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MEMORANDUM

To:	Mr. Greg Mattson, Project Manager, San Diego County
From:	Samantha Wang, Dudek
Subject:	Greenhouse Gas Emissions Technical Memorandum for the Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment
Date:	December 19, 2019
cc:	GDCI Proctor Valley L.P.; Sean Kilkenny and Jennifer Reed, Dudek
Attachments:	Attachment A, CalEEMod Output Files Attachment B, County of San Diego's Climate Action Plan Consistency Checklist Attachment C. *Friends of the Santa Clara River et. al. v. County of Los Angeles* (Case No. BS 170568)

Introduction

This Memorandum reflects proposed changes to the Otay Ranch Village 14 and Planning Areas 16/19 Project that was approved by the San Diego County Board of Supervisors on June 26, 2019 (Approved Project). Figure 1, Regional Location Map, shows the regional location of the Approved Project Area and the Proposed Amendment Project Area, in the County of San Diego (County).

The changes to the Approved Project would reconfigure the development footprint to consolidate development in Village 14; add 166 units, for a total of 1,266 residential units; and reduce impacts by approximately 230 acres, to 579 acres (the Proposed Project Amendment). An Environmental Impact Report (EIR) was prepared for the Approved Project and was certified by the Board on June 26, 2019. The Final EIR analyzed the potential impacts of the Approved Project. The Final EIR also analyzed potential impacts associated with the EIR Land Exchange Alternative, which was one of the alternatives to the Approved Project. The Final EIR is incorporated herein by reference, the results are summarized in Section 3, and mitigation measures and project design features are described in Section 5.

The Final EIR analyzed the Approved Project's potential impacts to air quality in Section 2.3, Air Quality. This Air Quality Technical Memorandum was prepared for the Proposed Project Amendment. The purpose of this analysis is to evaluate whether, and to what extent, the potential impacts of the Proposed Project Amendment to air quality differ from those of the Approved Project and, if appropriate, the EIR Land Exchange Alternative. This technical memorandum includes the following sections: (1) background, (2) Proposed Project Amendment description, (3) summary of the Approved Project's impacts to air quality, (4) analysis of the Proposed Project Amendment's impacts to air quality, (5) mitigation measures and project design features, and (6) conclusion.

For additional context, the following terminology is used in this Technical Memorandum.

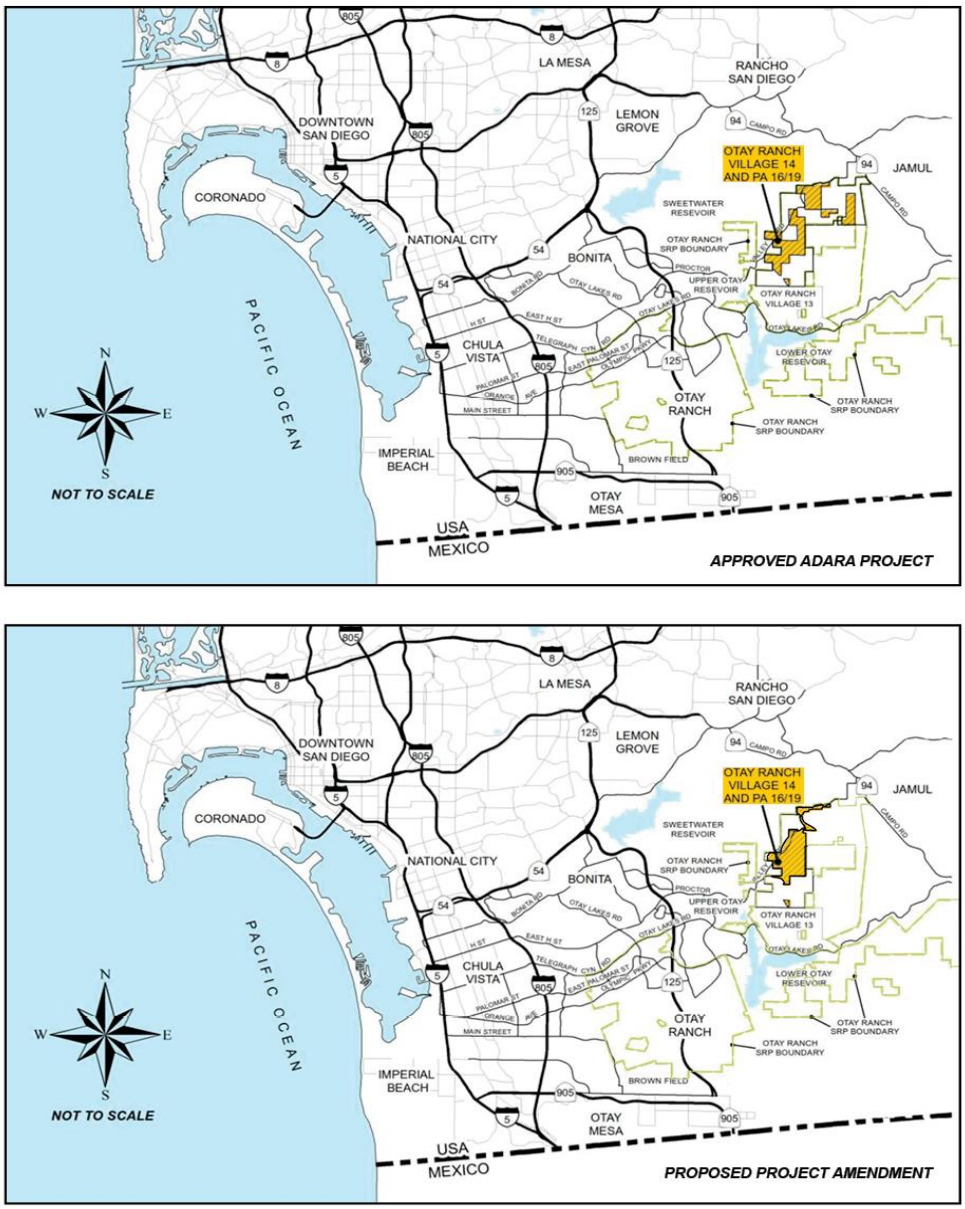


FIGURE 1
Regional Location Map

Terminology

Approved Project: The project described in Otay Ranch Village 14 and Planning Areas 16/19 Tentative Map 5616, Specific Plan 16-002, and the certified EIR, which the County of San Diego (County) approved on June 26, 2019. The Approved Project permits 1,119 residential units within a Project Area of approximately 1,369 acres. The Development Footprint of the Approved Project is 809 acres.

Conserved Open Space: Conserved Open Space refers to 24.5 acres of land within the Project Area, which, while designated in the Otay Ranch General Development Plan/Otay Subregional Plan (Otay Ranch GDP/SRP) (City of Chula Vista and County of San Diego 1993) for residential uses within Village 14 and Planning Areas 16/19, will not be developed as part of the Proposed Project Amendment. Instead, the Conserved Open Space will be preserved on site and be (a) added to the Otay Ranch Resource Management Plan (RMP) Preserve (through a future RMP Amendment), (b) managed under a separate RMP, or (c) utilized to mitigate impacts to the City of San Diego Multiple Species Conservation Program Cornerstone Lands. The Conserved Open Space areas are located adjacent to Otay Ranch RMP Preserve and will be conserved by recording a biological open space easement over the land.

Development Footprint: The areas where a given project will cause permanent or temporary ground disturbance. The Development Footprint includes all on-site development, off-site improvements, and impacts resulting from infrastructure and other allowable uses within the Otay Ranch Resource Management Plan (RMP) Preserve.

EIR Land Exchange Alternative: The project alternative identified as the "Land Exchange Alternative" in Chapter 4 of the certified Final EIR. This Land Exchange Alternative contemplated a land exchange with the California Department of Fish and Wildlife (CDFW) and would develop 1,530 residential units within a Project Area of approximately 2,387.6 acres, with a Development Footprint of 658.3 acres.

Off-Site Improvements: Off-site improvements total approximately 40.1 acres and include Proctor Valley Road, wet and dry utilities, drainage facilities, trails, an off-site sewer pump station in the southern reach of Proctor Valley Road, and off-site sewer facilities to connect to the Salt Creek Interceptor as planned since 1994.

Project Area: The total land area for the Proposed Project Amendment as contemplated in the proposed land exchange between applicant and CDFW.[1] The Project Area consists of approximately 1,283.6 acres currently owned by GDCI Proctor Valley, L.P., the owner/applicant, 219.4 acres currently owned by CDFW, and approximately 40.1 acres of off-site improvements, for a total of 1,543 acres.

Proposed Project Amendment: The Proposed Project Amendment reflects proposed changes to the Approved Project, which would add 166 units for a total of 1,266 residential units and would reduce the Development Footprint by approximately 230 acres, to a total of 579 acres, within a Project Area of 1,543 acres, as shown on Figure 2, Site Utilization Plan, and more fully described below in Section 2. The Proposed Project Amendment includes a Revised Tentative Map and Specific Plan Amendment. As contemplated in the Dispute Resolution Agreement, the Proposed Project Amendment assumes and will require a County-initiated amendment to the Multiple Species Conservation Program (MSCP) County Subarea Plan. Because the amendment to the MSCP County Subarea Plan will be initiated by the County, it is not part of the Proposed Project Amendment.

[1] As indicated above, the land exchange necessary to implement the Proposed Project Amendment must be approved by the California Wildlife Conservation Board.

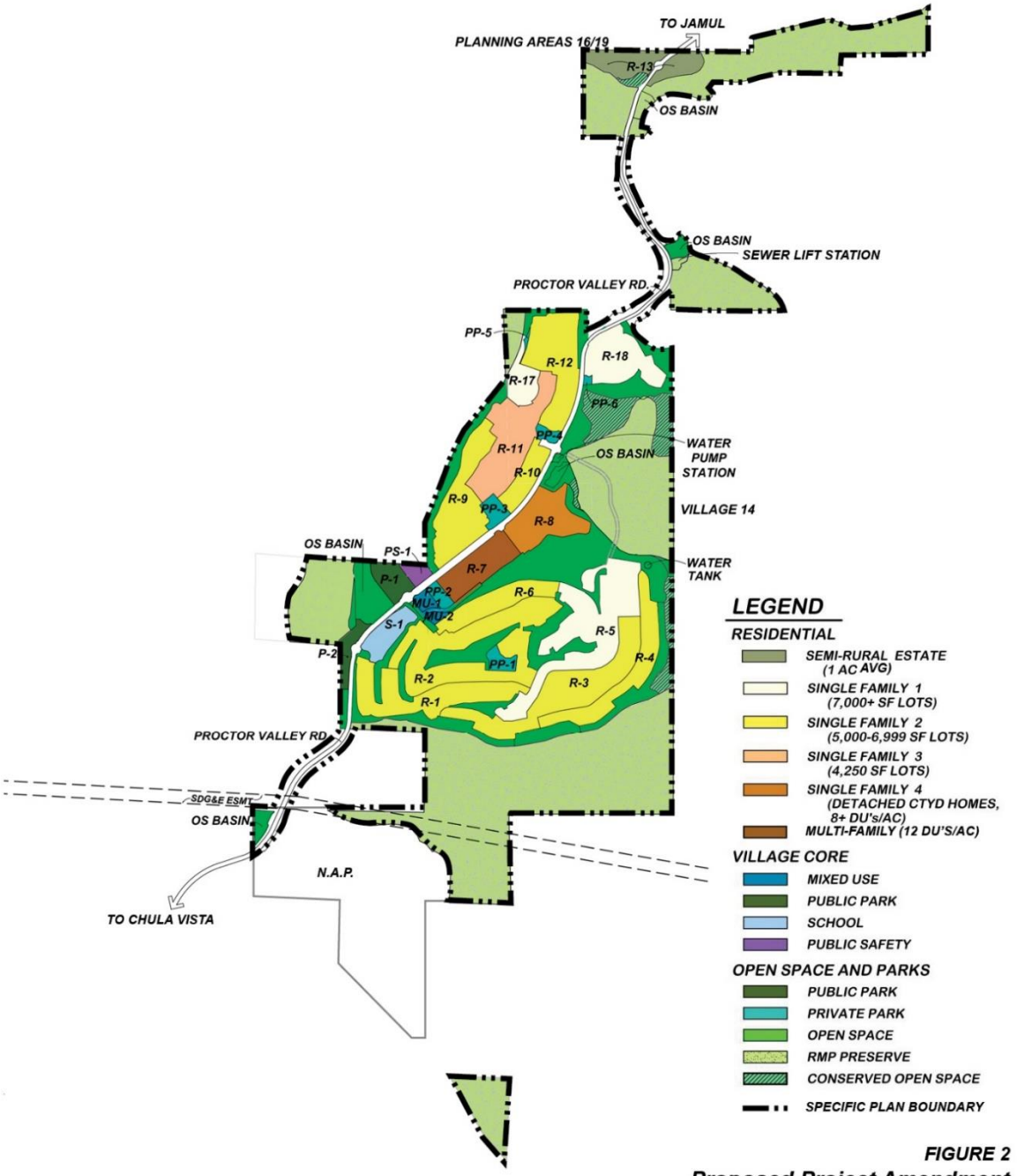


FIGURE 2
Proposed Project Amendment
Otay Ranch Village 14 and Planning Areas 16/19

PV1 and PV3: PV1 and PV3 are areas of the Approved Project located in Village 14 as shown on Figure 3.

Revised Tentative Map: The Revised Tentative Map reflects revisions to the June 26, 2019, Approved Tentative Map #5616 that are necessary to process and implement the land exchange with CDFW and the Proposed Project Amendment in the County.

Specific Plan Amendment: The Specific Plan Amendment reflects revisions to the June 26, 2019, Approved Specific Plan #16-002 that are necessary to process and implement the land exchange with CDFW and the Proposed Project Amendment in the County.

Section 1. Background

The Proposed Project Amendment Project Area comprises approximately 1,543 acres of undeveloped land within the Proctor Valley area of the 23,000-acre Otay Ranch master planned community (see Figure 4, Proposed Project Amendment Project Area). The Proposed Project Amendment reflects proposed changes to the Approved Project, including a proposed land exchange with the California Department of Fish and Wildlife (CDFW).

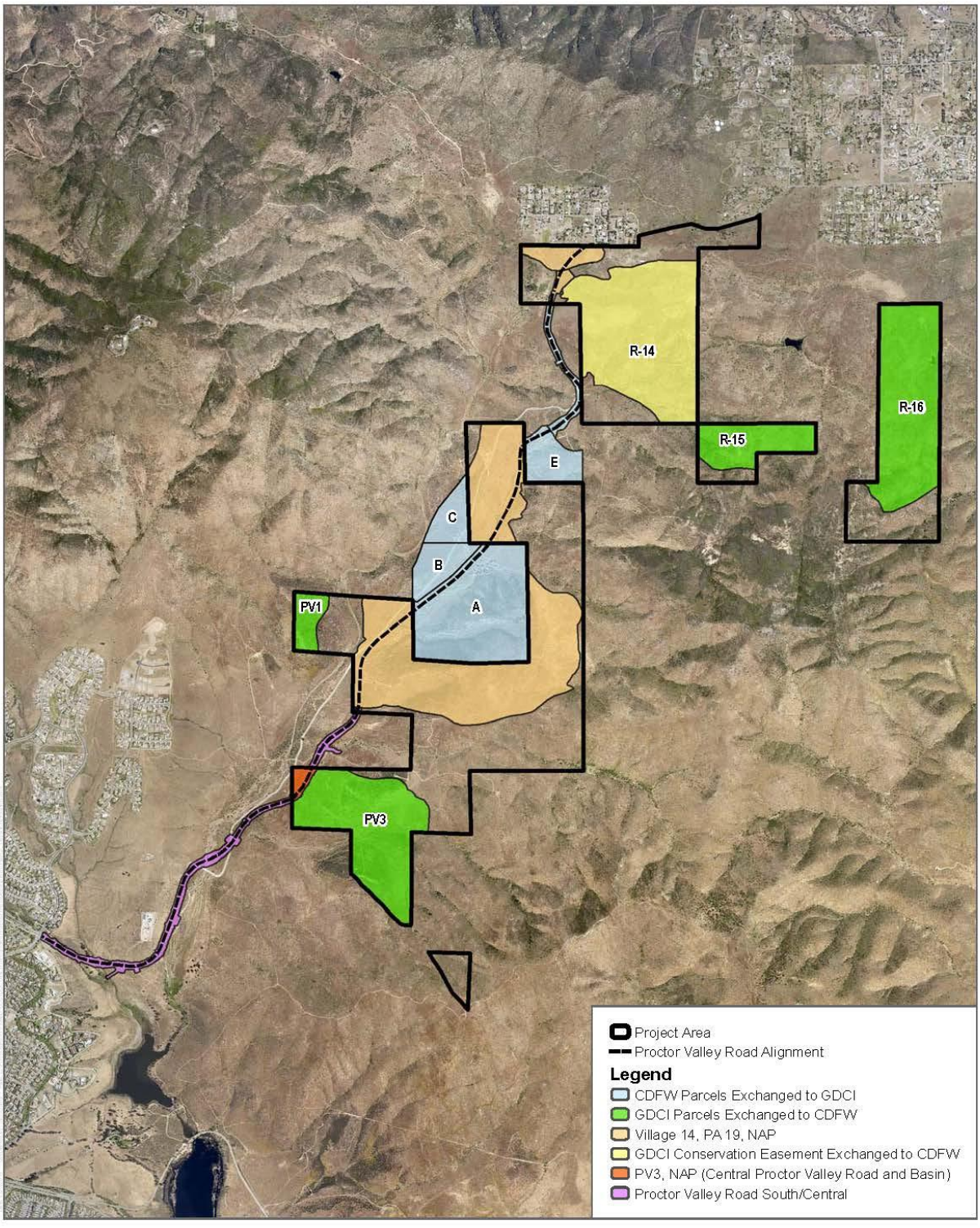
On June 27, 2019, the owner/applicant of the Approved Project entered into a Dispute Resolution Agreement with CDFW, the U.S. Fish and Wildlife Service, and the County. Pursuant to this agreement, the owner/applicant would seek a land exchange with CDFW through a process overseen by the California Wildlife Conservation Board. The proposed land exchange, if approved by the Wildlife Conservation Board, would require the owner/applicant to (i) transfer 147.3 acres in Village 14 and 192.4 acres in Planning Area 16 to CDFW, and (ii) record a conservation easement over 191.5 acres in Planning Area 16. In exchange, CDFW would transfer 219.4 acres in Village 14 to the owner/applicant. The Proposed Project Amendment would then be implemented upon the lands within the applicant's ownership, including those received via the Wildlife Conservation Board land exchange. Because the Proposed Project Amendment assumes the above-described land exchange, it would result in a different development footprint than the Approved Project's development footprint. Therefore, a Specific Plan Amendment to the approved Village 14 and Planning Areas 16/19 Specific Plan and a Revised Tentative Map are required processes for the Proposed Project Amendment.

While the Proposed Project Amendment and EIR Land Exchange Alternative both contemplate exchanges of land with the CDFW, the Development Footprints and other aspects differ. It is important to note that the Development Footprint of the Proposed Project Amendment was assessed in the certified Final EIR as part of the Approved Project Development Footprint and as part of the EIR Land Exchange Alternative Development Footprint.

Section 2. Proposed Project Amendment Description and Summary of Amendment/Revisions

The Proposed Project Amendment proposes 1,266 residential units within a Project Area of 1,543 acres. The Proposed Project Amendment Development Footprint would be approximately 578.6 acres, which would consistent of approximately 513.1 acres within Otay Ranch Village 14, 25.2 acres within Otay Ranch Planning Area 19, and 40.1 acres of off-site improvements (i.e., Proctor Valley Road). Of the 1,266 residential units, 1,253 units would be located in Village 14 (consistent with the Otay Ranch GDP/SRP) and 13 units would be located in Planning Area 19 (consistent with the Otay Ranch GDP/SRP) (City of Chula Vista and County of San Diego 1993). The Proposed Project Amendment is depicted in Figure 2 and summarized in Tables 1 through 3.

As described above, the Proposed Project Amendment would also include a land exchange between the owner/applicant and CDFW, which would require the owner/applicant to transfer 339.7 acres to CDFW and record a conservation easement over 191.5 acres, and, in exchange, CDFW would transfer 219.4 acres in Village 14 to the owner/applicant to create a consolidated Development Footprint. The proposed land exchange between the applicant and CDFW is depicted in Figure 3. As defined above, the Proposed Project Amendment requires a Specific Plan Amendment and Revised Tentative Map, which must be approved by the County. The Revised Tentative Map would replace that certain approved Tentative Map TM #5616, approved by the County on June 26, 2019. The Specific Plan Amendment would amend the Specific Plan 16-002 to reflect the Proposed Project Amendment, including the Revised Tentative Map and the land exchange with CDFW.



SOURCE: SANGIS 2017; Hunsaker 2019

DUDEK 0 1,400 2,800 Feet

FIGURE 3

Proposed Land Exchange

Otay Ranch Village 14 and Planning Areas 16/19

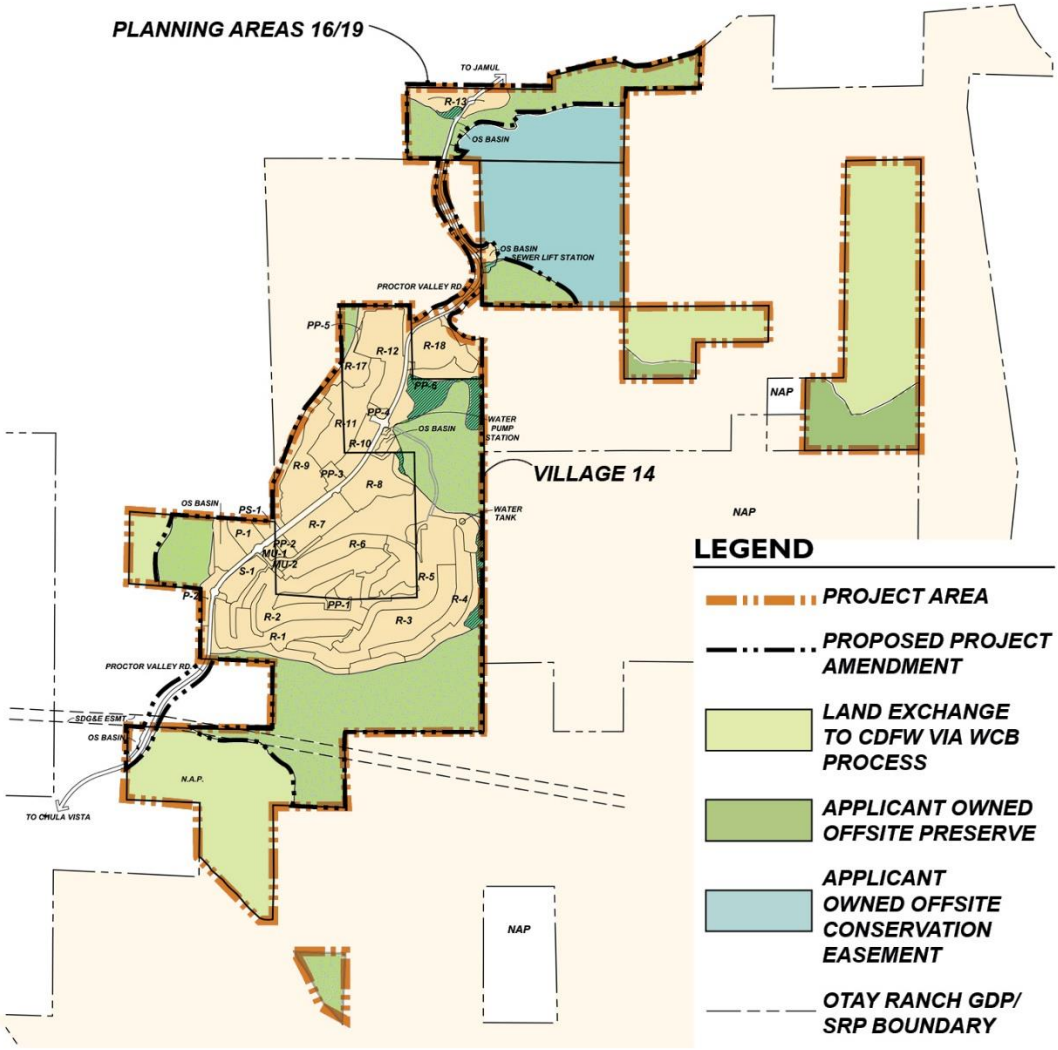


FIGURE 4
Proposed Project Amendment – Project Area
Otay Ranch Village 14 and Planning Areas 16/19

Table 1. Village 14 and Planning Areas 16/19 Proposed Project Amendment Site Utilization Plan Summary

Description	Village 14		Planning Area 16/19		Total Proposed Project Amendment	
	Gross Acres	Units	Gross Acres	Units	Gross Acres	Units
Residential Subtotal (1)	**386.6**	**1,253**	**14.9**	**13**	**401.4**	**1,266**
Non-Residential Uses						
Mixed Use (2)	2.7				2.7	
Public Parks	10.2				10.2	
Private Parks/Recreation (3)	9.5				9.5	
Public Safety Site	2.3				2.3	
Elementary School Site	9.9				9.9	
Open Space	47.8		1.7		49.5	
Conserved Open Space	23.0		1.5		24.5	
Otay Ranch RMP Preserve	278.6		98.4		377.0	
Circulation	23.3		3.4		26.7	
Non-Residential Uses Subtotal	407.2		105.0		512.1	-
Total Proposed Project Amendment 4	**793.7**	**1,253**	**119.8**	**13**	**913.6**	**1,266**
Other Off-sites						
Off-site Improvements	40.1				40.1	
Off-site Preserve PA 16			58.2		58.2	
Parcels Exchanged to CDFW	147.3		192.4		339.7	
Conservation Easement PA 16			191.5		191.5	
				Total Proposed Project Amendment Area	**1,543.1**	**1,266**

Notes: PA = Planning Area; CDFW = California Department of Fish and Wildlife.
(1) Residential gross acres includes 96.7 acres of related internal slopes, fuel modification and/or preserve edge open space lots.
(2) Village 14 Mixed Use acreage includes 10,000 sf of commercial use.
(3) Village 14 has 2.1 acres of private pocket parks included in the residential acreage; therefore, the subtotal including PPP is 11.7 acres.
(4) Totals may not sum due to rounding

Table 2. Proposed Project Amendment Site Utilization Plan Detail (Village 14)

Description		Gross Acres (1,2)	Units (3)	Density
Single-Family Residential				
R-1	50*100	33.1	103	3.1
R-2	60*100	48.3	136	2.8
R-3	60*85	35.8	112	3.1
R-4	60*100	31.5	73	2.3
R-5	75*100	51.7	121	2.3
R-6	60*85	22.5	47	2.1
R-8	Courtyard M	21.1	116	5.5
R-9	60*85	33.0	96	2.9
R-10	60*85	8.5	31	3.7
R-11	50*85 M	25.4	119	4.7
R-12	50*100	27.6	94	3.4
R-17	70*100	7.4	10	1.4
R-18	70*100	27.8	45	1.6
Single-Family Residential Subtotal		*373.8*	*1,103*	*3.0*
Multifamily				
R-7	MF	12.7	150	11.8
MF Subtotal		*12.7*	*150*	*11.8*
Residential Subtotal (3)(4)		*386.6*	*1,253*	*3.2*
Non-Residential Uses				
Mixed Use (2)	MU - C	2.7		
Public Parks				
P-1	Village Green Park	6.2		
P-2	Scenic Park	3.9		
Public Parks Subtotal		*10.2*		
Private Parks & Recreation				
PP-1	Central	2.8		
PP-2	Village Core	2.1		
PP-3	West	1.9		
PP-4	West	1.5		
PP-5	northwest	0.8		
PP-6	Northeast	0.4		
PPP (3)	Various	0.0		
Private Parks/Recreation Subtotal		*9.5*		
Public Safety Site		2.3		
Elementary School Site		9.9		
Open Space		47.8		
Conserved Open Space		23.0		

Table 2. Proposed Project Amendment Site Utilization Plan Detail (Village 14)

Description	Gross Acres (1,2)	Units (3)	Density
Otay Ranch RMP Preserve	274.9		
Circulation - In Preserve	3.7		
Circulation – Arterial	23.3		
Non-Residential Uses Subtotal	*407.2*		
Village 14 Subtotal	*793.7*	*1,253*	*1.6*

Notes:
(1) Residential gross acres includes 96.5 acres of related internal slopes, fuel modification and/or preserve edge open space lots.
(2) Village 14 Mixed Use acreage includes 10,000 sf of commercial use.
(3) Village 14 has 2.1 acres of private pocket parks included in the residential acreage; therefore, the subtotal including PPP is 11.6 acres.
(4) Totals may not sum due to rounding

Table 3. Proposed Project Amendment Site Utilization Plan Detail (Planning Areas 16/19)

Description	Gross Acres	Units	Density
Residential Uses			
R-13 (PA 19 Estates)	14.9	13	0.9
Residential Subtotal (1)	*14.9*	*13*	*0.9*
Non-Residential Uses			
Circulation in Preserve	1.4		
Open Space	1.7		
Conserved Open Space	1.5		
Otay Ranch RMP Preserve	97.0		
Circulation Arterial	3.4		
Non-Residential Uses Subtotal	*105.0*		
Planning Area 19 Subtotal	*119.8*	*13*	*0.1*
Proposed Project Amendment Total (2)	*913.6*	*1,266*	*1.4*
OTHER			
Description	**Gross Acres (1)**	**Units**	**Density**
Other Applicant Owned NAP of TM			
PV1 exchanged to CDFW	18.9		
PV3 exchanged to CDFW	128.4		
R-15 Exchanged to CDFW	49.9		
R-16 Exchanged to CDFW	142.5		
R-14 Conservation Easement Area	191.5		
R-15 Preserve	10.5		
R-16 Preserve	47.8		
Subtotal	*589.5*		

Table 3. Proposed Project Amendment Site Utilization Plan Detail (Planning Areas 16/19)

Description	Gross Acres	Units	Density
Off-Site Acres	40.1		
Proposed Project Amendment Project Area	1,543.1	1,266	

Notes: PA = Planning Area; CDFW = California Department of Fish and Wildlife.
(1) Residential gross acres includes 2.1 acres of related internal slopes, fuel modification and/or preserve edge open space lots.
(2) Totals may not sum due to rounding
Proposed Project Amendment Relative to the Approved Project and the EIR Land Exchange Alternative.

