

# GREENHOUSE GAS EVALUATION

Spring Valley Housing  
San Diego County Record ID: PDS2019-TM-5636  
& PDS2021-AD-21-011

## Prepared For

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# **Greenhouse Gas Evaluation**

for the

## **Spring Valley Residential Project Spring Valley, California PDS2019-TM-5636 & PDS2021-AD-21-011**

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## **List of Acronyms**

APCD	Air Pollution Control District
AB	Assembly Bill
AB 32	Assembly Bill 32, Global Warming Solutions Act of 2006
AMSL	Above Mean Sea Level
ARB	Air Resources Board
ASTM	American Society of Testing and Materials
CAFE	Corporate Average Fuel Economy
CalEEMod	California Emissions Estimator Model
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CAT	Climate Action Team
CCAP	Center for Clean Air Policy
CCAR	California Climate Action Registry
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CH <sub>4</sub>	Methane
CO	Carbon Monoxide
CO <sub>2</sub>	Carbon Dioxide
CO <sub>2e</sub>	Carbon Dioxide Equivalent
DWR	Department of Water Resources
EIR	Environmental Impact Report
EPA	U.S. Environmental Protection Agency
EV	Electric Vehicles
GCC	Global Climate Change
GHG	Greenhouse Gas
GGEP	Greenhouse Gas Emissions Policy
GGRP	Greenhouse Gas Reduction Plan
GP	General Plan
GPA	General Plan Amendment
GWP	Global Warming Potential
HFCs	Hydrofluorocarbons
HOA	Homeowners' Association
IPCC	Intergovernmental Panel on Climate Change
LCFS	Low Carbon Fuel Standard
LEED	Leadership in Energy and Environmental Design
MT	Metric Tons
MMT	Million Metric Tons
MW	Megawatts
N <sub>2</sub> O	Nitrous Oxide
NF <sub>3</sub>	Nitrogen Trifluoride
NO <sub>x</sub>	Oxides of Nitrogen
OPR	State Office of Planning and Research
PDFs	Project Design Features
PFCs	Perfluorocarbons

PM	Particulate Matter
ROG	Reactive Organic Gas
RMP	Resource Management Plan
RPS	Renewable Portfolio Standards
S-3-05	Executive Order S-3-05
SANDAG	San Diego Association of Governments
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SDCGHGI	San Diego County Greenhouse Gas Inventory
SDG&E	San Diego Gas & Electric
SF <sub>6</sub>	Sulfur Hexafluoride
SRI	Solar Reflective Index
TDM	Transportation Demand Management
THC	Total Hydrocarbon
UNFCCC	United Nations Framework Convention on Climate Change
USBGC	U.S. Green Building Council
VMT	Vehicle Miles Traveled

## Executive Summary

This report presents an assessment of potential greenhouse gas (GHG) impacts associated with the proposed Spring Valley Residential Project in Spring Valley, California. The project is within the jurisdiction of the Department of Planning and Development Services in the County of San Diego. The evaluation addresses the potential for GHG emissions during construction and after full buildout of the project, and the project's consistency with the County's Climate Action Plan.

The proposed project would subdivide 9.91 acres located at Grand Avenue and Eucalyptus Street into seven single-family residential lots and one biological open space lot. Access would be provided by private driveways from Grand Avenue. The project would involve minor site grading and utilities installation (approximately 2 months). Residential dwellings would be built out individually. It is anticipated that the project would be built out by 2024.

GHG emissions were calculated for 2024 because 2024 was assumed to be the first full year of operations. GHG emissions would decrease with time due to phase-out of older vehicles and increasingly stringent GHG emission standards and due to implementation of the California Renewable Portfolio Standard. Therefore, 2024 represents a worst case estimate of GHG emissions for the project. Table ES-1 presents the emissions with incorporation of project design features (PDFs) and regulatory compliance measures for the proposed project.

Emissions are below the California Air Pollution Control Officers' Association (CAPCOA) 2020 screening-level threshold of 900 metric tons of CO<sub>2</sub>e. This initial screening level was set based on the original AB 32 goal of reducing statewide GHG emissions to 1990 levels (estimated at 431 MMTCO<sub>2</sub>e) by 2020. Since the initial screening threshold was proposed, the state has adopted Executive Order B-30-15, which establishes a goal of reducing GHGs to 40 percent below 1990 levels by 2030. This amounts to a reduction of 4% per year. Adjusting the initial 2020 screening level threshold by 4% for the operational year 2024, the revised target would be 756 MMTCO<sub>2</sub>e, and 40% below the 2020 threshold would be 540 MMTCO<sub>2</sub>e. The project's GHG emissions are below both of these screening levels. As indicated in the attached Climate Action Plan (CAP) Checklist, the project is also consistent with the County's CAP. Therefore, the potential impact on greenhouse gases is less than significant.

<b>Table ES-1</b>				
<b>SUMMARY OF PROPOSED PROJECT'S</b>				
<b>ESTIMATED GREENHOUSE GAS EMISSIONS – 2024</b>				
<b>(WITH PDFS AND REGULATORY COMPLIANCE MEASURES)</b>				
<b>Emission Source</b>	<b>Annual Emissions</b>			
	<b>(Metric tons/year)</b>			
	<b>CO<sub>2</sub></b>	<b>CH<sub>4</sub></b>	<b>N<sub>2</sub>O</b>	<b>CO<sub>2</sub>e</b>
<b>Construction Emissions</b>				
Construction Activities	264	0.0688	0.0000	266
Sequestration Loss	51	0.0000	0.0000	51
Sequestration Gain	(10)	0.0000	0.0000	(10)
<b>Construction Sub-Total</b>	<b>315</b>	<b>0.0688</b>	<b>0.0000</b>	<b>317</b>
Global Warming Potential Factor	1	25	298	
<b>Construction Total</b>	<b>315</b>	<b>2</b>	<b>0</b>	<b>317</b>
<b>Amortized Construction Emissions</b>	<b>11</b>			
<b>Operational Emissions</b>				
Area Sources	2	0.0001	0.0001	2
Energy Use	23	0.0007	0.0003	23
Water Consumption	2	0.0145	0.0004	3
Solid Waste Handling	2	0.0984	0.0000	4
Vehicles	73	0.0036	0.0000	73
<b>Operational Sub-Total</b>	<b>102</b>	<b>0.1173</b>	<b>0.0008</b>	<b>105</b>
Global Warming Potential Factor	1	25	298	
<b>Operational Total</b>	<b>102</b>	<b>3</b>	<b>0</b>	<b>105</b>
<b>Total with Amortized Construction Emissions</b>	<b>116</b>			

## **1.0 INTRODUCTION**

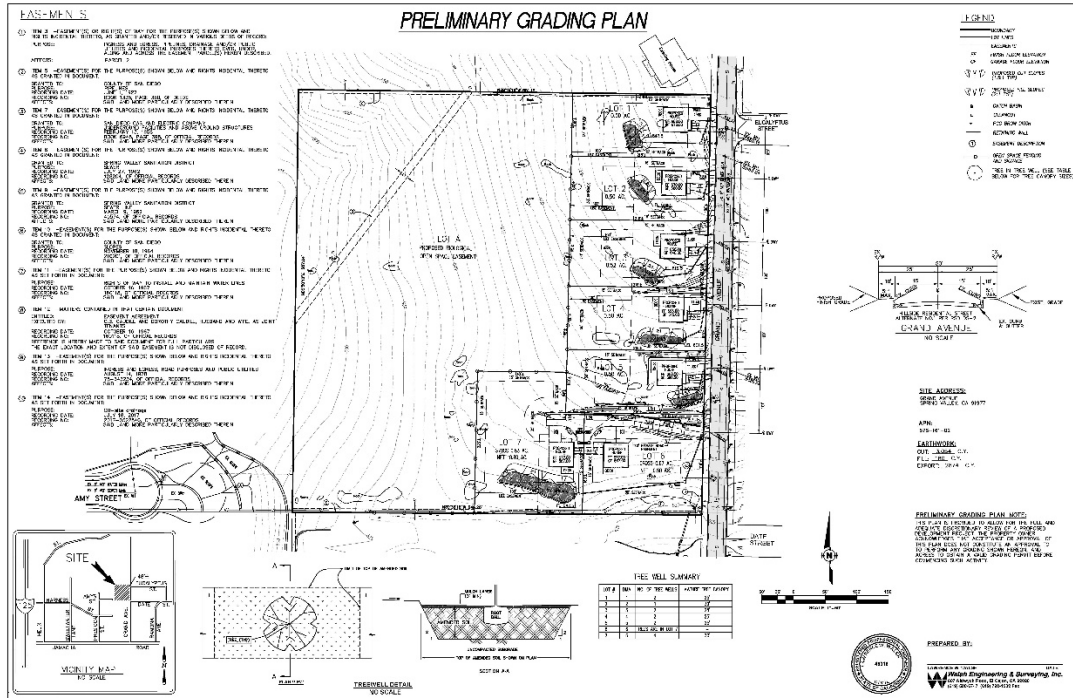
This report presents an assessment of potential greenhouse gas (GHG) impacts associated with the proposed Spring Valley Residential Project in Spring Valley, California. The project is within the jurisdiction of the Department of Planning and Development Services in the County of San Diego. More specifically, the evaluation addresses the potential impacts of greenhouse gas (GHG) emissions associated with construction and operation of the proposed project.

The proposed project is consistent with the County of San Diego General Plan. The site designation within the General Plan is Semi-Rural Residential, and the zoning is Rural Residential.

### **1.1 Project Location and Description**

The proposed project would subdivide 9.91 acres located at Grand Avenue and Eucalyptus Street into seven single-family residential lots and one biological open space lot. Access would be provided by private driveways from Grand Avenue. The project would involve minor site grading and utilities installation (approximately 2 months). Residential dwellings would be built out individually. It is anticipated that the project would be built out by 2024.





**Figure 1. Spring Valley Project Site Plan**

## 1.2 General Principles and Existing Conditions

Global climate change (GCC) refers to changes in average climatic conditions on Earth as a whole, including temperature, wind patterns, precipitation and storms. Global temperatures are moderated by naturally occurring atmospheric gases, including water vapor, carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O), which are known as GHGs. These gases allow solar radiation (sunlight) into the Earth's atmosphere, but prevent radiative heat from escaping, thus warming the Earth's atmosphere. Emissions from human activities, such as electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere.

GCC may result from natural factors/processes, but is mainly attributable to human activities that change the composition of the atmosphere and alter the surface and features of land. For example, historical records indicate that global climate changes have occurred in the past due to natural phenomena (e.g., ice ages). According to the *Climate Science Special Report* (U.S. Global Change Research Program 2017), it is extremely likely that human activities, especially emissions of greenhouse gases, are the dominant cause of the observed warming since the mid-20th century. For the warming over the last century, there is no convincing alternative explanation supported by the extent of the observational evidence. The global atmospheric CO<sub>2</sub> concentration has now passed 400 parts per million (ppm), a level that last occurred about 3 million years ago, when both global average temperature and sea level were significantly higher than today. Recent data indicate that, due to human (i.e., anthropogenic) influence, the current global conditions differ from past climate changes in rate and magnitude. The State of California has been at the forefront of developing solutions to address potential anthropogenic impacts to GCC.

The United Nations Intergovernmental Panel on Climate Change (IPCC) constructs emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. The IPCC has concluded that a stabilization of GHGs at 400 to 450 ppm CO<sub>2</sub> equivalent concentration is required to keep global mean warming below 3.6° Fahrenheit (2° Celsius), which is assumed to

be necessary to avoid dangerous climate change (Association of Environmental Professionals 2007).

State law defines greenhouse gases as any of the following compounds: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF<sub>6</sub>), and nitrogen trifluoride (NF<sub>3</sub>) (California Health and Safety Code Section 38505(g)). CO<sub>2</sub>, followed by CH<sub>4</sub> and N<sub>2</sub>O, are the most common GHGs that result from human activity.

### 1.3 Sources and Global Warming Potentials of GHG

As discussed further below, the sources of GHG emissions, each GHG’s global warming potential (GWP), and the atmospheric lifetime of GHGs are all important variables to be considered in the process of calculating carbon dioxide equivalent (CO<sub>2</sub>e) emissions for discretionary land use projects that require a climate change analysis.

The State of California’s Air Resources Board (ARB) compiles a GHG inventory of statewide anthropogenic GHG emissions and sinks. The current inventory covers the years 1990 to 2015, and is summarized in Table 1. When accounting for GHGs, emissions are expressed in terms of CO<sub>2</sub>e and are typically quantified in metric tons (MT) or millions of metric tons (MMT).

<b>Sector</b>	<b>Total 1990 Emissions (MMTCO<sub>2</sub>e)</b>	<b>Percent of Total 1990 Emissions</b>	<b>Total 2015 Emissions (MMTCO<sub>2</sub>e)</b>	<b>Percent of Total 2015 Emissions</b>
Agriculture	23.4	5%	34.65	8%
Commercial	14.4	3%	13.33	3%
Electricity Generation	110.6	26%	83.67	19%
Forestry (excluding sinks)	0.2	<1%		
Industrial	103.0	24%	91.71	21%

Sector	Total 1990 Emissions (MMT <sub>CO2e</sub> )	Percent of Total 1990 Emissions	Total 2015 Emissions (MMT <sub>CO2e</sub> )	Percent of Total 2015 Emissions
Residential	29.7	7%	24.59	6%
Transportation	150.7	35%	164.63	37%
Solvents and Chemicals	N/A	N/A	19.05	4%
Recycling and Waste	N/A	N/A	8.73	2%
Forestry Sinks	(6.7)	N/A	N/A	N/A

Source: California Greenhouse Gas Emission Inventory – 2017 Edition, <https://www.arb.ca.gov/cc/inventory/data/data.htm>, CARB 2017a.

