County of San Diego

PLANNING & DEVELOPMENT SERVICES
5510 OVERLAND AVENUE, SUITE 310, SAN DIEGO, CA 92123
(858) 505-6445 General • (858) 694-2705 Codes
(858) 565-5920 Building Services
www.SDCPDS.org

DAHVIA LYNCH
DIRECTOR

July 6, 2023

TO: Supervisor Nora Vargas, Chairwoman
Supervisor Terra Lawson-Remer, Vice Chair
Supervisor Joel Anderson
Supervisor Jim Desmond

FROM: Dahvia Lynch, Director
Planning & Development Services

ELECTRIC VEHICLE ROADMAP IMPLEMENTATION PROGRAM PROGRESS UPDATE

Background
On October 16, 2019 (2), the Board of Supervisors (Board) adopted the Electric Vehicle Roadmap (EV Roadmap), which included six goals to support the equitable transition to electric vehicle (EV) ownership and use through the installation of charging infrastructure, education, and identification of grant opportunities:

Goal 1: Further Reduce the County's Fleet of Gas-Powered Vehicles
Goal 2: Accelerate Installation of EV Charging Stations at Public Locations in County Facilities
Goal 3: Promote and Incentivize County Employee EV Ownership
Goal 4: Incentivize and/or Require EV Charging Infrastructure in New and Existing Private Multi-Family Residential and/or Non-Residential Development
Goal 5: Fund EV Expert/Consumer Advocate as a Regional Resource
Goal 6: Collaborate with Regional Partners to Support Public and Private Fleet Electrification

Implementation of the EV Roadmap reduces greenhouse gas emissions, improves air quality, and contributes towards other related County sustainability efforts described below.

The Board has a demonstrated commitment to sustainability highlighted by Board actions including: January 13, 2021 (5), Framework for our Future: Actions to Achieve Bold Climate Action at the County of San Diego; and July 14, 2021 (3) Framework for our Future: Developing a Regional Sustainability Plan (Regional Decarbonization Framework). The County of San Diego

(County) has also advanced this commitment through the County's Strategic Plan under the Sustainability and Community initiatives, which identify the goals to "actively combat climate change through innovative or proven policies, green jobs, sustainable facility construction or maintenance and hazard mitigation" and "meaningful conversations, shared programming, grant opportunities, or other opportunities to maximize resources through community partnerships to benefit the region" as County priorities.

In 2022, the Board continued taking bold action toward addressing the climate crisis through a variety of sustainability and equity-driven policy directives to guide the Climate Action Plan (CAP) Update, Regional Decarbonization Framework (RDF), Sustainable Land Use Framework, and Departmental Sustainability Plans work efforts. Together, these directives will create a sustainable and resilient unincorporated county and support greater sustainability-related efforts throughout the region. The CAP Update, specifically, will establish a vision for responding to climate change in the unincorporated area. This effort will result in a California Environmental Quality Act (CEQA) qualified plan that mitigates greenhouse gas (GHG) emissions beyond state reduction targets to net zero emissions and below by 2035-2045. The Draft CAP Update is anticipated to be available for public review in Fall/Winter 2023 with the final CAP Update presented to the Board of Supervisors for approval in 2024.

Electric Vehicle Roadmap Annual Report Overview

As part of the EV Roadmap, the Board directed staff to report back annually on implementation efforts. Annual reports were submitted to the Board in December 2020 and April 2022 to update the Board on the first two years of implementation. This memorandum summarizes the implementation progress for the EV Roadmap's six goals through Calendar Year (CY) 2022. A narrative of implementation progress is followed by a detailed table summarizing completed and anticipated implementation actions/priorities for each goal. Additional supporting information is included in the three appendices. They include a list of existing and proposed EV charging stations at County facilities (Appendix A), maps showing EV charging stations for County fleet use and public use at County facilities (Appendix B), and a map of the Federal Highway Administration's (FHWA's) alternative fuel corridor (AFC) designations in the county.

Through 2022, the County continued to advance EV Roadmap implementation to achieve the six goals and 11 recommendations. This includes regular updates to the County's public-facing EV Roadmap website (https://sandiegocounty.gov/ev-roadmap), which provides a centralized online location for tracking activities related to EV Roadmap implementation. Through the end of 2022, the EV Roadmap website has been viewed 2,036 times, including 1,402 views in 2022 alone.

To support EV Roadmap implementation, an internal County EV Working Group regularly coordinates EV Roadmap implementation activities. Participating departments include the Department of Parks and Recreation (DPR), Planning and Development Services (PDS), Department of General Services (DGS), Agriculture, Weights, and Measures (AWM), San Diego County Library (SDCL), Department of Public Works (DPW), and Department of Environmental Health and Quality (DEHQ). Implementation efforts reflected within this memorandum are associated with work conducted by departments across the County enterprise.

Goal 1: Further Reduce the County's Fleet of Gas-Powered Vehicles

Focused Outcome	Increase the number of EVs in the County's fleet to 250 vehicles by 2025 and 501 vehicles by 2027.

FLEET MANAGEMENT

DGS manages the County's vehicle fleet and implements the County's Facility Operations Electric Vehicle Roadmap (Operations EV Roadmap) and Green Fleet Action Plan (GFAP). The Operations EV Roadmap, last updated in August 2019, outlines implementation strategies and tracking metrics to guide the transition of the County's fleet to EVs. The GFAP builds on the efforts outlined in the Operations EV Roadmap to guide the transition of the over 4,300 County fleet vehicles and off-road equipment to cleaner fuels. The GFAP identifies goals and strategies to transition the County's fleet to EVs, in alignment with the EV Roadmap's goal of 250 vehicles transitioned to EVs by 2024 and 501 vehicles by 2027. In 2022, DGS began working with a consultant, Arup, to complete an update to the GFAP to set milestones for the transition of the County's fleet to EVs, including transitioning medium- and heavy-duty fleet vehicles to clean and zero-emission fuels. The new GFAP was completed in January of 2023.

FLEET EVS AND INFRASTRUCTURE

In 2022, DGS conducted a series of five-year forecast strategy meetings with every County department to discuss how departments could transition their fleet vehicles to EVs and forecast expenditures for a transition to EVs. The County added 13 new EVs to the County fleet bringing its total number to 92 by November 16, 2022. As of April 2023, there are 126 EVs in the County fleet with another 133 EVs on order and expected to be in service over the next year. The addition of these vehicles would increase the total number of EVs in the County fleet to 259 vehicles, exceeding the EV Roadmap goal of 250 fleet vehicles by 2025.

The COVID-19 pandemic resulted in a shutdown of vehicle manufacturer plants across the nation and ongoing issues with chip manufacturers, constraining the supply of EVs. As vehicle manufacturing and distribution industries recover from supply chain issues experienced during the COVID-19 pandemic, DGS continues to identify additional opportunities to increase the number of EVs in the County fleet. Delays in the completion of EV orders from manufacturers continued into 2022 but are anticipated to be back on track in 2023.

Seventeen County departments have made commitments to convert gas-powered vehicles to electric or plug-in electric through their Departmental Sustainability Plans. These commitments will advance fleet transition efforts. As each department evaluates vehicle needs and opportunities to transition or retire existing fleet vehicles, the departmental plans will support financial decisions to purchase EVs.

To support fleet EVs, DGS installs and manages EV charging stations that are restricted for fleet use only. These fleet charging stations are not available for public use and can only be accessed by employees charging County-owned vehicles. EV charging station infrastructure available for public use is discussed under Goal 2. In 2022, DGS completed the construction of 119 new Level II EV charging stations at the County Operations Center Parking Structure A. This installation brought the total number of EV chargers installed for fleet vehicles to 203 in 2022.

Appendix A includes a summary of the existing and proposed EV charging stations at County facilities that support the County's EV fleet. DGS received $910,000 for implementation in FY 2022-2023 from the General Fund which will be leveraged within remaining funding from prior year Operations EV Roadmap phases and $3 million in American Rescue Plan Act (ARPA) funding to develop 282 additional charging stations at up to 17 County sites within the next five years. Many of these planned sites are participating in SDG&E's Power Your Drive Program which would fund up to 80 percent of installation construction costs depending on project qualifications. The County was able to leverage this funding through competitive applications to the program.

In 2022, DGS began coordination with the County's EV charging contractor, ChargePoint, to identify opportunities to expand the number of existing charging stations available for charging County fleet EVs. Currently, County staff using County-owned EVs can only charge these vehicles at charging stations on sites owned/operated by the County. Through coordination with ChargePoint, DGS is developing a program that allows County staff to use any publicly available ChargePoint charging station to charge a County fleet EV. This program, called "Charge on the Go," would significantly increase the availability of charging stations available to County fleet vehicles.

ZERO-EMISSIONS OUTREACH VEHICLES

Beyond passenger vehicles, the County has progressed the transition of County services that rely on heavy-duty diesel buses to clean, zero-emission vehicles. SDCL has retired two diesel-fueled buses that operated as the Library's Bookmobiles or mobile libraries that will be replaced with five "EV Mobile Outreach Platforms." Upon Board action on June 28, 2022 (6), SDCL purchased two all-electric mobile outreach vans and it is planning to purchase three more to provide expanded mobile library services to residents and students throughout the region. As of March 2023, SDCL was still awaiting the delivery of the two vehicles, which due to global supply chain issues associated with the COVID-19 pandemic, are anticipated to be delivered by the end of FY 2022-2023. Once delivered, the vehicles will receive graphic wrap (i.e., covering the vehicle exteriors with vinyl decals and logos) that will showcase sustainability features of the vehicle such as the air pollution and GHG emissions reduced by using these EVs. These EV Mobile Outreach platforms will be served by existing and planned EV charging stations at the Ramona, Borrego, Fallbrook, and Julian libraries.

