE 1: SUMMARY OF CHARGERS AND ESTIMATED CAPEX BY FACILITY

FACILITY	DEPARTMENT	UNIT	LIGHT-DUTY FLEET VEHICLES	LEVEL 2 CHARGE PORTS			DCFC CHARGE PORTS	PUBLIC CHARGE PORTS		ESTIMATED CAPEX
				Low	Medium	High		Low	Medium	
ANIMAL SHELTER	POLICE	ANIMAL CARE	6	2	0	0	0	0	2	$88,640
CITY HALL	DEVELOPMENT SERVICES	CODE ENFORCEMENT	7	8	2	0	0	0	4	$234,540
	DEVELOPMENT SERVICES	HOUSING	2							
	PUBLIC WORKS	FACILITIES	1							
	CITY MANAGER	PUBLIC AFFAIRS	1							
CORP YARD	PUBLIC WORKS	OPERATIONS AND MAINTENANCE	2	24	0	0	0	0	0	$337,400
	POLICE	POLICE	1							
	PUBLIC WORKS	PUBLIC WORKS	14							
FLEET FACILITY	POLICE	POLICE	76	76	0	0	10	0	0	$2,237,240
LAGUNA PALMS CAMPUS (POLICE)	PUBLIC WORKS	FACILITIES	1	2	40	14	4	0	4	$1,758,040
	POLICE	POLICE	76							
	POLICE	PROPERTY AND EVIDENCE	1							
	POLICE	MOTOR POOL	5							
	POLICE	TRANSPORT	1							
	PUBLIC WORKS	RECYCLING AND WASTE	1							
SWCC	PUBLIC WORKS	RECYCLING AND WASTE	1	2	0	2	0	1	0	$64,720
EXISTING ELK GROVE LIBRARY			N/A	0	0	0	0	0	6	$141,260
OLD TOWN PLAZA			N/A	0	0	0	0	13	8	$599,240
DISTRICT 56	CITY MANAGERS		N/A	0	0	0	0	0	0	$0
TOTAL			**196**	**114**	**42**	**16**	**14**	**14**	**24**	**$5,461,080**



CHAPTER 2.

FLEET VEHICLE ELECTRIFICATION



CHAPTER 2: INTRODUCTION

This chapter provides an in-depth view of Elk Grove's existing vehicle fleet, duty cycle types, distribution across the City's facilities, and identifies suitable EVs to replace existing fleet vehicles for energy modeling purposes. It also includes a summary of market-ready and soon to be market-ready EVs to replace existing ICE-powered fleet vehicles, as well as the results of a right-sizing and total cost of ownership (TCO) analysis.

ANALYSIS OF EXISTING FLEET

This section documents which of Elk Grove's existing ICE-powered vehicles can be replaced by battery electric vehicles and evaluates the anticipated electrical energy needs.

FLEET COMPOSITION BY VEHICLE TYPES AND DUTY CYCLE

The fleet transition plan calls for the replacement of 196 light-duty ICE vehicles, including motorcycles, sedans, minivans, pickups, sport utility vehicles and vans, with EVs. This number includes the 22 new light-duty vehicles procured in fiscal year 2023/2024. By replacing these vehicles, the City can reduce its carbon emissions by up to 1.2k MTCO2e per year. Suitable replacement vehicles for each vehicle type or "duty cycle" have been modeled for the purposes of estimating energy demand and capital expenditures. The specific modeled replacement vehicle may not be the one purchased at time of replacement but is used only for estimating energy demand and capital expenditures.

Prior to this Plan being prepared, the City had started the transition to lower emission vehicles with the purchase of 26 gas/electric hybrid vehicles and three battery-electric vehicles. There is also one low-speed electric vehicle domiciled at the District 56 facility for use on the property.

A critical part of this project is to determine charging recommendations which includes projecting electrical loads at each facility where fleet EVs need to charge. Fuel consumption data from existing ICE fleet vehicles provides a starting point for modeling these electrical loads for EV charging, which also includes factors to account for the significantly higher energy efficiency of EVs relative to ICE vehicles, and to address real-world factors affecting range degradation explained below. This analysis estimated a total fleet-wide electrical demand of 1,943.6 kWh at buildout on an average workday.

Based on the City's fleet replacement policies (e.g., expected lifespan) and existing and anticipated commercial EV availability, we assume that Elk Grove will need approximately 12 years to cycle through the existing vehicle fleet, gradually replacing vehicles with a suitable electric model that meets the City's needs for each asset.

EXISTING FLEET VEHICLES

Table 2 on the following page summarizes Elk Grove's existing ICE vehicle fleet, including new vehicles purchased in fiscal year 2023/2024 by duty cycle categories listed in the first column for the purpose of identification of EV equivalents for evaluating energy demands. The second column lists examples of existing ICE vehicles comprising the fleet that will need to be replaced by comparable EVs for each duty cycle category. The "EV range" is the modeled maximum range of these vehicles after accounting for factors that impact driving range such as the use of heating or air conditioning, terrain, parasitic loads like light bars, lifts, on-board computers, cargo weight, battery degradation, etc. Reducing the expected maximum range to account for these real-world conditions will ensure that sufficient charging capacity is planned.

Lastly, it is important to note that the vehicles shown in the "Modeled EV" column have been designated as a model for replacement of a specific duty cycle because these are EVs for which key data, such as battery size, the per-mile energy consumption, and charging acceptance rate (maximum charging speed), were available at the time this study was completed. The intention is not to recommend the City procure these specific models—they are simply being used to model projected energy use.



FIGURE 1: ANIMAL SERVICES

TABLE 2: FLEET REPLACEMENT BY VEHICLE DUTY CYCLE

DUTY CYCLE	EXISTING FLEET VEHICLES	EV RANGE (MILES)	EXISTING VEHICLE QUANTITY	MODEL EV
LIGHT DUTY AUTO	TOYOTA CAMRY FORD FUSION	120	40	TESLA MODEL 3
LIGHT DUTY SUV	FORD EXPLORER FORD CROWN VICTORIA	120	71	CHEVY BLAZER EV
LIGHT DUTY MINI-VAN	CHEVY UPLANDER DODGE CARAVAN	120	5	VW ID BUZZ
LIGHT DUTY PICKUP	FORD F150 FORD RANGER RAM 1500 SILVERADO 1500 DODGE RAM CLASSIC 1500	120	45	FORD F-150 LIGHTNING
LIGHT DUTY PICKUP (2B)	FORD F250	120	8	FORD F-150 LIGHTNING
MOTORCYCLE	BMW R1200RT-P HONDA ST1300PA	176	15	ZERO DSRP
LIGHT DUTY UTILITY-VAN	CHEVY TAHOE 4X4 FORD E-250 RAM PROMASTER 1500	85	12	FORD E-TRANSIT CARGO VAN (LOW ROOF)
TOTAL FLEET VEHICLES			**196**	

Note: The modeled EV is used only for projected energy usage and is not anticipated to represent the actual replacement vehicle. For some vehicle types, the model EV was the only one with key needed data available.

VEHICLE ASSIGNMENT BY DEPARTMENT

As shown below in Table 3, the vast majority of vehicles comprising the City's fleet are part of the Police Department, including the Animal Services, Property and Evidence, Motor Pool and Transport units. The remaining fleet vehicles are assigned to other departments including Public Works and Code Enforcement.

TABLE 3: VEHICLE FLEET ASSIGNMENTS BY DEPARTMENT

DEPARTMENT	UNIT	FLEET VEHICLES TO ELECTRIFY
DEVELOPMENT SERVICES	CODE ENFORCEMENT	7
DEVELOPMENT SERVICES	HOUSING	2
PUBLIC WORKS	FACILITIES	2
PUBLIC WORKS	OPERATIONS AND MAINTENANCE	2
PUBLIC WORKS	RECYCLING AND WASTE	2
POLICE	POLICE	153
POLICE	ANIMAL CARE	6
POLICE	PROPERTY AND EVIDENCE	1
POLICE	MOTOR POOL	5
POLICE	TRANSPORT	1
CITY MANAGER	PUBLIC AFFAIRS	1
PUBLIC WORKS	PUBLIC WORKS	14
TOTAL		**196**

VEHICLE ASSIGNMENT BY FLEET DOMICILE

Elk Grove's fleet is assigned to six City-owned facilities (domiciles) however, the vehicles are disproportionately clustered across these locations. The majority are at two large Police Department facilities—the Fleet Facility and the Laguna Palms campus. The remaining facilities only contain about a quarter of the fleet. Seventeen vehicles are assigned to police officers who take them home each night. These vehicles are included in the table below by the primary location where they are most likely to charge. Electrical demand projections at each facility range from about 997 kWh at the Fleet Facility where the largest number of EVs will be charged, to less than about 2 kWh for the SWCC where only one fleet EV will need to be charged. Vehicle assignment and energy projections by facility are listed in Table 4 below. The sum of about 2,000

kWh per day of electricity demand for charging a fully electrified City fleet is on the order of magnitude of charging the full battery of 30 typical electric cars, such as the Nissan Leaf with a battery size of 62 kWh.

TABLE 4: FLEET VEHICLE DOMICILE LOCATIONS

FLEET DOMICILE	ADDRESS	TOTAL FLEET VEHICLES	DAILY REQUIRED EV ENERGY (KWH)
ANIMAL SHELTER	9150 UNION PARK WAY	6	50.4
CITY HALL	8401 LAGUNA PALMS	11	70.8
CORP YARD	10250 IRON ROCK WAY	17	180.0
FLEET FACILITY	10190 IRON ROCK WAY	76	996.9
LAGUNA PALMS CAMPUS (POLICE)	8380/8400 LAGUNA PALMS/ 9362 STUDIO COURT	85	694.0
SWCC	9255 DISPOSAL LN	1	2.0
TOTAL		**196**	**1,994.0**

As shown in Table 4, the City's fleet vehicles are categorized based on domicile locations, departments, and units, alongside the total number of fleet vehicles that require electrification.

TABLE 5: VEHICLE FLEET ASSIGNMENTS BY DOMICILE LOCATION

FACILITY	DEPARTMENT	UNIT	TOTAL EXISTING FLEET VEHICLES
ANIMAL SHELTER	POLICE	ANIMAL CARE	6
CITY HALL	DEVELOPMENT SERVICES	CODE ENFORCEMENT	7
	DEVELOPMENT SERVICES	HOUSING	2
	PUBLIC WORKS	FACILITIES	1
	CITY MANAGER	PUBLIC AFFAIRS	1
CORP YARD	PUBLIC WORKS	OPERATIONS AND MAINTENANCE	2
	POLICE	POLICE	1
	PUBLIC WORKS	PUBLIC WORKS	14
FLEET FACILITY	POLICE	POLICE	76
LAGUNA PALMS CAMPUS (POLICE)	PUBLIC WORKS	FACILITIES	1
	POLICE	POLICE	76
	POLICE	PROPERTY AND EVIDENCE	1
	POLICE	MOTOR POOL	5
	POLICE	TRANSPORT	1
	PUBLIC WORKS	RECYCLING AND WASTE	1
SWCC	PUBLIC WORKS	RECYCLING AND WASTE	1
TOTAL			**196**

SUMMARY OF MARKET-READY (AND SOON TO BE MARKET-READY) EVS TO REPLACE EXISTING ICE-POWERED FLEET VEHICLES

For many years, one of the main challenges to fleet electrification has been the lack of suitable electric vehicles, especially from Ford, the market leader for fleet vehicles. Until recently, there had been limited selection of all classes of electric vehicles and those that were available were often too expensive for municipal fleets to consider. Most light-duty EV models entering the market have been luxury models by Tesla, Porsche, Audi, and Jaguar. By contrast, Ford's first popular EV was the Mustang Mach-E SUV, primarily targeting individual buyers, and the F-150 Lightning and e-Transit, which were subsequently produced, had limited initial production resulting in severe scarcity and significant price hikes. The availability of medium- and heavy-duty EV models have mainly been limited to semi-custom electrified conversions like Lion and Zenith, while the major producers like Daimler, Volvo, Paccar, and Navistar have only begun to ramp up production in recent months.

As summarized by Table 2 above, a limited selection of EV models were used in this analysis for the purpose of modeling energy demands for developing charging recommendations. However, the availability of a broader range of EV models has significantly increased over the past few years. In 2024 there is expected to be 134 different models of EVs available in the U.S., more than double the number of models available in 2020, when there were only 48.[4] While not all of the new models available will be suitable for Elk Grove's fleet, it shows the expanding range of EV types each year. Table 5 below provides a summary of currently or soon to be available light-duty EV models that could be suitable alternatives for Elk Grove's fleet.

[4] https://www.visualcapitalist.com/the-number-of-ev-models-will-double-by-2024/

TABLE 6: FLEET REPLACEMENT BY VEHICLE DUTY CYCLE

DUTY CYCLE	EXISTING FLEET VEHICLES	MODELED EV (MSRP, IF KNOWN)	OTHER CURRENT EV OPTIONS (MSRP, IF KNOWN)	STATUS
LIGHT-DUTY AUTO	TOYOTA CAMRY FORD FUSION	TESLA MODEL 3 ($40,240)	CHEVROLET BOLT EV ($26,500) NISSAN LEAF ($28,140) HYUNDAI IONIQ 5 ($41,450) HYUNDAI KONA ELECTRIC SE ($33,550) KIA EV6 ($42,600) MINI COOPER HARDTOP SE (2 DOOR) ($30,900)	Readily available, vehicle delivery can be subject to common delays
LIGHT-DUTY SUV	FORD EXPLORER FORD CROWN VICTORIA	CHEVY BLAZER EV	CHEVROLET BOLT EUV ($27,800) KIA NIRO EV ($39,550) FORD MUSTANG MACH-E ($42,995) NISSAN ARIYA ($43,190) VOLKSWAGEN ID.4 ($38,995) AUDI Q4 E-TRON ($52,500) RIVIAN R1S ($78,000)	Readily available, vehicle delivery can be subject to common delays, cargo capacity can be smaller than large ICE SUVs

LIGHT-DUTY MINI-VAN	CHEVY UPLANDER DODGE CARAVAN	VW ID BUZZ	CITROËN Ë-SPACETOURER CANOO LIFESTYLE VEHICLE (7-SEATER)	Not available yet in the US
LIGHT-DUTY PICKUP	FORD F-150 FORD RANGER RAM 1500 SILVERADO 1500 RAM 1500 CLASSIC	FORD F-150 LIGHTNING	FORD F-150 LIGHTNING ($48,817) RIVIAN R1T ($73,000) CHEVROLET SILVERADO EV (EST. $52,000) GMC SIERRA EV DENALI	Readily available
LIGHT-DUTY PICKUP (2B)	FORD F-250	FORD F-150 LIGHTNING	FORD E-TRANSIT T350 CUTAWAY ($41,212)	Needs modification to be used as pickup truck
MOTORCYCLE	BMW R1200RT-P HONDA ST1300PA	ZERO DSRP	–	Modeled EV readily available
LIGHT-DUTY UTILITY-VAN	CHEVY TAHOE 4X4 FORD E-250 RAM PROMASTER 1500	FORD E-TRANSIT CARGO VAN (LOW ROOF) ($46,000)	RIVIAN EDV	Modeled EV readily available

Note: Base retail prices are taken from publicly available manufacturer information or the California State Purchasing Contract (whichever is lower priced) and are as of August 2023.

Note: The modeled EV is used only for projected energy usage and is not anticipated to represent the actual replacement vehicle. For some vehicle types, the model EV was the only one with key needed data available.

LIGHT-DUTY VEHICLES



FIGURE 2: FORD F-150 LIGHTNING

As of mid-2023, there are about 150 battery-electric vehicle (BEV) and plug-in hybrid EV (PHEV) models for sale in California.[5] Some of these available models are relatively or very expensive and thus unsuitable for municipal fleet deployment. However, the market of battery-electric vehicle models that are suitable for municipal fleets steadily expands. Today, there are a number of EV models priced below $45,000 with a range greater than 100, often greater than 200 miles, sold in California. A selection of these models is listed in Table 6.

The most common EV choices for fleets include the Nissan Leaf (and Leaf Plus) or Chevy Bolt. Other reasonably affordable light-duty battery electric vehicles available for purchase are the Hyundai Ioniq 5, Hyundai Kona, and Kia Niro and EV6. The Tesla Model Y and Model 3 are the top selling EVs, but often do not convey the image of practicality and cost effectiveness many municipal fleet managers seek, despite their lower total cost of ownership than most other EVs. The limited number of possible EV models represents a limitation to fleet buyers. However, the range of available light-duty EVs priced below $45,000 is expanding with models like the Chevy Equinox starting around $30K within the next year or two, and the recently expanded federal tax credit offsetting price inflation for eligible models.

In addition to the general market availability, multiple vehicle manufacturers are facing issues related to global supply chain constraints as well as increased demand and limited production capabilities. As an example, the Ford F-150 Lightning, launched in April of 2022, totally sold out in the U.S. until mid-2023. The disruption of the global supply chain is the result of multiple cascading issues. For example, improved battery technology has revealed production capacity limitations which bottlenecks supply for high-performance battery packs.

Lastly, California's Statewide Vehicle Purchasing Contract offers only a limited number of EVs sometimes excluding certain models otherwise available to the general public.[6] However, of the

[5] https://www.veloz.org/ev-market-report/

[6] See here for a list of available vehicle models under the California State Vehicle Purchasing Contract: https://www.dgs.ca.gov/PD/Resources/Page-Content/Procurement-Division-Resources-List-Folder/Statewide-Contract-Fleet-Vehicles

models presented in Table 2, only the Hyundai Ioniq 5, Kia EV6, Kia Niro EV, and MINI Cooper Hardtop SE (2 door) are not available as part of California's Vehicle Purchasing Contract, but may be added in the near future. While the City uses the Vehicle Purchasing Contract, fleet vehicles can also be procured through other avenues, particularly when price expectations and mission needs can be met with a model not listed on the Vehicle Purchasing Contract.

PHEVs can also serve as a low-emissions alternative for fleets. Most PHEV models have sufficient battery-only range to meet the average fleet vehicle's daily duty cycle. If the PHEV's battery is re-charged with a suitable charger between uses, a PHEV could function as a BEV for most, if not all, of its daily usage for typical low-mileage municipal fleet EVs. Some commonly available PHEVs are summarized below in Table 7.

While in some regulation PHEVs are classified as near-zero-emission vehicles, given the increasing range and the fully eliminated tailpipe emissions of all-electric vehicles, only BEVs were considered in the analysis supporting this transition plan and are thus recommended for the City.

TABLE 7: 2023 COMMON PLUG-IN HYBRID VEHICLE MODELS SUITABLE FOR MUNICIPAL FLEETS.

PHEV MODEL	BATTERY RANGE (MI)
CHRYSLER PACIFICA	32
FORD ESCAPE	37
KIA NIRO EX PHEV	33
TOYOTA PRIUS PRIME	44

Fortunately, the majority of legacy automotive original equipment manufacturers (OEMs) are currently developing multiple electric models, with many vehicle models in delivery in 2024 and an expanding line-up in the coming years. In addition, there are many companies entering the EV market from their foundation, like Tesla, Fisker, Polestar, Rivian, Nikola, Lucid, Faraday Future, Byton, Karma, Canoo as well as numerous entries from China and elsewhere. These automakers promise to make EVs competitive on a procurement cost basis compared to fossil fuel vehicles by 2024-2025. Increased production is expected to lower per-unit cost through economies of scale, with some EVs reaching price parity with engine-powered vehicles likely as

early as the mid-2020s. For Elk Grove's fleet, this facilitates the purchase of a broader variety of light-duty EV options.

AFFORDABILITY

Impact of battery prices: As seen in Figure 3, battery prices for electric vehicles have become more affordable over the past decade by about a whole order of magnitude (factor of 10), corresponding to an impressive price decrease of more than 90%. This trend is driven by research and development that allows for an increasingly rapid production and deployment of battery capacity around the world. The trend is, to some extent, reinforcing, as through higher battery production, learning rates increase and new battery technology innovation and price decreases can emerge. Falling retail prices of EVs can primarily be attributed to lower battery prices, as the majority of an EV's capital cost is a result of the battery.

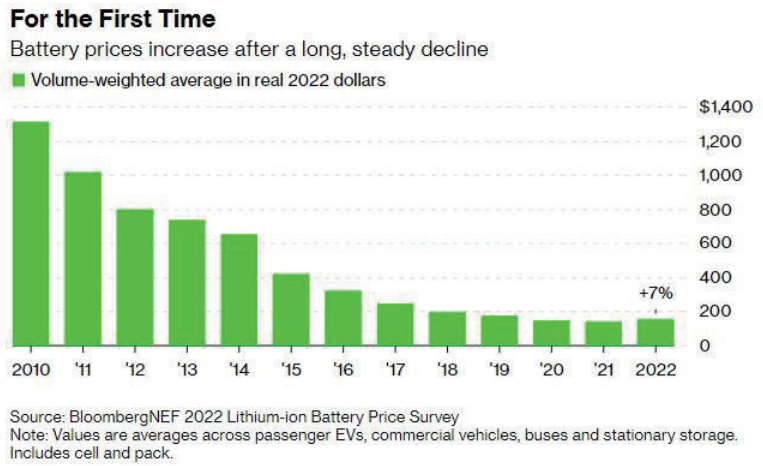


FIGURE 3: ELECTRIC VEHICLE BATTERY PRICES, GLOBAL AVERAGES OVER TIME.

Source: BloombergNEF 2022 Lithium-Ion Price Survey

Industry reports have noted[7] a small battery price pack increase in 2022 of 7% compared to the previous year, the first one after the decade-long decline. Experts from BloombergNEF projected falling prices again as soon as 2024, given higher raw material supply, an ease of supply chain issues, and new battery technologies and designs reaching product maturity. Indeed, in September 2023, the price of Li-ion battery cells was found to have declined by 30% since March 2022.[8] This could be explained by government subsidies, increased competition, and subsequent improvements to battery technology, as well as potential newly found extractable lithium deposits. These developments will drive a further decrease in overall electric vehicle prices and will make total cost of ownership assessments only more attractive for EVs.

[7] https://about.bnef.com/blog/increase-in-battery-prices-could-affect-ev-progress/

[8] https://www.cnet.com/roadshow/news/evs-set-to-match-gas-guzzlers-in-price-as-battery-costs-plummet/

This is especially relevant in regard to market segments with the highest cost premiums between EVs and combustion-engine vehicles today, particularly medium- and heavy-duty vehicles. The bigger the battery size of a particular EV model, the more battery price declines will help reduce the procurement cost premium of such electric vehicles and off-road equipment.

Total cost of ownership: Many vehicle segments (such as most light-duty vehicle applications with a high daily or annual mileage) have already achieved cost parity on a total cost of ownership basis, which is important for municipal fleets including Elk Grove's. In other segments of the market, electric vehicles already come with little to no cost premium compared to their ICE counterparts, which facilitates EV adoption also among procurement cost-sensitive buyers and fleet managers. Examples for these segments include the compact car market with affordable EV models such as the Nissan Leaf and Chevrolet Bolt EV and EUV available at a price point of well below $30,000. Multiple expert projections[9] as well as academic research findings[10] indicate that purchase price parity for average light-duty electric and gasoline vehicles will be achieved soon, with high expected operational cost savings for private and fleet EV owners. Analysis from the premier regulatory body for emissions regulation on the state level, the California Air Resources Board (CARB), estimates that full light-duty vehicle cost parity to be achieved by 2030, with additional $7,900 in maintenance and operational savings over the first 10 years of ownership of an EV.[11] Beginning with model year 2026, 10-year savings are expected across vehicle models.

THE RISING ROLE OF CHINA IN THE GLOBAL EV MARKET

According to the International Energy Agency's Global EV Outlook from 2023, China's EV sales have risen so fast over the past few years that they now account for 60% of all global EV sales. Chinese automakers, including legacy companies and many innovative electric vehicle start-ups are introducing many new EVs onto the global market, including very affordable models as well as larger vehicle types, such as SUVs. In 2022, there were almost 300 different EV models available for sale in China, as reported in the 2023 Global EV Outlook. This is more than 3 times as many as in the United States. If some of these models will be made available on the U.S. market, these developments could accelerate EV adoption across consumer segments, especially among lower-income groups and individuals demanding larger vehicle sizes. They

[9] E.g. https://rmi.org/press-release/evs-to-surpass-two-thirds-of-global-car-sales-by-2030-putting-at-risk-nearly-half-of-oil-demand-new-research-finds/

[10] E.g. https://www.sciencedirect.com/science/article/pii/S0301421521004341

[11] https://ww2.arb.ca.gov/news/california-moves-accelerate-100-new-zero-emission-vehicle-sales-2035

will also help municipal fleet electrification by increasing competition between OEMs, covering various vehicle use cases, and improving general affordability further. To what extent public fleets will be able to leverage novel Chinese firms' vehicle offerings, remains unclear, especially considering various "Made in America" provisions for sales and production of EVs and batteries that were set in the 2022 Inflation Reduction Act. Additionally, public vehicle fleets are often bound to legacy and/or American carmakers due to existing sales and maintenance relationships or Buy America regulation. Some municipal fleet mechanics are certified to work on a particular OEM, such as Ford, and it would involve additional training or certification to repair and maintain other automakers' vehicles and equipment.

CHAPTER 3

CHARGING & POLICY RECOMMENDATIONS



CHAPTER 3: INTRODUCTION

This chapter documents the recommended strategy for charging City fleet EVs and outlines the number and types of required charging stations, for both fleet as well as public chargers. It also includes recommendations for back-up power options and an increased resiliency to ensure EV charging station availability. The chapter concludes with sections that list recommendations to improve fleet data collection and analysis as well as policy-related recommendations.

EV CHARGING STRATEGY

Multiple potential strategies for charging Elk Grove's EV fleet were evaluated to determine recommended quantities of charger by type and charging speed, high-level cost estimates and operational considerations. This analysis determined that due to modeled energy needs relative to available nightly dwell time for charging coupled with large battery capacity, most fleet EVs will be able to share Level 2 chargers. Sharing can be facilitated by rotating EVs through the chargers on a scheduled or as-needed basis depending on each EV's state of charge. Rotations can range from every few nights to once or twice per month. All strategies considered are discussed in detail in Appendix C.

The utilization of shared chargers also simplifies the operational workings of sharing charging infrastructure with employee-owned personal vehicles. A City-wide system to distinguish between fleet EVs and personally-owned vehicles in charging sessions can be deployed and employees are not bound to specific, dedicated charging stations and parking stalls. If fleet chargers were dedicated to specific fleet vehicles, the use of these chargers by personally-owned employee vehicles would not be possible. The recommended numbers of charging stations, as presented in Appendix A, factor in some contingency capacity for employee-owned vehicles to charge during work hours. Most fleet vehicles are out on duty during the day and can be charged overnight in most cases. This allows employee-owned vehicles to charge during the day.

In addition, several high-powered DCFCs located at the City's main fleet depots can supplement overnight level 2 charging to ensure sufficient charging capacity in the event that drivers forget to charge or a charging session failed for some reason. DCFC infrastructure can also help mitigate fleet EV drivers' concerns regarding the driving range of their EV and occasional need to quickly top off the battery state-of-charge.

FACILITIES ASSESSED IN THIS STUDY

Elk Grove's fleet is assigned to six City-owned fleet facilities (or domicile locations). However, the vehicles are disproportionately clustered at two large Police Department facilities—the Fleet Facility and the Laguna Palms campus (see Tables 3 and 4 for a list of the facilities). The remaining facilities only contain about a quarter of the fleet. In addition to City-owned fleet facilities, eleven motorcycles are assigned to police officers who ride them home each night.

The majority of the City's fleet facilities, including the Fleet Facility and Corp Yard, are located along Iron Rock Way and on Laguna Palms Way. The remaining facility, the Special Waste Collection Center (SWCC), has few vehicles and is located elsewhere in the city.

Along with fleet charging, four of the City-owned fleet facilities and another two non-fleet facilities also owned by the City are suitable for installation of public chargers, most of which will be concentrated at the Old Town Plaza. It should be noted that the City-owned District 56 facility has one small fleet EV which can be charged from a standard outlet and has seven pay EV chargers existing for staff and public use.

CITY FLEET FACILITIES

- Animal Shelter, 9150 Union Park Way*
- City Hall, 8401 Laguna Palms Way*
- Corp Yard, 10250 Iron Rock Way
- Fleet Facility, 10190 Iron Rock Way
- Laguna Palms Campus: 8380 Laguna Palms Way, 8400 Laguna Palms Way & 9362 Studio Court*
- Special Waste Collection Center, 9255 Disposal Lane*

* with public charging

NON-FLEET PUBLIC CHARGING FACILITIES

- Existing Elk Grove Library, 8900 Elk Grove Blvd
- Old Town Plaza, 9615 Railroad St
- District 56, 8230 Civic Center Drive

RECOMMENDATIONS ON NUMBER AND TYPE OF CHARGERS

This section documents EV charging infrastructure installation recommendations for Elk Grove's municipal fleet vehicle domicile facilities as well as for public charging at four of these facilities.

It also includes recommendations for installation of EV chargers for the public at other City-owned facilities, all of which are listed below.

While this section only presents summary tables and City-wide numbers, details for each facility are included in Appendix A.

OVERVIEW OF RECOMMENDATIONS

The most important part of this project is to recommend the quantity and type of EV chargers and estimate the cost for their purchase and installation. Based on analysis of the existing fleet's duty cycle data, a total of 85 dual-head Level 2 AC chargers (170 charge ports) are recommended for shared use by the fleet for overnight charging. The specific power levels of these chargers depend on modeled energy requirements of the fleet vehicles. Thus, 57 of these should be dual-head low-output (6.6-7.7 kW) (114 charge ports), 21 should be dual-head medium-output (12 kW) (42 charge ports) and the remaining 7 chargers should be dual-head high-output (19.2 kW) (14 charge ports). To provide operational convenience, flexibility, and redundancy, these should be supplemented by 7 dual-head 150 kW high-speed DCFCs (14 charge ports) to be installed at the City's main fleet domicile locations, including 5 dual-head DCFCs (10 charge ports) at the Fleet Facility on Iron Rock Way and 2 dual-head DCFCs (4 charge ports) at the Police Department at Laguna Palms.

For each fleet domicile location, the quantities of fleet vehicles to electrify as well as proposed Level 2 and DC fast chargers for fleet use and public Level 2 chargers are summarized in Table 8 below, along with planning-level estimated total project capital expenditure (CAPEX). Chargers and supporting electrical service infrastructure need to be installed concurrently with vehicle electrification to ensure that each EV has sufficient charging infrastructure. It is more cost-effective and expedient to plan these in phases as summarized in the same table. The following section contains details on the development of these implementation phases and vehicle and charging infrastructure costs in the different phases.

Facility-level quantities of recommended charging stations by location, type, and phase are presented in Appendix A.

The estimated capital expenditures for each implementation phase and both fleet and public chargers are summarized for each location in Table 9 below.

Multiple implementation phases could be implemented concurrently but are listed separately to facilitate budgeting over time in case of funding constraints.

TABLE 8: SUMMARY OF RECOMMENDED FLEET AND PUBLIC CHARGERS, CAPEX ESTIMATES, AND PHASING

FLEET DOMICILE	VEHICLES TO ELECTRIFY	TOTAL FLEET L2 CHARGERS	TOTAL FLEET DCFC	TOTAL PUBLIC L2 CHARGERS	CAPEX	PHASE 1 CHARGERS INSTALLED	PHASE 2 CHARGERS INSTALLED	PHASE 3 CHARGERS INSTALLED	TOTAL CHARGERS INSTALLED
ANIMAL SHELTER	6	1	-	1	**$88,640**	2	-	-	**2**
CITY HALL	11	5	-	2	**$234,540**	4	-	3	**7**
CORP YARD	17	12	-	-	**$337,400**	6	6	-	**12**
FLEET FACILITY	76	38	5	-	**$2,237,240**	24	12	7	**43**
LAGUNA PALMS CAMPUS	85	28	2	2	**$1,758,040**	22	6	4	**32**
SWCC	1	1	-	1	**$64,720**	2	-	-	**2**
EXISTING ELK GROVE LIBRARY	-	-	-	3	**$141,260**	3	-	-	**3**
OLD TOWN PLAZA	-	-	-	13	**$599,240**	13	-	-	**13**
DISTRICT 56	-	-	-	0	**-**	-	-	-	**-**
TOTAL	**196**	**85**	**7**	**22**	**$5,461,080**	**76**	**24**	**14**	**114**

TABLE 9: ESTIMATED CAPITAL EXPENDITURE BY IMPLEMENTATION PHASE

FLEET DOMICILE	PHASE 1 (2024-2028) CAPEX	PHASE 2 (2029-2033) CAPEX	PHASE 3 (2034-3035) CAPEX	TOTAL CAPEX (FLEET)	TOTAL CAPEX (PUBLIC)	TOTAL CAPEX
ANIMAL SHELTER	$88,640	-	-	$61,260	$27,380	**$88,640**
CITY HALL	$184,560	-	$49,980	$185,800	$48,740	**$234,540**
CORP YARD PUBLIC WORKS/ POLICE	$199,360	$138,040	-	$337,400	-	**$337,400**
FLEET FACILITY	$1,433,800	$319,900	$483,540	$2,237,240	-	**$2,237,240**
LAGUNA PALMS CAMPUS	$1,363,020	$193,060	$201,960	$1,681,300	$76,740	**$1,758,040**
SWCC	$64,720	-	-	$53,280	$11,440	**$64,720**
EXISTING ELK GROVE LIBRARY	$141,260	-	-	-	$141,260	**$141,260**
OLD TOWN PLAZA	$599,240	-	-	-	$599,240	**$599,240**
DISTRICT 56	-	-	-	-	-	**-**
TOTAL	**$4,074,600**	**$651,000**	**$735,480**	**$4,556,280**	**$904,800**	**$5,461,080**

PROJECT IMPLEMENTATION AND PHASING

This section summarizes how and when Elk Grove will replace ICE vehicles with EVs and add charging infrastructure in implementation phases over time for each fleet facility. Existing ICE vehicles will be replaced by EVs as they age out of service following the City's standard fleet replacement schedules. Charging infrastructure must be installed concurrently with vehicle electrification (EV acquisition) at each fleet facility so that fleet EVs will be able to charge as soon as they become part of the fleet. In addition, Elk Grove plans to install a total of twenty-two Level 2 chargers for non-fleet public and employee use at six City-owned facilities open to the public.

OVERVIEW

As previously noted, it will likely take 12 years for Elk Grove to transition the municipal light-duty fleet to EVs. During this period, EVs will gradually replace existing ICE vehicles, and an estimated total replacement cost of about $12.2M.[12] Additionally, electrical system upgrades and EV charging infrastructure will need to be installed, at an estimated cost of about $5.5 million. Because it is more financially manageable to distribute this investment over time, three phases are recommended for project implementation, corresponding to the vehicle replacement schedule and the installation of chargers to support the growing number of EVs in the fleet.

Phase 1, occurring between 2024 and 2028, will incur the largest investments for the City due to the large number of vehicles to replace coupled with the need for electrical service upgrades at multiple facilities. These investments include $6.3M to procure the first 121 electric fleet vehicles and $3.2M for electrical system and fleet charging infrastructure. The total capital cost of Phase 1 is estimated to be $10.4M, representing more than half of the capital cost of the transition to an EV fleet. This phase additionally includes $904k for installation of additional public charging at City facilities, including $141k for public chargers at the Elk Grove Library and $599k for public charging at Old Town Plaza.

Phase 2, occurring between 2029 and 2033, would procure an additional 17 EVs at a cost of $1.2M and install additional charging infrastructure at a cost of $651k. Because relatively few EVs need to be purchased and the electrical system upgrades will have been made during the

[12] It is important to note that the vehicle costs are not new expenditures, but rather replacement expenditures for purchasing ICE vehicles.

previous phase, the total capital cost of this phase is estimated to be $1.9M representing only 11% of the full transition cost.

Phase 3, occurring between 2034 and 2035, will include procurement of the remaining fifty-eight EVs at a cost of $4.7M, along with the final installment of charging infrastructure at an estimated cost of $735k. The total costs of Phase 3 investments are estimated to be $5.4M, representing 31% of the full fleet transition capital cost.

In addition to the capital investments required in each of the three phases, operating expenses (OPEX) will be needed to run (charge) the EVs and operate and maintain chargers. The OPEX related to operating of EVs include the cost of electricity used to charge the EVs and amount to $8.5M during the period until 2035. The OPEX incurred by the fleet chargers total $813k and those of public chargers to $142k. The total contribution of operating expenses to the fleet transition total is about $9.4M.

Once the transition is completed, the City can expect ongoing savings as the annual OPEX of an electrified fleet are estimated to be smaller than those of the existing ICE fleet, given fuel cost savings.

VEHICLE TRANSITION

OVERVIEW

The City will need to invest a total of $27.1M for procurement and operation of EVs and installation and maintenance of charging infrastructure to complete the transition of its fleet to EVs at all City-owned facilities over the next 12 years. This amount is only about $2.5M in additional funding, as the estimated cost of capital and operating expenses for the ICE fleet would be $24.6M over the next 12 years. The recommendation is that the City only procure vehicles meeting the requirements of its duty cycle when they become commercially available. There are expected to be many more choices for light-duty vehicles in 2024 and beyond than are currently available with the possible exception of suitable replacements for pursuit-rated patrol vehicles which may not be available until 2025 or 2026.

Beginning in 2035, all new passenger cars and light-duty trucks sold in California will need to be zero-emission. In addition, CARB has already put in place or is continuing to work on rules for public and private fleets to transition to zero emissions.[13] To ensure the City is able to comply

[13] Most relevantly, this includes the Advanced Clean Fleets (ACF) rule, which was adopted by CARB in mid-2023 and became effective on January 1, 2024. The rule requires an increasing share of new and existing medium- and heavy-duty vehicles in municipal and other fleets to be zero-emission.

with the transition to ZEVs, the 2035 year is a useful planning target to ensure EV charging infrastructure sufficient to support City fleet needs are operational at each City-owned facility. Using a phased approach to the implementation of the fleet transition plan allows for the cost to be spread over the next decade while still ensuring the City will be able to fully meet the State goals with respect to ZEVs. In addition, the phased approach provides an opportunity to assess and implement new technology with the transition.

City of Elk Grove Electrification Assessment Online Data Visualization

To help City staff visualize the transition of its existing fleet to EVs, including the timing and associated costs of this transitions, this project developed an interactive website to host data visualizations. Page 1 of this website summarizes the economics and CO2 reduction relative to a baseline of non-fleet electrification. Page 2 is the Transition Planner allowing users to view and select individual fleet vehicles by replacement year, implementation phase and fleet facility to understand costs. Page 3 lists charger quantities by facility recommended for both fleet and public use as well as their associated capital and operating costs. The remaining pages list each fleet asset by class, quantity, duty cycle, modeled replacement EV and estimated purchase cost. The address and password for the online data visualizations is shown in the text box below.

URL: **https://frontierenergy.com/city-of-elk-grove/**

Password: ***Elk Grove***

PHASES

For planning and budgeting purposes, the fleet transition will take place over three phases, including:

- Phase 1 (2024 – 2028)
- Phase 2 (2029 – 2033)
- Phase 3 (2034 – 2035)

Across these three phases, the City will need to invest a total of $27.1M to procure vehicles and install charging infrastructure to complete the transition.

The quantity of fleet EV purchases by phase for each City fleet facility and department are summarized below in Table 10.

TABLE 10: ELK GROVE FLEET VEHCILE REPLACEMENT SUMMARY

DOMICILE LOCATION	MANAGING DEPARTMENT	PHASE 1: # OF VEHICLES	PHASE 2: # OF VEHICLES	PHASE 3: # OF VEHICLES	TOTAL # OF VEHICLES
ANIMAL SHELTER	Police Animal Care	2	0	4	6
CITY HALL	Code Enforcement	4	1	2	7
	Housing	0	0	2	2
	Facilities	0	1	0	1
	Public Affairs	1	0	0	1
CORP YARD	Public Works	0	7	9	16
	Police Animal Care	0	0	1	1
FLEET FACILITY	Police	53	7	16	76
LAGUNA PALMS CAMPUS – POLICE	Facilities	0	0	1	1
	Police	56	1	19	76
	Police Motor Pool	4	0	1	5
	Police Property Evidence	0	0	1	1
	Police Transport	0	0	1	1
	Recycling and Waste	1	0	0	1
SWCC	Recycling and Waste	1	0	0	1
	Total:	**121**	**17**	**58**	**196**

As described in the next section, the recommendations for a phased installation of the required charging infrastructure is attuned to the timing of the transition of fleet vehicles to EVs.

CHARGING INFRASTRUCTURE INSTALLATION PHASES

Charging infrastructure must be installed in time to charge the fleet EVs assigned to each fleet facility consistent with vehicle replacement timing. Charging infrastructure deployment will be based on the electrical system requirements needed to power the EV chargers. Chargers powered by existing electrical capacity requiring no electrical infrastructure upgrades could be completed in a single phase, typically Phase 1, though the City could delay or phase implementation concurrent with vehicle electrification for budgetary or other reasons. For facilities with relatively few fleet EVs and minimal electric load growth from EV charging such as the Animal Shelter or SWCC, no electrical system upgrades will be needed and therefore charger deployment could be completed in a single phase concurrent with fleet electrification.