GHGs have varying GWPs. The GWP is the potential of a gas or aerosol to trap heat in the atmosphere; it is the “cumulative radiative forcing effect of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to a reference gas” (EPA 2006). The reference gas for GWP is CO<sub>2</sub>; therefore, CO<sub>2</sub> has a GWP of 1. The other main GHGs that have been attributed to human activity include CH<sub>4</sub>, which has a GWP of 25, and N<sub>2</sub>O, which has a GWP of 298 (ARB 2017b). (The GWP values used in this report are sourced to the Fourth Assessment Report (2007) of the Intergovernmental Panel on Climate Change.) Table 2 presents the GWP and atmospheric lifetimes of the GHGs that are regulated by the State of California.

GHG	Formula	100-Year Global Warming Potential	Atmospheric Lifetime (Years)
Carbon Dioxide	CO <sub>2</sub>	1	Variable
Methane	CH <sub>4</sub>	25	12
Nitrous Oxide	N <sub>2</sub> O	298	114
Sulfur Hexafluoride	SF <sub>6</sub>	22,800	3,200
Hydrofluorocarbons	HFCs	124 to 14,800	1 to 100
Perfluorocarbons	PFCs	7,390 to 12,200	10,000 to 50,000
Nitrogen Trifluoride	NF <sub>3</sub>	17,200	740

Source: The 2017 Climate Change Scoping Plan Update, ARB 2017b

The primary, human-caused source of CO<sub>2</sub> is the combustion of fossil fuels (coal, oil, natural gas, gasoline and wood). Data from ice cores indicate that CO<sub>2</sub> concentrations remained steady prior to the current period for approximately 10,000 years. Concentrations of CO<sub>2</sub> have increased in the atmosphere since the industrial revolution.

CH<sub>4</sub> is the main component of natural gas and also arises naturally from anaerobic decay of organic matter. Human-caused sources of natural gas include landfills, fermentation of manure and cattle farming. Human-caused sources of N<sub>2</sub>O include combustion of fossil fuels and industrial processes such as nylon production and production of nitric acid.

Other GHGs are present in trace amounts in the atmosphere and are generated from various industrial or other uses. Because the project would not emit appreciable amounts of trace GHGs, and because the CalEEMod model focuses on the main GHGs associated with development (CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O), this analysis focuses on CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O emissions.

## **1.4 Regulatory Framework**

### 1.4.1 Federal and International Efforts

GCC is being addressed at both the international and federal levels. In 1988, the United Nations and the World Meteorological Organization established the IPCC to assess the scientific, technical, and socioeconomic information relevant to understanding the scientific basis for human-induced climate change, its potential impacts, and options for adaptation and mitigation. The most recent reports of the IPCC have emphasized the scientific consensus that real and measurable changes to the climate are occurring, that they are caused by human activity, and that significant adverse impacts on the environment, the economy, and human health and welfare are unavoidable.

On March 21, 1994, the United States joined a number of countries around the world in signing the United Nations Framework Convention on Climate Change (UNFCCC). Under the Convention, governments agreed to gather and share information on GHG emissions, national

policies, and best practices; launch national strategies for addressing GHG emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of GCC.

**Clean Air Act.** In *Massachusetts v. Environmental Protection Agency* (2007) 549 U.S. 497, the U.S. Supreme Court held that the U.S. Environmental Protection Agency (EPA) has authority under the Clean Air Act to regulate CO<sub>2</sub> emissions if those emissions pose an endangerment to the public health or welfare.

In 2009, the EPA issued an “endangerment finding” under the Clean Air Act, concluding that GHGs threaten the public health and welfare of current and future generations and that motor vehicles contribute to GHG emissions. These findings provide the basis for adopting national regulations to mandate GHG emission reductions under the Clean Air Act.

To date, the EPA has exercised its authority to regulate mobile sources that reduce GHG emissions via the control of vehicle manufacturers, as discussed below.

The EPA also has adopted standards that set a national limit on GHG emissions produced from new, modified, and reconstructed power plants, and has issued the Clean Power Plan, which is targeted toward the reduction of carbon emissions from existing power plants. The Clean Power Plan requires states to develop and implement plans that ensure that the power plants in their state – either individually, together or in combination with other measures – achieve interim performance rates over the period of 2022 to 2029 and final performance rates, rate-based goals or mass-based goals by 2030. In February 2016, the U.S. Supreme Court stayed implementation of the Clean Power Plan pending judicial review. Additionally, in March 2017, President Donald Trump’s Executive Order on Energy Independence directed the EPA to undertake a review of the Clean Power Plan; and, in October 2017, the EPA issued its proposal to repeal the Clean Power Plan.

**Federal Vehicle Standards.** In response to the U.S. Supreme Court ruling discussed above, the Bush Administration issued Executive Order 13432 in 2007 directing the EPA, the Department of

Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the National Highway Traffic Safety Administration issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011; and, in 2010, the EPA and National Highway Traffic Safety Administration issued a final rule regulating cars and light-duty trucks for model years 2012–2016.

In 2010, President Obama issued a memorandum directing these same agencies to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the EPA and National Highway Traffic Safety Administration proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The standards are projected to achieve 163 grams/mile of CO<sub>2</sub> in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon (mpg) if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021.

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the EPA and National Highway Traffic Safety Administration announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO<sub>2</sub> emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the EPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6%–23% over the 2010 baselines.

In August 2016, the EPA and National Highway Traffic Safety Administration announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans and all types of sizes of buses and work trucks. The final standards are expected to lower carbon dioxide emissions by approximately 1.1 billion MT and reduce oil consumption by up to two billion barrels over the lifetime of the vehicles sold under the program.

**Energy Independence and Security Act.** The Energy Independence and Security Act of 2007 facilitates the reduction of national GHG emissions by requiring the following:

- Increasing the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard (RFS) that requires fuel producers to use at least 36 billion gallons of biofuel in 2022;
- Prescribing or revising standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances;
- Requiring approximately 25 percent greater efficiency for light bulbs by phasing out incandescent light bulbs between 2012 and 2014; requiring approximately 200 percent greater efficiency for light bulbs, or similar energy savings, by 2020; and
- While superseded by the EPA and NHTSA actions described above, (i) establishing miles per gallon targets for cars and light trucks and (ii) directing the NHTSA to establish a fuel economy program for medium- and heavy-duty trucks and to create a separate fuel economy standard for trucks.

Additional provisions of this Act address energy savings in government and public institutions, promote research for alternative energy, additional research in carbon capture, international energy programs, and the creation of “green jobs.”

#### 1.4.2 State Actions

##### Executive Orders and Legislation Establishing Overarching State Climate Policies

**Executive Order S-3-05.** In 2005, former Governor Schwarzenegger signed Executive Order S-3-05, which established the following GHG emission reduction goals for California: (1) by 2010,



reduce GHG emissions to 2000 levels; (2) by 2020, reduce GHG emissions to 1990 levels; and (3) by 2050, reduce GHG emissions to 80 percent below 1990 levels.

**Assembly Bill 32.** Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006, was enacted after considerable study and expert testimony before the Legislature. The heart of AB 32 is the requirement that statewide GHG emissions be reduced to 1990 levels by 2020 (Health & Safety Code, §38550). In order to achieve this reduction mandate, AB 32 requires the ARB to adopt rules and regulations in an open public process that achieve the maximum technologically feasible and cost-effective GHG reductions.

In response to the adoption of AB 32, in 2007, the ARB approved a statewide limit on the GHG emissions level for year 2020 consistent with the determined 1990 baseline. The ARB's adoption of this limit is in accordance with Health & Safety Code section 38550.

Further, in 2008, the ARB adopted the *Climate Change Scoping Plan: A Framework for Change (Scoping Plan)* in accordance with Health & Safety Code section 38561. The *Scoping Plan* establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions for various emission sources/sectors to 1990 levels by 2020.

In 2014, the ARB adopted the *First Update to the Climate Change Scoping Plan: Building on the Framework (First Update)*.<sup>1</sup> The stated purpose of the *First Update* is to "highlight California's success to date in reducing its GHG emissions and lay the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050."<sup>2</sup> The *First Update* found that California is on track to meet the 2020 emissions reduction mandate established by AB 32. The *First Update* also noted that California could reduce emissions further by 2030 to levels squarely in line with those needed to stay on track to reduce emissions to 80 percent below 1990 levels by 2050 if the State realizes the expected benefits of existing policy goals.<sup>3</sup>

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<sup>1</sup> Health & Safety Code section 38561(h) requires the ARB to update the Scoping Plan every five years.

<sup>2</sup> ARB, *First Update* (May 2014), p. 4.

<sup>3</sup> *Id.* at p. 34.

In conjunction with the *First Update*, the ARB identified “six key focus areas comprising major components of the State’s economy to evaluate and describe the larger transformative actions that will be needed to meet the State’s more expansive emission reduction needs by 2050.”<sup>4</sup> Those six areas are: (1) energy; (2) transportation (vehicles/equipment, sustainable communities, housing, fuels, and infrastructure); (3) agriculture; (4) water; (5) waste management; and, (6) natural and working lands. The *First Update* identifies key recommended actions for each sector that will facilitate achievement of the 2050 reduction target.

Based on the ARB’s research efforts, it has a “strong sense of the mix of technologies needed to reduce emissions through 2050.”<sup>5</sup> Those technologies include energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings and industrial machinery; decarbonizing electricity and fuel supplies; and, the rapid market penetration of efficient and clean energy technologies.

In December 2017, the ARB adopted *California’s 2017 Climate Change Scoping Plan*. The *2017 Scoping Plan* addresses the statewide emissions reduction target established pursuant to Senate Bill (SB) 32 and Executive Order B-30-15, as discussed below. The *2017 Scoping Plan* includes continuation of the Cap-and-Trade Program through 2030, and incorporates a Mobile Source Strategy (also developed by the ARB) that is intended to increase zero emission vehicle fleet penetration and establish a more stringent Low Carbon Fuel Standard target by 2030.

When discussing project-level GHG emissions reduction actions and thresholds in the *2017 Scoping Plan*, the ARB states “[a]chieving no net additional increase in GHG emissions, resulting in no contribution to GHG impacts, is an appropriate overall objective for new development.”<sup>6</sup> However, the ARB also recognizes that “[a]chieving net zero ... may not be feasible or appropriate for every project ... and the inability of a project to mitigate its GHG emissions to net zero does not imply the project results in a substantial contribution to the cumulatively significant

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<sup>4</sup> Id. at p. 6.

<sup>5</sup> Id. at p. 32.

<sup>6</sup> ARB, 2017 Scoping Plan (November 2017), p. 101.

environmental impact of climate change under CEQA.”<sup>7</sup> To the extent that a project’s CEQA analysis recommends mitigation to reduce GHG emissions, the ARB “recommends that lead agencies prioritize on-site design features that reduce emissions, especially from VMT, and direct investments in GHG reductions within the project’s region that contribute potential air quality, health, and economic co-benefits locally.”<sup>8</sup>

**2015 State of the State Address.** In his January 2015 inaugural address, Governor Brown identified key climate change strategy pillars, including: (1) reducing today’s petroleum use in cars and trucks by up to 50 percent; (2) increasing the amount of electricity derived from renewable sources from one-third to 50 percent; (3) doubling the energy efficiency savings achieved at existing buildings and making heating fuels cleaner; (4) reducing the release of methane, black carbon, and other short-lived climate pollutants; (5) managing farm and rangelands, forests and wetlands so they can store carbon; and (6) periodically updating the State’s climate adaptation strategy. As discussed below, the second and third pillars have been codified via legislation (SB 350).

**Executive Order B-30-15.** In April 2015, Governor Brown signed Executive Order B-30-15, which established the following GHG emission reduction goal for California: by 2030, reduce GHG emissions to 40 percent below 1990 levels. This reduction goal subsequently was codified through the enactment of SB 32 (see discussion below). This Executive Order also directed all state agencies with jurisdiction over GHG-emitting sources to implement measures designed to achieve the new interim 2030 goal, as well as the pre-existing, long-term 2050 goal identified in Executive Order S-3-05 (see discussion above). Additionally, the Executive Order directed the ARB to update its Scoping Plan (see discussion above) to address the 2030 goal.

**2016 State of the State Address.** In his January 2016 inaugural address, Governor Brown identified a statewide goal to bring per capita GHGs down to two tons per person. The origin of this goal is the Global Climate Leadership Memorandum of Understanding (Under 2 MOU), which

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<sup>7</sup> Id. at p. 102.