FLEET EFFICIENCY

In 2022, DGS continued evaluating fleet vehicle usage to identify potential inefficiencies in the number of fleet vehicles. Inefficiencies were identified if vehicles were underutilized or if County-business could be conducted with fewer total vehicles available. DGS coordinates with individual departments to disclose which vehicles are underutilized and provides options to improve fleet efficiency and reduce overall fleet emissions. In response to observed fleet vehicle needs during the COVID-19 pandemic, the Land Use and Environment Group (LUEG) and the Health and Human Services Agency (HHSA) developed Memorandums of Agreement to share vehicles. This vehicle sharing agreement allowed both agencies to reduce incurred costs from vehicle rentals or purchases to conduct COVID-19 pandemic—related activities such as inspections and health visits.

Goal 1: Further Reduce the County's Fleet of Gas-Powered Vehicles		
Focused Outcome: Increase the number of EVs in the County's fleet to 501 vehicles by 2027		
EV Roadmap Recommendation	**Progress as of December 31, 2022**	**Expected Next Steps**
1-A: Amend Board policies F-22, "Lease of Real Property for County Use", H-1, "Fleet Management and Internal Service Fund", and H-2, "Fleet Vehicle and Mobile Equipment Acquisition Policy", in the October 2019 sunset review.	Completed in October 2019.	N/A
1-B: Convert 250 County fleet gas-powered vehicles to EVs by 2025 and install necessary EV charging infrastructure. 1-C: Convert an additional 251 County fleet gas-powered vehicles to EVs for a total of 501 by 2027 and install necessary EV charging infrastructure.	• 92 EVs available for use in County fleet. • 218 EVs on order (estimated delivery in 2023). • 203 EV charging stations installed for fleet use. • Retired two diesel-fueled Library Bookmobile buses and purchased two all-electric mobile outreach vans.	• Receive an additional 218 EVs for fleet in 2023 for a total of 310 EVs in the fleet. • Install 102 additional EV fleet charging stations in 2023 at County facilities for a total of 305 fleet charging stations. • Purchase an additional three all-electric mobile outreach vans for the SDCL.
1-D: Keep pace with technological trends, track the costs and benefits of fleet conversion, and update the Green Fleet Action Plan no later than 2025 to set goals for medium- and heavy-duty fleet vehicle conversions. Consider additional categories of light-duty vehicles for conversion, and purchase EVs as feasible.	• DGS is continuing the update of Green Fleet Action Plan.	• Complete the Green Fleet Action Plan Update (Spring 2023) including strategies to begin conversion of medium- to heavy-duty fleet vehicles to EVs or hydrogen fuel.

Goal 2: Accelerate Installation of EV Charging Stations at Public Locations in County Facilities and in the unincorporated County.

Focused Outcome	Contribute to the regional EV charging network by installing 2,040 Level II or equivalent charging stations at County facilities and throughout the unincorporated area by 2028.

PLANNING FOR PUBLIC EV CHARGERS

As part of Goal 2 implementation, the Board directed the completion of EV Roadmap Recommendation 2-C to prepare an EV charger site assessment for County facilities and in the unincorporated area. In September 2022, PDS developed the Planning Level Analysis for Public Electric Vehicle Infrastructure in the Unincorporated County (EVI Planning Analysis) to complete this recommendation. The EVI Planning Analysis identifies priority areas for public EV charging stations in unincorporated communities based on an evaluation of existing EV infrastructure, future public EV charging demands and needs, and equitable distribution of public infrastructure. The analysis also included a phasing and implementation plan to outline general costs to meet future demand. The EVI Planning Analysis provides a review of EV forecasts within the unincorporated area and identifies that the County's EV Roadmap Goal of installing 2,040 public Level II, or 240 volt, or equivalent[1] chargers by 2028 would be consistent with anticipated demand for public charging to meet State goals identified in Executive Order N-79-20, which requires the sale of all new passenger vehicles to be zero emissions by 2035.

The prioritization criteria for the location of future EV charging stations consider the needs of communities of concern[2] (e.g., Environmental Justice communities as defined by the County's Environmental Justice Element, low-income and disadvantaged communities as defined by Assembly Bill 1550 (Gomez, 2016) and Senate Bill 535 (De Leon, 2012)), specific development types (e.g., existing multi-unit dwellings), and methods to increase EV adoption in communities where this technology is currently limited.

The EVI Planning Analysis will be incorporated into the CAP Update to support the development of GHG reduction measures to increase public EV charging infrastructure in the unincorporated area. These measures will support continued progress toward the 2,040 Level II or equivalent charger installation goal in the unincorporated area by 2028.

PUBLIC EV INFRASTRUCTURE

In 2022, the County installed new public charging stations at County facilities and supported the installation of public chargers in the unincorporated area through the California Electric Vehicle

[1] There are several different EV charging station types and an equivalency, or way to compare the different charger types against the goal, was established to account for all EV charger installations. The equivalency is intended to provide a comparative value of faster charging options (i.e., direct current fast chargers or DCFC) that can meet a greater demand of public charging than a Level II charger. As part of the EVI Planning Analysis, a "Level II equivalency" value was established for DCFC based on literature review and charging capacity. The analysis reports that, conservatively, a single DCFC station is equivalent to 4.2 Level II chargers.

[2] Communities of concern include Environmental Justice communities as defined by the County's Environmental Justice Element, low-income and disadvantaged communities as defined by Assembly Bill 1550 (Gomez, 2016) and Senate Bill 535 (De Leon, 2012), other vulnerable communities as defined by future analysis, and specific development types for which additional public agency support may be needed.

Infrastructure Project (CALeVIP), in accordance with EVI Planning Analysis findings. CALeVIP, funded by the California Energy Commission, provides funding for installing publicly available EV charging stations. This includes nine Level II charging stations at County facilities and one Level II charging station through the CALeVIP program.

In 2023, DGS anticipates the completion of three major capital projects that include the installation of new EV charging stations. These capital projects include: four Level II stations at the Southeastern Live Well Center, two Level II charging stations at the Lakeside Library, and 19 shared public/fleet charging stations at the Youth Transition Campus. In total, 73 Level II and 79 DCFC charging stations are in-process (i.e., funded and/or currently being installed) with anticipated completion in 2023/2024 through both County-led installations and the CALeVIP program. Beyond that in-process, the County and CALeVIP have an additional 72 Level II and 47 DCFC charging stations planned (i.e., designed but not yet funded and/or under construction). In total, the County and CALeVIP have approximately 737 Level II equivalent chargers (including 200 Level II and 128 DCFC) completed, in-process, or planned, which accounts for 36% of the EV Roadmap Goal 2 focused outcome.

PUBLIC EV CHARGING FUNDING OPPORTUNITIES

Through 2022, the County continued to monitor grant opportunities through the Infrastructure Investment and Jobs Act (IIJA), signed into law on November 15, 2021, and the Inflation Reduction Act (IRA), signed into law on August 4, 2022. The IIJA includes two major funding opportunities for EV charging infrastructure projects and programs including $384 million in formula funding for the State of California and $2.5 billion for discretionary grants. The grant funding includes an “EV Charging Formula Program” and “Charging and Fueling Infrastructure Grant Program.”

In May 2022, PDS staff drafted a letter to the U.S. Department of Transportation to support expansion of FHWA’s AFC designations and priorities in the county. The letter, included as Appendix D, outlined the County’s efforts to improve access to EV infrastructure for County and regional residents, and requested the FHWA to consider designating multiple Interstate highways or other highway corridors in the unincorporated county. The submission of the letter resulted in FHWA providing final AFC designations in the unincorporated area including State Route (SR) 67 (from I-8 in El Cajon to Eucalyptus Hills), SR 94 (from downtown San Diego to SR 188), and SR 125 (from SR 905 in Otay Mesa to SR 52 in El Cajon). Additional routes within the unincorporated area that carry designations include I-8 (from downtown San Diego to the Imperial County border) and I-15 (from the U.S./Mexico border to Riverside County). The State has indicated that a minimum of 56 new DCFC charging ports would be developed within the county through this program. This action will increase public access to alternative fuels and reshape the regional transportation system to support the transition to EVs. A map of the AFCs in San Diego county, including the routes that were added in response to the County’s letter is provided in Appendix C. Through 2023, County staff will continue to monitor federal funding opportunities and track the installation of charging stations within the unincorporated area along AFCs.

The EV Charging Formula Program will fund installation of charging stations along AFCs designated as "EV-pending" by the Federal Highway Administration. In September 2022, the California Energy Commission (CEC) published "California's Deployment Plan for the National Electric Vehicle Infrastructure Program"[3], a requirement for state agencies to receive this funding. Through this funding source, the State will receive approximately $384 million over five years to install DCFC charging stations along designated AFCs in the state. CEC and the California Department of Transportation (Caltrans) will develop this infrastructure in phases, with the first phase anticipated to begin funding release and project development in 2023.

In addition to federal and statewide funding opportunities, the County has also leveraged charging station installation through regional and local grants and partnerships. This includes San Diego Gas and Electric (SDG&E) Parks Pilot Program, which funds charger installation at city or county parks in underserved communities in the San Diego region; SDG&E Power Your Drive, which funds chargers at workplaces and multi-unit dwellings in the San Diego region; and CALeVIP, which offers incentives for the purchase and installation of chargers at publicly accessible sites throughout California. In 2022, DGS submitted a total of 13 applications for SDG&E Power Your Drive to support existing and new projects, two of which were awarded and another two waitlisted. The two awarded projects included the installation of new EV charging stations at the Julian Library and the Palomar Airport.