The City will need to invest a total of $4.6M to procure and install charging infrastructure to power fleet EVs at all identified City-owned facilities. Additionally, the City will need to invest a total of about $905,000 to procure and install charging infrastructure for the public. The total CAPEX across fleet and public chargers thus amounts to about $5.5M. This should occur in three phases between 2024 and 2035. Appendix A outlines this in detail for each facility, including the number and types of chargers to be installed in each of the three phases.

Figure 4 below graphically illustrates how charger deployment for fleet, staff and public use would be phased, including all studied facilities. Fleet vehicle replacement by EVs is shown in gray while EV chargers are shown in orange.

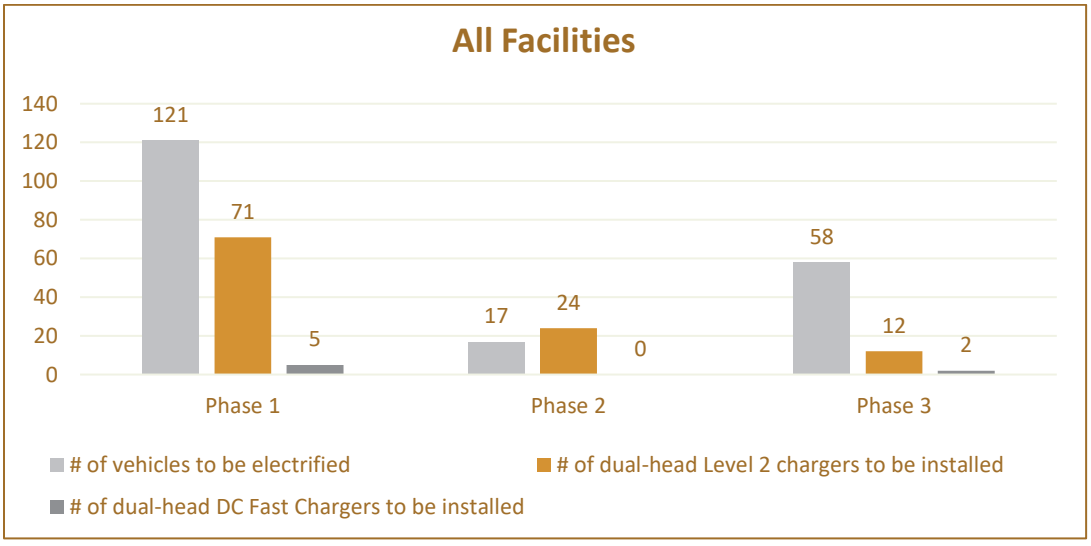


FIGURE 4: FLEET VEHICLE ELECTRIFICATION AND EV CHARGING INFRASTRUCTURE DEPLOYMENT BY IMPLEMENTATION PHASE ACROSS ALL FACILITIES

BACK-UP POWER AND RESILIENCY

Fleets operating mission-critical EVs need to be able to charge independently of the power supply. Most of Elk Grove's mission-critical EVs are domiciled at the Corp Yard, Fleet Facility and at Police Station within the Laguna Palms campus. Therefore, each of these will need to provide backup power summarized below in Table 11 during extended power outages.

TABLE 11: ELECTRICAL DEMANDS OF MISSION CRITICAL FLEET FACILITIES

FLEET FACILITY	DAILY KWH	AVERAGE KW	PEAK LOAD
CORP YARD	240.6	15.0	198
FLEET FACILITY	996.9	62.3	1,565
LAGUNA PALMS CAMPUS (Police & City Hall)	630.2	39.4	1507

The conventional approach would be to install an additional pad-mounted generator, replace an existing generator with a larger unit, or install a plug for quick connection to a portable trailer-mounted generator. Alternative approaches that respect zero-emission targets and mandates include deploying a microgrid to utilize a solar array, preferably with battery energy storage, and/or the use of bidirectional chargers using fleet EVs to charge one another. For example, the Ford F-150 Lightning has integral charging ports that could be used to charge other fleet EVs. Some of the currently available zero-emission resiliency and backup options are explained below.

BACKUP GENERATORS

The conventional approach to energy resiliency is the use of conventional fuel back-up generators, which are available in sizes up to 2,000 kW. These generators can be permanently installed at facilities for dependability and ease of operations or can be mounted on trailers to provide greater flexibility for fleet operators. Elk Grove already has generators at several of its facilities. If they have spare capacity, existing generators could be used to power chargers, however backup generators are typically sized for existing building loads. If additional generation capacity is limited, Elk Grove could install a generator at one or more of its primary fleet facilities where emergency response vehicles are domiciled including the Corp Yard, Fleet Facility and Laguna Palms campus or at least provide quick connect couplings and an adjacent space to park a trailer-mounted portable generator. Portable generators offer flexibility but typically cost up to 30% more to purchase.



FIGURE 5: TRAILER-MOUNTED 625-680 KVA MOBILE GENERATOR

Source: HIPOWER

Backup generators can be powered by diesel fuel or other liquid fuel sources like natural gas or propane. To help achieve the City's carbon reduction goals, renewable diesel—a hydrocarbon diesel fuel produced by hydro-processing of fats, vegetable oils, and waste cooking oils—could be substituted for standard petroleum diesel. According to industry sources like Neste[14], which is available from two distributors in Stockton, such a substitution reduces lifecycle emissions by up to 80% compared to petroleum diesel.

An alternative to traditional internal combustion powered generators are linear generators, which follow a more fuel-agnostic approach. Linear generators can typically run on a range of fuels including natural gas, biogas,

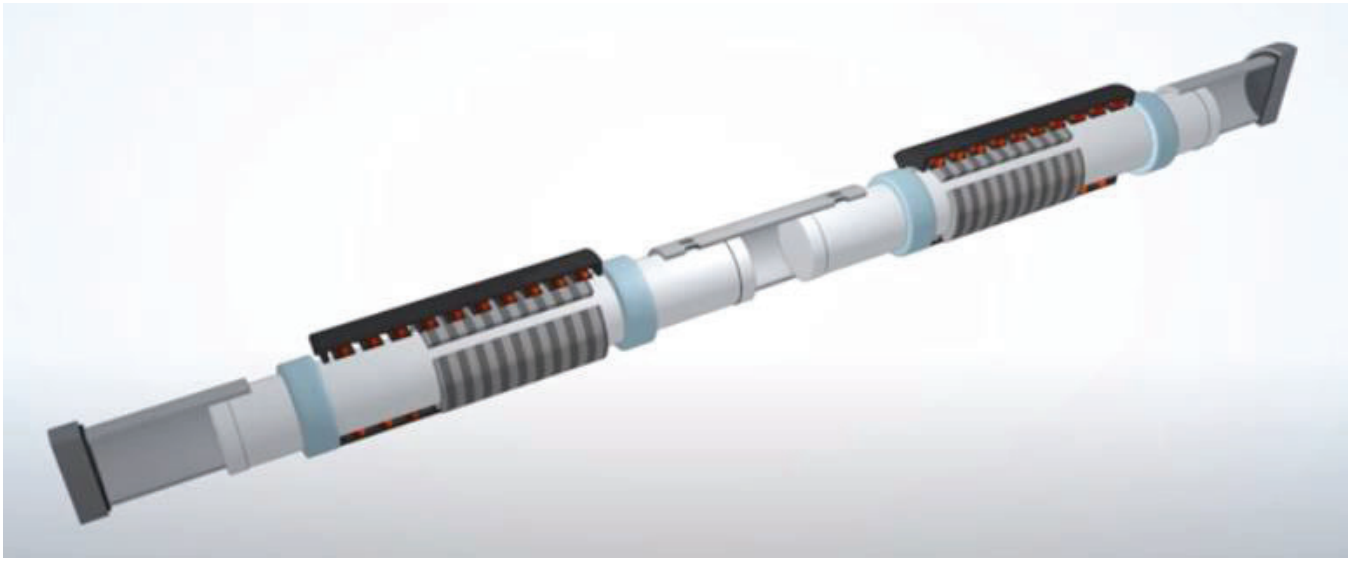


FIGURE 6: MAINSPRING LINEAR GENERATOR

hydrogen, ammonia, and syngas. They are functionally different to conventional generators in that they utilize a flameless compression reaction of the fuel gas in use. The expansion of the

[14]https://www.neste.us/neste-my-renewable-diesel/find-fuel

gas upon reaction drives the generation of electricity in the linear generator. Mainspring[15] offers a scalable product that can provide 480-V output voltage starting at an output power of 230 kW which could easily power a dual-port DC Fast Charger at any of Elk Grove's facilities. In an existing configuration, the linear generator runs on natural gas or biogas with a hydrogen blend of up to 30%, but the system is capable of running 100% on either hydrogen or ammonia. An example of linear generators deployed in California include a new installation to power charging for Prologis's drayage fleet.

HYDROGEN FUEL CELLS

Fuel cells are a rapidly growing form of grid-independent generation that can, depending on the energy feedstock and conversion process, be environmentally sustainable. Fuel cells combine the fuel (typically hydrogen,) with oxygen to shed electrons and generate an electric current. In the case of hydrogen fuel cells, the only byproducts of this process are: electrical current, water (H2O), and heat. There are several major companies that can provide this type of generation, including Bloom Energy and Kaizen Clean Energy. Their technology is stackable, scalable, and requires only limited physical space.

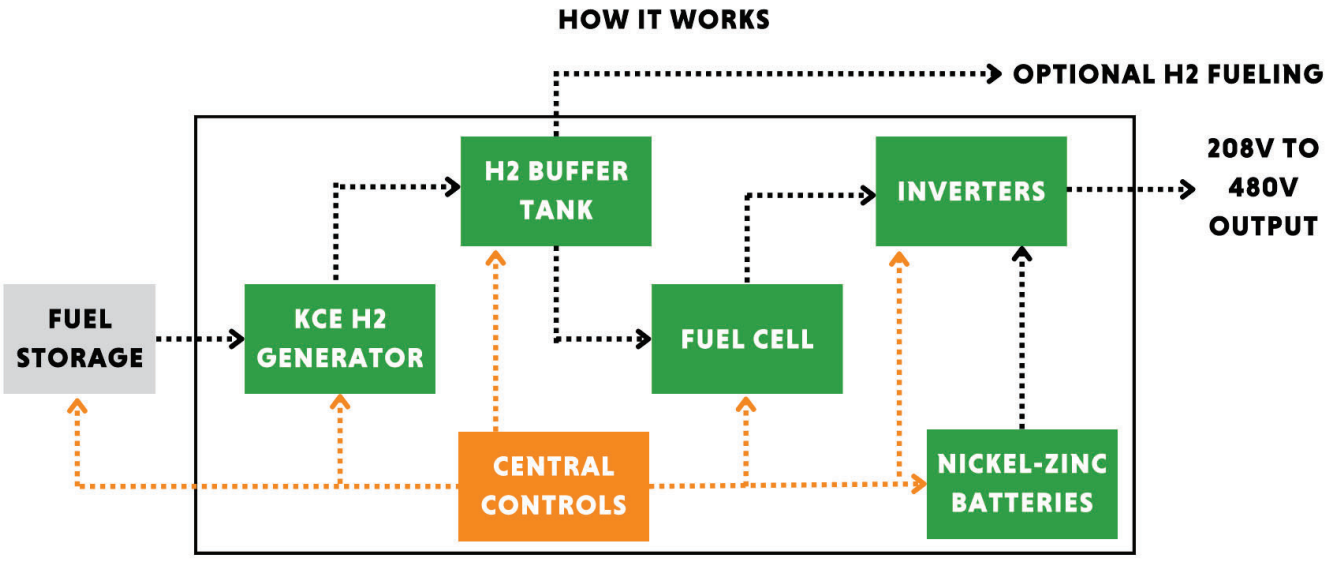


FIGURE 7: SCHEMATIC OF HYDROGEN FUELCELL POWERED CHARGERS (SOURCE: KAIZEN CLEAN ENERGY)

The capital investment required for a fuel cell's initial infrastructure and the cost of hydrogen can be expensive; however, compared to the footprint and efficiency of other forms of power

[15] https://www.mainspringenergy.com/solutions/

generation such as generators, solar PV or wind turbines, they can be a useful alternative or complementary technology.

Since generators and fuel cells are costly and fuel consuming, several alternative approaches to provide resiliency for fleet fueling during power outages are based on the use of distributed energy resources (DER) and battery storage as explained below.

BATTERY ENERGY STORAGE

Battery storage is a technology that enables electrical energy to be stored for later use. A battery energy storage system (BESS) is an electrochemical device that charges (or collects energy) from the grid and then discharges that energy when needed such as during a power outage or to reduce demand on the grid. Like generators, a BESS can be permanently installed or be portable. Examples range from chargers with integrated batteries like Freewire Technology's Boost chargers, to small portable units, like the Dannar Mobile Power Station, to on- and off-site grid-scale storage battery facilities, like Joule's modular battery system.

Improvements in energy storage technology have improved space efficiency too. For example, Joule's battery modules are only 4' wide, 4' high and 8' long and available with up to 300kWh of storage capacity. Therefore a single standard parking stall would provide sufficient space for up to four adjacent modules with 1,200kWh of storage capacity. Since these are stackable, a second row of battery modules would double this capacity to 2,400kWh which would be sufficient to fully charge 40 typical light duty EVs. As battery technologies continue to improve in terms of energy density and lower cost, the use of BESS will become increasingly viable.



FIGURE 8: JOULE'S MODULAR, STACKABLE, CHAINABLE BATTERY SYSTEM (LEFT), DANNAR MOBILE POWER STATION (RIGHT)

One of the main distinctions of types of BESS is whether it is designed to be installed permanently or whether it is a portable or temporary solution. Permanently installed BESS can provide backup power for spontaneous grid outages (blackouts and brownouts, or partial

outages) as well as mitigate the daily peak charging demand by replacing all or parts of the power draw from the existing utility service with its own electricity. Mobile or temporary BESS, on the other hand, provide a flexible solution for fleet applications in which less certainty exists around where and when additional or backup power will be needed. Mobile battery systems can be deployed at specific sites on short notice and moved to a different location when needed.

Some third-party charging-as-a-service providers offer large mobile batteries delivered by truck that can power onsite chargers. One startup is StorEdgeAI[16] which will offer a mobile battery-based charging supply solution at less than half the cost of gasoline fueling. StorEdgeAI hopes to deliver bulk electricity daily, independent of the utility grid, directly from large renewable plants to EV charging locations such as fleet depots. StorEdgeAI's technology enables one mobile battery unit (with several MWh onboard on a 30' shipping container) to fulfill the daily energy needs for over 100 light-duty EVs. Mobile battery fleet size scales incrementally with demand (as fleet electrification grows), removing upfront investment risk. Such solutions require no utility grid upgrades or onsite utility distribution infrastructure.

SOLAR

Instead of or in addition to back-up generators or batteries, EV charging operations can be protected from power supply interruptions by on-site renewable generation like photovoltaic solar panels coupled with on-site energy storage batteries.



FIGURE 9: BEAM EV ARC SOLAR-POWERED EV CHARGER WITH BUILT-IN BACKUP ENERGY STORAGE

Source: BEAM

Solar power is becoming an increasingly viable source of power for EV charging because of improvements in energy collection and storage technology. Solar technologies provide environmental benefits due to a lack of carbon emissions and resiliency benefits from an ability to operate with independence from the electrical grid during disruptions or emergencies. One example of this is a transportable turnkey vehicle charging station called EV ARC powered by a tracking solar canopy and lithium-ion battery storage developed by Beam, formerly Envision Solar

[16] https://storedge-ai.com/

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International, that may be very appropriate for multiple fleet applications. This modular solar charging platform is designed to be operated independently from the grid or it can be grid-buffered. They require no construction nor ground disturbance and therefore can be installed and set up quickly at the charging site without permitting and essentially no operating cost. The company has recently developed an upgraded version of the company's existing standard EV ARC shown in Figure 9, the High Powered EV ARC, which can be equipped with 38-51kWh of battery storage, 40 Amp power supply, and an 8.4-kW Level 2 charger or a 12.5kW DC charger. The charger can split dynamically among as many as six J1772 charging plugs. The high-powered EV ARC is able to be daisy chained or stacked with surface cabling to support 50kW DC fast charging, which is able to produce 1,000 miles of EV driving range per day on average, depending on site location and amount of sunlight.

Another solar powered charger option is Paired Power's Pair Tree, consisting of a 5kW solar canopy with bi-facial modules coupled with a 43kWh storage battery for charging when the sun isn't shining. Each Pair Tree contains dual 5kW Level 2 charging ports, LED lighting and parking bollards, a software app for full charging control including reservations via smartphone.

Solar powered EV chargers such as Beam's EV ARC or Paired Power's Pair Tree can be islanded (no grid connection) to simplify installation. However, they can also be connected to the grid, making them potentially eligible for SMUD's Solar and Storage Rates which allows the utility to purchase excess solar power and credit the City for the power purchased.

MICROWIND



FIGURE 10: 10-KW MICROWIND TURBINES WITH SOLAR AND BUILT-IN BACKUP ENERGY STORAGE

Source: FLOWGEN

Another potential source of distributed renewable energy for powering EV chargers is wind. Due to technological advances, small wind turbines that spin in as little as 5-mph wind can provide up to 10 kW of power, enough to supply a medium output Level 2 charger. Flowgen Technology, a Swiss cleantech company, designs, manufactures, and constructs these turbines as well as “smart microgrids” combined with battery energy storage and smart controls to optimize microgrid performance. These smart microgrids can operate autonomously (in “island mode”), daisy-chained to create to scale (kW-MW) with interoperability control and communication and can also be connected to the larger utility grid, making it more adaptable and resilient and reduces stress on the utility grid.

MOBILE MICROGRIDS

At least one company, CE+T America, has combined multiple distributed energy components (DER) into a stand-alone pre-wired mobile microgrid mounted on an 8'x20' skid that can fit in a single standard parking stall. The Watt2Go mobile microgrid (W2G) power system supports EV charging with an option to mount Level 2 or DCFC stations on a W2G single skid. The system architecture can be configured in a controlled environment using CE+T’s “DEPGreen” design configurator in real-time to meet specific energy requirements. The W2G can operate in grid connected or autonomously in island mode using combinations of conventional and new generation and storage technologies, such as generators, solar PV, MicroWind, LFP batteries and fuel cells. Because they are skid-mounted modular microgrids, they can be deployed in less than a day and be relocated via truck from one fleet facility to another if needed. Like other recommended EV charging technologies, the single skid W2G is modular and scalable up to 240 kW of power and 515 kWh capacity and capable of being stacked to MW size with full interoperability to meet the needs of larger fleets.

BIDIRECTIONAL CHARGING

A promising emerging technology is bidirectional charging. Bidirectional charging refers to being able to charge EVs and draw power back from an EV's battery as a power supply. Bidirectional charging combines the use of a bidirectional charger, a bidirectionally enabled battery-electric vehicle and a software management program. This combination of assets enables EVs to deliver two-way (bidirectional) power flow by drawing power from the grid or a building and discharging energy back into a building or the grid. Each component of bidirectional charging is explained below. Collectively, these technologies are commonly known as "vehicle-to-everything" or simply "V2X". Bidirectional chargers are available in the US by international charging vendors like Borg Warner, Wallbox and Nuvve as well as domestic startups like Fermata Energy.

Vehicle-to-Grid (V2G): Enables surplus EV battery capacity to be exported back to the grid to provide a variety of grid services for grid operators and utilities, including system-wide load management, frequency regulation, renewables integration, power-outage resiliency, etc. Such services are also referred to as vehicle-grid-integration (VGI).

Vehicle-to-Building (V2B): Vehicle-to-Building services, which are behind the meter, non-export-to-grid activities, refer to the dispatch of power from a bidirectional EV to a commercial or residential building. The main application of V2B is demand charge management on facilities with high to moderate demand charges. SMUD currently has demand charges especially during weekdays in the summer, and this could change in the future as electrical demand grows while hydro capacity dips during system-wide summer peaks and the grid becomes increasingly dependent on renewable, intermittent energy sources like wind and solar.

V2B can also provide disaster resiliency/back-up power for buildings through sharing of power between the buildings co-located with the fleet parking facility and the vehicles that charge there, allowing buildings to borrow stored electricity from the EV batteries. This way, EVs could provide emergency dispatchable mobile backup power capacity during power outages.

Vehicle-to-Vehicle (V2V): Allows EVs to transfer power to and from each other's batteries. Since utilization by most fleet vehicles is well within the battery range of currently available EVs, a substantial surplus power is typically available. As battery capacity expands far beyond the daily range needs of most fleets, this surplus capacity will likely expand even more. This power could be shuffled between vehicles via a microgrid or backup generator on an as-needed basis, reducing demands on fleet charging infrastructure as well as on the grid. During power outages, mission critical vehicles, like police cruisers and fire department apparatus, could draw power from non-mission critical vehicles, allowing their batteries to function as backup power storage reducing the need for investments in backup energy storage and emergency generators. A practical application would be to use an EV, e.g., Ford F-150 Lightning with onboard power

outlets, to charge other utility vehicles. Other solutions include other EVs capable of bidirectional charging such as a Nissan, Hyundai, or Kia connected to charging stations that are each capable of bidirectional charging. The charging station, or the underlying charge management software, could then request the charging of a specific vehicle using the energy stored in a different vehicles' batteries.

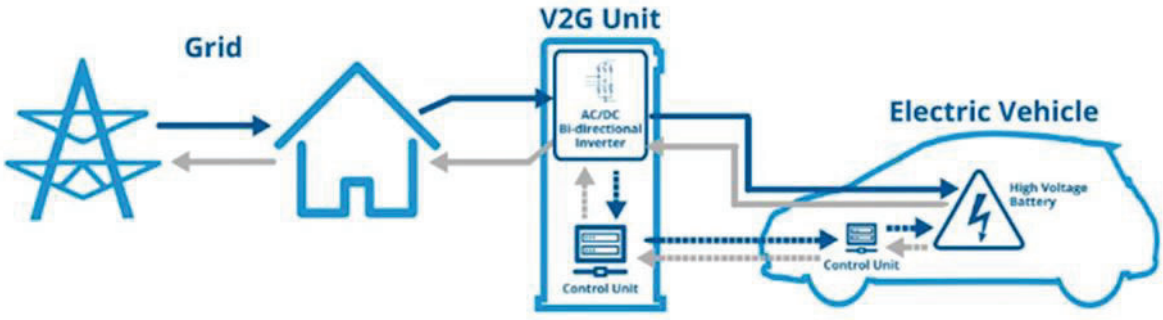


FIGURE 11: BIDIRECTIONAL CHARGING. SOURCE: FLEETCARMA

Benefits: Bidirectional charging will provide a variety of benefits to fleets, facilities, and utilities, including potential revenue from grid services, cost reduction through avoided demand charges and resiliency for buildings and vehicles using EV batteries providing backup energy storage. This technology unlocks the significant energy storage potential of EVs and enables EV batteries to provide valuable energy services to buildings and the electric grid. Most privately-owned EVs are parked 95% of the time (as are privately-owned combustion engine vehicles), and even fleet EVs are typically parked more than 60-70% of the time. This offers abundant sources of mobile, distributed, and dispatchable capacity.

Disadvantages: Unfortunately, universal bidirectional EV chargers are not yet available. Every OEM (like Ford) tends to have proprietary software or communication protocols to allow their EVs to talk to other equipment. Most of it is due to liability concerns so all equipment requires compatibility certification. The current lack of bidirectional charging standards are expected to remain until standards are approved through CharIN by 2025. Bidirectional charging should be considered by fleets to be an emerging technology that will change quickly and should be tracked on an on-going basis as it will likely revolutionize the industry. Another challenge is the lack of current standards for V2G and V2B and open architecture, potentially resulting in compatibility limitations.

Some vehicle OEMs, including Ford, GM, Rivian, and Hyundai, are embracing bidirectional charging technology by aiming to include this capability in their current or future EV model offerings. Additionally, commercially available bidirectional chargers are limited to a few options

including the Fermata Energy FE-15 and the Ford Charge Station Pro[17], Wallbox Quasar II and a pair of DCFC from Borg Warner. In addition, more such charging products are under development by many different companies so it is reasonable to assume that bidirectional charging will be part of future EV and charger models and that it will be increasingly deployed given its unique resiliency benefits, potential to mitigate partial or full grid power outages and other benefits.

CONCLUSION

The need for back-up power is growing rapidly as both vehicles and facilities transition from fossil fuels like gasoline, diesel, and natural gas to electricity. This is increasing strain on the electrical grid and the risk of brownouts and public safety power shutoffs events is a critical concern for fleet operators, especially for mission critical EV fleets. Industry has only recently begun to react to this demand with a variety of innovative resiliency solutions, many of which are novel and unproven. For a fleet like Elk Grove's domiciled at multiple locations, each with unique site conditions, different vehicle types and power demands, the City will likely need to deploy a variety of approaches, rather than selecting a specific technology. For example, solar combined with BESS makes sense where space is sufficient and mobile battery powered chargers could be used at multiple sites to supplement and distribute power produced by backup generators. In the future once accepted by more automotive and EV charger OEMs and standardized, V2V will likely be the most cost-effective approach since the City will be acquiring significant battery capacity integral to its growing EV fleet and the incremental cost of bidirectional chargers is negligible. For now, the City should continue to monitor improvements to resiliency technology as it improves and standardizes and make purchases as needed during implementation of this plan.

Table 12 below summarizes the advantages and disadvantages of these backup power alternatives.

[17] https://www.solarpowerworldonline.com/2023/02/what-is-bidirectional-ev-charging/

TABLE 12: COMPARISON OF BACKUP POWER OPTIONS

TECHNOLOGY	ADVANTAGES	DISADVANTAGES
Generators	Flexibility Can be mobile Availability through purchase or lease	Noisy when running Fuel consumption Potential emissions Occupies physical space
Fuel Cells	Zero emissions Silent operations Flexibility	Fuel consumption Occupies physical space
Battery Energy Storage	Zero emissions Silent operations Flexibility Can be mobile Availability through purchase or lease	Needs power supply Occupies physical space
Solar	Zero emissions Silent operations Can be independent of power grid	Daylight only or requires battery energy storage Needs solar access Requires large open area
Microwind	Zero emissions Can be independent of power grid	Wind-dependent and requires battery energy storage
Bidirectional charging (V2X)	Zero emissions Silent operations Flexibility Can be mobile Can be independent of power grid Utilizes existing assets (EV batteries) Requires no additional space	Requires bidirectional EVs and chargers Lack of industry standards (CharIN)

RECOMMENDATIONS FOR IMPROVING DATA COLLECTION/ANALYSIS

VEHICLE DATA

At a minimum, the City's fleet manager will need systems that can collect and analyze data to better understand energy consumption patterns for ICE vehicles to inform electrification planning. Ideally, this would include fuel consumption, engine idling time, trip distance, and use of auxiliary equipment to ascertain total energy consumption. Other data useful for fleet managers includes vehicle health diagnostics, location, and driver performance, such as rapid

acceleration and harsh braking that reduces energy (fuel) efficiency. A variety of telematics platforms are capable of collecting this data which can be monitored in real time by fleet managers on online dashboards as well as drivers via mobile devices and subsequently aggregated for analysis and planning purposes. For managing fleet EVs and fleet EV charging, as well as to update this plan, a telematics system should be utilized that monitors vehicle battery state of charge as well as factors affecting battery range such as driving behavior, charging speeds, ambient temperature, topography, and vehicle loads. Some of this data can be collected directly by some vehicles' integral systems while others will require installation of telematics by third-party providers.

Numerous smart technologies are improving the planning and operations of multiple aspects of electromobility from data collection and analytics to distribution and management of electrical loads to specialized charging technologies addressing the unique needs of specific fleet components. The collection and analysis of vehicle data such as miles and routes driven, energy consumption, and driver behavior can be collected using telematics such as Geotab, Samsara, Verizon Connect, Tangerine and dozens of others. The collected information can then be fed into a data analytics platform such as Sawatch Labs for light-duty vehicles or Microgrid Lab's EVOPT for heavy-duty vehicles to perform sophisticated diagnostics to inform decision making on vehicle choice, battery size, and charging requirements.

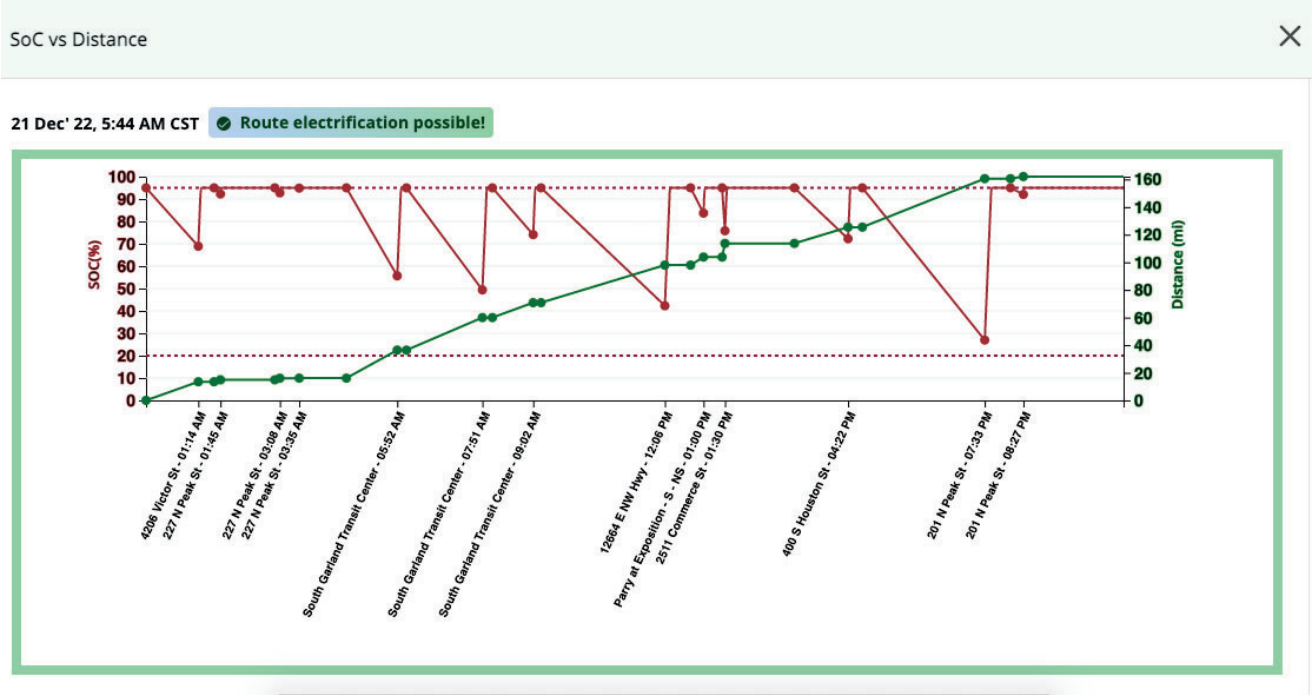


FIGURE 12: DATA DASHBOARD SCREEN CAPTURE

Considerations related to the analysis of EV data include the following:

1. DATA COLLECTION USING AN EDGE COMPUTING DEVICE

Installation of an edge computing device that can collect the following data and push it to the cloud for further analytics would increase the ability to efficiently and effectively manage the City fleet and charging infrastructure.

- Charged energy and discharged energy
- Charger power rating (enroute vs depot/yard)
- The temperature of battery cells (maximum, minimum & average)
- Battery capacity
- Range traveled with current capacity
- Engine start & stop time/locations and GPS
- Energy efficiency/ travel effectiveness
- Ability to configure more parameters

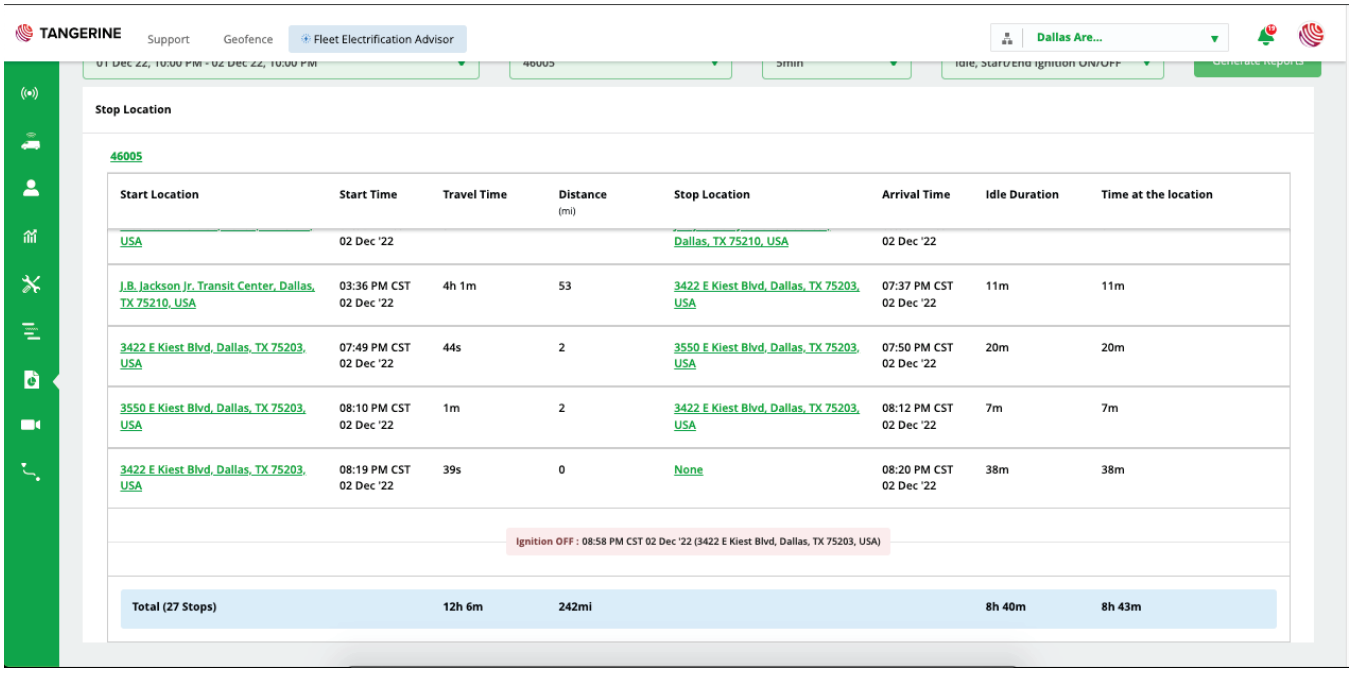


FIGURE 13: DATA DASHBOARD SCREEN CAPTURE

2. BETTER COOPERATION WITH VEHICLE MANUFACTURERS

Whenever the end customer has buyer power over a vehicle OEM, more custom data can be requested for electrification planning. Depending on the use case, this can be requested during planning stages or collected on a continued basis for tracking and monitoring the progress of deployment.

3. ACQUISITION OF QUALITY REAL-WORLD DATA FOR CHARGING/ DISCHARGING RATE

Real-world data on EV charging & discharging rates may vary due to external conditions including weather and vehicle load. For these reasons, real-world data is the most reliable source for analysis and therefore should be used for this purpose rather than simulated data.

4. DATA VISUALIZATION AND GIS OVERLAY

Visualizations and overlaying of the different aspects of the collected information helps in analyzing the data in an intuitive way and makes any issues with data collection or decision-making inputs easier to spot, even those that were previously not apparent from the data collected via traditional methods and means.

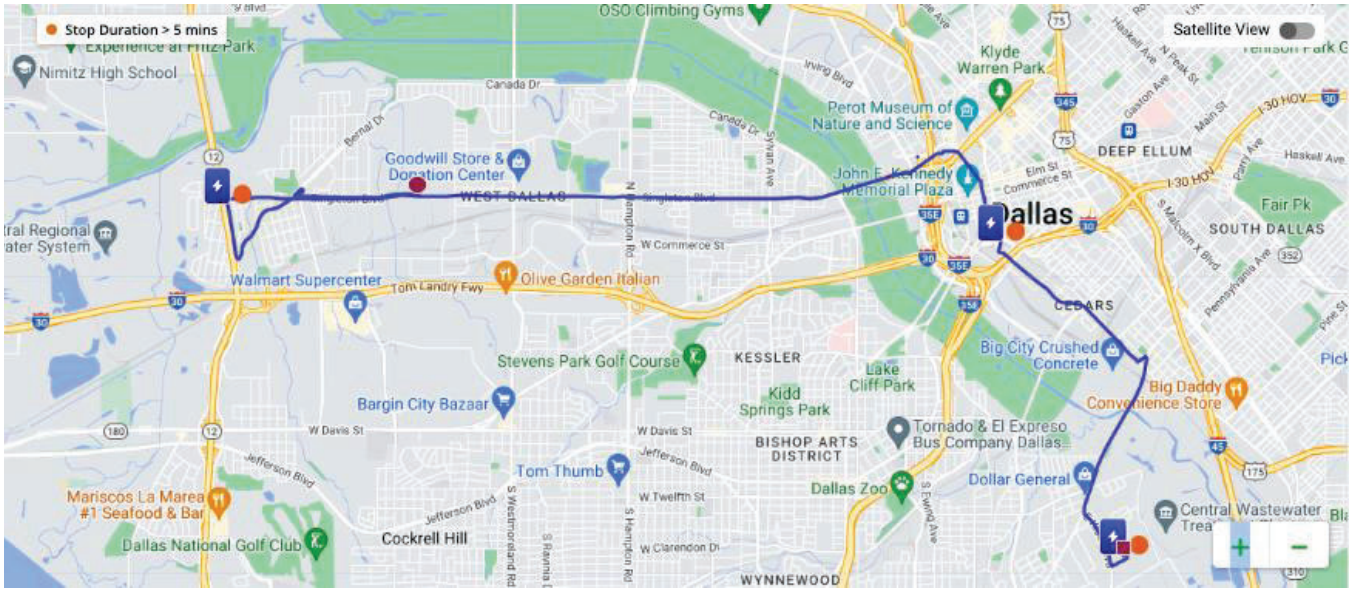


FIGURE 14: DATA DASHBOARD SCREEEN CAPTURE

5. DATA STANDARDIZATION

Standardize the data collected from OEMs or CAN data standardized collection (key-value pair) of data will help the standalone data to make sense.[18] This prevents the need for additional logic for decoding the data.

CHARGER DATA

EV charging data can be collected by EVs themselves as noted above as well as by smart EV chargers that upload data to the cloud or directly to charging facility operator's dashboards. Important data to be collected by smart chargers includes per-charger power dispensation and charging facility electric loads. This data can be used by facility and fleet managers for the purpose of monitoring charger use, tracking service reliability, Low Carbon Fuel Standard (LCFS) revenue collection, and evaluate charger needs for future fleet electrification phases. Smart chargers can also track power use by individual EVs and departments for internal billing (as appropriate), by employees or by members of the public for chargers used by multiple groups for revenue collection and business analytics.

Key considerations to help guide charger selection are listed below. Appendix D describes these attributes in detail and summarizes recommended features and capabilities relevant to them.

- Charge plugs
- Usability
- Ruggedness
- Connectivity
- Payment/data collection
- Efficiency
- Certification
- Interoperability
- Future proofing
- Data collection

[18] CAN data is collected through the controller area network (CAN) standard, which is a common data collection and exchange standard for vehicles.

BEST PRACTICES RELATED TO EVS AND EVSE

This section summarizes recommendations for electrification of municipal fleets based on experience with numerous public agency fleet electrification projects. Appendix D provides more details on the items listed below.

FLEET ELECTRIFICATION

INTERNAL COORDINATION

- **Institute a Facility EV Charging Infrastructure Advisory Committee**: Transitioning the City to an all-electric fleet will require significant capital investments in terms of electrical system upgrades and EV charging infrastructure purchase and installation. This will require close coordination between departmental stakeholders for development of new City policies as well as procedures related to successfully transitioning the fleet to EVs by an advisory committee whose members are (or are committed to becoming) knowledgeable about these issues.
- **Coordination with Fleet/Facilities when planning all new vehicle purchases**: To ensure sufficient charging capacity is available for new fleet EV purchases prior to deployment, close coordination is necessary between the City's fleet and facilities staff regarding the timing of EV purchase and scheduled delivery relative to the purchase and installation of EV chargers at each fleet domicile.

INTERIM ACTIONS

- **Take actions to reduce emissions even before electrification:** Transitioning to an all-electric fleet takes many years. Fleets can take interim actions even before replacing existing ICE vehicles to reduce the emissions of their operations. Examples of such actions include improved driving through driver training and monitoring to reduce rapid acceleration, hard braking and excessive steering, idling reduction, use of telematics and software to improve routing and fuel economy, and shifting to hybrid models prior to fully electric models being available.
- **Fleet rightsizing**: Most fleets have more vehicles than they need. Underutilized vehicle assets should not be replaced with EVs since its emissions savings is unlikely to offset the embedded carbon of the EV's production. Therefore, fleets should evaluate which fleet assets can be declared surplus prior to planning electrification.