<sup>8</sup> Id. at p. 102.

established limiting global warming to less than two degrees Celsius as the guiding principle for the reduction of GHG emissions by 2050. The parties to the Under 2 MOU have agreed to pursue emissions reductions consistent with a trajectory of 80 to 95 percent below 1990 levels by 2050 and/or achieve a per capita annual emissions goal of less than two metric tons by 2050. The Under 2 MOU has been signed or endorsed by 127 jurisdictions (including California) that represent 27 countries and six continents.

**Senate Bill 32, and Assembly Bill 197.** Enacted in 2016, SB 32 codifies the 2030 emissions reduction goal of Executive Order B-30-15 by requiring the ARB to ensure that statewide GHG emissions are reduced to 40 percent below 1990 levels by 2030.

SB 32 was coupled with a companion bill: AB 197. Designed to improve the transparency of the ARB's regulatory and policy-oriented processes, AB 197 created the Joint Legislative Committee on Climate Change Policies, a committee with the responsibility to ascertain facts and make recommendations to the Legislature concerning statewide programs, policies and investments related to climate change. AB 197 also requires the ARB to make certain GHG emissions inventory data publicly available on its web site; consider the social costs of GHG emissions when adopting rules and regulations designed to achieve GHG emission reductions; and, include specified information in all Scoping Plan updates for the emission reduction measures contained therein.

#### Energy-Related Sources

**Renewable Portfolio Standard.** California's Renewable Portfolio Standard requires retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020. As amended in 2015 by SB 350, retail sellers of electric services must increase procurement from eligible renewable energy resources to 40 percent of total retail sales by 2024, 45 percent of total retail sales by 2027, and 50 percent of total retail sales by 2030. As amended in 2018 by SB 100, retail sellers of electric services must increase procurement from eligible renewable energy resources to 44 percent of total retail sales by 2024, to 50% of total retail

sales by 2026, to 52% of total retail sales by 2027, and to 60% of total retail sales by 2030. SB 100 also calls for the state to plan for a goal of 100% renewables by December 31, 2045.

**Building Energy Efficiency Standards (Title 24).** Title 24, Part 6, of the California Code of Regulations regulates the design of building shells and building components. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. The California Energy Commission's (CEC) 2016 Building Energy Efficiency Standards became effective on January 1, 2017. Since the 2016 Building Energy Efficiency Standards were adopted, the state has adopted 2019 Title 24 standards. The effective date of the 2019 standards is January 1, 2020. The CEC estimates that nonresidential buildings will use about 30 percent less energy due mainly to lighting upgrades (CEC 2019).

In addition to the CEC's efforts, in 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24) are commonly referred to as CALGreen, and establish voluntary and mandatory standards pertaining to the planning and design of sustainable site development, energy efficiency, water conservation, material conservation, and interior air quality. The mandatory standards require the following:

- Mandatory reduction in indoor water use through compliance with specified flow rates for plumbing fixtures and fittings;
- Mandatory reduction in outdoor water use through compliance with a local water efficient landscaping ordinance or the California Department of Water Resources' Model Water Efficient Landscape Ordinance;
- Sixty five (65) percent of construction and demolition waste must be diverted from landfills;
- Mandatory inspections of energy systems to ensure optimal working efficiency;
- Inclusion of electric vehicle charging stations or designated spaces capable of supporting future charging stations; and,

- Low-pollutant emitting exterior and interior finish materials, such as paints, carpets, vinyl flooring, and particle boards.

CALGreen is periodically amended; the most recent 2016 standards became effective on January 1, 2017.

## Mobile Sources

**Pavley Standards.** AB 1493 required the ARB to adopt regulations to reduce GHG emissions from non-commercial passenger vehicles and light-duty trucks for model years 2009–2016, which are often times referred to as the “Pavley I” standards. The ARB obtained a waiver from the EPA that allows for implementation of these regulations notwithstanding possible federal preemption concerns.

**Low Carbon Fuel Standard.** Executive Order S-1-07 requires a 10 percent or greater reduction in the average fuel carbon intensity for transportation fuels in California regulated by the ARB by 2020.<sup>9</sup> In 2009, the ARB approved the Low Carbon Fuel Standard regulations, which became fully effective in April 2010. The regulations were subsequently re-adopted in September 2015 in response to related litigation.

**Advanced Clean Cars Program.** In 2012, the ARB approved the Advanced Clean Cars (ACC) program, a new emissions-control program for model years 2017–2025. (This program is sometimes referred to as “Pavley II.”) The program combines the control of smog, soot, and GHGs with requirements for greater numbers of zero-emission vehicles. By 2025, when the rules will be fully implemented, new automobiles will emit 34 percent fewer GHGs.

**Senate Bill 375.** The Sustainable Communities and Climate Protection Act of 2008 (SB 375) coordinates land use planning, regional transportation plans, and funding priorities to reduce GHG

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<sup>9</sup> Carbon intensity is a measure of the GHG emissions associated with the various production, distribution and use steps in the “lifecycle” of a transportation fuel.

emissions from passenger vehicles through better-integrated regional transportation, land use, and housing planning that provides easier access to jobs, services, public transit, and active transportation options.<sup>10</sup> SB 375 specifically requires the Metropolitan Planning Organization (MPO) relevant to the project area (here, the San Diego Association of Governments [SANDAG]) to include a Sustainable Communities Strategy in its Regional Transportation Plan that will achieve GHG emission reduction targets set by the ARB by reducing vehicle miles traveled from light-duty vehicles through the development of more compact, complete, and efficient communities.

For the area under SANDAG's jurisdiction, including the project site, the ARB adopted regional targets for reduction of mobile source-related GHG emissions by 7 percent for 2020 and by 13 percent for 2035. (These targets are expressed by the ARB as a percent change in per capita GHG emissions relative to 2005 levels.)

Pursuant to Government Code Section 65080(b)(2)(K), a Sustainable Communities Strategy does not: (i) regulate the use of land; (ii) supersede the land use authority of cities and counties; or (iii) require that a city's or county's land use policies and regulations, including those in a general plan, be consistent with it.

**Zero Emission Vehicles.** Zero emission vehicles (ZEVs) include plug-in electric vehicles, such as battery electric vehicles and plug-in hybrid electric vehicles, and hydrogen fuel cell electric vehicles.

In 2012, Governor Brown issued Executive Order B-16-2012, which calls for the increased penetration of ZEVs into California's vehicle fleet in order to help California achieve a reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels by 2050. In furtherance of that statewide target for the transportation sector, the Executive Order also calls upon the ARB, CEC and the California Public Utilities Commission to establish benchmarks

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<sup>10</sup> ARB, First Update (May 2014), pp. 49-50.

that will: (1) allow over 1.5 million ZEVs to be on California roadways by 2025, and (2) provide the State’s residents with easy access to ZEV infrastructure.

In its *First Update*, the ARB recognized that the light-duty vehicle fleet “will need to become largely electrified by 2050 in order to meet California’s emission reduction goals.”<sup>11</sup> Accordingly, the ARB’s ACC program – summarized above – requires about 15 percent of new cars sold in California in 2025 to be a plug-in hybrid, battery electric or fuel cell vehicle.<sup>12</sup> Further, one of the elements of SB 350 (2015) – the Clean Energy and Pollution Reduction Act –establishes a statewide policy for widespread electrification of the transportation sector, recognizing that such electrification is required for achievement of the State’s 2030 and 2050 reduction targets (see Public Utilities Code section 740.12). The ARB’s *2017 Scoping Plan* also identified, as an element of its framework to achieve the statewide 2030 emissions reduction target codified by SB 32, the objective to put 4.2 million zero emission and plug-in hybrid light-duty electric vehicles on the road by 2030.

The proliferation of zero emission vehicles is being supported in multiple ways. For example, California is incentivizing the purchase of ZEVs through implementation of the Clean Vehicle Rebate Project (CVRP), which is administered by a non-profit organization (The Center for Sustainable Energy) for the ARB and currently subsidizes the purchase of passenger near-zero and zero emission vehicles. Additionally, CALGreen requires new residential and non-residential construction to be pre-wired to facilitate the future installation and use of electric vehicle chargers (see Section 4.106.4 and Section 5.106.5.3 of 2016 CALGreen Standards for the residential and non-residential pre-wiring requirements, respectively). As a final example, in January 2017, San Diego Gas & Electric Company (SDG&E) applied to the California Public Utilities Commission for authority to implement numerous programs intended to accelerate the electrification of the transportation sector. SDG&E’s application includes, but is not limited to, proposals to: (i) install up to 90,000 charging stations at single-family homes throughout the company’s service area; (ii) install charging infrastructure at various park-and-ride locations; (iii) provide incentives for

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<sup>11</sup> Id. at p. 48.

<sup>12</sup> Id. at p. 47.



electric taxis and shuttles; and, (iv) provide educational programs and financial incentives for the sale of electric vehicles.

Also of note is AB 1236 (2015), as enacted in California's Planning and Zoning Law, which requires local land use jurisdictions to approve applications for the installation of electric vehicle charging stations, as defined, through the issuance of specified permits unless there is substantial evidence in the record that the proposed installation would have a specific, adverse impact upon the public health or safety, and there is no feasible method to satisfactorily mitigate or avoid the specific, adverse impact. The bill requires local land use jurisdictions with a population of 200,000 or more residents to adopt an ordinance, by September 30, 2016, that creates an expedited and streamlined permitting process for electric vehicle charging stations, as specified. Prior to this statutory deadline, in August 2016, the County Board of Supervisors adopted Ordinance No. 10437 (N.S.) adding a section to its County Code related to the expedited processing of electric vehicle charging stations permits consistent with AB 1236.

#### Water Sources

In response to an ongoing drought in California, Executive Order B-29-15 (April 2015) set a goal of achieving a statewide reduction in potable urban water usage of 25 percent relative to water use in 2013. The Executive Order includes specific directives that set strict limits on water usage in the State, and many of the directives have since become permanent water-efficiency standards and requirements. In response to this Executive Order, the California Department of Water Resources modified and adopted a revised version of the Model Water Efficient Landscape Ordinance that, among other changes, significantly increases the requirements for landscape water use efficiency and broadens its applicability to include new development projects with smaller landscape areas.

#### Solid Waste Sources

The California Integrated Waste Management Act of 1989, as modified by AB 341, requires each jurisdiction's source reduction and recycling element to include an implementation schedule that shows: (1) diversion of 25 percent of all solid waste by January 1, 1995, through source reduction,

recycling, and composting activities; (2) diversion of 50 percent of all solid waste on and after January 1, 2000; and (3) diversion of 75 percent of all solid waste on or after 2020, and annually thereafter. The California Department of Resources Recycling and Recovery (CalRecycle) is required to develop strategies, including source reduction, recycling, and composting activities, to achieve the 2020 goal.

CalRecycle published a discussion document, entitled *California's New Goal: 75 Percent Recycling*, which identified concepts that would assist the State in reaching the 75 percent goal by 2020. Subsequently, in August 2015, CalRecycle released the *AB 341 Report to the Legislature*, which identifies five priority strategies for achievement of the 75 percent goal: (1) moving organics out of landfills; (2) expanding recycling/manufacturing infrastructure; (3) exploring new approaches for State and local funding of sustainable waste management programs; (4) promoting State procurement of post-consumer recycled content products; and, (5) promoting extended producer responsibility.

#### 1.4.3 Local Regulations and Standards

**San Diego Forward.** In October 2015, and in accordance with the requirements established by SB 375 (discussed above), SANDAG adopted *San Diego Forward: The Regional Plan*. The plan establishes a planning framework and implementation actions that increase the region's sustainability and encourage "smart growth while preserving natural resources and limiting urban sprawl."

In December 2015, the ARB accepted SANDAG's GHG emissions quantification determination for the *San Diego Forward* plan and found that it would meet the regional reduction targets adopted by the ARB in furtherance of SB 375 (see ARB Executive Order G-15-075).

**General Plan Update.** The County's General Plan Update (County of San Diego 2011) provides smart growth and land use planning principles designed to reduce vehicle miles traveled (VMT) and GHG emissions. As discussed in the General Plan Update, climate change and GHG reduction

policies are addressed in plans and programs in multiple elements of the General Plan. The strategies for reduction of GHG emissions in the General Plan Update are as follows:

- Strategy A-1: Reduce vehicle trips generated, gasoline/energy consumption, and greenhouse gas emissions.
- Strategy A-2: Reduce non-renewable electrical and natural gas energy consumption and generation (energy efficiency).
- Strategy A-3: Increase generation and use of renewable energy sources.
- Strategy A-4: Reduce water consumption.
- Strategy A-5: Reduce and maximize reuse of solid wastes.
- Strategy A-6: Promote carbon dioxide consuming landscapes.
- Strategy A-7: Maximize preservation of open spaces, natural areas, and agricultural lands.

The General Plan Update also includes climate adaptation strategies to deal with potential adverse effects of climate change. The climate adaptation strategies include the following:

- Strategy B-1: Reduce risk from wildfire, flooding, and other hazards resulting from climate change.
- Strategy B-2: Conserve and improve water supply due to shortages from climate change.
- Strategy B-3: Promote agricultural lands for local food production.
- Strategy B-4: Provide education and leadership.

The County has also implemented a number of outreach programs such as the Green Building Program, lawn mower trade-in program, and reduction of solid waste by recycling to reduce air quality impacts as well as GHG emissions.