The Final EIR evaluated both the Approved Project and the EIR Land Exchange Alternative at a project level of analysis. This Technical Memorandum examines whether the Final EIR, through its analysis of the Approved Project and the EIR Land Exchange Alternative, covered all anticipated impacts of the Proposed Project Amendment. Figure 5 depicts the limits of the development contemplated under the Approved Project, the EIR Land Exchange Alternative, and the Proposed Project Amendment. Table 4 provides a summary of the components for the Proposed Project Amendment, the Approved Project, and the EIR Land Exchange Alternative. Note that from a geographical perspective, each acre that comprises the Proposed Project Amendment's Development Footprint is located either within the Approved Project Development Footprint or within the EIR Land Exchange Alternative Development Footprint. In other words, no portion of the Proposed Project Amendment Development Footprint is outside the combined Approved Project and EIR Land Exchange Alternative Development Footprints.

Table 4. Proposed Project Amendment Comparison to Approved Project and EIR Land Exchange Alternative

Description	Proposed Project Amendment	Approved Project	EIR Land Exchange Alternative
Development Footprint (Acres)	579	809	658
Project Area (Acres)	1,543	1,369	2,388
Off-Sites (Acres)	40	85	40
Units	1,266	1,119	1,530
Proctor Valley Rd.	Same	Same	Same

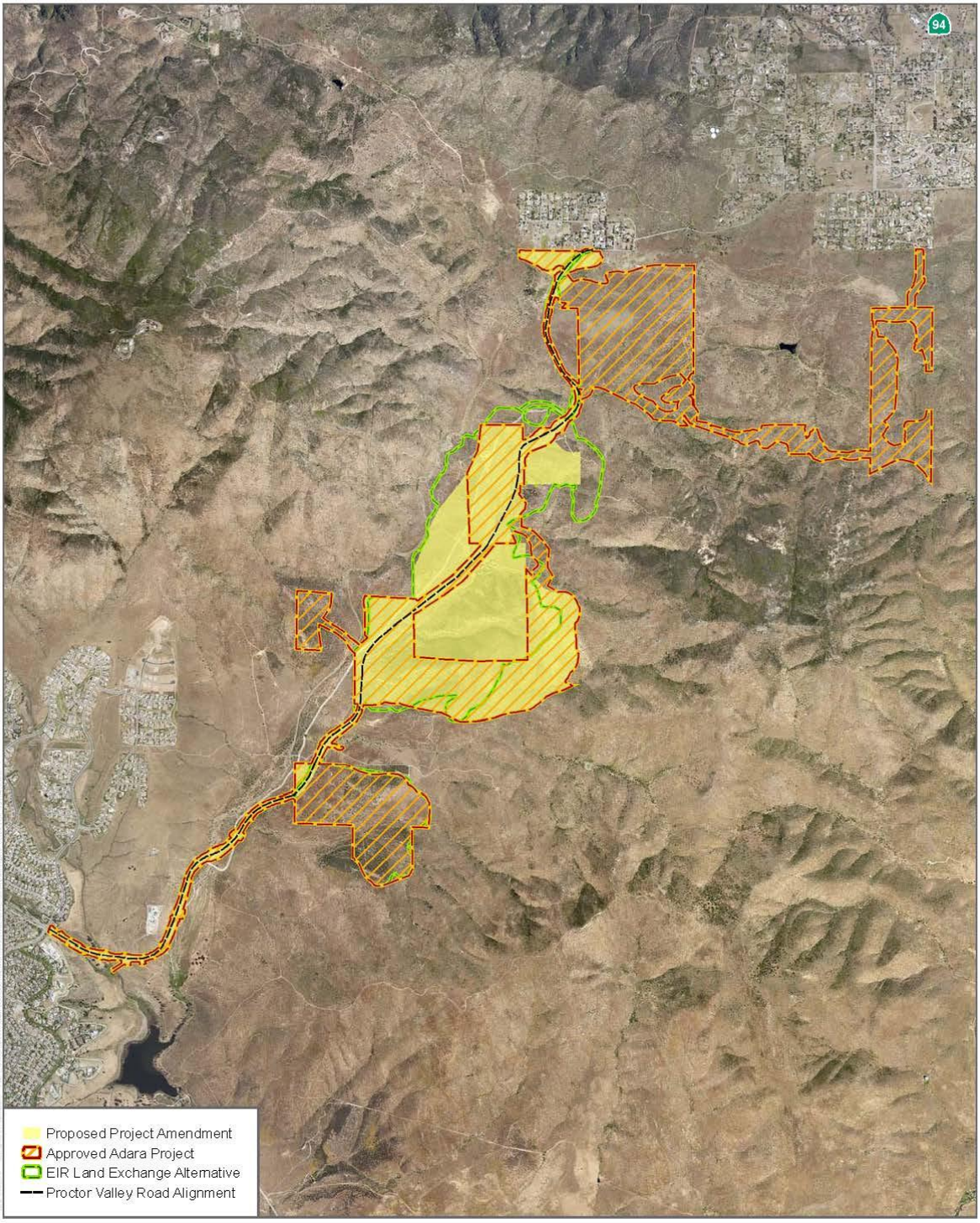


FIGURE 5
Certified EIR Study Area
Otay Ranch Village 14 and Planning Areas 16/19

Section 2.1 Project Design Features

The following section provides a complete list of GHG-relevant project design features (PDFs) from Section 1.2.5, Project Design Features, in Appendix 2.7-1 of the Approved Project's Final EIR, which would also be implemented as part of the Proposed Project Amendment. These measures are also included in the Proposed Project Amendment Energy Conservation Plan (Appendix VII to the Proposed Project Amendment Specific Plan). The PDFs are required for the Approved Project by the adopted Mitigation Monitoring and Reporting Program (MMRP) and would be implemented as PDF's of the Proposed Project Amendment.

PDF-AQ/GHG-1 **Wood-Burning Stoves and Fireplaces**. Prior to the issuance of residential building permits, the Proposed Project Amendment applicant or its designee shall submit building plans illustrating that no wood-burning stoves or fireplaces would be constructed.

PDF-AQ/GHG-2 **Zero-Net Energy Development – Residential Land Uses**. Prior to the issuance of residential building permits, the Proposed Project Amendment applicant or its designee shall submit building plans illustrating compliance with the zero net energy (ZNE) design standards defined by the California Energy Commission.

PDF-AQ/GHG-3 **Non-Residential Energy Improvement Standards.** Prior to the issuance of non-residential building permits, the Proposed Project Amendment applicant or its designee shall submit building plans illustrating that the Proposed Project's non-residential land uses shall achieve a 10% greater building energy efficiency than required by the 2016 state energy efficiency standards in Title 24, Part 6 of the California Code of Regulations.

PDF-AQ/GHG-4 **Energy Star Appliances**. All appliances (washer/dryers, refrigerators, and dishwashers) that will be installed by builders in residences and commercial businesses shall be Energy Star rated or equivalent.

PDF-AQ/GHG-5 **Solar Water Heating**. Prior to the issuance of private recreation center building permits, the applicant or its designee shall submit swimming pool heating design plans to the County of San Diego for review and approval. The design plans shall demonstrate that swimming pools located at private recreation centers in the Proposed Project Amendment Area have been designed and shall be constructed to use solar water heating or other technology with an equivalent level of energy efficiency.

PDF-AQ/GHG-6 **Efficient Outdoor Lighting**. Prior to the issuance of permits, the Proposed Project Amendment applicant or its designee shall submit building plans that demonstrate that all outdoor lighting shall be (light emitting diodes) LED or other high efficiency lightbulbs

PDF-AQ/GHG-7 **Energy Efficiency Education**. All new home packets shall provide information on energy efficiency, energy efficient lighting and lighting control systems, energy management, and existing energy incentive programs.

PDF-AQ/GHG-8 **Cool Roofs**. Prior to the issuance of residential building permits, the Proposed Project Amendment applicant or its designee shall submit building plans illustrating that residential structures shall meet the U.S. Green Building Council standards for cool roofs. This is defined as achieving a three-year solar reflectance index (SRI) of 64 for a low-sloped roof and an SRI of 32 for a high-sloped roof.

Prior to the issuance of non-residential building permits, the Proposed Project Amendment applicant or its designee shall submit building plans illustrating non-residential structures shall meet the U.S. Green Building Council standards for cool roofs. This is defined as achieving a three-year SRI of 64 for a low-sloped roof and 32 for a high-sloped roof.

PDF-AQ/GHG-9 **Cool Pavements**. Prior to the issuance of building permits, the Proposed Project Amendment applicant or its designee shall submit building plans illustrating that outdoor pavement, such as walkways and patios shall use paving materials with three-year SRI of 0.28 or initial SRI of 0.33.

PDF-AQ/GHG-10 **Electric Vehicle Charging Stations**. Prior to the issuance of residential building permits, the Proposed Project Amendment applicant or its designee shall submit plans for the installation of a dedicated 208/240 dedicated branch circuit will be included in each garage and one Level 2 electric vehicle (EV) charging station in the garage of half of all residential units to the County of San Diego for review and approval. Prior to the issuance of non-residential building permits in the Proposed Project Amendment's Village Core area, the applicant or its designee shall submit plans for the installation of Level 2 EV charging stations in 10 parking spaces located in the Village Core's commercial development area and P1 through P4 park area parking spaces to the County of San Diego for review and approval.

PDF-TR-1 **Transportation Demand Management.** The Proposed Project Amendment applicant or its designee shall implement a Transportation Demand Management (TDM) Program to facilitate increased opportunities for transit, bicycling, and pedestrian travel, as well as provide the resources, means, and incentives for ride-sharing and carpooling. The following components are to be included in the TDM Program:

- Develop a comprehensive pedestrian network designed to provide safe bicycle and pedestrian access between the various Proposed Project phases, land uses, parks/open spaces, schools, and the Village Core. Where approved by the appropriate jurisdiction, the pedestrian network would also provide connections to the various recreational trails and multi-modal facilities accessing the Project Area.
- Provide bicycle racks along main travel corridors adjacent to commercial developments and at public parks and open spaces within the Project Area.
- Coordinate with the San Diego Association of Governments (SANDAG) iCommute program for carpool, vanpool, and rideshare programs that are specific to the Proposed Project.
- Promote available websites providing transportation options for residents and businesses.
- Create and distribute a "new resident" information packet addressing alternative modes of transportation for residential and commercial residents.
- Coordinate with San Diego Metropolitan Transit System and SANDAG about the future sighting of transit stops/stations within the Project Area.

- Provide a school carpool program by coordinating with the local school district and SANDAG. Provide dedicated parking space for the school carpool program in the Village Core.
- Implement a school bus program in coordination with the school district.
- Require homeowner's associations within the Proposed Project Amendment Area to coordinate with the local school district and partner with the on-site elementary school to create a "walking school bus program" for neighborhood students to safely walk to and from school. The Proposed Project applicant would also coordinate with the local school district to encourage the provision of bicycle storage facilities at the on-site elementary school.

Section 2.2 Mitigation Measures

The Proposed Project Amendment would implement **mitigation measures (M-) GHG-1** through **M-GHG-4** in the Approved Project Final EIR, thus, purchasing carbon offsets to offset 100% of the construction and operational GHG emissions as specified in the Final EIR. Collectively, implementation of mitigation measures **M-GHG-1** through **M-GHG-4**, would result in the Proposed Project Amendment offsetting 100% of its annual GHG emissions to achieve carbon neutrality (i.e., a net-zero emissions level). **M-GHG-1** and **M-GHG-2** would require the Proposed Project Amendment to offset 100% of its construction and operational GHG emissions. The use of carbon offsets to mitigate GHG emissions is expressly authorized by CEQA Guidelines Section 15126.4(c)(3)-(c)(4). The mitigation measures are required for the Approved Project by the adopted MMRP and would be implemented by the Proposed Project Amendment, but the mitigation commitments are refined to reflect the Proposed Project Amendment-specific details.

M-GHG-1 As to construction greenhouse gas (GHG) emissions, prior to the County of San Diego's (County's) issuance of each grading permit, the Proposed Project applicant or its designee shall purchase and retire carbon offsets in a quantity sufficient to offset 100% of the Proposed Project Amendment's construction emissions (including sequestration loss from vegetation removal) associated with each such grading permit, consistent with the performance standards and requirements set forth below.

First, "carbon offset" shall mean an instrument issued by any of the following: (i) the Climate Action Reserve, the American Carbon Registry, and Verra (previously, Verified Carbon Standard); or (ii) any registry approved by the California Air Resources Board (CARB) to act as a registry under the state's cap-and-trade program.

Second, any carbon offset used to reduce the Proposed Project's GHG emissions shall be a carbon offset that represents the past or forecasted reduction or sequestration of one metric ton of carbon dioxide equivalent that is "not otherwise required" (CEQA Guidelines Section 15126.4(c)(3)).

Third, "Proposed Project applicant" shall mean Jackson Pendo Development Company or its designee.

Fourth, as to construction and from vegetation removal GHG emissions, prior to the County's issuance of each grading permit, the Proposed Project applicant or its designee shall provide evidence to the satisfaction of the Director of the Planning & Development Services Department (PDS) that the Proposed Project applicant has purchased and retired carbon offsets in a quantity sufficient to offset 100% of the construction GHG emissions and sequestration loss from vegetation removal generated by the Proposed Project, as associated with each such grading permit. The emissions reduction obligation associated with each grading permit shall be calculated by reference to the certified environmental impact report's Greenhouse Gas Emissions Technical Report (Appendix 2.7-1), which determined total construction-related emissions as equaling 22,760 metric tons of carbon dioxide equivalent (MT CO_2e). This would increase to 22,769 MT CO_2e if the Proctor Valley Road North Option is selected. In making such a determination, the Director of the PDS shall require the Project applicant or its designee to provide an attestation or similar documentation from the selected registry(ies) that a sufficient quantity of carbon offsets meeting the standards set forth in this measure have been purchased and retired, thereby demonstrating that the necessary emission reductions are realized.

Fifth, the purchased carbon offsets used to reduce construction and vegetation removal GHG emissions shall achieve real, permanent, quantifiable, verifiable, and enforceable reductions (California Health & Safety Code Section 38562(d)(1)).

Sixth, all carbon offsets required to reduce the Proposed Project's construction and vegetation removal emissions shall be associated with reduction activities that are geographically prioritized according to the following locational attributes: (1) off-site, unincorporated areas of the County of San Diego; (2) off-site, incorporated areas of the County of San Diego; (3) off-site areas within California; (4) off-site areas within the United States; and (5) off-site, international areas. As listed, geographic priorities would focus first on local reduction options (including projects and programs that would reduce GHG emissions) to ensure that reduction efforts achieved locally would provide cross-over, co-benefits to other environmental resource areas.

The Director of the PDS shall issue a written determination that offsets are unavailable and/or fail to meet the feasibility factors defined in CEQA Guidelines Section 15364 in a higher priority geographic category before allowing the Project applicant or its designee to use offsets from the next lower priority category. In making such a determination, the Director of the PDS shall consider information available at the time each Project-related grading permit request is submitted, including but not limited to:

- The availability of in-State emission reduction opportunities, including funding and partnership opportunities with the County, other public agencies, or environmental initiatives with demonstrated integrity;
- The geographic attributes of carbon offsets that are listed for purchase and retirement;

- The temporal attributes of carbon offsets that are listed for purchase and retirement;
- The pricing attributes of carbon offsets that are listed for purchase and retirement; and/or,
- Any other information deemed relevant to the evaluation, such as periodicals and reports addressing the availability of carbon offsets.

Seventh, over the course of the construction period, the Proposed Project applicant or its designee shall submit annual reports to PDS that identify the quantity of emission reductions required by this mitigation measure, as well as the carbon offsets retired to achieve compliance with this measure. The annual reports shall identify the locational attributes of the carbon offsets in order to allow PDS to track and monitor the implementation of the geographic priority provision. Such tabulation and tracking shall be to the satisfaction of the Director of the PDS.

M-GHG-2 As to operational greenhouse gas (GHG) emissions, prior to the County of San Diego's (County) issuance of building permits for each implementing Site Plan ("D" Designator), the applicant or its designee shall purchase and retire carbon offsets for the incremental portion of the Proposed Project within the Site Plan in a quantity sufficient to offset, for a 30-year period[2], the operational greenhouse gas (GHG) emissions from that incremental amount of development to net zero, consistent with the performance standards and requirements set forth below.

First, "carbon offset" shall have the same meaning as set forth in M-GHG-1.

Second, any carbon offset used to reduce the Proposed Project's GHG emissions shall be a carbon offset that represents the past or forecasted reduction or sequestration of one metric ton of carbon dioxide equivalent that is "not otherwise required" (CEQA Guidelines Section 15126.4(c)(3)).

Third, "the Proposed Project applicant" shall have the same meaning as set forth in M-GHG-1.

Fourth, as to operational emissions, prior to the County of San Diego's issuance of building permits for each implementing Site Plan ("D" Designator), the Proposed Project applicant or its designee shall provide evidence to the satisfaction of the Director of Planning & Development Services Department (PDS) that it has purchased and retired carbon offsets for the incremental portion of the Proposed

[2] Relative to the temporal attributes of the carbon offsets mitigation for operational emissions, in a decision issued on December 19, 2018 (see *Friends of the Santa Clara River et al. v. County of Los Angeles* [Case No. BS 170568]), the Los Angeles County Superior Court found that a 30-year period for the mitigation of operational GHG emissions via carbon offsets is supported by substantial evidence. The Superior Court cited evidence in the record of proceedings before it concerning scientific limits; the parameters of available modeling tools; the changing regulatory structure and post-2050 uncertainties; and, the use of the same temporal period by other expert agencies, including CARB and SCAQMD, as well as multiple CEQA lead agencies. The referenced decision is included in Attachment C of this memorandum. While the Superior Court's decision in that matter is not citable precedent in a legal context, was appealed and is currently being considered by California's Second District Court of Appeal, Division Five (see Case No. B296547), the petitioners in the case have not challenged the Superior Court's decision relative to any GHG issues, including the 30-year mitigation period.

Project within the Site Plan in a quantity sufficient to offset, for a 30-year period, the operational GHG emissions from the incremental amount of development to net zero. The "project life" is 30 years. This methodology is consistent with the 30-year project life time frame used by the South Coast Air Quality Management District's GHG guidance (SCAQMD 2008), as well as the methodological parameters used by the California Air Resources Board when reviewing Assembly Bill 900 projects. (For more information on the evidence supporting the 30-year temporal period, please see Section 8.4.5, Use of Carbon Offsets, and Response to Comment O-5-90.)

The emissions reduction obligation associated with each building permit shall be calculated by reference to the Greenhouse Gas Emissions Technical Memorandum for the Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment, which determined total operational-related emissions as equaling 17,867 metric tons of carbon dioxide equivalent (MT CO_2e) annually, which equates to 536,019 MT CO_2e over 30 years.

In making such a determination, the Director of the PDS shall require the Proposed Project applicant or its designee to provide an attestation or similar documentation from the selected registry(ies) that a sufficient quantity of carbon offsets meeting the standards set forth in this measure have been purchased and retired, thereby demonstrating that the necessary emission reductions are realized.

Fifth, the purchased carbon offsets used to reduce operational GHG emissions shall achieve real, permanent, quantifiable, verifiable, and enforceable reductions (California Health & Safety Code Section 38562(d)(1)).

Sixth, the amount of carbon offsets required for each implementing Site Plan shall be based on the GHG emissions with the implementing Site Plan, and shall include operational GHG emissions as identified in the approved Greenhouse Gas Emissions Technical Report.

Seventh, each implementing Site Plan shall include a tabulation that identifies the overall carbon offsets required to mitigate the entire Proposed Project's GHG emissions (i.e., Table 13 of the Greenhouse Gas Emissions Technical Memorandum for the Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment), and shall identify: (1) the amount of carbon offsets purchased to date as a result of prior Site Plan approvals, (2) the amount of carbon offsets required to be purchased and retired for the incremental portion of the Proposed Project within the Site Plan in a quantity sufficient to offset, for a 30-year period, the operational greenhouse gas (GHG) emissions from that incremental amount of development to net zero, and (3) the remaining carbon offsets required to reduce the Proposed Project's remaining emissions to net zero. The Proposed Project applicant or its designee shall submit annual reports to PDS that identify the quantity of emission reductions required by this mitigation measure, as well as the carbon offsets retired to achieve compliance with this measure. The annual reports shall identify the locational attributes of the carbon offsets in order to allow PDS to track and monitor the implementation of the geographic priority provision. Such tabulation and tracking shall be to the satisfaction of the Director of PDS.

For clarity, the following example is provided to illustrate the Proposed Project's operational GHG emissions purchase and retirement strategy. If 100 single-family residential units are proposed to be developed in conjunction with an implementing Site Plan ("D" Designator), GHG emissions for those land uses would be calculated and carbon offsets for those emissions would be secured for a 30-year period. To facilitate implementation of this strategy, the Proposed Project's total emissions have been allocated on a per dwelling unit basis; this methodological approach ensures that, when each dwelling unit is developed, the emissions from the Proposed Project's resident-serving non-residential facilities will also be offset. Thus, the 100-single family-residential units contemplated by this example would be multiplied by 14.11 MT CO_2e/dwelling unit (total project emissions / total # of dwelling units = 17,867 MT CO_2e /yr / 1,266 dwelling units = 14.11 MT CO_2e /yr/DU). This value would then be multiplied by 30, to calculate the total carbon offsets required for that phase of development (e.g., 100 single-family residential units × 14.11 MT CO_2e /du × 30 = 42,330 MT CO_2e of carbon offsets).

Eighth, this memorandum acknowledges that the Proposed Project's GHG emissions estimates are conservative because the Proposed Project's GHG emissions are expected to decrease beyond the estimates presented in the EIR's analysis, in part, due to reasonably foreseeable improvements in fuel efficiency, vehicle fleet turnover, technological improvements related to transportation and energy, and updates to emissions models and methodologies. Thus, subject to County oversight, and the processes described below, the operational emission estimates that govern implementation of this Proposed Project are subject to a "true up" at the election of the Proposed Project applicant (as defined above) or its designee and subject to the satisfaction of the County's Board of Supervisors, as considered pursuant to a noticed public hearing process that accords with applicable legal requirements, including those set forth in CEQA for the post-approval modification of mitigation implementation parameters.

Specifically, if the Proposed Project applicant elects to process "true-up" exercise subsequent to the County's certification of the Final EIR and approval of the Proposed Project, the Proposed Project applicant shall provide an operational GHG emissions inventory of the Proposed Project's operational emissions for the "true up" operational conditions, including emissions from mobile sources, energy, area sources, water consumption, and solid waste. Subject to the satisfaction of the Board of Supervisors, these calculations shall be conducted using a County-approved model and/or methodology and must validate the continuing adequacy of modeling inputs used in the EIR that are not proposed to be altered as part of the "true-up" exercise. The inclusion of the validation requirement ensures that any updated operational GHG emissions inventories for the Proposed Project fully account for then-existing information that is relevant to the emissions modeling. Alternatively, the Proposed Project applicant may purchase all carbon offset credits to reduce operational GHG emissions at issuance of the first building permit.

The "true up" operational GHG emissions inventory, if conducted, will be provided in the form of a project-specific Updated Emissions Inventory and Offset Report to the County's Board of Supervisors (or its designee) prior to the issuance of building permits for the next build-out phase. The subject technical documentation shall be prepared by a County-approved, qualified air quality and greenhouse gas technical specialist.

In all instances, substantial evidence must confirm that any reduction to the total carbon offsets value as identified in the certified Final EIR for the Proposed Project is consistent with the Proposed Project commitment to achieve and maintain carbon neutrality (i.e., net zero emissions) for the 30-year life of the Proposed Project.

Ninth, all carbon offsets required to reduce the Proposed Project's operational emissions shall be associated with reduction activities that are geographically prioritized according to the following locational attributes: (1) off-site, unincorporated areas of the County of San Diego; (2) off-site, incorporated areas within the County of San Diego; (3) off-site areas within California; (4) off-site areas within the United States; and (5) off-site, international areas. As listed, geographic priorities would focus first on local reduction options (including projects and programs that would reduce GHG emissions) to ensure that reduction efforts achieved locally would provide cross-over, co-benefits related to other environmental resource areas.

The Director of the PDS shall issue a written determination that offsets are unavailable and/or fail to meet the feasibility factors defined in CEQA Guidelines Section 15364 in a higher priority geographic category before allowing the Project applicant or its designee to use offsets from the next lower priority category. In making such a determination, the Director of the PDS shall consider information available at the time each Project-related building permit request is submitted, including but not limited to:

- The availability of in-State emission reduction opportunities, including funding and partnership opportunities with the County, other public agencies, or environmental initiatives with demonstrated integrity;
- The geographic attributes of carbon offsets that are listed for purchase and retirement;
- The temporal attributes of carbon offsets that are listed for purchase and retirement;
- The pricing attributes of carbon offsets that are listed for purchase and retirement; and/or,
- Any other information deemed relevant to the evaluation, such as periodicals and reports addressing the availability of carbon offsets.

M-GHG-3 Prior to the issuance of residential building permits, the applicant or its designee shall provide evidence to the County of San Diego that the design plans for residential structures include electrical outlets in the front and rear of the structure to facilitate use of electrical lawn and garden equipment.