FLEET VEHICLE REPLACEMENT

- **Build sufficient contingencies into fleet electrification budgets and schedules:** Elk Grove should develop plans to replace each existing fleet vehicle with suitable EV alternatives by the planned replacement year, but the City should be aware that OEMs have been months or years behind in development of new EV models and delivery of current models, resulting in chronic and severe EV supply shortages. As a result, fleets like Elk Grove's have been unable to comply with planned replacement schedules and EV prices have, at times, escalated above budget estimates. Therefore, the City should expect to be able to adjust plans and budgets to address these constraints.
- **Use surcharges on existing fleet fuel purchases to fund fleet electrification:** One way to fund purchases of charging infrastructure and the incremental cost of EVs relative to ICE vehicles is by adding a modest surcharge to existing fuel sales, a practice the City of Spokane WA has pioneered. Over time, this has generated a sustainable funding stream. Elk Grove's budget office should consult with Spokane regarding that City's experience.
- **Strategically adjust vehicle replacement schedules to accommodate automotive industry delays:** Consider delaying replacement of existing fleet vehicles lacking suitable, available fleet EV models by extending the service life of existing ICE vehicles by an extra year or two, if possible, if doing so would then allow replacement by an EV. If a suitable EV is not available in the near future, fleets may need to delay the replacement opportunity to the next replacement cycle to allow the industry to provide more available products, and use the extra time to plan, permit, purchase and install charging infrastructure.
- **Focus on highest emitters first:** Prioritize replacement of existing fleet vehicles with higher GHG emissions with EVs as soon as suitable EV models exist, to maximize emissions reduction. Since emissions are largely determined by duty cycle, high-use vehicles should be the City's highest priority for electrification, especially for light-duty trucks and vans for which electric models like the Ford F-150 Lighting and e-Transit are now available. Although usage is typically measured in miles, many fleet vehicles are used as mobile offices or run auxiliary equipment like HVAC systems, computers, lights, lifts, blowers, etc. powered by their batteries or hydraulic systems while idling. Thus, engine time and fuel consumption may be a more appropriate metric of vehicle use for measuring emissions and reductions thereof from those vehicles.
- **Only electrify fleet vehicles when environmentally beneficial to do so:** Some vehicles are used so infrequently or are operated so lightly that the emissions reduction benefits of electrification do not offset their lifecycle emissions due to the significant embodied

carbon in current production processes of EVs and their batteries. For such vehicles, it makes more sense – both environmentally and economically – to forgo replacement until regulations mandate the adoption of zero-emission vehicles.

- **Replace vehicles opportunistically:** Because the cost differential between light-duty EV and equivalent ICE models is far lower than for medium- and heavy-duty EVs, fleet managers should generally focus on replacing light-duty vehicles in the near- and mid-terms and medium and heavy-duty vehicles in the medium and long terms when battery technology and economies of scale make these vehicles more cost-competitive. However, there may be opportunities for replacing certain medium and heavy-duty vehicles that fleet managers should consider. Examples include vehicle-specific incentives, grants, and rebates available for certain vehicles. In addition, electric alternatives to certain specialty vehicles offer co-benefits in addition to emissions reduction. For example, electric streetsweepers generate far less noise, allowing them to comply with local noise ordinances, unlike diesel equivalents. Note that Advanced Clean Fleet rule mandates electrification of medium and heavy-duty vehicles, thus the City is required to electrify these regardless of their economics.
- **Plan for special-use vehicles:** While most fleet vehicles have similar uses and duty cycles and can therefore share EV chargers and charging strategies, certain fleet vehicles have unique design and operational characteristics that require special considerations when planning. Examples include fire engines and aid cars which need to operate for extended periods of time in emergency operations with little or no opportunity to recharge their batteries. In addition, the odometer data may not provide an accurate measurement of energy consumption because much of the fuel consumed is used to power special equipment such as pumps, lights, radios, etc. To address the emissions reduction needs of such vehicles, detailed planning is typically required for both vehicle replacement and charging infrastructure installation.
- **Collect and use data to inform planning decisions:** Vehicle replacement plans should be informed by quality data. Therefore as discussed in the previous section, fleet managers should employ GPS and fleet management software to track vehicle usage actively and accurately (e.g., daily VMT, time of day use, O&M costs, etc.) to better understand the usage of the fleet to inform future planning decisions.
- **Purchase EVs to meet realistic range:** The majority of City fleet vehicles drive relatively few miles per day, therefore EV driving range is unlikely to be a concern. For most fleet vehicles, the City should purchase EVs with smaller batteries (if a choice is available for any given model) to reduce expenditure. Of course for mission-critical vehicles (such as

police pursuit vehicles, etc.), where maximum range is essential, the City should consider buying EVs with larger batteries.

STAFF TRAINING

- **Train City fleet EV drivers in EV operations**: City employees authorized to operate City fleet EVs will require training in EV operations. This training needs to address monitoring EV battery state-of-charge and use of Level 2 charging at City fleet parking facilities including rotation of EVs between shared chargers based on schedule or battery state of charge. City fleet EV drivers will also need training on opportunity charging to familiarize them with the use of City-owned and public DCFC stations including payment procedures.
- **Train City fleet technicians in EV maintenance**: City fleet technicians will need training in maintenance of fleet EVs. Due to fewer moving parts and simpler propulsion systems, EVs generally need less maintenance, however since EVs are heavier, wheel bearings, suspension systems, and tires need to be checked and potentially replaced (or tires rotated) more frequently. Technicians will also likely need safety training prior to working on high voltage electrical components as well as on responding to battery fires.
- **Train City electricians on EV charger maintenance**: If Elk Grove opts to maintain its own chargers (rather than outsourcing this to a charging network or other third-party vendor), the City's electricians and IT technicians will need training on monitoring and repair of EV chargers. The most common problems are typically related to data transmission requiring the charger to be rebooted. Another common problem is vandalism and theft of charge cords, so electricians will need to be familiar with system diagnostics replacement of stolen or malfunctioning components.

CHARGING STRATEGY SELECTION

Most municipal fleets are comprised of a mix of light-, medium- and heavy-duty vehicles, the majority of which drive relatively few miles per day and therefore have relatively low energy requirements. In addition, most fleet vehicles are parked every night as well as on weekends at municipal fleet depots (domiciles), providing ample time for EV batteries to be charged even using relatively slow chargers. As a result, the majority of fleet vehicles could be charged using shared chargers as briefly explained below, alongside use of dedicated chargers for comparison. For more detailed discussion on each potential charging strategy, see Appendix A.

- **Use of dedicated chargers**: Dedicated charging is similar to how most EV owners charge their personal EV at home. Dedicated EV chargers are located at parking stalls that are assigned to a specific fleet EV, allowing the EV to be connected to the charger whenever it is not being driven. The use of dedicated chargers is typically the simplest method of charging because every EV gets plugged into its own assigned charger, typically every

night. This allows the use of relatively slow chargers, including Level 1 and 2 chargers, and eliminates the need to track EV battery state of charge and ensures a full battery every morning before the vehicle is driven as long as the driver remembers to plug-in the EV after returning the vehicle to its assigned parking stall.

- **Use of shared chargers:** Unlike how EV owners charge their personal EVs, the large scale of fleet operations creates other needs and opportunities for EV charging. Because most EVs, especially newer models, have far greater battery capacity than is needed for a typical day's driving, they don't often need to be charged every night. Therefore, an alternative charging strategy is for multiple fleet EVs to share chargers by rotating them through the chargers on a scheduled or as-needed basis depending on each EV's state of charge which can range from every few nights to once or twice per month. The majority of shared chargers are typically Level 2 chargers at each fleet domicile supplemented by a small number of DCFC installed at main fleet facilities to provide flexibility and redundancy in case EV state of charge is insufficient or a charger is out of service. Due to the reduced number of chargers and electrical infrastructure supporting them, this alternative can be less costly in terms of reduced capital expenditure, depending on the domicile's available electrical capacity and other factors.
- **Use of load management:** Both in addition to or instead of sharing chargers among vehicles, load management can provide additional flexibility and a reduced peak power draw for municipal fleet charging. Modern hardware- and software-side load management platforms have the ability to distribute a given charger's power output among multiple plugged-in vehicles. These charging platforms can be programmed in custom ways allowing prioritization of certain vehicles.

CHARGING INFRASTRUCTURE

With respect to choosing the right charging infrastructure to fit the fleet's needs, there are many important decisions to make by municipal fleet and facilities managers. A few crucial ones are listed here.

- **Select mid to high output chargers when feasible:** The incremental cost differential between charger output is relatively small, so it makes economic sense to select more powerful chargers and supporting electrical infrastructure, as doing so will provide more flexibility in the future for EVs with larger batteries like medium and heavy-duty EVs.
- **Size electrical infrastructure upgrades to meet future charging needs:** Typically, the largest single cost component of charger installation is electrical "make-ready" infrastructure including electrical transformers, switchgear, panels, conduit, trenching, site restoration, etc. Therefore, Elk Grove should size infrastructure to provide extra

electrical capacity to meet the fleet's future needs in anticipation of electrification of heavy-duty vehicles once they become more available and cost-competitive.

PROJECT IMPLEMENTATION

- **Budget sufficient resources for projects:** Fleet electrification typically requires major capital investments. Along with the hard cost of purchasing EVs and chargers, additional investments include purchase of make-ready electrical infrastructure and charger installation consisting of associated materials and equipment for installation along with site restoration when trenching is required. Soft costs such as project design, permitting, utility fees and contingencies must also be budgeted for. Collectively, these costs greatly exceed the purchase price of the chargers themselves.
- **Engage your local utility early:** One of the longest lead items that most fleets have little control over is for the provision of electrical capacity to power chargers. It can take months just to engage a typical utility in the planning process plus many more months to procure critical electrical hardware such as transformers, making utility engagement the critical path on many projects. Elk Grove will benefit by engaging with SMUD as early as possible.
- **Implement project phasing strategically:** Recognizing that replacing the entire fleet with EVs will take over a decade, Elk Grove will need to be strategic in its fleet electrification investments. As previously noted, the most cost-effective fleet components to electrify first are light-duty vehicles for which suitable and cost-effective EV models can be acquired in the short term, especially for high-use vehicles. Implementation of charging infrastructure installation plans should be phased to utilize existing electrical capacity at each facility to power early phase EV purchases while funding and design for future phases is sought.
- **Leverage Low Carbon Fuel Standards as revenue source:** California's LCFS program empowers EV charging infrastructure owners to register credits from delivered electricity which upon monetization produce ongoing revenue through the transportation electrification transformation. The monetization of these environmental credits is through a commodity market for producers of carbon intensive transportation fossil fuels. While carbon pricing will fluctuate depending on the market supply and demand, the revenue from the sale of clean fuel credits can generate revenue for the City that will offset a portion of the costs of fleet electrification including electricity and EVSE operation and maintenance. As a fuel user, the City's fleet is eligible to register as an obligated party to generate and sell clean fuel credits for fuels the City purchases and uses that have a lower carbon intensity than the state standard. This includes electricity dispensed through

both public and fleet EV chargers. The revenue from those credits gets reinvested back into clean fuels and clean fleet vehicles by City departments.

- **Seek third party incentives:** Replacing existing ICE vehicles with EVs and installing charging infrastructure for a fleet as large as Elk Grove's requires major investment. Fortunately, there are currently ample funding opportunities for EVs and EV chargers, and these opportunities continue to grow rapidly. Covered expenses typically include the purchase or lease of EVs, the purchase and installation of charging infrastructure, and expenses for hydrogen fuel cell electric vehicles (FCEVs) and their refueling infrastructure. Funding programs typically have a fixed term and a limited allocation of funds. Incentive information on specific programs can change quickly and have application deadlines or are on a first come, first served basis requiring ongoing monitoring by the City of these opportunities. Incentive funding programs for transportation electrification are documented in detail in Appendix B of this report and summarized in Table 13 below:

TABLE 13: TRANSPORTATION ELECTRIFICATION FUNDING SUMMARY

SOURCE	PROGRAM NAME	RELATED PROGRAMS
FEDERAL PROGRAMS	NATIONAL ELECTRIC VEHICLE INFRASTRUCTURE (NEVI) PROGRAM	National Electric Vehicle Infrastructure Program (State Allocations) National Electric Vehicle Infrastructure Program (DOT Allocation)
	VOLKSWAGEN SETTLEMENT FUNDS	Volkswagen mitigation trust for California
STATE SPECIFIC CALIFORNIA PROGRAMS	LOW CARBON FUEL STANDARD (LCFS) CLEAN VEHICLE REBATE PROJECT (CVRP) HYBRID AND ZERO-EMISSION TRUCK AND BUS VOUCHER INCENTIVE PROJECT (HVIP) CALIFORNIA ELECTRIC VEHICLE INFRASTRUCTURE PROJECT (CALEVIP) CALEVIP 2.0 PROJECT: GOLDEN STATE PRIORITY PROJECT (GSPP) COMMUNITIES IN CHARGE CEC GFO-23-606: CHARGING INFRASTRUCTURE FOR GOVERNMENT FLEETS	
LOCAL AND REGIONAL PROGRAMS	SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT (SMAQMD) SACRAMENTO MUNICIPAL UTILITY DISTRICT (SMUD)	SMUD INCENTIVE PROGRAMS –EVSE Rebates -Fleet Rebates

FUTURE PROOFING

- **Keep fleet electrification plans up-to-date:** The electromobility industry is and will likely continue to be in a rapid state of change. Therefore, the implementation actions emerging from Elk Grove's fleet electrification planning should be reviewed and updated every year or two. This will ensure the City stays abreast of rapid developments in the EV market,

battery and charging technology changes, and is able to leverage new grants, rebates, and other financial incentive opportunities.

- **Adapt to new technology:** Being open to exploring new ideas and technologies will allow fleets to capitalize on future opportunities that could revolutionize transportation. For example, bidirectional charging will allow fleets to leverage the energy storage capacity of their combined batteries to provide charging resiliency to mission-critical fleet EVs, reduce demand charges, power buildings during power outages, mitigate power demand spikes and generate grid services revenues by selling power back to the grid. Inductive and robotic charging will make charging easier for drivers and eventually power autonomous vehicles. Dynamic inductive charging will eliminate the need for EVs to be parked while charging, allowing EV fleets to maintain state of charge while driving.

  While some of such technologies are years out to reach full product maturity and adoption on a larger scale, however they have the potential to significantly change the EVSE landscape and should be followed.

CITY OF ELK GROVE



APPENDICES

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APPENDIX A: FACILITY-LEVEL ANALYSES AND RECOMMENDATIONS



APPENDIX A: INTRODUCTION

This appendix details the analysis conducted on the existing fleet assets and facility conditions at each of the studied locations as well as the facility-specific recommendations that include the numbers and types of charging stations, estimated project costs and phasing. It includes each facility's existing access, parking configuration, and electrical service at the six municipal fleet domicile facilities, some of which also include existing public charging or are planned for installation of public EV chargers. It also addresses these conditions at three City non-fleet facilities suitable for installation of public EV charging. These include the following:

FACILITIES ASSESSED IN THIS STUDY

CITY FLEET FACILITIES

- Animal Shelter, 9150 Union Park Way*
- City Hall, 8401 Laguna Palms Way*
- Corp Yard, 10250 Iron Rock Way
- Fleet Facility, 10190 Iron Rock Way
- Laguna Palms Campus: 8380 Laguna Palms Way, 8400 Laguna Palms Way & 9362 Studio Court*
- Special Waste Collection Center, 9255 Disposal Lane*

* with public charging

NON-FLEET PUBLIC CHARGING FACILITIES

- Existing Elk Grove Library, 8900 Elk Grove Blvd
- Old Town Plaza, 9615 Railroad St
- District 56, 8230 Civic Center Drive

EXISTING TRANSFORMER CAPACITY

The existing electrical infrastructure provided by SMUD is presented in the table below, which includes information on transformer size, available capacity, and meter numbers per site:

TABLE 14: EXISTING TRANSFORMER SIZE AND CAPACITY PER SITE

FACILITY NAME	FACILITY ADDRESS	METER NUMBER	EXISTING TRANSFORMER NUMBER	EXISTING TRANSFORMER SIZE (KVA)	AVAILABLE CAPACITY (KVA)	PROPOSED CONNECTED LOAD (KVA)
ANIMAL SHELTER	9150 UNION PARK WAY	2728283	TX-02017910	300	124.81	47
CITY HALL	8401 LAGUNA PALMS WAY	2517905	TX-02000041	500	267.00	129
CORP YARD	10250 IRON ROCK WAY	2515348	TX-01030487	300	218.81	198
FLEET FACILITY	10190 IRON ROCK WAY	2515349	TX-02006531	75	22.77	1,565
LAGUNA PALMS CAMPUS	8380 LAGUNA PALMS WAY	2517902	TX-01030786	300	153.81	1,395
	8400 LAGUNA PALMS WAY	2518506, 2518055	TX-01032877	300	93.68	
	9362 STUDIO CT	2518054	TX-02022754	150	112.41	
SPECIAL WASTE COLLECTION CENTER	9255 DISPOSAL LN	2727313, 2654014	TX-02012476	150	128.69	25
EXISTING ELK GROVE LIBRARY	8900 ELK GROVE BLVD	MULTIPLE	TX-02004686	150	44.49	90
OLD TOWN PLAZA	9615 RAILROAD ST	-	-	-	-	227
DISTRICT 56	8230 CIVIC CENTER DR	2728136, 626988	TX-02017807	500	353.39	0

SUMMARY OF RECOMMENDATIONS

The quantity of recommended *fleet* chargers by location are summarized in Table 15.

TABLE 15: RECOMMENDED FLEET CHARGERS BY FACILITY

FACILITY	# OF DUAL HEAD LOW OUTPUT LEVEL 2 CHARGERS (6.6-7.7 KW)	# OF DUAL HEAD MEDIUM OUTPUT LEVEL 2 CHARGERS (UPTO 12.0 KW)	# OF DUAL HEAD HIGH OUTPUT LEVEL 2 CHARGERS (UPTO 19.2 KW)	# OF SUPPLEMENTAL DUAL HEAD DCFC CHARGERS (150 KW)
ANIMAL SHELTER	1			
CITY HALL	4	1		
CORP YARD	12			
FLEET FACILITY	38			5
LAGUNA PALMS CAMPUS	1	20	7	2
SWCC	1			
TOTAL CHARGERS	**57**	**21**	**7**	**7**
TOTAL CHARGE PORTS	**114**	**42**	**14**	**14**

The quantity of recommended *public* chargers by location is summarized in Table 16. Four fleet facilities accessible to the public, the Animal Shelter, City Hall, Laguna Palms Campus, and the SWCC, are recommended for a total of five dual-head (10 charge ports) and one single-head Level 2 charger of various outputs. In addition, a total of 11 dual-head (22 charge ports) and five single-head Level 2 chargers are recommended to be installed at the existing library and Old Town Plaza. Additionally, a new City library is already in design which will have charging facilities.

TABLE 16: RECOMMENDED PUBLIC CHARGERS BY FACILITY

FACILITY	# OF SINGLE HEAD LOW OUTPUT LEVEL 2 CHARGERS (6.6-7.7 KW)	# OF DUAL HEAD LOW OUTPUT LEVEL 2 CHARGERS (6.6-7.7 KW)	# OF SINGLE HEAD MEDIUM OUTPUT LEVEL 2 CHARGERS (UPTO 12.0 KW)	# OF DUAL HEAD MEDIUM OUTPUT LEVEL 2 CHARGERS (UPTO 12.0 KW)
ANIMAL SHELTER				1

CITY HALL		2		
LAGUNA PALMS CAMPUS				2
SWCC	1			
EXISTING ELK GROVE LIBRARY				3
OLD TOWN PLAZA	3	5	2	3
TOTAL CHARGERS	4	7	2	9
TOTAL CHARGE PORTS	4	14	2	18

CITY FLEET FACILITIES

Each of Elk Grove's fleet facilities is described below including a summary of the facility's existing access, parking configuration, and electrical service. The analysis also provides the recommendations for fleet EV charging at each facility, documenting required electrical service upgrades, charger quantities and types, implementation phasing, and planning-level cost estimates. For City Hall, SWCC, the Animal Shelter and the Laguna Palms Campus, this information is also provided for proposed public chargers co-located at each facility.

The figure concluding each facility-specific subsection graphically illustrates how charger deployment for fleet, staff and public use should be phased at each City-owned facility. Fleet vehicle replacement by EVs is shown in gray while EV chargers to be installed in each phase are shown in orange.

In addition, a recommendations summary sheet including existing conditions and proposed charging recommendations with conceptual charger locations is included for each fleet facility and public charging site.

ANIMAL SHELTER, 9150 UNION PARK WAY

Description: The Animal Shelter is the home of Animal Services and is a City workplace accessed by citizens during business hours seeking pet-related services.

Municipal Fleet Electrification: A total of six light-duty ICE vehicles need to be replaced by comparable class EVs.

Energy Requirements: The daily required electrical load from fleet EV charging of 50.4 kWh was calculated by comparing the existing vehicle duty cycle with the replacement EV battery

range. These vehicles have between 14 and 16 hours of nightly dwell time for charging. The maximum electrical load from the EV chargers is 46.5 kVA.

Existing Parking and Access: The Animal Shelter site has two separate parking lots, one for fleet and the other for staff/public use. The public parking lot is on the west side of the facility, with entry from Union Park Way. The fleet parking area is in a gated area to the southeast of the facility, with entry from Iron Rock Way. A total of six City fleet vehicles park here, all of which are scheduled to be replaced by EVs.

Existing Electrical Service: The electrical room is located on the south side of the building accessed from an exterior entrance door. SMUD's transformer is located in the west side parking area on the south side close to the ADA stalls. It is rated at 150 kVA and has available capacity of 124.81 kVA @ 480V, if the chargers were to be installed directly from the transformer. This transformer as well as panels "LA", "SHA" and "SLC" have more than enough electrical capacity and breaker spaces to power two dual head L2 chargers for fleet and public use in a single installation phase. Two EV-capable spaces are available in the public parking lot.

Existing Infrastructure System: There is an existing spare 1.5-inch conduit that runs from panel "LA" to the existing pull box in the public parking lot on the west side of the facility within the landscaping strip, coinciding with the location of the existing utility transformer. From this existing pull box, two 1.25-inch spare conduits have been stubbed up for the future installation of EV chargers. One of these two stubbed-up 1.25-inch conduits is situated in front of the ADA stalls, behind the sidewalk, while the second 1.25-inch conduit is stubbed up within the adjacent non-ADA stalls. Furthermore, aside from the spare conduits, a 40 Amp 2-pole breaker has been installed in panel "LA" for the purpose of accommodating EV chargers.

Fleet EV Charger Recommendations: A single dual-head (2 charge ports) low-output pedestal-mounted Level 2 charger is needed for fleet use. This should be installed between two parking stalls in the gated parking area southeast of the Animal Shelter building.

Fleet EV Charger Implementation Phasing: Because sufficient power is available, this charger could be installed in Phase 1.

Public EV Charger Recommendations: One dual-head (2 charge ports) medium-output pedestal-mounted Level 2 charger is recommended for public use in the southwest corner of the public parking lot where ADA stalls are located. One charger head would be for an ADA-accessible stall, and one would be for a standard EV charging stall. It is recommended to utilize the existing infrastructure noted in Chapter 3.

Public EV Charger Implementation Phasing: Because sufficient power is available, this charger could be installed in phase one.

Estimated Project Costs: The estimated planning level cost of two new installed dual-head Level 2 chargers for both fleet and public use will be approximately $88,640. Of this total, $61,260 is for fleet charging and the remaining $27,380 is for public charging.

Locations of proposed EV chargers are shown below on Figure 15.

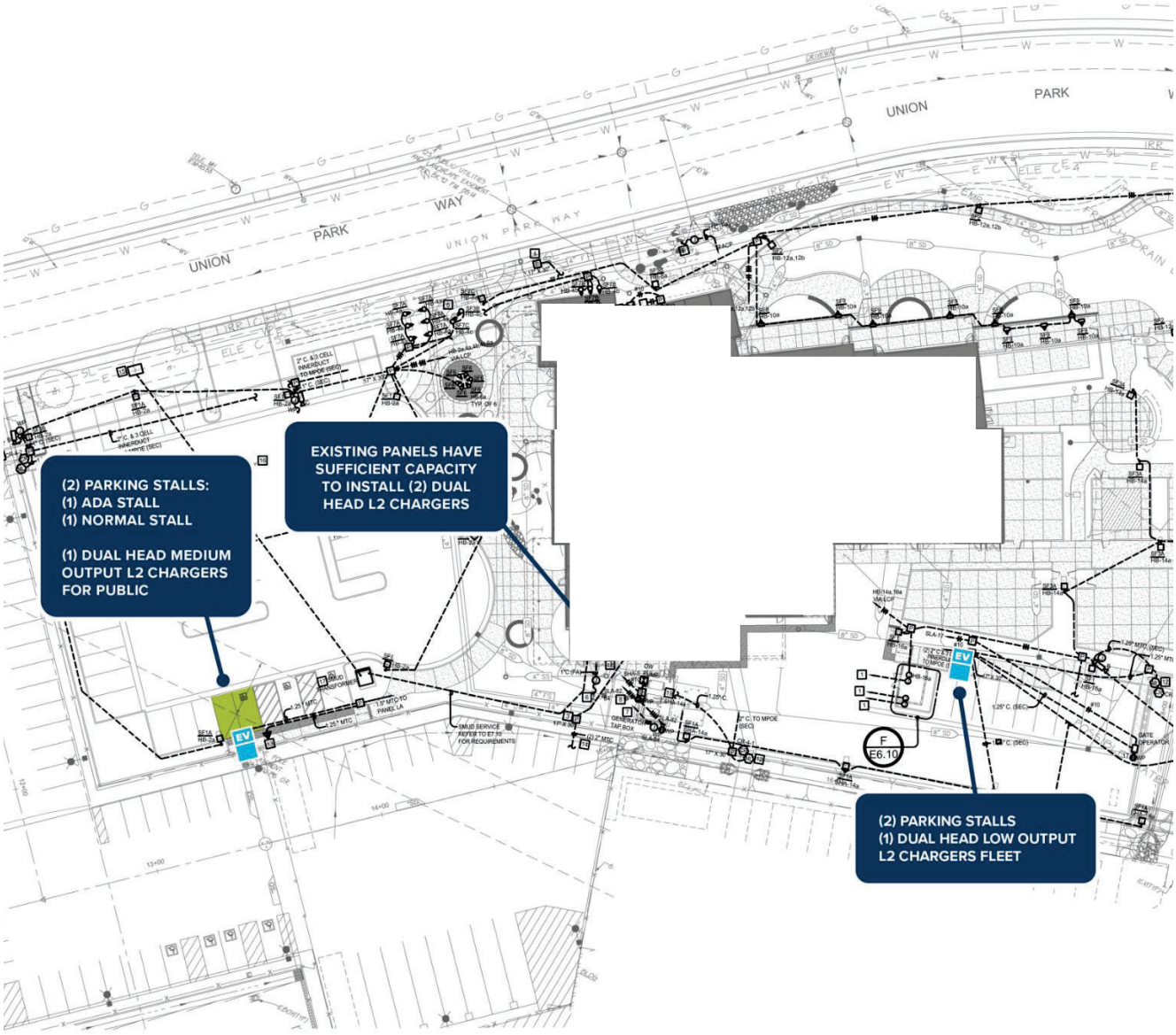


FIGURE 15: CONCEPTUAL CHARGER LAYOUT OF ANIMAL SHELTER ON UNION PARK WAY

Charging Infrastructure Installation Phasing and Costs: One dual-head low-output pedestal-mounted charger is recommended for shared use among six fleet EVs and one dual-head medium-output pedestal-mounted charger is recommended for public use. The total capital costs

to purchase and install these chargers are estimated to cost $61,260 for fleet and $27,380 for public, respectively. Existing electrical infrastructure has sufficient capacity to power these so there is no need to phase implementation.

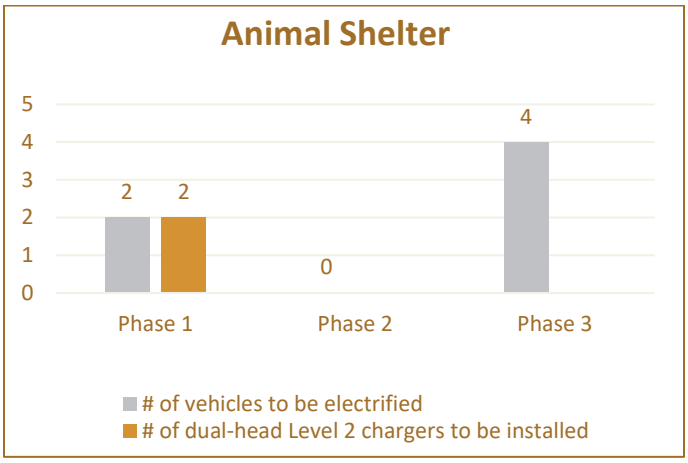


FIGURE 16: FLEET VEHICLE ELECTRIFICATION AND EV CHARGING INFRASTRUCTURE DEPLOYMENT BY IMPLEMENTATION PHASE AT ANIMAL SHELTER

ANIMAL SHELTER

EXISTING CONDITIONS

ADDRESS

9150 Union Park Way, Elk Grove, CA

SITE DESCRIPTION

The site has 2 separate parking areas for fleet and public. The public parking is on the west side of the facility, with entry from Union Park Way. The fleet parking area is in the gated area to the Southeast of the facility, with entry from Iron Rock Way.

ELECTRICAL CAPACITY

The existing transformer that feeds the entire site is in the south side of the public parking area near ADA stalls. According to Sacramento Municipal Utility District (SMUD), the existing transformer has 128.7 kVA of available capacity, and there are multiple electrical panels in the electrical room with available capacity and free breaker spaces to accommodate the proposed electrical loads.

LOCATION OF POWER SUPPLY

The electrical room is located in the Southwest corner of the building.

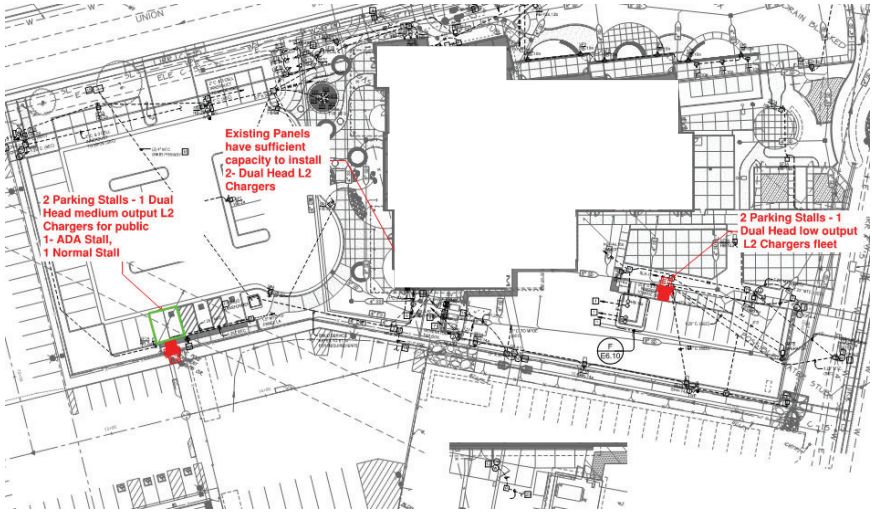
ANALYSIS

A total of 6 light duty ICE vehicles need to be replaced by comparable class EVs. The daily required EV energy was calculated by comparing existing vehicle duty cycle with replacement EV battery range. The vehicles have a minimum of 14 hours and maximum of 16 hours dwell time.

REQUIRED ELECTRICAL LOAD AND COSTS PER CHARGING SCENARIO

CHARGING SCENARIO	ELECTRIC LOAD	COST
SHARED L2 (FLEET) – PHASE 1 CONSTRUCTION	46.5 kVA	$61,260
SHARED L2 (PUBLIC) – PHASE 1 CONSTRUCTION		$27,380

Note: Phase 1 construction timeline is 2023-2028



DESIGN RECOMMENDATIONS

POWER

The proposed chargers can be powered from the existing panels in the electrical room. Panels “LA”, “SHA” and “SLC: have sufficient capacity to install all the proposed chargers. Additionally, panels “LA S2”, “LB S1”, “LB S2”, “SLA S2”, and “HB” can accommodate 1 EV charger each. Conduit and wiring will be trenched from the electrical room to the lot on the West side. There is an existing 1.5” spare conduit that runs from panel “LA” to the existing pull box in the public parking lot. From this pull box, a spare 1.25” conduit stubbed up near the parking stalls can be used for EV Charger installations.

COMMUNICATION

The vehicles park in open parking lot which has good cellular reception. There is no constraint in connecting smart chargers using cellular reception.

CHARGING EQUIPMENT

The following quantities of smart L2 chargers are recommended:

1 x Dual-head medium output pedestal mounted chargers for public use

1 x Dual-head low output pedestal mounted chargers for fleet use

CHARGING STALL LOCATIONS

A total of 4 parking stalls to be equipped with EV chargers.

1 Low output dual head L2 charger for fleet vehicles will be installed at the gated parking area to the SE of the facility.

1 medium output dual head L2 charger for public charging will be installed in the West side parking lot, where ADA stalls are located. One charger head will be for ADA stall and one will be for standard stall.

See site diagram above.

LIGHTING

There are existing light poles that provide sufficient illumination to the parking lot.

SECURITY AND ACCESS

Safety is a concern at this location. Consider installation of a wall mounted CCTV camera for public chargers.

CONDUIT INSTALLATION APPROACH

Wall and ceiling-mounted conduit from electrical room, and trenched conduit installation between electrical service and chargers required.

Core drilling through the walls may be required.

CHALLENGES AND RISKS

CHALLENGES / RISKS	DESCRIPTION
ELECTRICAL	Multiple existing panels with capacity – confirm most suitable panel to draw power for chargers.
CIVIL/ STRUCTURAL	Directional drilling/ expensive trenching (and restoration) required for charger’s location proposed fleet use.
OPERATIONAL	Fleet versus customer parking
OTHERS	See “Security and Access”

CITY HALL, 8401 LAGUNA PALMS

Description: City Hall is the City's main office building, and an important destination for City employees and visitors. The City Hall building is surrounded by surface parking on all four sides with no dedicated parking for fleet, staff, or public vehicles. Currently, there is one dual-head Level 2 chargers (2 charge ports) located on the south side of the building. It is free to charge for anyone between the hours of 7am – 9pm Monday through Friday.

Municipal Fleet Electrification: A total of eleven light-duty ICE vehicles need to be replaced by comparable class EVs.

Energy Requirements: The daily required electrical load from fleet EV charging of 70.8 kWh was calculated by comparing the existing vehicle duty cycle with the replacement EV battery range. These vehicles have between fourteen and sixteen hours of nightly dwell time for charging. The maximum electrical load from the EV chargers is 129.0 kVA.

Existing Parking and Access: The primary access to this parking lot is via Laguna Palms Way. A total of eleven City fleet vehicles park here, all of which are scheduled to be replaced by EVs.

Existing Electrical Service: The electrical room is located inside the building on the northeast side. The main electrical service is 800 Amps @ 480 V, 3 phase power. The existing transformer that feeds the entire site is on the east side of the building. According to SMUD, the existing 500 kVA-rated transformer has 267.0 kVA of available capacity. Additionally, there are multiple electrical panels in the electrical room with available capacity and free breaker spaces to accommodate electrical loads to be generated by the proposed EV chargers for use by public, staff, and City fleet EVs.

Fleet EV Charger Recommendations: To power the eleven fleet EVs, a total of ten parking stalls will need to be equipped with five dual-head EV chargers (10 charge ports) to be installed on the north side of the building. To meet the fleet's projected energy requirements, these will consist of four low-output (6.6 kW) and one medium-output (12 kW) charger.

Fleet EV Charger Implementation Phasing: Sufficient power is available to support the installation of two dual-head low-output Level 2 chargers in Phase 1 and two additional dual-head low-output Level 2 chargers and one dual-head medium-output Level 2 charger in Phase 3 of the project.

Public EV Charger Recommendations: The existing dual-head Level 2 chargers on the south side of the building should be replaced by two dual-head Level 2 chargers (4 charge ports) for staff and public use. The two dual-head Level 2 chargers will serve three non-ADA and one ADA stall. The 2-40A circuit that currently feeds each existing charger could be shared by both

proposed dual-head Level 2 chargers and wiring could be installed in the existing conduits from the electrical panel to the outside of the building.

Parking and Access Recommendations: It is recommended that a secured parking area be established around the fleet chargers due to their location at the rear of City Hall, where incidents of vandalism involving fleet vehicles have been reported.

Electrical Service Recommendations: The addition of a solar canopy to the north parking lot as a means to offset a portion of the electrical loads sourced from the grid is recommended.

Public EV Charger Implementation Phasing: Because existing electrical infrastructure is in place, the existing Level 2 charger could be removed and replaced by a pair of dual-head Level 2 chargers in phase one.

Estimated Project Costs: Installing the recommended charging ports for fleet EVs is estimated to cost a total of $185,800. Replacing both existing chargers is estimated to cost $48,740 for public use. The combined planning level estimated cost of fleet and public chargers will total $234,540 for this site.

Locations of proposed EV chargers are shown below on Figure 13.

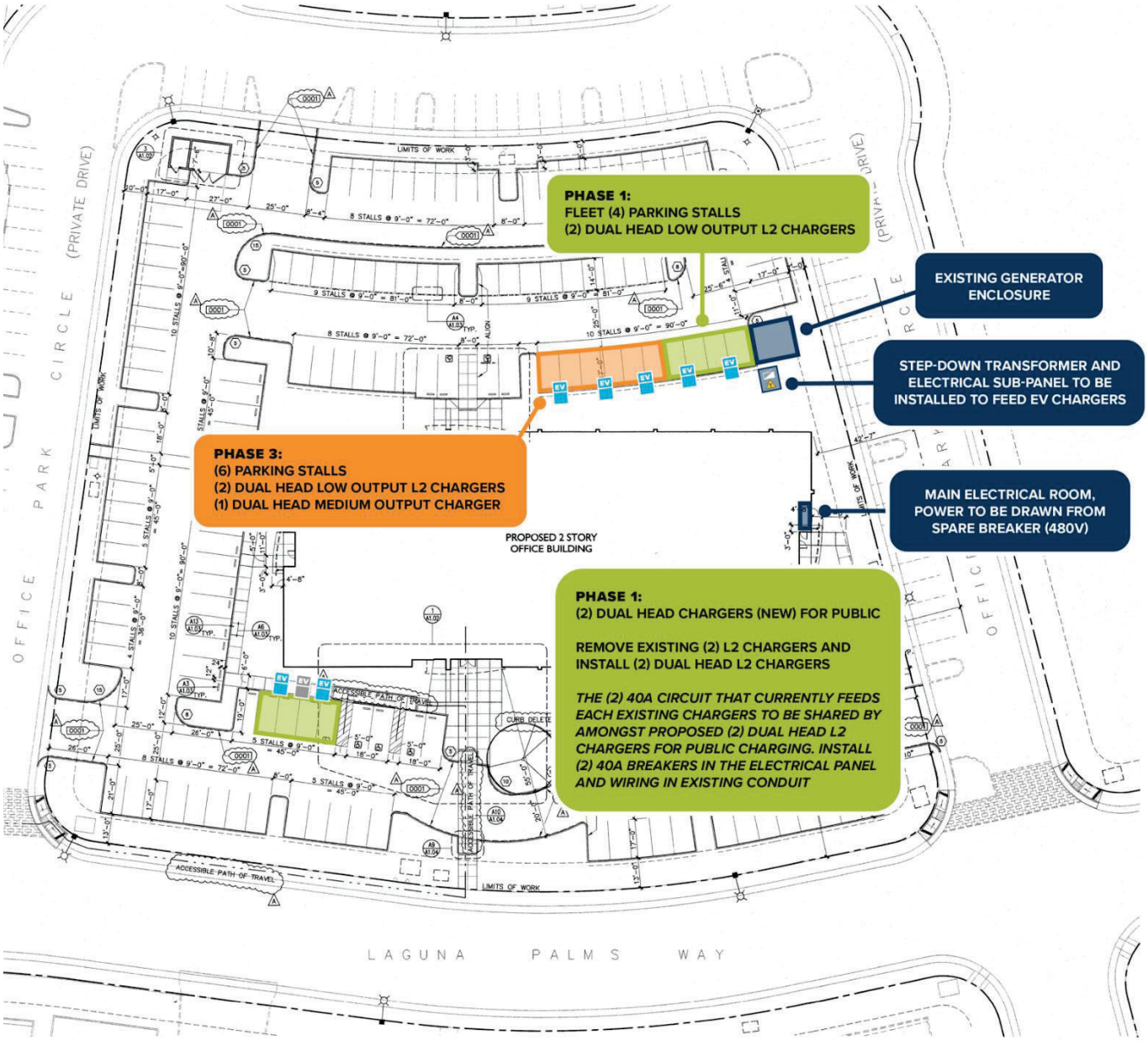


FIGURE 17: CONCEPTUAL LAYOUT OF CITY HALL

Charging Infrastructure Installation Phasing and Costs: A total of four dual-head low-output pedestal mounted chargers and one dual-head medium-output pedestal mounted charger for dedicated use by eleven fleet vehicles is needed along with electrical conduit stub outs for future charger installation at the back side of the City Hall. Additionally, two dual-head low-output pedestal-mounted chargers are proposed for public use. The public chargers should be installed along with two dual-head fleet chargers in Phase 1 at a total cost of $135,820 for fleet and $48,740 for public respectively. The remaining dual-head fleet chargers could be installed in

Phase 3 at an estimated cost of $49,980. The timeline for Phase 1 construction is 2024-2028, and 2034-2035 for Phase 3 construction.