[3] California Energy Commissions. September 2022. *California's Deployment Plan for the National Electric Vehicle Infrastructure Program.* Available at: https://dot.ca.gov/-/media/dot-media/programs/sustainability/documents/nevi/2022-ca-nevi-deployment-plan-a11y.pdf

Goal 2: Accelerate Installation of EV Charging Stations at Public Locations in County Facilities and in the Unincorporated County		
Focused Outcome: Contribute to the regional EV charging network by installing 2,040 Level II or equivalent charging stations at County facilities and throughout the unincorporated area by 2028		
EV Roadmap Recommendation	**Progress as of December 31, 2022**	**Expected Next Steps**
2-A: Amend Board Policy G-15, "Design Standards for County Facilities" to require all new County facilities to include charging infrastructure for public and employee use.	Completed in October 2019.	N/A
2-B: Fund the installation of 63 publicly accessible Level II chargers at seven County facilities for public and employee use by 2021, which would increase the number of public charging infrastructure at County facilities to 100 chargers.	• Installed 10 new public EV charging stations for a total of 56 publicly accessible EV chargers available at County facilities including 54 Level II and two DCFC charging stations. Equal to a 63 Level II equivalent public charging stations.	• Through County-led efforts, install an additional 25 publicly accessible EV chargers at County facilities. • Support completion of 150 in-progress Level II and DCFC charging stations funded through CALeVIP.
2-C: Complete an EV charger site assessment study and develop the EV Charger Installation Program for unincorporated communities by FY 2022-2023. Return to the Board for funding and install 2,040 Level II chargers by FY 2027-2028.	• Completed an EV charger site assessment through the development to the EVI Planning Analysis. • Continued internal County EV Working Group to coordinate ongoing efforts and explore new opportunities for EV charger installation at County facilities.	• Use the EVI Planning Analysis to support County efforts to procure outside funding (e.g., federal and state grants) for EV infrastructure installation. • Incorporated EVI Planning Analysis findings and implementation steps into the CAP Update.

Goal 3: Promote and Incentivize County Employee EV Ownership

Focused Outcome	Increase County employee EV ownership and use to reduce employee commute emissions.

REDUCING GHGS FROM EMPLOYEE COMMUTES

PDS is developing an Employee Commute Program which supports items identified in the 2018 Climate Action Plan and EV Roadmap to reduce the GHG emissions from VMT associated with employee commutes. This program will evaluate using incentives and education to increase the number of employees who drive EVs and use alternative transportation modes such as walking/rolling, biking, buses, shuttles, and carpools to work. In May 2022, PDS distributed a survey to all County employees, with 25 percent of employees responding, to understand how employees travel to work, the barriers they face to using alternative transportation options and EV ownership, and what programming and incentives are important to them.

Results of the survey showed support for increased teleworking, carpool/vanpool, and transit as opportunities to reduce the use of single-occupancy, gas-powered vehicles to travel to work. While just under 5 percent of employees currently drive to work using an EV, nearly 80 percent are interested in purchasing an EV in the next five years. Employees report that the top incentives for purchasing an EV include price rebates, free or reduced workplace charging, and low-interest loans. In partnership with the SANDAG iCommute program, the survey results will be used to develop educational programming to help inform employees of available commute services, such as webinars on using transit and carpooling/vanpooling, and inform potential incentives incorporated into CAP Update GHG reduction measures. The survey identified that nearly 45 percent of County employees were able to get to work using an alternative mode (e.g., teleworking, taking transit, biking/walking) instead of driving alone in a vehicle. The rate of nearly 45 percent of employees commute using alternative modes is higher than the San Diego regional average of approximately 20 percent. Through the CAP Update, County employees will be surveyed regularly to evaluate the effectiveness of employee commute programs in influencing usage of alternative commute modes.

Multiple employee outreach events occurred in 2022 to provide County employees with resources for reducing their GHG emissions from commutes. Organized by DGS as part of May's Bike Month activities, the County hosted a pit stop for Bike to Work Day and a Bicycle Safety and Repair Workshop with the San Diego Bike Coalition at the County Operations Center. DGS also partnered with iCommute to offer a "Try Transit" virtual training to offer employees an educational webinar on trying transit for their work commute. For Earth Day 2022, DGS presented the County EV fleet at the Earth Day Fair at the County Operations Center. These County efforts to reduce GHGs from employee commutes resulted in the County being recognized as the top tier, Platinum, of the SANDAG iCommute Diamond Awards Program in 2022. The Program acknowledges employers across the region who develop and implement alternative commute programs. The County had been a Gold tier recipient, the second out of four tiers, since 2018.

EMPLOYEE TELECOMMUTING

Since 2020, the County has monitored employee commute vehicles miles traveled (VMT) reductions resulting from increased employee telecommuting and alternate work schedules (e.g., "9/80" or "10/80" work schedules that differ from standard schedules for working eight hours each day). This tracking estimates the amount of VMT avoided by allowing employees to work at home or at facilities closer to their homes. In 2022, teleworking and alternate work schedules resulted in the avoidance of 36,529,767 vehicle miles which is a 26 percent reduction in commute VMT if employees were working in-office full time. The amount of vehicle miles avoided is equal to a reduction of an estimated 10,611 metric tons of carbon dioxide equivalent ($MTCO_2e$). This is equivalent to taking 2,287 gasoline-powered vehicles off the road for one year or planting 17,685 tree seedlings.[4] In departmental sustainability plans, 21 departments have focused on increasing teleworking opportunities for employees to reduce departmental space needs and VMT from commutes.

[4] U.S. Environmental Protection Agency's Greenhouse Gas Equivalencies Calculator. Available at: https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator#results

Goal 3: Promote and Incentivize County Employee EV Ownership		
Focused Outcome: Increase County employee EV ownership and use to reduce employee commute emissions		
EV Roadmap Recommendation	**Progress as of December 31, 2022**	**Expected Next Steps**
Promote and incentivize County employee EV use by developing partnerships with banks, credit unions, dealerships to extend lending and pricing benefits.	• Implemented an employee survey to collect information on current employee EV ownership rates and potential benefits that may incentivize purchasing an EV (Spring 2022) • Avoided an estimated 10,611 metric tons of carbon dioxide equivalent ($MTCO_2e$) * from telecommuting.	• Develop an Employee Commute Program that includes education/training programs for alternative commutes and incentivizes EV ownership. • Incorporate the Employee Commute Program into the CAP Update.
Notes: * Reducing employee work commuting in 2023 resulted in the avoidance of 36,529,767 vehicle miles. GHG emissions equivalency based on data used in the 2018 CAP inventory and forecast to convert vehicle miles to $MTCO_2e$.		

Goal 4: Incentivize and/or Require EV Charging Infrastructure in New and Existing Private Multi-Family Residential and/or Non-Residential Development

Focused Outcome	Increase charging station installations in new and existing private development.

PERMIT STREAMLINING

The County has continued to serve as a leader in the region through the application of a streamlined EV charger permitting process. This process, which was recognized by the State and SANDAG as a "Permitting Best Practice," encourages EV charging infrastructure development by reducing project costs to homeowners and developers by providing checklists (i.e., a step-by-step guide to walk users through the EV permitting process) that allow for ministerial review (i.e., a process for permit approval involving little or no discretionary judgement). Since the start of the streamlined permitting process, the County has approved approximately 950 EV charging stations[5] in private residential homes and commercial developments.

Improvements to this program and the effectiveness of these processes are currently being reviewed. On December 9, 2020 (5) the Board provided direction to develop a new Renewable Energy Fee Waiver Pilot Program, which waives permitting fees for EV charging stations to incentivize EV charger installations in residential development. This program, which ran from January to November 2021, waived permitting fees for approximately 2,534 residential EV charging stations and electric panel upgrades. PDS maintains records of permitted EV charging stations at residential and non-residential properties in the unincorporated area. On August 31, 2021 (7), the Board directed County staff to research and evaluate pathways for transformative housing solutions. In response, PDS developed a scope of work that includes two studies: a "Construction Cost Study" to conduct a quantitative assessment of factors that drive new construction costs; and a "Green Affordable Housing Study" to identify opportunities to expand incentives to increase the development and rehabilitation of sustainable housing, with an additional focus on improving sustainability and EV charging in multi-unit dwellings. The Green Affordable Housing Study scope includes an analysis of the effectiveness of the Renewable Energy Fee Waiver Pilot Program and the anticipated impact similar or expanded fee waiver programs could have in the unincorporated county. Policy recommendations from these studies are anticipated to be shared with the Board in Fall 2023.

CODE REQUIREMENTS AND ADVANCEMENT

The California Building Standards Code (State Model Code) strives to ensure public health, safety, and general welfare through provisions addressing structural strength and stability, emergency exiting, fire prevention, electrical hazards, sanitation, air and water quality, energy efficiency, accessibility, and sustainability of buildings and structures. Every three years, the

[5] Public charging stations at commercial sites installed through the CALeVIP program are included in these values, thus they are not fully additional to those reported in Goal 2. Additionally, the total number of permits issued does not necessarily reflect the total number of chargers installed as property owners may, for a variety of reasons, not complete installation after a permit has been issued.

State updates the State Model Code to provide additional layers of safety and protection for residents and increase the efficiency and sustainability of new buildings. The 2022 edition of the State Model Code was published on July 1, 2022, and became effective on January 1, 2023.

The State Model Code also includes California Green Building Code (also known as "CalGreen") updates. CalGreen mandatory requirements encourages the adoption of EVs through mandatory EV-ready, EV-capable, and EV Supply Equipment (EVSE) requirements. The 2022 edition of CalGreen expands beyond the residential EV Ready requirements first introduced in 2019 with new mandatory EV charging requirements for nonresidential construction which include provisions for medium- and heavy-duty vehicles for grocery, retail, and warehouse building types. In addition, newly constructed multi-family dwellings, hotels and motels have new EV-capable, EV-ready, and EVSE-installed requirements based on the total number of parking spaces.

On February 8, 2023 (2), the Board adopted the base 2022 State Model Code, including the CalGreen mandatory requirements noted previously. Through the CAP Update, Construction Cost Study, and Green Affordable Housing Study, PDS will continue to evaluate potential actions that would encourage additional EV charging station installations and other sustainable building practices through future modifications to the County Building Code or other actions.

INFRASTRUCTURE TESTING AND MONITORING

To support consumer confidence and fair business competition, AWM continued testing new EV charging stations in 2022 to ensure accurate measurement and delivery of electric charge and charging conduit efficiency. These State-mandated inspections ensure that all public EV chargers dispensing alternating current (Level 1 and 2 chargers) used for commercial purposes (i.e., not home-based chargers or public chargers that dispense electricity at no cost to the consumer) installed after January 2021 meet National Institute of Science and Technology Handbook 44 regulations which have been adopted by the State. In 2022, AWM performed 22 tests on newly installed Level II charging stations and will began registering and performing similar inspections for DCFC charging stations installed after January 1, 2023.