M-GHG-4 To reduce GHG emissions, the applicant or its designee shall provide evidence to the County of San Diego that the following project design features identified for the Proposed Project in Table 2.7-5 and Table 1 of the Mitigation Monitoring and Reporting Program (MMRP), will be implemented: PDF-AQ/GHG-1 (Wood-Burning Stoves and Fireplaces), PDF-AQ/GHG-2 (Zero Net Energy Residences), PDF-AQ/GHG-3 (Non-Residential Energy Improvement Standards), PDF-AQ/GHG-4 (Energy Star Appliances), PDF-AQ/GHG-5 (Solar Water Heating), PDF-AQ/GHG-6 (Efficient Outdoor Lighting), PDF-AQ/GHG-7 (New Resident Information Packet), PDF-AQ/GHG-8 (Cool Roofs), PDF-

AQ/GHG-9 (Cool Pavement), PDF-AQ/GHG-10 (Electric Vehicle Charging Stations), PDF-TR-1 (TDM Program), PDF-UT-1 (Hot Water Pipe Insulation – Residential and Non-Residential), PDF-UT-2 (Pressure Reducing Valves – Residential and Non-Residential), PDF-UT-3 (Water Efficient Dishwashers), PDF-UT-4 (Residential Landscaping), and PDF-UT-5 (Water Conservation).

Section 3. Approved Project Findings

Section 3.1 Generate Greenhouse Gas Emissions, Either Directly or Indirectly, that May Have a Significant Impact on the Environment

Construction of the Approved Project would result in greenhouse gas (GHG) emissions primarily associated with the use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. GHG emissions generated by Approved Project construction activities, including rock crushing, were estimated to be 12,378 metric tons of carbon dioxide equivalent (MT CO_2e). Additionally, the one-time loss of sequestered carbon from land use conversion for the Approved Project is 10,382 MT CO_2e. Total emissions generated by the Approved Project were estimated to be 22,760 MT CO_2e, or 759 MT CO_2e per year when amortized over 30 years.

The Approved Project also would generate operational GHG emissions from area sources (landscape maintenance), energy sources (electricity and natural gas consumption), mobile sources (vehicle trips), water supply and wastewater treatment, and solid waste. Estimated annual operational GHG emissions at buildout of the Approved Project in 2028 would be approximately 16,348 MT CO_2e per year. These emissions would be reduced by planting at least 8,000 new trees, which would result in the one-time sequestration of approximately 5,664 MT CO_2e (or 189 MT CO_2e per year when amortized over 30 years). Therefore, Approved Project operational GHG emissions (16,348 MT CO_2e per year) minus the sequestered carbon (189 MT CO_2e per year) would result in annual Approved Project emissions of 16,159 MT CO_2e per year. Due to the Approved Project's increase in GHG emissions above existing levels, the Approved Project would have a potentially significant impact, and mitigation is required.

Mitigation measures **M-GHG-1** through **M-GHG-4** are provided to reduce this impact and would require the Approved Project to achieve carbon neutrality (i.e., a net zero emissions level). With mitigation, the Approved Project's impacts would be reduced to less than significant.

Section 3.2 Conflict with an Applicable Plan, Policy, or Regulation Adopted for the Purpose of Reducing the Emissions of Greenhouse Gases

Regarding consistency with the San Diego Association of Governments (SANDAG) San Diego Forward: The Regional Plan (Regional Plan), as part of the Approved Project's Transportation Demand Management (TDM) Program, the Approved Project would include design elements and PDFs to support the policy objectives of the Regional Plan and Senate Bill (SB) 375. The Approved Project's TDM Program would work to reduce the Approved Project's vehicle miles traveled (VMT) through two primary strategies: land use and design measures that would create an environment that promotes alternative mode choice (e.g., land use diversity and pedestrian/bicycle networks), and commute/travel services for residents that would reduce outgoing single-occupant vehicle trips (e.g., ride-share, commute trip reduction marketing). Implementation of the Approved Project's TDM Program and associated measures would achieve a 4.7% reduction in VMT for Village 14 and a 2.0% reduction in VMT for Planning Areas

16/19. Further, the Otay Ranch GDP/SRP anticipated 2,132 residential units in Village 14 and Planning Areas 16/19. The Approved Project included 1,119 residential units, or approximately 1,013 units less than the Otay Ranch GDP/SRP. Accordingly, the land uses included within the Otay Ranch GDP/SRP (and their associated GHG emissions), including those of the Approved Project, have been incorporated in baseline assumptions for future growth analysis conducted by SANDAG.

Regarding consistency with the San Diego County General Plan (General Plan), the Approved Project would include PDFs that would reduce indoor and outdoor water consumption, include bike and pedestrian networks, and employ sustainable technology and energy-efficient design through zero net energy (ZNE) homes with rooftop solar and electric vehicle (EV) chargers in the garages of half of the residential units.

The Approved Project, with mitigation, would also be consistent with the statewide GHG reduction target codified in SB 32 by achieving net-zero emissions. While the Approved Project would generate GHG emissions, the Scoping Plan assumes some level of GHG emissions from new development in the state. The analysis in the certified Final EIR conservatively assumed that any amount of emissions may interfere with the implementation of GHG reduction goals for 2030 and 2050 and, therefore, would potentially conflict with plans, policies, or regulations adopted for the purpose of reducing GHG emissions. However, with implementation of **M-GHG-1** and **M-GHG-2**, emissions would be offset to net zero; therefore, the Approved Project would not conflict with an applicable plan adopted for the purpose of reducing GHG emissions, and plan consistency impacts would be less than significant.

Section 4. Assessment of Proposed Project Amendment's Greenhouse Gas Emissions Impacts

Section 4.1 Generate Greenhouse Gas Emissions, Either Directly or Indirectly, that May Have a Significant Impact on the Environment

Construction Emissions

A comparison of the key construction characteristics that are factors in estimated construction emissions, including total development, area graded, and blasting assumptions, was conducted between the Proposed Project Amendment, the Approved Project, and the EIR Land Exchange Alternative to qualitatively evaluate emissions associated with implementation of the Proposed Project Amendment.

Construction of the Proposed Project Amendment would result in GHG emissions generated from operation of off-road construction equipment; haul trucks, vendor trucks, and worker vehicles; diesel engine generator powering the rock-crushing equipment; and blasting operations using ammonium nitrate/fuel oil-based blend explosives. The Proposed Project Amendment proposes 1,266 residential units, which is more than the Approved Project (an increase of 147 units from 1,119 units) and less than the EIR Land Exchange Alternative (a reduction of 264 units from 1,530 units) (see Table 4). While the Proposed Project Amendment would result in 147 more residential units than the Approved Project, the total square footage of vertical development is anticipated to be similar to the Approved Project because the Proposed Project Amendment would consolidate development on smaller lots that have been designed to include more homes that would range between approximately 2,000 to 2,500 square feet. In comparison, Planning Area 16 in the Approved Project includes homes that average approximately 4,000 square

feet (the Approved Project includes 125 lots for such "estate" homes, whereas the Proposed Project Amendment would include 13 estate homes). Based on the vertical development characteristics, the Proposed Project Amendment is anticipated to involve similar vertical construction activity compared to the Approved Project, including similar phasing equipment, workers, and vendor truck trips. The Proposed Project Amendment's overall square footage would increase by 1.55% over the Approved Project, which would not substantially change the construction assumptions or construction duration/phasing.

A comparison of the Proposed Project Amendment, Approved Project, and EIR Land Exchange Alternative square footage is provided in Table 5.

Table 5. Proposed Project Amendment Building Square Footage Compared to Approved Project and EIR Land Exchange Alternative

Building Square Footage	Proposed Project Amendment	Approved Project	EIR Land Exchange Alternative
Total Residential	*3,961,600*	*3,904,214*	*4,704,470*
Total Non-Residential	*88,340*	*83,760*	*102,180*
Total Square Feet	4,049,940	3,987,974	4,806,650

Source: Jackson Pendo Development Company 2019.

Similar to the Approved Project, the Proposed Project Amendment's cut-and-fill quantities would be balanced on site, and no external soil export would be required. The Proposed Project Amendment would grade approximately 522 acres, which is less than the approximately 599 acres required for the Approved Project (see Table 4). Grading would balance within each subset area, and hauling would not be required between subset areas. However, to present a conservative analysis, the use of haul trucks to transport a small portion (i.e., 2%) of the excavated soil within each subset area was assumed in the Approved Project Final EIR and is assumed here for purposes of the Proposed Project Amendment. Approximately 8,943,005 cubic yards of cut and fill would occur within the Proposed Project Amendment Area, which is less than the 8,948,734 cubic yards that would be required for the Approved Project. Therefore, the Proposed Project Amendment would result in less cubic yards of grading than the Approved Project. Accordingly, the Proposed Project Amendment is anticipated to result in less earthwork activity compared to the Approved Project.

Blasting operations and rock crushing would also be required for site preparation for the Proposed Project Amendment, similar to the Approved Project. The Proposed Project Amendment would blast approximately 1,729,498 cubic yards of rock, which is 24.7% less than the 2,298,117 cubic yards required for the Approved Project. All blasting activity would comply with Section 96.1.5601.2 of the County of San Diego 2017 Consolidated Fire Code. The total GHG emissions associated with Proposed Project Amendment blasting operations would be less than the Approved Project. Regarding rock crushing activities, the Proposed Project Amendment is anticipated to result in less construction activities as compared to the Approved Project.

Based on the above considerations, overall construction emissions resulting from implementation of the Proposed Project Amendment are expected to be similar to the Approved Project construction emissions. The estimated construction GHG emissions for the Approved Project are presented in Tables 2.7-6 through 2.7-8 in the Final EIR.

The Proposed Project Amendment is anticipated to result in less grading, vegetation removal, blasting, and rock crushing, and similar amount of vertical construction activities as compared to the Approved Project as shown in Tables 4 and 5. Based on the vertical development characteristics, the Proposed Project Amendment is anticipated to involve similar vertical construction activity compared to the Approved Project, and the Proposed Project Amendment total vertical development square footage would increase by 1.55% over the Approved Project, which would not substantially change the construction assumptions or construction duration/phasing. Therefore, construction of the Proposed Project Amendment would result in emissions similar to the Approved Project construction emissions of 22,760 MT CO_2e over the construction period, or 759 MT CO_2e per year amortized over project lifetime of 30 years. Because there is no separate GHG threshold for construction, the evaluation of significance is discussed in the operational emissions analysis below.

Operational Emissions

Similar to the Approved Project and EIR Land Exchange Alternative, operation of the Proposed Project Amendment would generate GHG emissions from area sources, energy sources, and mobile sources, which are discussed below. The Proposed Project Amendment operational emissions were estimated using the methodology detailed below. The California Emissions Estimator Model (CalEEMod) Version 2016.3.2 was used to estimate operational emissions.

Energy Sources

As represented in CalEEMod, energy sources include emissions associated with building electricity and natural gas usage (non-hearth). Emissions were calculated by multiplying the energy use by the utility's carbon intensity. Annual natural gas and electricity emissions were estimated in CalEEMod using the emissions factors for San Diego Gas & Electric (SDG&E), which would be the energy source provider for the Proposed Project Amendment. For the operational year 2028, the emission factors for SDG&E were adjusted to reflect SDG&E's compliance with the Renewable Portfolio Standard (RPS). A renewable procurement percentage of 46.6% in 2028 was interpolated from the 2020 RPS goal of 33% and 2030 goal of 50%. (At the time the emissions modeling was completed, SB 100 [2018] was not enacted. As such, the analysis conservatively does not reflect the accelerated RPS targets [a 2030 goal of 60%] established by that legislation, which serves to over-estimate Proposed Project Amendment–related GHG emissions.)

For the residential land uses, specific energy use data for the Proposed Project Amendment, based on the EIR Land Exchange Alternative energy consumption analyses, were used in place of CalEEMod default values (ConSol 2017). To calculate the total residential building energy input, EIR Land Exchange Alternative energy use data prepared by ConSol were used to model Proposed Project Amendment energy use, which reflected energy use in residential development designed to meet the California Energy Commission's definition of ZNE buildings, was used. (ZNE buildings are designed to achieve enhanced energy efficiency in the building envelope and to use renewable energy sources, such as rooftop-mounted solar panels.) These energy data were calculated using the California Energy Commission's public-domain compliance software, known as CBECC-Res.[3]

[3] "CBECC-Res" is shorthand for California Building Energy Code Compliance – Residential.

In accordance with PDF-AQ/GHG-3, non-residential land uses were adjusted to meet 10% greater building energy efficiency than required by the 2016 state energy efficiency standards in Title 24.

The Proposed Project Amendment also would include three swimming pools at the private recreation centers. Energy demand for swimming pools was estimated using a baseline demand for pools in the SDG&E service area (SCE 2016). On-site energy demand would be reduced by installing solar heating at all recreational swimming pools.

Mobile Sources

Mobile sources for the Proposed Project Amendment would primarily be motor vehicles (automobiles and light-duty trucks) traveling to and from the proposed land uses, similar to the Approved Project and the EIR Land Exchange Alternative.

Trip rates from the Proposed Project Amendment are shown in Table 6. As shown therein, the Proposed Project Amendment would result in 12,962 average daily trips. Table 7 compares traffic from the Proposed Project Amendment to the Approved Project and EIR Land Exchange Alternative projects. Overall, the Proposed Project Amendment would result in 195 more trips than the Approved Project (but approximately 955 fewer trips than the EIR Land Exchange Alternative Project).

Table 6. Proposed Project Amendment Average Daily Trips

Land Use	Units	Type	Trip Rate	ADT
Estate	13	DU	12/DU	156
Single-Family Residential	1,103	DU	10/DU	11,030
Multifamily Residential	150	DU	8/DU	1,200
Mixed Use Commercial	10	KSF	110/KSF	1,100
Elementary School	9.9	Acre	90/Acre	891
Neighborhood Park	11	Acre	5/Acre	55
Community Purpose Facility	9.6	Acre	30/Acre	288
Fire Station	3	Staff	5.3/Staff	16
			Sub-Total	*14,729*
			Internal Capture @ 12%	*-1,767*
			Total	**12,962**

Notes: ADT = average daily trips; DU = dwelling units; KSF = thousand square feet.

Table 7. Proposed Project Amendment Average Daily Trips Compared to Approved Project and Environmental Impact Report Land Exchange Alternative Average Daily Trips

Land Use	Trip Rate	ADT		
		Proposed Project Amendment	Approved Project	EIR Land Exchange Alternative
Estate	12/DU	156	1,500	11,240
Single-Family Residential	10/DU	11,030	9,940	270
Multifamily Residential	8/DU	1,200	0	552
Mixed Use Commercial	110/KSF	1,100	1,100	1,650
Retirement Community	4/DU	0	0	1,132
Elementary School	90/Acre	891	0	720
Neighborhood Park	5/Acre	56	76	67
Community Purpose Facility	30/Acre	288	135	168
Fire Station	5.3/Staff	16	16	16
Sub-Total		*14,729*	*12,767*	15,815
Internal Capture @ 12%		*-1,767*	*0*	-1,898
Total		**12,962**	**12,767**	**13,917**
Difference		**–**	**195**	**(955)**

Notes: ADT = average daily trips; EIR = environmental impact report; DU = dwelling units; KSF = thousand square feet.

Because the Proposed Project Amendment would implement a TDM Program, the Approved Project's transportation engineer (Chen Ryan) quantified the reduction in VMT attributable to implementation of the TDM-related strategies. Please see Table 15 in Appendix 2.7-1 of the Final EIR for additional information regarding the VMT reduction benefits of the TDM program, which was then accounted for in the GHG emissions estimates provided for mobile sources by CalEEMod. The Approved Project was determined to result in an overall 4.3% reduction in total VMT; therefore, the Proposed Project Amendment is anticipated to achieve a minimum of 4.3% reduction in VMT. However, a total VMT reduction of 4.6% was estimated for the EIR Land Exchange Alternative, and since the Proposed Project Amendment was assumed to be similar to the EIR Land Exchange Alternative, a VMT reduction of up to 4.6% is possible. Because the Proposed Project Amendment would generate a similar land use mix as the EIR Land Exchange Alternative, the assumed average trip length for the EIR Land Exchange Alternative was similarly assumed for the Proposed Project Amendment. Accordingly, the Proposed Project Amendment trip length in CalEEMod for all land uses was adjusted to the EIR Land Exchange Alternative trip length of 9.71 miles.[4]

[4] VMT was estimated for the Approved Project and the EIR Land Exchange Alternative by Chen Ryan in the Approved Project Final EIR. The EIR Land Exchange Alternative had a higher estimated VMT per trip compared to the Approved Project. Therefore, it was determined the EIR Land Exchange Alternative VMT was more conservative to use as the basis for the Proposed Project Amendment VMT. The Proposed Project Amendment VMT was estimated using Proposed Project Amendment-specific trip rates (Chen Ryan 2019) and the average trip length from the EIR Land Exchange Alternative (Chen Ryan 2017).

The Proposed Project Amendment would also include a multi-pronged approach to increase EV adoption for residents. As part of this strategy, Level 2 EV Supply Equipment would be installed in half of all residential units[5] (633 units), and 10 parking spaces located in the Village Core's commercial development area and P1 through P4 park areas would include charging stations.[6] These strategies—in conjunction with market forces decreasing the cost and increasing the availability of EVs, regional charging initiatives decreasing range anxiety and increasing the share of miles driven by plug-in hybrid electric vehicles in EV mode, and state targets fueling programs and incentive pools making EV ownership more cost effective and appealing (International Council on Clean Transportation 2017)—will increase the market penetration of EVs and share of EV miles driven as a result of the Proposed Project Amendment. However, conservatively, no reduction for EV charging was assumed.

Solid Waste

The Proposed Project Amendment would generate solid waste, and therefore result in CO_2e emissions associated with landfill off-gassing. A waste disposal rate of 3.6 tons per day was assumed in CalEEMod for the Proposed Project Amendment, consistent with Section 3.1.8, Utilities and Service Systems, of the Final EIR. It was assumed that a 75% reduction in solid waste per the requirements of Assembly Bill 341 and the County's 2025 diversion goal was incorporated into the rate of 3.6 tons per day, and no additional reduction in GHG emissions was assumed relative to waste diversion.

Water and Wastewater

Supply, conveyance, treatment, and distribution of water for the Proposed Project Amendment would require the use of electricity, which would result in associated indirect GHG emissions. Similarly, wastewater generated by the Proposed Project Amendment would require the use of electricity for conveyance and treatment, along with GHG emissions generated during wastewater treatment. Water consumption estimates for indoor and outdoor water use and associated electricity consumption from water use and wastewater generation were estimated using the Proposed Project Amendment's Water Conservation Plan.[7] The total indoor and outdoor water use of 294,590,953 gallons per year from the Proposed Project Amendment would be less than the total indoor and outdoor water use of 307,173,588 gallons per year from the Approved Project.

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5 Providing EV charging equipment to half of all Proposed Project Amendment residential units was chosen as an estimate of market demand. It is assumed that providing EV charging equipment would incentivize homeowners to purchase EVs or provide an opportunity to homeowners who own EVs to have in-home chargers.

6 To meet Governor Brown's goals, 15% of new car purchases in 2025 would need to be ZEVs; 3% of new car purchases in 2016 were ZEVs (CEC 2016). This adoption rate is anticipated to be slightly higher in urban areas with major destinations in typical EV range, which the Proposed Project Amendment's in-home EV charging equipment would support. The non-residential spaces were determined to assist those with range anxiety and non-resident visitors to the site, as the entire proposed project Amendment is well within typical EV and PHEV range.

7 It was assumed that 50% of the Proposed Project Amendment's water usage would be indoor water use and 50% would be outdoor use for all land uses, with the exception of parks. Park water usage is assumed to be 100% outdoor water use, with no indoor water use.

Carbon Sequestration

Similar to the Approved Project and EIR Exchange Alternative, the calculation methodology and default values provided in CalEEMod were used to estimate the one-time carbon-stock change from planting new trees. Trees sequester carbon dioxide (CO_2) while they are actively growing, and the amount of CO_2 sequestered depends on the type of tree. The accumulation of CO_2 in biomass slows with age, in addition to losses from clipping, pruning, and tree death. The gain of sequestered CO_2 resulting from planting and growth of approximately 6,000 miscellaneous trees in the Proposed Project Amendment was estimated based on the carbon sequestration rate for the tree species, the number of new trees, and the growing period.

Estimated Operational GHG Emissions

The Proposed Project Amendment would produce on-site renewable solar energy, which would reduce GHG emissions that would otherwise be generated using non-renewable energy sources. Table 8 presents the GHG reductions from the total solar production, and the project's energy emissions are summarized in Table 9. Energy demand on site was adjusted for the stringent efficiency standards of ZNE and reflected in CalEEMod, but no reductions in demand from on-site solar CalEEMod were taken for the use of solar on site. Therefore, for the purpose of this analysis, all solar energy produced on site is assumed to be sold onto the SDG&E grid regardless if it is consumed on or off site.

Table 8. Proposed Project Amendment Greenhouse Gas Offset from On-Site Residential Solar Energy Production

Energy Source	Rated Solar PV Productiona (kW/system)	Number of Dwelling Units (DU)	Annual Renewable Energy Generatedb (kWh/year/system)	Total Annual Renewable Energy Generated (kWh/year)	Total Annual Solar PVc CO2 Reduction (MT CO2/year)
Zero Net Energy	5.0	1,266	8,093.30	10,246,118	1,991.21

Source: ConSol 2017.
Notes:
kW = kilowatt; DU = dwelling units; kWh = kilowatt hour; PV = photovoltaic; CO_2 = carbon dioxide; MT CO_2/year = metric tons carbon dioxide per year; ZNE = zero net energy; SDG&E = San Diego Gas & Electric; GHG = greenhouse gas; CEC = California Energy Commission; RPS = Renewable Portfolio Standard.

[a] Based on ConSol study to achieve CEC definition of ZNE design for residences. For the Approved Project, similar to the Proposed Project Amendment, a 2-story 3,652-square-foot home constructed to ZNE design standards would need a 5.0 kW solar power system to reach ZNE in Climate Zone 10, Chula Vista.

[b] Annual renewable energy generated per unit from ConSol Building Analysis (ConSol 2017).

[c] Annual PV GHG reduction is based on the CO_2e emission factor for SDG&E in 2028, assuming 46.6% RPS.

Table 9. Proposed Project Amendment Estimated Operational Energy Greenhouse Gas Emissions (2028)

Energy Source	CO2	CH4	N2O	CO2e
General Energy Demand	3,763.92	0.17	0.06	3,785.77
Reduction from Rooftop Solar	(1,991.21)	0.00	0.00	(1,991.21)
Energy Demand from Pools	1,270.57	0.02	0.02	1,278.65
Reduction from Solar Pool Heating[a]	(1,257.91)	(0.02)	(0.02)	(1,265.94)
Energy (Net) Total	**1,785.37**	**0.17**	**0.06**	**1,807.27**

Source: See Appendix 2.3-1 in the Final EIR for complete results of energy demand from pools and reduction from solar pool heating.
Notes: CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent.
[a] Implementation of PDF-AQ/GHG-5 requires the installation of solar water heating on all recreational swimming pools, which would reduce natural gas demand by 64.47 million British thermal units.

For comparison, the Proposed Project Amendment and Approved Project GHG emissions generated from operational activities are summarized in Tables 10 through 12. The decrease in water consumption as shown in Table 10 is due to a decrease in lot size and decrease in outdoor water use.

Table 10. Proposed Project Amendment and Approved Project Estimated Annual Operational Greenhouse Gas Emissions (2028)

Emission Source	Proposed Project Amendment CO_2e (Metric Tons per Year)	Approved Project CO_2e (Metric Tons per Year)
Area	15.73	13.91
Energy	1,807.27	1,136.97
Mobile	14,487.24	13,484.49
Solid Waste	660.81	660.81
Water and Wastewater	896.25	1,051.97
Total Emissions	**17,867.30**	**16,348.15**
Net Change	**1,519.15**	

Source: See Attachment A and Appendix 2.7-1 in the Final EIR for complete results.
Notes: CO_2e = carbon dioxide equivalent.
Implementation of PDF-AQ/GHG-2 would result in an annual energy savings of 1,991 MT CO_2e annually and 1,760 MT CO_2e annually for the Proposed Project Amendment and Approved Project scenarios, respectively.
Numbers may not add exactly due to rounding.

Table 11. Proposed Project Amendment Planted Trees – Estimated Gain of Sequestered Carbon

Project Tree Category/Species	Tree Category	Growing Period (year)	Number of Trees (trees)	Tree CO2 Sequestered Factor (MT CO2/Tree/Year)	Gain of Sequestered CO2 (MT CO2)
Unknown	Miscellaneous	20	6,000	0.0354	4,248
				Total	**4,248**

Source: CAPCOA 2016; see Appendix 2.7-1 in the Final EIR for complete results.
MT CO_2 = metric tons carbon dioxide; CO_2 = carbon dioxide.

Table 12. Proposed Project Amendment and Approved Project Estimated Annual Net Greenhouse Gas Emissions (2028)

Emission Source	Proposed Project Amendment CO_2e	Approved Project CO_2e
Total Construction Emissions (MT)	12,378	12,378
Loss of Carbon from Vegetation Removal (MT)	10,382	10,382
Subtotal (MT)	22,760	22,760
Amortized Over 30 Years (MT/Year)	759	759
Annual Operational Emissions (MT/Year)	17,867.30	16,348.15
Amortized Sequestered Carbon Amortized Over 30 years (MT/Year)	(142)	(189)
Total Net Annual Emissions	**18,484.30**	**16,918.15**
Net Change	**1,566.15**	

Source: See Attachment A and Appendix 2.7-1 of the Final EIR for complete results.
Notes: CO_2e = carbon dioxide equivalent; MT = metric tons

The Proposed Project Amendment would result in more GHG emissions compared to the Approved Project; however, the Proposed Project Amendment would implement **M-GHG-1** through **M-GHG-4** in Section 2 of this memorandum and the Approved Project Final EIR, thus, purchasing carbon offsets to offset 100% of the construction and operational GHG emissions as specified in the Final EIR. Collectively, implementation of mitigation measures **M-GHG-1** through **M-GHG-4**, as set forth below, would result in the Proposed Project Amendment offsetting 100% of its annual GHG emissions to achieve carbon neutrality (i.e., a net-zero emissions level). **M-GHG-1** and **M-GHG-2** would require the Proposed Project Amendment to offset 100% of its construction and operational GHG emissions. The use of carbon offsets to mitigate GHG emissions is expressly authorized by CEQA Guidelines Section 15126.4(c)(3)–(c)(4).

As a result of **M-GHG-1** and **M-GHG-2**, the applicant would be required to purchase a total of 558,779 MT CO_2e of carbon offset credits, representing 30 years of operation with an annual emission rate of 17,867 MT CO_2e and construction emissions of 22,760 MT CO_2e (see Table 13). Similar to the Approved Project, implementation of **M-GHG-1** and **M-GHG-2** would ensure that the Proposed Project Amendment would not increase GHG emissions as compared to the existing environmental setting (see CEQA Guidelines Section 15064.4[b][1]). All three mitigation measures have been incorporated into the Proposed Project Amendment's Mitigation Monitoring and Reporting Program to ensure implementation and enforceability. Therefore, the level of impact would be similar to and not increase from those levels identified in the Approved Project Final EIR. Impacts would be less than significant with implementation of mitigation measures.

Table 13. Proposed Project Amendment and Approved Project Estimated Net GHG Emissions With Mitigation Measures (2028)

Emission Source	Proposed Project Amendment CO_2e Metric Tons per Year	Approved Project CO_2e Metric Tons per Year
Construction Emissions (One Time)	22,760	22,760
*Reductions from **M-GHG-1***	*(22,760)*	*(22,760)*
Annual Operational Emissions and Amortized Sequestered Carbon	17,867	16,159
Project Life Operational Emissions (30 Years)	536,019	484,775
*Reductions From **M-GHG-2***	*(536,019)*	*(484,775)*
Net Emissions After Mitigation	0	0

Source: See Attachment A and Appendix 2.7-1 of the Final EIR for complete results.
Notes: CO_2e = carbon dioxide equivalent; GHG = greenhouse gas
Numbers in parentheses represent negative numbers.
Construction emissions include land conversion. Operational emissions include gain of carbon sequestration. **M-GHG-3** is not quantified. **M-GHG-4** is included in annual operational emissions.