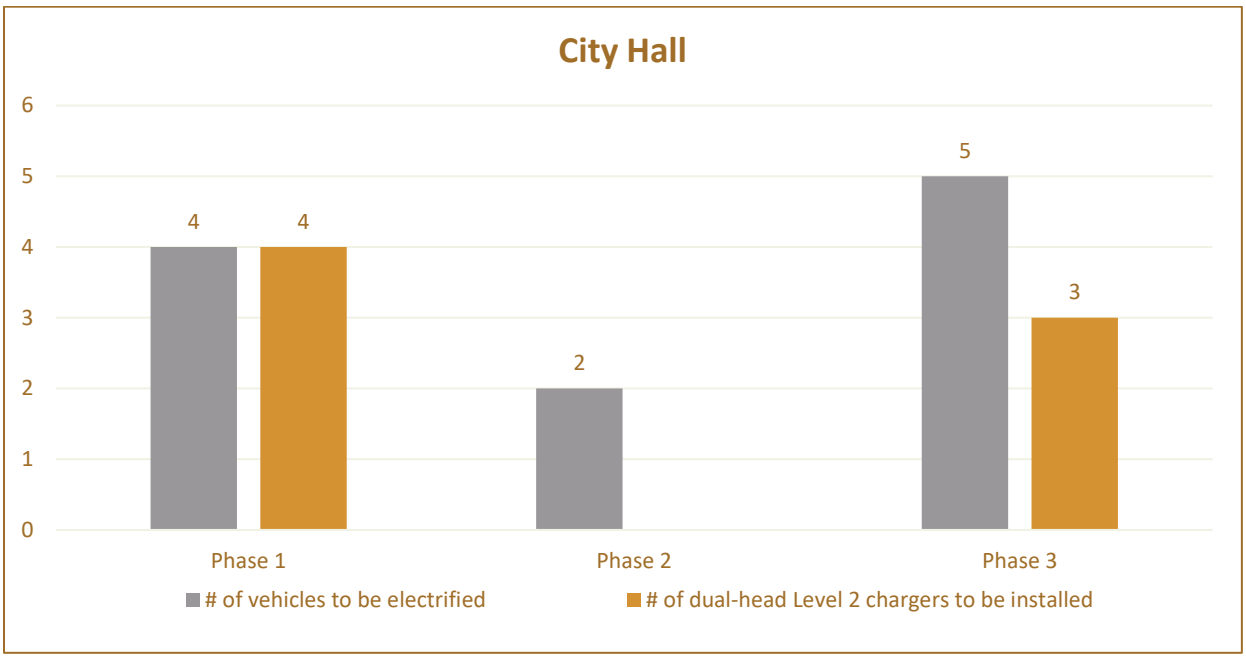


FIGURE 18: FLEET VEHICLE ELECTRIFICATION AND EV CHARGING INFRASTRUCTURE DEPLOYMENT BY IMPLEMENTATION PHASE AT CITY HALL

CITY HALL

EXISTING CONDITIONS

ADDRESS

8401 Laguna Palms, Elk Grove

SITE DESCRIPTION

The site has open parking spaces all four sides of the building with no parking specifically designated for fleet or public use.

ELECTRICAL CAPACITY

The existing 500 kVA transformer that feeds the entire site is on the north side of the building. According to SMUD, it has 267.0 kVA of available capacity, and there are multiple electrical panels in the electrical room with available capacity and free breaker spaces to accommodate the proposed electrical loads.

LOCATION OF POWER SUPPLY

Electrical room is located inside the building on the northeast side.

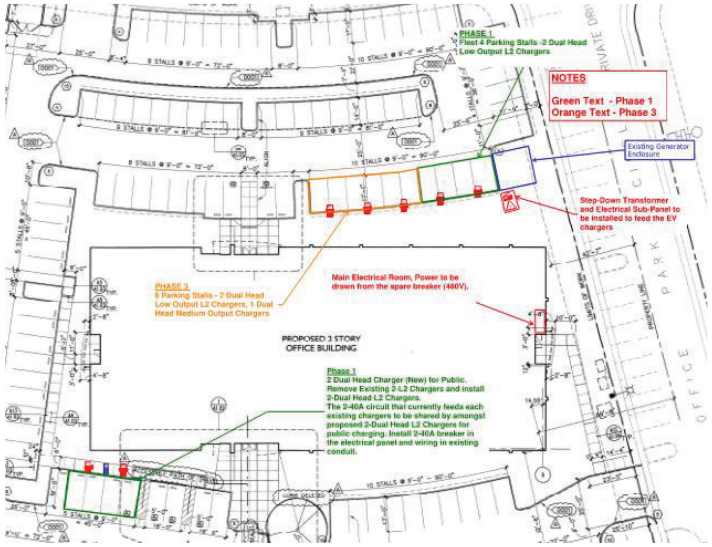
ANALYSIS

A total of 11 light duty ICE vehicles need to be replaced by comparable class EVs. The daily required EV energy was calculated by comparing existing vehicle duty cycle with replacement EV battery range. These vehicles have between 14 and 16 hours of nightly dwell time for charging.

REQUIRED ELECTRICAL LOAD AND COSTS PER CHARGING SCENARIO

CHARGING SCENARIO	ELECTRIC LOAD	COST
SHARED L2 (FLEET) – PHASE 1 CONSTRUCTION	129.0 kVA	$135,820
SHARED L2 (PUBLIC) – PHASE 1 CONSTRUCTION		$48,740
SHARED L2 (FLEET) – PHASE 3 CONSTRUCTION		$49,980

Note: Phase 1 construction timeline is 2023-2028, and Phase 3 construction timeline is 2034-2035



DESIGN RECOMMENDATIONS

POWER

The proposed fleet chargers can be powered from the existing panels in the electrical room. There are 4-100 spares available operating 480V within the electrical room. A new stand-alone step-down transformer and new electrical cabinet needs to be installed outside on the north side of the building to be fed from the spares available in the electrical room. The proposed fleet chargers to be fed from the new electrical cabinet. Conduit and wiring will be trenched from the electrical room to the north side of the building to power the electrical cabinet and from electrical cabinet to the chargers.

The existing two level 2 chargers to be replaced with two dual-head level 2 chargers for public use on the south side of the building. The two dual-head level 2 chargers will serve three non-ADA and one ADA stall. Wiring to be installed in existing conduits from the electrical panel to outside of the building.

The solar canopies are to be evaluated at this site.

COMMUNICATION

CHARGING EQUIPMENT

The following smart L2 chargers are recommended:

4 x Dual-head low output pedestal mounted chargers for fleet use

1 x Dual-head medium output pedestal mounted chargers for fleet use

2 x Dual-head low output pedestal mounted chargers for public use

CHARGING STALL LOCATIONS

A total of 14 parking stalls to be equipped with EV chargers. 4 low output and 1 medium output dual head L2 chargers to be installed in the north side of the building for fleet use.

2 low output dual head L2 chargers to be installed on the south side of the building for public use.

LIGHTING

There are existing light poles that provide sufficient illumination to the parking lot.

SECURITY AND ACCESS

Safety is a concern at this location. Consider installation of a wall mounted CCTV camera and panic button for public chargers.

A secured area is recommended on the north side of the building for fleet and staff use only.

CONDUIT INSTALLATION APPROACH

Wall mounted conduit from electrical room, and trenched conduit installation between electrical room to a new electrical cabinet and from new electrical cabinet to the chargers will be required.

CHALLENGES AND RISKS

CHALLENGES / RISKS	DESCRIPTION
ELECTRICAL	Secure and aesthetically acceptable location for the service cabinet.
CIVIL/ STRUCTURAL	None
OPERATIONAL	Fleet versus customer parking/charging
OTHERS	See “Security and Access”

CORP YARD, 10250 IRON ROCK WAY

Description: This facility comprises a single-story indoor parking area that presently accommodates a number of light-duty fleet vehicles assigned to the Police Department, though these vehicles Are planned to be relocated to the Laguna Palms campus by the end of 2024. Additionally, there is an outdoor parking lot situated on the north and east side of the building, designated for the Public Works Department's fleet vehicles and staff. A small parking lot located on the west side of the building is designated for staff parking purposes. It's important to note that there is no provision for public parking on the premises. Of the current 19 Public Works Department fleet vehicles domiciled at this location, 16 are designated to be replaced by EVs.

Municipal Fleet Electrification: Among the 19 light-duty ICE vehicles housed at this location within the Public Works department, there is a need to replace 16 of them with EVs of similar class. Within the confines of this site, there are a total of 29 vehicles under the jurisdiction of the Police Department, which includes motorcycles. Among these, 18 vehicles must be exchanged for comparable class EVs.

Regarding the 18 Police Department vehicles slated for replacement, 17 of them will be relocated to the Laguna Palms Campus, and one vehicle will remain stationed at this site. In sum, the total count of vehicles to be substituted with comparable class EVs on-site will amount to 17.

Energy Requirements: The daily required electrical load from fleet EV charging of 180.0 kWh was calculated by comparing existing vehicle duty cycle with replacement EV battery range. These vehicles have up to 14 hours of nightly dwell time for charging. The maximum electrical load from the EV chargers is 198.0 kVA.

Existing Parking and Access: Fleet vehicles gain access to this site through gated entrances at both Iron Rock Way and Elmont Way. Presently, Police fleet vehicles are stationed inside the building within the parking stalls situated on the south side. Meanwhile, Public Works fleet vehicles are parked on the eastern side of the building, facing Iron Rock Way.

Existing Electrical Service: The existing transformer is located on the southeast side of the site, outside of the compound. Chargers are to be powered from the transformer directly via a new electrical cabinet.

Electrical Service Recommendations: According to SMUD, the existing transformer has a total available electrical capacity of 218 kVA which could accommodate the proposed added EV charging loads at this facility. A new service connection will be needed from the existing SMUD transformer located on the southeast side of the site, outside of the compound. The EV chargers should be powered from this transformer directly via a new electrical cabinet. A ground pad-

mounted electrical cabinet should be installed in the landscaped area near the parking stalls to house the electrical service panel.

Fleet EV Charger Recommendations: A total of 12 dedicated dual-head 6.6 kW smart pedestal-mounted Level 2 chargers are recommended for this fleet (24 charge ports). These 12 should be located at the fleet parking lot on the east side of the building facing Iron Rock Way. As additional non-light-duty and offroad equipment are electrified at this site in the future, the suitable quantity and types of chargers will need to be reevaluated.

There are three options for powering the chargers at this site. The first option would be to replace both existing 240V receptacles with dual-head low-output Level 2 chargers with power shared between them. The second option would be to feed power for new Level 2 chargers from the electrical cabinet that will be installed for the chargers outside for the Public Works fleet. Both options would use the existing 120V wall outlets for charging up to eight EVs using Level 1 charging. The third option would be shared use of the Level 2 chargers that will be installed in the outdoor parking lot on the north and east side of the facility serving the Public Works Department's fleet vehicles and staff. The existing 120V wall outlets can be used inside the facility for charging up to eight EVs using Level 1 charging.

Fleet EV Charger Implementation Phasing: The EV chargers would be installed in phases one and two and all electrical infrastructure should be installed in phase one. Using the new electrical cabinet which will be fed from the existing SMUD transformer, six dual-head low output Level 2 chargers will be installed in phase one and six dual-head low output Level 2 chargers will be installed in phase two.

Estimated Project Costs: The estimated planning level cost of twelve new installed Level 2 chargers will be approximately $337,400.

Locations of proposed EV chargers are shown below in Figure 19.

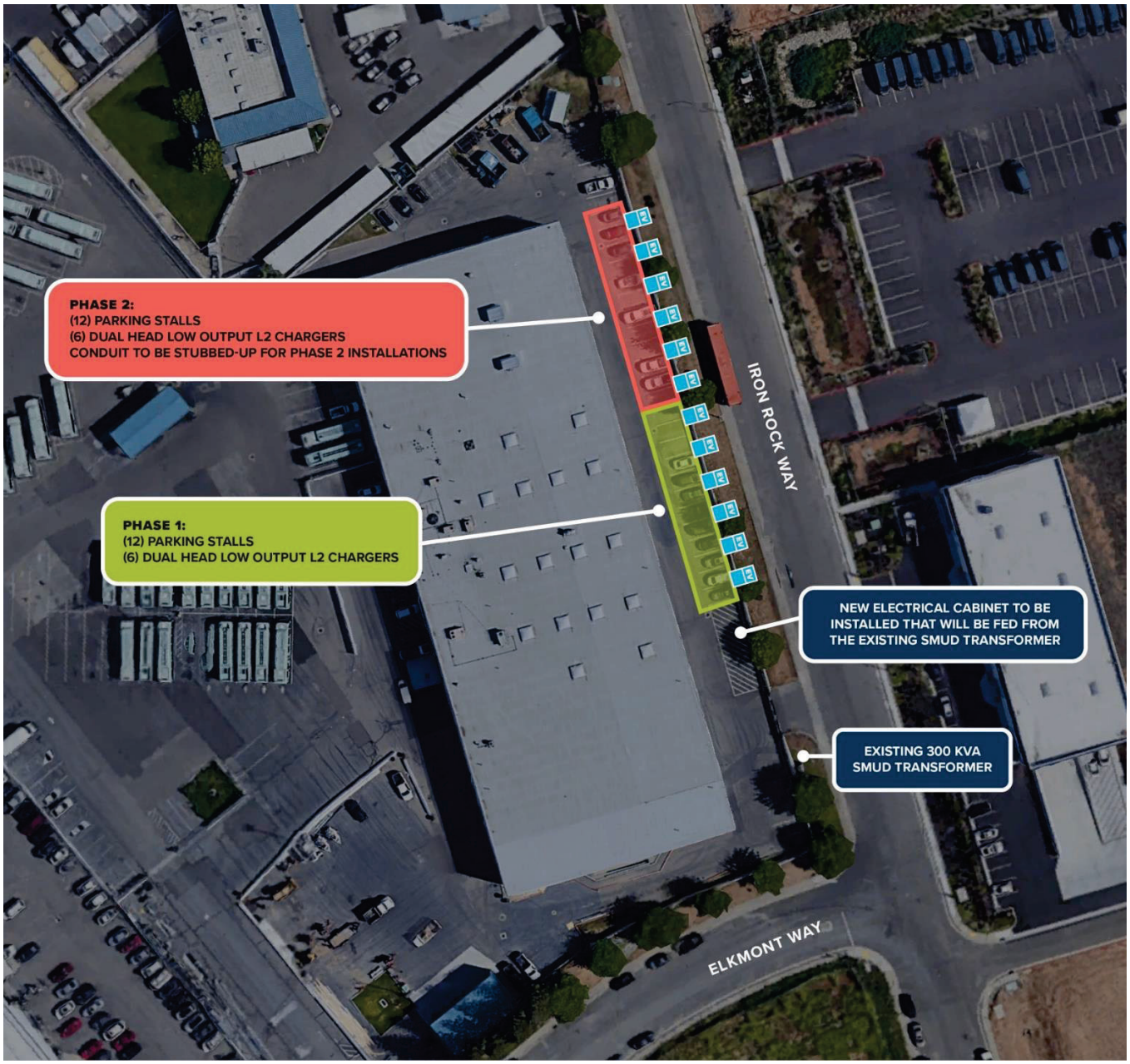


FIGURE 19: CONCEPTUAL CHARGER LAYOUT OF PUBLIC WORKS CORP YARD

Charging Infrastructure Installation Phasing and Costs: Of the 19 Public Works light duty ICE vehicles that domicile at this site, 16 vehicles need to be replaced by comparable class EVs. Of the 29 Police Department vehicles including motorcycles domicile inside at this site, 18 vehicles need to be replaced by comparable class EVs. Regarding the 18 Police Department vehicles slated for replacement, 17 of them will be relocated to the Laguna Palms Campus, and one vehicle will remain stationed at this site. In sum, the total count of vehicles to be substituted with comparable class EVs on-site will amount to 17.

To accommodate the 17 fleet EVs domiciled here, 12 dual-head low-output (6.6 kW) smart Level 2 pedestal mounted chargers will need to be installed in two phases of construction. Phase 1 will consist of all electrical infrastructure upgrades, six dual-head low-output Level 2 chargers, and conduit stub-outs for Phase 2 installations, totaling $199,360 in estimated capital costs. The second phase of construction will install six dual-head low-output Level 2 chargers for a total cost of $138,040.

The Level 1 charging (120V outlets) for Police Department motorcycles available inside at this facility is expected to be sufficient in the near term for this transition.

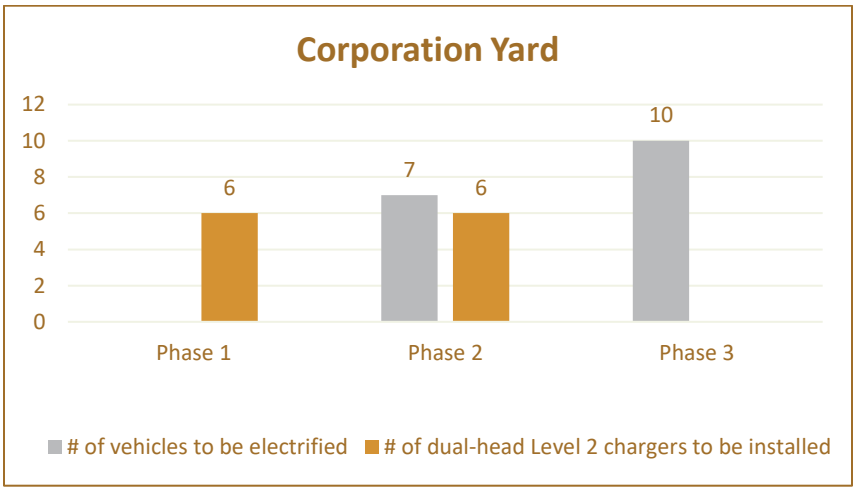


FIGURE 20: FLEET VEHICLE ELECTRIFICATION AND EV CHARGING INFRASTRUCTURE DEPLOYMENT BY IMPLEMENTATION PHASE AT CORP YARD

CORP YARD

EXISTING CONDITIONS

ADDRESS

10250 Iron Rock Way, Elk Grove, WA

SITE DESCRIPTION

Outdoor parking lot serving fleet vehicles for the public works department.

ELECTRICAL CAPACITY

According to SMUD, the existing transformer has total available electrical capacity of 218 kVA which can accommodate the proposed added EV charging loads at this facility.

LOCATION OF POWER SUPPLY

The existing transformer is located to the southeast side of the site, outside of the compound. Chargers are to be powered from the transformer directly via a new electrical cabinet.

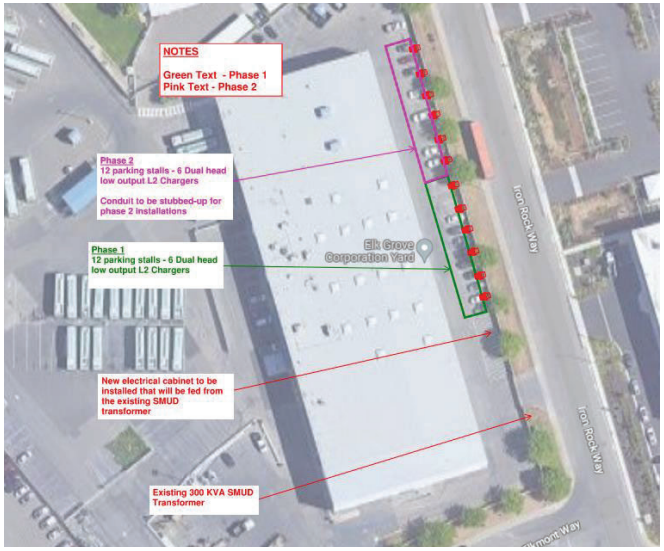
ANALYSIS

Among the 19 light-duty Internal Combustion Engine (ICE) Public Works department vehicles currently stationed at this site, 16 vehicles are slated for replacement with electric vehicles (EVs) of comparable class. The calculation of the daily EV energy requirements was performed by assessing the existing vehicle duty cycle in conjunction with the battery range of the replacement EVs. In addition to the 16 vehicles, 18 out of the 29 existing police vehicles located within the facility are earmarked for electrification, with 17 vehicles to be relocated to the Laguna Palms Campus, and only 1 will remain domiciled at this site. All of these vehicles will utilize the same Level 2 chargers, with a minimum dwell time of 14 hours and a maximum of 24 hours. In the case of the Public Works department, there are no vehicles slated for electrification in Phase 1, but 7 vehicles will undergo electrification in Phase 2, with an additional 9 vehicles slated for electrification in Phase 3 of the project. As for the Police department, 12 vehicles will be electrified in Phase 2, and 6 vehicles will undergo electrification in Phase 3 of the project.

REQUIRED ELECTRICAL LOAD / COSTS PER CHARGING SCENARIO

CHARGING SCENARIO	ELECTRIC LOAD	COST
SHARED L2 (FLEET) - PHASE 1 CONSTRUCTION	198.0 kVA	$199,360
SHARED L2 (FLEET) – PHASE 2 CONSTRUCTION		$138,040

Note: Phase 1 construction timeline is 2024-2028, Phase 2 construction timeline is 2029-2033



DESIGN RECOMMENDATIONS

POWER

Obtain new service connection from the existing SMUD transformer outside the building. A ground mounted electrical cabinet to be installed in landscaped area near the parking stalls to house the electrical service panel. All electrical infrastructure to be installed in Phase 2 of the project construction.

COMMUNICATION

The vehicles park in open parking lot which has good cellular reception. There is no constraint in connecting smart chargers using cellular reception.

CHARGING EQUIPMENT

The following quantities of 6.6 kW smart L2 chargers are recommended:

12 x Dual-head low output pedestal mounted chargers

The chargers will be installed in phases 1 and 2 of construction.

Phase 1: All electrical infrastructure, 6 dual-head low output L2 chargers, and conduit stub-outs for phase 2 installations.

Phase 2: 6 dual-head low output L2 chargers.

CHARGING STALL LOCATIONS

A total of 24 parking stalls to be equipped with EV chargers.

The 24 EV charging stalls will be located at the fleet parking lot on the East side of the building facing Iron Rock Way. See Diagram above.

LIGHTING

There are existing wall mounted fixtures on the cord yard building that may illuminate the parking area.

SECURITY AND ACCESS

Safety and security are not concerns at this site as it is a gated and access-controlled facility.

CONDUIT INSTALLATION APPROACH

Open trenching conduit installation required between existing transformer to new electrical cabinet, and from new electrical cabinet to the EV chargers.

Directional drilling under paved areas may be required.

CHALLENGES AND RISKS

CHALLENGES / RISKS	DESCRIPTION
ELECTRICAL	Not secure location for the new electrical cabinet.
CIVIL/ STRUCTURAL	Directional drilling or expensive trenching (and restoration) may be required for chargers.
OTHERS	Lighting Analysis to be conducted to review the existing light levels in the parking lot

FLEET FACILITY, 10190 IRON ROCK WAY

Description: The fleet facility is Elk Grove's main domicile for the City's Police fleet and will be its main charging location for Police EVs in the future. It consists of a large parking lot with fueling facilities, storage, and an administration building. This is a secure facility with no public access or parking. Parking is available for Police Officers' personal vehicles while they are driving patrol vehicles.

Municipal Fleet Electrification: A total of seventy-six light duty ICE vehicles need to be replaced by comparable class EVs.

Energy Requirements: The daily required electrical load from fleet EV charging of 996.9 kWh was calculated by comparing existing vehicle duty cycle with replacement EV battery range. These vehicles have between 14 and 16 hours of nightly dwell time for charging. The maximum electrical load from the EV chargers is 1,564.5 kVA.

Existing Parking and Access: The fleet vehicles access this site through a gated entrance off Iron Rock Way. Parking stalls are available on all sides of the building, except for a small area to the west. A total of seventy-six City fleet vehicles park here, all of which are scheduled to be replaced by EVs.

Existing Electrical Service: The electrical room is at the north side of the fleet facility building. According to SMUD, the existing transformer has a total available electrical capacity of 75 kVA; which cannot accommodate the proposed EV charger loads. Thus, utility upgrades and a new transformer are required at this facility. The new transformer is recommended to be installed during phase 1 of the project construction.

Additional Considerations: The facility has a 12,000-gallon fuel tank located on the southeast side of the parking lot. This could potentially serve as a significant battery storage area to enhance resiliency or provide backup power, given that the fuel tank will no longer be required once the existing gasoline vehicles are transitioned to EVs.

Electrical Service Recommendations: Utility upgrades and a new transformer are required at this facility. The electrical room is on the north side of the Fleet Facility building. The new transformer should be installed during phase one of the project construction as discussed below. There are two recommended options for the electrical upgrades: 1) upgrade the existing panel/transformer or 2) replace the existing electrical infrastructure and install a new transformer/electrical panel.

Fleet EV Charger Recommendations: 38 dual-head low-output Level 2 chargers (76 charge ports) should be shared between the 76 fleet EVs on a rotating basis. To ensure redundancy

and flexibility for quick charging and for medium and heavy-duty EVs in the future, these should be supplemented by up to five dual-head 150 kW DC fast chargers (10 charge ports).

Fleet EV Charger Implementation Phasing: The installation of chargers will be separated into three phases, allowing time to replace existing fleet ICE vehicles with EVs and upgrade electrical system components and install EV chargers:

> **Phase 1**: All electrical infrastructure, 21 dual-head low output Level 2 chargers, conduit stub-outs for Phase 2 and Phase 3 infrastructure installation, and three dual-head DC fast chargers,
>
> **Phase 2**: 12 dual-head low output Level 2 chargers
>
> **Phase 3**: Five dual-head low output L2 chargers and two dual-head DC fast chargers.

Estimated Project Costs: The estimated planning level cost of 38 installed Level 2 and five DC fast chargers would total approximately $2,237,240.

Locations of proposed EV chargers are shown below on Figure 21.

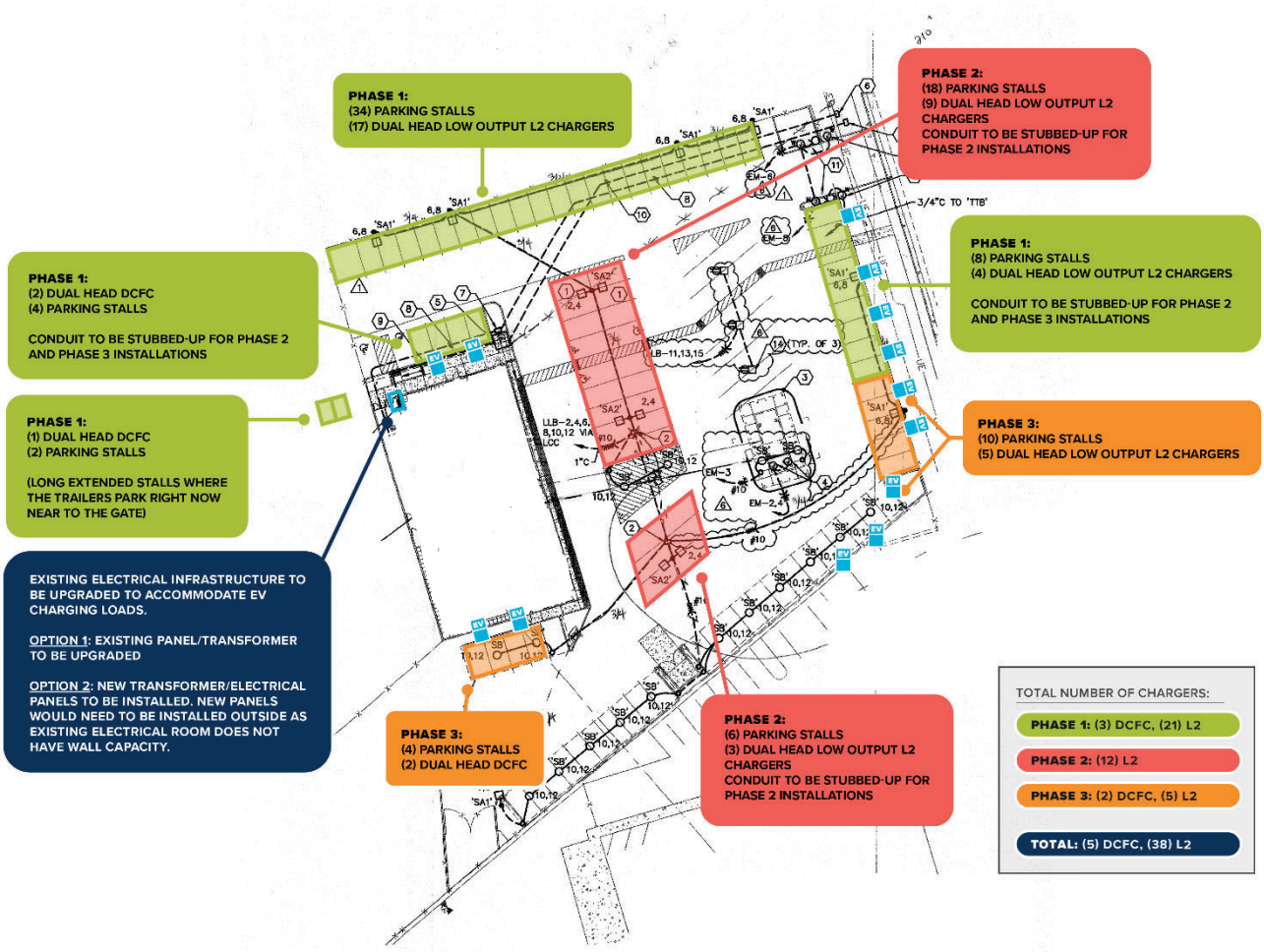


FIGURE 21: CONCEPTUAL CHARGER LAYOUT OF FLEET FACILITY ON IRON ROCK WAY

Charging Infrastructure Installation Phasing and Costs: The Fleet Facility is the City's primary fleet domicile with 76 fleet vehicles to be electrified. A total of 53 of these vehicles are scheduled to be replaced with EVs in Phase 1 followed by another seven vehicles in Phase 2 and 16 vehicles in Phase 3.

To charge these EVs, 38 dedicated dual-head low-output Level 2 chargers will be needed, supplemented by five dual-head 150 kW DC fast chargers. The installation of these chargers will be separated into three phases. To meet the expanded electrical loads from EV charging, expanded electrical infrastructure will need to be installed in Phase 1, along with the installation of 21 dual-head low-output Level 2 chargers, three dual-head DC fast chargers, and conduit stub-outs for subsequent installation of chargers in Phases 2 and 3. In Phase 2, twelve dual-head low-output Level 2 chargers will need to be installed. Finally, in Phase 3, five dual-head low-output Level 2 chargers, and two dual-head DC fast chargers will be installed using the previously installed conduit.

Most of these investments and resulting costs will occur in Phase 1, with an estimated total of $1,433,800. Phases 2 and 3 are estimated to cost $319,900 and $483,540, respectively.

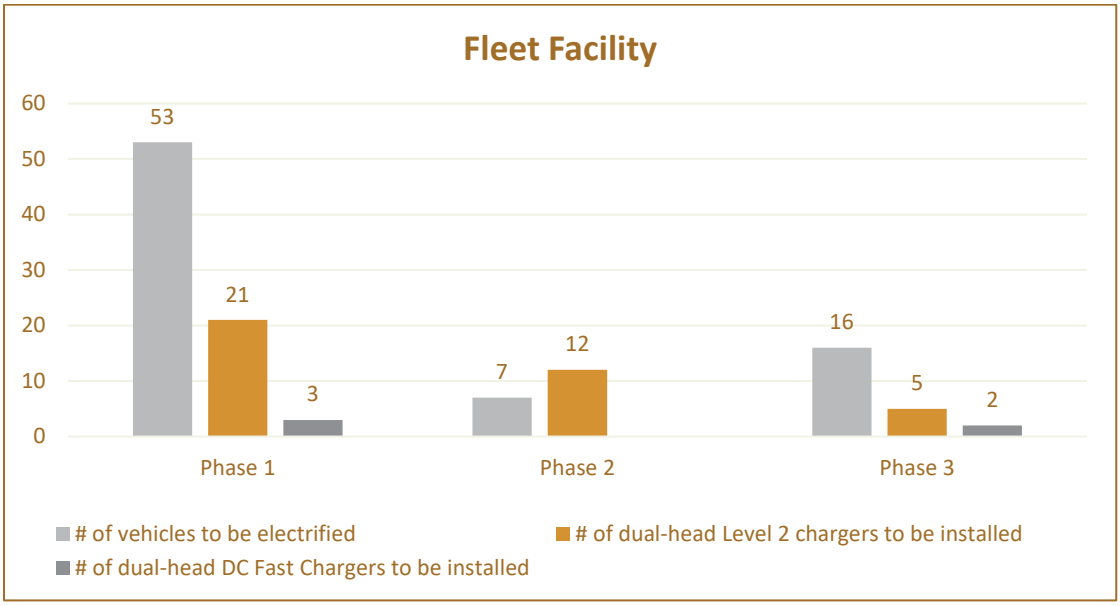


FIGURE 22: FLEET VEHICLE ELECTRIFICATION AND EV CHARGING INFRASTRUCTURE DEPLOYMENT BY IMPLEMENTATION PHASE AT FLEET FACILITY

FLEET FACILITY

EXISTING CONDITIONS

ADDRESS

10190 Iron Rock Way, Elk Grove, CA

SITE DESCRIPTION

Outdoor parking lot serving fleet vehicles.

ELECTRICAL CAPACITY

According to Sacramento Municipal Utility District (SMUD), the existing transformer has a total available electrical capacity of 175 kVA; which cannot accommodate the proposed EV charger loads. Thus, utility upgrades and a new transformer are required at this facility. The new transformer to be installed during Phase 1 of the project construction.

LOCATION OF POWER SUPPLY

The electrical room is at the North side of the fleet facility building.

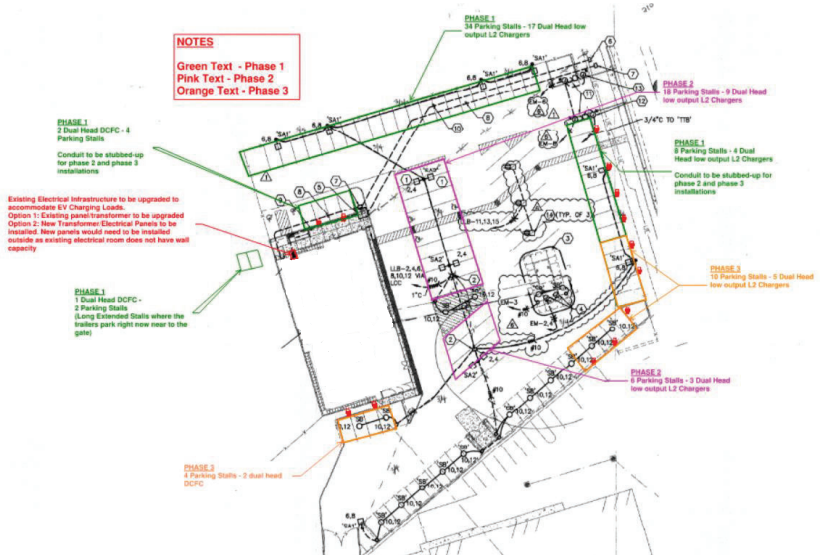
ANALYSIS

A total of 76 light duty ICE vehicles need to be replaced by comparable class EVs. The daily required EV energy was calculated by comparing existing vehicle duty cycle with replacement EV battery range. 42 vehicles to be replaced in phase 1, 15 vehicles in phase 2 and 19 vehicles in phase 3 of the project construction.

REQUIRED ELECTRICAL LOAD AND COSTS PER CHARGING SCENARIO

CHARGING SCENARIO	ELECTRIC LOAD	COST
DEDICATED L2 & SHARED DCFC (FLEET) – PHASE 1 CONSTRUCTION	1,564.5 kVA	$1,433,800
DEDICATED L2 & SHARED DCFC (FLEET) – PHASE 2 CONSTRUCTION		$319,900
DEDICATED L2 (FLEET) – PHASE 3 CONSTRUCTION		$483,540

Note: Phase 1 construction timeline is 2023-2028, Phase 2 construction timeline is 2029-2033, and Phase 3 construction timeline is 2034-2035



DESIGN RECOMMENDATIONS

POWER

Utility and transformer upgrades are required for this site. There are two recommended options to approach the electrical upgrades:

Option 1: Existing panel/transformer to be upgraded.

Option 2: New transformer/electrical panels to be installed.

Chargers are to be installed in 3 phases (see “Charging Equipment”), but all electrical infrastructure upgrades are to be implemented in phase 1.

COMMUNICATION

The vehicles park in open parking lot which has good cellular reception. There is no constraint in connecting smart chargers using cellular reception.

CHARGING EQUIPMENT

The following quantities of smart chargers are recommended:

38 x Dual-head low output L2 chargers

5 x Dual-head 150 kW DC Fast chargers

The installation of chargers will be separated into 3 phases:

Phase 1: All electrical infrastructure, 21 dual-head low output L2 chargers, 3 dual-head DCFC’s, and conduit stub-outs for phase 2 installations.

Phase 2: 12 dual-head low output L2 chargers, and conduit stub-outs for phase 3 installations.

Phase 3: 2 dual-head DCFC’s, 5 dual-head low output L2 chargers.

CHARGING STALL LOCATIONS

See diagram above for breakdown of charging stall locations and which stalls will have a charger installed for which phase.

LIGHTING

There are existing light poles that provide sufficient illumination to the parking lot.

SECURITY AND ACCESS

As this is a gated and access-controlled facility, security is not a major concern for the site.

CONDUIT INSTALLATION APPROACH

Wall and ceiling-mounted conduit from electrical room, and trenched conduit installation between new transformer and electrical cabinet, and electrical cabinet to the chargers required.

CHALLENGES AND RISKS

CHALLENGES / RISKS	DESCRIPTION
ELECTRICAL	Secure and aesthetically acceptable location for new transformer.
CIVIL/ STRUCTURAL	Directional drilling or expensive trenching (and restoration) required for charger’s location proposed in Site alternative 2
OPERATIONAL	Shared DCFC charging stalls: determine schedule to rotate vehicles for charging if needed.
OTHERS	See “Security and Access”

LAGUNA PALMS CAMPUS: 8380 LAGUNA PALMS, 8400 LAGUNA PALMS & 9362 STUDIO COURT

Description: This municipal administrative campus consists of several separate buildings that house the Police Department and City Council Chambers and is comprised of three adjacent sites, each with its own address: 8380 Laguna Palms; 8400 Laguna Palms; and 9362 Studio Court. A total of 65 fleet vehicles are assigned to 8380/8400 Laguna Palms, of which all except one belong to Police Department. An additional 17 Police Department vehicles are planned for relocation from Corp Yard to the Laguna Palms Campus by the end of 2024. The Studio Court building, which houses the Elk Grove's Property & Evidence and CSI, has a four-vehicle fleet, all of which are slated for electrification. Staff are able to park in any of the parking lots.

Municipal Fleet Electrification: A total of sixty-five fleet vehicles are assigned to 8380/8400 Laguna Palms, with all but one planned for electrification. The Police Departments Property & Evidence and CSI building at 9362 Studio Court has a fleet of four vehicles, all of which are slated for electrification. An additional seventeen Police Department vehicles are planned for relocation from Corp Yard to the Laguna Palms Campus by the end of 2024. The total number of vehicles planned for electrification at the Laguna Palms Campus will therefore be eighty-five.

Energy Requirements: The daily required electrical load from fleet EV charging of 668.6 kWh for 8380 and 8400 Laguna Palms and 25.4 kW for 9362 Studio Court was calculated by comparing existing vehicle duty cycle with the replacement EV battery range. These vehicles have between fourteen and twenty-one and a half hours of nightly dwell time for charging. The maximum electrical load from the EV chargers is 1,378 kVA for 8380 and 8400 Laguna Palms and 16.5 kVA for 9362 Studio Court.

Existing Parking and Access: Both 8380 and 8400 Laguna Palms share a common gated parking area for exclusive staff/fleet use that can be accessed from both Laguna Palms Way and Laguna Spring Drive. The parking on the north side of the 8400 Laguna Palms site is public. There is gated parking to the east of the 8400 Laguna Palms building for staff/fleet and accessed from Studio Court or Laguna Palms Way. Studio Court has its own dedicated parking area to the east of the building and accessible from Studio Court, which is not gated.