Goal 4: Incentivize and/or Require EV Charging Infrastructure in New and Existing Private Multi-Family Residential and/or Non-Residential Development		
Focused Outcome: Increase charging station installations in new and existing private development		
EV Roadmap Recommendation	**Progress as of December 31, 2022**	**Expected Next Steps**
Prepare a cost/benefit analysis of options to incentivize and/or require EV charger installations in new and/or retrofits of multi-family and non-residential development in the unincorporated area.	• Began EV charger permit streamlining consistent with AB 1236 (2015) *. • Developed County Building Code updates in line with the State Model Code. This update includes new provisions for EV charging infrastructure in non-residential and multi-family developments.	• Adopt the 2022 County Building Code (adopted by the Board on February 8, 2023 (2)) • Evaluate Renewable Energy Fee Waiver Pilot Program and impact on EV charging station permitting through the Green Affordable Housing Study. • Coordinate with CAP Update to include EV charging station incentives.
Notes: *County of San Diego has beenrecognized by the State as one of the first jurisdictions in the region to have this streamlined permitting. Other jurisdictions recognized in the region include the cities of Escondido, Del Mar, and National City.		

Goal 5: Fund EV Expert/Consumer Advocate as a Regional Resource

Focused Outcome	Increase EV ownership and charging station installations through education, outreach, regional collaboration, and incentives.

EV CONSUMER GUIDE

The County publicly released the regional EV Consumer Guide website (https://sandiegocounty.gov/ev-consumerguide) offering general and technical online education and support on EV-related topics to consumers in the San Diego region at the end of June 2021. This initiative completed the one recommendation for EV Roadmap Goal 5 implementation by providing a consolidated source of consumer-friendly information on the benefits and costs of EV ownership, available vehicle and charger purchase incentives, charger options and installation procedures, a fuel cost comparison calculator, and access to a vehicle search and comparison tool. To improve the user experience and accessibility, the website provides information for a diverse range of users (i.e., low-income residents, residents of multi-family developments, large families, residents with accessibility needs) and utilizes enhanced website design components to facilitate translation of all website content into over a hundred languages including all County threshold languages. During 2022, the website has been viewed 1,549 times with 8,890 cumulative views since website launch.

On May 1, 2022, the National Association of Counties (NACo) recognized the County's EV Consumer Guide with a County Resiliency Achievement Award.[6] This achievement award recognizes counties that optimize new technologies and other innovations to advance the county's energy goals and environmental stewardship.

Staff continues to monitor website traffic on a quarterly basis to evaluate the website's reach and effectiveness and identify opportunities to expand or modify the website based on feedback or user experience. Site updates and additions in 2022 included: additional information and links to new federal and State funding opportunities and incentive programs for vehicle purchasing and charger installation (e.g., IIJA and IRA); advancements in technology such as vehicle-to-grid integration and hydrogen fuel cell vehicles; adaptive technologies for EVs; and information for multi-family dwelling unit owners and residents for installing charging stations. Staff also continue to research and review website content to ensure the content is up to date with the latest EV technology, new and pre-owned EV market trends, County policies and priorities, and legislation.

COMMUNITY OUTREACH AND ENGAGEMENT

Through 2022, the PDS and other County department staff supported EV education and outreach through various events, community engagement opportunities, and social media postings. Staff shared information on EVs including available rebates, charging options, and other sustainability resources at in-person community and professional events such as the SDG&E EV Fleet Day (March 7, 2022 on Broadway Pier in downtown San Diego), the Spring Valley Earth Day Fair (April 23, 2022 at Lamar County Park), SDG&E and Challenged Athletes

[6] National Association of Counties. 2022 Achievement Award – County of San Diego Electric Vehicle Consumer Guide. https://www.naco.org/resources/award-programs/electric-vehicle-consumer-guide

Foundation's Adaptive EV Ride-and-Drive event (July 30, 2022 at Liberty Station), and the LiveWell Advance Conference (December 7, 2022 at the San Diego Convention Center).

In addition, the EV Roadmap and associated implementation activities were presented to a national audience of planning professionals at the American Planning Association National Conference, hosted in San Diego from April 30th to May 3rd, 2022. This presentation provided an overview of EV Roadmap implementation and shared how this effort fits into regional efforts that support EV adoption and infrastructure deployment. Two PDS staff presented, alongside staff from San Diego Association of Governments (SANDAG), Metropolitan Area Advisory Committee (MAAC), and the Center for Sustainable Energy (CSE), on successes in implementing permit streamlining and fee waivers to encourage EV charging station installation, projects that will increase access to public charging stations, and programs that will reduce the costs of EVs and infrastructure to low income residents in the county.

Over the course of 2022, PDS Sustainability Planning Division shared 18 posts promoting EV content on various social media accounts including Twitter, Instagram, and Facebook. These posts highlighted the main goals of the EV Roadmap, provided links to learn about highlights and track implementation progress, and encouraged citizens to partake in the EV transition through promotions and grant opportunities. Through 2023, staff will continue to attend outreach and community engagement events to provide in-person information sharing with community members and will provide additional information and resources through PDS online platforms that have translation capabilities for languages other than English.

Goal 5: Fund EV Expert/Consumer Advocate as a Regional Resource		
Focused Outcome: Increase EV ownership and charging station installations through education, outreach, regional collaboration, and incentives		
EV Roadmap Recommendation	**Progress as of December 31, 2022**	**Expected Next Steps**
Identify regional partners and cost sharing opportunities to fund a regional "EV Expert/Consumer Advocate" that would provide no-cost consultations for residents, agencies, and businesses to learn more about available incentives, technologies, and charger installation procedures on an ongoing basis.	• Continued to monitor the County's EV Consumer Guide website, a County-led website to provide general and technical support for residents and businesses. • Updated the EV Consumer Guide to provide information on latest vehicle market availability, available incentives, and rebates through federal and State programs (e.g., IIJA and IRA), new technologies, and accessible EVs. • Attended various community outreach and engagement events to promote the County's EV programming and share information on EVs with County residents.	• Review EV Consumer Guide website content to keep up to date with latest advancements and technologies. (Ongoing) • Evaluate EV Consumer Guide effectiveness and identify opportunities to expand/modify to satisfy regional demand. (Ongoing) • Continue attending community events to share EV-related information. • Host sustainability events at County facilities for employees and residents and include EV-related information materials and activities.

Goal 6: Collaborate with Regional Partners to Support Public and Private Fleet Electrification

Focused Outcome	Increase EV use in regional light-, medium-, and heavy-duty fleets.

ACCELERATE TO ZERO EMISSIONS REGIONAL COLLABORATION

As a founding member of the Accelerate to Zero Emissions (A2Z) Collaboration, staff continued to participate as a Core Team member through 2022. The purpose of the A2Z Collaboration is to develop a vision and implement a San Diego Regional EV Strategy that will accelerate investment in zero-emission vehicle (ZEV) and EV infrastructure to reduce air pollution and GHG emissions and combat climate change. In addition to County staff, the Core Team includes staff from SANDAG, SDG&E, the City of San Diego, and the San Diego County Air Pollution Control District (APCD).

In 2021, the A2Z Collaboration published a Regional EV Gap Analysis (Gap Analysis) that identifies the projected demand for ZEV infrastructure that will be needed to support regionwide growth in clean vehicles. The A2Z Collaboration also released the official A2Z website (https://a2zsandiego.com/). The Gap Analysis received two awards during 2022, including an Award of Merit for the 2022 Innovation in Green Community Planning Award from the American Planning Association (APA) California Chapter and a 2022 Environmental Planning Award from the APA San Diego Chapter. The County also received a 2022 NACo Achievement Award under the County Resiliency category for its work on the GAP Analysis and developing the EV Strategy.[7]

Further, in 2022, the County, alongside the A2Z Collaboration Core Team members, identified a consultant and began the development of a Regional EV Strategy (EV Strategy). This EV Strategy builds on the Gap Analysis, and other state and regional initiatives, and create a strategy to guide the transition of zero emissions vehicles in the San Diego region. The EV Strategy will identify guiding principles and strategies to overcome the gaps and barriers identified in the Gap Analysis and develop an implementation plan that includes recommended roles and actions that could be considered by a range of agencies and stakeholders throughout the region. It is anticipated that the EV Strategy will be completed in late 2023.

REGIONAL ZERO EMISSIONS VEHICLES INCENTIVE PROGRAM (ZEVIP)

In late 2022, SANDAG and the County were awarded a Caltrans Planning Grant to research and design an incentive program that will offer rebates to San Diego residents for the purchase or lease of zero emission vehicles. This program is a key GHG reduction measure in SANDAG's 2021 Regional Transportation Plan and Sustainable Communities Strategy (2021 Regional Plan). Through the ZEVIP, SANDAG and the County will develop a funding program to support the purchase of over 100,000 zero emissions passenger vehicles (e.g., cars, pick-up trucks, minivans) between 2025 and 2035. A key policy priority of this program will be to enable significantly more EV purchases by residents in low- and moderate-income households who

[7] National Association of Counties. 2022 NACo Achievement Award Winner – Accelerate to Zero Emissions Regional Collaboration, County of San Diego. Program submission and award available here: https://www.naco.org/resources/award-programs/accelerate-zero-emissions-regional-collaboration

have had limited participation in state incentive programs thus far. The project will identify best practices from existing incentive programs; address incentive options for new and used vehicles; conduct outreach and engagement to community members to increase awareness and identify local mobility needs; and explore partnership opportunities with other incentive programs offered by the state, metropolitan planning organizations (MPOs), air districts, utility or community choice aggregators, and/or other program administrators to establish stackable and/or combined incentives.

The County will continue to work with SANDAG through 2023 on the development of a consultant scope of work, consultant procurement, and program development. The scope of work will describe the technical support needed to research, plan, and design the ZEVIP. It is anticipated that an existing conditions assessment and development of the program will extend through 2023 with initial program implementation and funding available to residents in early 2024.