Section 4.2 Conflict with an Applicable Plan, Policy, or Regulation Adopted for the Purpose of Reducing the Emissions of Greenhouse Gases

The County's Climate Action Plan (CAP) is a qualified CAP under CEQA Section 15183.5, which allows development applicants the opportunity to use CEQA streamlining tools for analysis of GHG emissions and related impacts for projects that are consistent with the CAP. The County's CAP sets forth strategies and measures to reduce GHG emissions in the County's unincorporated areas and from County operations. The CAP demonstrates how the County will achieve GHG emissions targets for 2020 and 2030, and demonstrates progress to 2050. The project's consistency with the CAP is addressed in Attachment B.

Regarding consistency with SANDAG's Regional Plan, the Proposed Project Amendment would include the same PDFs as the Approved Project to support the policy objectives of the Regional Transportation Plan and SB 375. For example, the Proposed Project Amendment includes an integrated walking and bicycling trail system that will connect the various components of the Proposed Project Amendment. Traffic calming design and dedicated space for non-automotive traffic will create safe and appealing environments for all residents to use. The convenient availability of walking and bicycling trails and parks will serve to reduce VMT. The Proposed Project Amendment would include parks and recreational facilities within safe walking or biking distance for residents, reducing the amount of car trips needed for recreation. Ride sharing and commute programs would decrease the number of trips for single occupancy vehicles for daily trips outside of the Proposed Project Amendment to regional transportation hubs and job centers in adjacent Chula Vista. Additionally, on-site generation of energy for electricity and water heating, EV equipment in the garage in half of all residential units, and public charging stations would be provided within the Village Core and park areas.

Further, as explained in Attachment B, while the Proposed Project Amendment would result in more units than the Approved Project, the Proposed Project Amendment is consistent with the existing General Plan land use designations (as set forth in the Otay Ranch GDP/SRP) and SANDAG growth projections, and would only develop 1,266 residential units compared to the anticipated 2,123 residential units under the GDP/SRP, while setting aside an additional 340 acres as Preserve/Open Space; therefore, the Proposed Project Amendment would not increase land use density or intensity in the Proposed Project Amendment Area beyond that anticipated by the General Plan.

The Proposed Project Amendment also would be consistent with the goals set forth in the Conservation and Open Space Element of the County's General Plan that are designed to reduce the emissions of GHGs, reduce energy use in buildings and infrastructure, and promote the use of renewable energy sources, conservation, and other methods of efficiency (RH Consulting 2019). Furthermore, the Proposed Project Amendment would implement strategies in the Proposed Project Amendment's Water Conservation Plan.

As discussed in Section 4.1, total Proposed Project Amendment GHG emissions, including operation and amortized construction, would be approximately 18,353 MT CO_2e per year. As such, the Proposed Project Amendment (without mitigation) would generate GHG emissions that may interfere with the implementation of GHG reduction goals for 2030 and 2050. Therefore, the Proposed Project Amendment would potentially conflict with plans, policies, or regulations adopted for the purpose of reducing GHG emissions, and could result in a potentially significant impact, and the level of impact would similar to that reported for the Approved Project in the Final EIR.

The Proposed Project Amendment would require an update to **M-GHG-2** to reflect the increase in operational GHG emissions to offset 100% of its operational GHG emissions. However, implementation of **M-GHG-1** through **M-GHG-4** would reduce impacts related to the potential for the Proposed Project Amendment to conflict with SB 32 and Executive Order S-3-05 or any plans adopted with the purpose of reducing GHG emissions; therefore, the Proposed Project Amendment's impacts on GHG emissions would be less than significant with mitigation, and the level of impact would be similar to that reported for the Approved Project in the Final EIR.

Section 5. Certified EIR Mitigation Measures and Project Design Features

Table 14 summarizes the PDFs and/or mitigation measures from Section 2.3, Air Quality, of the Final EIR, and identifies measures that would apply to the Proposed Project Amendment.

Table 14. Project Design Features and Mitigation Measures

Approved Project Impact and PDF or Mitigation Measure	EIR Land Exchange Alternative Impact and PDF or Mitigation Measure	Proposed Project Amendment Impact and PDF or Mitigation Measure	Explanation
Impact GHG-1. The Approved Project would implement **PDF-AQ/GHG-1** through **PDF-AQ/GHG-10** and **PDF-TR-1.** The Approved Project would increase GHG emissions above the existing emissions level, and the Approved Project (without mitigation) would generate GHG emissions during construction and operation that may have a significant impact on the environment. Implementation of **M-GHG-1** through **M-GHG-4**, would result in the Approved Project offsetting 100% of its GHG emissions to achieve carbon neutrality (i.e., a net-zero emissions level). Therefore, impacts would be reduced to less than significant with mitigation. **PDF-AQ/GHG-1** Wood-Burning Stoves and Fireplaces. Prior to the issuance of residential building permits, the Proposed Project Amendment applicant or its designee shall submit building plans illustrating that no wood-burning stoves or fireplaces would be constructed. **PDF-AQ/GHG-2** Zero-Net Energy Development – Residential Land Uses. Prior to the issuance of residential building permits, the Proposed Project Amendment applicant or its designee shall submit building plans illustrating compliance with the zero net energy (ZNE) design standards defined by the California Energy Commission.	The EIR Land Exchange Alternative would implement **PDF-AQ/GHG-1** through **PDF-AQ/GHG-10** and **PDF-TR-1.** The EIR Land Exchange Alternative would increase GHG emissions above the existing emissions level, and the EIR Land Exchange Alternative (without mitigation) would generate GHG emissions during construction and operation that may have a significant impact on the environment. Implementation of **M-GHG-1** through **M-GHG-4**, would result in the EIR Land Exchange Alternative offsetting 100% of its GHG emissions to achieve carbon neutrality (i.e., a net-zero emissions level). Therefore, impacts would be reduced to less than significant with mitigation.	The Proposed Project Amendment would implement **PDF-AQ/GHG-1** through **PDF-AQ/GHG-10** and **PDF-TR-1.** The Proposed Project Amendment would increase GHG emissions above the existing emissions level, and the Proposed Project Amendment (without mitigation) would generate GHG emissions during construction and operation that may have a significant impact on the environment. Implementation of **M-GHG-1** through **M-GHG-4**, would result in the Proposed Project Amendment offsetting 100% of its GHG emissions to achieve carbon neutrality (i.e., a net-zero emissions level). Therefore, impacts would be reduced to less than significant with mitigation.	Similar to the Approved Project, the Proposed Project Amendment's cut-and-fill quantities would be balanced on site, and no external soil export would be required. The Proposed Project Amendment is anticipated to result in less earthwork activity compared to the Approved Project Regarding blasting and rock crushing activities. The Proposed Project Amendment is anticipated to result in less construction activities as compared to the Approved Project. The Proposed Project Amendment construction emissions are expected to be similar to the Approved Project construction emissions. Furthermore, the Proposed Project Amendment would offset 100% of its annual GHG emissions to achieve carbon neutrality. Therefore, impacts would be reduced to less than significant with mitigation.

Table 14. Project Design Features and Mitigation Measures

Approved Project Impact and PDF or Mitigation Measure	EIR Land Exchange Alternative Impact and PDF or Mitigation Measure	Proposed Project Amendment Impact and PDF or Mitigation Measure	Explanation
PDF-AQ/GHG-3 Non-Residential Energy Improvement Standards. Prior to the issuance of non-residential building permits, the Proposed Project Amendment applicant or its designee shall submit building plans illustrating that the Proposed Project Amendment's non-residential land uses shall achieve a 10% greater building energy efficiency than required by the 2016 state energy efficiency standards in Title 24, Part 6 of the California Code of Regulations. **PDF-AQ/GHG-4** Energy Star Appliances. All appliances (washer/dryers, refrigerators, and dishwashers) that will be installed by builders in residences and commercial businesses shall be Energy Star rated or equivalent. **PDF-AQ/GHG-5** Solar Water Heating. Prior to the issuance of private recreation center building permits, the Proposed Project Amendment applicant or its designee shall submit swimming pool heating design plans to the County of San Diego for review and approval. The design plans shall demonstrate that swimming pools located at private recreation centers in the Proposed Project Amendment Area have been designed and shall be constructed to use solar water heating or other technology with an equivalent level of energy efficiency.			

Table 14. Project Design Features and Mitigation Measures

Approved Project Impact and PDF or Mitigation Measure	EIR Land Exchange Alternative Impact and PDF or Mitigation Measure	Proposed Project Amendment Impact and PDF or Mitigation Measure	Explanation
PDF-AQ/GHG-6 Efficient Outdoor Lighting. Prior to the issuance of permits, the Proposed Project Amendment applicant or its designee shall submit building plans that demonstrate that all outdoor lighting shall be (light emitting diodes) LED or other high efficiency lightbulbs **PDF-AQ/GHG-7** Energy Efficiency Education. All new home packets shall provide information on energy efficiency, energy efficient lighting and lighting control systems, energy management, and existing energy incentive programs. **PDF-AQ/GHG-8** Cool Roofs. Prior to the issuance of residential building permits, the Proposed Project Amendment applicant or its designee shall submit building plans illustrating that residential structures shall meet the U.S. Green Building Council standards for cool roofs. This is defined as achieving a three-year solar reflectance index (SRI) of 64 for a low-sloped roof and an SRI of 32 for a high-sloped roof. Prior to the issuance of non-residential building permits, the Proposed Project Amendment applicant or its designee shall submit building plans illustrating non-residential structures shall meet the U.S. Green Building Council standards for cool roofs. This is defined as achieving a three-			

Table 14. Project Design Features and Mitigation Measures

Approved Project Impact and PDF or Mitigation Measure	EIR Land Exchange Alternative Impact and PDF or Mitigation Measure	Proposed Project Amendment Impact and PDF or Mitigation Measure	Explanation
year SRI of 64 for a low-sloped roof and 32 for a high-sloped roof. **PDF-AQ/GHG-9** Cool Pavements. Prior to the issuance of building permits, the Proposed Project Amendment applicant or its designee shall submit building plans illustrating that outdoor pavement, such as walkways and patios shall use paving materials with three-year SRI of 0.28 or initial SRI of 0.33. **PDF-AQ/GHG-10** Electric Vehicle Charging Stations. Prior to the issuance of residential building permits, the applicant or its designee shall submit plans for the installation of a dedicated 208/240 dedicated branch circuit will be included in each garage and one Level 2 electric vehicle (EV) charging station in the garage of half of all residential units to the County of San Diego for review and approval. Prior to the issuance of non-residential building permits in the Proposed Project Amendment's Village Core area, the applicant or its designee shall submit plans for the installation of Level 2 EV charging stations in 10 parking spaces located in the Village Core's commercial development area and P1 through P4 park area parking spaces to the County of San Diego for review and approval. **PDF-TR-1** Transportation Demand Management. The Proposed Project			

Table 14. Project Design Features and Mitigation Measures

Approved Project Impact and PDF or Mitigation Measure	EIR Land Exchange Alternative Impact and PDF or Mitigation Measure	Proposed Project Amendment Impact and PDF or Mitigation Measure	Explanation
Amendment applicant or its designee shall implement a Transportation Demand Management (TDM) Program to facilitate increased opportunities for transit, bicycling, and pedestrian travel, as well as provide the resources, means, and incentives for ride-sharing and carpooling. The following components are to be included in the TDM Program: • Develop a comprehensive pedestrian network designed to provide safe bicycle and pedestrian access between the various Proposed Project phases, land uses, parks/open spaces, schools, and the Village Core. Where approved by the appropriate jurisdiction, the pedestrian network would also provide connections to the various recreational trails and multi-modal facilities accessing the Project Area. • Provide bicycle racks along main travel corridors adjacent to commercial developments and at public parks and open spaces within the Project Area. • Coordinate with the San Diego Association of Governments (SANDAG) iCommute program for carpool, vanpool, and rideshare			

Table 14. Project Design Features and Mitigation Measures

Approved Project Impact and PDF or Mitigation Measure	EIR Land Exchange Alternative Impact and PDF or Mitigation Measure	Proposed Project Amendment Impact and PDF or Mitigation Measure	Explanation
programs that are specific to the Proposed Project. • Promote available websites providing transportation options for residents and businesses. • Create and distribute a "new resident" information packet addressing alternative modes of transportation for residential and commercial residents. • Coordinate with San Diego Metropolitan Transit System and SANDAG about the future sighting of transit stops/stations within the Project Area. • Provide a school carpool program by coordinating with the local school district and SANDAG. Provide dedicated parking space for the school carpool program in the Village Core. • Implement a school bus program in coordination with the school district. • Require homeowner's associations within the Project Area to coordinate with the local school district and partner with the on-site elementary school to create a "walking school bus program" for neighborhood students to safely walk to and			

Table 14. Project Design Features and Mitigation Measures

Approved Project Impact and PDF or Mitigation Measure	EIR Land Exchange Alternative Impact and PDF or Mitigation Measure	Proposed Project Amendment Impact and PDF or Mitigation Measure	Explanation
from school. The Proposed Project applicant would also coordinate with the local school district to encourage the provision of bicycle storage facilities at the on-site elementary school. **M-GHG-1** As to construction greenhouse gas (GHG) emissions, prior to the County of San Diego's (County) issuance of each grading permit, the Proposed Project applicant or its designee shall purchase and retire carbon offsets in a quantity sufficient to offset 100% of the Proposed Project's construction emissions (including sequestration loss from vegetation removal) associated with each such grading permit, consistent with the performance standards and requirements set forth below. First, "carbon offset" shall mean an instrument issued by any of the following: (i) the Climate Action Reserve, the American Carbon Registry, and Verra (previously, Verified Carbon Standard); or (ii) any registry approved by the California Air Resources Board (CARB) to act as a registry under the state's cap-and-trade program. Second, any carbon offset used to reduce the Proposed Project's GHG emissions shall be a carbon offset that represents the past or forecasted			

Table 14. Project Design Features and Mitigation Measures

Approved Project Impact and PDF or Mitigation Measure	EIR Land Exchange Alternative Impact and PDF or Mitigation Measure	Proposed Project Amendment Impact and PDF or Mitigation Measure	Explanation
reduction or sequestration of one metric ton of carbon dioxide equivalent that is "not otherwise required" (CEQA Guidelines Section 15126.4(c)(3)). Third, "Proposed Project applicant" shall mean Jackson Pendo Development Company or its designee. Fourth, as to construction and from vegetation removal GHG emissions, prior to the County's issuance of each grading permit, the Proposed Project applicant or its designee shall provide evidence to the satisfaction of the Director of the Planning & Development Services Department (PDS) that the Proposed Project applicant has purchased and retired carbon offsets in a quantity sufficient to offset 100% of the construction GHG emissions and sequestration loss from vegetation removal generated by the Proposed Project, as associated with each such grading permit. The emissions reduction obligation associated with each grading permit shall be calculated by reference to the certified environmental impact report's Greenhouse Gas Emissions Technical Report (Appendix 2.7-1), which determined total construction-related emissions as equaling 22,760 metric tons of carbon dioxide equivalent (MT CO_2e). This would increase to 22,769 MT CO_2e if			

Table 14. Project Design Features and Mitigation Measures

Approved Project Impact and PDF or Mitigation Measure	EIR Land Exchange Alternative Impact and PDF or Mitigation Measure	Proposed Project Amendment Impact and PDF or Mitigation Measure	Explanation
the Proctor Valley Road North Option is selected. In making such a determination, the Director of the PDS shall require the Project applicant or its designee to provide an attestation or similar documentation from the selected registry(ies) that a sufficient quantity of carbon offsets meeting the standards set forth in this measure have been purchased and retired, thereby demonstrating that the necessary emission reductions are realized. Fifth, the purchased carbon offsets used to reduce construction and vegetation removal GHG emissions shall achieve real, permanent, quantifiable, verifiable, and enforceable reductions (California Health & Safety Code Section 38562(d)(1)). Sixth, all carbon offsets required to reduce the Proposed Project's construction and vegetation removal emissions shall be associated with reduction activities that are geographically prioritized according to the following locational attributes: (1) off-site, unincorporated areas of the County of San Diego; (2) off-site, incorporated areas of the County of San Diego; (3) off-site areas within California; (4) off-site areas within the United States; and (5) off-site, international areas. As listed, geographic			

Table 14. Project Design Features and Mitigation Measures

Approved Project Impact and PDF or Mitigation Measure	EIR Land Exchange Alternative Impact and PDF or Mitigation Measure	Proposed Project Amendment Impact and PDF or Mitigation Measure	Explanation
priorities would focus first on local reduction options (including projects and programs that would reduce GHG emissions) to ensure that reduction efforts achieved locally would provide cross-over, co-benefits to other environmental resource areas. The Director of the PDS shall issue a written determination that offsets are unavailable and/or fail to meet the feasibility factors defined in CEQA Guidelines Section 15364 in a higher priority geographic category before allowing the Project applicant or its designee to use offsets from the next lower priority category. In making such a determination, the Director of the PDS shall consider information available at the time each Project-related grading permit request is submitted, including but not limited to: • The availability of in-State emission reduction opportunities, including funding and partnership opportunities with the County, other public agencies, or environmental initiatives with demonstrated integrity; • The geographic attributes of carbon offsets that are listed for purchase and retirement;			

Table 14. Project Design Features and Mitigation Measures

Approved Project Impact and PDF or Mitigation Measure	EIR Land Exchange Alternative Impact and PDF or Mitigation Measure	Proposed Project Amendment Impact and PDF or Mitigation Measure	Explanation
• The temporal attributes of carbon offsets that are listed for purchase and retirement; • The pricing attributes of carbon offsets that are listed for purchase and retirement; and/or, • Any other information deemed relevant to the evaluation, such as periodicals and reports addressing the availability of carbon offsets. Seventh, over the course of the construction period, the Project applicant or its designee shall submit annual reports to PDS that identify the quantity of emission reductions required by this mitigation measure, as well as the carbon offsets retired to achieve compliance with this measure. The annual reports shall identify the locational attributes of the carbon offsets in order to allow PDS to track and monitor the implementation of the geographic priority provision. Such tabulation and tracking shall be to the satisfaction of the Director of the PDS. **M-GHG-2** As to operational greenhouse gas (GHG) emissions, prior to the County of San Diego's (County) issuance of building permits for each implementing Site Plan ("D" Designator), the applicant or its designee shall purchase and retire carbon offsets for the			

Table 14. Project Design Features and Mitigation Measures

Approved Project Impact and PDF or Mitigation Measure	EIR Land Exchange Alternative Impact and PDF or Mitigation Measure	Proposed Project Amendment Impact and PDF or Mitigation Measure	Explanation
incremental portion of the Proposed Project within the Site Plan in a quantity sufficient to offset, for a 30-year period, the operational greenhouse gas (GHG) emissions from that incremental amount of development to net zero, consistent with the performance standards and requirements set forth below. First, "carbon offset" shall have the same meaning as set forth in M-GHG-1. Second, any carbon offset used to reduce the Proposed Project's GHG emissions shall be a carbon offset that represents the past or forecasted reduction or sequestration of one metric ton of carbon dioxide equivalent that is "not otherwise required" (CEQA Guidelines Section 15126.4(c)(3)). Third, "the Proposed Project applicant" shall have the same meaning as set forth in M-GHG-1. Fourth, as to operational emissions, prior to the County of San Diego's issuance of building permits for each implementing Site Plan ("D" Designator), the Proposed Project applicant or its designee shall provide evidence to the satisfaction of the Director of Planning & Development Services Department (PDS) that it has purchased and retired carbon offsets for the			

Table 14. Project Design Features and Mitigation Measures

Approved Project Impact and PDF or Mitigation Measure	EIR Land Exchange Alternative Impact and PDF or Mitigation Measure	Proposed Project Amendment Impact and PDF or Mitigation Measure	Explanation
incremental portion of the Proposed Project within the Site Plan in a quantity sufficient to offset, for a 30-year period, the operational GHG emissions from the incremental amount of development to net zero. The "project life" is 30 years. This methodology is consistent with the 30-year project life time frame used by the South Coast Air Quality Management District's GHG guidance (SCAQMD 2008), as well as the methodological parameters used by the California Air Resources Board when reviewing AB 900 projects. (For more information on the evidence supporting the 30-year temporal period, please see Section 8.4.5, Use of Carbon Offsets, and Response to Comment O-5-90.) The emissions reduction obligation associated with each building permit shall be calculated by reference to the certified environmental impact report's (EIR) Greenhouse Gas Emissions Technical Report (Appendix 2.7-1), which determined total operational-related emissions as equaling 16,159 metric tons of carbon dioxide equivalent (MT CO_2e) annually, which equates to 484,770 MT CO_2e over 30 years. In making such a determination, the Director of the PDS shall require the Project applicant or its designee to provide			

Table 14. Project Design Features and Mitigation Measures

Approved Project Impact and PDF or Mitigation Measure	EIR Land Exchange Alternative Impact and PDF or Mitigation Measure	Proposed Project Amendment Impact and PDF or Mitigation Measure	Explanation
an attestation or similar documentation from the selected registry(ies) that a sufficient quantity of carbon offsets meeting the standards set forth in this measure have been purchased and retired, thereby demonstrating that the necessary emission reductions are realized. Fifth, the purchased carbon offsets used to reduce operational GHG emissions shall achieve real, permanent, quantifiable, verifiable, and enforceable reductions (California Health & Safety Code Section 38562(d)(1)). Sixth, the amount of carbon offsets required for each implementing Site Plan shall be based on the GHG emissions with the implementing Site Plan, and shall include operational GHG emissions as identified in the approved Greenhouse Gas Emissions Technical Report. Seventh, each implementing Site Plan shall include a tabulation that identifies the overall carbon offsets required to mitigate the entire Proposed Project's GHG emissions (i.e., Table 2.3-13, below), and shall identify: (1) the amount of carbon offsets purchased to date as a result of prior Site Plan approvals, (2) the amount of carbon offsets required to be purchased and			

Table 14. Project Design Features and Mitigation Measures

Approved Project Impact and PDF or Mitigation Measure	EIR Land Exchange Alternative Impact and PDF or Mitigation Measure	Proposed Project Amendment Impact and PDF or Mitigation Measure	Explanation
retired for the incremental portion of the Proposed Project within the Site Plan in a quantity sufficient to offset, for a 30-year period, the operational greenhouse gas (GHG) emissions from that incremental amount of development to net zero, and (3) the remaining carbon offsets required to reduce the Proposed Project's remaining emissions to net zero. The Project applicant or its designee shall submit annual reports to PDS that identify the quantity of emission reductions required by this mitigation measure, as well as the carbon offsets retired to achieve compliance with this measure. The annual reports shall identify the locational attributes of the carbon offsets in order to allow PDS to track and monitor the implementation of the geographic priority provision. Such tabulation and tracking shall be to the satisfaction of the Director of PDS. For clarity, the following example is provided to illustrate the Proposed Project's operational GHG emissions purchase and retirement strategy. If 100 single-family residential units are proposed to be developed in conjunction with an implementing Site Plan ("D" Designator), GHG emissions for those land uses would be calculated and carbon offsets for those emissions would be			

Table 14. Project Design Features and Mitigation Measures

Approved Project Impact and PDF or Mitigation Measure	EIR Land Exchange Alternative Impact and PDF or Mitigation Measure	Proposed Project Amendment Impact and PDF or Mitigation Measure	Explanation
secured for a 30-year period. To facilitate implementation of this strategy, the Proposed Project's total emissions have been allocated on a per dwelling unit basis; this methodological approach ensures that, when each dwelling unit is developed, the emissions from the Proposed Project's resident-serving non-residential facilities will also be offset. Thus, the 100-single family-residential units contemplated by this example would be multiplied by 15.81 MT CO_2e/dwelling unit (total project emissions / total # of dwelling units = 16,159 MT CO_2e /yr / 1,022 dwelling units = 15.81 MT CO_2e /yr/DU). This value would then be multiplied by 30, to calculate the total carbon offsets required for that phase of development (e.g., 100 single-family residential units × 15.81 MT CO_2e /du × 30 = 47,430 MT CO_2e of carbon offsets). Eighth, this EIR acknowledges that the Proposed Project's GHG emissions estimates are conservative because the Proposed Project's GHG emissions are expected to decrease beyond the estimates presented in the EIR's analysis, in part, due to reasonably foreseeable improvements in fuel efficiency, vehicle fleet turnover, technological improvements related to transportation and energy, and updates to			

Table 14. Project Design Features and Mitigation Measures

Approved Project Impact and PDF or Mitigation Measure	EIR Land Exchange Alternative Impact and PDF or Mitigation Measure	Proposed Project Amendment Impact and PDF or Mitigation Measure	Explanation
emissions models and methodologies. Thus, subject to County oversight, and the processes described below, the operational emission estimates that govern implementation of this Proposed Project are subject to a "true up" at the election of the Proposed Project applicant (as defined above) or its designee and subject to the satisfaction of the County's Board of Supervisors, as considered pursuant to a noticed public hearing process that accords with applicable legal requirements, including those set forth in CEQA for the post-approval modification of mitigation implementation parameters. Specifically, if the Project applicant elects to process and a "true-up" exercise subsequent to the County's certification of the Final EIR and approval of the Proposed Project, the Proposed Project applicant shall provide an operational GHG emissions inventory of the Proposed Project's operational emissions for the "true up" operational conditions, including emissions from mobile sources, energy, area sources, water consumption, and solid waste. Subject to the satisfaction of the Board of Supervisors, these calculations shall be conducted using a County-approved model and/or methodology and must validate the continuing adequacy of			

Table 14. Project Design Features and Mitigation Measures

Approved Project Impact and PDF or Mitigation Measure	EIR Land Exchange Alternative Impact and PDF or Mitigation Measure	Proposed Project Amendment Impact and PDF or Mitigation Measure	Explanation
modeling inputs used in the EIR that are not proposed to be altered as part of the "true-up" exercise. The inclusion of the validation requirement ensures that any updated operational GHG emissions inventories for the Project fully account for then-existing information that is relevant to the emissions modeling. Alternatively, the Proposed Project applicant may purchase all carbon offset credits to reduce operational GHG emissions at issuance of the first building permit. The "true up" operational GHG emissions inventory, if conducted, will be provided in the form of a project-specific Updated Emissions Inventory and Offset Report to the County's Board of Supervisors (or its designee) prior to the issuance of building permits for the next build-out phase. The subject technical documentation shall be prepared by a County-approved, qualified air quality and greenhouse gas technical specialist. In all instances, substantial evidence must confirm that any reduction to the total carbon offsets value as identified in the certified Final EIR for the Proposed Project is consistent with the Proposed Project commitment to achieve and maintain carbon neutrality (i.e., net zero emissions) for the 30-year life of the Proposed Project.			