Existing Electrical Service: According to SMUD, the existing 150 kVA transformer at 9362 Studio Court has a total available electrical capacity of 112.4 kVA, which can accommodate one dual-head low-output charger at this site. This facility received major renovations including a new electrical panel installed on the east side of the building. New electrical service upgrades will be required to power fleet and public EV chargers needed elsewhere at this campus.

Electrical Service Recommendations: Utility and transformer upgrades for 8380 and 8400 Laguna Palms are recommended, which can be installed between the Rain Garden and 8380 Laguna Palms property line to provide power for current planned EV chargers and any future expansion. A new switchgear, electrical cabinets to power DC fast and Level 2 chargers, and step-down transformer will need to be installed in the vicinity of the new transformer.

Fleet EV Charger Recommendations: The following quantities of smart chargers are recommended:

- One dual-head low output pedestal mounted Level 2 chargers for fleet use at 9362 Studio Court (2 charge ports);
- 20 dual-head medium output pedestal mounted Level 2 chargers for fleet use at 8380 and 8400 Laguna Palms (40 charge ports);
- Seven dual-head high output pedestal mounted Level 2 chargers for fleet use at 8380 and 8400 Laguna Palms (14 charge ports);
- Two dual-head 150 kW DC fast chargers for fleet use at 8380 and 8400 Laguna Palms (4 charge ports).

Fleet EV Charger Implementation Phasing: The installation of fleet chargers will be separated into three phases concurrent with replacement of fleet vehicles with EVs:

> **Phase 1**: All electrical infrastructure, sixteen dual-head medium output, two dual-head high output Level 2 chargers, two dual-head DC fast charger, and conduit stub-outs for subsequent charger installations in phase two and phase three.
>
> **Phase 2**: Two dual-head medium output, and four dual-head high output Level 2 chargers.
>
> **Phase 3**: One dual-head low output, two dual-head medium output, and one dual-head high output Level 2 chargers.

Public EV Charger Recommendations: Two dual-head medium output pedestal mounted Level 2 chargers for public use at 8400 Laguna Palms (4 charge ports).

Public EV Charger Implementation Phasing: The public chargers should be installed in phase one.

Estimated Project Costs: The estimated planning level cost of thirty newly installed Level 2 and two DC fast chargers will total approximately $1,714,840 plus $43,200 for the Elk Grove Property & Evidence and CSI Building at 9362 Studio Court. The majority of this estimate is for fleet charging with only $76,740 for public charging.

Locations of proposed EV chargers are shown below on Figure 23.

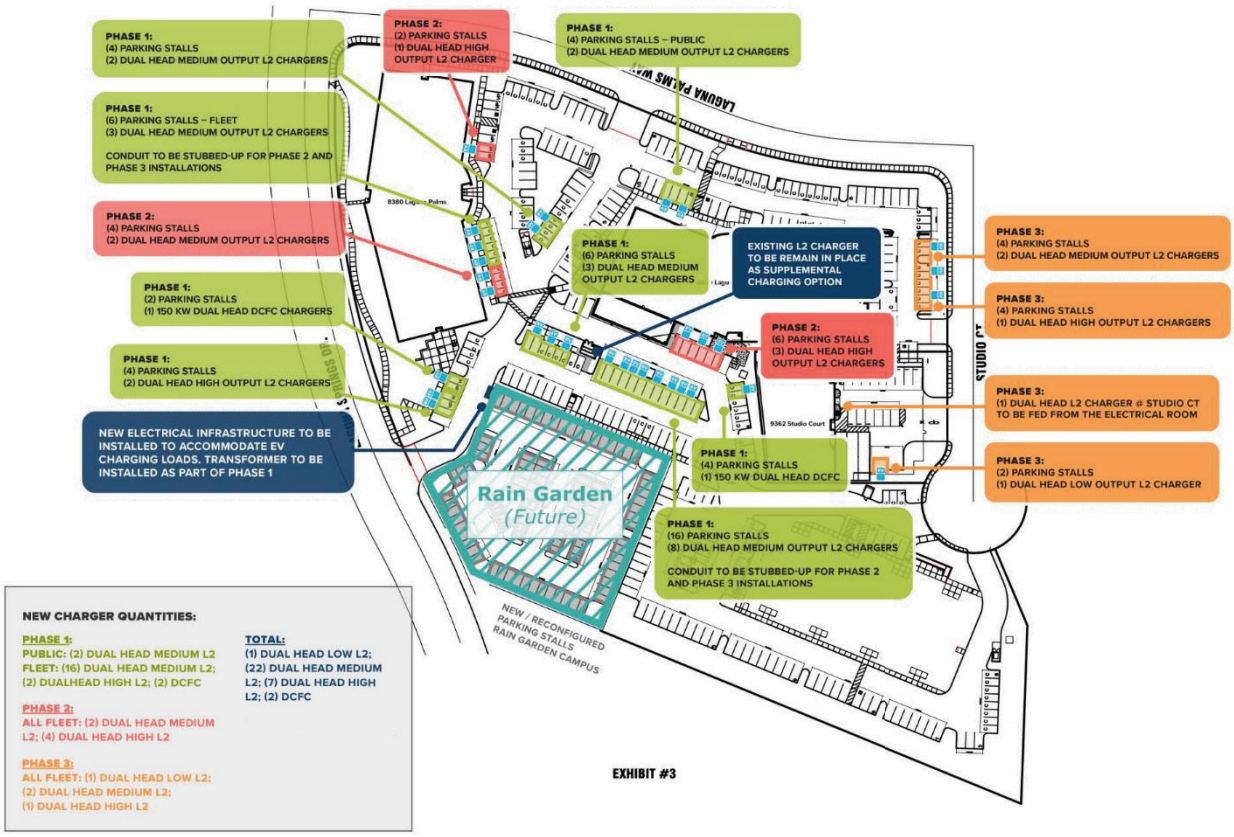


FIGURE 23: CONCEPTUAL CHARGER LAYOUT OF LAGUNA PALMS CAMPUS

Charging Infrastructure Installation Phasing and Costs: A total of 85 light-duty ICE vehicles assigned to the Laguna Palms campus need to be replaced by comparable class EVs, which includes additional 17 Police Department vehicles are planned for relocation from Corp Yard to the Laguna Palms Campus by the end of the next year. Charging this fleet of EVs will require the installation of one dual-head low-output pedestal-mounted Level 2 charger at 9362 Studio Court, 20 dual-head medium-output pedestal-mounted Level 2 chargers as well as seven dual-head high-output pedestal-mounted Level 2 chargers, all supplemented by two dual-head 150 kW DC fast chargers at 8380 and 8400 Laguna Palms. Along with these 30 fleet chargers, two dual-head medium-output pedestal-mounted Level 2 chargers will also be needed for public use at the Laguna Palms campus.

The chargers at the Laguna Palms campus should be installed in three phases. Phase 1 will consist of the installation of all electrical infrastructure, 16 dual-head medium-output, and two dual-head high-output Level 2 chargers, two dual-head DC fast charger, and conduit stub-outs for Phase 2 installations expected to cost $1,286,280. Phase 1 will also include two dual-head medium-output chargers for public use at a cost of $76,740. Phase 2 will consist of the installation of two dual-head medium-output, and four dual-head high-output Level 2 chargers,

and conduit stub-outs for Phase 3 installations totaling approximately $193,060. Phase 3 will consist of the installation of one dual-head low-output Level 2 charger at 93362 Studio Court totaling $43,200, two dual-head medium-output, and one dual-head high-output Level 2 charger at 8380 and 8400 Laguna Palms totaling $158,760. The total costs for Phase 3 installation are $201,960.

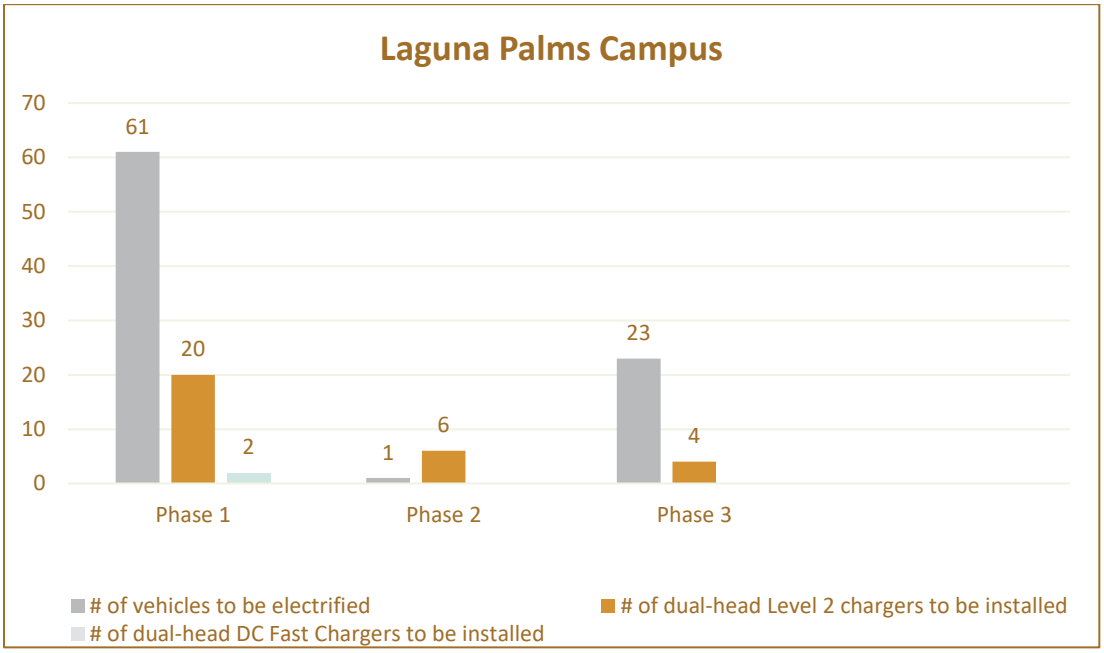


FIGURE 24: FLEET VEHICLE ELECTRIFICATION AND EV CHARGING INFRASTRUCTURE DEPLOYMENT BY IMPLEMENTATION PHASE AT LAGUNA PALMS CAMPUS

LAGUNA PALMS CAMPUS

EXISTING CONDITIONS

ADDRESS

Laguna Palms Campus, Elk Grove

SITE DESCRIPTION

This campus has four addresses; 8380 Laguna Palms, 8400 Laguna Palms, 9362 Studio Court, and a Rain Garden that will be converted into parking stalls.

8380 and 8400 Laguna Palms have a common gated parking area for fleet use. The parking can be accessed from both Laguna Palms Way and Laguna Palms Drive. The public parking is on the north side of the 8400 Laguna Palms site. 9362 Studio Court has its own dedicated parking space which is not gated.

ELECTRICAL CAPACITY

A new transformer to be installed to accommodate the EV charger loads for 8380,8400 Laguna Palms, and future parking stalls at the Rain Garden site.

According to SMUD, the existing 150 kVA transformer at 9362 Studio Court has a total available electrical capacity of 112.4 kVA, which can accommodate 1 dual head low output charger at this site.

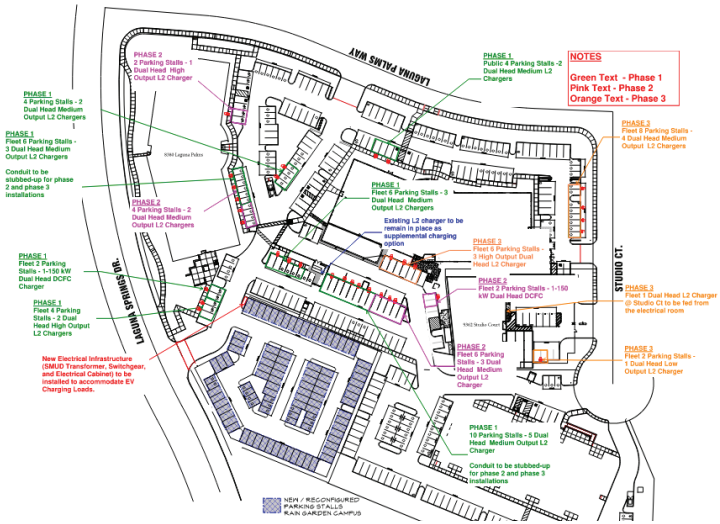
ANALYSIS

A total of 85 out of 86 light duty ICE vehicles need to be replaced by comparable class EVs. Their daily required EV energy was calculated by comparing existing vehicle duty cycle with replacement EV battery range. The vehicles have between 14 and 21.5 hours of nightly dwell time. The chargers at 8380 and 8400 Laguna Palms should be installed in three phases and the chargers at 9362 Studio Court should be installed in phase 3.

REQUIRED ELECTRICAL LOAD AND COSTS PER CHARGING SCENARIO

CHARGING SCENARIO	ELECTRIC LOAD	COST
8380 AND 8400 LAGUNA PALMS (FLEET) - PHASE 1 CONSTRUCTION	1,378 kVA	$1,286,280
8380 AND 8400 LAGUNA PALMS (PUBLIC) - PHASE 1 CONSTRUCTION		$76,740
8380 AND 8400 LAGUNA PALMS (FLEET) - PHASE 2 CONSTRUCTION		$193,060
8380 AND 8400 LAGUNA PALMS (FLEET) - PHASE 3 CONSTRUCTION		$158,760
9362 STUDIO COURT (FLEET) - PHASE 3 CONSTRUCTION	16.5 kVA	$43,200

Note: Phase 1 construction timeline is 2023-2028, Phase 2 construction timeline is 2029-2033, and Phase 3 construction timeline is 2034-2035



DESIGN RECOMMENDATIONS

POWER

Utility and transformer upgrades will be required for 8380, 8400 Laguna Palms and the Rain Garden recommended to be installed between the Rain Garden and 8380 Laguna Palms property line that will serve the power requirements for the EV chargers and future electrical installations at the Rain Garden when converted into parking.

A new switch gear, electrical cabinets to power DC fast and Level 2 chargers, and step-down transformer to be installed in the vicinity of the new transformer.

One dual head low output L2 charger to be fed from the existing electrical panel in the electrical room at 9362 Studio Court.

COMMUNICATION

The vehicles park in open parking lot which has good cellular reception. There is no constraint in connecting smart chargers using cellular reception.

CHARGING EQUIPMENT

The following quantities of smart chargers are recommended:

1 x Dual-head low output pedestal mounted L2 chargers for fleet use at 9362 Studio Court

2 x Dual-head medium output pedestal mounted L2 chargers for public use at 8380 and 8400 Laguna Palms

20 x Dual-head medium output pedestal mounted L2 chargers for fleet use at 8380 and 8400 Laguna Palms

7 x Dual-head high output pedestal mounted L2 chargers for fleet use at 8380 and 8400 Laguna Palms

2 x Dual-head 150 kW DC Fast chargers for fleet use at 8380 and 8400 Laguna Palms

The installation of chargers will be separated into 3 phases:

Phase 1: All electrical infrastructure, 18 dual-head medium output, 2 dual-head high output L2 chargers, 2 dual-head DCFC's, and conduit stub-outs for phase 2 installations. This includes 2 dual-head medium output chargers for public.

Phase 2: 2 dual-head medium output, 4 dual-head high output L2 chargers, and conduit stub-outs for phase 3 installations.

Phase 3: 1 dual-head low output, 2 dual-head medium output, and 1 dual-head high output L2 chargers.

CHARGING STALL LOCATIONS

See site diagram above.

LIGHTING

There are existing light poles that provide sufficient illumination to the parking lot.

SECURITY AND ACCESS

Safety is not a concern at this location as this is a gated site.

CONDUIT INSTALLATION APPROACH

A mixture of directional drilling and trenched conduit installation between new transformer to new electrical cabinet and from new electrical cabinet to the chargers required.

Directional drilling conduit between SMUD vault to new transformer.

CHALLENGES AND RISKS

CHALLENGES / RISKS	DESCRIPTION
ELECTRICAL	None
CIVIL/ STRUCTURAL	None
OPERATIONAL	Fleet versus customer parking/charging
OTHERS	Impacts to existing utilities during installation of conduits

SPECIAL WASTE COLLECTION CENTER, 9255 DISPOSAL LN.

Description: This is the City's household hazardous waste and recycling facility which is open to the public for disposing of waste or collecting re-use materials during operating hours.

Municipal Fleet Electrification: Two ICE fleet vehicles domicile at the SWC, and one of the two vehicles is scheduled to be replaced by a comparable class EV.

Energy Requirements: The daily required electrical load from fleet EV charging of 2.0 kWh was calculated by comparing the existing vehicle duty cycle with the replacement EV battery range. These vehicles have between fourteen and sixteen hours of nightly dwell time for charging. The maximum electrical load from the EV chargers is 24.8 kVA.

Existing Parking and Access: A 12-stall outdoor parking lot serves two fleet vehicles, one of which is already an EV and the other which is planned to be electrified, while the remaining stalls are used for staff and public vehicle parking. There is no public access to this facility after hours.

Existing Electrical Service: The existing 150 kVA-rated transformer is located on the exterior east side of the building. The existing panels are located inside of the building near this transformer. According to SMUD, the total available electrical capacity of the existing transformer is 129 kVA@ 480V, and there are two electrical panels that have breaker capacity for the EV chargers. There are also solar panels installed on the roof of this facility.

Fleet EV Charger Recommendations: One dual-head Level 2 charger (2 charge ports) is recommended for fleet charging in the parking stalls close to the existing pad-mounted transformer where the existing conduits are stubbed up. The chargers should be installed along the east side of the parking lot. The single-head Level 2 charger will be for the ADA-accessible stall. The dual-head Level 2 charger will have one head for the fleet vehicle and one for the standard public EV charging stall.

Fleet EV Charger Implementation Phasing: Because sufficient power is available, this charger could be installed in phase one.

Public EV Charger Recommendations: One single-head Level 2 charger is recommended for public use adjacent to the proposed fleet chargers.

Public EV Charger Implementation Phasing: Because sufficient power is available, this charger could be installed in phase one.

Estimated Project Costs: The estimated planning level cost of two new, Level 2 chargers for both fleet and public use will be approximately $64,720. Of this total, $53,280 is for fleet charging and the remaining $11,440 is for public charging.

Locations of proposed EV chargers are shown in Figure 25.

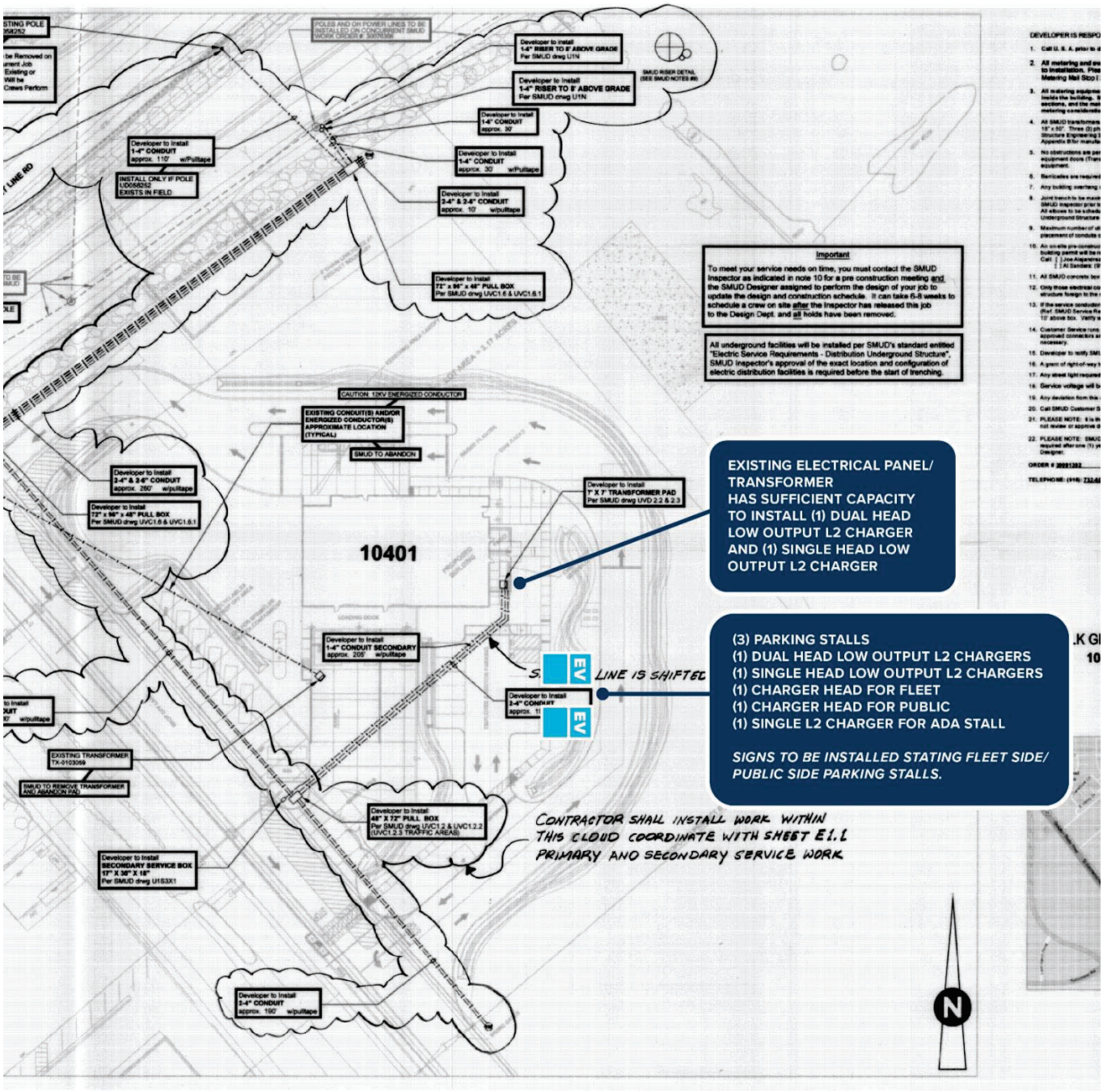


FIGURE 25: CONCEPTUAL CHARGER LAYOUT OF SPECIAL WASTE COLLECTION CENTER

Charging Infrastructure Installation Phasing and Costs: The SWCC has the smallest City-owned fleet with only one fleet vehicle to be electrified. The installation at the SWCC should include one Level 2 dual-head charger plus a single-head Level 2 charger. The single-head charger will be for public use and installed at the ADA stall. The dual-head Level 2 charger will have one head reserved for the fleet vehicle and one head available for the public stall. No electrical system upgrades will be required, allowing this project to be completed in a single

phase. The cost of the fleet charger is expected to total $46,840 with the public charger cost an additional $10,520.

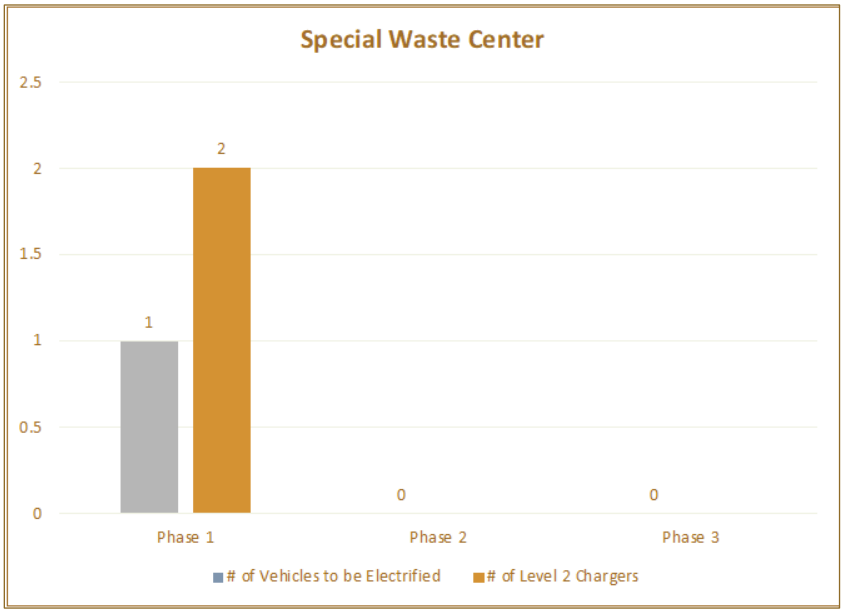


FIGURE 26: FLEET VEHICLE ELECTRIFICATION AND EV CHARGING INFRASTRUCTURE DEPLOYMENT BY IMPLEMENTATION PHASE AT SPECIAL WASTE COLLECTION CENTER

SPECIAL WASTE COLLECTION CENTER

EXISTING CONDITIONS

ADDRESS

9255 Disposal Ln, Elk Grove, CA

SITE DESCRIPTION

Outdoor parking lot serving fleet vehicles and open to public during operating hours.

ELECTRICAL CAPACITY

According to SMUD, the total available electrical capacity of the existing transformer is 129 kVA, and there are 2 electrical panels that have breaker capacity for EV chargers.

LOCATION OF POWER SUPPLY

The existing transformer is located on the exterior east side of the building. The existing panels are located inside of the building near this transformer.

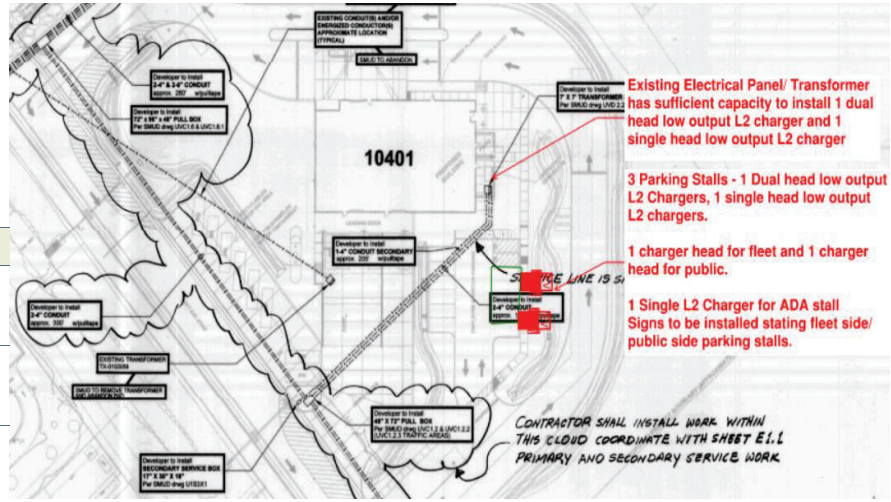
ANALYSIS

2 ICE fleet vehicles domicile at the SWC, and one of the two vehicles is scheduled to be replaced by a comparable class EV. The daily required EV energy was calculated by comparing existing vehicle duty cycle with replacement EV battery range.

REQUIRED ELECTRICAL LOAD AND COSTS PER CHARGING SCENARIO

CHARGING SCENARIO	ELECTRIC LOAD	COST
DEDICATED L2 (FLEET) - PHASE 1 CONSTRUCTION	24.8 kVA	$52,280
SHARED L2 (PUBLIC) – PHASE 1 CONSTRUCTION		$11,440

Note: Phase 1 construction timeline is 2023-2028



DESIGN RECOMMENDATIONS

POWER

The 2 proposed chargers can be powered by the existing outdoor electrical panels “MSB” or “1LC S2” at the East side of the site. Conduit and wiring can be trenched directly from the panel to the parking stalls at the Southeast side of the lot.

COMMUNICATION

The vehicles park in open parking lot which has good cellular reception. There is no constraint in connecting smart chargers using cellular reception.

CHARGING EQUIPMENT

The following quantities of smart L2 chargers are recommended:

1 x Single-head low output pedestal mounted L2 charger

1 x Dual-head low output pedestal mounted L2 charger

CHARGING STALL LOCATIONS

A total of 3 parking stalls to be equipped with EV chargers.

The chargers will be installed along the East side of the parking lot. The single head L2 charger will be for the ADA stall. The dual head L2 charger will have one head for the fleet vehicle and one for the standard public stall.

Signage will need to be installed to indicate which parking stall is for fleet and which is for public. As this is a gated facility, there will be no access to public chargers after operational hours.

See site diagram above.

LIGHTING

There are existing light poles that provide sufficient illumination to the parking lot.

SECURITY AND ACCESS

As this is a gated facility that is closed to the public after operational hours, so safety and security is not a significant concern.

CONDUIT INSTALLATION APPROACH

Wall-mounted conduit from electrical panels, and trenched conduit installation between electrical service and chargers required.

CHALLENGES AND RISKS

CHALLENGES / RISKS	DESCRIPTION
ELECTRICAL	None
CIVIL/ STRUCTURAL	None
OPERATIONAL	Fleet versus customer parking and charging
OTHERS	N/A

NON-FLEET PUBLIC CHARGING LOCATIONS

Each City-owned, non-fleet site for public charging is described below including a summary of the facility's existing access, parking, and electrical service.

Unlike City fleet chargers, which are sized based on projected energy loads, public charging recommendations are based on factors such as available on-site power, parking capacity, and/or City recommendations. All three of these could be implemented at any time so no phasing recommendations are included.



FIGURE 27: OLD TOWN PLAZA 2021 (PHOTO CREDIT: BILLY HUSTACE)

EXISTING ELK GROVE LIBRARY, 8900 ELK GROVE BLVD.

Description: The library building is situated at the intersection of Elk Grove Florin Rd. and Elk Grove Blvd., offering access to public library parking from both roadways. The building is owned by the City and currently used by the Sacramento County Library Authority. This location, being a popular public destination with convenient vehicular access and abundant surface parking, presents an optimal site for the installation of public parking infrastructure. It is important to emphasize that no fleet vehicles are allocated to the library; therefore, all charging stations installed here will be exclusively designated for public use. Additionally, it should be noted that the Elk Grove Library is scheduled for relocation to 9260 Elk Grove Blvd as part of an ongoing

capital project within the next two to five years. The future utilization of this building by the City remains to be determined.

Existing Parking and Access: There is an unsecured parking lot with access to parking from both Elk Grove Florin Rd. and Elk Grove Blvd.

Existing Electrical Service: Existing panel H is located on the north side of the building close to the entrance from Elk Grove Blvd. This 225A, 208V-rated panel has available electrical capacity to accommodate the proposed EV charging loads at this facility. The maximum electrical load from the EV chargers is 90.0 kVA.

Public EV Charger Recommendations: Installation of three dual-head Level 2 chargers (6 charge ports) is recommended, allowing up to six EVs to charge simultaneously. These chargers should be installed by the parking stalls on the south side of the building. Two parking stalls to the west of the entrance would have one ADA-accessible stall and one standard stall for EV charging. Four parking stalls to be located east of the entrance will have four standard stalls for EV charging.

Estimated Project Costs: The estimated planning level installed cost of these new Level 2 public chargers will be approximately $141,260.

Locations of proposed EV chargers are shown below on Figure 28.



FIGURE 28: CONCEPTUAL CHARGER LAYOUT OF EXISTING ELK GROVE LIBRARY

Charging Infrastructure Installation Phasing and Costs: The facility comprises an outdoor public parking lot exclusively intended for public parking. This building is owned by the City and is currently utilized by the Sacramento County Library Authority. The library is scheduled for relocation to a new site within the next three to five years, and the future utilization of the existing building is under evaluation. It is important to note that no fleet vehicles are designated for the library; hence, all charging stations installed here would be exclusively available for public use. We recommend the installation of three dual-head Level 2 chargers for public use, enabling up

to six EVs to charge concurrently. It is worth mentioning that no electrical system upgrades will be necessitated, allowing for the completion of this project in Phase 1 at an estimated cost of $141,260.

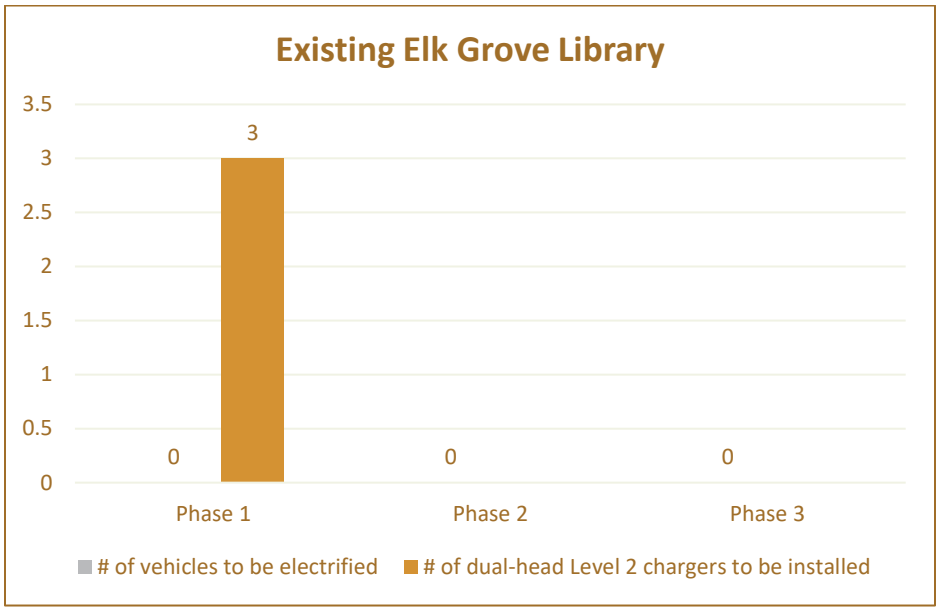


FIGURE 29: EV CHARGING INFRASTRUCTURE DEPLOYMENT BY IMPLEMENTATION PHASE AT EXISTING ELK GROVE LIBRARY

ELK GROVE LIBRARY

EXISTING CONDITIONS

ADDRESS

8900 Elk Grove Blvd, Elk Grove, CA

SITE DESCRIPTION

Outdoor parking lot at library for public, not fleet vehicles.

ELECTRICAL CAPACITY

Existing panel H (225A, 208V) has available electrical capacity to accommodate the proposed added EV charging loads at this facility.

LOCATION OF POWER SUPPLY

Existing Panel H is located on the North side of the building close to the entrance from Elk Grove Blvd.

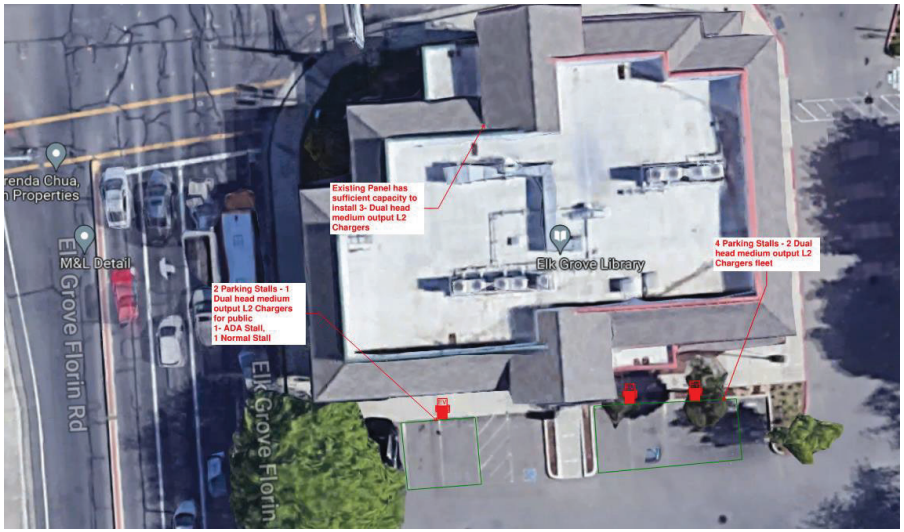
ANALYSIS

All chargers at this location will be for public use, and there are no fleet vehicles that domicile here. Installation of 3 dual head Level 2 chargers is recommended for use by library patrons. 1 charger head will be for an ADA parking stall, and 5 charger heads will be for standard parking stalls, for all total of 3 dual head charging stations allowing 6 EVs to charge simultaneously.

REQUIRED ELECTRICAL LOAD AND COSTS PER CHARGING SCENARIO

CHARGING SCENARIO	ELECTRIC LOAD	COST
SHARED L2 (PUBLIC) – PHASE1 CONSTRUCTION	90 kVA	$141,260

Note: Phase 1 construction timeline is 2023-2028



DESIGN RECOMMENDATIONS

POWER

All the L2 chargers will be powered from existing panel “H” located at the North side of the building. Conduit can be trenched around the outside of the building in the landscaping areas to power the chargers at the south side of the building.

COMMUNICATION

The vehicles park in open parking lot which has good cellular reception. There is no constraint in connecting smart chargers using cellular reception.

CHARGING EQUIPMENT

The following quantities of smart L2 chargers are recommended:

3 x Dual-head medium output pedestal mounted Level 2 chargers

CHARGING STALL LOCATIONS

A total of 6 parking stalls to be equipped with EV chargers.

Chargers to be installed at parking stalls on the South side of the building. 2 parking stalls to the West of the entrance will have 1 ADA stall and 1 standard stall for EV charging. 4 parking stalls to be located East of the entrance will have 4 standard stalls for EV charging.

See site diagram above.

LIGHTING

There are existing decorative-style light poles and fixtures at the parking lot that provide illumination to the site.

SECURITY AND ACCESS

Safety and security can be a concern at this location. Consider installation of a wall mounted CCTV camera and/or panic button for late hours of public usage of the chargers.

CONDUIT INSTALLATION APPROACH

Wall and ceiling-mounted conduit from electrical room to outside, and trenched conduit installation between electrical service and chargers required.

Core drilling through the walls may be required.

CHALLENGES AND RISKS

CHALLENGES / RISKS	DESCRIPTION
ELECTRICAL	None
CIVIL/ STRUCTURAL	Directional drilling/ expensive trenching (and restoration) may be required to run conduit and wiring from existing panel to chargers.
OTHERS	See “Security and Access”

OLD TOWN PLAZA, 9615 RAILROAD STREET

Description: This new City-owned public outdoor event facility includes two public parking lots and street parking. The lots are ideal for Level 2 charging for the public, as there are regular events that occur at the Plaza in addition to multiple businesses in the area. One restaurant is currently open to the south of one parking lot with another restaurant opening soon. The site includes an open-air covered pavilion and a building housing only bathroom facilities. No fleet vehicles are domiciled at this site.

Existing Parking and Access: There are two unsecured, fully public parking lots with easy vehicular access from Grove St. and Railroad St.

Existing Electrical Service: This is a newly constructed parking lot with no available electrical capacity to install EV chargers. All-new electrical infrastructure will need to be installed to power the proposed EV chargers.

Additional Considerations: The eastern parking lot features an unused 4-inch conduit that runs from east to west on the northern side of the lot, connecting existing pull boxes. This conduit also continues westward beyond Railroad Street, leading into the preexisting parking area on the west side of the street. Considering the planned installation site for the SMUD transformer and following EV charger recommendations, it is advisable to leverage the existing 4-inch spare conduit for the implementation of EV charging or power systems, with the aim of cost reduction for the project.

Electrical Service Recommendations: This is a newly constructed parking lot with no available electrical capacity to install EV chargers. All new electrical infrastructure will need to be installed to power the proposed EV chargers. A new transformer will need to be installed and the location of the transformer to be coordinated with SMUD. The new transformer will feed a new service panel for EV Chargers. The location of the new panel will be dependent on the location of the transformer as recommended by SMUD. The maximum electrical load from the EV chargers is 227.3 kVA.

Public EV Charger Recommendations: A total of twenty-one parking stalls could be equipped with EV chargers at fourteen parking stalls along the north side, two parking stalls along East side, and five parking stalls along the south side of the lot. Only one spot at the NE corner will remain non-EV parking. The parking lot features an unused 4-inch conduit that runs from east to west on the northern side of the lot, connecting existing pull boxes. This conduit also continues westward beyond Railroad Street, leading into the preexisting parking area on the west side of the street. Considering the planned installation site for the SMUD transformer and following EV charger recommendations, it is advisable to leverage the existing 4-inch spare conduit for the

implementation of EV charging or power systems, with the aim of cost reduction for the project. The following quantities of smart Level 2 chargers are recommended for this parking lot:

- Three single-head low output pedestal mounted Level 2 chargers
- Five dual-head low output pedestal mounted Level 2 chargers (10 charge ports)
- Two single-head medium output pedestal mounted Level 2 chargers
- Three dual-head medium output pedestal mounted Level 2 chargers (6 charge ports)

Estimated Project Costs: The estimated planning level installed cost of these new Level 2 public chargers will be approximately $599,240.

Locations of proposed EV chargers are shown below on Figure 30.



FIGURE 30: CONCEPTUAL CHARGER LAYOUT OF OLD TOWN PLAZA

Charging Infrastructure Installation Phasing and Costs: The Old Town Plaza has no fleet vehicles domicile at this site. The installation at the Old Town Plaza should include three single-head low output, five dual-head low-output, two single-head medium-output, and three dual-head medium-output Level 2 chargers, all for public use. To meet the electrical loads from EV charging, a new electrical infrastructure will need to be installed in Phase 1. The cost of the public chargers is expected to total $599,240.