REGIONAL DECARBONIZATION FRAMEWORK

PDS staff continued coordination with OSEJ staff to ensure strategies and implementation efforts identified in the A2Z Regional EV Strategy and CAP Update are aligned with the transportation electrification strategies identified in the County's Regional Decarbonization Framework (RDF). In 2022, LUEG staff and the RDF team provided multiple updates to the Board including an update on the "Let's Get There Playbook" on August 31, 2022 (5). The Playbook will offer options for decarbonization to a variety of audiences that can successfully reduce regional emissions and reach our region's collective zero carbon emissions goal by mid-century, while ensuring the creation of good green jobs and prioritizing implementation activities that are socially equitable.

The Board provided direction to PDS at the same meeting on August 31, 2022 (6) to prepare a Hydrogen Fueling Readiness Report which will support local County advancement of RDF implementation. This Report will analyze current and future hydrogen fueling needs and demands for medium and heavy-duty vehicles (i.e., trucks, busses, freight, construction equipment) in the unincorporated area to support regional fleets. The Report will be incorporated into the CAP Update to support the development of GHG reduction measures to increase hydrogen fueling infrastructure and vehicle adoption in the County's fleet and unincorporated area. These measures will support continued progress toward the net-zero GHG emissions goal by 2035-2045.

Goal 6: Collaborate with Regional Partners to Support Public and Private Fleet Electrification		
Focused Outcome: Increase EV use in regional light-, medium-, and heavy-duty fleets		
EV Roadmap Recommendation	**Progress as of December 31, 2022**	**Expected Next Steps**
Develop public and private regional partnerships to provide fleet electrification technical support to convert large regional fleets such as delivery services, rideshare, school districts, and transportation network companies to EV on an ongoing basis.	• Participated as a Core Team member in the A2Z Collaboration* and completed Regional EV Gap Analysis. • Coordination with LUEG Regional Decarbonization Framework effort. (Ongoing) • Awarded a Caltrans Planning Grant to develop a Zero Emissions Vehicle Incentive Program (ZEVIP) with SANDAG. • PDS began Hydrogen Fueling Readiness Report scope development.	• Continue participation as a Core Team member in the A2Z Collaboration and develop a Regional EV Strategy. (Ongoing, anticipated completion in mid-2023) • Review and participate in the development of the Regional Decarbonization Framework. (Ongoing) • Develop a scope of work and procure a consultant for the ZEVIP program. • Complete the Hydrogen Fueling Readiness Report (late 2023).
Notes: * The County of San Diego is a founding member of the Accelerate to Zero Emissions Collaboration. The Core Team consists of County of San Diego, SANDAG, SDG&E, San Diego County Air Pollution Control District, and City of San Diego.		

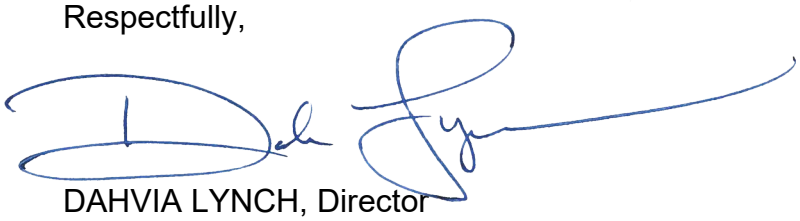
Next Steps

Key actions that are anticipated in 2023 include (responsible departments noted in parenthesis):

- Add an additional 103 EVs to the County fleet. (All departments)
- Install 102 additional EV charging stations for fleet vehicles at County facilities. (DGS)
- Install 25 publicly accessible EV charging stations at County facilities. (DGS)
- Complete the installation of 150 in-progress charging stations in the unincorporated area funded through CALeVIP. (SDAPCD/private entities)
- Complete the Green Fleet Action Plan Update. (DGS)
- Incorporate zero emission vehicle planning and programs into the CAP Update (including the Hydrogen Fueling Readiness Report, EVI Planning Analysis, Employee Commute Program). (PDS)

Please contact Dahvia Lynch (Dahvia.Lynch@sdcounty.ca.gov), Director of PDS, or Marko Medved (Marko.Medved@sdcounty.ca.gov), Director of DGS, if you have further questions or to request further information.

Respectfully,



DAHVIA LYNCH, Director
Planning and Development Services

Cc:	Sarah Aghassi,	Deputy Chief Administrative Officer, Land Use and Environment Group
	Andrew Potter,	Clerk of the Board of Supervisors
	Marko Medved,	Director, Department of General Services
	Susan Brazeau,	Director, Department of Human Resources
	Migell Acosta,	Director, San Diego County Library
	Brian Albright,	Director, Department of Parks, and Recreation
	William Morgan,	Director, Department of Public Works
	Ha Dang,	Agricultural Commissioner/Sealer, Department of Agriculture, Weights, and Measures
	Amy Harbert	Director, Department of Environmental Health and Quality
	Eden Brukman	Chief Sustainability Officer, Land Use and Environment Group

Appendices

A. **EV Charging Station Summary**: A table summarizing all EV charging stations installed and in progress at County owned and operated facilities. This will include a summary of existing chargers installed, and in progress and planned EV charger installations.

B. **EV Charging Station Maps**: Maps of all EV charging stations installed in public locations in the unincorporated area and at County facilities.

C. **Alternative Fuel Corridor Map**. Maps of Alternative Fuel Corridors for Electric Vehicles in San Diego County, as designated by the Federal Highway Administration and eligible for funding under the National Electric Vehicle Infrastructure program.

D. **Alternative Fuel Corridor Letter**. A letter submitted by PDS to the U.S. Department of Transportation to support expansion of FHWA's AFC designations and priorities in the county.

ELECTRIC VEHICLE ROADMAP IMPLEMENTATION PROGRAM PROGRESS UPDATE

APPENDICES

July 6, 2023

APPENDIX A

EV Charging Station Summary

Public/Workplace Electric Vehicle Charging Sites at County Facilities and in the Unincorporated Area

EVCS Sites	Site Address	# EVCS Ports		Owner	Date In Service
		L2	DCFC		
Completed					
County Administrative Center	1600 Pacific Hwy, San Diego, 92101	4	2	CP	2014
4S Ranch Community Center	16118 4S Ranch Pkwy, San Diego, 92127	2	0	CP	2015
County Operations Center, Parking Structure A	5515 Overland Avenue, San Diego, 92123	10	0	CP	2015
Fallbrook Library	124 South Mission Road, Fallbrook, 92028	2	0	CP	2015
Health Service Complex	3851 Rosecrans Street, San Diego, 92110	2	0	CP	2015
North County Regional Center	325 South Melrose Drive, Vista, 92083	4	0	CP	2015
Ramona Library	1275 Main Street, Ramona, 92065	2	0	CP	2015
San Diego County Air Pollution Control District	10124 Old Grove Road, San Diego, 92131	1	0	CP	2015
South Bay Assessor/Recorder/County Clerk Office	590 Third Avenue, Chula Vista, 91910	4	0	CP	2015
Cedar Kettner Parking Structure	735 West Cedar Street, San Diego, 92101	4	0	CP	2017
Santa Ysabel Nature Center	22135 Highway 79, Santa Ysabel, 92070	2	0	CoSD	2019
North Coastal Live Well Health Center	1701 Mission Avenue	9	0	CoSD	2021
Sweetwater Place Park	10691 Sweetwater Park Place, Spring Valley, 91978	1	0	COSD	2021
Borrego Springs Library	2580 Country Club Road, Borrego Springs, 92004	2	0	CoSD	2022
East County Assessor/Recorder/County Clerk Office	10144 Mission Gorge Road, Santee, 92071	5	0	CoSD	2022
CALeVIP	Various	1	0	Other	2022
	Total Completed EVCS	**55**	**2**		
In Process					
Ohio Street New Probation Office	3977 Ohio Street, San Diego, 92104	2	0	CoSD	2022
Julian Library	1850 Highway 78, Julian, 92036	0	4	CSG	2022
County Operations Center, Parking Lot	5500 Overland Avenue, San Diego, 92123	0	4	CSG	2022
Lakeside Library	9839 Vine Street, Lakeside, 92040	2	0	CoSD	2022
McClellan-Palomar Airport	2192 Palomar Airport Road, Carlsbad 92008	0	4	CSG	2022
Lakeside Community Center	9841 Vine Street, Lakeside, 92040	4	2	CoSD	2023
Southeastern Live Well Center	415 Euclid Avenue, San Diego, 92114	4	4	CoSD for L2 CSG for DCFC	2023
Juvenile Justice Campus	2801 Meadow Lark Drive, San Diego, 92123	19	0	CoSD	2023
CALeVIP	Various	42	61	Other	NA
	Total In-Process EVCS	**73**	**79**		
Planned (not confirmed)					
APCD	10124 Old Grove Road, San Diego, 92131	8	0	CoSD	2023
Edgemoor SNF	655 Park Center Drive, Santee 92071	8	0	CoSD	2023
El Cajon FRC	20 1st Street, El Cajon 92019	8	0	CoSD	2023
Cedar Kettner Parking Structure	735 West Cedar Street, San Diego, 92101	8	0	CoSD	2023
CALeVIP	Various	40	47	Other	NA
	Total Planned EVCS	**72**	**47**		

Public/Workplace EVCS Summary				
	# EVCS Ports			
	L2	**DCFC**	**Total**	**Total L2e***
Total Completed EVCS	**55**	**2**	**57**	63
Total In-Process EVCS	**73**	**79**	**152**	404
Total Planned EVCS	**72**	**47**	**119**	269
TOTAL BY TYPE	**200**	**128**	**328**	**737**

Notes

COSD = County of San Diego; CP = ChargePoint; CSG = Carbon Solutions Group; DCFC = direct current fast charging; EVCS = electric vehicle charging station; L2 = Level 2 charging stations; L2e = Level 2 charging station equivalent (where 1 DCFC = 4.2 L2); NA = not available

* Numbers may not add up due to rounding. The Level 2 Equivalency (L2e) was established through the Electric Vehicle Infrastructure Planning Analysis based on literature review and charging capacity. The analysis reports that, conservatively, a single DCFC station is equivalent to 4.2 Level 2 chargers.