Table 14. Project Design Features and Mitigation Measures

Approved Project Impact and PDF or Mitigation Measure	EIR Land Exchange Alternative Impact and PDF or Mitigation Measure	Proposed Project Amendment Impact and PDF or Mitigation Measure	Explanation
Ninth, all carbon offsets required to reduce the Project's operational emissions shall be associated with reduction activities that are geographically prioritized according to the following locational attributes: (1) off-site, unincorporated areas of the County of San Diego; (2) off-site, incorporated areas within the County of San Diego; (3) off-site areas within California; (4) off-site areas within the United States; and (5) off-site, international areas. As listed, geographic priorities would focus first on local reduction options (including projects and programs that would reduce GHG emissions) to ensure that reduction efforts achieved locally would provide cross-over, co-benefits related to other environmental resource areas. The Director of the PDS shall issue a written determination that offsets are unavailable and/or fail to meet the feasibility factors defined in CEQA Guidelines Section 15364 in a higher priority geographic category before allowing the Project applicant or its designee to use offsets from the next lower priority category. In making such a determination, the Director of the PDS shall consider information available at the time each Project-related building permit			

Table 14. Project Design Features and Mitigation Measures

Approved Project Impact and PDF or Mitigation Measure	EIR Land Exchange Alternative Impact and PDF or Mitigation Measure	Proposed Project Amendment Impact and PDF or Mitigation Measure	Explanation
request is submitted, including but not limited to: • The availability of in-State emission reduction opportunities, including funding and partnership opportunities with the County, other public agencies, or environmental initiatives with demonstrated integrity; • The geographic attributes of carbon offsets that are listed for purchase and retirement; • The temporal attributes of carbon offsets that are listed for purchase and retirement; • The pricing attributes of carbon offsets that are listed for purchase and retirement; and/or, • Any other information deemed relevant to the evaluation, such as periodicals and reports addressing the availability of carbon offsets. **M-GHG-3** Prior to the issuance of residential building permits, the applicant or its designee shall provide evidence to the County of San Diego that the design plans for residential structures include electrical outlets in the front and rear of the structure to facilitate use of electrical lawn and garden equipment.			

Table 14. Project Design Features and Mitigation Measures

Approved Project Impact and PDF or Mitigation Measure	EIR Land Exchange Alternative Impact and PDF or Mitigation Measure	Proposed Project Amendment Impact and PDF or Mitigation Measure	Explanation
M-GHG-4 To reduce greenhouse gas emissions, the applicant or its designee shall provide evidence to the County of San Diego that the following project design features identified for the Proposed Project in Table 2.7-5 and Table 1 of the Mitigation Monitoring and Reporting Program (MMRP), will be implemented: PDF-AQ/GHG-1 (Wood-Burning Stoves and Fireplaces), PDF-AQ/GHG-2 (Zero Net Energy Residences), PDF-AQ/GHG-3 (Non-Residential Energy Improvement Standards), PDF-AQ/GHG-4 (Energy Star Appliances), PDF-AQ/GHG-5 (Solar Water Heating), PDF-AQ/GHG-6 (Efficient Outdoor Lighting), PDF-AQ/GHG-7 (New Resident Information Packet), PDF-AQ/GHG-8 (Cool Roofs), PDF-AQ/GHG-9 (Cool Pavement), PDF-AQ/GHG-10 (Electric Vehicle Charging Stations), PDF-TR-1 (TDM Program), PDF-UT-1 (Hot Water Pipe Insulation – Residential and Non-Residential), PDF-UT-2 (Pressure Reducing Valves – Residential and Non-Residential), PDF-UT-3 (Water Efficient Dishwashers), PDF-UT-4 (Residential Landscaping), and PDF-UT-5 (Water Conservation).			

Table 14. Project Design Features and Mitigation Measures

Approved Project Impact and PDF or Mitigation Measure	EIR Land Exchange Alternative Impact and PDF or Mitigation Measure	Proposed Project Amendment Impact and PDF or Mitigation Measure	Explanation
Impact GHG-2. The Approved Project (without mitigation) would generate GHG emissions. This analysis conservatively assumes that any amount of emissions may interfere with the implementation of GHG reduction goals for 2030 and 2050 and, therefore, would potentially conflict with plans, policies, or regulations adopted for the purposes of reducing GHG emissions. Implementation of **M-GHG-1** through **M-GHG-4** would reduce impacts to less than significant.	The EIR Land Exchange Alternative (without mitigation) would generate GHG emissions. This analysis conservatively assumes that any amount of emissions may interfere with the implementation of GHG reduction goals for 2030 and 2050 and, therefore, would potentially conflict with plans, policies, or regulations adopted for the purposes of reducing GHG emissions. Implementation of **M-GHG-1** through **M-GHG-4** would reduce impacts to less than significant.	The Proposed Project Amendment (without mitigation) would generate GHG emissions. This analysis conservatively assumes that any amount of emissions may interfere with the implementation of GHG reduction goals for 2030 and 2050 and, therefore, would potentially conflict with plans, policies, or regulations adopted for the purposes of reducing GHG emissions. Implementation of **M-GHG-1** through **M-GHG-4** would reduce impacts to less than significant.	Similar to the Approved Project, the Proposed Project Amendment's cut-and-fill quantities would be balanced on site, and no external soil export would be required. The Proposed Project Amendment is anticipated to result in less earthwork activity compared to the Approved Project Regarding blasting and rock crushing activities. The Proposed Project Amendment is anticipated to result in less construction activities as compared to the Approved Project. The Proposed Project Amendment construction emissions are expected to be similar to the Approved Project construction emissions. Furthermore, the Proposed Project Amendment would offset 100% of its annual GHG emissions to achieve carbon neutrality. Implementation of **M-GHG-1** through **M-GHG-4** would reduce impacts to less than significant.

Section 6. Conclusions

The Proposed Project Amendment would result in reduced construction-generated GHG emissions and impacts as compared to the EIR Land Exchange Alternative. However, the Proposed Project Amendment would continue to implement the PDFs and mitigation measures as described the EIR Land Exchange Alternative and Approved Project's Final EIR to offset construction and operational GHG emissions to net zero. Therefore, the Proposed Project Amendment would not result in any new significance GHG emissions impacts beyond those disclosed in the Approved Project's Final EIR, and no new mitigation measures beyond those included in the Approved Project's Mitigation Monitoring and Reporting Plan are necessary.

Section 7. References

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International Council on Clean Transportation. 2017. Expanding the Electric Vehicle Market in U.S. Cities. Published July 24, 2017. https://www.theicct.org/sites/default/files/publications/US-Cities-EVs_ICCT-White-Paper_25072017_vF.pdf.

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RH Consulting. 2019. Proposed Project Amendment General Plan Amendment Report. September 2019.

SCE (Southern California Edison) 2016. Metering and Measuring of Multi-Family Pool Pumps, Final Report - Phase 1 & 2. Accessed April 2017. http://www.calmac.org/publications/Multi-Family_VSD_Pool_Pump_ReportES.pdf.

Attachment A

CalEEMod Output Files

Proposed Project Amendment Operational

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	60.00	1000sqft	1.38	60,000.00	0
Industrial Park	7.50	1000sqft	0.17	7,500.00	0
Parking Lot	257.00	1000sqft	5.90	257,000.00	0
Arena	9.60	Acre	9.60	418,176.00	0
City Park	11.10	Acre	11.10	483,516.00	0
Condo/Townhouse High Rise	150.00	Dwelling Unit	2.34	150,000.00	429
Single Family Housing	1,103.00	Dwelling Unit	358.12	1,985,400.00	3155
User Defined Residential	13.00	Dwelling Unit	38.00	61,477.00	37
Regional Shopping Center	10.00	1000sqft	0.23	10,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2028
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	441.1	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Proposed Project Amendment Operational - San Diego County, Annual

Project Characteristics - RPS
Operational emissions only.

Land Use - Data provided by applicant.

Construction Phase - Operational only.

Off-road Equipment - Operational only.

Trips and VMT - Operational only.

Vehicle Trips - Trip lengths from LEA. Trip rates adjusted from traffic report.

Woodstoves - Single family and estate home natural gas fire place use included in building natural gas consumption.

Area Coating - SDAPCD Rule 67.0.1

Energy Use - Consol report, nonresidential assume 10% beyond 2016 Title 24

Water And Wastewater - LEA water conservation plan

Solid Waste - Assume solid waste rate 3.6 tons per day.

Sequestration -

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaCoating	Area_EF_Residential_Exterior	250	150
tblAreaCoating	Area_EF_Residential_Interior	250	150
tblEnergyUse	LightingElect	1,001.10	2.23
tblEnergyUse	LightingElect	0.35	0.75
tblEnergyUse	LightingElect	1,608.84	764.00
tblEnergyUse	LightingElect	0.00	0.21
tblEnergyUse	NT24E	3,054.10	1.01
tblEnergyUse	NT24E	6,155.97	3,936.00
tblEnergyUse	NT24E	0.00	0.73
tblEnergyUse	NT24NG	4,180.00	0.00

Proposed Project Amendment Operational - San Diego County, Annual

tblEnergyUse	NT24NG	4,180.00	5,200.00
tblEnergyUse	NT24NG	0.00	0.95
tblEnergyUse	T24E	1.21	1.09
tblEnergyUse	T24E	209.39	1.37
tblEnergyUse	T24E	1.52	1.37
tblEnergyUse	T24E	4.66	4.19
tblEnergyUse	T24E	3.18	2.86
tblEnergyUse	T24E	331.07	1,102.00
tblEnergyUse	T24E	0.00	0.21
tblEnergyUse	T24NG	4.31	3.88
tblEnergyUse	T24NG	3,248.74	4.28
tblEnergyUse	T24NG	5.44	4.90
tblEnergyUse	T24NG	15.99	14.39
tblEnergyUse	T24NG	1.14	1.03
tblEnergyUse	T24NG	19,206.92	17,700.00
tblEnergyUse	T24NG	0.00	4.65
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	82.50	0.00
tblFireplaces	NumberGas	606.65	13.00

Proposed Project Amendment Operational - San Diego County, Annual

tblFireplaces	NumberGas	7.15	10.00
tblFireplaces	NumberNoFireplace	15.00	257.00
tblFireplaces	NumberNoFireplace	110.30	13.00
tblFireplaces	NumberNoFireplace	1.30	10.00
tblFireplaces	NumberWood	52.50	0.00
tblFireplaces	NumberWood	386.05	0.00
tblFireplaces	NumberWood	4.55	0.00
tblLandUse	LandUseSquareFeet	0.00	61,477.00
tblLandUse	LotAcreage	0.00	38.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	720.49	441.1
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSequestration	NumberOfNewTrees	0.00	6,000.00
tblSolidWaste	SolidWasteGenerationRate	0.83	0.00
tblSolidWaste	SolidWasteGenerationRate	0.95	0.00
tblSolidWaste	SolidWasteGenerationRate	69.00	0.00
tblSolidWaste	SolidWasteGenerationRate	78.00	0.00
tblSolidWaste	SolidWasteGenerationRate	9.30	0.00
tblSolidWaste	SolidWasteGenerationRate	10.50	0.00
tblSolidWaste	SolidWasteGenerationRate	1,293.55	1,314.00
tblVehicleTrips	CC_TL	6.60	9.71
tblVehicleTrips	CC_TL	6.60	9.71
tblVehicleTrips	CC_TL	0.00	9.71
tblVehicleTrips	CC_TL	6.60	9.71
tblVehicleTrips	CC_TL	6.60	9.71

tblVehicleTrips	CC_TL	6.60	9.71
tblVehicleTrips	CC_TL	6.60	9.71
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tblVehicleTrips	DV_TP	28.00	0.00
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tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
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tblVehicleTrips	HW_TL	0.00	9.71

tblVehicleTrips	HW_TL	16.80	9.71
tblVehicleTrips	HW_TL	16.80	9.71
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tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	2.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
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tblVehicleTrips	PR_TP	86.00	100.00
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tblVehicleTrips	ST_TR	49.97	113.28
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tblVehicleTrips	SU_TR	0.00	26.40
tblVehicleTrips	SU_TR	16.74	38.97

tblVehicleTrips	SU_TR	3.43	5.78
tblVehicleTrips	SU_TR	0.73	1.60
tblVehicleTrips	SU_TR	25.24	57.22
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tblVehicleTrips	SU_TR	0.00	9.56
tblVehicleTrips	WD_TR	33.33	26.40
tblVehicleTrips	WD_TR	1.89	4.40
tblVehicleTrips	WD_TR	4.18	7.04
tblVehicleTrips	WD_TR	15.43	12.00
tblVehicleTrips	WD_TR	6.83	1.60
tblVehicleTrips	WD_TR	42.70	96.80
tblVehicleTrips	WD_TR	9.52	8.80
tblVehicleTrips	WD_TR	0.00	10.56
tblWater	IndoorWaterUseRate	12,923,103.53	3,328,800.00
tblWater	IndoorWaterUseRate	0.00	4,525,088.00
tblWater	IndoorWaterUseRate	9,773,103.84	5,475,000.00
tblWater	IndoorWaterUseRate	1,739,815.03	3,225,049.00
tblWater	IndoorWaterUseRate	1,734,375.00	814,406.00
tblWater	IndoorWaterUseRate	740,725.21	879,559.00
tblWater	IndoorWaterUseRate	71,864,890.26	113,099,813.00
tblWater	IndoorWaterUseRate	0.00	2,372,500.00
tblWater	OutdoorWaterUseRate	824,878.95	3,328,800.00
tblWater	OutdoorWaterUseRate	13,225,442.98	13,575,263.00
tblWater	OutdoorWaterUseRate	6,161,304.60	5,475,000.00
tblWater	OutdoorWaterUseRate	4,473,810.08	3,225,049.00
tblWater	OutdoorWaterUseRate	0.00	814,406.00
tblWater	OutdoorWaterUseRate	453,992.87	879,559.00

tblWater	OutdoorWaterUseRate	45,306,126.47	133,099,813.00
tblWater	OutdoorWaterUseRate	0.00	2,372,500.00
tblWoodstoves	NumberCatalytic	7.50	0.00
tblWoodstoves	NumberCatalytic	55.15	0.00
tblWoodstoves	NumberCatalytic	0.65	0.00
tblWoodstoves	NumberNoncatalytic	7.50	0.00
tblWoodstoves	NumberNoncatalytic	55.15	0.00
tblWoodstoves	NumberNoncatalytic	0.65	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	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					
2019	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
2020	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
2021	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
Maximum	**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**

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					
2019	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
2020	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
2021	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
Maximum	**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**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

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	13.2347	0.1082	9.3945	5.0000e-004		0.0521	0.0521		0.0521	0.0521	0.0000	15.3614	15.3614	0.0147	0.0000	15.7294
Energy	0.1658	1.4326	0.7210	9.0400e-003		0.1145	0.1145		0.1145	0.1145	0.0000	3,763.9216	3,763.9216	0.1711	0.0590	3,785.7676
Mobile	2.9380	12.5478	37.9544	0.1560	16.9045	0.1101	17.0146	4.5252	0.1023	4.6275	0.0000	14,470.0763	14,470.0763	0.6865	0.0000	14,487.2394
Waste						0.0000	0.0000		0.0000	0.0000	266.7301	0.0000	266.7301	15.7633	0.0000	660.8126
Water						0.0000	0.0000		0.0000	0.0000	42.4233	710.1925	752.6158	4.4040	0.1126	896.2533
Total	**16.3385**	**14.0886**	**48.0699**	**0.1655**	**16.9045**	**0.2768**	**17.1813**	**4.5252**	**0.2690**	**4.7941**	**309.1534**	**18,959.5518**	**19,268.7052**	**21.0396**	**0.1715**	**19,845.8024**

2.2 Overall Operational

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	13.2347	0.1082	9.3945	5.0000e-004		0.0521	0.0521		0.0521	0.0521	0.0000	15.3614	15.3614	0.0147	0.0000	15.7294
Energy	0.1658	1.4326	0.7210	9.0400e-003		0.1145	0.1145		0.1145	0.1145	0.0000	3,763.9216	3,763.9216	0.1711	0.0590	3,785.7676
Mobile	2.9380	12.5478	37.9544	0.1560	16.9045	0.1101	17.0146	4.5252	0.1023	4.6275	0.0000	14,470.0763	14,470.0763	0.6865	0.0000	14,487.2394
Waste						0.0000	0.0000		0.0000	0.0000	266.7301	0.0000	266.7301	15.7633	0.0000	660.8126
Water						0.0000	0.0000		0.0000	0.0000	42.4233	710.1925	752.6158	4.4040	0.1126	896.2533
Total	**16.3385**	**14.0886**	**48.0699**	**0.1655**	**16.9045**	**0.2768**	**17.1813**	**4.5252**	**0.2690**	**4.7941**	**309.1534**	**18,959.5518**	**19,268.7052**	**21.0396**	**0.1715**	**19,845.8024**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	4,248.0000
Total	**4,248.0000**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/29/2019	7/28/2021	5	500	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 5.9

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Proposed Project Amendment Operational - San Diego County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

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
Demolition	0	0.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2019

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	0.0000	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
Total	**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**

3.2 Demolition - 2019

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	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
Total	**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**

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	0.0000	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
Total	**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**

3.2 Demolition - 2019

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	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
Total	**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**

3.2 Demolition - 2020

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	0.0000	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
Total	**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**

3.2 Demolition - 2020

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	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
Total	**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**

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	0.0000	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
Total	**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**

3.2 Demolition - 2020

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	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
Total	**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**

3.2 Demolition - 2021

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	0.0000	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
Total	**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**

3.2 Demolition - 2021

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	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
Total	**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**

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	0.0000	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
Total	**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**

3.2 Demolition - 2021

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	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
Total	**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**

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	2.9380	12.5478	37.9544	0.1560	16.9045	0.1101	17.0146	4.5252	0.1023	4.6275	0.0000	14,470.0763	14,470.0763	0.6865	0.0000	14,487.2394
Unmitigated	2.9380	12.5478	37.9544	0.1560	16.9045	0.1101	17.0146	4.5252	0.1023	4.6275	0.0000	14,470.0763	14,470.0763	0.6865	0.0000	14,487.2394

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Arena	253.44	253.44	253.44	895,768	895,768
City Park	48.84	587.86	432.57	638,533	638,533
Condo/Townhouse High Rise	1,056.00	1,089.00	867.00	3,653,601	3,653,601
Elementary School	720.00	0.00	0.00	1,817,712	1,817,712
Industrial Park	12.00	12.00	12.00	42,413	42,413
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	968.00	1,132.80	572.20	3,304,701	3,304,701
Single Family Housing	9,706.40	10,103.48	8790.91	34,044,933	34,044,933
User Defined Residential	137.28	142.87	124.28	481,466	481,466
Total	12,901.96	13,321.45	11,052.40	44,879,129	44,879,129

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Arena	9.71	9.71	9.71	0.00	81.00	19.00	100	0	0
City Park	9.71	9.71	9.71	33.00	48.00	19.00	100	0	0
Condo/Townhouse High Rise	9.71	9.71	9.71	41.60	18.80	39.60	100	0	0
Elementary School	9.71	9.71	9.71	65.00	30.00	5.00	100	0	0
Industrial Park	9.71	9.71	9.71	59.00	28.00	13.00	100	0	0
Parking Lot	9.71	9.71	9.71	0.00	0.00	0.00	100	0	0
Regional Shopping Center	9.71	9.71	9.71	16.30	64.70	19.00	100	0	0
Single Family Housing	9.71	9.71	9.71	41.60	18.80	39.60	100	0	0
User Defined Residential	9.71	9.71	9.71	41.60	18.80	39.60	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Arena	0.614571	0.037691	0.177673	0.098627	0.012633	0.005296	0.017422	0.025155	0.001929	0.001711	0.005676	0.000778	0.000837
City Park	0.614571	0.037691	0.177673	0.098627	0.012633	0.005296	0.017422	0.025155	0.001929	0.001711	0.005676	0.000778	0.000837
Condo/Townhouse High Rise	0.614571	0.037691	0.177673	0.098627	0.012633	0.005296	0.017422	0.025155	0.001929	0.001711	0.005676	0.000778	0.000837
Elementary School	0.614571	0.037691	0.177673	0.098627	0.012633	0.005296	0.017422	0.025155	0.001929	0.001711	0.005676	0.000778	0.000837
Industrial Park	0.614571	0.037691	0.177673	0.098627	0.012633	0.005296	0.017422	0.025155	0.001929	0.001711	0.005676	0.000778	0.000837
Parking Lot	0.614571	0.037691	0.177673	0.098627	0.012633	0.005296	0.017422	0.025155	0.001929	0.001711	0.005676	0.000778	0.000837
Regional Shopping Center	0.614571	0.037691	0.177673	0.098627	0.012633	0.005296	0.017422	0.025155	0.001929	0.001711	0.005676	0.000778	0.000837
Single Family Housing	0.614571	0.037691	0.177673	0.098627	0.012633	0.005296	0.017422	0.025155	0.001929	0.001711	0.005676	0.000778	0.000837
User Defined Residential	0.614571	0.037691	0.177673	0.098627	0.012633	0.005296	0.017422	0.025155	0.001929	0.001711	0.005676	0.000778	0.000837

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	2,123.4836	2,123.4836	0.1396	0.0289	2,135.5814
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,123.4836	2,123.4836	0.1396	0.0289	2,135.5814
NaturalGas Mitigated	0.1658	1.4326	0.7210	9.0400e-003		0.1145	0.1145		0.1145	0.1145	0.0000	1,640.4380	1,640.4380	0.0314	0.0301	1,650.1863
NaturalGas Unmitigated	0.1658	1.4326	0.7210	9.0400e-003		0.1145	0.1145		0.1145	0.1145	0.0000	1,640.4380	1,640.4380	0.0314	0.0301	1,650.1863

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					
Arena	4.65388e+006	0.0251	0.2281	0.1916	1.3700e-003		0.0173	0.0173		0.0173	0.0173	0.0000	248.3488	248.3488	4.7600e-003	4.5500e-003	249.8246
City Park	0	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
Condo/Townhouse High Rise	642	0.0000	3.0000e-005	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0343	0.0343	0.0000	0.0000	0.0345
Elementary School	322560	1.7400e-003	0.0158	0.0133	9.0000e-005		1.2000e-003	1.2000e-003		1.2000e-003	1.2000e-003	0.0000	17.2130	17.2130	3.3000e-004	3.2000e-004	17.3153
Industrial Park	139433	7.5000e-004	6.8300e-003	5.7400e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	7.4407	7.4407	1.4000e-004	1.4000e-004	7.4849
Parking Lot	0	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
Regional Shopping Center	21160	1.1000e-004	1.0400e-003	8.7000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.1292	1.1292	2.0000e-005	2.0000e-005	1.1359
Single Family Housing	2.52587e+007	0.1362	1.1639	0.4953	7.4300e-003		0.0941	0.0941		0.0941	0.0941	0.0000	1,347.9004	1,347.9004	0.0258	0.0247	1,355.9103
User Defined Residential	344271	1.8600e-003	0.0169	0.0142	1.0000e-004		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003	0.0000	18.3716	18.3716	3.5000e-004	3.4000e-004	18.4808
Total		**0.1658**	**1.4326**	**0.7210**	**9.0400e-003**		**0.1145**	**0.1145**		**0.1145**	**0.1145**	**0.0000**	**1,640.4380**	**1,640.4380**	**0.0314**	**0.0301**	**1,650.1863**

5.2 Energy by Land Use - NaturalGas

Mitigated

	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					
Arena	4.65388e+006	0.0251	0.2281	0.1916	1.3700e-003		0.0173	0.0173		0.0173	0.0173	0.0000	248.3488	248.3488	4.7600e-003	4.5500e-003	249.8246
City Park	0	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
Condo/Townhouse High Rise	642	0.0000	3.0000e-005	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0343	0.0343	0.0000	0.0000	0.0345
Elementary School	322560	1.7400e-003	0.0158	0.0133	9.0000e-005		1.2000e-003	1.2000e-003		1.2000e-003	1.2000e-003	0.0000	17.2130	17.2130	3.3000e-004	3.2000e-004	17.3153
Industrial Park	139433	7.5000e-004	6.8300e-003	5.7400e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	7.4407	7.4407	1.4000e-004	1.4000e-004	7.4849
Parking Lot	0	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
Regional Shopping Center	21160	1.1000e-004	1.0400e-003	8.7000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.1292	1.1292	2.0000e-005	2.0000e-005	1.1359
Single Family Housing	2.52587e+007	0.1362	1.1639	0.4953	7.4300e-003		0.0941	0.0941		0.0941	0.0941	0.0000	1,347.9004	1,347.9004	0.0258	0.0247	1,355.9103
User Defined Residential	344271	1.8600e-003	0.0169	0.0142	1.0000e-004		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003	0.0000	18.3716	18.3716	3.5000e-004	3.4000e-004	18.4808
Total		**0.1658**	**1.4326**	**0.7210**	**9.0400e-003**		**0.1145**	**0.1145**		**0.1145**	**0.1145**	**0.0000**	**1,640.4380**	**1,640.4380**	**0.0314**	**0.0301**	**1,650.1863**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Arena	3.42444e+006	685.1612	0.0451	9.3200e-003	689.0647
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	691.5	0.1384	1.0000e-005	0.0000	0.1391
Elementary School	305280	61.0803	4.0200e-003	8.3000e-004	61.4283
Industrial Park	97305	19.4687	1.2800e-003	2.6000e-004	19.5797
Parking Lot	192750	38.5653	2.5400e-003	5.2000e-004	38.7851
Regional Shopping Center	122420	24.4937	1.6100e-003	3.3000e-004	24.6333
Single Family Housing	6.39961e+006	1,280.4306	0.0842	0.0174	1,287.7253
User Defined Residential	70698.5	14.1453	9.3000e-004	1.9000e-004	14.2259
Total		**2,123.4836**	**0.1396**	**0.0289**	**2,135.5814**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Arena	3.42444e+006	685.1612	0.0451	9.3200e-003	689.0647
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	691.5	0.1384	1.0000e-005	0.0000	0.1391
Elementary School	305280	61.0803	4.0200e-003	8.3000e-004	61.4283
Industrial Park	97305	19.4687	1.2800e-003	2.6000e-004	19.5797
Parking Lot	192750	38.5653	2.5400e-003	5.2000e-004	38.7851
Regional Shopping Center	122420	24.4937	1.6100e-003	3.3000e-004	24.6333
Single Family Housing	6.39961e+006	1,280.4306	0.0842	0.0174	1,287.7253
User Defined Residential	70698.5	14.1453	9.3000e-004	1.9000e-004	14.2259
Total		**2,123.4836**	**0.1396**	**0.0289**	**2,135.5814**

6.0 Area Detail

6.1 Mitigation Measures Area

	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	13.2347	0.1082	9.3945	5.0000e-004		0.0521	0.0521		0.0521	0.0521	0.0000	15.3614	15.3614	0.0147	0.0000	15.7294
Unmitigated	13.2347	0.1082	9.3945	5.0000e-004		0.0521	0.0521		0.0521	0.0521	0.0000	15.3614	15.3614	0.0147	0.0000	15.7294

6.2 Area by SubCategory

Unmitigated

	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	2.4155					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	10.5369					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	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
Landscaping	0.2823	0.1082	9.3945	5.0000e-004		0.0521	0.0521		0.0521	0.0521	0.0000	15.3614	15.3614	0.0147	0.0000	15.7294
Total	**13.2347**	**0.1082**	**9.3945**	**5.0000e-004**		**0.0521**	**0.0521**		**0.0521**	**0.0521**	**0.0000**	**15.3614**	**15.3614**	**0.0147**	**0.0000**	**15.7294**

6.2 Area by SubCategory

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	2.4155					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	10.5369					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	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
Landscaping	0.2823	0.1082	9.3945	5.0000e-004		0.0521	0.0521		0.0521	0.0521	0.0000	15.3614	15.3614	0.0147	0.0000	15.7294
Total	**13.2347**	**0.1082**	**9.3945**	**5.0000e-004**		**0.0521**	**0.0521**		**0.0521**	**0.0521**	**0.0000**	**15.3614**	**15.3614**	**0.0147**	**0.0000**	**15.7294**

7.0 Water Detail

7.1 Mitigation Measures Water

Proposed Project Amendment Operational - San Diego County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	752.6158	4.4040	0.1126	896.2533
Unmitigated	752.6158	4.4040	0.1126	896.2533

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	3.3288 / 3.3288	17.1279	0.1095	2.7800e-003	20.6945
City Park	4.52509 / 13.5753	43.4008	0.1502	4.0500e-003	48.3636
Condo/Townhouse High Rise	5.475 / 5.475	28.1709	0.1801	4.5700e-003	34.0369
Elementary School	3.22505 / 3.22505	16.5941	0.1061	2.6900e-003	20.0495
Industrial Park	0.814406 / 0.814406	4.1904	0.0268	6.8000e-004	5.0630
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.879559 / 0.879559	4.5257	0.0289	7.3000e-004	5.4680
Single Family Housing	113.1 / 133.1	626.3986	3.7242	0.0951	747.8286
User Defined Residential	2.3725 / 2.3725	12.2074	0.0781	1.9800e-003	14.7493
Total		**752.6158**	**4.4040**	**0.1125**	**896.2534**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	3.3288 / 3.3288	17.1279	0.1095	2.7800e-003	20.6945
City Park	4.52509 / 13.5753	43.4008	0.1502	4.0500e-003	48.3636
Condo/Townhouse High Rise	5.475 / 5.475	28.1709	0.1801	4.5700e-003	34.0369
Elementary School	3.22505 / 3.22505	16.5941	0.1061	2.6900e-003	20.0495
Industrial Park	0.814406 / 0.814406	4.1904	0.0268	6.8000e-004	5.0630
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.879559 / 0.879559	4.5257	0.0289	7.3000e-004	5.4680
Single Family Housing	113.1 / 133.1	626.3986	3.7242	0.0951	747.8286
User Defined Residential	2.3725 / 2.3725	12.2074	0.0781	1.9800e-003	14.7493
Total		**752.6158**	**4.4040**	**0.1125**	**896.2534**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	266.7301	15.7633	0.0000	660.8126
Unmitigated	266.7301	15.7633	0.0000	660.8126

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	0	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	0	0.0000	0.0000	0.0000	0.0000
Elementary School	0	0.0000	0.0000	0.0000	0.0000
Industrial Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1314	266.7301	15.7633	0.0000	660.8126
User Defined Residential	0	0.0000	0.0000	0.0000	0.0000
Total		**266.7301**	**15.7633**	**0.0000**	**660.8126**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	0	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	0	0.0000	0.0000	0.0000	0.0000
Elementary School	0	0.0000	0.0000	0.0000	0.0000
Industrial Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1314	266.7301	15.7633	0.0000	660.8126
User Defined Residential	0	0.0000	0.0000	0.0000	0.0000
Total		**266.7301**	**15.7633**	**0.0000**	**660.8126**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	4,248.0000	0.0000	0.0000	4,248.0000

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Miscellaneous	6000	4,248.0000	0.0000	0.0000	4,248.0000
Total		**4,248.0000**	**0.0000**	**0.0000**	**4,248.0000**

Proposed Project Amendment Operational

San Diego County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	60.00	1000sqft	1.38	60,000.00	0
Industrial Park	7.50	1000sqft	0.17	7,500.00	0
Parking Lot	257.00	1000sqft	5.90	257,000.00	0
Arena	9.60	Acre	9.60	418,176.00	0
City Park	11.10	Acre	11.10	483,516.00	0
Condo/Townhouse High Rise	150.00	Dwelling Unit	2.34	150,000.00	429
Single Family Housing	1,103.00	Dwelling Unit	358.12	1,985,400.00	3155
User Defined Residential	13.00	Dwelling Unit	38.00	61,477.00	37
Regional Shopping Center	10.00	1000sqft	0.23	10,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2028
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	441.1	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Proposed Project Amendment Operational - San Diego County, Summer

Project Characteristics - RPS
Operational emissions only.