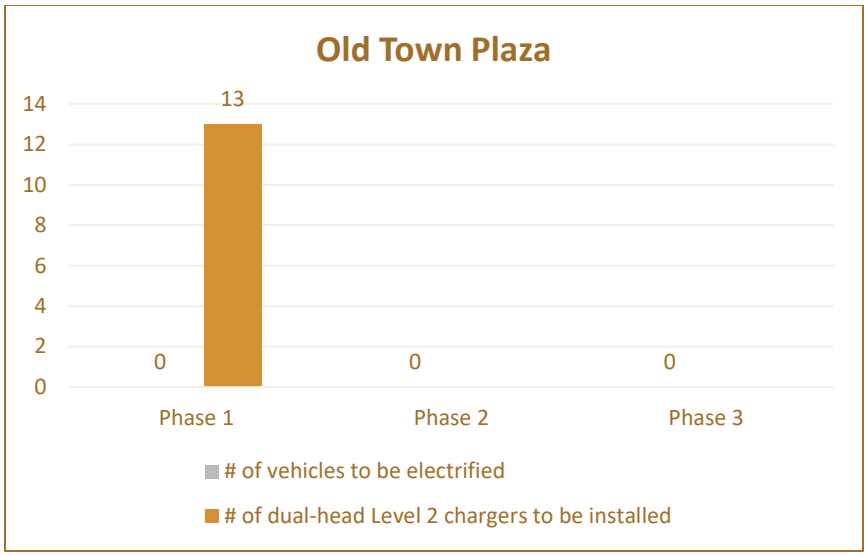


FIGURE 31: EV CHARGING INFRASTRUCTURE DEPLOYMENT BY IMPLEMENTATION PHASE AT OLD TOWN PLAZA

OLD TOWN PLAZA

EXISTING CONDITIONS

ADDRESS

9645 Railroad Street, Elk Grove, CA

SITE DESCRIPTION

Outdoor parking lot for public EV charging.

ELECTRICAL CAPACITY

This is a newly constructed parking lot with no available electrical capacity to install EV chargers. All-new new electrical infrastructure will need to be installed to power the proposed EV chargers.

LOCATION OF POWER SUPPLY

Location of new transformer to be coordinated with SMUD.

ANALYSIS

All chargers at this location will be for public use, and there are no fleet vehicles that domicile here.

The recommendation is to install 13 chargers (mix of dual and single head) for a total of 21 EV charging spaces (parking stalls).

REQUIRED ELECTRICAL LOAD AND COSTS PER CHARGING SCENARIO

CHARGING SCENARIO	ELECTRIC LOAD	COST
SHARED L2 (PUBLIC)	227.3 kVA	$599,240

Note: Construction timeline shall be per City's available funding to install EV chargers at this site.



DESIGN RECOMMENDATIONS

POWER

A new transformer will need to be installed and the location of the transformer to be coordinated with SMUD. The new transformer will feed a new service panel for EV Chargers. The location of the new panel will be dependent on the location of the transformer as recommended by SMUD.

COMMUNICATION

The vehicles park in open parking lot which has good cellular reception. There is no constraint in connecting smart chargers using cellular reception.

CHARGING EQUIPMENT

Installation of 21 level 2 charge ports for public use is proposed for this facility to support EV charging during events hosted in Old Town.

The following quantities of smart L2 chargers are recommended:

3 x Single-head low output pedestal mounted chargers

5 x Dual-head low output pedestal mounted chargers

2 x Single-head medium output pedestal mounted chargers

3 x Dual-head medium output pedestal mounted chargers

CHARGING STALL LOCATIONS

A total of 21 parking stalls to be equipped with EV chargers at 14 parking stalls along the North side, 2 parking stalls along East side, and 5 parking stalls along the South side of the lot. Only one spot at the NE corner will remain non-EV parking.

See site diagram above.

LIGHTING

This area has existing light poles that provide adequate illumination to the site.

SECURITY AND ACCESS

Safety and security may be a concern at this location. Consider installation pole-mounted CCTV cameras and/or panic buttons on the existing light poles.

CONDUIT INSTALLATION APPROACH

As this is a fully outdoor site with no building structures, conduit could be installed by trenching, while directional drilling may be required under paved areas.

There is an existing 4" conduit that runs from East to West on the Northern side of the lot, connecting existing pull boxes. It is recommended to leverage the existing spare conduit for installation of EV chargers.

CHALLENGES AND RISKS

CHALLENGES / RISKS	DESCRIPTION
ELECTRICAL	Secure and aesthetically acceptable location for the transformer and service cabinet.
CIVIL/ STRUCTURAL	Directional drilling or expensive trenching (and restoration) may be required for chargers.
OTHERS	See "Security and Access"

DISTRICT 56, 8230 CIVIC CENTER DRIVE

Facility Description: This City-owned facility includes a Community Center building that also houses the Senior Center and Veteran's Hall, an Aquatic Center that includes a separate building, and a nature preserve. The site has two open public parking lots, one to the east and one to the west of the facility. The facility has high traffic with events and activities happening year-round. There are four existing 125 kW dual-head DCFCs and three dual-head low output Level 2 chargers.

Existing Parking and Access: There are two unsecure, fully public parking lots with easy vehicular access from Civic Center Drive and from Big Horn Blvd.

Existing Electrical Service: The existing 500 kVA transformer has an available capacity of 353.4 kVA to install future EV chargers, if the City decides to expand the charging infrastructure at this site.

Electrical Service Recommendations: The existing 500 KVA transformer has an available capacity of 353.4 kVA to install future EV chargers if the City decides to expand the charging infrastructure at this site.

Public EV Charger Recommendations: No chargers are currently recommended at this facility due to available existing chargers. Additional charging facilities at this site could be considered following an analysis of current EVSE use and increased EV ownership.

Charging Infrastructure Installation Phasing and Costs: This facility is owned by the City and features two open public parking lots. No fleet vehicles are currently domiciled at this facility. There is a high traffic volume due to year-round events and activities. The site currently includes four existing 125 kW dual-head DC fast chargers and three dual-head low-output Level 2 chargers. At present, there is no recommendation for the installation of additional EV chargers at this site. The need for fleet specific charging for maintenance vehicles will be evaluated during the plan update.

APPENDIX B: POTENTIAL FUNDING SOURCES



APPENDIX B: INTRODUCTION

This appendix summarizes numerous funding opportunities for EVs and EV charging infrastructure. As these opportunities continue to change rapidly, this summary is valid as of late 2023.

These funding programs typically cover the costs for purchase or lease of EVs, the purchase and installation of charging infrastructure, and expenses for hydrogen fuel cell electric vehicles (FCEVs) and their refueling infrastructure. Multiple funding opportunities exist federally as well as in California, with eligible applicants ranging from private customers, state and local government agencies, tribal governments, school districts, transit agencies, utilities, fleet owners and operators, ports, and in some cases vehicle dealers and charging infrastructure vendors. Funding programs typically have a fixed term and a limited allocation of funds. However, the range of funding options has vastly expanded over the past couple of years and especially in the past few months. Information on specific programs can change quickly and we encourage the City of Elk Grove to monitor and identify funding sources timely and carefully.

Incentive programs have very specific requirements for applications, including specific requirements for eligible vehicles and charging equipment, data reporting, and special considerations for public fleets. Some programs are very competitive and "sell out" quickly and others take time and persistence.

This memo serves as an overview of the most relevant programs with substantial funding resources. Numerous other funding opportunities related to electric vehicles and their charging infrastructure exist in addition to those mentioned.

The resources listed below include information on funding opportunities which we recommend monitoring:

- Alternative Fuels Data Center Overview of Federal and State Laws and Incentives: https://afdc.energy.gov/laws
- California Governor's Office of Business and Economic Development (GO-Biz) ZEV Funding Resources library: https://business.ca.gov/industries/zero-emission-vehicles/zev-funding-resources/
- PlugStar searchable database by ZIP code: https://plugstar.com/tools/incentives
- DSIRE (database of clean energy programs): https://programs.dsireusa.org/system/program

NATIONAL ELECTRIC VEHICLE INFRASTRUCTURE (NEVI) PROGRAM

A funding source only available to states, the National Electric Vehicle Infrastructure (NEVI) Program, allocates funding to all states to deploy EV charging infrastructure along designated alternative fuel corridors (AFCs).[19] The NEVI program is part of the Infrastructure Investment and Jobs Act, a $1 trillion infrastructure bill passed by Congress in November 2021.[20] The bill required states to submit their respective initial NEVI implementation plans to the newly established Joint Office of the Departments of Energy and Transportation[21] by summer 2022 California submitted its NEVI implementation plan in August of 2022[22]. The infrastructure bill provides a total of $7.5 billion in federal funding for EV charging infrastructure. The US DOT has also established an additional discretionary grant fund for states and localities that require additional assistance.

California Formula Funding

California's first NEVI deployment plan was approved in September of 2022.[23] Caltrans and the California Energy Commission will manage funding solicitations or grant funding opportunities (GFO). California's share will be $384 million over five years. Caltrans will open new solicitations for funding approximately every 6 months and accept applications for a defined number of corridor groups each time. Only private entities in good standing and with an experienced charging network provider on the team are eligible to apply for funding.

While this program is not one that the City of Elk Grove would be directly eligible for, the NEVI formula funding program should be monitored. Elk Grove lies along one of the designated

[19] US Dept. of Energy-Alternative Fuels Data Center: National Electric Vehicle Infrastructure (NEVI) Formula Program: https://afdc.energy.gov/laws/12744

[20] US Dept. of Transportation-Federal Highway Administration: Bipartisan Infrastructure Law *National Electric Vehicle Infrastructure Formula Program*: https://www.fhwa.dot.gov/bipartisan-infrastructure-law/nevi_formula_program.cfm

[21] Joint Office of Energy and Transportation: https://driveelectric.gov/

[22] California's NEVI implementation plan, as prepared by Caltrans and the California Energy Commission and submitted in August 2022: https://dot.ca.gov/-/media/dot-media/programs/sustainability/documents/nevi/2022-ca-nevi-deployment-plan-a11y.pdf

[23] California's NEVI implementation plan, as prepared by Caltrans and the California Energy Commission and approved in September 2022: https://dot.ca.gov/-/media/dot-media/programs/sustainability/documents/nevi/2022-ca-nevi-deployment-plan-a11y.pdf

electric fuel corridors, State Route 99 between Sacramento and Turlock. Elk Grove could use NEVI-funded DCFCs to supplement its own fleet chargers. In addition, low-income or disadvantaged communities as designated by Justice40 can be found within city limits.

CHARGING AND FUELING INFRASTRUCTURE DISCRETIONARY GRANT PROGRAM

The federal Charging and Fueling Infrastructure (CFI) Discretionary Grant Program[24] is a competitive grant program intended to deploy public chargers and alternative fueling infrastructure in urban and rural activity centers (Community Grants program) in addition to along Alternative Fuel Corridors (Corridor Grants program). Approximately $700 million in funding is available for fiscal years 2022 and 2023. Eligible applicants include state, county, and local governments, among other entities. Grant recipients must comply with the EV Charging Minimum Standards (23 CFR part 680) and projects in disadvantaged or underserved communities will receive priority. The Notice of Funding Opportunity was published in March 2023 and applications for the current round were due on May 30, 2023.

With several public charging locations being recommended, this grant should be considered as a potential funding source for Elk Grove. However, the grant requirements include a minimum of four charging ports at each charging station.

VOLKSWAGEN SETTLEMENT FUNDS

Volkswagen's violation of the Clean Air Act with illegal emissions testing to "defeat" devices in approximately 590,000 model year 2009 to 2016 diesel vehicles has resulted in the Volkswagen Settlement Funds.[25] The settlement has different elements, one of which includes zero-emission vehicle investments, amounting to more than $2.8 billion. California's portion of these funds amounts to $423 million,[26] assigned to different project categories as shown in Table 17. Generally, the funds can be used for projects in the heavy-duty sector (except for one project category that reserves funds for the light-duty sector), including on-road freight trucks, transit and shuttle buses, school buses, forklifts and port cargo handling equipment, commercial marine

[24] https://www.grants.gov/web/grants/view-opportunity.html?oppId=346798

[25] United States Environmental Protection Agency: Volkswagen Clean Air Act Civil Settlement: https://www.epa.gov/enforcement/volkswagen-clean-air-act-civil-settlement

[26] National Association of Clean Air Agencies: https://www.4cleanair.org/volkswagen_settlement_information/

vessels, and freight switcher locomotives.[27] A minimum of 50% of the funds will be directed to low-income or disadvantaged communities.[28] The different project categories have different eligibility criteria and are administered by different Air Quality Management Districts (see section titled Sacramento Metropolitan Air Quality Management District for more information, however SMAQMD does not currently fund light duty vehicles).

TABLE 17: CALIFORNIA VOLKSWAGEN MITIGATION TRUST PROJECT CATEGORIES

PROJECT CATEGORY	APPLICATION TYPE	BENEFITING DISADVANTAGED OR LOW-INCOME COMMUNITIES	TOTAL AMOUNT ALLOCATED
ZERO-EMISSION TRANSIT, SCHOOL, AND SHUTTLE BUSES	First-Come/First-Served	50%	$130 million
ZERO-EMISSION CLASS 8 FREIGHT AND PORT DRAYAGE TRUCKS	First-Come/First-Served	50%	$90 million
ZERO-EMISSION FREIGHT AND MARINE PROJECTS	First-Come/First-Served	75%	$70 million
COMBUSTION FREIGHT AND MARINE PROJECTS	First-Come/First-Served	50%	$60 million
LIGHT-DUTY ZERO-EMISSION VEHICLE INFRASTRUCTURE	Competitive Solicitation	35%	$10 million
RESERVE (INCL. ADMINISTRATIVE COSTS)			$63 million
TOTAL COSTS		> 50%	$423 million

Source: https://ww2.arb.ca.gov/resources/documents/californias-beneficiary-mitigation-plan

[27] California Air Resources Board: Volkswagen Environmental Mitigation Trust for California: https://ww2.arb.ca.gov/our-work/programs/volkswagen-environmental-mitigation-trust-california

[28] California VW Mitigation Trust: https://www.californiavwtrust.org/ev-infrastructure/

COMMERCIAL CLEAN VEHICLE CREDIT

Businesses and tax-exempt organizations that buy a qualified commercial clean vehicle may receive a tax credit from the federal government. The credit consists of the lesser of 15% of the purchaser's basis in the vehicle or the incremental cost of the vehicle. The maximum credit per vehicle is $7,500 for qualified vehicles with gross vehicle weight ratings (GVWRs) of under 14,000 pounds and $40,000 for all other qualified vehicles.

To qualify, vehicles purchased by tax-exempt organizations must be made by a qualified manufacturer as defined in Internal Revenue Code (IRC) 30D(d)(1)(C) and not have been allowed as a credit under IRC sections 30D or 45W. In addition, the vehicle must be a plug-in electric vehicle that draws propulsion with a motor with a battery capacity of at least 7 kWh if the GVWR is under 14,000 pounds and 15 kWh if the GVWR is 14,000 pounds or more. Alternatively, the vehicle may be a fuel cell motor vehicle that satisfies IRC requirements.

SUMMARY OF FEDERAL FUNDING

Table 18 below provides a summary of federal funding opportunities and relevant key information for each.

TABLE 18: SUMMARY OF FEDERAL FUNDING SOURCES

SOURCE	PROGRAM/AWARD NAME	ELIGIBLE APPLICANTS	CATEGORY	APPLICATION TYPE	BENEFITING DISADVANTAGED OR LOW-INCOME COMMUNITIES	FUNDING AMOUNT
THE U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL HIGHWAY ADMINISTRATION	National Electric Vehicle Infrastructure Program (State Allocations)	Private entities	DCFC along highway corridors	Competitive grant in CA	40% as per Justice40	$384 million
THE U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL HIGHWAY ADMINISTRATION	National Electric Vehicle Infrastructure Program (DOT Allocation)	States	EVSE, H2 and Alt. Fuel stations in community locations and along Alternative Fuel Corridors	Competitive Grant	Priority evaluation	Up to 80% $700 million overall
VOLKSWAGEN	Volkswagen mitigation trust for California	Public and private entities that own and operate eligible vehicles	ZEV Class 8 Freight and Port Drayage Trucks	First-Come/First-Served	50%	Up to $200,000 per vehicle

STATE SPECIFIC CALIFORNIA PROGRAMS

The following incentive programs and projects are specific to California, administered and/or funded by state agencies, such as CARB[29] or the California Energy Commission (CEC).[30] Some of the funding available in California-specific programs derives from revenue continually generated in the state's greenhouse gas emissions cap-and-trade program[31] or the Low Carbon Fuel Standard (LCFS).[32]

LOW CARBON FUEL STANDARD

Though not a direct source of rebates, incentives, or other upfront funding, LCFS is a market-based approach to incentivizing clean energy administered by CARB. The LCFS creates a marketplace where air polluters may acquire credits to continue to operate, while clean energy users sell credits to generate revenue.[33]

Owners of EV chargers, utility distributors, and EV owners may be eligible for California LCFS credits, as long as the EV charging is metered, as outlined by Figure 32 below. Since EV charging must be metered to qualify for LCFS credits, Level 1 chargers are usually not eligible unless they are individually metered like a Level 2 or DC fast charger. The owner of a charger can claim LCFS credits if the charger is publicly available.

[29] California Air Resources Board: https://ww2.arb.ca.gov/

[30] California Energy Commission: https://www.energy.ca.gov/

[31] California Air Resources Board: Cap-and-Trade Program: https://ww2.arb.ca.gov/our-work/programs/cap-and-trade-program

[32] California Air Resources Board: Low Carbon Fuel Standard: https://ww2.arb.ca.gov/our-work/programs/low-carbon-fuel-standard

[33] California Air Resources Board: Low Carbon Fuel Standard: https://ww2.arb.ca.gov/our-work/programs/low-carbon-fuel-standard

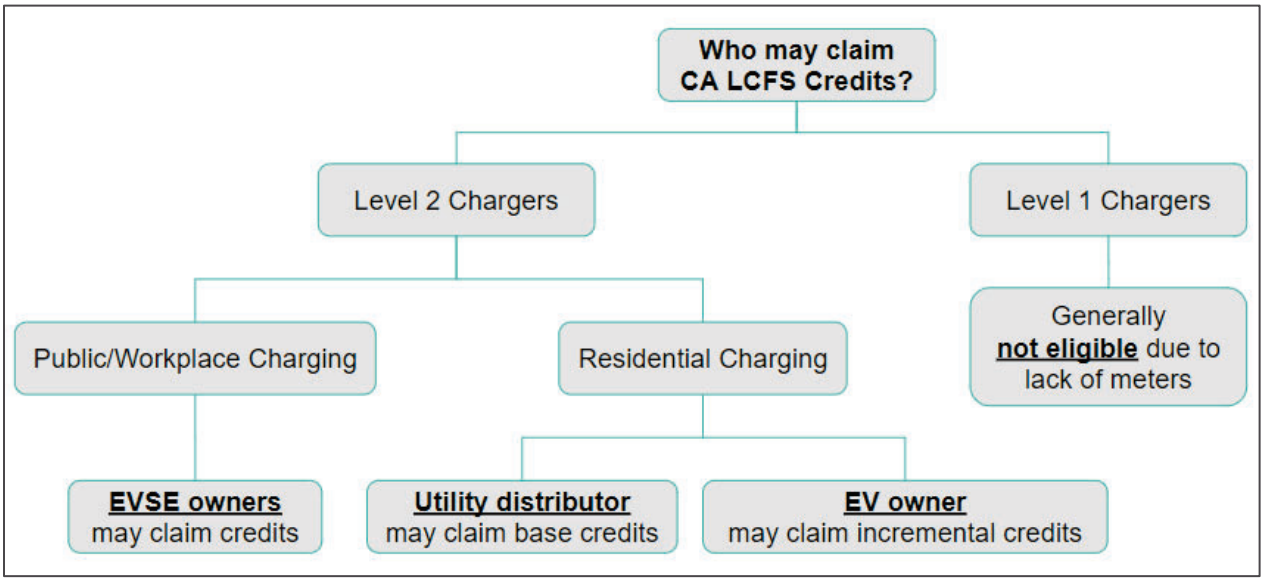


FIGURE 32: WHO MAY CLAIM CALIFORNIA LCFS CREDITS?

Source: California Air Resources Board

LCFS credits have the potential to generate a significant stream of revenue for the charging station owner or the utility. A 7.2 kW Level 2 charger could generate about $1,725 of LCFS credits annually if it is utilized about 7-8 hour per day and 3-5 days per week, at an LCFS credits price of $200 per ton. The LCFS credit value is subject to market fluctuation and has been decreasing since mid-2021 for an average of $69 per ton as of April 2023.[34] The LCFS credits could be a significant revenue stream that could potentially offset operating costs or repay capital expenditures of the chargers.

CLEAN VEHICLE REBATE PROJECT (CVRP)

CARB authorized the Center for Sustainable Energy to administer the California CVRP. The program is two-fold: one part for private EV buyers and one for public fleets (including City-owned vehicles) and rental car and car sharing companies. Eligibility caps apply on vehicle purchase costs ($60,000 for large vehicles such as pickups, SUVs, and minivans and $45,000 for all other light-duty vehicles). Fleets are eligible for a maximum of 20 (rental car and car sharing fleets) and 30 (public fleets) rebates per year. CVRP rebates can be combined with other

[34] California Air Resources Board LCFS Weekly Snapshot: https://ww2.arb.ca.gov/resources/documents/weekly-lcfs-credit-transfer-activity-reports

federal, state, or local agency incentives.[35] As Elk Grove does not contain disadvantaged communities as defined by the CalEnviroScreen tool, the city would be eligible for the standard rebate levels of $2,000 per battery EV, $4,500 per fuel cell EV, $1,000 per plug-in hybrid EV, and $750 per zero-emission motorcycle[36].

HYBRID AND ZERO-EMISSION TRUCK AND BUS VOUCHER INCENTIVE PROJECT (HVIP)

CARB also runs the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project. The program features two annual funding rounds and provides a point-of-sale rebate for medium- and heavy-duty vehicles, including buses, school buses, refuse trucks, step vans, straight trucks, and tractors. The program web site includes a list of all eligible vehicle models, including most of the market-ready medium- and heavy-duty EVs, and incentive amounts, for example, $120,000 for many Class 7 or 8 trucks.[37] As of this writing, HVIP remains open for all vehicle types. Although the City of Elk Grove is not currently looking to electrify any heavy-duty vehicles, this funding source may be applicable in the future.

CALIFORNIA ELECTRIC VEHICLE INFRASTRUCTURE PROJECT (CALEVIP)

The California Electric Vehicle Infrastructure Project (CALeVIP) was funded by the CEC and implemented by the Center for Sustainable Energy. The CaleVIP 1.0 program is split into different regions across California, including Sacramento County. Both Level 2 and DC fast chargers are funded, and eligible applicants include public agencies, businesses, non-profits, tribal governments, and other site owners.[38]

Funding through the Sacramento County incentive project is fully reserved at this writing and applications are no longer being accepted. While active, this program funded up to $6,500 per Level 2 connector and up to $80,000 per DC fast charger. Interested parties may sign up on the CALeVIP website to receive notices about future funding cycles.

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[35] California Clean Vehicle Rebate Project: https://cleanvehiclerebate.org/en

[36] Center for Sustainable Energy: Clean Vehicle Rebate Project Fleet Overview: https://cleanvehiclerebate.org/en/fleet.

[37] California HVIP: https://californiahvip.org/

[38] CALeVIP: https://calevip.org/

CALEVIP 2.0 PROJECT: GOLDEN STATE PRIORITY PROJECT (GSPP)

The Golden State Priority project provides a DC fast charger rebate and currently includes the central and eastern region counties – additional regions may be added as funding availability allows. The application window opened around January 2023 with $10 million allocated to the central region and $20 million to the eastern region. Funding is currently only available for sites located within disadvantaged communities (DACs) or low-income communities (LICs). However, subsequent incentive projects under CALeVIP 2.0 may fund projects outside of DACs and LICs.

Site access requirements no longer require 24/7 access and have been reduced to a minimum of 18 hours per day, 7 days a week, excluding holidays. Only combined charging system (CCS) will be eligible for funding; NACS and CHAdeMO may be installed, but will not be considered for funding. Chargers must also be networked (WiFi, ethernet, or cellular connection) and use open charge point protocol (OCPP). Construction cannot have started prior to the close of the application window.

Four to twenty connecters can be funded and up to 50% of total approved costs covered by the program. Costs incurred starting September 1, 2022, will be eligible. Table 19 outlines the rebate caps per active connector that were available in the central and eastern regions. Again, it is recommended that Elk Grove monitor this program for future funding cycles.

TABLE 19: GOLDEN STATE PRIORITY PROJECT REBATE CAPS

GUARANTEED OUTPUT PER ACTIVE CONNECTOR	REBATE CAPS PER ACTIVE CONNECTOR
150-275 KW	up to $55,000 per active connector
275 KW+	275 kW+: up to $100,000 per active connector
BELOW 150 KW	Below 150 kW: no funding
150-275 KW	up to $55,000 per active connector

Source: https://calevip.org/incentive-project/golden-state-priority-project

COMMUNITIES IN CHARGE

Communities in Charge is a light-duty electric vehicle charging incentive project funded by the CEC's Clean Transportation Program and implemented by CALSTART[39]. Any property owner or authorized lessee may apply for these Level 2 charging incentives. Sites may be for private, public, or mixed use. The base Level 2 EVSE incentive per connector is up to $3,500 or 75% of eligible costs, whichever is less. The proposed charging equipment must be networked and satisfy additional technical criteria. Fifty percent of the current funds are reserved for projects in disadvantaged or low-income communities. A scoring rubric and project readiness scores will be used to award the remaining funds.

[39] Communities in Charge: https://thecommunitiesincharge.org/

SUMMARY OF CALIFORNIA FUNDING

Table 20 below provides a summary of California funding programs related to ZEV infrastructure and vehicles, and relevant key information for each.

TABLE 20: SUMMARY OF CA ZEV INFRASTRUCTURE FUNDING

SOURCE	PROGRAM/AWARD NAME	ELIGIBLE APPLICANTS	CATEGORY	APPLICATION TYPE	BENEFITING DISADVANTAGED OR LOW-INCOME COMMUNITIES	FUNDING AMOUNT
CARB	CLEAN VEHICLE REBATE PROJECT (CVRP Fleets)	Public and commercial fleet owners		Rebate		$2,000 per battery EV
CARB	HYBRID AND ZERO-EMISSION TRUCK AND BUS VOUCHER INCENTIVE PROJECT (HVIP)	All		Rebate		Varies by vehicle type
CEC	CALeVIP [a]	Site owner or their authorized agent	Level 2 & DCFC	Rebate	Additional funds for projects in DACs	Up to $70,000 per DCFC and up to $5,000 per L2 connector
CEC	GSPP [b]	Site owner or their authorized agent	DCFC-150kW-274.99kW	Rebate	100%	Up to 50% of project costs capped at $55,000 per connector

SOURCE	PROGRAM/AWARD NAME	ELIGIBLE APPLICANTS	CATEGORY	APPLICATION TYPE	BENEFITING DISADVANTAGED OR LOW-INCOME COMMUNITIES	FUNDING AMOUNT
CEC	GSPP [b]	Site owner or their authorized agent	DCFC-274kW+	Rebate	100%	Up to 50% of project costs capped at $100,000
CA	LCFS	Electric Utilities, EVSE and EV owners	Clean Energy Credits	LCFS Marketplace	n/a	Market Based
CEC/CALSTART	Communities in Charge	Property owners, lessees, or their representatives	Level 2	Rebate	50%	up to $3,500 per connector

[a] *Sacramento County Incentive Project is currently closed.*

[b] *Golden State Priority Project currently not available in Sacramento County.*

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

SMAQMD's most recent grant solicitation window opened in Fall 2022. Over $22 million is available in mobile source funding to promote cleaner technology. Note that SMAQMD is not currently funding light duty vehicle incentives. SMAQMD funds EVSE and alternative fueling infrastructure through its Community Air Protection Incentive Program. Funding priority is given to projects operating and/or registered in a disadvantaged community as identified by CalEnviroScreen 4.0 and the designated Community Air Protection Air Monitoring Community. Eligible projects and maximum percentage of costs covered are summarized in Table 21.

TABLE 21: SMAQMD COMMUNITY AIR PROTECTION INCENTIVE PROGRAM PROJECT ELIGIBILITY

	MAXIMUM ELIGIBLE COST PERCENTAGE
ANY INFRASTRUCTURE PROJECT	60%
ANY INFRASTRUCTURE PROJECT LOCATED AT A SENSITIVE RECEPTOR [a]	100%
PROJECTS WITH SOLAR/WIND POWER SYSTEMS [b]	75%
ADDITIONAL INCENTIVE FOR PROJECTS WITH PUBLIC ACCESS	+10%

[a] Sensitive receptors include schools, hospitals, daycare centers, and other such locations.

[b] Projects that include Solar/Wind Power systems must be capable of supplying at least 50% of the estimated electricity output of the EVSE.

Source: Sacramento Air Quality Management District (airquality.org)

SACRAMENTO MUNICIPAL UTILITY DISTRICT

SMUD provides incentives for commercial charging and fleet vehicles, funded in part by LCFS[40]. Table 22 A amounts for each category. Note that these incentives may be layered onto programs offered by SMAQMD. Presumably, these incentives may be combined with federal clean vehicle tax credits, which are calculated based on the purchaser's basis in the vehicle.

TABLE 22: SMUD INCENTIVE PROGRAMS – FLEET REBATES

CLASSIFICATION	DUTY CLASSIFICATION	WEIGHT LIMIT	INCENTIVE
PASSENGER CAR	Light duty	N/A	$750
CLASS 1	Light duty	0-6,000 pounds	$750
CLASS 2A	Light duty	6,001-8,500 pounds	$750
CLASS 2B	Light/Medium truck	8,501-10,000 pounds	$750

Note: Not shown are available incentives for heavy duty vehicles.

Source: Sacramento Metropolitan Utility District

[40] Sacramento Municipal Utility District Incentive Programs: https://www.smud.org/en/Going-Green/Electric-Vehicles/Business.

TABLE 23: SMUD INCENTIVE PROGRAMS – EVSE REBATES

CHARGING TYPE	REBATE	CRITERIA
LEVEL 1 EVSE	$500/handle	Pilot program opportunity (case-by-case)
LEVEL 2 EVSE	$4,500/handle	All EVSE must be J1772, CCS or CHAdeMO handled or charging port equipped.
PUBLIC DCFC >50KW	$30,000/DCFC unit	DCFC must be available for public use
STUB OUTS	$250/stub out	Pilot program opportunity (case-by-case).
TRANSFORMER UPGRADE SUPPORT	$5,000/project	Only for projects that require transformer upgrade due to new EVSE load. Must be participating in SMUD Commercial EVSE program/installation.
PANEL UPGRADE SUPPORT	$1,000/project	Only for projects that require panel upgrades due to new EVSE load. Must be participating in SMUD Commercial EVSE program/installation.

Note: Not shown are available incentives for school bus DCFC.

Source: Sacramento Metropolitan Utility District

PRIVATE FINANCING

There is an emerging opportunity to obtain the full amount of capital needed to fund electric fleet vehicles and charging infrastructure, charging only a usage fee to the user. Such outside capital will allow the fleet operator and/or EVSE host to avoid the high up-front capital expenditure and still realize the lower total cost of operating for EVs. Although private EVSE operators have existed for a while, it may make more sense from a financial and risk perspective to partner with a company that finances the chargers, the vehicles and all future maintenance, upgrades, and expansions. The outside capital generally would consist of a combination of equity and debt and will be tailored to the project. Private financing groups like 7Gen[41] and investment groups like Sustainability Partners[42] have established some of the most creative and beneficial structures to ensure the highest excellence and efficiency for public sector customers.

[41] https://www.7gen.com/

[42] https://www.sustainability.partners/

APPENDIX C: EV CHARGING STRATEGY OPTIONS



APPENDIX C: INTRODUCTION

The following information is intended to inform the selection of charging options for vehicle fleets at their facilities. This analysis evaluates four primary charging strategies shown below:

- Strategy 1: Dedicated Level 1 and Level 2 chargers
- Strategy 2: Dedicated Level 2 chargers with load management
- Strategy 3: Shared Level 2 chargers with load management
- Strategy 4: Shared DC fast chargers

Conceptually, the simplest way to charge an electric vehicle fleet is with dedicated chargers assigned to each vehicle, so that every vehicle can charge while parked overnight in an assigned parking stall equipped with its own EV charger. This strategy made sense for early EV models with small batteries driven during the day and parked overnight, providing ample parking time (also known as dwell time) for battery charging using low-speed chargers. However, since most public agency fleet vehicles drive relatively few miles per day compared to their existing or anticipated battery capacity, dedicated chargers are not typically necessary and there are more efficient and cost-effective charging strategies.

Currently available light-duty EVs typically used by fleets like the Chevy Bolt and Nissan Leaf Plus have 60 and 62 kWh batteries respectively, providing well over 200 miles of range, and newer EVs have even greater range, typically over 250 miles. Due to the relatively minimal energy requirements of the City's fleet vehicles (see **Chapter 2**), coupled with long overnight dwell times, the City's light-duty fleet EVs could share chargers, or at least share power loads, through a power load management strategy, supplemented with occasionally using the City's planned DC fast charger when needed. As a result, a range of currently available and emerging charging options that could be deployed in the near term at facilities with fleet EVs were considered for Elk Grove's fleet electrification.

For each strategy, the sections below highlight how fleet operations would look under that strategy, which benefits and disadvantages come with it, and general recommendations as when the respective strategy is the most suitable to leverage. Table A1 (in a visual form) and Table A2 (with bullet-point text) below summarize this information.

It should be noted that, for any given fleet, typically, a combination of different strategies with some degree of customization is the most suitable one. As presented in detail in the section on

charger recommendations (Chapter 3), the recommended approach for Elk Grove is utilizing shared chargers, both Level 2 and DC fast chargers, distributed at different fleet locations across the city, given decentralized parking, the local topography, and modeled energy needs of an electrified municipal fleet.

DETAILS ON CHARGING STRATEGIES

STRATEGY 1: DEDICATED LEVEL 1 AND LEVEL 2 CHARGERS

The basic way to charge a fleet is with individual chargers dedicated to each vehicle in the fleet. This approach to charging typically requires each fleet vehicle to be assigned a parking stall and that each parking stall be equipped with its own electrical outlet for Level 1 charging or so-called "dumb" Level 2 charger for faster charging. Here, "dumb" refers to chargers that do not feature advanced capabilities such as load management or sharing, demand response, or comprehensive user and data interfaces and connectivity.

This analysis assumes the use of Level 1 charging for fleet vehicles that drive so little each day that they would be able to fully charge their batteries overnight (at a power output typically between 1.3 and 1.8 kW) or have sufficient battery capacity to make up the nightly charging deficit by fully recharging over the weekend when fleet vehicles are not being driven. For vehicles that drive more, this strategy would assign Level 2 chargers due to their ability to provide more vehicle range during the same charging period. This baseline charging scenario assumes the use of low cost "dumb" chargers which are preferred by some fleets as a way to reduce charger purchase costs, avoid monthly data connectivity fees, and address potential reliability issues associated with more sophisticated technologies like networked chargers.

OPERATIONS

Vehicle drivers pick up the vehicle at the assigned stall, manually disconnect the charger before using the vehicle, and later return the vehicle to the same assigned stall and reconnect the charging cord.

BENEFITS

The primary benefit of this approach is its simplicity and predictability for fleet operators and drivers.

- While dedicated Level 1 charging is limited to lightly used light-duty vehicles, dedicated Level 2 chargers can charge vehicles with greater daily mileage and may also be appropriate for charging some medium- and potentially even some heavy-duty vehicles, as long as their daily duty cycle is extremely light.
- Unlike Level 1 chargers, dumb Level 2 chargers are typically available up to 11.5kW, which is a sufficient power output to replenish many batteries overnight.
- Dedicated chargers ensure daily full battery state of charge for all fleet EVs.

Slow charging using Level 1 or 2 chargers is best for EV battery health.

DISADVANTAGES

The main disadvantages of dedicated chargers include resource inefficiency, lack of data tracking for accounting, planning and revenue, potential demand charges by electrical utilities and construction impacts. Each of these issues are discussed below.

A ratio of one charger per parking stall or per EV requires installation of numerous electrical outlets or chargers, which is generally inefficient because each charger would typically be in use for charging only a relatively small fraction of the time. Compared to sharing chargers, this can potentially be a costly approach due to the expense of procuring and installing more chargers. In addition, Chapter 6, section 625 of the National Electrical Code (NEC) requires a dedicated single pole circuit breaker for each 110 V outlet (used by Level 1 chargers) or 220 V dumb Level 2 charger. Depending on the number of EVs to charge, this can easily exceed the capacity of each facility's main electrical panel, requiring installation of subpanels. Therefore, the lower cost of not needing to purchase more expensive smart chargers may be offset by the costs of additional electrical service upgrades. As a result, many medium-sized and most large fleet facilities will typically require costly electrical service upgrades including a new electrical panel or subpanel to comply with this requirement.

Another important disadvantage is that dumb chargers and wall outlets lack the ability to track electrical use by vehicle or department. Not only is this information useful for accounting purposes by the fleet or facility manager, it is very helpful for tracking emissions reductions, and for providing data for planning purposes. Also, this data is typically required for Low Carbon Fuel Standards or clean fuel credit compensation.

Operational costs of dedicated chargers without load management or shared charging (discussed in other charging strategies) can be higher as well. Simultaneously charging multiple EVs at facilities, without managed charging or energy storage incorporated into the system,

could result in additional demand charges. It is important to note that many utilities have or are developing electrical rate structures that specifically benefit EV charging, e.g., with time-of-use rates that incentivize off-peak EV charging. In addition to the financial and planning considerations, the installation of electrical conduit to every stall in the parking facility will result in the most displacement and other operational impacts during the charging infrastructure construction period.

GENERAL RECOMMENDATIONS

Dedicated chargers generally make the most sense in the following circumstances:

- Small fleet facilities with few EVs, especially EVs with light duty cycles and at fleet facilities with as many existing electrical outlets as assigned EVs
- Facilities at which a limited number of EVs are domiciled and ample electrical capacity is available
- Locations that are currently equipped with sufficient existing outlets or dumb level 2 chargers dedicated to a unique parking space/fleet EV

STRATEGY 2: DEDICATED LEVEL 2 CHARGERS WITH LOAD MANAGEMENT

As previously addressed, one way to reduce the maximum power load to avoid or reduce needed electrical service upgrades or utility demand charges would be by splitting or balancing the power between chargers (load splitting or balancing), or load management systems. These systems allow fleet operators to control when and how each fleet EV is charged by distributing power between chargers.

With the extra capacity available in buildings, and by utilizing a load management system, certain facilities may be able to avoid the need for electrical service upgrades. Additionally, since load management can integrate with a building's electrical system, facility upgrades that conserve electricity, such as replacing windows, installing air barriers, or upgrading lighting to multi-level LED, can significantly increase capacity for vehicle charging at fleet parking garages that share their electrical systems with buildings.

OPERATIONS

From the driver's perspective, this scenario would function identically to the baseline scenario. For fleet or facility managers, the difference would be the ability to monitor EV charging in real-time, and the ability to prioritize charging of certain vehicles or adjust the power distribution between EV charging and the building.

BENEFITS

Of all the charging strategies considered, dedicated smart chargers with load management provide the most operational simplicity while also providing data and the ability to manage electrical loads. The primary benefits of smart charging with load management include:

- The ability to track data and for chargers to be managed in real-time or be pre-programmed to optimize charging for goals such as reduction of peak electrical load to reduce or avoid costly electrical service upgrades and reduce or avoid utility demand charges.
- Enhanced ability to charge medium- and heavy-duty fleet vehicles with light or variable duty cycles and provides charging flexibility.
- A charger to EV ratio of 1:1 will optimize the benefits of bidirectional charging for fleet vehicles with bidirectional charging capability for providing backup power to facilities, fleet EVs and grid generating grid services revenue through vehicle to grid integration.
- Managed charging using Level 2 chargers is safe for EV battery health.

DISADVANTAGES

As with Strategy 1, dedicated chargers with load management are linked with exactly one vehicle each, resulting in significant infrastructure investments and operational impacts during installation. The addition of load management requires networked smart chargers, which typically results in higher purchase costs as well as higher ongoing monthly data and service costs than dumb chargers, depending on the individual system and quantity of chargers. Third-party load splitting or management systems can operate with non-networked dumb chargers, but the equipment and service require additional capital and data costs. Level 1 chargers are generally incapable of load management, so this scenario only includes Level 2 chargers. Of all the charging strategies considered, dedicated smart chargers with load management can be the costliest strategy due to the higher cost of smart chargers coupled with the need for a high number of chargers and the ongoing cost of data connectivity.