Fleet Charging Sites at County Facilities

EVCS Sites	Site Address	# EVCS Ports		Owner	Date In Service
		L2	DCFC		
Completed					
South Bay Regional Center	500 Third Avenue, Chula Vista, 91910	12	0	SDGE	2017
North County Regional Center	325 S Melrose Dr, Vista, 92081	10	0	SDGE	2017
Juvenile Justice Complex	2901 Meadowlark, San Diego, 92123	10	0	SDGE	2017
County Operations Center, Medical Examiner	5570 Overland Ave, San Diego, 92123	10	0	SDGE	2017
County Operations Center, DGS Fleet Garage	5610 Overland Ave, San Diego, 92123	12	0	CoSD	2017
County Operations Center, Mobile Solar	9301 Hazard Way, San Diego, 92123	2	0	CoSD	2017
Health Services Complex	3851 Rosecrans sat, San Diego, 92110	10	0	SDGE	2017
San Diego County Air Pollution Control District	10124 Old Grove Rd, San Diego, 92131	10	0	SDGE	2017
Sheriff Headquarters	9621 Ridgehaven Ct, San Diego, 92123	8	0	SDGE	2017
County Operations Center, Parking Structure A	5515 Overland Avenue, San Diego, 92123	119	0	CoSD	2022
	Total Completed EVCS	**203**	**0**		
In Process					
Southeastern Live Well Center	415 Euclid Avenue, San Diego, 92114	16	0	CoSD	2023
Div 1 Road Maintenance Station	11970 Springer Lane, Spring Valley 91978	5	2	CoSD	2023
County Operations Center, 5530 parking lot	5530 Overland Avenue, San Diego, 92123	49	0	CoSD	2023
Hazard Way Buildings	9325 Hazard Way, San Diego 92123	30	0	CoSD	2023
	Total In-Process EVCS	**100**	**2**		
Planned (not confirmed)					
APCD HQ	10124 Old Grove Rd, San Diego, 92131	2	0	CoSD	2023
Hall of Justice	330 West Broadway, San Diego 92101	19	0	CoSD	2023
	Total Planned EVCS	**21**	**0**		

Fleet EVCS Summary			
	# EVCS Ports		
	L2	**DCFC**	**Total**
Total Completed EVCS	**203**	**0**	**203**
Total In-Process EVCS	**100**	**2**	**102**
Total Planned EVCS	**21**	**0**	**21**
Total by Type	**324**	**2**	**326**

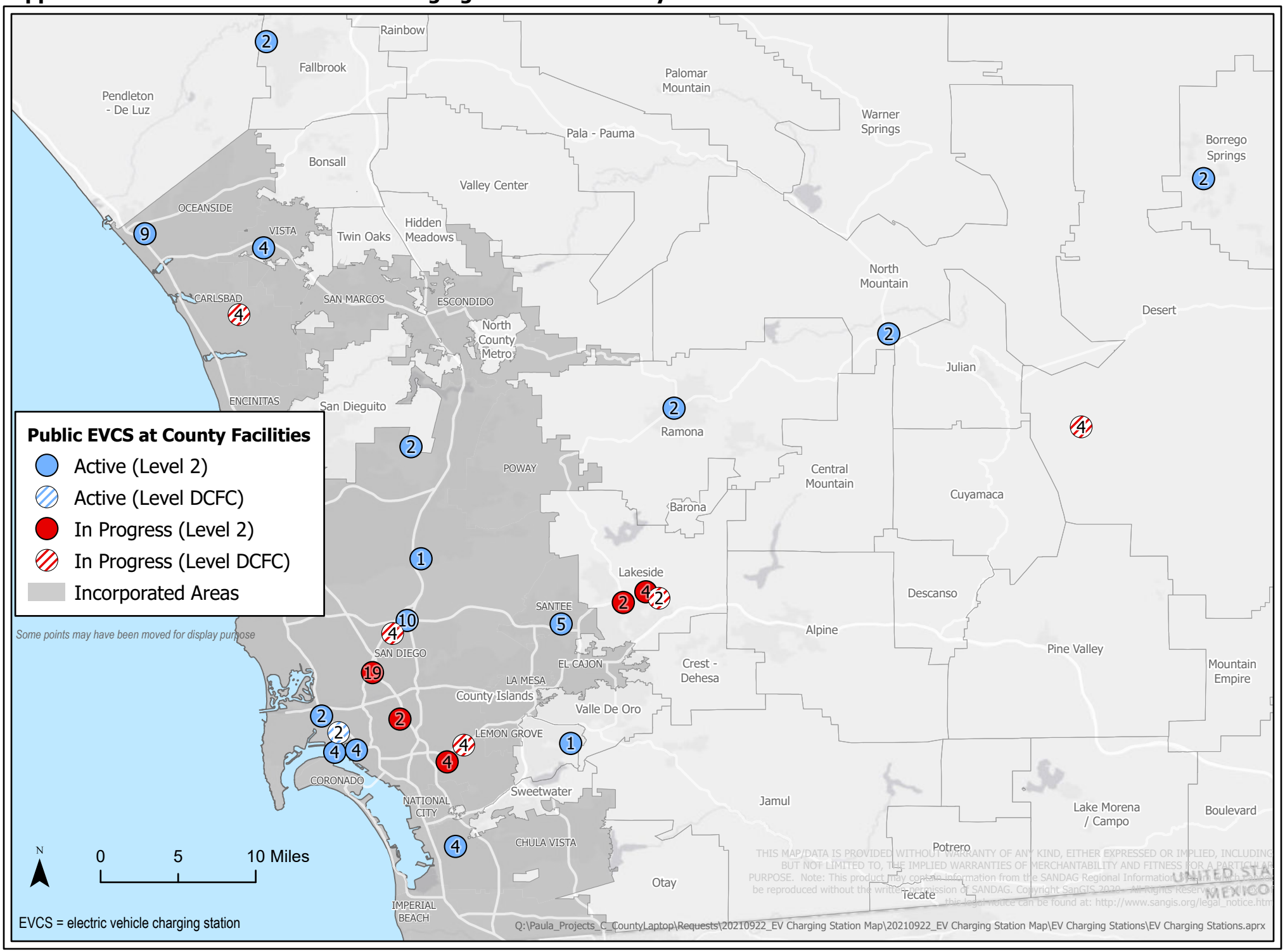
Notes

CoSD = County of San Diego; DCFC = direct current fast charger; EVCS = electric vehicle charging station; L2 = Level 2 charging station; SDGE = San Diego Gas and Electric