The County General Plan's Conservation and Open Space Element includes policies that are designed to reduce the emissions of criteria air quality pollutants, emissions of GHGs, and energy use in buildings and infrastructure, while promoting the use of renewable energy sources, conservation, and other methods of efficiency. The proposed project is consistent with the

following applicable General Plan Goals, as described in Appendix B of the proposed project's Draft EIR.

- General Plan Goal COS-1, Inter-Connected Preserve System
- General Plan Goal COS-2, Sustainability of the Natural Environment
- General Plan Goal COS-14, Sustainable Land Development
- General Plan Goal COS-15, Sustainable Architecture and Buildings
- General Plan Goal COS-16, Sustainable Mobility
- General Plan Goal COS-17, Sustainable Solid Waste Management
- General Plan Goal COS-18, Sustainable Energy
- General Plan Goal COS-19, Sustainable Water Supply

**Climate Action Plan.** In February 2018, the County's Board of Supervisors adopted a Climate Action Plan (CAP) that serves as a guide to reduce GHG emissions in the unincorporated communities of San Diego County. The adopted CAP includes six chapters: (1) Introduction; (2) Greenhouse Gas Emissions Inventory, Projections, and Reduction Targets; (3) Greenhouse Gas Reduction Strategies and Measures; (4) Climate Change Vulnerability, Resiliency, and Adaptation; (5) Implementation and Monitoring; and, (6) Public Outreach and Engagement. The CAP sets the following County-specific GHG reduction targets: by 2020, a 2 percent reduction from 2014 levels; by 2030, a 40 percent reduction from 2014 levels; and, by 2050, a 77 percent reduction from 2014 levels. The CAP is designed to achieve those targets through the implementation of multiple strategies and measures applicable to five general categories of GHG emission sources: (1) Built Environment and Transportation; (2) Energy; (3) Solid Waste; (4) Water and Wastewater; and, (5) Agriculture and Conservation.

The CAP is intended to afford project applicants the opportunity to use CEQA streamlining tools, as established by CEQA Guidelines Section 15183.5. Therefore, in conjunction with its adoption of the CAP, the County's Board also adopted CEQA implementation tools, including the *Guidelines for Determining Significance: Climate Change* and *Appendix A: Final Climate Action Plan Consistency Review Checklist (CAP Consistency Checklist)*. As provided therein, the County set forth the following threshold of significance:

“A proposed project would have a less than significant cumulatively considerable contribution to climate change impacts if it is found to be consistent with the County’s Climate Action Plan; and, would normally have a cumulatively considerable contribution to climate change impacts if it is found to be inconsistent with the County’s Climate Action Plan.”

The County utilizes the *CAP Consistency Checklist* to determine whether discretionary projects subject to CEQA review will have a significant impact; that document sets forth a two-step process for determining significance.

Step 1 (Land Use Consistency) assesses a project’s consistency with the growth projections and land use assumptions made in the CAP. If a project is consistent with the projections in the CAP, its associated growth (in terms of GHG emissions) was accounted for in the CAP’s emissions projections and would not increase emissions beyond what is anticipated in the CAP or inhibit the County from reaching its reduction targets. If a project is consistent with the existing General Plan land use designation(s), it can be determined to be consistent with the CAP projections and can move forward to Step 2 (CAP Measures Consistency) of the *CAP Consistency Checklist*. Also, a project that is inconsistent with existing General Plan or zoning designations but which would propose an equivalent or less GHG-intensive project than that allowed by existing designations can move to Step 2.

If an amendment is needed to the existing land use and/or zoning designation, and if that land use and/or zoning designation amendment results in a more GHG-intensive project, the project is required to undertake a more detailed, project-level GHG analysis. The project was required to demonstrate that each of the CAP measures identified in the *CAP Consistency Checklist* has been complied with to mitigate cumulative GHG emission impacts. Additionally, the project is required to demonstrate either that it results in “no net increase” in GHG emissions from additional density or intensity above that identified in the County’s 2011 General Plan Update *or* results in “no net increase over baseline conditions (carbon neutrality).” In doing so, the project must first demonstrate compliance with relevant CAP measures and then achieve any additional needed reductions through on-site design features and mitigation measures, followed by off-site mitigation.

In November 2019, the San Diego Superior Court ruled that the San Diego County's climate action plan fails to comply with its own and the state's goals of cutting back on carbon emissions. The judge rejected the county's proposal to use carbon credits from out of the county or out of the country, saying that offsetting greenhouse gas emissions in other parts of the world does nothing to help us here at home.

## **2.0 POTENTIAL CLIMATE CHANGE IMPACTS TO PROJECT SITE**

### **2.1 Existing Conditions**

The project site is currently undeveloped with scrub vegetation. Natural vegetation and soils temporarily store carbon as part of the terrestrial carbon cycle. Carbon is assimilated into plants as they grow and then dispersed back into the environment when they die. Therefore, there are two existing sources of carbon storage at the project site: natural vegetation and soils.

It is difficult to assess net changes in carbon storage associated with the proposed project, but carbon sequestration rates for native vegetation in the Spring Valley region are relatively low in comparison to heavily vegetated areas such as forests. For example, according to the EPA (<http://www.epa.gov/sequestration/rates.html>), riparian areas are estimated to sequester from 0.1 to 0.3 metric tons of CO<sub>2</sub>e per acre per year in comparison to forests, which are estimated to sequester 0.6 to 2.6 metric tons of CO<sub>2</sub>e per acre per year. Native vegetation in the Spring Valley region, which consists mainly of scrub, would be expected to provide a low level of carbon sequestration. The site is currently disturbed with a minimum of scrub on site.

Of relevance also are changes in fire regime. Specifically, carbon in natural vegetation areas is likely to be released into the atmosphere through wildfire every 20 to 150 years, whereas carbon in landscaped areas likely will be protected from wildfire. The balance between these factors will influence the long-term carbon budget on the site.

The majority of carbon within the project site is stored in the soil. Soil carbon accumulates from inputs of plant and animal matter, roots, and other living components of the soil ecosystem (e.g., bacteria, worms, etc.). Soil carbon is lost through biological respiration, erosion, and other forms of disturbance. Overall, soil carbon moves more slowly through the carbon cycle, and it offers greater potential for long-term carbon storage. Field observations suggest that urban soils can sequester relatively large amounts of carbon. And, observations from across the United States suggest that warmer and drier climates (such as southern California) may have slightly higher soil organic matter levels when compared to equivalent areas before development.

Based on the site's current conditions and the absence of development, existing GHG emissions are negligible and assumed to be zero.

## 2.2 Typical Adverse Effects

California-specific studies identifying potential impacts resulting from anticipated global warming have identified the following areas of concern:

**Public Health.** Higher temperatures are expected to increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation are projected to increase; and, an increase in wildfires could also occur, with corresponding increases in the release of pollutants, including particulate matter, further compromising air quality.

Potential health effects from GCC may arise from temperature increases, climate-sensitive diseases, extreme events, and air quality. There may be direct temperature effects through increases in average temperature leading to more extreme heat waves and less extreme cold spells. Those living in warmer climates are likely to experience more stress and heat-related problems (e.g., heat rash and heat stroke). In addition, climate sensitive diseases (such as malaria, dengue fever, yellow fever, and encephalitis) may increase, such as those spread by mosquitoes and other disease-carrying insects.

Potential public health impacts from climate change would be global in nature rather than site-specific. That being said, because the project site is not located in an area that is subject to climate sensitive diseases (such as the tropics), it is unlikely that risks associated with these diseases would increase substantially. It is too speculative to estimate the potential frequency of heat waves at the project site that would be associated with GCC.

**Water Resources.** A vast network of reservoirs and aqueducts capture and transport water throughout the State from northern California rivers and the Colorado River. The current



distribution system utilizes Sierra Nevada mountain snowpack and the Colorado River to supply water during the dry spring and summer months; other sources also provide a substantial amount of the County's water supply. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages. In addition, if temperatures continue to rise more precipitation would fall as rain instead of snow, further reducing the Sierra Nevada spring snowpack by as much as 70 to 90%. The State's water resources are also at risk from rising sea levels. An influx of seawater would degrade California's estuaries, wetlands, and groundwater aquifers.

Impacts to water resources could affect the project site through decreased availability of water in southern California overall. Decreased availability could lead to higher prices and water rationing. However, due to the scientific and factual uncertainties regarding the effects of climate change at a regional level, it is too speculative to quantify the effect of this impact. Nonetheless, reference should be made to the EIR's water supply analysis for further information.

**Agriculture.** Increased GHG and associated increases in temperature are expected to cause widespread changes to the agricultural industry, reducing the quantity and quality of agricultural products statewide. Significant reductions in available water supply to support agriculture would also impact production. Crop growth and development will change as will the intensity and frequency of pests and diseases.

This potential effect of climate change would not directly impact the proposed project because the project does not involve agricultural uses.

**Ecosystems/Habitats.** Continued global warming will likely shift the ranges of existing invasive plants and weeds, thus alternating competition patterns with native plants. Range expansion is expected in many species while range contractions are less likely in rapidly evolving species with significant populations already established. Continued global warming is also likely to increase the populations of and types of pests. Continued global warming would also affect natural ecosystems and biological habitats throughout the State.

Due to the scientific and factual uncertainties regarding the effects of climate change at a regional and site-specific level, particularly as to sensitive biological resources, it is too speculative to assess the effect of this impact on the project site. Nonetheless, reference should be made to the EIR's analysis of biological resources for further information.

**Wildland Fires.** Global warming is expected to increase the risk of wildfire and alter the distribution and character of natural vegetation. However, since wildfire risk is determined by a combination of factors including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the State.

The project site generally has a low potential for fire risks due to the type of on-site native vegetation. If fire risks do increase due to GCC, the project has developed a fire protection plan that will protect the site and minimize hazards arising from wildland fires.

**Sea Level Rising and Coastal Flooding.** Rising sea levels, more intense coastal storms, and warmer water temperatures will increasingly threaten the State's coastal regions.

Because the project site is not located in a coastal area, it is unlikely to be affected by rising sea levels.

### **2.3 California Climate Adaptation Strategy**

As part of its climate change planning process, the California Natural Resources Agency prepared its California Climate Adaptation Strategy (CNRA 2009) to summarize the best known science on climate change impacts in California, with the goal of assessing vulnerability to climate change impacts. According to the ARB, some of the potential California-specific impacts of global warming may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years.

To protect the State's public health and safety, resources, and economy, the California Natural Resources Agency—in coordination with other state agencies—has updated the *2009 California*

*Climate Adaptation Strategy* with a document that is titled, *Safeguarding California: Reducing Climate Risk*. The final *Safeguarding California Plan: 2018 Update* (January 2018) provides policy guidance for state decision makers relative to climate risks in nine sectors: agriculture; biodiversity and habitat; emergency management; energy; forestry; ocean and coastal ecosystems and resources; public health; transportation; and water. It also identifies policies for reducing GHG emissions and accelerating the transition to a clean-energy economy through reductions in emissions, readiness, and continued research.

### 3.0 CLIMATE CHANGE SIGNIFICANCE CRITERIA

According to Appendix G of the CEQA Guidelines, the following criteria are considered to establish a significance threshold for GCC impacts:

Would the project:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

**Rationale for Selection of Guidelines.** As background, SB 97, enacted in 2007, expressly recognized the need to analyze GHG emissions as a part of the CEQA process. SB 97 required the Governor’s Office of Planning and Research (OPR) to develop, and CNRA to adopt, amendments to the CEQA Guidelines to address the analysis and mitigation of GHG emissions. (Pub. Resources Code, §21083.05.) In 2010, a series of CEQA Guidelines amendments were adopted to fulfill SB 97 requirements, including revisions to Appendix G of the CEQA Guidelines. The Appendix G revisions included two questions related to GHG emissions, which were intended to satisfy the Legislative directive in Public Resources Code Section 21083.05 that the effects of GHG emissions be analyzed under CEQA.

Section 15064.4 of the CEQA Guidelines was added as one of the amendments addressing GHG emissions. Section 15064.4 states that the “determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in section 15064. A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project.” Section 15064.4(b)(1)-(3) further states that, “a lead agency should consider the following factors, among others, when assessing the significance of impacts from greenhouse gas emissions on the environment: (1) the extent to which a project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting; (2) whether

project emissions exceed a threshold of significance that the lead agency determines applies to the project; and, (3) 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 greenhouse gas emissions.” (For purposes of the analysis presented in this report, focus is placed on criterion (1) above, with consideration given to whether the proposed project would increase or reduce existing GHG emissions levels.

Recognizing that GHG emissions contribute to the cumulative impact condition of global climate change, Section 15064(h)(1) of the CEQA Guidelines is also applicable. Section 15064(h)(1) states that “the lead agency shall consider whether the cumulative impact is significant and whether the effects of the project are cumulatively considerable.” A cumulative impact may be significant when the project’s incremental effect, though individually limited, is cumulatively considerable. “Cumulatively considerable” means that the incremental effects of an individual project are significant when viewed in connection with the effects of other past, current, and reasonably foreseeable probable future projects. However, as provided in CEQA Guidelines Section 15130(a)(3), “[a] project’s contribution is less than cumulatively considerable if the project is required to implement...its fair share of a mitigation measure or measures designed to alleviate the cumulative impact.” Further, “[t]he mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project’s incremental effects are cumulatively considerable” (CEQA Guidelines Section 15064 (h)(4)).