GENERAL RECOMMENDATIONS

Adding load management to dedicated chargers generally makes the most sense in fleet depot facilities with limited power supply where relatively large numbers of heavily-utilized light-duty EVs with long dwell times will be domiciled. Different load management systems are appropriate for fleet facilities of different scales.

STRATEGY 3: SHARED LEVEL 2 CHARGERS WITH LOAD MANAGEMENT

At facilities with shared chargers, a reduced number of Level 2 chargers are installed to serve all the fleet EVs domiciled by rotating vehicles between chargers. Based on relatively low use/mileage (miles/day) and parking durations (12-16 hours), this should be generally feasible for most EV fleets operated by public agencies. This strategy requires careful and systematic monitoring and scheduling of fleet EVs' state-of-charge, charging times, and station power outputs, to optimize the utilization of the installed charging infrastructure.

OPERATIONS

This can be accomplished by rotating parking assignments, or by installing the chargers centrally between parking stalls so that each charger can access multiple vehicles simply by moving the charge cord from vehicle to vehicle. Not needing to charge their batteries every night means fleet EVs could share chargers by taking turns based on a schedule or depending on each vehicle's state of charge. Additionally, a shared DC fast charger (Strategy 4) could potentially supplement shared Level 2 chargers at large fleet facilities with multiple light-, medium-, and heavy-duty vehicles in the future as EV fleets diversify with an increased electrification of heavier vehicle classes. In cases where dwell times are limited to less than eight hours, the anticipated duration of charging may still be sufficient to charge the relatively small number of EVs with low daily mileage.

BENEFITS

The primary benefits of sharing chargers include mitigating potential electric service upgrade costs and reducing initial investment costs associated with the procurement and installation of chargers since a reduced number of individual units are required. This approach is also useful to leverage the constrained electrical capacity of certain sites to install more chargers that would share the limited electrical service by managing (or balancing) the load. Another potential benefit includes reduced peak demand charges by flattening power demand spikes resulting from unmanaged charging.

DISADVANTAGES

Sharing chargers requires careful management of fleet EVs to ensure that all vehicles maintain a sufficient state of charge for their intended daily use. Because the vehicles or the charge cords would need to be moved, this could require behavioral adjustment by fleet vehicle drivers or by dedicated fleet or parking management staff or contractors which increases operation costs. As

more EVs are added to the fleet, it is likely that a typical fleet would need to procure and install additional chargers.

GENERAL RECOMMENDATIONS

Sharing chargers makes the most sense under the following circumstances:

- Facilities that serve fleet EVs that typically drive less than 40 miles per day and have dwell times longer than eight hours
- Facilities with limited available electrical capacity to avoid the expense of electrical service upgrades
- Facilities at which there already is or there is potential for dedicated staff to manage fleet EV charging

STRATEGY 4: SHARED DC FAST CHARGERS

Another way to charge EVs is with DC fast chargers. Unlike Level 2 chargers which take multiple hours to charge most EV batteries, a 150 kW DC fast charger can fill a typical light-duty fleet EV's battery to 80% state of charge in approximately 35 minutes. Higher power chargers can charge some EVs in significantly less time, depending on the charger's power and the EV's DC acceptance rate. The opposite is true for less powerful DC fast chargers, so 150 kW is generally recommended. For the same reason, medium and heavy-duty EVs can also charge more quickly using DC fast chargers which is why transit agencies, trucking companies, school bus operators, and other heavy-duty EV fleets primarily rely on DC fast chargers.

DC fast chargers are too fast and expensive to justify dedicated chargers assigned to individual EVs (except in the case of certain heavy-duty vehicles) but sharing DC fast chargers between multiple EVs can make sense for many fleets.

OPERATIONS

There are multiple ways for fleets to use DC fast chargers. For example, drivers could park the EV at the DC fast charger-equipped stall following their trip and connect to the charger where it would remain while charging until the next driver picked it up. Alternatively, a fleet could hire parking management staff or a contractor to rotate EVs through the DC fast charger when they fall below a set minimum state of charge.

Charging speeds are determined by the power rating of the charger as well as the charging acceptance rate of the EV. Until recently, light-duty EVs commonly purchased by fleets such as

the Chevy Bolt could only charge at speeds up to 50 kW. However, the Nissan Leaf and newer EVs like the Ford F-150 Lightning and upper-end models such as the Ford Mustang Mach-e have far faster acceptance rates allowing them to charge at speeds up to 150 kW when charged by more powerful DC fast chargers. As battery and related technologies improve, faster charging will likely become more feasible for an increasing number of light-, medium-, and heavy-duty EVs used by fleets. Since more powerful charging takes less time, EV drivers would only need to wait for a little over half an hour to fully charge many EV models using a 150 kW high-power charger and even less time for topping off an only partially discharged battery. Using such a charger, a fleet EV driver could recharge a light-duty EV while he or she waited or while doing a brief errand whenever the vehicle's battery state of charge falls below a specified level, or simply top off the battery after every use. The same charger could also be used for overnight charging of heavy-duty fleet vehicles or potentially as paid public charging during nights and weekends when not in use for fleet charging if installed at locations accessible to the public, however this is not an option at many fleet facilities.

Many DC fast chargers use modular architecture allowing them to be expanded with additional modules. When equipped with multiple charge cords, these chargers can charge multiple vehicles simultaneously, with power flow to each vehicle controlled by charge management software that considers battery state-of-charge and other factors. The charging speed is constrained by the total power output of the charger, so each EV sharing a dual-port charger would charge at approximately half the speed compared to when only a single EV is being charged with the same charger.

BENEFITS

The main benefits of DC fast chargers are faster charging speeds, and flexibility for different types of EVs and possible use by agency employees and the public when not in use for fleet charging.

- Although 50kW to 150 kW DC fast chargers typically cost more than $50K each—several times the cost of a Level 2 charger—far fewer are needed than Level 2 chargers, especially considering the relatively light usage of most fleet vehicles. Since the infrastructure upgrades and installation costs comprise a higher share of the project budget than charger purchase costs, fewer installed chargers could result in substantial capital cost savings. Depending on how the fleet charges its vehicles, the number of chargers needed depends on the charging speed (so the faster the charger, the fewer chargers the fleet will need).

- Faster charging speeds offer the advantage of operational flexibility, being able to recharge an EV relatively quickly, allowing the same vehicle to be quickly re-deployed following a long trip and could also charge medium- and heavy-duty vehicles. If a fleet opted to share charging facilities with vehicles from other institutions, employees, or the public, DC fast chargers would offer more flexibility than Level 2 chargers, and the more powerful the DC fast charger, the more flexibility it would offer the fleet.
- Depending on the accessibility of the DC fast chargers' location, it could potentially be made available for other users including the public when not in use by fleet vehicles, creating a potential source of revenue for the charger owner.

DISADVANTAGES

The main challenges of DC fast chargers are operational and physical.

- DC fast chargers require active management, potentially dedicated staff, to optimize since EVs (or at least the charge cord) would need to be moved after each charge.
- DC fast chargers are large (relative to Level 2 chargers), sometimes including multiple components making charger placement a challenge at physically constrained parking facilities. In addition, their physical footprint may reduce the number of parking spots in a facility, which may impact parking capacity and, in some cases, parking revenue.
- For shared use of charging by users other than fleet EVs such as employees or the public, shared DC fast chargers need to be installed in locations open to multiple users.
- Under some utility tariff structures, the higher wattage of DC fast chargers would incur demand charges which can be significant, potentially resulting in much higher electrical costs than Level 1 or Level 2 chargers for fleet EV charging. In general, the faster the charger, the higher the demand changes.
- DC fast chargers, especially higher power chargers, require significant capital investments. In addition to the costs of chargers, installation of multiple DC fast chargers typically requires significant electrical service upgrades.
- Excessive or regular use of high-speed charging can negatively impact the health of EV batteries when done over the lifetime of a vehicle.

GENERAL RECOMMENDATIONS

Sharing DC fast chargers make the most sense under the following circumstances:

- Facilities that serve larger numbers of fleet EVs, especially EVs with varied duty cycles.
- Facilities serving (or that in the future will serve) medium- and heavy-duty EVs as well as light-duty EVs, since DC fast chargers can charge larger batteries quicker than Level 2 chargers.
- Facilities where charging for multiple users in addition to fleet EVs will be permitted.
- Facilities at which there already is or there is potential for dedicated staff to manage fleet EV charging.

SUMMARY OF CHARGING STRATEGIES

Table C1 compares the different charging strategies with respect to the various criteria discussed above. **Table C2** summarizes the strategies in detail in regard to the operational impacts, benefits, disadvantages, and typical use cases of each strategy.

VISUAL SUMMARY OF THE BENEFITS AND DISADVANTAGES OF ALTERNATIVE CHARGING STRATEGIES.

	STRATEGY 1: DEDICATED L1 & L2 CHARGERS	**STRATEGY 2:** DEDICATED L2 CHARGERS WITH LOAD MANAGEMENT	**STRATEGY 3:** SHARED L2 CHARGERS WITH LOAD MANAGEMENT	**STRATEGY 4:** SHARED DC FAST CHARGERS
CONVENIENCE AND SIMPLICITY				
CAPACITY FOR FUTURE FLEET EXPANSION				
REDUCES PEAK DEMAND AND RESULTING SERVICE UPGRADES				
COSTS FOR HARDWARE PURCHASE, INSTALLATION, AND LOAD UPGRADES				
PARKING/CHARGING MANAGEMENT				
RISK OF VEHICLES NOT BEING CHARGED				
FLEXIBILITY FOR DIFFERENT VEHICLES AND USERS				
RISK OF UTILITY DEMAND CHARGES				
UTILITY FOR BIDIRECTIONAL CHARGING				
IMPACT ON EV BATTERY HEALTH				

TABLE C2: OVERVIEW OF GENERAL CHARGING STRATEGIES SUITABLE FOR EV FLEETS.

	STRATEGY 1: DEDICATED LEVEL 1 AND LEVEL 2 CHARGERS	**STRATEGY 2:** DEDICATED LEVEL 2 CHARGERS WITH LOAD MANAGEMENT	**STRATEGY 3:** SHARED LEVEL 2 CHARGERS WITH LOAD MANAGEMENT	**STRATEGY 4:** SHARED DC FAST CHARGERS
OPERATIONS	• Drivers manually connect and disconnect the vehicle to and from the charger upon returning to the vehicle and before using it, respectively	• From driver's perspective: same as Strategy 1 • For fleet and facility managers: ability to monitor EV charging in real-time, ability to prioritize certain vehicles or adjust or limit power output	• Rotate parking assignments or install chargers between parking stalls so that they can be accessed by multiple vehicles • Take turns or follow schedule for charging vehicles (not charging every day or night) • A shared DC fast charger could supplement at large facilities that house a diverse vehicle fleet	• Multiple possible approaches: fast charging between trips by different drivers, staff or contractor to rotate EVs through the fast charger(s) • Charging speeds limited by charging acceptance rate which varies by vehicle • Charger(s) could be used by heavy-duty vehicles overnight (if parking stall design allows) • Charger(s) could be opened for paid public use overnight and on weekends (if location accessible to public)
BENEFITS	• Simple and predictable • Potentially suitable for all duty classes of vehicles (light-, medium-, heavy-duty) • Dedicated Level 2 charger can replenish the batteries of all light-duty vehicles overnight • Guaranteed full battery state of charge every day • Slow charging is best for battery health	• Most operational simplicity while providing data and ability to manage loads • Ability to optimize charging e.g. for peak load reduction, avoid electrical service upgrades, or reduce demand charges • Enhanced ability to charge medium- and heavy-duty vehicles • Optimal utilization of capabilities of bidirectional charging • Managed, slow charging good for battery health	• Mitigated potential electric service upgrades • Reduced initial investments costs for procurement and installation of chargers • Leverage constrained electrical service at certain sites • Reduced peak demand charges	• Faster charging speeds • Possible use by public • Potential for capital cost savings due to fewer installed chargers • Added operational flexibility

	STRATEGY 1: DEDICATED LEVEL 1 AND LEVEL 2 CHARGERS	**STRATEGY 2:** DEDICATED LEVEL 2 CHARGERS WITH LOAD MANAGEMENT	**STRATEGY 3:** SHARED LEVEL 2 CHARGERS WITH LOAD MANAGEMENT	**STRATEGY 4:** SHARED DC FAST CHARGERS
DISADVANTAGES	• Resource inefficiency • Large infrastructure investments • Large construction impacts • Potential costly electrical service upgrades • Lack of data tracking or connectivity • Potential demand charges from utility • Non-optimized charging times may result in higher per kWh costs	• Resource inefficiency • Large infrastructure investments • Large construction impacts • Higher charger purchase costs and higher ongoing monthly data and service costs	• Requires careful management of fleet EVs and their state of charge • Requires behavioral adjustment by fleet vehicle drivers (as vehicles and/or charge cords need to be moved) or dedicated fleet staff or contractors which increases operation costs • Requires more planning around when and where which numbers of chargers need to be in place	• Requires careful fleet management to maximize the use of the (costly) charger(s) • Installation sometimes constrained by physical space given that DC fast chargers are larger than Level 2 chargers and sometimes include multiple components • May incur demand charges, depending on the utility rate structure • Potential costly electrical service upgrades • Excessive or regular use of high-speed charging may negatively impact battery health
GENERAL RECOMMEN-DATIONS AND SUITABLE USE CASES	• Small fleet facilities with few EVs, especially EVs with light duty cycles and at fleet facilities with as many existing electrical outlets as assigned EVs • Facilities at which a limited number of EVs are domiciled and ample electrical capacity is available • Locations that are currently equipped with sufficient existing outlets or dumb level 2 chargers dedicated to a unique parking space/fleet EV	• Fleet depot facilities with limited power supply and a relatively large number of heavily-utilized light-duty EVs with long dwell times	• Facilities that serve fleet EVs that typically drive less than 40 miles per day and have dwell times longer than eight hours • Facilities with limited available electrical capacity to avoid the expense of electrical service upgrades • Facilities at which there already is or there is potential for dedicated staff to manage fleet EV charging	• Facilities that serve larger numbers of fleet EVs, especially EVs with varied duty cycles. • Facilities serving medium- and heavy-duty as well as light-duty EVs, since DC fast chargers can charge larger batteries quicker than Level 2 chargers. • Facilities where charging for multiple users in addition to fleet EVs will be permitted. • Facilities at which there already is or there is potential for dedicated staff to manage fleet EV charging

APPENDIX D: BEST PRACTICES RELATED TO EVS AND EVSE



This Appendix summarizes best practices for installation of EV chargers.

CHARGING EQUIPMENT BEST PRACTICES

The following best practices and decision criteria are included to provide guidance in the sizing, selection, and placement of chargers. The issue of addressing resiliency by providing alternative sources of temporary power during utility outages is also included.

CHARGER SIZING

The critical factors in evaluating the "size" (or power, as measured in kW) of EV chargers are the intended vehicle's battery capacity, charging acceptance rate, energy consumption, dwell time, and the quantity of EVs to be charged.

BATTERY CAPACITY

The capacity of the battery is measured in kilowatt hours (kWh). EVs commonly purchased by fleets and the general public typically have batteries ranging in size from 40-100 kWh. Larger battery sizes can typically require longer charging durations, but greater storage capacity means reduced charging frequency.

CHARGING ACCEPTANCE RATE

Each EV has a maximum acceptance rate for both AC and DC charging. Since this rate is the vehicles' maximum charging speed, it should be used to calculate the charging duration. While there is no current benefit for fleets and public charging station hosts to purchase higher-speed chargers, future EVs may become available with higher acceptance rates that may require installation of high-power chargers. This may especially become the case with more and more automakers adopting 800-Volt battery architecture, which support higher speeds of charging.

EV QUANTITY

In general, if a site is planned to be used by multiple EVs, charger quantities and speed should be calculated to ensure reasonable charging times, especially if chargers are shared between multiple EVs. Fleet managers should consider the frequency with which they plan to rotate EVs though shared chargers.

ELECTRICAL CAPACITY

The critical factor to determine charger sizing is the available electrical capacity. The electrical panel rating and the available electrical capacity at the charging facility will determine the number of chargers that can be installed and their maximum power ratings. Since many existing facilities were built without anticipating the need to charge EVs, unused capacity to accommodate significant charging infrastructure is typically not available. Here, portable charging stations can be of help to reduce the peak demand imposed on the grid and thus mitigate the need for electrical service upgrades for new charging infrastructure.

ENERGY CONSUMPTION

Vehicle energy consumption consists of its average "daily duty cycle" (average miles traveled). For fleet managers the daily duty cycle for each vehicle type can be useful to calibrate the total charging needs for a particular site.

DWELL TIME

For municipal agencies like Elk Grove, assuming most fleet vehicles will charge overnight while not in use, the duration of "dwell", or stationary charging time, determines the maximum charge duration per night. Longer dwell times mean slower chargers (chargers with smaller kW rating) can be used, which are often less expensive in terms of both purchase costs and electrical service upgrades.

CHARGER SELECTION

Key considerations to help guide charger selection are listed below. Table 24 summarizes recommended features and capabilities relevant to these attributes.

- **Charge plugs:** For most applications, dual-head plugs are more cost-effective and versatile. Level 2 uses J1772 standard plugs while DCFC uses CCS standard plugs. However, these will likely transition to NACS (already in use by Tesla) as NACS is expected to become the national charging standard by 2024/2025.
- **Usability:** The charger should be easy to use by drivers and the charge cord length should reach multiple stalls. The charger face plate should be easy to read in any lighting condition; color-coded lights that indicate charging status increase readability.
- **Ruggedness:** Outdoor charging equipment requires robust hardware as it is exposed to the elements, repeated use, and possibly abuse or vandalism. Chargers installed in garage interiors or with less public use may require less robust and costly hardware. Most

charger vendors include at least a one-year warranty; some vendors include or offer optional extended warranties.

- **Connectivity:** Charging data needs to be conveyed between the chargers, controllers, and management system. Multiple connectivity options are available depending on the charger or site where the chargers are located. These include wired connections using fiber or wireless connections using radio signals such as cellular or WiFi.
- **Payment/data collection:** Collecting payment for charging or tracking energy usage by EVs (or for fleet managers, by departments) can occur through a variety of mechanisms. Not all chargers offer payment functionality. Charging facilities should have a mobile payment device physically located on each charger dispenser or on a kiosk serving the charger dispenser, must support remote start capabilities for, at minimum, payment via a toll-free number. No membership for payment should be required.
- **Efficiency:** Chargers with power load management capability are the most energy efficient; ENERGY STAR-rated chargers use 40% less energy in stand-by mode.
- **Certification:** Commercially available chargers that are certified ensures product integrity, energy efficiency, and chargers that conform with the highest safety standards. Table 24 lists some current certifications available for EV chargers.
- **Interoperability:** Open charge point standards are critical to making EV charging hardware compatible with multiple charging software platforms, providing greater flexibility, accessibility, and affordability for the charging system operator relative to charging hardware using proprietary software. Most chargers are currently OCPP 1.6 compatible, but OCPP 2.0 is becoming increasingly available with superior functionalities explained below.
- **Future proofing:** Charging technology changes rapidly. To maximize the lifespan of charger investments, consider the following adaptable features:
    - OCPP 2.0 compliance expands functionality beyond OCPP 1.6 by improving device management, transaction handling, security features, smart charging functionalities, bidirectional communication, and ISO 15118 support.
    - Modular architecture consists of a singular centralized controller that supports multiple charging heads that can be added over time to provide scalability to meet growing future needs.
    - Demand Response (DR) capability avoids charging during periods of peak power demand and prioritizes charging when the grid has ample electrical capacity.

- ISO 15118 Plug-and-Charge technology-ready simplifies the payment process so that the charger recognizes each fleet vehicle and automatically bills the correct account.
- Bidirectional (V2G) charging based on ISO/IEC 15118 standards and UL 1741-SA and UL 9741 Certification.
- The North American Charging Standard (NACS) is currently being standardized as SAE J3400 and is expected to replace the SAE J1772 by 2025. Originally developed by Tesla in 2012, it was opened up to other EV manufacturers in 2023. During the transition from J1772 to NACS, non-Tesla EV manufacturers will initially provide adaptors to allow EVs equipped with J1772 ports to use Tesla chargers in 2024 and will add NACS plugs to their EV products the following year. Therefore, chargers equipped with NACS plugs or that can be upgraded to NACS and J1772-to-NACS adaptors will need to be included in future charger purchases by fleets.

- **Data collection:** Fleet or facility managers need data from chargers to inform future decision-making and require dependable, accessible, secure, and frequently updated systems.

TABLE 24: RECOMMENDED EV CHARGER ATTRIBUTES

ATTRIBUTE	RECOMMENDED CAPABILITY OR FEATURES
CHARGE PLUGS	• Level 2: Dual-head J1772 (and CHAdeMO for fleets with older Nissan Leafs) or Tesla/NACS/J3400 • DCFC: Dual-head 150 kW (or faster) with CCS and NACS plugs
USABILITY	• Cable management capability with 25-foot cable length • Visible charging status lights
RUGGEDNESS	• NEMA-4 rated to operate outdoors and in extreme weather conditions. • Minimum warranty of three years • Field-swappable modular components
CONNECTIVITY	• Ethernet • 4G/5G wireless communication • Wi-Fi • Bluetooth
PAYMENT/DATA COLLECTION	• Payment collection options to include RFID or QR code, Credit/debit card tap or swipe, Apple Pay, Google Wallet, or with smartphone app • Compliance with electric metering requirements in the CCR 4002.11 Electrical Vehicle Fueling Systems • Provide a mobile payment device physically located on each charger dispenser or on a kiosk serving the charger dispenser. • Support remote start capabilities for, at minimum, payment via a toll-free phone number.

	• Membership for payment not required.
EFFICIENCY	• Load management/power sharing capability • ENERGY STAR[43] rated
CERTIFICATION	• Certified by the UNDERWRITERS' Laboratories, Inc.[44] (UL), to UL 2594*Compliant with Society of Automotive Engineers (SAE) J1772 standard for charging plug connector and operational requirements[45]. • Appropriate IEEE[46] & NEC[47] Ratings
INTEROPERABILITY	• OCPP 1.6 Compliance and Certification
FUTURE PROOFING	• OCPP 2.0 compliance and certification • Modular architecture and scalability • Demand Response capable • ISO 15118 Plug and Charge technology-ready • Bidirectional (V2G) charging[48] based on ISO/IEC 15118 standards and UL 1741-SA and UL 9741 Certification.
DATA COLLECTION	• Capacity to accurately record and produce the number of unique charging events, average duration of each charging event, kilowatt hours delivered by each charger and downtime at each charger by month • Cloud-based dashboard portal

CHARGER PLACEMENT AND INSTALLATION

[43] EPA's ENERGY STAR certified EV chargers provide the same functionality as standard products but use 40% less energy in standby mode: https://www.energystar.gov/productfinder/product/certified-evse/results

[44] UL is an OSHA-accredited Nationally Recognized Testing Laboratory (NRTL) that tests products, including EV charging stations, to applicable UL standards for safety. UL has multiple EV safety standards including: 2202 – Electric Vehicle (EV) Charging System Equipment; 2594 – Electric Vehicle Supply Equipment (EVSE); 2251 – Plugs, Receptacles and Couplers for Electric Vehicles; 62 – Flexible Cords and Cables; 2231-1 & -2 - Personnel Protection for EVSEs and 9741 – Bidirectional EV Charging System Equipment: https://www.ul.com/resources/apps/product-iq

[45] Society of Automotive Engineers (SAE) J1772 and 3400 covers the general physical, electrical, functional and performance requirements to facilitate conductive charging of EV/PHEV vehicles in North America. https://www.sae.org/standards/content/j1772_201710/ and https://www.sae.org/standards/content/j3400/

[46] IEEE 1547: Interconnecting Distributed Resources with Electric Power Systems and IEEE 1547.1: Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems. https://standards.ieee.org/standard/1547-2018.html

[47] Section 625 of The National Electrical Code regulates electrical conductors and equipment supporting EV charging. https://www.ecmweb.com/national-electrical-code/article/20899765/article-625-electric-vehicle-charging-systems

[48] https://www.charinev.org/news/news-detail-2018/news/the-five-levels-of-grid-integration-charin-ev-grid-integration-roadmap-published/

To optimize operational efficiency and reduce installation costs, when planning to place or install EV chargers, consider the four factors below:

1. Electrical service

- Providing power for chargers is typically the most complex and expensive part of EV charger projects, especially for large-scale charger installations like fleet depots that typically lack sufficient existing electrical capacity for deployment of large numbers of chargers and therefore will require electrical service upgrades from the local utility. Depending on the site, providing power to the chargers can be simple or complex. Where appropriate, multiple options for providing power such as from the utility-owned transformer or from the site host facility's electrical room should be considered.
- Evaluate capacity of electrical infrastructure (utility service and electrical panel) to support immediate and long-term vehicle charging needs. Identify costs for necessary electrical service upgrades in collaboration with local utilities and/or a qualified electrician.
- To help minimize costs, choose charging locations that are as close as possible to existing or proposed electrical service infrastructure and other EV charging stalls.
- Plan electrical raceway or conduit runs for electrical wiring and data cables from the electrical panel serving the chargers and consider a layout that minimizes linear conduit distances to all proposed EV charger-equipped parking spaces.
- If possible, install chargers during construction, remodels, or other facility upgrades planned to reduce costs and minimize construction impacts.
- Charger hosts should consider different strategies to separate meters for building and electric vehicle charging uses to manage peak load impact on the grid and minimize demand charges for electric vehicles.

2. Charger location and layout

- Key considerations for siting fleet chargers include proximity to available power, user convenience, and parking facility operations.
- To reduce the cost of conduit and conductor installation and minimize voltage drop, chargers should be located as close to the power source as possible. To maximize convenience, chargers should be placed in accessible locations as close as possible to charger-equipped parking stalls. Chargers should also be clustered together to help fleet managers, especially if chargers are to be shared.
- If possible, surface-mount conduit along wall surfaces to avoid more costly trenching under paved surfaces. If wall or column mounting is not feasible, trench beneath planting

strips to reduce cutting and re-paving costs and to minimize disruptions during construction.

- Identify suitable locations with smooth, plumb surfaces for wall mounted charging stations if possible or suitable floor surfaces for pedestal mount stations. If possible, use wall-mounted chargers to avoid the need for pedestals which are more costly and complex to install.
- To maximize charging capacity, consider installing dual-port pedestal mount stations with long charge cords (up to 25'). Many chargers include optional cord management systems such as retracting reels to minimize trip hazards. Depending on parking configuration, a single charger or dual head charger pair can serve up to eight parking stalls.
- To comply with the Americans with Disabilities Act (ADA), the charging station must not block ramps or pathways, and cables should not extend across ramps or pathways when connected to a vehicle.
- Where feasible, avoid locating chargers under trees where sap, pollen, or leaves would fall on the charging station.
- To better accommodate the varied charge port locations on different EVs, use perpendicular (90 degree) parking stalls that allow a vehicle to enter either front-first or rear-first instead of parallel or diagonal stall parking.
- Check local requirements for accessibility and pathway width, sometimes called "path of travel" to ensure charger placement does not restrict sidewalk use.
- Plan locations for easy and cost-effective future charger installation, typically adjacent to other EV charging stalls.

3. Operational considerations

- Provide adequate lighting activated by motion sensors for safe night-time access and consider weather protection.
- Consider siting chargers in areas with good visibility and securely affixed to the ground or wall.
- Closed-circuit television (CCTV) surveillance is an additional option, especially in low visibility public areas, to prevent theft and vandalism.
- Ensure chargers are easily identified and install signage or wayfinding as needed.
- Provide protective bollards and wheel blocks where appropriate, especially on sloped sites.

4. Data connectivity

- Chargers recommended for public use or fleet vehicles should be smart or at least enhanced with smart charging capability with add-on technology like Cyber Switching, or PowerFlex. This is to provide data on charging and energy use to fleet and facilities managers as well as to provide the benefits of load management. To be smart, chargers must be able to transmit data which requires cellular connectivity, WiFi, or ethernet.
- In general, smart chargers use cellular signals to communicate with the cloud. Stand-alone chargers have their own integral modems while modular chargers communicate to a central control hub using ethernet or WiFi that communicates to the cloud via a cellular modem or through the facility's internet. To ensure dependable coverage, communication systems need to be stand-alone and not be dependent on the building's WiFi system.
- Measure cellular signal levels to ensure adequate coverage where smart chargers will be installed. Underground or enclosed parking structures may require cellular repeaters to ensure adequate signal strength to chargers.

USE OF PUBLIC CHARGING

Fleets generally charge their EVs overnight at fleet domicile facilities. However, fleet EVs can also use public chargers, especially for opportunity charging when driving long distances. Opportunity charging using publicly available high-output DC fast chargers can provide a convenient and cost-effective way for municipal fleets to supplement their own charging infrastructure maintain uninterrupted vehicle availability in times of high usage or as a backup option for emergency response vehicles. Public charging networks like EVgo and Electrify America have deployed charging stations all over Elk Grove and more will be constructed with the help from NEVI funding as previously discussed.

A continually updated map of publicly accessible charging stations in Elk Grove is available though the Alternative Fuels Data Center Station Locator: https://afdc.energy.gov/stations/#/find/nearest?location=elk%20grove.

The largest public charging network as discussed, was developed, and continues to be operated by Tesla for the exclusive use of Tesla EVs. However, in May of 2023, Ford and Tesla announced that Ford would have access to 12,000 chargers in Tesla's Supercharger network. Several weeks later in early June, GM and Rivian followed suit with a similar deal with Tesla and since then, many other OEMs have made similar announcements.

Tesla's charging network has long been the envy of all EV drivers as Tesla Superchargers are strategically sited and more abundant than other high-speed chargers available to the public. They are also generally easier for EV drivers to use thanks to their plug and charge functionality and more reliability than other networks.

By gaining access to the nation's most accessible, reliable, and fastest charging network, fleets and other Ford and GM drivers will be able to avoid capital expenditures by not having to invest in their own supplemental DC fast chargers, or at least may need fewer of them since fast, abundant, and reliable chargers will soon be available at Tesla's charging stations.

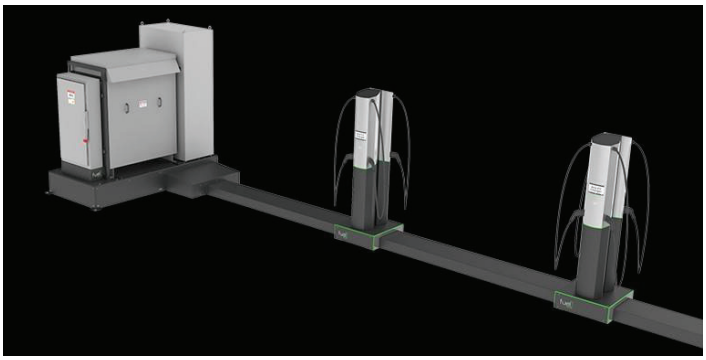
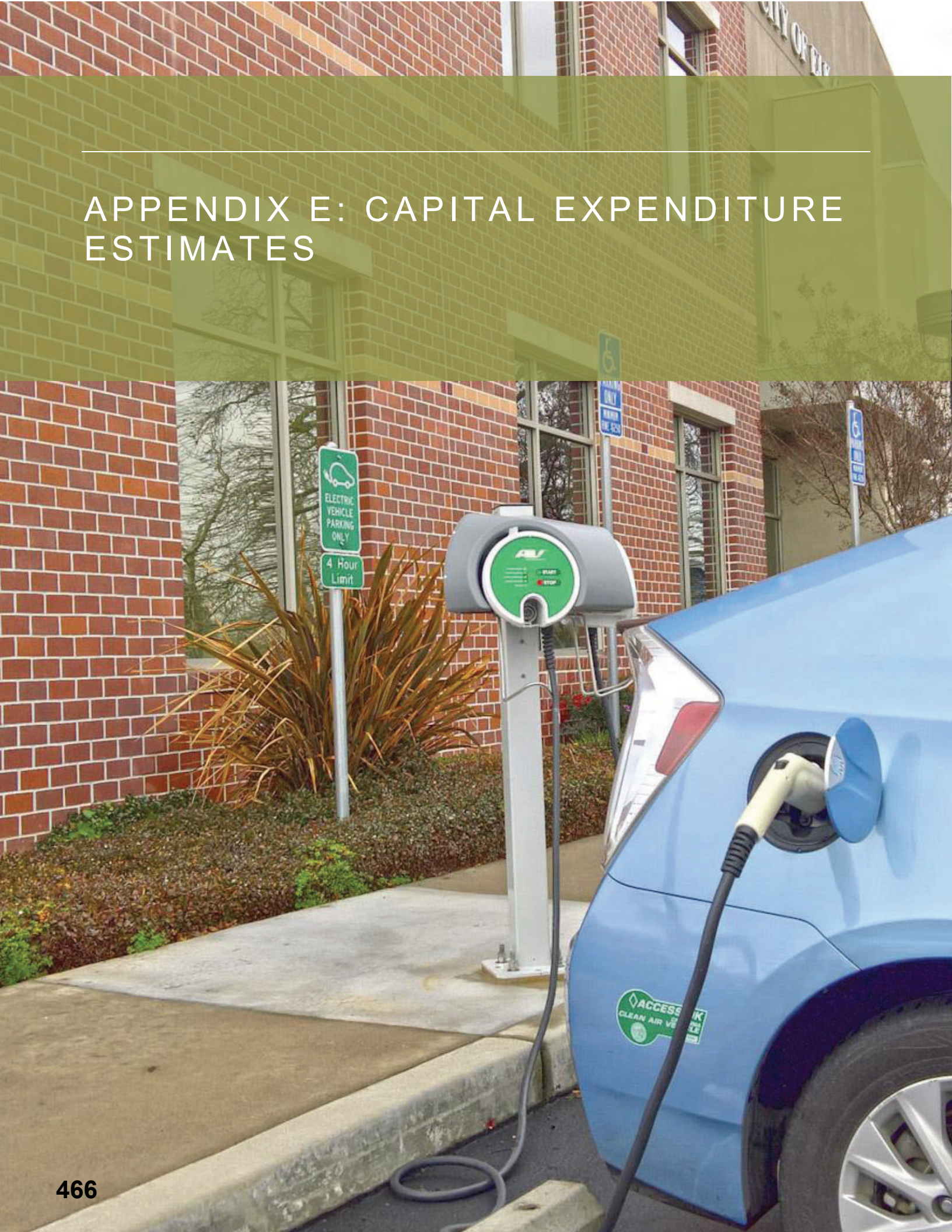


FIGURE 33: SHOALS FUEL EV CHARGING SOLUTION

Source: Shoals

The rapid adoption of EVs by the public and the relatively long charging times (by comparison to liquid fuels) presents a business opportunity for a new industry of commercial charging destinations with amenities for drivers while charging their EVs. For example, Electrify America is planning a handful of "showcase stations" with up to 20 DC fast chargers, plus amenities like customer lounges and solar canopies to shield customers from sun and foul weather, vehicle showcases, and security cameras plus additional lighting for increased safety. Mercedes-Benz will also be developing its own EV fast-charging network with more than 400 North American charging sites, with a total of 2,500 350-kw DC fast-charging connectors in place by 2027. Charging sites will be spaced at regular intervals along highways, close to major intersections and metropolitan areas, with an emphasis on sites near shopping or restaurants, as well as Mercedes dealerships. Amenities like restrooms and some form of shelter from weather, as well as video surveillance, will also be included. Startups like Rove are developing 40 publicly accessible DC fast-chargers some of which will offer up to 350 kw, plus a 24/7 indoor lounge, outdoor seating with WiFi, restrooms, car wash, and a Recharge by Gelson's market. There will also be nighttime security guards and a fenced-in pet area.