Land Use - Data provided by applicant.

Construction Phase - Operational only.

Off-road Equipment - Operational only.

Trips and VMT - Operational only.

Vehicle Trips - Trip lengths from LEA. Trip rates adjusted from traffic report.

Woodstoves - Single family and estate home natural gas fire place use included in building natural gas consumption.

Area Coating - SDAPCD Rule 67.0.1

Energy Use - Consol report, nonresidential assume 10% beyond 2016 Title 24

Water And Wastewater - LEA water conservation plan

Solid Waste - Assume solid waste rate 3.6 tons per day.

Sequestration -

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaCoating	Area_EF_Residential_Exterior	250	150
tblAreaCoating	Area_EF_Residential_Interior	250	150
tblEnergyUse	LightingElect	1,001.10	2.23
tblEnergyUse	LightingElect	0.35	0.75
tblEnergyUse	LightingElect	1,608.84	764.00
tblEnergyUse	LightingElect	0.00	0.21
tblEnergyUse	NT24E	3,054.10	1.01
tblEnergyUse	NT24E	6,155.97	3,936.00
tblEnergyUse	NT24E	0.00	0.73
tblEnergyUse	NT24NG	4,180.00	0.00

Proposed Project Amendment Operational - San Diego County, Summer

tblEnergyUse	NT24NG	4,180.00	5,200.00
tblEnergyUse	NT24NG	0.00	0.95
tblEnergyUse	T24E	1.21	1.09
tblEnergyUse	T24E	209.39	1.37
tblEnergyUse	T24E	1.52	1.37
tblEnergyUse	T24E	4.66	4.19
tblEnergyUse	T24E	3.18	2.86
tblEnergyUse	T24E	331.07	1,102.00
tblEnergyUse	T24E	0.00	0.21
tblEnergyUse	T24NG	4.31	3.88
tblEnergyUse	T24NG	3,248.74	4.28
tblEnergyUse	T24NG	5.44	4.90
tblEnergyUse	T24NG	15.99	14.39
tblEnergyUse	T24NG	1.14	1.03
tblEnergyUse	T24NG	19,206.92	17,700.00
tblEnergyUse	T24NG	0.00	4.65
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	82.50	0.00
tblFireplaces	NumberGas	606.65	13.00

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tblFireplaces	NumberGas	7.15	10.00
tblFireplaces	NumberNoFireplace	15.00	257.00
tblFireplaces	NumberNoFireplace	110.30	13.00
tblFireplaces	NumberNoFireplace	1.30	10.00
tblFireplaces	NumberWood	52.50	0.00
tblFireplaces	NumberWood	386.05	0.00
tblFireplaces	NumberWood	4.55	0.00
tblLandUse	LandUseSquareFeet	0.00	61,477.00
tblLandUse	LotAcreage	0.00	38.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	720.49	441.1
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSequestration	NumberOfNewTrees	0.00	6,000.00
tblSolidWaste	SolidWasteGenerationRate	0.83	0.00
tblSolidWaste	SolidWasteGenerationRate	0.95	0.00
tblSolidWaste	SolidWasteGenerationRate	69.00	0.00
tblSolidWaste	SolidWasteGenerationRate	78.00	0.00
tblSolidWaste	SolidWasteGenerationRate	9.30	0.00
tblSolidWaste	SolidWasteGenerationRate	10.50	0.00
tblSolidWaste	SolidWasteGenerationRate	1,293.55	1,314.00
tblVehicleTrips	CC_TL	6.60	9.71
tblVehicleTrips	CC_TL	6.60	9.71
tblVehicleTrips	CC_TL	0.00	9.71
tblVehicleTrips	CC_TL	6.60	9.71
tblVehicleTrips	CC_TL	6.60	9.71

tblVehicleTrips	CC_TL	6.60	9.71
tblVehicleTrips	CC_TL	6.60	9.71
tblVehicleTrips	CC_TL	0.00	9.71
tblVehicleTrips	CC_TL	0.00	9.71
tblVehicleTrips	CNW_TL	6.60	9.71
tblVehicleTrips	CNW_TL	6.60	9.71
tblVehicleTrips	CNW_TL	0.00	9.71
tblVehicleTrips	CNW_TL	6.60	9.71
tblVehicleTrips	CNW_TL	6.60	9.71
tblVehicleTrips	CNW_TL	6.60	9.71
tblVehicleTrips	CNW_TL	6.60	9.71
tblVehicleTrips	CNW_TL	0.00	9.71
tblVehicleTrips	CNW_TL	0.00	9.71
tblVehicleTrips	CW_TL	14.70	9.71
tblVehicleTrips	CW_TL	14.70	9.71
tblVehicleTrips	CW_TL	0.00	9.71
tblVehicleTrips	CW_TL	14.70	9.71
tblVehicleTrips	CW_TL	14.70	9.71
tblVehicleTrips	CW_TL	14.70	9.71
tblVehicleTrips	CW_TL	14.70	9.71
tblVehicleTrips	CW_TL	0.00	9.71
tblVehicleTrips	CW_TL	0.00	9.71
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	25.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00

tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	0.00	9.71
tblVehicleTrips	HO_TL	0.00	9.71
tblVehicleTrips	HO_TL	7.90	9.71
tblVehicleTrips	HO_TL	0.00	9.71
tblVehicleTrips	HO_TL	0.00	9.71
tblVehicleTrips	HO_TL	0.00	9.71
tblVehicleTrips	HO_TL	0.00	9.71
tblVehicleTrips	HO_TL	7.90	9.71
tblVehicleTrips	HO_TL	7.90	9.71
tblVehicleTrips	HS_TL	0.00	9.71
tblVehicleTrips	HS_TL	0.00	9.71
tblVehicleTrips	HS_TL	7.10	9.71
tblVehicleTrips	HS_TL	0.00	9.71
tblVehicleTrips	HS_TL	0.00	9.71
tblVehicleTrips	HS_TL	0.00	9.71
tblVehicleTrips	HS_TL	0.00	9.71
tblVehicleTrips	HS_TL	7.10	9.71
tblVehicleTrips	HS_TL	7.10	9.71
tblVehicleTrips	HW_TL	0.00	9.71
tblVehicleTrips	HW_TL	0.00	9.71
tblVehicleTrips	HW_TL	16.80	9.71
tblVehicleTrips	HW_TL	0.00	9.71
tblVehicleTrips	HW_TL	0.00	9.71
tblVehicleTrips	HW_TL	0.00	9.71
tblVehicleTrips	HW_TL	0.00	9.71

Proposed Project Amendment Operational - San Diego County, Summer

tblVehicleTrips	HW_TL	16.80	9.71
tblVehicleTrips	HW_TL	16.80	9.71
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	2.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	66.00	100.00
tblVehicleTrips	PR_TP	66.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	63.00	100.00
tblVehicleTrips	PR_TP	79.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	26.40
tblVehicleTrips	ST_TR	22.75	52.96
tblVehicleTrips	ST_TR	4.31	7.26
tblVehicleTrips	ST_TR	2.49	1.60
tblVehicleTrips	ST_TR	49.97	113.28
tblVehicleTrips	ST_TR	9.91	9.16
tblVehicleTrips	ST_TR	0.00	10.99
tblVehicleTrips	SU_TR	0.00	26.40
tblVehicleTrips	SU_TR	16.74	38.97

tblVehicleTrips	SU_TR	3.43	5.78
tblVehicleTrips	SU_TR	0.73	1.60
tblVehicleTrips	SU_TR	25.24	57.22
tblVehicleTrips	SU_TR	8.62	7.97
tblVehicleTrips	SU_TR	0.00	9.56
tblVehicleTrips	WD_TR	33.33	26.40
tblVehicleTrips	WD_TR	1.89	4.40
tblVehicleTrips	WD_TR	4.18	7.04
tblVehicleTrips	WD_TR	15.43	12.00
tblVehicleTrips	WD_TR	6.83	1.60
tblVehicleTrips	WD_TR	42.70	96.80
tblVehicleTrips	WD_TR	9.52	8.80
tblVehicleTrips	WD_TR	0.00	10.56
tblWater	IndoorWaterUseRate	12,923,103.53	3,328,800.00
tblWater	IndoorWaterUseRate	0.00	4,525,088.00
tblWater	IndoorWaterUseRate	9,773,103.84	5,475,000.00
tblWater	IndoorWaterUseRate	1,739,815.03	3,225,049.00
tblWater	IndoorWaterUseRate	1,734,375.00	814,406.00
tblWater	IndoorWaterUseRate	740,725.21	879,559.00
tblWater	IndoorWaterUseRate	71,864,890.26	113,099,813.00
tblWater	IndoorWaterUseRate	0.00	2,372,500.00
tblWater	OutdoorWaterUseRate	824,878.95	3,328,800.00
tblWater	OutdoorWaterUseRate	13,225,442.98	13,575,263.00
tblWater	OutdoorWaterUseRate	6,161,304.60	5,475,000.00
tblWater	OutdoorWaterUseRate	4,473,810.08	3,225,049.00
tblWater	OutdoorWaterUseRate	0.00	814,406.00
tblWater	OutdoorWaterUseRate	453,992.87	879,559.00

tblWater	OutdoorWaterUseRate	45,306,126.47	133,099,813.00
tblWater	OutdoorWaterUseRate	0.00	2,372,500.00
tblWoodstoves	NumberCatalytic	7.50	0.00
tblWoodstoves	NumberCatalytic	55.15	0.00
tblWoodstoves	NumberCatalytic	0.65	0.00
tblWoodstoves	NumberNoncatalytic	7.50	0.00
tblWoodstoves	NumberNoncatalytic	55.15	0.00
tblWoodstoves	NumberNoncatalytic	0.65	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2019	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
2020	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
2021	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
Maximum	**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**

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	lb/day										lb/day					
2019	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
2020	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
2021	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
Maximum	**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**

Proposed Project Amendment Operational - San Diego County, Summer

	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	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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	lb/day										lb/day					
Area	74.1086	1.2023	104.3838	5.5200e-003		0.5791	0.5791		0.5791	0.5791	0.0000	188.1450	188.1450	0.1803	0.0000	192.6524
Energy	0.9083	7.8499	3.9506	0.0495		0.6275	0.6275		0.6275	0.6275		9,908.3470	9,908.3470	0.1899	0.1817	9,967.2273
Mobile	18.8414	74.0311	240.1180	0.9885	105.1808	0.6691	105.8499	28.1008	0.6218	28.7226		101,034.4039	101,034.4039	4.6367		101,150.3225
Total	**93.8582**	**83.0833**	**348.4524**	**1.0436**	**105.1808**	**1.8758**	**107.0566**	**28.1008**	**1.8285**	**29.9293**	**0.0000**	**111,130.8958**	**111,130.8958**	**5.0070**	**0.1817**	**111,310.2022**

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	lb/day										lb/day					
Area	74.1086	1.2023	104.3838	5.5200e-003		0.5791	0.5791		0.5791	0.5791	0.0000	188.1450	188.1450	0.1803	0.0000	192.6524
Energy	0.9083	7.8499	3.9506	0.0495		0.6275	0.6275		0.6275	0.6275		9,908.3470	9,908.3470	0.1899	0.1817	9,967.2273
Mobile	18.8414	74.0311	240.1180	0.9885	105.1808	0.6691	105.8499	28.1008	0.6218	28.7226		101,034.4039	101,034.4039	4.6367		101,150.3225
Total	**93.8582**	**83.0833**	**348.4524**	**1.0436**	**105.1808**	**1.8758**	**107.0566**	**28.1008**	**1.8285**	**29.9293**	**0.0000**	**111,130.8958**	**111,130.8958**	**5.0070**	**0.1817**	**111,310.2022**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/29/2019	7/28/2021	5	500	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 5.9

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

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
Demolition	0	0.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2019

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	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	lb/day										lb/day					
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
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
Worker	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
Total	**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**

3.2 Demolition - 2019

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	lb/day										lb/day					
Off-Road	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
Total	**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**

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	lb/day										lb/day					
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
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
Worker	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
Total	**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**

3.2 Demolition - 2020

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	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	lb/day										lb/day					
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
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
Worker	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
Total	**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**

3.2 Demolition - 2020

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	lb/day										lb/day					
Off-Road	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
Total	**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**

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	lb/day										lb/day					
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
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
Worker	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
Total	**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**

3.2 Demolition - 2021

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	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	lb/day										lb/day					
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
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
Worker	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
Total	**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**

3.2 Demolition - 2021

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	lb/day										lb/day					
Off-Road	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
Total	**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**

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	lb/day										lb/day					
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
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
Worker	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
Total	**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**

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	lb/day										lb/day					
Mitigated	18.8414	74.0311	240.1180	0.9885	105.1808	0.6691	105.8499	28.1008	0.6218	28.7226		101,034.4039	101,034.4039	4.6367		101,150.3225
Unmitigated	18.8414	74.0311	240.1180	0.9885	105.1808	0.6691	105.8499	28.1008	0.6218	28.7226		101,034.4039	101,034.4039	4.6367		101,150.3225

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Arena	253.44	253.44	253.44	895,768	895,768
City Park	48.84	587.86	432.57	638,533	638,533
Condo/Townhouse High Rise	1,056.00	1,089.00	867.00	3,653,601	3,653,601
Elementary School	720.00	0.00	0.00	1,817,712	1,817,712
Industrial Park	12.00	12.00	12.00	42,413	42,413
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	968.00	1,132.80	572.20	3,304,701	3,304,701
Single Family Housing	9,706.40	10,103.48	8790.91	34,044,933	34,044,933
User Defined Residential	137.28	142.87	124.28	481,466	481,466
Total	12,901.96	13,321.45	11,052.40	44,879,129	44,879,129

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Arena	9.71	9.71	9.71	0.00	81.00	19.00	100	0	0
City Park	9.71	9.71	9.71	33.00	48.00	19.00	100	0	0
Condo/Townhouse High Rise	9.71	9.71	9.71	41.60	18.80	39.60	100	0	0
Elementary School	9.71	9.71	9.71	65.00	30.00	5.00	100	0	0
Industrial Park	9.71	9.71	9.71	59.00	28.00	13.00	100	0	0
Parking Lot	9.71	9.71	9.71	0.00	0.00	0.00	100	0	0
Regional Shopping Center	9.71	9.71	9.71	16.30	64.70	19.00	100	0	0
Single Family Housing	9.71	9.71	9.71	41.60	18.80	39.60	100	0	0
User Defined Residential	9.71	9.71	9.71	41.60	18.80	39.60	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Arena	0.614571	0.037691	0.177673	0.098627	0.012633	0.005296	0.017422	0.025155	0.001929	0.001711	0.005676	0.000778	0.000837
City Park	0.614571	0.037691	0.177673	0.098627	0.012633	0.005296	0.017422	0.025155	0.001929	0.001711	0.005676	0.000778	0.000837
Condo/Townhouse High Rise	0.614571	0.037691	0.177673	0.098627	0.012633	0.005296	0.017422	0.025155	0.001929	0.001711	0.005676	0.000778	0.000837
Elementary School	0.614571	0.037691	0.177673	0.098627	0.012633	0.005296	0.017422	0.025155	0.001929	0.001711	0.005676	0.000778	0.000837
Industrial Park	0.614571	0.037691	0.177673	0.098627	0.012633	0.005296	0.017422	0.025155	0.001929	0.001711	0.005676	0.000778	0.000837
Parking Lot	0.614571	0.037691	0.177673	0.098627	0.012633	0.005296	0.017422	0.025155	0.001929	0.001711	0.005676	0.000778	0.000837
Regional Shopping Center	0.614571	0.037691	0.177673	0.098627	0.012633	0.005296	0.017422	0.025155	0.001929	0.001711	0.005676	0.000778	0.000837
Single Family Housing	0.614571	0.037691	0.177673	0.098627	0.012633	0.005296	0.017422	0.025155	0.001929	0.001711	0.005676	0.000778	0.000837
User Defined Residential	0.614571	0.037691	0.177673	0.098627	0.012633	0.005296	0.017422	0.025155	0.001929	0.001711	0.005676	0.000778	0.000837

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	lb/day										lb/day					
NaturalGas Mitigated	0.9083	7.8499	3.9506	0.0495		0.6275	0.6275		0.6275	0.6275		9,908.3470	9,908.3470	0.1899	0.1817	9,967.2273
NaturalGas Unmitigated	0.9083	7.8499	3.9506	0.0495		0.6275	0.6275		0.6275	0.6275		9,908.3470	9,908.3470	0.1899	0.1817	9,967.2273

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	lb/day										lb/day					
Arena	12750.4	0.1375	1.2500	1.0500	7.5000e-003		0.0950	0.0950		0.0950	0.0950		1,500.0421	1,500.0421	0.0288	0.0275	1,508.9561
City Park	0	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
Condo/Townhouse High Rise	1.7589	2.0000e-005	1.6000e-004	7.0000e-005	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		0.2069	0.2069	0.0000	0.0000	0.2082
Elementary School	883.726	9.5300e-003	0.0866	0.0728	5.2000e-004		6.5800e-003	6.5800e-003		6.5800e-003	6.5800e-003		103.9678	103.9678	1.9900e-003	1.9100e-003	104.5856
Industrial Park	382.007	4.1200e-003	0.0375	0.0315	2.2000e-004		2.8500e-003	2.8500e-003		2.8500e-003	2.8500e-003		44.9420	44.9420	8.6000e-004	8.2000e-004	45.2091
Parking Lot	0	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
Regional Shopping Center	57.9726	6.3000e-004	5.6800e-003	4.7700e-003	3.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004		6.8203	6.8203	1.3000e-004	1.3000e-004	6.8608
Single Family Housing	69201.9	0.7463	6.3774	2.7138	0.0407		0.5156	0.5156		0.5156	0.5156		8,141.4021	8,141.4021	0.1560	0.1493	8,189.7824
User Defined Residential	943.209	0.0102	0.0925	0.0777	5.5000e-004		7.0300e-003	7.0300e-003		7.0300e-003	7.0300e-003		110.9657	110.9657	2.1300e-003	2.0300e-003	111.6252
Total		**0.9083**	**7.8499**	**3.9506**	**0.0495**		**0.6275**	**0.6275**		**0.6275**	**0.6275**		**9,908.3470**	**9,908.3470**	**0.1899**	**0.1817**	**9,967.2273**

5.2 Energy by Land Use - NaturalGas

Mitigated

	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	lb/day										lb/day					
Arena	12.7504	0.1375	1.2500	1.0500	7.5000e-003		0.0950	0.0950		0.0950	0.0950		1,500.0421	1,500.0421	0.0288	0.0275	1,508.9561
City Park	0	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
Condo/Townhouse High Rise	0.0017589	2.0000e-005	1.6000e-004	7.0000e-005	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		0.2069	0.2069	0.0000	0.0000	0.2082
Elementary School	0.883726	9.5300e-003	0.0866	0.0728	5.2000e-004		6.5800e-003	6.5800e-003		6.5800e-003	6.5800e-003		103.9678	103.9678	1.9900e-003	1.9100e-003	104.5856
Industrial Park	0.382007	4.1200e-003	0.0375	0.0315	2.2000e-004		2.8500e-003	2.8500e-003		2.8500e-003	2.8500e-003		44.9420	44.9420	8.6000e-004	8.2000e-004	45.2091
Parking Lot	0	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
Regional Shopping Center	0.0579726	6.3000e-004	5.6800e-003	4.7700e-003	3.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004		6.8203	6.8203	1.3000e-004	1.3000e-004	6.8608
Single Family Housing	69.2019	0.7463	6.3774	2.7138	0.0407		0.5156	0.5156		0.5156	0.5156		8,141.4021	8,141.4021	0.1560	0.1493	8,189.7824
User Defined Residential	0.943209	0.0102	0.0925	0.0777	5.5000e-004		7.0300e-003	7.0300e-003		7.0300e-003	7.0300e-003		110.9657	110.9657	2.1300e-003	2.0300e-003	111.6252
Total		**0.9083**	**7.8499**	**3.9506**	**0.0495**		**0.6275**	**0.6275**		**0.6275**	**0.6275**		**9,908.3470**	**9,908.3470**	**0.1899**	**0.1817**	**9,967.2273**

6.0 Area Detail

6.1 Mitigation Measures Area

	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	lb/day										lb/day					
Mitigated	74.1086	1.2023	104.3838	5.5200e-003		0.5791	0.5791		0.5791	0.5791	0.0000	188.1450	188.1450	0.1803	0.0000	192.6524
Unmitigated	74.1086	1.2023	104.3838	5.5200e-003		0.5791	0.5791		0.5791	0.5791	0.0000	188.1450	188.1450	0.1803	0.0000	192.6524

6.2 Area by SubCategory

Unmitigated

	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	lb/day										lb/day					
Architectural Coating	13.2357					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	57.7366					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	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
Landscaping	3.1363	1.2023	104.3838	5.5200e-003		0.5791	0.5791		0.5791	0.5791		188.1450	188.1450	0.1803		192.6524
Total	**74.1086**	**1.2023**	**104.3838**	**5.5200e-003**		**0.5791**	**0.5791**		**0.5791**	**0.5791**	**0.0000**	**188.1450**	**188.1450**	**0.1803**	**0.0000**	**192.6524**

6.2 Area by SubCategory

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	lb/day										lb/day					
Architectural Coating	13.2357					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	57.7366					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	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
Landscaping	3.1363	1.2023	104.3838	5.5200e-003		0.5791	0.5791		0.5791	0.5791		188.1450	188.1450	0.1803		192.6524
Total	**74.1086**	**1.2023**	**104.3838**	**5.5200e-003**		**0.5791**	**0.5791**		**0.5791**	**0.5791**	**0.0000**	**188.1450**	**188.1450**	**0.1803**	**0.0000**	**192.6524**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Proposed Project Amendment Operational

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	60.00	1000sqft	1.38	60,000.00	0
Industrial Park	7.50	1000sqft	0.17	7,500.00	0
Parking Lot	257.00	1000sqft	5.90	257,000.00	0
Arena	9.60	Acre	9.60	418,176.00	0
City Park	11.10	Acre	11.10	483,516.00	0
Condo/Townhouse High Rise	150.00	Dwelling Unit	2.34	150,000.00	429
Single Family Housing	1,103.00	Dwelling Unit	358.12	1,985,400.00	3155
User Defined Residential	13.00	Dwelling Unit	38.00	61,477.00	37
Regional Shopping Center	10.00	1000sqft	0.23	10,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2028
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	441.1	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Proposed Project Amendment Operational - San Diego County, Winter

Project Characteristics - RPS
Operational emissions only.

Land Use - Data provided by applicant.

Construction Phase - Operational only.

Off-road Equipment - Operational only.

Trips and VMT - Operational only.

Vehicle Trips - Trip lengths from LEA. Trip rates adjusted from traffic report.

Woodstoves - Single family and estate home natural gas fire place use included in building natural gas consumption.

Area Coating - SDAPCD Rule 67.0.1

Energy Use - Consol report, nonresidential assume 10% beyond 2016 Title 24

Water And Wastewater - LEA water conservation plan

Solid Waste - Assume solid waste rate 3.6 tons per day.