Finally, Section 15064(h)(3) of the CEQA Guidelines is pertinent. Section 15064(h)(3) states that: “[a] lead agency may determine that a project’s incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program...that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located.”

Neither the State of California nor the SDAPCD has adopted emission-based thresholds for GHG emissions from the land use development sector under CEQA. Therefore, the significance criteria for global climate change used in this analysis are based on Appendix G of the CEQA Guidelines.

The first criterion requires evaluation of whether the project's GHG emissions would significantly impact the environment either directly or indirectly, while the second criterion requires evaluation of the project's potential to conflict with any applicable plans, policies or regulations adopted to reduce GHG emissions.

## **4.0 GREENHOUSE GAS INVENTORY**

GHG emissions associated with the proposed project were estimated separately for seven categories of emissions: (1) construction; (2) carbon sequestration; (3) area sources, including fireplace use and landscaping; (4) energy use, including electricity and natural gas usage; (5) water consumption; (6) solid waste handling; and (7) transportation.

The complete emissions inventory is summarized below and included in Appendices B through D.

### **4.1 Existing Greenhouse Gas Emissions**

As discussed in Section 2.1, the site is currently in an undeveloped state with scrub vegetation. This analysis assumes that the existing emission levels are zero. The analysis takes into account the loss in carbon sequestration from development of the existing site. For the purpose of this analysis, it was assumed that the existing site is vegetated with scrub, which has a minor amount of carbon sequestration potential.

### **4.2 Construction Greenhouse Gas Emissions**

Construction GHG emissions include emissions from heavy construction equipment, truck traffic, and worker trips. Emissions were calculated using the California Emissions Estimator Model (CalEEMod) Model Version 2016.3.2 (SCAQMD 2016), based on the anticipated construction schedule to full buildout.

### **4.3 Operational Greenhouse Gas Emissions**

Operational GHG emissions were calculated using the CalEEMod Model, with adjustments to account for site-specific conditions.

**Area Source Emissions.** The CalEEMod Model calculates emissions associated with area sources, including landscaping equipment and maintenance activities.

**Energy Use Emissions.** Energy use generates GHGs through emissions from power plants that generate electricity, as well as emissions from natural gas usage.

The CalEEMod Model includes energy intensity factors for utilities that are based on emission factors for electricity presented in Power Utility Protocol reports. However, implementation of the RPS will influence GHG emissions associated with the project's electricity use. Therefore, the emission factors for utility energy use have been adjusted to account for implementation of the 33% RPS by 2020, which as discussed in Section 1.4.2, is the statewide goal for 2020 as set forth in Executive Order S-14-08.

At a minimum, the project would meet the energy efficiency requirements of Title 24. The CalEEMod Model assumes buildings would meet Title 24 as of 2016 energy efficiency standards. The buildings would be constructed post-2019 and would therefore be required to meet the requirements of Title 24 as of 2019. For conservative purposes, it was assumed that buildings would meet the energy efficiency requirements of Title 24 as of 2016.

**Water.** Water use and energy use are often closely linked. The provision of potable water to commercial users consumes large amounts of energy associated with five stages: source and conveyance, treatment, distribution, end use, and wastewater treatment. For conservative purposes, no water conservation measures were assumed.

**Solid Waste.** The disposal of solid waste produces GHG emissions from anaerobic decomposition in landfills, incineration, and transportation of waste. Solid waste generation rates were estimated from CalEEMod Model, and GHG emissions from solid waste management were estimated using the model, assuming landfilling of solid waste with flaring.

AB 341 sets forth a legislative declaration that it is the policy goal of the state that not less than 75% of solid waste generated be source reduced, recycled, or composted by the year 2020. In April 2017, the County of San Diego Board of Supervisors adopted a goal of reaching 75% diversion by 2025 for the unincorporated areas of the County. According to the County of San Diego Strategic Plan to Reduce Waste (County of San Diego 2017), the County achieved a



diversion rate of 62% in 2015 and is working on developing a high diversion plan to meet the 75% goal. However, for conservative purposes, no solid waste diversion was assumed.

**Transportation.** Several regulatory initiatives have been passed to reduce emissions from on-road vehicles, as discussed in Table 6 and Section 1.3. These measures include the Pavley I standards, the LCFS, and the Advanced Clean Cars program.

The CalEEMod Model uses emission factors from EMFAC2014 for the San Diego Air Basin. The EMFAC2014 model provides estimates of CO<sub>2</sub> emissions with implementation of the Pavley I, and Advanced Clean Cars programs. The LCFS is not included in EMFAC2014 because its GHG reductions are considered to occur upstream.

**Carbon Sequestration.** For conservative purposes, it was assumed that new plantings would be minor. The site landscaping plan was not available at the time of preparation of this analysis. Therefore, no sequestration gain was assumed.

**Construction Emissions and Sequestration.** Table 3 presents the calculation of construction emissions and sequestration loss and gain. As recommended by the SCAQMD (SCAQMD 2008), the one-time contribution from construction and sequestration were amortized and added to project operational emissions. The SCAQMD recommends using an amortization period of 30 years to account for the contribution of construction and sequestration over the project's lifetime.

In summary, the following GHG-reducing features were assumed in the CalEEMod model run:

- Electrical landscaping equipment, based on statewide average fleet mix of 3% electric equipment (no change in GHG calculation)
- Rule 67.0.1 coatings applied (50 g/l interior [flat] and 100 g/l exterior [non-flat]) (no change in GHG calculation)
- Water exposed areas 3 times daily during construction (no change in GHG calculation)
- Reduce vehicle speeds to 15 mph on unpaved surfaces (no change in GHG calculations)

- Trip generation rate 20 trips per 1,000 square feet (based on SANDAG data and traffic analysis)
- Default energy use (Title 24 as of 2016)
- 33% Renewable Portfolio Standard implemented

Table 3 presents a summary of the GHG emissions for the proposed project.

<b>Table 3 SUMMARY OF PROPOSED PROJECT'S ESTIMATED GREENHOUSE GAS EMISSIONS – 2024 (WITH PDFS AND REGULATORY COMPLIANCE MEASURES)</b>				
<b>Emission Source</b>	<b>Annual Emissions (Metric tons/year)</b>			
	<b>CO<sub>2</sub></b>	<b>CH<sub>4</sub></b>	<b>N<sub>2</sub>O</b>	<b>CO<sub>2</sub>e</b>
<b>Construction Emissions</b>				
Construction Activities	264	0.0688	0.0000	266
Sequestration Loss	51	0.0000	0.0000	51
Sequestration Gain	(10)	0.0000	0.0000	(10)
<b>Construction Sub-Total</b>	<b>315</b>	<b>0.0688</b>	<b>0.0000</b>	<b>317</b>
Global Warming Potential Factor	1	25	298	
<b>Construction Total</b>	<b>315</b>	<b>2</b>	<b>0</b>	<b>317</b>
<b>Amortized Construction Emissions</b>	<b>11</b>			
<b>Operational Emissions</b>				
Area Sources	2	0.0001	0.0001	2
Energy Use	23	0.0007	0.0003	23
Water Consumption	2	0.0145	0.0004	3
Solid Waste Handling	2	0.0984	0.0000	4
<b>Vehicles</b>	73	0.0036	0.0000	73
<b>Operational Sub-Total</b>	<b>102</b>	<b>0.1173</b>	<b>0.0008</b>	<b>105</b>
Global Warming Potential Factor	1	25	298	
<b>Operational Total</b>	<b>102</b>	<b>3</b>	<b>0</b>	<b>105</b>
<b>Total with Amortized Construction Emissions</b>	<b>116</b>			

As shown in Table 3, the GHG emissions associated with the proposed project would be 317 metric tons of CO<sub>2</sub>e during construction, and 105 metric tons of CO<sub>2</sub>e during operations. Adding in the

amortized construction emissions as recommended by the SCAQMD (SCAQMD 2008), the total GHG emissions associated with the proposed project would be 116 metric tons of CO<sub>2</sub>e. This level is below the screening threshold of 900 metric tons of CO<sub>2</sub>e as recommended by CAPCOA (CAPCOA 2008). This initial screening level was set based on the original AB 32 goal of reducing statewide GHG emissions to 1990 levels (estimated at 431 MMTCO<sub>2</sub>e) by 2020. Since the initial screening threshold was proposed, the state has adopted Executive Order B-30-15, which establishes a goal of reducing GHGs to 40 percent below 1990 levels by 2030. This amounts to a reduction of 4% per year. Adjusting the initial 2020 screening level threshold by 4% for the operational year 2024, the revised target would be 756 MMTCO<sub>2</sub>e, and 40% below the 2020 threshold would be 540 MMTCO<sub>2</sub>e. The project's GHG emissions are below both of these screening levels. As indicated in the attached Climate Action Plan (CAP) Checklist, the project is also consistent with the County's CAP.



## 5.0 SUMMARY OF PROJECT DESIGN FEATURES AND IMPACTS

### 5.1 Project Greenhouse Gas Emissions

As discussed in Section 4, the proposed project would result in GHG emissions of 116 metric tons of CO<sub>2</sub>e. This level is below the screening level of 900 metric tons recommended by CAPCOA for 2020, below an adjusted target of 756 metric tons for 2022, and also below a 2030 goal of 540 metric tons of CO<sub>2</sub>e. The proposed project would therefore not result in significant GHG emissions.

### 5.2 Consistency with an Applicable Plan, Policy, or Regulation Adopted for the Purpose of Reducing GHG Emissions

The proposed project is consistent with plans, policies and regulations adopted to reduce GHG emissions because the project would be consistent with the County of San Diego's General Plan. The proposed project is consistent with the County of San Diego General Plan. The site designation within the General Plan is Semi-Rural Residential, and the zoning is Rural Residential. The project is proposing seven single-family residences, which is consistent with the General Plan designation and zoning for the site.

The project has completed a CAP Checklist that demonstrates its consistency with the County's Climate Action Plan. The project will adopt applicable measures within the CAP to demonstrate its consistency.

The proposed project, therefore, would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

## **6.0 CONCLUSIONS**

The proposed Spring Valley Residential Project would not result in significant emissions of GHGs from construction and operations.

The proposed project, therefore, would not result in any significant GHG impacts, and cumulative impacts would be less than significant.

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## **8.0 LIST OF PREPARERS, PERSONS AND ORGANIZATIONS CONTACTED**

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Spring Valley Residential Project - San Diego Air Basin, Annual

**Spring Valley Residential Project**  
**San Diego Air Basin, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	7.00	Dwelling Unit	9.91	12,600.00	20

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2024
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	556.22	<b>CH4 Intensity (lb/MW hr)</b>	0.022	<b>N2O Intensity (lb/MW hr)</b>	0.004

**1.3 User Entered Comments & Non-Default Data**

- Project Characteristics - 33% RPS
- Land Use - Project description
- Construction Phase - Assumed construction schedule
- Grading - Site grading
- Trips and VMT - Haul trips
- Architectural Coating - Rule 67.0.1 coatings
- Vehicle Trips - Traffic analysis
- Woodstoves - Natural gas fireplaces
- Area Coating - Rule 67.0.1 coatings

Energy Use -

Land Use Change -

Sequestration -

Construction Off-road Equipment Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	44.00
tblConstructionPhase	NumDays	230.00	131.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	PhaseEndDate	6/21/2024	11/30/2023
tblConstructionPhase	PhaseEndDate	4/26/2024	11/30/2023
tblConstructionPhase	PhaseEndDate	6/9/2023	5/31/2023
tblConstructionPhase	PhaseEndDate	5/24/2024	7/31/2023
tblConstructionPhase	PhaseStartDate	5/25/2024	10/1/2023
tblConstructionPhase	PhaseStartDate	6/10/2023	6/1/2023
tblConstructionPhase	PhaseStartDate	5/13/2023	4/1/2023
tblConstructionPhase	PhaseStartDate	4/27/2024	6/1/2023
tblFireplaces	FireplaceDayYear	82.00	30.00
tblFireplaces	NumberGas	3.85	7.00
tblFireplaces	NumberWood	2.45	0.00
tblGrading	AcresOfGrading	21.50	9.91
tblLandUse	LotAcreage	2.27	9.91
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.022
tblProjectCharacteristics	CO2IntensityFactor	720.49	556.22

tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblSequestration	NumberOfNewTrees	0.00	14.00
tblTripsAndVMT	HaulingTripNumber	0.00	15.00
tblVehicleTrips	ST_TR	9.91	10.00
tblVehicleTrips	SU_TR	8.62	10.00
tblVehicleTrips	WD_TR	9.52	10.00
tblWoodstoves	NumberCatalytic	0.35	0.00
tblWoodstoves	NumberNoncatalytic	0.35	0.00

## 2.0 Emissions Summary

### 2.1 Overall Construction

#### Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.2184	1.5836	1.7551	3.0400e-003	0.1422	0.0751	0.2173	0.0737	0.0702	0.1439	0.0000	264.3402	264.3402	0.0688	0.0000	266.0604
Maximum	0.2184	1.5836	1.7551	3.0400e-003	0.1422	0.0751	0.2173	0.0737	0.0702	0.1439	0.0000	264.3402	264.3402	0.0688	0.0000	266.0604

#### Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					

2023	0.2184	1.5836	1.7551	3.0400e-003	0.0600	0.0751	0.1351	0.0300	0.0702	0.1001	0.0000	264.3399	264.3399	0.0688	0.0000	266.0601
<b>Maximum</b>	<b>0.2184</b>	<b>1.5836</b>	<b>1.7551</b>	<b>3.0400e-003</b>	<b>0.0600</b>	<b>0.0751</b>	<b>0.1351</b>	<b>0.0300</b>	<b>0.0702</b>	<b>0.1001</b>	<b>0.0000</b>	<b>264.3399</b>	<b>264.3399</b>	<b>0.0688</b>	<b>0.0000</b>	<b>266.0601</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>57.79</b>	<b>0.00</b>	<b>37.82</b>	<b>59.34</b>	<b>0.00</b>	<b>30.41</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-1-2023	6-30-2023	0.7239	0.7239
2	7-1-2023	9-30-2023	0.6525	0.6525
		<b>Highest</b>	<b>0.7239</b>	<b>0.7239</b>

## 2.2 Overall Operational Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0559	2.3400e-003	0.0527	1.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004	0.0000	2.1021	2.1021	1.2000e-004	4.0000e-005	2.1161
Energy	8.8000e-004	7.5400e-003	3.2100e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	23.0341	23.0341	7.3000e-004	2.6000e-004	23.1308
Mobile	0.0174	0.0711	0.2124	7.9000e-004	0.0753	6.2000e-004	0.0759	0.0202	5.7000e-004	0.0207	0.0000	73.1800	73.1800	3.6200e-003	0.0000	73.2705
Waste						0.0000	0.0000		0.0000	0.0000	1.6645	0.0000	1.6645	0.0984	0.0000	4.1238
Water						0.0000	0.0000		0.0000	0.0000	0.1447	2.3042	2.4489	0.0150	3.7000e-004	2.9323
<b>Total</b>	<b>0.0742</b>	<b>0.0810</b>	<b>0.2684</b>	<b>8.5000e-004</b>	<b>0.0753</b>	<b>1.6600e-003</b>	<b>0.0770</b>	<b>0.0202</b>	<b>1.6100e-003</b>	<b>0.0218</b>	<b>1.8092</b>	<b>100.6204</b>	<b>102.4296</b>	<b>0.1178</b>	<b>6.7000e-004</b>	<b>105.5734</b>

## Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0559	2.3400e-003	0.0527	1.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004	0.0000	2.1021	2.1021	1.2000e-004	4.0000e-005	2.1161
Energy	8.8000e-004	7.5400e-003	3.2100e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	23.0341	23.0341	7.3000e-004	2.6000e-004	23.1308
Mobile	0.0174	0.0711	0.2124	7.9000e-004	0.0753	6.2000e-004	0.0759	0.0202	5.7000e-004	0.0207	0.0000	73.1800	73.1800	3.6200e-003	0.0000	73.2705
Waste						0.0000	0.0000		0.0000	0.0000	1.6645	0.0000	1.6645	0.0984	0.0000	4.1238
Water						0.0000	0.0000		0.0000	0.0000	0.1400	2.2557	2.3957	0.0145	3.6000e-004	2.8634
<b>Total</b>	<b>0.0742</b>	<b>0.0810</b>	<b>0.2684</b>	<b>8.5000e-004</b>	<b>0.0753</b>	<b>1.6600e-003</b>	<b>0.0770</b>	<b>0.0202</b>	<b>1.6100e-003</b>	<b>0.0218</b>	<b>1.8045</b>	<b>100.5718</b>	<b>102.3763</b>	<b>0.1173</b>	<b>6.6000e-004</b>	<b>105.5046</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.26</b>	<b>0.05</b>	<b>0.05</b>	<b>0.41</b>	<b>1.49</b>	<b>0.07</b>

## 2.3 Vegetation

### Vegetation

	CO2e
Category	MT
New Trees	9.9120
Vegetation Land Change	-50.6220
<b>Total</b>	<b>-40.7100</b>

## 3.0 Construction Detail

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	4/1/2023	5/31/2023	5	43	
2	Building Construction	Building Construction	6/1/2023	11/30/2023	5	131	
3	Paving	Paving	6/1/2023	7/31/2023	5	43	
4	Architectural Coating	Architectural Coating	10/1/2023	11/30/2023	5	44	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 9.91**

**Acres of Paving: 0**

**Residential Indoor: 25,515; Residential Outdoor: 8,505; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Building Construction	Welders	1	8.00	46	0.45

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class	
Grading		6	15.00	0.00	15.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction		9	3.00	1.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving		6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating		1	1.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

### 3.2 Grading - 2023

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1347	0.0000	0.1347	0.0717	0.0000	0.0717	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0368	0.3856	0.3171	6.4000e-004		0.0167	0.0167		0.0153	0.0153	0.0000	56.0303	56.0303	0.0181	0.0000	56.4834
<b>Total</b>	<b>0.0368</b>	<b>0.3856</b>	<b>0.3171</b>	<b>6.4000e-004</b>	<b>0.1347</b>	<b>0.0167</b>	<b>0.1514</b>	<b>0.0717</b>	<b>0.0153</b>	<b>0.0871</b>	<b>0.0000</b>	<b>56.0303</b>	<b>56.0303</b>	<b>0.0181</b>	<b>0.0000</b>	<b>56.4834</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	4.0000e-005	1.2300e-003	4.5000e-004	1.0000e-005	1.3000e-004	0.0000	1.3000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.5446	0.5446	5.0000e-005	0.0000	0.5458
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0100e-003	6.7000e-004	6.9400e-003	2.0000e-005	2.5900e-003	2.0000e-005	2.6000e-003	6.9000e-004	2.0000e-005	7.0000e-004	0.0000	2.0932	2.0932	5.0000e-005	0.0000	2.0946
<b>Total</b>	<b>1.0500e-003</b>	<b>1.9000e-003</b>	<b>7.3900e-003</b>	<b>3.0000e-005</b>	<b>2.7200e-003</b>	<b>2.0000e-005</b>	<b>2.7300e-003</b>	<b>7.3000e-004</b>	<b>2.0000e-005</b>	<b>7.4000e-004</b>	<b>0.0000</b>	<b>2.6379</b>	<b>2.6379</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>2.6404</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0525	0.0000	0.0525	0.0280	0.0000	0.0280	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0368	0.3856	0.3171	6.4000e-004		0.0167	0.0167		0.0153	0.0153	0.0000	56.0303	56.0303	0.0181	0.0000	56.4833
<b>Total</b>	<b>0.0368</b>	<b>0.3856</b>	<b>0.3171</b>	<b>6.4000e-004</b>	<b>0.0525</b>	<b>0.0167</b>	<b>0.0692</b>	<b>0.0280</b>	<b>0.0153</b>	<b>0.0433</b>	<b>0.0000</b>	<b>56.0303</b>	<b>56.0303</b>	<b>0.0181</b>	<b>0.0000</b>	<b>56.4833</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.0000e-005	1.2300e-003	4.5000e-004	1.0000e-005	1.3000e-004	0.0000	1.3000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.5446	0.5446	5.0000e-005	0.0000	0.5458
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0100e-003	6.7000e-004	6.9400e-003	2.0000e-005	2.5900e-003	2.0000e-005	2.6000e-003	6.9000e-004	2.0000e-005	7.0000e-004	0.0000	2.0932	2.0932	5.0000e-005	0.0000	2.0946
<b>Total</b>	<b>1.0500e-003</b>	<b>1.9000e-003</b>	<b>7.3900e-003</b>	<b>3.0000e-005</b>	<b>2.7200e-003</b>	<b>2.0000e-005</b>	<b>2.7300e-003</b>	<b>7.3000e-004</b>	<b>2.0000e-005</b>	<b>7.4000e-004</b>	<b>0.0000</b>	<b>2.6379</b>	<b>2.6379</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>2.6404</b>



### 3.3 Building Construction - 2023

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1030	0.9422	1.0640	1.7600e-003		0.0458	0.0458		0.0431	0.0431	0.0000	151.8321	151.8321	0.0361	0.0000	152.7351
<b>Total</b>	<b>0.1030</b>	<b>0.9422</b>	<b>1.0640</b>	<b>1.7600e-003</b>		<b>0.0458</b>	<b>0.0458</b>		<b>0.0431</b>	<b>0.0431</b>	<b>0.0000</b>	<b>151.8321</b>	<b>151.8321</b>	<b>0.0361</b>	<b>0.0000</b>	<b>152.7351</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5000e-004	4.9900e-003	1.5500e-003	2.0000e-005	4.3000e-004	1.0000e-005	4.4000e-004	1.3000e-004	1.0000e-005	1.3000e-004	0.0000	1.6535	1.6535	1.1000e-004	0.0000	1.6563
Worker	6.1000e-004	4.1000e-004	4.2300e-003	1.0000e-005	1.5800e-003	1.0000e-005	1.5900e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.2754	1.2754	3.0000e-005	0.0000	1.2762
<b>Total</b>	<b>7.6000e-004</b>	<b>5.4000e-003</b>	<b>5.7800e-003</b>	<b>3.0000e-005</b>	<b>2.0100e-003</b>	<b>2.0000e-005</b>	<b>2.0300e-003</b>	<b>5.5000e-004</b>	<b>2.0000e-005</b>	<b>5.6000e-004</b>	<b>0.0000</b>	<b>2.9289</b>	<b>2.9289</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>2.9326</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1030	0.9422	1.0640	1.7600e-003		0.0458	0.0458		0.0431	0.0431	0.0000	151.8319	151.8319	0.0361	0.0000	152.7349
<b>Total</b>	<b>0.1030</b>	<b>0.9422</b>	<b>1.0640</b>	<b>1.7600e-003</b>		<b>0.0458</b>	<b>0.0458</b>		<b>0.0431</b>	<b>0.0431</b>	<b>0.0000</b>	<b>151.8319</b>	<b>151.8319</b>	<b>0.0361</b>	<b>0.0000</b>	<b>152.7349</b>

### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5000e-004	4.9900e-003	1.5500e-003	2.0000e-005	4.3000e-004	1.0000e-005	4.4000e-004	1.3000e-004	1.0000e-005	1.3000e-004	0.0000	1.6535	1.6535	1.1000e-004	0.0000	1.6563
Worker	6.1000e-004	4.1000e-004	4.2300e-003	1.0000e-005	1.5800e-003	1.0000e-005	1.5900e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.2754	1.2754	3.0000e-005	0.0000	1.2762
<b>Total</b>	<b>7.6000e-004</b>	<b>5.4000e-003</b>	<b>5.7800e-003</b>	<b>3.0000e-005</b>	<b>2.0100e-003</b>	<b>2.0000e-005</b>	<b>2.0300e-003</b>	<b>5.5000e-004</b>	<b>2.0000e-005</b>	<b>5.6000e-004</b>	<b>0.0000</b>	<b>2.9289</b>	<b>2.9289</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>2.9326</b>

### **3.4 Paving - 2023**

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0222	0.2191	0.3136	4.9000e-004		0.0110	0.0110		0.0101	0.0101	0.0000	43.0578	43.0578	0.0139	0.0000	43.4059

Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0222</b>	<b>0.2191</b>	<b>0.3136</b>	<b>4.9000e-004</b>		<b>0.0110</b>	<b>0.0110</b>		<b>0.0101</b>	<b>0.0101</b>	<b>0.0000</b>	<b>43.0578</b>	<b>43.0578</b>	<b>0.0139</b>	<b>0.0000</b>	<b>43.4059</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0100e-003	6.7000e-004	6.9400e-003	2.0000e-005	2.5900e-003	2.0000e-005	2.6000e-003	6.9000e-004	2.0000e-005	7.0000e-004	0.0000	2.0932	2.0932	5.0000e-005	0.0000	2.0946
<b>Total</b>	<b>1.0100e-003</b>	<b>6.7000e-004</b>	<b>6.9400e-003</b>	<b>2.0000e-005</b>	<b>2.5900e-003</b>	<b>2.0000e-005</b>	<b>2.6000e-003</b>	<b>6.9000e-004</b>	<b>2.0000e-005</b>	<b>7.0000e-004</b>	<b>0.0000</b>	<b>2.0932</b>	<b>2.0932</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>2.0946</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0222	0.2191	0.3136	4.9000e-004		0.0110	0.0110		0.0101	0.0101	0.0000	43.0577	43.0577	0.0139	0.0000	43.4059
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0222</b>	<b>0.2191</b>	<b>0.3136</b>	<b>4.9000e-004</b>		<b>0.0110</b>	<b>0.0110</b>		<b>0.0101</b>	<b>0.0101</b>	<b>0.0000</b>	<b>43.0577</b>	<b>43.0577</b>	<b>0.0139</b>	<b>0.0000</b>	<b>43.4059</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0100e-003	6.7000e-004	6.9400e-003	2.0000e-005	2.5900e-003	2.0000e-005	2.6000e-003	6.9000e-004	2.0000e-005	7.0000e-004	0.0000	2.0932	2.0932	5.0000e-005	0.0000	2.0946
<b>Total</b>	<b>1.0100e-003</b>	<b>6.7000e-004</b>	<b>6.9400e-003</b>	<b>2.0000e-005</b>	<b>2.5900e-003</b>	<b>2.0000e-005</b>	<b>2.6000e-003</b>	<b>6.9000e-004</b>	<b>2.0000e-005</b>	<b>7.0000e-004</b>	<b>0.0000</b>	<b>2.0932</b>	<b>2.0932</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>2.0946</b>