APPENDIX E: CAPITAL EXPENDITURE ESTIMATES



EVSE MASTER PLAN ESTIMATE – ANIMAL SHELTER FLEET PHASE 1

COST ESTIMATE

ITEM DESCRIPTION	UNIT	UNIT COST	QUANTITIES	Materials	ITEMS COSTS	Charger Costs	ITEMS COSTS	Permits	ITEMS COSTS	Civil/ Landscaping	ITEMS COSTS	Contracting/ Design
JUNCTION BOXES												
Furnish & Install Pull Box #3 1/2	EA	$1,800										
Furnish & Install Pull Box #5	EA	$2,300	**2**	$4,600								
Furnish & Install Pull Box #7 in Ceiling/Wall/Structure	EA	$518										
Furnish & Install Wall-Mounted Junction Box	EA	$115										
CONDUIT												
Furnish & Install 1.5" conduit with backfill and trenching	LF	$46										
Furnish & Install 2" conduit with backfill and trenching	LF	$52	**150**	$7,791								
Furnish & Install 3" conduit surface mounted	LF	$30	**20**	$598								
Furnish & Install 4" conduit surface mounted	LF	$35										
CONDUCTORS/WIRES												
Furnish & Install #8	LF	$1.17	**850**	$997								
Furnish & Install #2 and Higher	LF	$2.70										
ELECTRICAL SERVICE												
ELECTRIC VEHICLE CHARGING EQUIPMENT												
Pedestal	EA	$500	**1**	$500								
Level 2 Charger (up to 12.0 kW) - Dual Head ChargePoint	EA	$6,800	**1**			$6,800						
Footing	EA	$1,300	**1**	$1,300								
SIGNING/STRIPPING												
Signage/Striping	LS	$1,050	**2**	$2,100								
MISCELLANEOUS ITEMS												
Bollard	EA	$575	**2**	$1,150								
Permits	EA	$5,000	**1**					$5,000				
Civil	LS	$30,000	**0.25**							$7,500		
SUBTOTALS				**$19,036**		**$6,800**		**$5,000**		**$7,500**		
CONTINGENCY			**20%**	**$3,807.14**		**$1,360.00**		**$1,000.00**		**$1,500.00**		
TOTALS WITH CONTINGENCY				**$22,900**		**$8,200**		**$6,000**		**$9,000**		**$15,160**
PROJECT COST ANIMAL SHELTER FLEET				**$61,260**								

EVSE MASTER PLAN ESTIMATE – ANIMAL SHELTER PUBLIC PHASE 1

COST ESTIMATE

ITEM DESCRIPTION	UNIT	UNIT COST	QUANTITIES	Materials	ITEMS COSTS	Charger Costs	ITEMS COSTS	Permits	ITEMS COSTS	Civil/ Landscaping	ITEMS COSTS	Contracting/ Design
JUNCTION BOXES												
Furnish & Install Pull Box #3 1/2	EA	$1,800										
Furnish & Install Pull Box #5	EA	$2,300	1	$2,300								
Furnish & Install Pull Box #7 in Ceiling/Wall/Structure	EA	$518										
Furnish & Install Wall-Mounted Junction Box	EA	$115										
CONDUIT	0	$0										
Furnish & Install 1.5" conduit with backfill and trenching	LF	$46										
Furnish & Install 2" conduit with backfill and trenching	LF	$52		$0								
Furnish & Install 3" conduit surface mounted	LF	$30		$0								
Furnish & Install 4" conduit surface mounted	LF	$35		$0								
CONDUCTORS/WIRES	0	$0										
Furnish & Install #8	LF	$1.17	850	$997								
Furnish & Install #2 and Higher	LF	$2.70		$0								
ELECTRICAL SERVICE												
ELECTRIC VEHICLE CHARGING EQUIPMENT	0	$0										
Pedestal	EA	$500	1	$500								
Level 2 Charger (up to 12.0 kW) - Dual Head ChargePoint	EA	$6,800	1			$6,800						
Footing	EA	$1,300	1	$1,300								
SIGNING/STRIPPING												
Signage/Striping	LS	$1,050	2	$2,100								
Bollard	EA	$575	2	$1,150								
Permits	EA	$5,000						$0				
Civil	LS	$30,000	0.10							$3,000		
SUBTOTALS				$8,347		$6,800		$0		$3,000		$0
CONTINGENCY			20%	$1,669.41		$1,360.00		$0.00		$600.00		$0.00
TOTALS WITH CONTINGENCY				$10,100		$8,200		$0		$3,600		$5,480
PROJECT COST ANIMAL SHELTER PUBLIC				$27,380								

EVSE MASTER PLAN ESTIMATE - CITY HALL FLEET PHASE 1

COST ESTIMATE

ITEM DESCRIPTION	UNIT	UNIT COST	Quantity	Materials	ITEMS COSTS	Charger Costs	ITEMS COSTS	Permits	ITEMS COSTS	Civil/ Landscaping	ITEMS COSTS	Contracting/ Design
JUNCTION BOXES												
Furnish & Install Pull Box #3 1/2	EA	$1,800	4	$7,200								
Furnish & Install Pull Box #5	EA	$2,300	2	$4,600								
CONDUIT												
Furnish & Install 2" conduit with backfill and trenching	LF	$52	160	$8,310								
Furnish & Install 6" conduit with backfill and trenching	LF	$92	100	$9,200								
CONDUCTORS/WIRES												
Furnish & Install #8	LF	$1.17	400	$469								
Furnish & Install #2 and Higher	LF	$2.70	400	$1,081								
ELECTRICAL SERVICE												
Step-Down Transformer - 150 kVA	EA	$7,579	1	$7,579								
Service Panel	EA	$10,000	1	$10,000								
ELECTRIC VEHICLE CHARGING EQUIPMENT												
Pedestal	EA	$500	2	$1,000								
Level 2 Charger (up to 12.0 kW) - Dual Head ChargePoint	EA	$6,800	2			$13,600						
Footing	EA	$1,300	2	$2,600								
SIGNING/STRIPPING												
Signage/Striping	LS	$1,050	4	$4,200								
MISCELLANEOUS ITEMS												
Bollard	EA	$575	4	$2,300								
Permits	EA	$5,000	1					$5,000				
Civil	LS	$30,000	0.25							$7,500		
SUBTOTALS				$58,539		$13,600		$5,000		$7,500		
CONTINGENCY			20%	$11,707.84		$2,720.00		$1,000.00		$1,500.00		
TOTALS WITH CONTINGENCY				$70,300		$16,400		$6,000		$9,000		$34,120
PROJECT COST - PHASE 1				$135,820								

EVSE MASTER PLAN ESTIMATE - CITY HALL FLEET PHASE 3

COST ESTIMATE

ITEM DESCRIPTION	UNIT	UNIT COST	QUANTITIES	Materials	ITEMS COSTS	Charger Costs	ITEMS COSTS	Permits	ITEMS COSTS	Civil/ Landscaping	ITEMS COSTS	Contracting/ Design
ELECTRIC VEHICLE CHARGING EQUIPMENT												
Pedestal	EA	$500	**3**	$1,500								
Level 2 Charger (up to 12.0 kW) - Dual Head ChargePoint	EA	$6,800	**3**			$20,400						
Footing	EA	$1,300	**3**	$3,900								
SIGNING/STRIPPING												
Signage/Striping	LS	$1,050	**6**	$6,300								
MISCELLANEOUS ITEMS												
Bollard	EA	$575	**6**	$3,450								
SUBTOTALS				**$15,150**		**$20,400**						
CONTINGENCY			**20%**	**$3,030.00**		**$4,080.00**						
TOTALS WITH CONTINGENCY				**$18,200**		**$24,500**						**$7,280**
PROJECT COST PHASE 3				**$49,980**								

EVSE MASTER PLAN ESTIMATE – CITY HALL PUBLIC PHASE 1

COST ESTIMATE

ITEM DESCRIPTION	UNIT	UNIT COST	QUANTITIES	Materials	ITEMS COSTS	Charger Costs	ITEMS COSTS	Permits	ITEMS COSTS	Civil/ Landscaping	ITEMS COSTS	Contracting/ Design
CONDUIT												
Furnish & Install 2" conduit with directional boring	LF	$127	**20**	$2,534								
CONDUCTORS/WIRES												
Furnish & Install #8	LF	$1.17	**60**	$70								
ELECTRICAL SERVICE												
ELECTRIC VEHICLE CHARGING EQUIPMENT												
Pedestal	EA	$500	**2**	$1,000								
Level 2 Charger (up to 12.0 kW) - Dual Head ChargePoint	EA	$6,800	**2**			$13,600						
Footing	EA	$1,300	**2**	$2,600								
SIGNING/STRIPPING												
Signage/Striping	LS	$1,050	**4**	$4,200								
MISCELLANEOUS ITEMS												
Bollard	EA	$575	**4**	$2,300								
Removals	LS	$10,000	**0.20**	$2,000								
Civil	LS	$30,000	**0.15**							$4,500		
SUBTOTALS				**$14,704**		**$13,600**				**$4,500**		
CONTINGENCY			**20%**	**$2,940.83**		**$2,720.00**				**$900.00**		
TOTALS WITH CONTINGENCY				**$17,700**		**$16,400**				**$5,400**		**$9,240**
PROJECT COST CITY HALL PUBLIC				**$48,740**								

CORP YARD PUBLIC WORKS, 10250 IRON ROCK WAY

EVSE MASTER PLAN ESTIMATE - CORP YARD PUBLIC WORKS PHASE 1

COST ESTIMATE

ITEM DESCRIPTION	UNIT	UNIT COST	QUANTITIES	Materials	ITEMS COSTS	Charger Costs	ITEMS COSTS	Permits	ITEMS COSTS	Civil/ Landscaping	ITEMS COSTS	Contracting/ Design
JUNCTION BOXES												
Furnish & Install Pull Box #3 1/2	EA	$1,800	**6**	$10,800								
Furnish & Install Pull Box #5	EA	$2,300	**1**	$2,300								
CONDUIT												
Furnish & Install 2" conduit with backfill and trenching	LF	$52	**150**	$7,791								
Furnish & Install 4" conduit with backfill and trenching	LF	$69	**150**	$10,378								
CONDUCTORS/WIRES												
Furnish & Install #8	LF	$1.17	**750**	$880								
Furnish & Install #2 and Higher	LF	$2.70	**450**	$1,216								
ELECTRICAL SERVICE												
Service Panel	EA	$10,000	**1**	$10,000								
ELECTRIC VEHICLE CHARGING EQUIPMENT												
Pedestal	EA	$500	**7**	$3,500								
Level 2 Charger (up to 12.0 kW) - Dual Head ChargePoint	EA	$6,800	**6**			$40,800						
Footing	EA	$1,300	**7**	$9,100								
SIGNING/STRIPPING												
Signage/Striping	LS	$1,050	**12**	$12,600								
MISCELLANEOUS ITEMS												
Bollard	EA	$575	**12**	$6,900								
Permits	EA	$5,000	**1**					$5,000				
Civil	LS	$30,000	**0.30**							$9,000		
SUBTOTALS				**$75,465**		**$40,800**		**$5,000**		**$9,000**		
CONTINGENCY			**20%**	**$15,092.93**		**$8,160.00**		**$1,000.00**		**$1,800.00**		
TOTALS WITH CONTINGENCY				**$90,600**		**$49,000**		**$6,000**		**$10,800**		**$42,960**
PROJECT COST PHASE 1				**$199,360**								

EVSE MASTER PLAN ESTIMATE - CORP YARD PUBLIC WORKS PHASE 2

COST ESTIMATE

ITEM DESCRIPTION	UNIT	UNIT COST	QUANTITIES	Materials	ITEMS COSTS	Charger Costs	ITEMS COSTS	Permits	ITEMS COSTS	Civil/ Landscaping	ITEMS COSTS	Contracting/ Design
JUNCTION BOXES												
Furnish & Install Pull Box #3 1/2	EA	$1,800	**6**	$10,800								
CONDUIT												
Connect new and existing conduit (CC)	EA	$173	**1**	$173								
Furnish & Install 2" conduit with backfill and trenching	LF	$52	**150**	$7,791								
CONDUCTORS/WIRES												
Furnish & Install #8	LF	$1.17	**750**	$880								
ELECTRIC VEHICLE CHARGING EQUIPMENT												
Pedestal	EA	$500	**6**	$3,000								
Level 2 Charger (up to 12.0 kW) - Dual Head ChargePoint	EA	$6,800	**6**			$40,800						
Footing	EA	$1,300	**6**	$7,800								
SIGNING/STRIPPING												
Signage/Striping	LS	$1,050	**12**	$12,600								
MISCELLANEOUS ITEMS												
Bollard	EA	$575	**12**	$6,900								
Civil	LS	$30,000	**0.10**							$3,000		
SUBTOTALS				**$49,943**		**$40,800**				**$3,000**		
CONTINGENCY			**20%**	**$9,988.61**		**$8,160.00**				**$600.00**		
TOTALS WITH CONTINGENCY				**$60,000**		**$49,000**				**$3,600**		**$25,440**
PROJECT COST PHASE 2				**$138,040**								

EVSE MASTER PLAN ESTIMATE – FLEET FACILITY PHASE 1

COST ESTIMATE

ITEM DESCRIPTION	UNIT	UNIT COST	QUANTITIES	Materials	ITEMS COSTS	Charger Costs	ITEMS COSTS	Permits	ITEMS COSTS	Civil/ Landscaping	ITEMS COSTS	SMUD Power Upgrades	ITEMS COSTS	Contracting/ Design
JUNCTION BOXES														
Furnish & Install Pull Box #3 1/2	EA	$1,800	21	$37,800										
Furnish & Install Pull Box #5	EA	$2,300	4	$9,200										
CONDUIT														
Furnish & Install 2" conduit with backfill and trenching	LF	$52	150	$7,791										
Furnish & Install 4" conduit with backfill and trenching	LF	$69	900	$62,269										
Furnish & Install 6" conduit with backfill and trenching	LF	$92	100	$9,200										
Furnish & Install 6" conduit with directional boring	LF	$200	200	$40,000										
CONDUCTORS/WIRES														
Furnish & Install #8	LF	$1.17	4750	$5,572										
Furnish & Install #2 and Higher	LF	$2.70	2000	$5,405										
ELECTRICAL SERVICE														
SMUD Upgrades	LS	$60,000	1									$60,000		
Step-Down Transformer - 300 kVA	EA	$14,862	2	$29,724										
Switchgear	EA	$70,000	1	$70,000										
Service Panel	EA	$10,000	1	$10,000										
ELECTRIC VEHICLE CHARGING EQUIPMENT														
DC Fast Charger - Dual Head (150 KW)	EA	$115,000	3			$345,000								
Pedestal	EA	$500	25	$12,500										
Level 2 Charger (up to 12.0 kW) - Dual Head ChargePoint	EA	$6,800	21			$142,800								
Footing	EA	$1,300	25	$32,500										
SIGNING/STRIPPING														
Signage/Striping	LS	$1,050	48	$50,400										
MISCELLANEOUS ITEMS														
Bollard	EA	$575	48	$27,600										
Permits	EA	$5,000	1					$5,000						
Civil	LS	$30,000	1							$30,000				
SUBTOTALS				**$409,960**		**$487,800**		**$5,000**		**$30,000**		**$60,000**		
CONTINGENCY			20%	**$81,992.03**		**$97,560.00**		**$1,000.00**		**$6,000.00**		**$12,000.00**		
TOTALS WITH CONTINGENCY				**$492,000**		**$585,400**		**$6,000**		**$36,000**		**$72,000**		**$242,400**
PROJECT COST PHASE 1				**$1,433,800**										

EVSE MASTER PLAN ESTIMATE – FLEET FACILITY PHASE 2

COST ESTIMATE

ITEM DESCRIPTION	UNIT	UNIT COST	QUANTITIES	Materials	ITEMS COSTS	Charger Costs	ITEMS COSTS	Permits	ITEMS COSTS	Civil/ Landscaping	ITEMS COSTS	Contracting/ Design
JUNCTION BOXES												
Furnish & Install Pull Box #3 1/2	EA	$1,800	12	$21,600								
Furnish & Install Pull Box #5	EA	$2,300	1	$2,300								
Furnish & Install Wall-Mounted Junction Box	EA	$115										
CONDUIT												
Connect new and existing conduit (CC)	EA	$173	1	$173								
Furnish & Install 2" conduit with backfill and trenching	LF	$52	300	$15,581								
Furnish & Install 4" conduit with backfill and trenching	LF	$69	200	$13,838								
Furnish & Install 3" conduit surface mounted	LF	$30										
CONDUCTORS/WIRES												
Furnish & Install #8	LF	$1.17	2500	$2,933								
Furnish & Install #2 and Higher	LF	$2.70										
ELECTRICAL SERVICE												
ELECTRIC VEHICLE CHARGING EQUIPMENT												
Pedestal	EA	$500	12	$6,000								
Level 2 Charger (up to 12.0 kW) - Dual Head ChargePoint	EA	$6,800	12			$81,600						
Footing	EA	$1,300	12	$15,600								
SIGNING/STRIPPING												
Signage/Striping	LS	$1,050	24	$25,200								
MISCELLANEOUS ITEMS												
Bollard	EA	$575	24	$13,800								
Civil	LS	$30,000	0.5							$15,000		
SUBTOTALS				$117,024		$81,600				$15,000		
CONTINGENCY			20%	$23,404.79		$16,320.00				$3,000.00		
TOTALS WITH CONTINGENCY				$140,500		$98,000				$18,000		$63,400
PROJECT COST PHASE 2				$319,900								

EVSE MASTER PLAN ESTIMATE – FLEET FACILITY PHASE 3

COST ESTIMATE

ITEM DESCRIPTION	UNIT	UNIT COST	QUANTITIES	Materials	ITEMS COSTS	Charger Costs	ITEMS COSTS	Permits	ITEMS COSTS	Civil/ Landscaping	ITEMS COSTS	Contracting/ Design
JUNCTION BOXES												
Furnish & Install Pull Box #3 1/2	EA	$1,800	**3**	$5,400								
Furnish & Install Pull Box #5	EA	$2,300	**2**	$4,600								
Furnish & Install Wall-Mounted Junction Box	EA	$115	**5**	$575								
CONDUIT												
Furnish & Install 2" conduit with backfill and trenching	LF	$52	**100**	$5,194								
Furnish & Install 4" conduit with backfill and trenching	LF	$69	**150**	$10,378								
Furnish & Install 3" conduit with directional boring	LF	$132	**100**	$13,244								
Furnish & Install 4" conduit with directional boring	LF	$138										
Furnish & Install 2" conduit surface mounted	LF	$25	**200**	$5,060								
CONDUCTORS/WIRES												
Furnish & Install #8	LF	$1.17	**2000**	$2,346								
Furnish & Install #2 and Higher	LF	$2.70	**750**	$2,027								
ELECTRIC VEHICLE CHARGING EQUIPMENT												
DC Fast Charger - Dual Head (150 KW)	EA	$115,000	**2**			$230,000						
Pedestal	EA	$500	**7**	$3,500								
Level 2 Charger (up to 12.0 kW) - Dual Head ChargePoint	EA	$6,800	**5**			$34,000						
Footing	EA	$1,300	**7**	$9,100								
SIGNING/STRIPPING												
Signage/Striping	LS	$1,050	**14**	$14,700								
MISCELLANEOUS ITEMS												
Bollard	EA	$575	**14**	$8,050								
Civil	LS	$30,000	**0.5**							$15,000		
SUBTOTALS				**$84,174**		**$264,000**				**$15,000**		
CONTINGENCY			**20%**	**$16,834.70**		**$52,800.00**				**$3,000.00**		
TOTALS WITH CONTINGENCY				**$101,100**		**$316,800**				**$18,000**		**$47,640**
PROJECT COST PHASE 3				**$483,540**								

EVSE MASTER PLAN ESTIMATE - 8380/8400 LAGUNA PALMS WAY FLEET PHASE 1

COST ESTIMATE

ITEM DESCRIPTION	UNIT	UNIT COST	QUANTITIES	Materials	ITEMS COSTS	Charger Costs	ITEMS COSTS	Permits	ITEMS COSTS	Civil/ Landscaping	ITEMS COSTS	SMUD Power Upgrades	ITEMS COSTS	Contracting/ Design
JUNCTION BOXES														
Furnish & Install Pull Box #3 1/2	EA	$1,800	16	$28,800										
Furnish & Install Pull Box #5	EA	$2,300	6	$13,800										
CONDUIT														
Furnish & Install 2" conduit with backfill and trenching	LF	$52	250	$12,984										
Furnish & Install 3" conduit with backfill and trenching	LF	$63	1300	$82,469										
Furnish & Install 4" conduit with backfill and trenching	LF	$69	250	$17,297										
Furnish & Install 6" conduit with backfill and trenching	LF	$92	100	$9,200										
CONDUCTORS/WIRES														
Furnish & Install #8	LF	$1.17												
Furnish & Install #6	LF	$1.73	8000	$13,800										
Furnish & Install #4	LF	$2.07	1000	$2,070										
Furnish & Install #2 and Higher	LF	$2.70	1000	$2,703										
ELECTRICAL SERVICE														
SMUD Upgrades	LS	$85,000	1									$85,000		
Step-Down Transformer - 300 kVA	EA	$14,862	2	$29,724										
Switchgear	EA	$70,000	1	$70,000										
Service Panel	EA	$10,000	1	$10,000										
ELECTRIC VEHICLE CHARGING EQUIPMENT														
DC Fast Charger - Dual Head (150 KW)	EA	$115,000	2			$230,000								
Pedestal	EA	$500	20	$10,000										
Level 2 Charger (up to 19.2 kW) - Dual Head ChargePoint	EA	$6,800	18			$122,400								
Footing	EA	$1,300	20	$26,000										
SIGNING/STRIPPING														
Signage/Striping	LS	$1,050	40	$42,000										
MISCELLANEOUS ITEMS														
Bollard	EA	$575	40	$23,000										
Permits	EA	$5,000	1					$5,000						
Civil	LS	$30,000	1							$30,000				
SUBTOTALS				**$393,847**		**$352,400**		**$5,000**		**$30,000**		**$85,000**		
CONTINGENCY			**20%**	**$78,769.30**		**$70,480.00**		**$1,000.00**		**$6,000.00**		**$17,000.00**		
TOTALS WITH CONTINGENCY				**$472,700**		**$422,900**		**$6,000**		**$36,000**		**$102,000**		**$246,680**
PROJECT COST PHASE 1				**$1,286,280**										

EVSE MASTER PLAN ESTIMATE - 8380/8400 LAGUNA PALMS WAY FLEET PHASE 2

COST ESTIMATE

ITEM DESCRIPTION	UNIT	UNIT COST	QUANTITIES	Materials	ITEMS COSTS	Charger Costs	ITEMS COSTS	Permits	ITEMS COSTS	Civil/ Landscaping	ITEMS COSTS	Contracting/ Design
JUNCTION BOXES												
Furnish & Install Pull Box #3 1/2	EA	$1,800	**6**	$10,800								
Furnish & Install Pull Box #5	EA	$2,300										
CONDUIT												
Furnish & Install 2" conduit with backfill and trenching	LF	$52	**300**	$15,581								
CONDUCTORS/WIRES												
Furnish & Install #8	LF	$1.17	**1200**	$1,408								
Furnish & Install #6	LF	$1.73	**1500**	$2,588								
ELECTRICAL SERVICE												
Service Panel	EA	$10,000	**1**	$10,000								
ELECTRIC VEHICLE CHARGING EQUIPMENT												
DC Fast Charger - Dual Head (150 KW)	EA	$115,000										
Pedestal	EA	$500	**6**	$3,000								
Level 2 Charger (up to 19.2 kW) - Dual Head ChargePoint	EA	$6,800	**6**			$40,800						
Footing	EA	$1,300	**6**	$7,800								
SIGNING/STRIPPING												
Signage/Striping	LS	$1,050	**12**	$12,600								
MISCELLANEOUS ITEMS												
Bollard	EA	$575	**12**	$6,900								
Civil	LS	$30,000	**1**							$15,000		
SUBTOTALS				**$70,676**		**$40,800**				**$15,000**		
CONTINGENCY			**20%**	**$14,135.27**		**$8,160.00**				**$3,000.00**		
TOTALS WITH CONTINGENCY				**$84,900**		**$49,000**				**$18,000**		**$41,160**
PROJECT COST PHASE 2				**$193,060**								

EVSE MASTER PLAN ESTIMATE – 8380/8400 LAGUNA PALMS WAY FLEET PHASE 3

COST ESTIMATE

ITEM DESCRIPTION	UNIT	UNIT COST	QUANTITIES	Materials	ITEMS COSTS	Charger Costs	ITEMS COSTS	Permits	ITEMS COSTS	Civil/ Landscaping	ITEMS COSTS	Contracting/ Design
JUNCTION BOXES												
Furnish & Install Pull Box #3 1/2	EA	$1,800	3	$5,400								
Furnish & Install Pull Box #5	EA	$2,300	1	$2,300								
CONDUIT												
Furnish & Install 2" conduit with backfill and trenching	LF	$52	700	$36,356								
CONDUCTORS/WIRES												
Furnish & Install #6	LF	$1.73	1500	$2,588								
Furnish & Install #4	LF	$2.07	1500	$3,105								
ELECTRIC VEHICLE CHARGING EQUIPMENT												
Pedestal	EA	$500	3	$1,500								
Level 2 Charger (up to 19.2 kW) - Dual Head ChargePoint	EA	$6,800	3			$20,400						
Footing	EA	$1,300	3	$3,900								
SIGNING/STRIPPING												
Signage/Striping	LS	$1,050	6	$6,300								
MISCELLANEOUS ITEMS												
Bollard	EA	$575	6	$3,450								
Civil	LS	$30,000	0.5							$15,000		
SUBTOTALS				$64,899		$20,400				$15,000		
CONTINGENCY			20%	$12,979.75		$4,080.00				$3,000.00		
TOTALS WITH CONTINGENCY				$77,900		$24,500				$18,000		$38,360
PROJECT COST PHASE 3				$158,760								

EVSE MASTER PLAN ESTIMATE – STUDIO COURT FLEET PHASE 3

COST ESTIMATE

ITEM DESCRIPTION	UNIT	UNIT COST	QUANTITIES	Materials	ITEMS COSTS	Charger Costs	ITEMS COSTS	Permits	ITEMS COSTS	Civil/ Landscaping	ITEMS COSTS	Contracting/ Desing
JUNCTION BOXES												
Furnish & Install Pull Box #3 1/2	EA	$1,800	**1**	$1,800								
Furnish & Install Pull Box #5	EA	$2,300	**1**	$2,300								
Furnish & Install Wall-Mounted Junction Box	EA	$115	**1**	$115								
CONDUIT												
Furnish & Install 2" conduit with backfill and trenching	LF	$52	**100**	$5,194								
Furnish & Install 2" conduit surface mounted	LF	$25	**40**	$1,012								
CONDUCTORS/WIRES												
Furnish & Install #8	LF	$1.17	**700**	$821								
ELECTRIC VEHICLE CHARGING EQUIPMENT												
Pedestal	EA	$500	**1**	$500								
Level 2 Charger (up to 19.2 kW) - Dual Head ChargePoint	EA	$6,800	**1**			$6,800						
Footing	EA	$1,300	**1**	$1,300								
SIGNING/STRIPPING												
Signage/Striping	LS	$1,050	**2**	$2,100								
MISCELLANEOUS ITEMS												
Bollard	EA	$575	**2**	$1,150								
Civil	LS	$30,000	**0.15**							$4,500		
SUBTOTALS				**$16,292**		**$6,800**				**$4,500**		
CONTINGENCY			**20%**	**$3,258.37**		**$1,360.00**				**$900.00**		
TOTALS WITH CONTINGENCY				**$19,600**		**$8,200**				**$5,400**		**$10,000**
PROJECT COST PHASE 3				**$43,200**								

EVSE MASTER PLAN ESTIMATE – LAGUNA PALMS PUBLIC PHASE 1

COST ESTIMATE

ITEM DESCRIPTION	UNIT	UNIT COST	QUANTITIES	Materials	ITEMS COSTS	Charger Costs	ITEMS COSTS	Permits	ITEMS COSTS	Civil/ Landscaping	ITEMS COSTS	Contracting/ Design
JUNCTION BOXES												
Furnish & Install Pull Box #3 1/2	EA	$1,800	3	$5,400								
CONDUIT												
Furnish & Install 2" conduit with backfill and trenching	LF	$52	300	$15,581								
CONDUCTORS/WIRES												
Furnish & Install #8	LF	$1.17	1500	$1,760								
ELECTRIC VEHICLE CHARGING EQUIPMENT												
Pedestal	EA	$500	2	$1,000								
Level 2 Charger (up to 19.2 kW) - Dual Head ChargePoint	EA	$6,800	2			$13,600						
Footing	EA	$1,300	2	$2,600								
SIGNING/STRIPPING												
Signage/Striping	LS	$1,050	4	$4,200								
MISCELLANEOUS ITEMS												
Bollard	EA	$575	4	$2,300								
Civil	LS	$30,000	0.10							$3,000		
SUBTOTALS				$32,841		$13,600				$3,000		
CONTINGENCY			20%	$6,568.15		$2,720.00				$600.00		
TOTALS WITH CONTINGENCY				$39,500		$16,400				$3,600		$17,240
PROJECT COST PUBLIC				$76,740								

SPECIAL WASTE COLLECTION CENTER, 9255 DISPOSAL LN

EVSE MASTER PLAN ESTIMATE - SWCC FLEET PHASE 1

COST ESTIMATE

ITEM DESCRIPTION	UNIT	UNIT COST	QUANTITIES	Materials	ITEMS COSTS	Charger Costs	ITEMS COSTS	Permits	ITEMS COSTS	Civil/ Landscaping	ITEMS COSTS	Contracting/ Design
JUNCTION BOXES												
Furnish & Install Pull Box #5	EA	$2,300	2	$4,600								
CONDUIT												
Furnish & Install 3" conduit with backfill and trenching	LF	$63	100	$6,344								
Furnish & Install 3" conduit surface mounted	LF	$30	20	$598								
CONDUCTORS/WIRES												
Furnish & Install #8	LF	$1.17	600	$704								
ELECTRICAL SERVICE												
ELECTRIC VEHICLE CHARGING EQUIPMENT												
Pedestal	EA	$500	1	$500								
Level 2 Charger (up to 12.0 kW) - Dual Head ChargePoint	EA	$6,800	1			$6,800						
Footing	EA	$1,300	1	$1,300								
SIGNING/STRIPPING												
Signage/Striping	LS	$1,050	2	$2,100								
MISCELLANEOUS ITEMS												
Bollard	EA	$575	2	$1,150								
Permits	EA	$5,000	1					$5,000				
Civil	LS	$30,000	0.15							$4,500		
SUBTOTALS				$17,296		$6,800		$5,000		$4,500		
CONTINGENCY			20%	$3,459.11		$1,360.00		$1,000.00		$900.00		
TOTALS WITH CONTINGENCY				$20,800		$8,200		$6,000		$5,400		$12,880
PROJECT COST PHASE 1				$53,280								

EVSE MASTER PLAN ESTIMATE - SWCC PUBLIC PHASE 1

COST ESTIMATE

ITEM DESCRIPTION	UNIT	UNIT COST	QUANTITIES	Materials	ITEMS COSTS	Charger Costs	ITEMS COSTS	Permits	ITEMS COSTS	Civil/ Landscaping	ITEMS COSTS	Contracting/ Desing
CONDUIT												
CONDUCTORS/WIRES												
Furnish & Install #8	LF	$1.17	300	$352								
ELECTRIC VEHICLE CHARGING EQUIPMENT												
Level 2 Charger (up to 19.2 kW) - ChargePoint	EA	$4,150	1			$4,150						
Pedestal	EA	$500	1	$500								
Footing	EA	$1,300	1	$1,300								
SIGNING/STRIPPING												
Signage/Striping	LS	$1,050	1	$1,050								
MISCELLANEOUS ITEMS												
Bollard	EA	$575	1	$575								
SUBTOTALS				$3,777		$4,150						
CONTINGENCY			20%	$755.38		$830.00						
TOTALS WITH CONTINGENCY				$4,600		$5,000						$1,840
PROJECT COST - PHASE 1 PUBLIC				$11,440								

EXISTING ELK GROVE LIBRARY, 8900 ELK GROVE BLVD

EVSE MASTER PLAN ESTIMATE - EXISTING ELK GROVE LIBRARY PHASE 1

COST ESTIMATE

ITEM DESCRIPTION	UNIT	UNIT COST	QUANTITIES	Materials	ITEMS COSTS	Charger Costs	ITEMS COSTS	Permits	ITEMS COSTS	Civil/ Landscaping	ITEMS COSTS	Contracting/ Design
JUNCTION BOXES												
Furnish & Install Pull Box #3 1/2	EA	$1,800	3	$5,400								
Furnish & Install Pull Box #5	EA	$2,300	2	$4,600								
CONDUIT												
Furnish & Install 2" conduit with backfill and trenching	LF	$52	50	$2,597								
Furnish & Install 3" conduit with backfill and trenching	LF	$63	200	$12,688								
Furnish & Install 3" conduit surface mounted	LF	$30	50	$1,495								
CONDUCTORS/WIRES												
Furnish & Install #8	LF	$1.17	1500	$1,760								
ELECTRICAL SERVICE												
Service Panel	EA	$10,000	1	$10,000								
ELECTRIC VEHICLE CHARGING EQUIPMENT												
Pedestal	EA	$500	4	$2,000								
Level 2 Charger (up to 12.0 kW) - Dual Head ChargePoint	EA	$6,800	3			$20,400						
Footing	EA	$1,300	4	$5,200								
SIGNING/STRIPPING												
Signage/Striping	LS	$1,050	6	$6,300								
MISCELLANEOUS ITEMS												
Bollard	EA	$575	6	$3,450								
Permits	EA	$5,000	1					$5,000				
Civil	LS	$30,000	0.30							$9,000		
SUBTOTALS				$55,489		$20,400		$5,000		$9,000		
CONTINGENCY			20%	$11,097.78		$4,080.00		$1,000.00		$1,800.00		
TOTALS WITH CONTINGENCY				$66,600		$24,500		$6,000		$10,800		$33,360
PROJECT COST				$141,260								

EVSE MASTER PLAN ESTIMATE - OLD TOWN PLAZA PUBLIC PHASE 1

COST ESTIMATE

ITEM DESCRIPTION	UNIT	UNIT COST	QUANTITIES	Materials	ITEMS COSTS	Charger Costs	ITEMS COSTS	Permits	ITEMS COSTS	Civil/ Landscaping	ITEMS COSTS	SMUD Power Upgrades	ITEMS COSTS	Contracting/ Design
JUNCTION BOXES														
Furnish & Install Pull Box #3 1/2	EA	$1,800	**13**	$23,400										
Furnish & Install Pull Box #5	EA	$2,300	**2**	$4,600										
CONDUIT														
Furnish & Install 2" conduit with backfill and trenching	LF	$52	**100**	$5,194										
Furnish & Install 3" conduit with backfill and trenching	LF	$63	**300**	$19,031										
Furnish & Install 6" conduit with backfill and trenching	LF	$92	**100**	$9,200										
CONDUCTORS/WIRES														
Furnish & Install #8	LF	$1.17	**1000**	$1,173										
Furnish & Install #6	LF	$1.73	**1000**	$1,725										
Furnish & Install #2 and Higher	LF	$2.70	**400**	$1,081										
ELECTRICAL SERVICE														
SMUD Upgrades	LS	$100,000	**1**									$100,000		
Switchgear	EA	$50,000	**1**	$50,000										
Service Panel	EA	$10,000	**1**	$10,000										
ELECTRIC VEHICLE CHARGING EQUIPMENT														
Level 2 Charger (up to 12.0 kW) - Single Head ChargePoint	EA	$4,150	**5**			$20,750								
Pedestal	EA	$500	**13**	$6,500										
Level 2 Charger (up to 12.0 kW) - Dual Head ChargePoint	EA	$6,800	**8**			$54,400								
Footing	EA	$1,300	**13**	$16,900										
SIGNING/STRIPPING														
Signage/Striping	LS	$1,050	**21**	$22,050										
MISCELLANEOUS ITEMS														
Bollard	EA	$575	**21**	$12,075										
Permits	EA	$5,000	**1**					$5,000						
Civil	LS	$30,000	**0.5**							$15,000				
SUBTOTALS				**$182,929**		**$75,150**		**$5,000**		**$15,000**		**$100,000**		
CONTINGENCY			**20%**	**$36,585.80**		**$15,030.00**		**$1,000.00**		**$3,000.00**		**$20,000.00**		
TOTALS WITH CONTINGENCY				**$219,600**		**$90,200**		**$6,000**		**$18,000**		**$120,000**		**$145,440**
PROJECT COST				**$599,240**										

COST ASSUMPTIONS

Each of these categories of project capital costs are explained and listed below.

HARD COSTS

EV CHARGERS

This includes:

- Level 2 EV (ChargePoint) chargers
- Power cords and cable management for Level 2 chargers
- DC fast chargers (Blink/ChargePoint Chargers)
- Gateway Module/ Load Management Devices

Note: this excludes costs for warranties because the standard warranty that vendor offers is part of the cost estimate tool.

MATERIALS/EQUIPMENT

This includes costs of purchasing and installing materials typically required for fleet EV charging projects (other than the EV chargers themselves) including the following items:

- Wiring
- Conduit Systems (underground and/or surface-mounted)
- Trenching and/or directional drilling
- Pull Boxes (installed in the ground and/or surface mounted)
- Aerial wire spans
- Footings for installation of EV charger pedestals and electrical service panels
- Bollards
- Wheel stops
- Stepdown transformers
- Electrical service panels including sub panels
- Circuit breakers
- Signage
- Striping for parking stalls

SITE RESTORATION

Site restoration covers the costs to install civil/landscaping improvements to restore the site following excavation and other construction activities including:

- Minor restoration for civil infrastructure such as roadway and/or sidewalk repaving
- Minor curb and gutter restoration
- Minor surface water (drainage infrastructure) restoration
- Minor landscaping restoration such as replanting

SOFT COSTS

CONTRACTING/DESIGN

An estimated 40% mark-up has been applied to the project costs excluding charger purchase costs to include:

- Engineering design fees
- Contractor profits

PERMITTING

Each local authority with jurisdiction mandates electrical permits for installation of EV chargers:

- Electrical permit fees charged by local jurisdictions, typically $5k per site plus $1k for labor and contingency.

UTILITY FEES

This consists of fees charged by the electrical utility (SMUD) to bring additional power to the fleet charging depot to power the EV chargers, including:

- Electrical upgrade design
- Transformer replacement

To serve EV charging loads, utility upgrades are proposed at the following sites: Fleet Facility, Laguna Palms, and Old Town Plaza.

CONTINGENCIES

A 20% mark-up has been applied to the project costs for each cost category consistent with public agency capital project budgeting.

Incorporated July 1, 2000

CITY OF ELK GROVE

8401 Laguna Palms Way
Elk Grove, California 95758

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Fax: (916) 627-4400
www.elkgrove.gov

City of Elk Grove – City Council

NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that on **Wednesday, June 10, 2026,** at the hour of **6:00 p.m.,** or as soon thereafter as the matter may be heard, the Elk Grove City Council will conduct a public hearing at City Hall in the Council Chambers, 8400 Laguna Palms Way, Elk Grove, California, to consider the following matter:

CLIMATE COMPASS: A PLAN FOR IMPLEMENTING ELK GROVE'S CLIMATE, SUSTAINABILITY, AND RESILIENCE GOALS:

The public hearing will consider the following items:

- The Supplemental Environmental Impact Report to the General Plan Environmental Impact Report (EIR) for the Climate Compass.
- The Climate Compass: A Plan for Implementing Elk Grove's Climate, Sustainability, and Resilience Goals.
- Textual modifications to the Elk Grove General Plan to ensure consistency with the Climate Compass.
- Revisions to the Elk Grove General Plan related to the Implementation Strategy (Chapter 10) of the General Plan.
- The Infrastructure Plan for Fleet Electrification.

The Climate Compass is a comprehensive update to Elk Grove's 2019 Climate Action Plan (CAP). The Climate Compass includes updates to remain consistent with state targets, and will serve as a plan for the reduction of greenhouse gas (GHG) emissions and serve as a programmatic tiering document for the purposes of the California Environmental Quality Act (CEQA).

The revisions to the General Plan related to the Implementation Strategy as set forth in Chapter 10 of the General Plan will restore items unintentionally removed.

The Infrastructure Plan for Fleet Electrification provides actionable guidance for the electrification of the City's municipal fleet and for infrastructure to support staff and public electric vehicle charging at City facilities.

The Planning Commission reviewed this item (with the exception of the Infrastructure Plan for Fleet Electrification, which did not require Planning Commission review) at a public hearing on May 7, 2026 and voted 4-0 (Singha absent) to recommend approval of the Project.

LOCATION/APN:	Citywide
ZONING:	Various
ENVIRONMENTAL:	A Supplemental Environmental Impact Report (EIR) has been prepared for the Climate Compass Project pursuant to CEQA Guidelines Section 15163. The Supplemental EIR updates the General Plan EIR (SCH No. 2017062058) as amended by the 2023 Subsequent EIR to the General Plan EIR (SCH No. 2022020463). The Final Supplemental EIR is available for

review at the Community Development Department at 8401 Laguna Palms Way and online at elkgrove.gov/cap.

The revisions to the General Plan related to the Implementation Plan were previously analyzed as part of the Subsequent EIR for the Housing Element Update (SCH No. 2020069032) and therefore no further environmental review is necessary pursuant to State CEQA Guidelines Section 15183 (Consistency with a Community Plan, General Plan and Zoning).

Information or questions regarding this item should be referred to Carrie Whitlock, AICP, (916) 478-2238, cwhitlock@elkgrove.gov or to the Community Development Department, 8401 Laguna Palms Way, Elk Grove, CA, 95758. All interested persons are invited to present their views and comments on this matter. Written statements may be filed with the City Clerk at any time prior to the close of the hearing scheduled herein, and oral statements may be made at said hearing.

If you challenge the subject matter in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice or in written correspondence delivered to the City Clerk, 8401 Laguna Palms Way, Elk Grove, CA, 95758, at or prior to the close of the public hearing.

This meeting notice is provided pursuant to Section 23.14.040 of Title 23 of the Elk Grove Municipal Code.

Dated/Published: May 29, 2026

JASON LINDGREN
CITY CLERK, CITY OF ELK GROVE

ADA COMPLIANCE STATEMENT

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Office of the City Clerk at (916) 478-3635. Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting.

OWNER	CONTACT	ADDRESS	CITY	STATE	ZIP
Adams Broadwell Joseph & Cardozo	Janet Laurain	601 Gateway Boulevard, Suite 1000	South San Francisco	CA	94080-7037
Adams Broadwell Joseph & Cardozo	Jeanne K. Grube	520 Capitol Mall, Suite 350	Sacramento	CA	95814
Adams Broadwell Joseph & Cardozo	Rachel L. Levine	601 Gateway Boulevard, Suite 1000	South San Francisco	CA	94080-7037
AT&T	Astrid Willard	2700 Watt Ave Rm 3473-11	Sacramento	CA	95821
CA Dept. of Fish and Wildlife	Tanya Sheya	1701 Nimbus Rd., Ste. A	Rancho Cordova	CA	95670
Caltrans District 3, Planning and Local Assistance	Doug Adams	703 B Street	Marysville	CA	95901
Cosumnes Fire Department	Morgana Yahnke	10573 E. Stockton Blvd.	Elk Grove	CA	95624
Cosumnes Parks & Recreation	Paul Mewton	8820 Elk Grove Blvd. Ste. #3	Elk Grove	CA	95624
CRWQCB	Liz Lee	11020 Sun Center Dr. #200	Rancho Cordova	CA	95670-6114
Elk Grove Unified School District	Pham Saechao; Christopher Bohrer	9510 Elk Grove-Florin Road	Elk Grove	CA	95624
Elk Grove Water District	Bruce Kamilos	9829 Waterman Rd.	Elk Grove	CA	95624
Frontier	Kirby Bernard	9260 E. Stockton Blvd	Elk Grove	CA	95624
Hakeem, Ellis & Marengo, Professional Law Corporation	Michael Hakeem	3414 Brookside Road, Suite 100	Stockton	CA	95219
Hock Construction Management, Inc	Les Hock	10630 Mather Blvd.	Sacramento	CA	95655
J. P. Morgan		2217 Raindance Drive	Roseville	CA	95747
John Jaeger	John Jaeger	9543 Roblin Court	Elk Grove	CA	95758
Kevin Johnston	Kevin Johnston	2476 Buena Vista Avenue	Livermore	CA	94550
Lozeau Drury LLP	Michael Lozeau | Hanna Hughes | Sophie Roberts	1939 Harrison Street, Suite 150	Oakland	CA	94612
MerloneGeier Partners	Gary S Muljat	3191 Zinfandel Drive, Suite 23	Rancho Cordova	CA	95670
Native Amercian Heritage Commission	Pricilla Torres -Fuentes	1550 Harbor Boulevard, Suite 100	West Sacramento	CA	95691
Northern California Carpenters	Katie Boyd	265 Hegenberger Rd., Suite 220	Oakland	CA	94621
Pacific Gas & Electric	Adam Egbert	12840 Bill Clark Way	Auburn	CA	95602-9527
Richland Planned Communities	Aaron Ross-Swain	3000 Lava Ridge Ct., Ste 115	Roseville	CA	95661
Ring Hunter Holland & Schenone	Justin J. Schnitzler	985 Moraga Road, Suite 210	Lafayette	CA	94549
Sacramento Area Sewer District	Amandeep Singh	10060 Goethe Road	Sacramento	CA	95827
Sacramento County Water Agency	Bob Gardner; Bob Steeg	827 Seventh Street Rm 301	Sacramento	CA	95814
SMUD	Rob Ferrera	6201 S Street, MS B203	Sacramento	CA	95817
SMUD	Yujean Kim	6201 S Street	Sacramento	CA	95817
Taylor & Wiley	Matt Keasling	500 Capitol Mall Suite 1150	Sacramento	CA	95814
Taylor Morrison	Jay Pawlek	81 Blue Ravine Rd. Suite 220	Folsom	CA	95630
Thatch & Hooper, LLP	Leticia M. Ramirez, Attorney at Law	1730 I Street, Suite 220	Sacramento	CA	95811