Sequestration -

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaCoating	Area_EF_Residential_Exterior	250	150
tblAreaCoating	Area_EF_Residential_Interior	250	150
tblEnergyUse	LightingElect	1,001.10	2.23
tblEnergyUse	LightingElect	0.35	0.75
tblEnergyUse	LightingElect	1,608.84	764.00
tblEnergyUse	LightingElect	0.00	0.21
tblEnergyUse	NT24E	3,054.10	1.01
tblEnergyUse	NT24E	6,155.97	3,936.00
tblEnergyUse	NT24E	0.00	0.73
tblEnergyUse	NT24NG	4,180.00	0.00

Proposed Project Amendment Operational - San Diego County, Winter

tblEnergyUse	NT24NG	4,180.00	5,200.00
tblEnergyUse	NT24NG	0.00	0.95
tblEnergyUse	T24E	1.21	1.09
tblEnergyUse	T24E	209.39	1.37
tblEnergyUse	T24E	1.52	1.37
tblEnergyUse	T24E	4.66	4.19
tblEnergyUse	T24E	3.18	2.86
tblEnergyUse	T24E	331.07	1,102.00
tblEnergyUse	T24E	0.00	0.21
tblEnergyUse	T24NG	4.31	3.88
tblEnergyUse	T24NG	3,248.74	4.28
tblEnergyUse	T24NG	5.44	4.90
tblEnergyUse	T24NG	15.99	14.39
tblEnergyUse	T24NG	1.14	1.03
tblEnergyUse	T24NG	19,206.92	17,700.00
tblEnergyUse	T24NG	0.00	4.65
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	82.50	0.00
tblFireplaces	NumberGas	606.65	13.00

Proposed Project Amendment Operational - San Diego County, Winter

tblFireplaces	NumberGas	7.15	10.00
tblFireplaces	NumberNoFireplace	15.00	257.00
tblFireplaces	NumberNoFireplace	110.30	13.00
tblFireplaces	NumberNoFireplace	1.30	10.00
tblFireplaces	NumberWood	52.50	0.00
tblFireplaces	NumberWood	386.05	0.00
tblFireplaces	NumberWood	4.55	0.00
tblLandUse	LandUseSquareFeet	0.00	61,477.00
tblLandUse	LotAcreage	0.00	38.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	720.49	441.1
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSequestration	NumberOfNewTrees	0.00	6,000.00
tblSolidWaste	SolidWasteGenerationRate	0.83	0.00
tblSolidWaste	SolidWasteGenerationRate	0.95	0.00
tblSolidWaste	SolidWasteGenerationRate	69.00	0.00
tblSolidWaste	SolidWasteGenerationRate	78.00	0.00
tblSolidWaste	SolidWasteGenerationRate	9.30	0.00
tblSolidWaste	SolidWasteGenerationRate	10.50	0.00
tblSolidWaste	SolidWasteGenerationRate	1,293.55	1,314.00
tblVehicleTrips	CC_TL	6.60	9.71
tblVehicleTrips	CC_TL	6.60	9.71
tblVehicleTrips	CC_TL	0.00	9.71
tblVehicleTrips	CC_TL	6.60	9.71
tblVehicleTrips	CC_TL	6.60	9.71

tblVehicleTrips	CC_TL	6.60	9.71
tblVehicleTrips	CC_TL	6.60	9.71
tblVehicleTrips	CC_TL	0.00	9.71
tblVehicleTrips	CC_TL	0.00	9.71
tblVehicleTrips	CNW_TL	6.60	9.71
tblVehicleTrips	CNW_TL	6.60	9.71
tblVehicleTrips	CNW_TL	0.00	9.71
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tblVehicleTrips	CNW_TL	6.60	9.71
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tblVehicleTrips	CNW_TL	0.00	9.71
tblVehicleTrips	CW_TL	14.70	9.71
tblVehicleTrips	CW_TL	14.70	9.71
tblVehicleTrips	CW_TL	0.00	9.71
tblVehicleTrips	CW_TL	14.70	9.71
tblVehicleTrips	CW_TL	14.70	9.71
tblVehicleTrips	CW_TL	14.70	9.71
tblVehicleTrips	CW_TL	14.70	9.71
tblVehicleTrips	CW_TL	0.00	9.71
tblVehicleTrips	CW_TL	0.00	9.71
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	25.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00

tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	0.00	9.71
tblVehicleTrips	HO_TL	0.00	9.71
tblVehicleTrips	HO_TL	7.90	9.71
tblVehicleTrips	HO_TL	0.00	9.71
tblVehicleTrips	HO_TL	0.00	9.71
tblVehicleTrips	HO_TL	0.00	9.71
tblVehicleTrips	HO_TL	0.00	9.71
tblVehicleTrips	HO_TL	7.90	9.71
tblVehicleTrips	HO_TL	7.90	9.71
tblVehicleTrips	HS_TL	0.00	9.71
tblVehicleTrips	HS_TL	0.00	9.71
tblVehicleTrips	HS_TL	7.10	9.71
tblVehicleTrips	HS_TL	0.00	9.71
tblVehicleTrips	HS_TL	0.00	9.71
tblVehicleTrips	HS_TL	0.00	9.71
tblVehicleTrips	HS_TL	0.00	9.71
tblVehicleTrips	HS_TL	7.10	9.71
tblVehicleTrips	HS_TL	7.10	9.71
tblVehicleTrips	HW_TL	0.00	9.71
tblVehicleTrips	HW_TL	0.00	9.71
tblVehicleTrips	HW_TL	16.80	9.71
tblVehicleTrips	HW_TL	0.00	9.71
tblVehicleTrips	HW_TL	0.00	9.71
tblVehicleTrips	HW_TL	0.00	9.71
tblVehicleTrips	HW_TL	0.00	9.71

Proposed Project Amendment Operational - San Diego County, Winter

tblVehicleTrips	HW_TL	16.80	9.71
tblVehicleTrips	HW_TL	16.80	9.71
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	2.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	66.00	100.00
tblVehicleTrips	PR_TP	66.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	63.00	100.00
tblVehicleTrips	PR_TP	79.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	26.40
tblVehicleTrips	ST_TR	22.75	52.96
tblVehicleTrips	ST_TR	4.31	7.26
tblVehicleTrips	ST_TR	2.49	1.60
tblVehicleTrips	ST_TR	49.97	113.28
tblVehicleTrips	ST_TR	9.91	9.16
tblVehicleTrips	ST_TR	0.00	10.99
tblVehicleTrips	SU_TR	0.00	26.40
tblVehicleTrips	SU_TR	16.74	38.97

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tblVehicleTrips	SU_TR	3.43	5.78
tblVehicleTrips	SU_TR	0.73	1.60
tblVehicleTrips	SU_TR	25.24	57.22
tblVehicleTrips	SU_TR	8.62	7.97
tblVehicleTrips	SU_TR	0.00	9.56
tblVehicleTrips	WD_TR	33.33	26.40
tblVehicleTrips	WD_TR	1.89	4.40
tblVehicleTrips	WD_TR	4.18	7.04
tblVehicleTrips	WD_TR	15.43	12.00
tblVehicleTrips	WD_TR	6.83	1.60
tblVehicleTrips	WD_TR	42.70	96.80
tblVehicleTrips	WD_TR	9.52	8.80
tblVehicleTrips	WD_TR	0.00	10.56
tblWater	IndoorWaterUseRate	12,923,103.53	3,328,800.00
tblWater	IndoorWaterUseRate	0.00	4,525,088.00
tblWater	IndoorWaterUseRate	9,773,103.84	5,475,000.00
tblWater	IndoorWaterUseRate	1,739,815.03	3,225,049.00
tblWater	IndoorWaterUseRate	1,734,375.00	814,406.00
tblWater	IndoorWaterUseRate	740,725.21	879,559.00
tblWater	IndoorWaterUseRate	71,864,890.26	113,099,813.00
tblWater	IndoorWaterUseRate	0.00	2,372,500.00
tblWater	OutdoorWaterUseRate	824,878.95	3,328,800.00
tblWater	OutdoorWaterUseRate	13,225,442.98	13,575,263.00
tblWater	OutdoorWaterUseRate	6,161,304.60	5,475,000.00
tblWater	OutdoorWaterUseRate	4,473,810.08	3,225,049.00
tblWater	OutdoorWaterUseRate	0.00	814,406.00
tblWater	OutdoorWaterUseRate	453,992.87	879,559.00

tblWater	OutdoorWaterUseRate	45,306,126.47	133,099,813.00
tblWater	OutdoorWaterUseRate	0.00	2,372,500.00
tblWoodstoves	NumberCatalytic	7.50	0.00
tblWoodstoves	NumberCatalytic	55.15	0.00
tblWoodstoves	NumberCatalytic	0.65	0.00
tblWoodstoves	NumberNoncatalytic	7.50	0.00
tblWoodstoves	NumberNoncatalytic	55.15	0.00
tblWoodstoves	NumberNoncatalytic	0.65	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2019	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
2020	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
2021	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
Maximum	**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**

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	lb/day										lb/day					
2019	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
2020	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
2021	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
Maximum	**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**

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	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	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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	lb/day										lb/day					
Area	74.1086	1.2023	104.3838	5.5200e-003		0.5791	0.5791		0.5791	0.5791	0.0000	188.1450	188.1450	0.1803	0.0000	192.6524
Energy	0.9083	7.8499	3.9506	0.0495		0.6275	0.6275		0.6275	0.6275		9,908.3470	9,908.3470	0.1899	0.1817	9,967.2273
Mobile	18.2257	76.0670	232.0629	0.9394	105.1808	0.6710	105.8518	28.1008	0.6236	28.7244		96,063.1003	96,063.1003	4.6339		96,178.9480
Total	**93.2425**	**85.1192**	**340.3973**	**0.9944**	**105.1808**	**1.8777**	**107.0585**	**28.1008**	**1.8303**	**29.9311**	**0.0000**	**106,159.5922**	**106,159.5922**	**5.0041**	**0.1817**	**106,338.8277**

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	lb/day										lb/day					
Area	74.1086	1.2023	104.3838	5.5200e-003		0.5791	0.5791		0.5791	0.5791	0.0000	188.1450	188.1450	0.1803	0.0000	192.6524
Energy	0.9083	7.8499	3.9506	0.0495		0.6275	0.6275		0.6275	0.6275		9,908.3470	9,908.3470	0.1899	0.1817	9,967.2273
Mobile	18.2257	76.0670	232.0629	0.9394	105.1808	0.6710	105.8518	28.1008	0.6236	28.7244		96,063.1003	96,063.1003	4.6339		96,178.9480
Total	**93.2425**	**85.1192**	**340.3973**	**0.9944**	**105.1808**	**1.8777**	**107.0585**	**28.1008**	**1.8303**	**29.9311**	**0.0000**	**106,159.5922**	**106,159.5922**	**5.0041**	**0.1817**	**106,338.8277**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/29/2019	7/28/2021	5	500	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 5.9

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

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
Demolition	0	0.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2019

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	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	lb/day										lb/day					
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
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
Worker	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
Total	**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**

3.2 Demolition - 2019

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	lb/day										lb/day					
Off-Road	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
Total	**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**

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	lb/day										lb/day					
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
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
Worker	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
Total	**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**

3.2 Demolition - 2020

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	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	lb/day										lb/day					
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
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
Worker	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
Total	**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**

3.2 Demolition - 2020

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	lb/day										lb/day					
Off-Road	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
Total	**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**

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	lb/day										lb/day					
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
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
Worker	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
Total	**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**

3.2 Demolition - 2021

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	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	lb/day										lb/day					
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
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
Worker	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
Total	**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**

3.2 Demolition - 2021

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	lb/day										lb/day					
Off-Road	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
Total	**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**

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	lb/day										lb/day					
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
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
Worker	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
Total	**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**

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	lb/day										lb/day					
Mitigated	18.2257	76.0670	232.0629	0.9394	105.1808	0.6710	105.8518	28.1008	0.6236	28.7244		96,063.1003	96,063.1003	4.6339		96,178.9480
Unmitigated	18.2257	76.0670	232.0629	0.9394	105.1808	0.6710	105.8518	28.1008	0.6236	28.7244		96,063.1003	96,063.1003	4.6339		96,178.9480

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Arena	253.44	253.44	253.44	895,768	895,768
City Park	48.84	587.86	432.57	638,533	638,533
Condo/Townhouse High Rise	1,056.00	1,089.00	867.00	3,653,601	3,653,601
Elementary School	720.00	0.00	0.00	1,817,712	1,817,712
Industrial Park	12.00	12.00	12.00	42,413	42,413
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	968.00	1,132.80	572.20	3,304,701	3,304,701
Single Family Housing	9,706.40	10,103.48	8790.91	34,044,933	34,044,933
User Defined Residential	137.28	142.87	124.28	481,466	481,466
Total	12,901.96	13,321.45	11,052.40	44,879,129	44,879,129

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Arena	9.71	9.71	9.71	0.00	81.00	19.00	100	0	0
City Park	9.71	9.71	9.71	33.00	48.00	19.00	100	0	0
Condo/Townhouse High Rise	9.71	9.71	9.71	41.60	18.80	39.60	100	0	0
Elementary School	9.71	9.71	9.71	65.00	30.00	5.00	100	0	0
Industrial Park	9.71	9.71	9.71	59.00	28.00	13.00	100	0	0
Parking Lot	9.71	9.71	9.71	0.00	0.00	0.00	100	0	0
Regional Shopping Center	9.71	9.71	9.71	16.30	64.70	19.00	100	0	0
Single Family Housing	9.71	9.71	9.71	41.60	18.80	39.60	100	0	0
User Defined Residential	9.71	9.71	9.71	41.60	18.80	39.60	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Arena	0.614571	0.037691	0.177673	0.098627	0.012633	0.005296	0.017422	0.025155	0.001929	0.001711	0.005676	0.000778	0.000837
City Park	0.614571	0.037691	0.177673	0.098627	0.012633	0.005296	0.017422	0.025155	0.001929	0.001711	0.005676	0.000778	0.000837
Condo/Townhouse High Rise	0.614571	0.037691	0.177673	0.098627	0.012633	0.005296	0.017422	0.025155	0.001929	0.001711	0.005676	0.000778	0.000837
Elementary School	0.614571	0.037691	0.177673	0.098627	0.012633	0.005296	0.017422	0.025155	0.001929	0.001711	0.005676	0.000778	0.000837
Industrial Park	0.614571	0.037691	0.177673	0.098627	0.012633	0.005296	0.017422	0.025155	0.001929	0.001711	0.005676	0.000778	0.000837
Parking Lot	0.614571	0.037691	0.177673	0.098627	0.012633	0.005296	0.017422	0.025155	0.001929	0.001711	0.005676	0.000778	0.000837
Regional Shopping Center	0.614571	0.037691	0.177673	0.098627	0.012633	0.005296	0.017422	0.025155	0.001929	0.001711	0.005676	0.000778	0.000837
Single Family Housing	0.614571	0.037691	0.177673	0.098627	0.012633	0.005296	0.017422	0.025155	0.001929	0.001711	0.005676	0.000778	0.000837
User Defined Residential	0.614571	0.037691	0.177673	0.098627	0.012633	0.005296	0.017422	0.025155	0.001929	0.001711	0.005676	0.000778	0.000837

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Proposed Project Amendment Operational - San Diego County, Winter

	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	lb/day										lb/day					
NaturalGas Mitigated	0.9083	7.8499	3.9506	0.0495		0.6275	0.6275		0.6275	0.6275		9,908.3470	9,908.3470	0.1899	0.1817	9,967.2273
NaturalGas Unmitigated	0.9083	7.8499	3.9506	0.0495		0.6275	0.6275		0.6275	0.6275		9,908.3470	9,908.3470	0.1899	0.1817	9,967.2273

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	lb/day										lb/day					
Arena	12750.4	0.1375	1.2500	1.0500	7.5000e-003		0.0950	0.0950		0.0950	0.0950		1,500.0421	1,500.0421	0.0288	0.0275	1,508.9561
City Park	0	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
Condo/Townhouse High Rise	1.7589	2.0000e-005	1.6000e-004	7.0000e-005	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		0.2069	0.2069	0.0000	0.0000	0.2082
Elementary School	883.726	9.5300e-003	0.0866	0.0728	5.2000e-004		6.5800e-003	6.5800e-003		6.5800e-003	6.5800e-003		103.9678	103.9678	1.9900e-003	1.9100e-003	104.5856
Industrial Park	382.007	4.1200e-003	0.0375	0.0315	2.2000e-004		2.8500e-003	2.8500e-003		2.8500e-003	2.8500e-003		44.9420	44.9420	8.6000e-004	8.2000e-004	45.2091
Parking Lot	0	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
Regional Shopping Center	57.9726	6.3000e-004	5.6800e-003	4.7700e-003	3.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004		6.8203	6.8203	1.3000e-004	1.3000e-004	6.8608
Single Family Housing	69201.9	0.7463	6.3774	2.7138	0.0407		0.5156	0.5156		0.5156	0.5156		8,141.4021	8,141.4021	0.1560	0.1493	8,189.7824
User Defined Residential	943.209	0.0102	0.0925	0.0777	5.5000e-004		7.0300e-003	7.0300e-003		7.0300e-003	7.0300e-003		110.9657	110.9657	2.1300e-003	2.0300e-003	111.6252
Total		**0.9083**	**7.8499**	**3.9506**	**0.0495**		**0.6275**	**0.6275**		**0.6275**	**0.6275**		**9,908.3470**	**9,908.3470**	**0.1899**	**0.1817**	**9,967.2273**

5.2 Energy by Land Use - NaturalGas

Mitigated

	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	lb/day										lb/day					
Arena	12.7504	0.1375	1.2500	1.0500	7.5000e-003		0.0950	0.0950		0.0950	0.0950		1,500.0421	1,500.0421	0.0288	0.0275	1,508.9561
City Park	0	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
Condo/Townhouse High Rise	0.0017589	2.0000e-005	1.6000e-004	7.0000e-005	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		0.2069	0.2069	0.0000	0.0000	0.2082
Elementary School	0.883726	9.5300e-003	0.0866	0.0728	5.2000e-004		6.5800e-003	6.5800e-003		6.5800e-003	6.5800e-003		103.9678	103.9678	1.9900e-003	1.9100e-003	104.5856
Industrial Park	0.382007	4.1200e-003	0.0375	0.0315	2.2000e-004		2.8500e-003	2.8500e-003		2.8500e-003	2.8500e-003		44.9420	44.9420	8.6000e-004	8.2000e-004	45.2091
Parking Lot	0	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
Regional Shopping Center	0.0579726	6.3000e-004	5.6800e-003	4.7700e-003	3.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004		6.8203	6.8203	1.3000e-004	1.3000e-004	6.8608
Single Family Housing	69.2019	0.7463	6.3774	2.7138	0.0407		0.5156	0.5156		0.5156	0.5156		8,141.4021	8,141.4021	0.1560	0.1493	8,189.7824
User Defined Residential	0.943209	0.0102	0.0925	0.0777	5.5000e-004		7.0300e-003	7.0300e-003		7.0300e-003	7.0300e-003		110.9657	110.9657	2.1300e-003	2.0300e-003	111.6252
Total		**0.9083**	**7.8499**	**3.9506**	**0.0495**		**0.6275**	**0.6275**		**0.6275**	**0.6275**		**9,908.3470**	**9,908.3470**	**0.1899**	**0.1817**	**9,967.2273**

6.0 Area Detail

6.1 Mitigation Measures Area

	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	lb/day										lb/day					
Mitigated	74.1086	1.2023	104.3838	5.5200e-003		0.5791	0.5791		0.5791	0.5791	0.0000	188.1450	188.1450	0.1803	0.0000	192.6524
Unmitigated	74.1086	1.2023	104.3838	5.5200e-003		0.5791	0.5791		0.5791	0.5791	0.0000	188.1450	188.1450	0.1803	0.0000	192.6524

6.2 Area by SubCategory

Unmitigated

	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	lb/day										lb/day					
Architectural Coating	13.2357					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	57.7366					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	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
Landscaping	3.1363	1.2023	104.3838	5.5200e-003		0.5791	0.5791		0.5791	0.5791		188.1450	188.1450	0.1803		192.6524
Total	**74.1086**	**1.2023**	**104.3838**	**5.5200e-003**		**0.5791**	**0.5791**		**0.5791**	**0.5791**	**0.0000**	**188.1450**	**188.1450**	**0.1803**	**0.0000**	**192.6524**

6.2 Area by SubCategory

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	lb/day										lb/day					
Architectural Coating	13.2357					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	57.7366					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	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
Landscaping	3.1363	1.2023	104.3838	5.5200e-003		0.5791	0.5791		0.5791	0.5791		188.1450	188.1450	0.1803		192.6524
Total	**74.1086**	**1.2023**	**104.3838**	**5.5200e-003**		**0.5791**	**0.5791**		**0.5791**	**0.5791**	**0.0000**	**188.1450**	**188.1450**	**0.1803**	**0.0000**	**192.6524**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Attachment B

County of San Diego's Climate Action Plan Checklist

Attachment B CAP Consistency

To set the appropriate context, the initial consultation application for the Otay Ranch Village 14 and Planning Areas 16/19 Revised Tentative Map and Specific Plan Amendment ("Proposed Project Amendment") was submitted in September 2019 to garner staff concerns, processes and required studies for the Proposed Project Amendment. Prior to that, the Approved Project for Otay Ranch Village 14 and Planning Areas 16/19 was considered and approved by the County's Board of Supervisors in June 2019. Consideration of the Approved Project was preceded by release of a Notice of Preparation (NOP) in December 2016, circulation of a Draft EIR for review and comment in March 2018, and issuance of a Final EIR in June 2019.

The Final County of San Diego Climate Action Plan (CAP) was adopted by the County's Board of Supervisors in February 2018. In March 2018, lawsuits were filed by numerous environmental organizations and a business entity challenging the County's adoption of the CAP. In December 2018, the San Diego Superior Court issued a peremptory writ ordering the County to set aside its February 2018 approval of the CAP and certification of the related Supplemental EIR. Resolution of that litigation is anticipated to post-date the County's consideration of the Proposed Project Amendment as, in January 2019, the County decided to proceed with an appeal of the Superior Court's decision.

In light of the CAP's timeline, and because litigation over the CAP was reasonably foreseeable and imminent, the CAP was not relied upon or used to establish the analytical framework set forth in the Approved Project's certified Final EIR Section 2.7, Greenhouse Gas Emissions. Notably, CEQA Guidelines Section 15064.4 does not require that the County have an adopted or judicially-validated CAP in place in order to analyze, determine, and mitigate the effects of the Proposed Project Amendment's GHG emissions. However, because of the CAP's uncertain status during the pendency of the judicial appellate proceedings, the following addresses the Proposed Project Amendment's consistency with the County's CAP.

Summary of Climate Action Plan

The purpose of the CAP is to reduce greenhouse gas (GHG) emissions projected to occur from buildout of the County's 2011 General Plan Update (GPU) as set forth in GPU Policy COS-20.1 and GPU EIR Mitigation Measures CC-1.2 and CC-1.8. The 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 also 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 was prepared in accordance with CEQA Guidelines Section 15183.5 in order to afford certain projects the opportunity to use the CAP as a CEQA streamlining tool; specifically, the CAP:

- Describes the County's methodology for quantification of existing baseline and projected emissions for 2020, 2030, and 2050 (see CEQA Guidelines § 15183.5(b)(1)(A));
- Describes the recommended reduction targets for 2020 and 2030, which are designed to be consistent with the recommended community targets in CARB's 2017 Scoping Plan, the State's 2014 GHG emissions inventory, and the targets established by Assembly Bill 32, Senate Bill 32, and Executive Orders B-30-15 and S-3-05 (CEQA Guidelines § 15183.5(b)(1)(B));
- Describes the specific strategies and actions the County will take to reduce GHG emissions and quantifies the resultant reductions that would be achieved by each measure (CEQA Guidelines § 15183.5(b)(1)(C)-(D)); and,

- Describes how the County will implement the plan, monitor its effectiveness, and adaptively manage implementation of specific strategies to achieve reduction targets (CEQA Guidelines § 15183.5(b)(1)(E)).

The CAP was designed and developed to be an adaptive plan; as progress is made in implementing GHG reduction measures, that progress will be monitored (i.e., reductions achieved will be logged), and an assessment will be made on whether changes to the CAP would be required. For example, if certain measures have proven successful, additional investment in those measures may be made; or, conversely, if certain measures are proving to be more difficult to achieve, then the County may redirect its efforts to other measures to achieve overall GHG reduction targets. The County monitors the overall effectiveness of the CAP through annual progress reports to ensure the CAP continues to make substantial progress toward reduction targets through inventory updates every two years and with updates made to the CAP every five years.

Climate Action Plan Implementing Documents

In conjunction with its adoption of the CAP in February 2018, the County also adopted CEQA implementation tools, including the *Guidelines for Determining Significance: Climate Change* (Guidelines) and *Appendix A: Final Climate Action Plan Consistency Review Checklist* (CAP Consistency Checklist). The Guidelines and CAP Consistency Checklist set forth the following two-step process for determining the significance of GHG emissions at the project level for CEQA purposes (County of San Diego 2018):

- **Step 1**: 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, a project is required to undertake a more detailed, project-level GHG analysis. The project also is required to demonstrate compliance with each of the CAP measures identified in the CAP Consistency Checklist. Additionally, in order to support a determination that such a project would not conflict with the CAP and would not make a cumulatively considerable contribution to global climate change, the project is required to demonstrate that it results *either* in "no net increase" in GHG emissions from additional density or intensity above that identified in the County's 2011 General Plan Update *or* "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.

- **Step 2**: Step 2 (CAP Measures Consistency) identifies CAP GHG reduction measures that would apply to discretionary projects and establishes clear questions that can be used to assess a project's consistency with CAP measures. The specific applicable requirements outlined in the Checklist, shall be required as a condition of project approval. The project must provide substantial evidence that demonstrates how the proposed project would implement each applicable Checklist requirement described in Appendix A to the satisfaction of the Director of Planning & Development Services (PDS). If a question in the Checklist is deemed not applicable (N/A) to a project, substantial evidence must be provided to the satisfaction of the Director of PDS.

Proposed Project Amendment Consistency with the Climate Action Plan

As provided above, the CAP was adopted following issuance of the NOP for the Approved Project's EIR. Accordingly, the Approved Project's certified Final EIR does not rely upon or use the CAP because it was not an applicable plan at the time the NOP was published (see CEQA Guidelines § 15125). Instead, the Approved Project's Final EIR identified significance thresholds derived from Appendix G of the CEQA Guidelines and was informed by CEQA Guidelines Section 15064.4, as explained in Final EIR Section 2.7.3. Accordingly, the Approved Project's Final EIR does not rely upon, use or tier from the CAP. Although the Proposed Project Amendment was initiated following the peremptory writ ordering the County to set aside its February 2018 approval of the CAP and certification of the related Supplemental EIR, resolution of that litigation is anticipated to post-date the County's consideration of the Proposed Project Amendment. Therefore, this Addendum explains the Proposed Project Amendment's consistency with the CAP for informational purposes.

Regarding Step 1, the Proposed Project Amendment does not propose a General Plan Amendment or any changes to the existing regional categories, land use designations, or zoning. As background, in the County's General Plan, the Proposed Project Amendment Area is designated as Rural and Semi-Rural regional categories, and has Specific Plan Area (SPA) and Open Space (Conservation) land use designations. The Proposed Project Amendment Area is zoned S80 (Open Space) and S88 (Specific Plan) by the County of San Diego Zoning Map.

The Proposed Project Amendment is one component of the Otay Ranch master-planned community within the Proctor Valley Parcel, which is regulated by the policies of the Otay Ranch General Development Plan/Subregional Plan (GDP/SRP). The Otay Ranch GDP/SRP constitutes Volume II of the County's Otay Subregional Plan and is part of the County's General Plan. Because the County adopted the Otay Ranch GDP/SRP to govern development within the Otay Ranch area, the land use designations specified in the Otay Ranch GDP/SRP apply.

The Otay Ranch GDP/SRP designated Village 14 as a Specialty Village (to serve as a transition between the City of Chula Vista and the rural community of Jamul), and Planning Areas 16 and 19 as Rural Estate Areas with larger lots ranging from a minimum of 1-acre to an average of 2-3 acres. Under the Otay Ranch GDP/SRP, and therefore under the County General Plan, a total of 2,123 dwelling units were assigned to Village 14 and Planning Areas 16 and 19. A range of land use designations are specified in the Otay Ranch GDP/SRP for the Project Area: Very Low Density Residential (VL), Low Density Residential (L), Low Medium Village Density Residential (LMV), Medium Density Residential (MD), Medium High Residential (MH), Mixed Use (MU), Public/Quasi Public (P/QP), Park (P), and Open Space (OS). The Proposed Project Amendment would implement development that is consistent with these designations through the Otay Ranch Village 14 and Planning Area 16/19 Specific Plan Amendment.

While the Proposed Project Amendment would result in more units than the Approved Project, the Proposed Project Amendment is consistent with the existing General Plan land use designations (as set forth in the Otay Ranch GDP/SRP), and would only develop 1,266 units compared to the anticipated 2,123 units under the Otay Ranch GDP/SRP while setting aside an additional Preserve/Open Space as part of the land exchange with CDFW, and; therefore, would not increase land use density or intensity in the Proposed Project Amendment Area beyond that anticipated by the General Plan. In addition to project design features (PDFs) PDF-AQ/GHG-1 to PDF-AQ/GHG-10 and PDF-TR-1, the Proposed Project Amendment would be subject to the mitigation measures M-GHG-1 and M-GHG-2 to offset construction and operational GHG emissions to net zero. Accordingly, the Proposed Project Amendment is consistent with the CAP growth projections and land use assumptions under Step 1 (and in fact would result in less cumulative development than the CAP anticipated) and does not change the findings of the certified Final EIR relative to the CAP analysis, and need only demonstrate additional consistency with the GHG reduction measures identified in Step 2.