### 3.5 Architectural Coating - 2023

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0493					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.2200e-003	0.0287	0.0398	7.0000e-005		1.5600e-003	1.5600e-003		1.5600e-003	1.5600e-003	0.0000	5.6172	5.6172	3.4000e-004	0.0000	5.6256
<b>Total</b>	<b>0.0535</b>	<b>0.0287</b>	<b>0.0398</b>	<b>7.0000e-005</b>		<b>1.5600e-003</b>	<b>1.5600e-003</b>		<b>1.5600e-003</b>	<b>1.5600e-003</b>	<b>0.0000</b>	<b>5.6172</b>	<b>5.6172</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>5.6256</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	4.7000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1428	0.1428	0.0000	0.0000	0.1429
<b>Total</b>	<b>7.0000e-005</b>	<b>5.0000e-005</b>	<b>4.7000e-004</b>	<b>0.0000</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>1.8000e-004</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>0.1428</b>	<b>0.1428</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.1429</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0493					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.2200e-003	0.0287	0.0398	7.0000e-005		1.5600e-003	1.5600e-003		1.5600e-003	1.5600e-003	0.0000	5.6172	5.6172	3.4000e-004	0.0000	5.6256
<b>Total</b>	<b>0.0535</b>	<b>0.0287</b>	<b>0.0398</b>	<b>7.0000e-005</b>		<b>1.5600e-003</b>	<b>1.5600e-003</b>		<b>1.5600e-003</b>	<b>1.5600e-003</b>	<b>0.0000</b>	<b>5.6172</b>	<b>5.6172</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>5.6256</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	4.7000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1428	0.1428	0.0000	0.0000	0.1429
<b>Total</b>	<b>7.0000e-005</b>	<b>5.0000e-005</b>	<b>4.7000e-004</b>	<b>0.0000</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>1.8000e-004</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>0.1428</b>	<b>0.1428</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.1429</b>

## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0174	0.0711	0.2124	7.9000e-004	0.0753	6.2000e-004	0.0759	0.0202	5.7000e-004	0.0207	0.0000	73.1800	73.1800	3.6200e-003	0.0000	73.2705
Unmitigated	0.0174	0.0711	0.2124	7.9000e-004	0.0753	6.2000e-004	0.0759	0.0202	5.7000e-004	0.0207	0.0000	73.1800	73.1800	3.6200e-003	0.0000	73.2705

### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	70.00	70.00	70.00	199,871	199,871
Total	70.00	70.00	70.00	199,871	199,871

### 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

### 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.606234	0.039465	0.179154	0.102641	0.014368	0.005395	0.016820	0.024508	0.001929	0.001857	0.005869	0.000761	0.000998

## 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	14.2980	14.2980	5.7000e-004	1.0000e-004	14.3428
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	14.2980	14.2980	5.7000e-004	1.0000e-004	14.3428
NaturalGas Mitigated	8.8000e-004	7.5400e-003	3.2100e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	8.7361	8.7361	1.7000e-004	1.6000e-004	8.7880
NaturalGas Unmitigated	8.8000e-004	7.5400e-003	3.2100e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	8.7361	8.7361	1.7000e-004	1.6000e-004	8.7880

### 5.2 Energy by Land Use - NaturalGas

#### Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	163708	8.8000e-004	7.5400e-003	3.2100e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	8.7361	8.7361	1.7000e-004	1.6000e-004	8.7880
<b>Total</b>		<b>8.8000e-004</b>	<b>7.5400e-003</b>	<b>3.2100e-003</b>	<b>5.0000e-005</b>		<b>6.1000e-004</b>	<b>6.1000e-004</b>		<b>6.1000e-004</b>	<b>6.1000e-004</b>	<b>0.0000</b>	<b>8.7361</b>	<b>8.7361</b>	<b>1.7000e-004</b>	<b>1.6000e-004</b>	<b>8.7880</b>

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	163708	8.8000e-004	7.5400e-003	3.2100e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	8.7361	8.7361	1.7000e-004	1.6000e-004	8.7880
<b>Total</b>		<b>8.8000e-004</b>	<b>7.5400e-003</b>	<b>3.2100e-003</b>	<b>5.0000e-005</b>		<b>6.1000e-004</b>	<b>6.1000e-004</b>		<b>6.1000e-004</b>	<b>6.1000e-004</b>	<b>0.0000</b>	<b>8.7361</b>	<b>8.7361</b>	<b>1.7000e-004</b>	<b>1.6000e-004</b>	<b>8.7880</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	56671.2	14.2980	5.7000e-004	1.0000e-004	14.3428
<b>Total</b>		<b>14.2980</b>	<b>5.7000e-004</b>	<b>1.0000e-004</b>	<b>14.3428</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
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Consumer Products	0.0492				0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.0000e-004	1.7400e-003	7.4000e-004	1.0000e-005	1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	2.0172	2.0172	4.0000e-005	4.0000e-005	2.0291
Landscaping	1.5600e-003	6.0000e-004	0.0520	0.0000	2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004	0.0000	0.0849	0.0849	8.0000e-005	0.0000	0.0869
<b>Total</b>	<b>0.0559</b>	<b>2.3400e-003</b>	<b>0.0527</b>	<b>1.0000e-005</b>	<b>4.3000e-004</b>	<b>4.3000e-004</b>		<b>4.3000e-004</b>	<b>4.3000e-004</b>	<b>0.0000</b>	<b>2.1021</b>	<b>2.1021</b>	<b>1.2000e-004</b>	<b>4.0000e-005</b>	<b>2.1161</b>

### Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.9300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0492					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.0000e-004	1.7400e-003	7.4000e-004	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	2.0172	2.0172	4.0000e-005	4.0000e-005	2.0291
Landscaping	1.5600e-003	6.0000e-004	0.0520	0.0000		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004	0.0000	0.0849	0.0849	8.0000e-005	0.0000	0.0869
<b>Total</b>	<b>0.0559</b>	<b>2.3400e-003</b>	<b>0.0527</b>	<b>1.0000e-005</b>		<b>4.3000e-004</b>	<b>4.3000e-004</b>		<b>4.3000e-004</b>	<b>4.3000e-004</b>	<b>0.0000</b>	<b>2.1021</b>	<b>2.1021</b>	<b>1.2000e-004</b>	<b>4.0000e-005</b>	<b>2.1161</b>

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

Install Low Flow Kitchen Faucet

	Total CO2	CH4	N2O	CO2e
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Category	MT/yr			
	Mitigated	2.3957	0.0145	3.6000e-004
Unmitigated	2.4489	0.0150	3.7000e-004	2.9323

## 7.2 Water by Land Use

### Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.456078 / 0.287528	2.4489	0.0150	3.7000e-004	2.9323
<b>Total</b>		<b>2.4489</b>	<b>0.0150</b>	<b>3.7000e-004</b>	<b>2.9323</b>

### Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.441301 / 0.287528	2.3957	0.0145	3.6000e-004	2.8634
<b>Total</b>		<b>2.3957</b>	<b>0.0145</b>	<b>3.6000e-004</b>	<b>2.8634</b>

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

#### Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.6645	0.0984	0.0000	4.1238
Unmitigated	1.6645	0.0984	0.0000	4.1238

### 8.2 Waste by Land Use

#### Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	8.2	1.6645	0.0984	0.0000	4.1238
<b>Total</b>		<b>1.6645</b>	<b>0.0984</b>	<b>0.0000</b>	<b>4.1238</b>

#### Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	8.2	1.6645	0.0984	0.0000	4.1238
<b>Total</b>		<b>1.6645</b>	<b>0.0984</b>	<b>0.0000</b>	<b>4.1238</b>

## 9.0 Operational Offroad

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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## 10.0 Stationary Equipment

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### Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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### Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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### User Defined Equipment

Equipment Type	Number
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## 11.0 Vegetation

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	Total CO2	CH4	N2O	CO2e
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Category	MT			
Unmitigated	-40.7100	0.0000	0.0000	-40.7100

## 11.1 Vegetation Land Change

### Vegetation Type

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Scrub	9.91 / 6.37	-50.6220	0.0000	0.0000	-50.6220
<b>Total</b>		<b>-50.6220</b>	<b>0.0000</b>	<b>0.0000</b>	<b>-50.6220</b>

## 11.2 Net New Trees

### Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Miscellaneous	14	9.9120	0.0000	0.0000	9.9120
<b>Total</b>		<b>9.9120</b>	<b>0.0000</b>	<b>0.0000</b>	<b>9.9120</b>



Permit Number: \_\_\_\_\_

COUNTY OF SAN DIEGO  
LAND USE AND ENVIRONMENT GROUP  
Department of Planning & Development Services

## Appendix A: Final Climate Action Plan

### Consistency Review Checklist

### Introduction

The County of San Diego (County) Climate Action Plan (CAP), adopted by the Board of Supervisors on February 14, 2018, outlines actions that the County will undertake to meet its greenhouse gas (GHG) emissions reduction targets. Implementation of the CAP will require that new development projects incorporate more sustainable design standards and implement applicable reduction measures consistent with the CAP. To help plan and design projects consistent with the CAP, and to assist County staff in implementing the CAP and determining the consistency of proposed projects with the CAP during development review, the County has prepared a CAP Consistency Review Checklist (Checklist). This Checklist, in conjunction with the CAP, provides a streamlined review process for proposed discretionary projects that require environmental review pursuant to the California Environmental Quality Act (CEQA). Please refer to the County's Guidelines for Determining Significance for Climate Change (Guidelines) for more information on GHG emissions, climate change impact requirements, thresholds of significance, and compliance with CEQA Guidelines Section 15183.5.

The purpose of this Checklist is to implement GHG reduction measures from the CAP that apply to new development projects. The CAP presents the County's comprehensive strategy to reduce GHG emissions to meet its reduction targets. These reductions will be achieved through a combination of County initiatives and reduction actions for both existing and new development. Reduction actions that apply to existing and new development will be implemented through a combination of mandatory requirements and incentives. This Checklist specifically applies to proposed discretionary projects that require environmental review pursuant to CEQA. Therefore, the Checklist represents one implementation tool in the County's overall strategy to implement the CAP. Implementation of measures that do not apply to new development projects will occur through the implementation mechanisms identified in Chapter 5 of the CAP. Implementation of applicable reduction measures in new development projects will help the County achieve incremental reductions towards its targets, with additional reductions occurring through County initiatives and measures related to existing development that are implemented outside of the Checklist process.

The Checklist follows a two-step process to determine if projects are consistent with the CAP and whether they may have a significant cumulative impact under the County's adopted GHG thresholds of significance. The Checklist first assesses a project's consistency with the growth projections and land use assumptions that formed the basis of CAP emissions projections. If a project is consistent with the projections and land use assumptions in the CAP, its associated growth in terms of GHG emissions would have been accounted for in the CAP's projections and project implementation of the CAP reduction measures will contribute towards reducing the County's emissions and meeting the County's reduction targets. Projects that include a land use plan and/or zoning designation amendment that would result in an equivalent or less GHG-intensive project

when compared to existing designation, would also be within the projections assumed in the CAP. Projects responding in the affirmative to Step 1 questions can move forward to Step 2 of the Checklist. If a land use and/or zoning designation amendment results in a more GHG-intensive project, the project is required to demonstrate consistency with applicable CAP measures and offset the increase in emissions as described in the Guidelines. Step 2 of the Checklist contains the CAP GHG reduction measures that projects are required to implement to ensure compliance with the CAP. Implementation of these measures would ensure that new development is consistent with relevant CAP strategies and measures and will contribute towards achieving the identified GHG reduction targets. Projects that are consistent with the CAP, as determined using this Checklist, may rely on the CAP for the cumulative impacts analysis of GHG emissions under CEQA.

A project's incremental contribution to cumulative GHG emissions may be determined to not be cumulatively considerable if it is determined to be consistent with the CAP. As specified in the CEQA Guidelines, the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the project's incremental effects are "cumulatively considerable" (CCR, Title 14, Division 6, Chapter 3, Section 15064[h][4]). Projects requiring discretionary review that cannot demonstrate consistency with the CAP using this Checklist may have a cumulatively considerable contribution to a significant cumulative impact and would be required to prepare a separate, more detailed project-level GHG analysis as part of the CEQA document prepared for the project.

## Checklist Applicability

This Checklist only applies to development projects that require discretionary review and are subject to environmental review (i.e., not statutorily or categorically exempt projects) pursuant to CEQA. Projects that are limited to ministerial review and approval (e.g., only building permits) would not be subject to the Checklist. The CAP contains other measures that, when implemented, would apply broadly to all ministerial and discretionary projects. These measures are included for discretionary projects in this Checklist, but could also apply more broadly once the County takes action to codify specific requirements or standards.

## Checklist Procedures

General procedures for Checklist compliance and review are described below. Specific guidance is also provided under each of the questions under Steps 1 and 2 of the Checklist in subsequent pages.