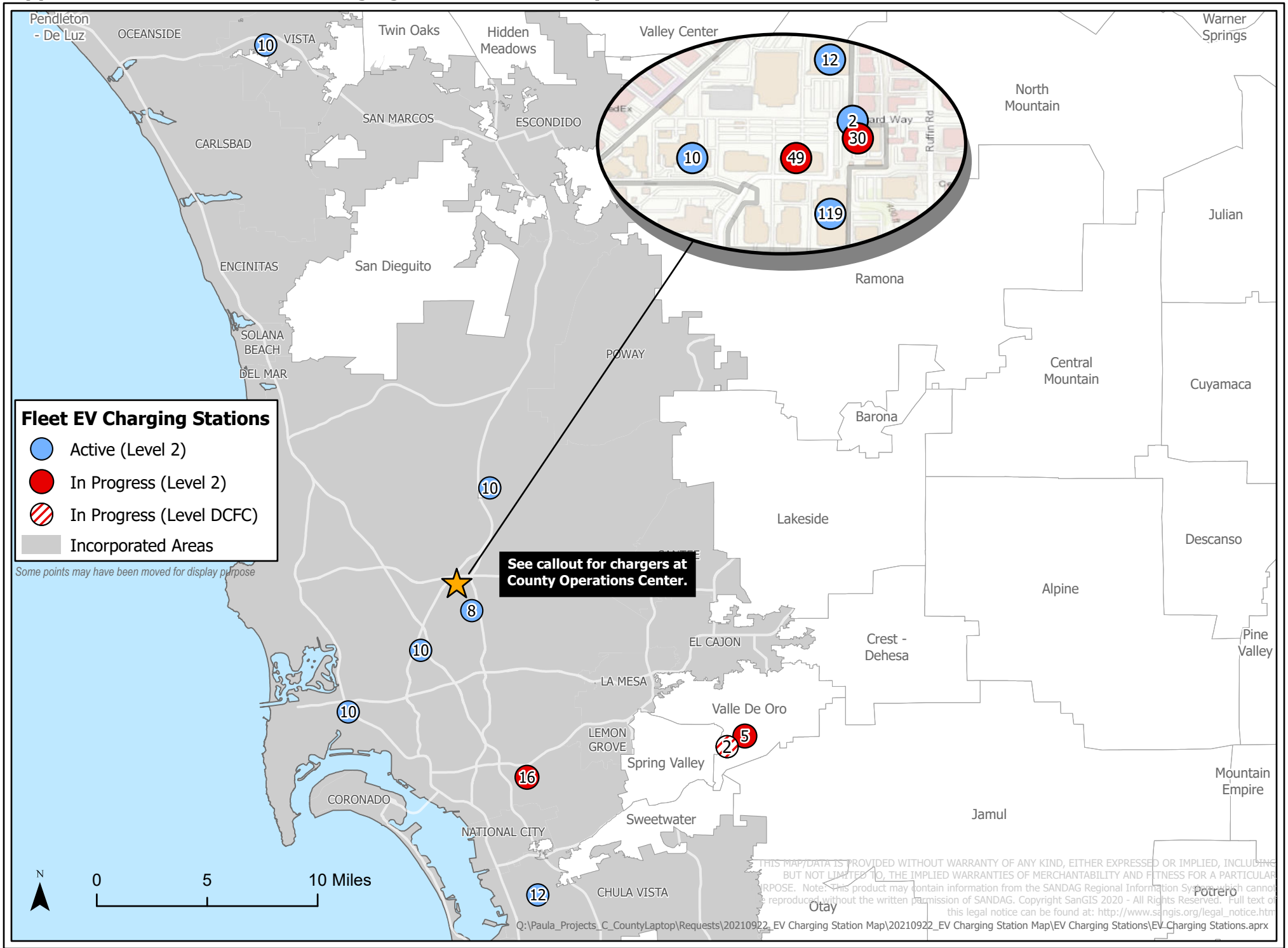
APPENDIX B

EV Charging Station Map

Appendix B – Public Electric Vehicle Charging Stations at County Facilities



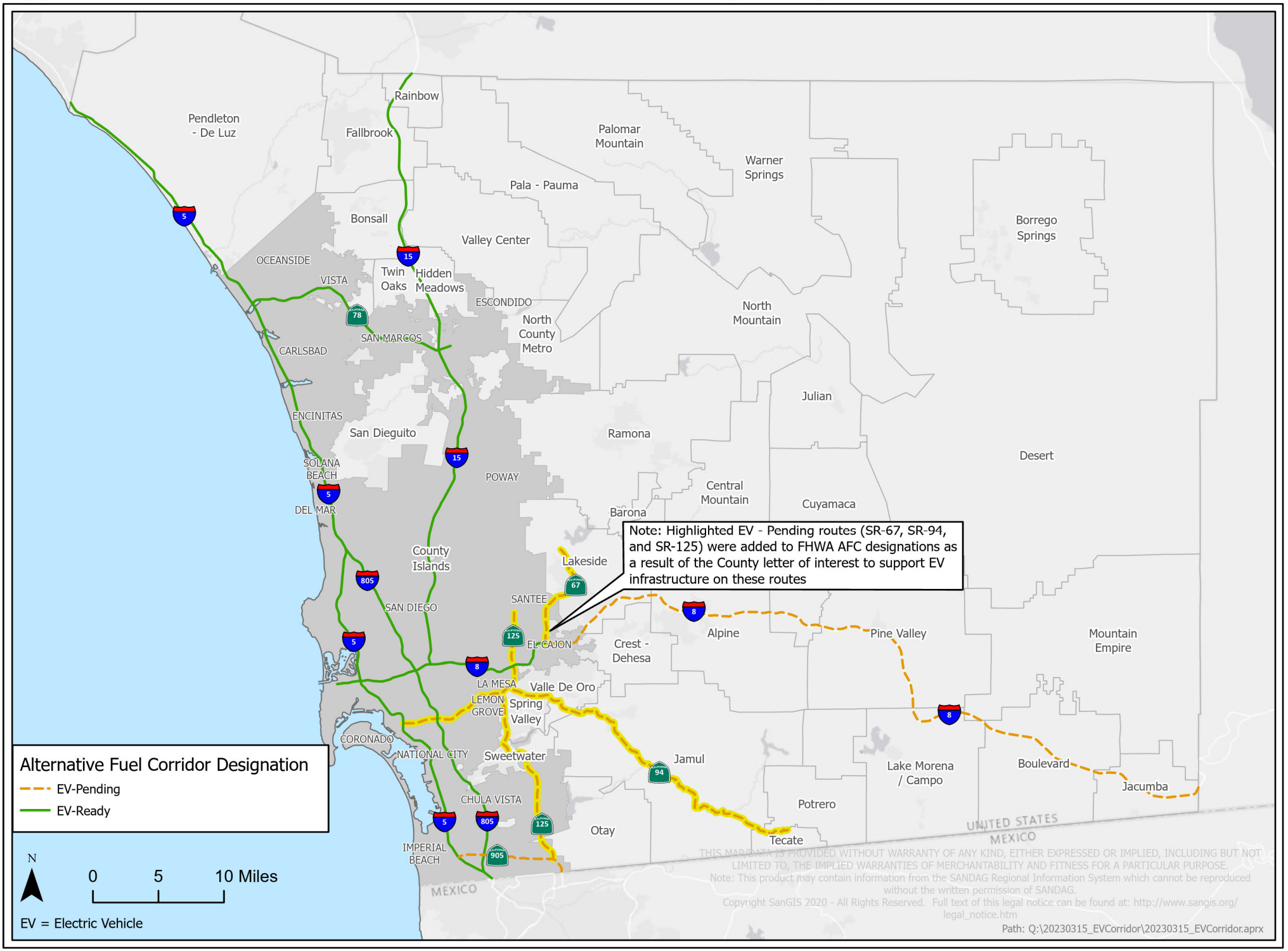
Appendix B - Electric Vehicle Charging Stations for County Fleet



ATTACHMENT C

Alternative Fuel Corridor Map

Appendix C - Alternative Fuel Corridors for Electric Vehicles in San Diego County



ATTACHMENT D

Alternative Fuel Corridor Letter

County of San Diego

PLANNING & DEVELOPMENT SERVICES
5510 OVERLAND AVENUE, SUITE 310, SAN DIEGO, CA 92123
(858) 505-6445 General ▪ (858) 694-2705 Codes
(858) 565-5920 Building Services
www.SDCPDS.org

DAHVIA LYNCH
DIRECTOR

May 13, 2022

Sara Secunda
U.S. Department of Transportation
Volpe Center

Subject: Proposed Alternative Fuel Corridor Designations and Priorities for the County of San Diego

Dear Sara Secunda:

The County of San Diego (County) is excited to participate in the identification of alternative fuel corridors in the San Diego region, which we know is an important technical step for the National Electrical Vehicle Infrastructure (NEVI) Formula Program and the Charging & Fueling Infrastructure Grants of the Bipartisan Infrastructure Law. The County is committed to helping communities and residents in the region thrive and supporting strategies to increase the deployment of electric vehicle (EV) infrastructure to reduce greenhouse gas emissions from transportation.

The purpose of this letter is to provide the U.S. Department of Transportation Federal Highway Administration (FHWA) with a summary of recommendations the County has related to the Alternative Fuel Corridor (AFC) 2022/Round 6 Request for Nominations. Included herein, the County has outlined corridors for nomination as EV-pending or -ready, and requests modification to future nomination guidelines.

The County understands that the purpose of AFC designations is to focus federal funding along designated corridors that provide public accessibility to alternative fuels and reshape the U.S. transportation system to support a sustainable energy and climate future. Specifically, AFC designations for EVs support President Biden's goal of building

a national network of 500,000 EV chargers by 2030. The FHWA, has identified several areas of interest for corridor designations and infrastructure development, including:

- Support infrastructure that achieves the greatest reduction in greenhouse gas emissions (i.e., EV and hydrogen fuels).
- Convert corridor-pending corridors to corridor-ready corridors.
- Expand access to charging or fueling within rural areas and disadvantaged communities[1].
- Connect to Federal Land Management Agency (FLMA) units (e.g., National Park Service, U.S. Forest Service, U.S. Fish and Wildlife Service, and Bureau of Land Management).
- Provide access to charging or fueling infrastructure in areas with a current or forecasted need.

Recognizing that the program through which funding will be distributed, the County notes that meeting these federal priorities for EV and alternative fuel investment requires strong coordination and support of local government agencies. In many cases, local government agencies provide the land use authority under which charging and alternative fuel infrastructure can be most efficiently planned and installed.

The San Diego region serves over 3.5 million residents and 35 million annual visitors, many of whom travel to and from the region along major roadways that traverse the unincorporated county. The unincorporated area of the county is comprised of more than two million acres, larger than the states of Rhode Island and Delaware, combined. Our unincorporated communities are home to more than 500,000 residents, and the County represents the second largest jurisdiction by population in the region.

There is a strong need for greater investment in alternative fuels in the San Diego region and specifically within the unincorporated areas of the county. Communities throughout the unincorporated area experience higher travel distances than others in the region to meet basic needs, and a significant amount of vehicle traffic that traverse through the unincorporated area is passing through to other locations (e.g., long-distance trips along interstates and state highways). Additionally, many unincorporated residents have limited access to transit or other alternative transportation options, which makes EV infrastructure critical to meeting the nation's sustainability goals. These settings create high travel and maintenance costs, increase exposure to hazard air pollutants from vehicle travel along corridors, and limited options for non-vehicular travel. These conditions within the unincorporated area, and experienced by County residents, reflect

[1] Disadvantaged communities defined by Executive Order 14008 and the Interim Justice 40 Guidance issued by the White House.

priority needs identify in FHWA's areas of interest. Providing EV charging infrastructure along routes through the unincorporated area of the county can serves as crucial resources for residents of these communities. Siting along major roadways in rural areas can increase EV infrastructure visibility for residents resulting in accelerated EV adoption.

Existing EV Network Setting

Within San Diego County, four Interstates (I-) and two State Routes (SR) are currently identified as either EV corridor-ready or EV corridor-pending, as indicated in Table 1.

Table 1: EV Ready and Pending Corridors in San Diego County

Corridor	Segment	Designation	Nomination Round
I-5	Entire segment through San Diego County	EV Ready	1
I-8	City of San Diego to City of El Cajon	EV Ready	1
	City of El Cajon to Imperial County	EV Pending	1
I-15	Entire segment through San Diego County	EV Ready	1
I-805	Entire segment through San Diego County	EV Ready	5
SR 78	Carlsbad to Escondido	EV Ready	3
SR 905	I-5 to U.S./Mexico International Border	EV Pending	2

The corridors identified in the region, only two segments are located within the unincorporated County (i.e., within the land use jurisdiction of the County of San Diego). These segments include the EV Pending I-8 corridor between El Cajon and Imperial County, and EV Ready 1-15 corridor.

Though AFC designations are limited within the unincorporated area, the County has multiple ongoing planning efforts that strongly support EV infrastructure deployment along these corridors. These efforts are briefly described below, and include: the County's Electric Vehicle Roadmap (EV Roadmap) and EV Charger Site Assessment; the Accelerate to Zero Emissions (A2Z) Collaboration; the 2018 Climate Action Plan (CAP) and the in process CAP Update; and the Regional Decarbonization Framework (RDF).