1. The County's Department of Planning & Development Services (PDS) reviews development applications and makes determinations regarding environmental review requirements under CEQA. Procedures for CEQA can be found on the County's [Process Guidance & Regulations/Statutes Homepage](#). The Director of PDS will determine whether environmental review is required, and if so, whether completion of the CAP Checklist is required for a proposed project or whether a separate project-level GHG analysis is required.
2. The specific applicable requirements outlined in the Checklist shall be required as a condition of project approval.
3. The project must provide substantial evidence that demonstrates how the proposed project will implement each applicable Checklist requirement described herein to the satisfaction of the Director of PDS.
4. If a question in the Checklist is deemed not applicable (N/A) to a project, substantial evidence shall be provided to the satisfaction of the Director of PDS demonstrating why the Checklist item is not applicable. Feasibility of reduction measures for new projects was assessed in development of the



CAP and measures determined to be feasible were incorporated into the Checklist. Therefore, it is expected that projects would have the ability to comply with all applicable Checklist measures.

5. Development projects requiring discretionary review that cannot demonstrate consistency with the CAP using this Checklist shall prepare a separate, project-level GHG analysis as part of the CEQA document prepared for the project and may be required to prepare an Environmental Impact Report (EIR). Guidance for project-specific GHG Technical Reports is outlined in the Report Format and Content Requirements for Climate Change document, provided under separate cover. The Report Format and Content Requirements document provides guidance on the outline and content of GHG analyses for discretionary projects processed by PDS that cannot show compliance with the CAP Checklist.

## Checklist Updates

The Guidelines and Checklist may be administratively updated by the County from time to time to comply with amendments to State laws or court directives, or to remove measures that may become mandatory through future updates to State or local codes. Administrative revisions to the Guidelines and Checklist will be limited to changes that do not trigger a subsequent EIR or a supplement to the SEIR for the CAP pursuant to CEQA Guidelines Section 15162. Administrative revisions, as described above, will not require approval by the Board of Supervisors (Board). All other changes to the Guidelines and Checklist require Board approval.

Comprehensive updates to the Guidelines and Checklist will be coordinated with each CAP update (i.e., every five years beginning in 2025) and would require Board approval. Future updates of the CAP, Guidelines, and Checklist shall comply with CEQA.

## Application Information

### Contact Information

Project No. and Name: \_\_\_\_\_  
Property Address and APN: \_\_\_\_\_

Applicant Name and Co.: \_\_\_\_\_

Contact Phone: \_\_\_\_\_ Contact Email: \_\_\_\_\_

Was a consultant retained to complete this checklist?  Yes  No

If Yes, complete the following:

Consultant Name: \_\_\_\_\_ Contact Phone: \_\_\_\_\_

Company Name: \_\_\_\_\_ Contact Email: \_\_\_\_\_

### Project Information

1. What is the size of the project site (acres [gross and net])? \_\_\_\_\_

2. Identify all applicable proposed land uses (indicate square footage [gross and net]):

Residential (indicate # of single-family dwelling units): \_\_\_\_\_

Residential (indicate # of multi-family dwelling units): \_\_\_\_\_

Commercial (indicate total square footage [gross and net]): \_\_\_\_\_

Industrial (indicate total square footage [gross and net]): \_\_\_\_\_

Agricultural (indicate total acreage [gross and net]): \_\_\_\_\_

Other (describe): \_\_\_\_\_

3. Provide a description of the project proposed. This description should match the project description used for the CEQA document. The description may be attached to the Checklist if there are space constraints.

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# CAP Consistency Checklist Questions

## Step 1: Land Use Consistency

For projects that are subject to CAP consistency review, the first step in determining consistency is to assess the project’s consistency with the growth projections used in the development of the CAP. This section allows the County to determine a project’s consistency with the land use assumptions used in the CAP.

Step 1: Land Use Consistency		
Checklist Item (Check the appropriate box and provide explanation and supporting documentation for your answer)	Yes	No
<p>1. Is the proposed project consistent with the existing General Plan regional category, land use designations, and zoning designations?</p> <p>If <b>“Yes,”</b> provide substantiation below and then proceed to Step 2 (CAP Measures Consistency) of the Checklist.</p> <p>If <b>“No,”</b> proceed to question 2 below.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>Project Detail: Please substantiate how the project satisfies question 1.</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>		
<p>2. Does the project include a land use element and/or zoning designation amendment that would result in an equivalent or less GHG-intensive project when compared to the existing designations?</p> <p>If <b>“Yes,”</b> the project must provide estimated project GHG emissions under both existing and proposed designation(s) for comparison to substantiate the response and proceed to Step 2 (CAP Measures Consistency) of the Checklist.</p> <p>If <b>“No,”</b> (i.e., the project proposes an increase in density or intensity above that which is allowed under existing General Plan designations and consequently would not result in an equivalent or less GHG-intensive project when compared to the existing designations), the project must prepare a separate, more detailed project-level GHG analysis. As outlined in the County’s Guidelines for Determining Significance for Climate Change and Report Format and Content Requirements for Climate Change, this analysis must demonstrate how the project would offset the increase in GHG emissions over the existing designations or baseline conditions. The project must also incorporate each of the CAP measures identified in Step 2 to mitigate cumulative GHG emissions impacts. Proceed and complete a separate project-specific GHG analysis and Step 2 of the Checklist. Refer to Section 4 of the County’s Guidelines for procedures on analyzing General Plan Amendments.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>Project Detail: Please substantiate how the project satisfies question 2.</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>		

## Step 2: CAP Measures Consistency

The second step of the CAP consistency review is to review and evaluate a project’s consistency with the applicable measures of the CAP. Each checklist item is associated with a specific GHG reduction measure(s) in the County CAP.

Step 2: CAP Measures Consistency				
Checklist Item (Check the appropriate box and provide an explanation for your answer)	CAP Measure	Yes	No	N/A
<b>Step 2A: Project Operations</b> (All projects with an operational component must fill out this portion of the Checklist)				
<b>Reducing Vehicle Miles Traveled</b>				
<p>1a. Reducing Vehicle Miles Traveled</p> <p><u>Non-Residential:</u> For non-residential projects with anticipated tenant-occupants of 25 or more, will the project achieve a 15% reduction in emissions from commute vehicle miles traveled (VMT), and commit to monitoring and reporting results to demonstrate on-going compliance? VMT reduction may be achieved through a combination of Transportation Demand Management (TDM) and parking strategies, as long as the 15% reduction can be substantiated.</p> <p>VMT reduction actions though TDM may include, but are not limited to:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Telecommuting</li> <li><input type="checkbox"/> Car Sharing</li> <li><input type="checkbox"/> Shuttle Service</li> <li><input type="checkbox"/> Carpools</li> <li><input type="checkbox"/> Vanpools</li> <li><input type="checkbox"/> Bicycle Parking Facilities</li> <li><input type="checkbox"/> Transit Subsidies</li> </ul> <p>Shared and reduced parking strategies may include, but are not limited to:<sup>1</sup></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Shared parking facilities</li> <li><input type="checkbox"/> Carpool/vanpool-only parking spaces</li> <li><input type="checkbox"/> Shuttle facilities</li> <li><input type="checkbox"/> Electric Vehicle-only parking spaces</li> </ul> <p>The project may incorporate the measures listed above, and propose additional trip reduction measures, as long as a 15% reduction in emissions from commute VMT can be demonstrated through substantial evidence.</p> <p>Check “N/A” if the project is a residential project or if the project would not accommodate more than 25 tenant-occupants.</p>	T-2.2 and T-2.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>1b. Project Detail: Please substantiate how the project satisfies question 1a.</p> <hr/> <hr/> <hr/> <hr/>				

<sup>1</sup> Reduction actions and strategies under 1a may be used to achieve a 10% reduction in emissions from commute VMT under 2a

**Step 2: CAP Measures Consistency**

Checklist Item (Check the appropriate box and provide an explanation for your answer)	CAP Measure	Yes	No	N/A
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**Shared and Reduced Parking**

2a. Shared and Reduced Parking

Non-Residential: For non-residential projects with anticipated tenant-occupants of 24 or less, will the project implement shared and reduced parking strategies that achieves a 10% reduction in emissions from commute VMT?

Shared and reduced parking strategies may include, but are not limited to:

- Shared parking facilities
- Carpool/vanpool-only parking spaces
- Shuttle facilities
- Electric Vehicle-only parking spaces

Check "N/A" if the project is a residential project or if the project would accommodate 25 or more tenant-occupants.

T-2.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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2b. Project Detail:

Please substantiate how the project satisfies question 2a.

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**Water Heating Systems**

3a. Electric or Alternately-Fueled Water Heating Systems

Residential: For projects that include residential construction, will the project, as a condition of approval, install the following types of electric or alternately-fueled water heating system(s)? Please check which types of system(s) will be installed:

- Solar thermal water heater
- Tankless electric water heater
- Storage electric water heaters
- Electric heat pump water heater
- Tankless gas water heater
- Other

Check "N/A" if the project does not contain any residential buildings.

E-1.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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3b. Project Detail:

Please substantiate how the project satisfies question 3a.

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**Step 2: CAP Measures Consistency**

Checklist Item (Check the appropriate box and provide an explanation for your answer)	CAP Measure	Yes	No	N/A
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**Water-Efficient Appliances and Plumbing Fixtures**

4a. Water Efficient Appliances and Plumbing Fixtures

Residential: For new residential projects, will the project comply with all of the following water efficiency and conservation BMPs<sup>2</sup>?

- Kitchen Faucets: The maximum flow rate of kitchen faucets shall not exceed 1.5 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.5 gallons per minute at 60 psi<sup>3</sup>.
- Energy Efficient Appliances: Install at least one qualified ENERGY STAR dishwasher or clothes washer per unit.

W-1.1




Check "N/A" if the project is a non-residential project.

4b. Project Detail:

Please substantiate how the project satisfies question 4a.

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**Rain Barrel Installations**

5a. Rain Barrel Installations

Residential: For new residential projects, will the project make use of incentives to install one rain barrel per every 500 square feet of available roof area?

Check "N/A" if the project is a non-residential project; if State, regional or local incentives/rebates to purchase rain barrels are not available; or if funding for programs/rebates has been exhausted.

W-2.1




5b. Project Detail:

Please substantiate how the project satisfies question 5a.

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<sup>2</sup> CALGreen Tier 1 residential voluntary measure A4.303 of the [California Green Building Standards Code](#).

<sup>3</sup> Where complying faucets are unavailable, aerators or other means may be used to achieve reduction.

**Step 2: CAP Measures Consistency**

Checklist Item (Check the appropriate box and provide an explanation for your answer)	CAP Measure	Yes	No	N/A
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**Reduce Outdoor Water Use**

6a. Reduce Outdoor Water Use

Residential: Will the project submit a Landscape Document Package that is compliant with the County’s Water Conservation in Landscaping Ordinance<sup>4</sup> and demonstrates a 40% reduction in current Maximum Applied Water Allowance (MAWA) for outdoor use?

Non-Residential: Will the project submit a Landscape Document Package that is compliant with the County’s Water Conservation in Landscaping Ordinance and demonstrates a 40% reduction in current MAWA for outdoor use?

Check “N/A” if the project does not propose any landscaping, or if the aggregate landscaped area is between 500 – 2,499 square feet and elects to comply with the Prescriptive Compliance Option within the Water Conservation in Landscaping Ordinance.

W-1.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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6b. Project Detail:

Please substantiate how the project satisfies question 6a.

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**Agricultural and Farming Operations<sup>5</sup>**

7a. Agricultural and Farming Equipment

Will the project use the San Diego County Air Pollution Control District’s (SDAPCD’s) farm equipment incentive program to convert gas- and diesel-powered farm equipment to electric equipment?

Check “N/A” if the project does not contain any agricultural or farming operations; if the SDAPCD incentive program is no longer available; or if funding for the incentive program has been exhausted.

A-1.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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7b. Project Detail:

Please substantiate how the project satisfies question 7a.

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<sup>4</sup> <http://www.sandiegocounty.gov/content/dam/sdc/cob/ordinances/ord10427.pdf>.

<sup>5</sup> Existing agricultural operations would not be subject to questions 7 and 8 of the Checklist, unless a proposed expansion is subject to discretionary review and requires environmental review pursuant to CEQA.

**Step 2: CAP Measures Consistency**

Checklist Item (Check the appropriate box and provide an explanation for your answer)	CAP Measure	Yes	No	N/A
<p>8a. Electric Irrigation Pumps</p> <p>Will the project use SDAPCD's farm equipment incentive program to convert diesel- or gas-powered irrigation pumps to electric irrigation pumps?</p> <p>Check "N/A" if the project does not contain any agricultural or farming operations; if the SDAPCD incentive program is no longer available; or if funding for the incentive program has been exhausted.</p>	A-1.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8b. Project Detail:  
Please substantiate how the project satisfies question 8a.

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**Tree Planting**

<p>9a. Tree Planting</p> <p><u>Residential</u>: For residential projects, will the project plant, at a minimum, two trees per every new residential dwelling unit proposed?</p> <p>Check "N/A" if the project is a non-residential project.</p>	A-2.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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9b. Project Detail:  
Please substantiate how the project satisfies question 9a.

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