- The **County's EV Roadmap**, adopted in October 2019, identifies six goals that leverage the County's land use authority, permitting processes, and outreach platforms to increase EV ownership and charging installation in the unincorporated area and at County facilities. Goal 2 of the EV Roadmap states the County will install 2,040 Level II or equivalent charging stations throughout the unincorporated area by Fiscal Year 2027-2028. In support of this goal, the County has begun development of an **EV Charger Site Assessment** which identifies priority locations for public EV charger installations including creating a complete EV charging network throughout the unincorporated area and support low-income

communities and those exposed to air pollution. Achievement of this goal and successful implementation of the site assessment will rely on charging station installation along major roadways including Interstates and State Routes.

- The County participates as a Core Team member in the **A2Z Regional Collaboration**. The purpose of this collaboration is to accelerate investment in zero-emissions vehicles and EV infrastructure throughout the region, and attract public and private investment to support a regional charger deployment.
- The County is actively preparing a **Climate Action Plan Update** to take bold climate action that mitigates beyond state greenhouse gas reduction targets and will establish actions to meet net zero greenhouse gas emissions and below between 2035-2045. This CAP Update revises the **2018 Climate Action Plan** including advancing measures that reduce greenhouse gas emissions from the transportation sector. This includes measures that emphasize deployment of EV infrastructure.
- The County is leading the development of the **Regional Decarbonization Framework** to move the region towards zero carbon emissions. Recognizing that the transportation sector contributes the greatest amount of greenhouse gas emissions in the region, the framework identifies key strategies to achieve deep decarbonization in the transportation sector. These strategies emphasize a need to accelerate alternative fuel use/technologies and EV adoption.

These ongoing efforts place the County in a strong position to develop significant EV and alternative fuel infrastructure throughout the unincorporated area. Many of these efforts identify priority projects or charging needs for which funding is the primary barrier for implementation.

Proposed Roadways for Round 6 Nomination

As noted previously, the County has conducted or participated in significant planning efforts to identify EV infrastructure needs within the unincorporated area. Based on the existing EV pending and ready corridor designations, significant network gaps exist throughout the unincorporated area to support EV adoption amongst residents and travelers. These include highly traveled State Routes that traverse the unincorporated area (based on data provided in the SANDAG Climate Action Data Portal), and unmet charging needs along I-8 to achieve EV Ready status. The routes proposed are key corridors for residential and visitor travel through the unincorporated area or as connections between rural communities and urbanized areas. These corridors, if designated, would increase access to EV charging infrastructure for nearly 300,000 residents, or sixty percent of unincorporated county residents, in rural communities along these routes.

For the purposes of nomination, the County has identified corridors within the unincorporated area that are designated as an Interstate highway or other highway on the National Highway System (NHS). These Interstate and NHS corridors have already been identified by the County as roadways along which EV infrastructure is needed to support future EV demand and meet County goals. Thus, the County is proposing the following routes and segments for designation consideration through AFC Round 6. These nominations are also highlighted in Attachment A – Existing and Proposed Alternative Fuel Corridor Designations in San Diego County.

Interstate 8

Segment:	El Cajon to Imperial County
Current Designation:	EV Pending
Proposed Designation:	EV Ready
Nomination Purpose:	I-8 through the unincorporated County serves as a primary east/west corridor and is a key interregional corridor to the east. As an EV Pending corridor, I-8 is primed for investment in EV infrastructure to ensure feasible clean transportation opportunities for San Diego residents, commercial transportation activities, and regional travelers. This corridor is important for long-distance travel and provides access to numerous federal units (Cleveland National Forest), State parks (Anza-Borrego Desert State Park), and tribal lands (Viejas, La Posta, Campo, and Manzanita Reservations). Investment in EV infrastructure along this corridor will provide key clean fuel access to residents in rural communities and support current charging needs along this major personal and commercial transportation route.

State Route 67

Segment:	El Cajon to Ramona
Current Designation:	None
Proposed Designation:	EV Pending
Nomination Purpose:	SR 67 extends north from the City of El Cajon into the unincorporated area and provides key transportation connections to the unincorporated communities of Lakeside and Ramona. This route also provides important connections to federal and tribal lands including the Barona Reservation. This segment of SR 67 is heavily used by residents

throughout the county to access open space and entertainment amenities. It is identified as an important corridor for the County to invest in future EV chargers as it provides San Diego county residents necessary access to open spaces (i.e., County and State parks and preserves) and entertainment amenities (i.e., Barona Resort and Casino). There are currently no EV chargers along this route. FHWA currently recognizes a portion of SR 67, extending north from the City of El Cajon through the City of Santee as an NHS corridor. As part of this nomination, the County requests AFC designation for an additional segment of this corridor extending to the unincorporated community of Ramona.

State Route 76

Segment: Oceanside to I-15
Current Designation: None
Proposed Designation: EV Pending
Nomination Purpose: SR 76 extends east from the City of Oceanside to its intersection with I-15, where it continues east into the unincorporated community. This route is an important connection for commutes by providing access from I-15 to Oceanside and I-5, and serves as the northernmost connection between these two Interstates within San Diego county. The route traverses immediately south of Marine Corps Base Camp Pendleton. This route is heavily trafficked by commuters from Riverside County to access the growing commercial and industrial facilities within the City of Oceanside, and secondary access points of Camp Pendleton. Half of the nominated route segment is within the City of Oceanside, while the remainder is within the unincorporated area, including segments traversing through the unincorporated community of Bonsall.

State Route 94

Segment: SR 125 to I-8
Current Designation: None
Proposed Designation: EV Pending
Nomination Purpose: SR 94 is the southernmost rural highway within the San Diego region and is the primary route connecting unincorporated

communities of Jamul, Portero, Tecate, and Campo to the urbanized areas. This route also serves as the primary access route for commercial and passenger vehicles crossing the U.S./Mexico Border through Tecate. SR 94 is identified by the County as an important route for future EV infrastructure investment to support technology adoption within multiple underserved, rural communities. This route also provides access to southern entry points of Cleveland National Forest, federal wilderness areas (Otay Mountain Wilderness and Hauser Mountain Wilderness Study Area), and the Campo Indian Reservation.

State Route 125

Segment: SR 52 to SR 905
Current Designation: None
Proposed Designation: EV Pending
Nomination Purpose: SR 125 serves as a key north-south connector between the eastern communities in the San Diego metropolitan area. This route connects between population centers in cities of El Cajon, La Mesa, Lemon Grove, and Chula Vista, as well as larger unincorporated communities of Valle de Oro, Spring Valley, and Sweetwater. This corridor provides important access also to the growing housing and commercial developments in the Otay Mesa and East Otay Mesa communities. The route is regularly used for commuting residents from South Bay communities (e.g., Chula Vista and National City) to connect with job centers in the north as well as connections to major east-west freeways of SR 52, I-8 and SR 94. This route is a major freight transportation route serving trucks entering through the U.S./Mexico International Ports of Entry in Otay Mesa. Finally, this route provides key access to unincorporated communities identified as environmental justice communities, including Spring Valley and Sweetwater.

State Route 188

Segment: SR 94 to U.S./Mexico International Border
Current Designation: None
Proposed Designation: EV Pending

Nomination Purpose: SR 188 is a short, north-south highway that provides access between the U.S./Mexico International Border Crossing in Tecate and SR 94. The entirety of this segment is identified as an NHS route. SR 188 serves as the easternmost entry point from Mexico into San Diego County and the only Port of Entry between the San Diego metropolitan area and Calexico in Imperial County. This route is the only route providing access from the Tecate Port of Entry to SR 94, which provides subsequent access to San Diego to the west and federal units to the east and west.

Requested Modification to Future Nomination Guidelines

The current nomination guidelines state that all eligible corridors must be Interstate highways or other highways on the NHS. Within the San Diego region, there are few Interstate highways or other highways designated on the NHS. As currently required, corridor eligibility limits the County's ability to access this funding for EV and clean fuel infrastructure deployment to underserved, rural areas throughout the unincorporated area. Residents in these areas generally are required to drive a personal vehicle to meet their daily needs (i.e., work, grocery shopping, school) and are provided limited alternative travel options. A key strategy to reduce greenhouse gas emissions generated by activities in rural areas is to accelerate the deployment of EVs. This requires provision of adequate EV charging infrastructure along rural corridors to ensure daily and long-distance trips can be managed. To meet this need, the County requests that future rounds of AFC nominations consider expanding eligibility to include State routes that are not currently identified as NHS corridors, and County routes (i.e., major thoroughfares in California designated as County routes and managed by respective counties).

Closing

The County is committed to supporting the transition to clean fuel vehicles to reduce greenhouse gas emissions generated from our transportation network. These efforts will result in improved air quality and public health, and will combat climate change both at the local and global levels. The County is also committed to ensuring that all populations have equal opportunity to experience the benefits of clean transportation technologies. The County represents a large and diverse population and will continue to work with FHWA, Caltrans, and other agencies to provide access to clean fuel infrastructure for all in the region.

The County has many plans in place to facilitate the installation of clean fuel infrastructure, specifically EV charging infrastructure, to meet anticipated future demand. Funding remains the final barrier for the County to install infrastructure to meet the established and supporting goals of the EV Roadmap, climate action planning efforts, Regional Decarbonization Framework, and A2Z Collaboration. With the application of federal funding to AFC in the unincorporated area, the County can take significant steps in meeting future EV infrastructure needs locally.

The County is committed and ready to support any additional needs that accompany potential funding and programs to create AFCs. This includes hosting additional outreach about clean fuels to underserved communities, bolstering relationships and project partnerships with federal and state units, and building on existing regional partnerships to ensure regional and national EV/clean fuel networks are built efficiently and effectively.

Thank you for the opportunity to provide route nominations for AFC 2022/Round 6 funding and proposed modifications to the nomination guidelines for future rounds. We look forward to working with the FHWA to create a robust clean fuel network in the U.S., in support of local, State, and federal visions.

Respectfully,

DAHVIA LYNCH, Director
Planning and Development Services

Cc: Sarah Aghassi, Deputy Chief Administrative Officer, Land Use and Environment Group
Jeff Moneda, Director, Department of Public Works

Attachment A – Existing and Proposed Alternative Fuel Corridor Designations in San Diego County

Existing and Proposed Alternative Fuel Corridor Designations in San Diego County