Regarding Step 2, the Proposed Project Amendment's compliance with the CAP is outlined in Table 1.

Table 1. Climate Action Plan Consistency Checklist

CAP Checklist Item	Project Compliance
1a. Reducing Vehicle Miles Traveled: Non-Residential: 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.	**Consistent**. As calculated in Attachment 1, the commute-related trips would result in approximately 1,904 VMT per day, based on an average trip length of 10.13 miles per trip and 94 employees between the commercial retail and school, before the implementation of any TDM measures. Therefore, a 15% reduction under this measure would equate to 286 VMT per day. First, due to the mix of land-uses within the Proposed Project Amendment, a 12% internal trip capture has been applied which would reduce the total trips associated with non-residential uses by 12%. Second, the TDM program would reduce the remaining trips by over 4%. All these measures listed in Table 3, below, would apply to the commercial areas. Implementation of the TDM measures set forth in the Approved Project's TDM Program (PDF-TR-1), which is applied to the Proposed Project Amendment, as applicable to the commercial/retail component of the Project, would reduce overall non-residential VMT by 4.1%, which is the equivalent of approximately 5,386 VMT per day. As such, the measure's requirements have been met.
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? Check "N/A" if the project is a residential project or if the project would accommodate 25 or more tenant-occupants.	**N/A**. This is not applicable to the Proposed Project Amendment, which would accommodate 25 or more tenant-occupants.
3a. Electric or Alternatively-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 alternatively-fueled water heating system(s)? ☐ Solar thermal water heater ☐ Tankless electric water heater ☐ Storage electric water heaters ☐ Electric heat pump water heater ☐ Tankless gas water heater ☐ Other	**Consistent**: Prior to the issuance of residential building permits, the Project applicant or its designee shall submit building plans illustrating that the Proposed Project Amendment would provide each residential unit with one of the identified water heating system types.
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? 1. 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.* 2. Energy Efficient Appliances: Install at least one qualified ENERGY STAR dishwasher or clothes washer per unit.	**Consistent**: Prior to the issuance of residential building permits, the Project applicant or its designee shall submit building plans illustrating that the Proposed Project Amendment would provide kitchen faucets that would not exceed 1.5 gallons per minute at 60 psi. The Proposed Project Amendment also would install at least one ENERGY STAR dish or clothes washer per residential unit. The choice of appliance would be given to the residents. Residents may choose to have both appliances be ENERGY STAR, consistent with PDF-UT-2 and PDF-UT-3.
5a. Rain Barrel Installations: Residential: For new residential projects, will the project	**Consistent**: Prior to the issuance of residential building permits, the Project applicant or its designee

Table 1. Climate Action Plan Consistency Checklist

CAP Checklist Item	Project Compliance
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.	shall submit building plans illustrating that the Proposed Project Amendment would install one rain barrel per every 500 square feet of available roof area, to the extent that State, regional or local incentives/rebates are available to fund the purchase of such rain barrels.
6a. Reduce Outdoor Water: 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 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?	**Consistent**: Prior to the issuance of grading permits, the Project applicant would submit a Landscape Document Package that is compliant with the County's Water Conservation in Landscaping Ordinance, and demonstrates a 40% reduction in MAWA.
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.	**N/A**. This is not applicable to the Proposed Project Amendment, which would not include gas or diesel-powered farm equipment.
8a. Electric Irrigation Pumps: Will the project use SDAPCD's farm equipment incentive program to convert diesel- or gas-powered irrigation pumps to electric irrigation pumps? 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.	**N/A**. This is not applicable to the Proposed Project Amendment, which would not include irrigation pumps.
9a. Tree Planting: Residential: For residential projects, will the project plant, at a minimum, two trees per every new residential dwelling unit proposed? Check "N/A" if the project is a non-residential project	**Consistent**: Prior to the issuance of grading permits, the Project applicant would submit a Landscape Document Package demonstrating that the Proposed Project Amendment would plant, at a minimum, two trees per residential unit.

As shown in Table 1, the Proposed Project Amendment would be consistent with Step 2 of the County's CAP. Additionally, compliance with the adopted CAP Checklist requirements set forth in the table above would be required as a Condition of Approval for the Proposed Project Amendment.

It also is noted that the Proposed Project Amendment mitigates GHG emissions impacts within San Diego County through use of on-site project design features (PDF-AQ/GHG-1 through PDF AQ/GHG-10) and mitigation requirements (see Greenhouse Gas Emissions Analysis for the Dispute Resolution Agreement Otay Ranch Village 14 and Planning Area 16/19); would allocate approximately 27% of its emissions reductions to these on-site features; and further reduces emissions beyond those anticipated in the County's CAP by committing to "offset all of its GHG emissions to achieve and maintain carbon neutrality (i.e., net zero emissions) for the life of the project."

Status of the Climate Action Plan and Related Supplemental EIR

As mentioned above, in December 2018, the San Diego Superior Court issued a permanent injunction and peremptory writ of mandate. The writ of mandate orders the County to set aside its approval of the CAP, the related Supplemental EIR, the CAP Consistency Review Checklist, and the County's Guidelines for Determining Significance / Climate Change. The permanent injunction prohibits the County from relying on Mitigation Measure M-GHG-1 in the CAP's Supplemental EIR when considering General Plan Amendment projects. Importantly, the Proposed Project Amendment is NOT a General Plan Amendment project and, therefore, not subject to the injunction.

Neither the writ of mandate nor the permanent injunction affect the Proposed Project Amendment because the Proposed Project Amendment and the certified Final EIR do not depend upon the effectiveness of the CAP, the CAP Supplemental EIR or other CAP-related approvals, and do not rely on the CAP Supplemental EIR or its Mitigation Measure M-GHG-1. In short, the Proposed Project Amendment and the Approved Project's Final EIR – including the commitment to net zero GHG emissions – are independent of the CAP and related approvals. Also, the Proposed Project Amendment does NOT involve a General Plan Amendment within the CAP Supplemental EIR's category of cumulative projects that may increase density or intensity of land uses in the General Plan.

Relationship of the Approved Project's EIR to the Climate Action Plan

It is important to note that the CEQA analysis prepared for the Approved Project's certified Final EIR did not use, rely on, or tier from the CAP to streamline the environmental analysis. Rather, the Final EIR rendered significance determinations (using the criteria contained in CEQA Guidelines Appendix G, and informed by CEQA Guidelines Sections 15064.4 and 15126.4) that are independent of the CAP. As such, regardless of the CAP's effectiveness (which will be determined at the conclusion of the pending judicial appellate proceedings), the Final EIR provides a separate, stand-alone basis for the finding that the GHG emissions would not significantly impact the environment, with implementation of PDFs and Mitigation Measures.

On this point, the County notes that the commitment of the Proposed Project Amendment to achieve carbon neutrality, and the Final EIR's corresponding basis to determine that impacts would be less than significant with mitigation, is supported by CEQA, State guidance, and case law. For example, the overall approach presented in the Final EIR (i.e., attainment of net zero GHG emissions through utilization of a portfolio of on- and off-site reduction strategies) accords to the approach developed by the State of California (and specifically the California Department of Fish and Wildlife and California Air Resources Board) for the Newhall Ranch Project[1] and AB 900 projects[2], as well as the approach described for project-level CEQA analysis by the California Air Resources Board in its adopted *California's 2017 Climate Change Scoping Plan*.

[1] California Department of Fish and Wildlife. 2017. *Newhall Ranch Resource Management and Development Plan and Spineflower Conservation Plan*. https://www.wildlife.ca.gov/Regions/5/Newhall.

[2] Governor's Office of Planning and Research. 2019. California Jobs (AB 900). http://opr.ca.gov/ceqa/california-jobs.html

ATTACHMENT 1

CAP Measure 1a Calculation Explanation

The Proposed Project Amendment would result in 12,969 daily trips and 131,376 total daily vehicle miles traveled (VMT) before the implementation of the identified Transportation Demand Management (TDM) measures (Village 14 and Planning Areas 16/19 Proposed Project Amendment - Traffic Impact Analysis Update Technical Memorandum – November 2019, ChenRyan 2019 and Greenhouse Gas Emissions Analysis for the Otay Ranch Village 14 and Planning Areas 16/19 Proposed Project Amendment, Dudek 2019). Trip rates from the Proposed Project Amendment is shown in Table 2. As shown therein, the Proposed Project Amendment would result in 12,962 average daily trips (ADT).

Table 2. Proposed Project Amendment Average Daily Trips

Land Use	Units	Type	Trip Rate	ADT
Estate	13	DU	12/DU	156
Single Family Residential	1,103	DU	10/DU	11,030
Multi-Family Residential	150	DU	8/DU	1,200
Mixed Use Commercial	10	KSF	110/KSF	1,100
Elementary School	9.9	Acre	90/Acre	891
Neighborhood Park	10.2	Acre	5/Acre	51
Community Purpose Facility	9.5	Acre	30/Acre	285
Fire Station	3	Staff	5.3/Staff	16
			Sub-Total	*14,729*
			Internal Capture @ 12%	*-1,767*
			Total	**12,962**

Notes: DU = dwelling units; KSF = thousand square feet.

The Proposed Project Amendment would employ 94 people in the commercial/retail area and school. Using an average pre-TDM trip length of 10.13 miles per trip, and two trips per employee, the Proposed Project Amendment's commute related trips would result in a daily VMT of approximately 1,904 miles. A 15% reduction for all commute-related VMT per the Climate Action Plan (CAP) requirements would be equal to approximately 286 VMT per day. As detailed in Table 3, TDM Measures 1 through 3 and project design features (PDFs) 1 and 2 result in a project-wide VMT percent reduction 4.10% or a project-wide VMT reduction of 5,386VMT per day, which exceeds the required commute-related VMT reduction requirements.

Table 3. Proposed Project Amendment VMT Reduction Applicable to Project Commercial Land Uses

		% VMT Reduction
TDM #	*Transportation Demand Management Program*	
1	Provision of a Comprehensive Trails Network	0.100%
2	Provision of Bicycle Racks	0.625%
3	Coordination with SANDAG's iCommute Program	0.750%
4	Promotion of Websites with Transportation Options	N/A
5	Distribution of New Resident Package	N/A
6	Coordination with MTS regarding Future Transit	N/A
7	Provision of a "School Pool" Program	N/A
8	Implementation of a "Walking School Bus" Program	N/A
	Subtotal	*1.48%*
PDF #	*Transportation Project Design Features*	
1	Provide Pedestrian Network Improvement	2.000%
2	Provide Roundabouts as a Traffic Calming Measure	0.625%
	Subtotal	*2.625%*
	Total VMT Reduction %	**4.10%**
	Total Proposed Project Amendment VMT/day Reduction	**5,750**

Source: Appendix P of the Transportation Impact Report.
Notes: % = percent; VMT = vehicle miles traveled; TDM: Transportation Demand Management; SANDAG = San Diego Association of Governments; MTS = Metropolitan Transit System; PDF = project design feature.

Attachment C

Friends of the Santa Clara River et al. v. County of Los Angeles [Case No. BS 170568]

DECISION ON PETITION FOR WRIT OF MANDATE

WRIT DENIED

FRIENDS OF THE SANTA CLARA RIVER, SCOPE (SANTA CLARA ORGANIZATION FOR PLANNING AND RESEARCH) v. COUNTY OF LOS ANGELES, et al, Case No. BS 170568 (Real Party in Interest, NEWHALL LAND AND FARMING COMPANY)

Newhall Ranch (the development arm of real party Newhall Land and Farming Company) applied for discretionary governmental approvals to develop parcels comprising 12,000 acres in Santa Clarita Valley in northwest Los Angeles County. The proposed development is to be built out as interconnected communities (described as "villages") and to include, when completed, more than 20,000 dwelling units, commercial and business uses, schools, parks, golf courses, fire stations and infrastructure.

A lawsuit was filed to stop the Newhall Ranch development because of its alleged non-compliance with the California Environmental Quality Act ("CEQA"), Public Resources Code § 21000 et seq.[1] That litigation raised important legal issues—the foremost being the level of significance and the mitigation required for the greenhouse gas (GHG) emissions generated in the construction and operation of the development.[2]

The Petitioners above—Friends of the Santa Clara River and SCOPE--filed this subsequent action in August, 2017 to challenge the action of the County of

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[1] Statutory references are to the Public Resources Code unless otherwise specified.

[2] The term "greenhouse gases" refers to gases emitted into the atmosphere that allow the sun's rays to enter the Earth's atmosphere, but trap the energy that is radiated back into space, thereby resulting in a warming of the atmosphere called the "greenhouse effect." The greenhouse gases are identified in Health & Safety Code section 38505(g). Carbon dioxide (CO2) has the greatest impact on global warming because of the relatively large quantities of CO2 emitted into the atmosphere. (SR1621.)

Los Angeles ("County") in approving under CEQA the environmental impact reports ("EIRs") prepared in the year 2011 for the Landmark Village and Mission Village projects. The projects are parts of and within the boundaries of the Newhall Ranch development. This Court discusses the earlier litigation because the issues therein decided are relevant to the present action.

The California Department of Fish and Wildlife (CDFW) Litigation.

The CDFW litigation (filed in 2011) challenged the approvals by the California Department of Fish and Wildlife of the Resource Management and Development Plan and the Spineflower Conservation Plan (the RMDP/SCP specific plan) for the Newhall Ranch development. The Supreme Court, in that litigation, issued a seminal decision interpreting California statutes and regulations concerning GHG emissions. Center for Biological Diversity v. California Department of Fish & Wildlife (2015) 62 Cal.4th 204. The Court held that the CDFW approvals made in reliance on the 2011 EIRs violated CEQA because CDFW's determination that the increase in GHG emissions from the proposed development over existing conditions was less-than-significant was "not supported by a reasoned explanation based on substantial evidence." Id. at 213. (The Court's other holdings are discussed below only if relevant to Petitioners' arguments.)

The Court of Appeal, in implementing the remand from the Supreme Court, issued two follow-up decisions. Center for Biological Diversity v. California Department of Fish & Wildlife (2016) 1 Cal.App.5th 452, 469 (Center for Biological Diversity II); and Center for Biological Diversity v. California Department of Fish & Wildlife (2017) 17 Cal.App.4th 1245. (Center for Biological Diversity III).

Newhall Ranch, in response to the court decisions, redesigned the development with the intent of mitigating the greenhouse gas emissions to a less-than-significant level. The developer, in the new plan, incorporated thirteen mitigation measures so that with the mitigation measures the development would not increase GHG emissions over existing conditions. The CDFW in re-analyzing the GHG emissions with the mitigation measures prepared a document known as the "Additional Environmental Analysis" (the "2017 AEA"). The CDFW upon reviewing the two documents—the 2017 AEA and the 2011 EIRs—determined that the increase in greenhouse gas emissions due to the development will be less-than-significant and that, thus, the development is CEQA-compliant as to GHG emissions. The CDFW, on June 24, 2017, re-approved the Newhall Ranch development. (SR 29188, 39226-39267.)

The two Petitioners herein (and others) challenged CDFW's determination upon re-approval that the GHG emissions with the mitigation measures were reduced to below the level of significance. The trial court (Judge John A.

Torribio, presiding) rejected their challenge on May 16, 2018. (AR Exh. AA: Proposed Order, LASC Case No. BS 131347.) Judge Torribio, in a 19-page decision and order, concluded:

> *The Court finds that the Department's approval of the Project as modified, including certification of the 2017 AEA, adoption of Supplemental Findings of Fact and Statement of Overriding Considerations, and approval of the Errata to the MMRP, fully comply with the Department's obligations under the Writ issued by this Court.*

No Petitioner appealed the trial court's decision. Judge Torribio's decision and order ended the litigation that challenged CDFW's certification of the program CEQA for the Newhall Ranch master plan development.[3] The two petitioners in the present action, Friends of the Santa Clara River and SCOPE, were petitioner parties in the CDFW litigation.

The County of Los Angeles Litigation.

New litigation was filed in 2012 to challenge the County's approvals for the construction of two village projects—Landmark Village and Mission Village—that are within the boundaries of the Newhall Ranch development.[4] Appeals in the Friends/Native Plant litigations were pending in the Supreme Court when Center for Biological Diversity I was decided, and the Supreme Court transferred those appeals to the Court of Appeal for reconsideration in light of Center for Biological Diversity II. The Court of Appeal, in turn, remanded the cases to the trial court to issue an appropriate writ of mandate under CEQA section 21168.9.

The trial court in the Friends/Native Plant cases (Judge Richard L. Fruin, presiding), on March 13, 2017, issued writs of mandate that targeted the parts of the 2011 EIRs that the Court of Appeal found to be deficient in analyzing the projects' GHG emissions. The appellate court, in later affirming the trial court, summarized the trial court's orders as follows:

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[3] "A program EIR is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related [among other possibilities] (1) Geographically, (2) As logical parts in the chain of contemplated actions, ... (4) As individual actions carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways." CEQA Guidelines section 15168(a).

[4] Petitioner Friends of the Santa Clara River (Friends) challenged the approvals for Landmark Village (in LASC Case No. BS136549); and Petitioner California Native Plant Society (Native Plant) challenged the approvals for Mission Village (in LASC Case No. BS138001).

In both cases, the writs of mandate directed the County to (1) void certification on only those portions of the EIR analyzing the significance of GHG emissions; (2) suspend any project activity, including construction, until the County corrects the GHG discussion; and (3) suspend the County's CEQA Findings and Statement of Overriding Considerations and the Mitigation Measures and Reporting Plan (collectively, the CEQA Conditions) until they are corrected. The court specified that the CEQA Conditions were the only 'project approvals' that directly relate to the EIR's GHG emissions analysis, and so only those documents needed to be corrected. The remaining approvals ... were not affected by the Supreme Court and Court of Appeal decisions, and so "no remedial action is required unless compliance with this Writ changes or affects" them.

The writs the trial court issued were crafted to comply with CEQA section 21168.9. Section 21168.9 directs the trial court on remand to enter orders to address any determination that is not compliant with CEQA. If the circumstances do not require annulling the entirety of the agency's action, the trial court is authorized to issue limited orders. Section 21178.9, in subdivisions (a)(3) and (b), expressly authorizes such limited orders, providing as follows:

(a)(3) A mandate that the public agency take specific action as may be necessary to bring the [lead agency] determination into compliance with this division [that is, with CEQA].

(b) Any order pursuant to subdivision (a) shall include only those mandates which are necessary to achieve compliance with [CEQA] and only those specific project activities in noncompliance with [CEQA]. ... However, the order shall be limited to that portion of a determination ... found not to be in noncompliance only if a court finds [the noncompliant action is severable and] severance will not prejudice the project's complete and full compliance with [CEQA]...."

The writs issued in the Friends/Native Plant cases were appealed. The two cases were argued together, and the Court of Appeal, on July 12, 2018, issued nearly identical decisions in each case that affirmed the trial court's writ orders. See, Slip Op., Friends III, p.40.

The Present Action.

The above two Petitioners filed the present action (on August 17, 2017) to challenge the County's determination that the mitigation measures Newhall Ranch adopted to bring the Landmark and Mission projects into CEQA compliance have reduced the GHG emissions to less than significance. (They allege separately that the projects' water assessments are inadequate.)

Newhall Ranch, in response to the writ orders issued in the CDFW and County litigations, redesigned the Landmark and Mission projects to include mitigation measures to reduce GHG emissions to a less-than-significant level. The mitigation measures adopted for the Landmark Village project are virtually identical to those adopted for the Mission Village project. Moreover, significantly for this decision, the mitigation measures the developer adopted for the entire Newhall Ranch development are the same mitigation measures approved for the Landmark and Mission projects. Petitioners acknowledge this, saying in their Opening Brief (p.10: 20-22):

> *These two sets of mitigation measures are essentially identical to each other, and identical to the mitigation measures approved by CDFW for the RMDP/SCP Project for Newhall Ranch as a whole. (SR 1658-59; 30951-52.)*

The County complied with this Court's writ orders by deleting from the 2011 EIRs the analysis of GHG emissions for the Landmark/Mission projects; and by preparing the new "Recirculated Analysis" to re-analyze the GHG emissions with the developer's newly adopted mitigation measures. The developer re-designed the Landmark and Mission projects to incorporate thirteen mitigation measures (1) to reduce on-site the GHG emissions for the development (compared to the projects' original design) and (2) with respect to the GHG emissions the projects nonetheless will produce, to offset those emissions by funding measures to eliminate an equivalent of GHG emissions off-site including by the purchase of certified credits from the state's cap-and-trade program. The mitigation measures are designed to enable a reduction in GHG emissions in global GHG emissions in the amount of GHG emissions caused by the construction and operation of the Village projects. (SR 1778.) The mitigation measures for Landmark Village are identified as LV 4.23-1/2-1 through 4.23.-13/2-13 (SR1618-19); and for Mission Village, as MV 4.23-1/2-1 through MV 4.23-13/2-13 (SR30911-30911-12). These mitigation measures are calculated to achieve during a 30-year project life a Zero Net Energy (ZNE).[5] The County's analysis made in the "2017 Recirculated Analysis" for the projects' GHG emissions with the new mitigation measures was based on its consideration of the 2017 AEA (again, that the CDFW had prepared to analyze the GHG emissions for the entire development with the adoption of the same mitigation measures) and by its consultations with experts including specialists

[5] ZNE is defined by the California Energy Commission in its 2015 Integrated Energy Policy Report as "the value of the net energy produced by project renewable energy resources to equal the value of the energy consumed annually by the project using the CEC's Time Dependent Valuation metric."

from the Air Resources Board in GHG emission modelling and analysis and GHG emission strategies. (SR 45-46.)

The County, based on this independent study, concluded that once the new mitigation measures are included "potentially significant GHG impacts .... are reduced to less-than-significant levels ... and that the Project will feasibly and reliably achieve net zero GHG emissions...." (SR 52, 119.) The County, on July 18, 2017, certified the 2017 Recirculated Analysis and the 2011 EIRs as compliant with CEQA; adopted supplemental CEQA findings and a Statement of Overriding Considerations; and reapproved the land use entitlements. The County adopted separate resolutions to approve the Landmark Village and Mission Village projects. (Landmark, SR 9-15, Mission, SR 19-25.) The County's Resolution, for each project, certifies:

> *...the 2017 Recirculated Analysis, in combination with the 2011 Final EIR, was completed in compliance with CEQA...; certifies that it independently reviewed and considered the information in the 2017 Recirculated analysis, in combination with the 2011 Final EIR, and that the 2017 Recirculated Analysis, in combination with the 2011 Final EIR, reflects the independent judgment and analysis of the Board as to the environmental consequences of the Project; ...* (Landmark, AR 15, Mission, AR 25.)

The County also determined that there were no circumstances under section 21166 requiring the preparation of a new EIR and that the modifications to the 2011 EIRs did not require recirculation under CEQA Guidelines section 15088.5. (SR 75,141.) The County, in addition, adopted findings and approved specific acts as needed to authorize proceeding with the Landmark Village and Mission Village projects.

This Court rejects Petitioners' challenges to the County's determinations with respect to the Landmark Village and Mission Village projects for the reasons below.

1. CEQA DOES NOT REQUIRE THE PREPARATION OF A NEW EIR TO APPROVE A PROJECT ONCE A DEFICIENCY SPECIFIED IN A WRIT ISSUED UNDER CEQA SEC. 21168.9 IS CORRECTED

Petitioners contend that the County violated CEQA because it considered, separately for each project, the 2017 Recirculated Analysis "in combination" with the 2011 Final EIR. They argue that a lead agency must prepare and certify a new EIR in order to cure a CEQA deficiency that was addressed in the trial court's targeted writ of mandate issued under section 21169.9. Their counsel said: "For this to work there has to be a full, complete, self-consistent E.I.R. and the fact that the County was ordered by the courts to remedy certain defects in the 2011 E.I.R. does not relieve the County from CEQA's requirement to

produce a complete and consistent E.I.R. before reapproving the Project." (Writ Hearing, 9/15/18 transcript, pp. 50: 26-51:3.)

Petitioners argue that the County's certification that the projects as CEQA compliant must be annulled because the County's decision-makers looked to the 2017 Recirculated Analysis for a re-analysis of the GHG emissions after the adoption of the new mitigation measures rather than putting that information into updated versions of the 2011 EIRs. Petitioners make this argument in various guises, but the argument, whatever its format, is unsupportable under the appellate decisions specific to these projects and under CEQA. The argument, in the first place, flies in the face of the provisions in the writ orders previously issued that were affirmed in Friends III. There the Court of Appeal said:

> *Based on the plain language of section 21168.9 and the case law interpreting and applying its provisions, we conclude the section gives courts legal authority to issue a limited mandate that directs an agency to bring certain determinations or findings into compliance with CEQA while leaving the remaining decisions or approvals in place.*

Slip Op., Friends III, p. 20.

If the 2017 Recirculated Analyses in correcting the analysis for GHG emissions for the Landmark and Mission projects is sufficient, then nothing more is required than for the County to consider the 2017 Recirculated Analyses in combination with the parts of the 2011 EIR that were previously found sufficient. Any argument that these two documents must be reformatted in one document and then approved as a new EIR would derogate the provisions of section 21168.9 which permit a targeted writ directed at any issue found deficient under CEQA to permit the remedial overhaul of that same issue.

This very point was made by Judge Torribio in his May 16, 2018 decision and order ending the CDFW litigation. Judge Torribio decided the issue of whether a lead agency is required to embody a curative analysis imposed by a writ of mandate in a new EIR document. Judge Torribio held:

> *A court's review of a return to writ under CEQA is limited to a determination of whether the agency complied with the commands of the writ of mandate. (Pub. Resources Code, § 21168.9(b); Ballona Wetlands Land Trust v. City of L.A. (2011) 201 Cal.App.4th 455, 480 [trial court retains jurisdiction only to ensure compliance with the writ]; National Parks & Conservation Assn. v. County of Riverside (1999) 71 Cal.App.4th 1341, 1352 [on return to writ, court focuses on agency's compliance with the requirements of the previously issued writ].) In this case, the Writ ordered the [CDFW] to suspend certain project approvals and activities pending corrective modification of the EIR. (Pub. Resource[s] Code, §*

21168.0, subd. (a)(2); 14 C.C.R., § 783/7.) The [CDFW] has taken the necessary corrective action to address all deficiencies identified by the Supreme Court, as described in the Judgment and Writ.

In the CDFW case, the Department, in re-approving the project, reviewed the new analysis of GHG emissions as contained in the 2017 AEA and the 2010 EIR. Judge Torribio concluded that CEQA did not require the preparation of a new EIR document. This Court adopts the same analysis and conclusion in response to Petitioners' contention that the County was required to prepare new EIRs for the Landmark and Mission projects.

Petitioners frame the argument that the 2017 Recirculated Analysis and 2011 EIRs are improperly considered "in combination" in various ways. They assert that the Recirculated Analysis is missing an energy analysis required by CEQA Guidelines Appendix F. (Pet. Br., pp. 13-14); and that the energy analysis in the 2011 EIRs is "inconsistent" with the findings in the 2017 Recirculation Analysis. (Reply Br. pp. 9-10.) Petitioners also argue more generally that the County's approval of the Recirculated Analysis is noncompliant with CEQA because it does not analyze all factors required for an EIR. These arguments are variants of the same dispute, in that they assert that parts of a 2011 EIR that were not decertified must be incorporated into a new, updated EIR, to include the 2017 Recirculated Analyses, and then be resubmitted for approval.[6] That procedure is, for the reasons given above, not required under CEQA and is inconsistent with the writs that were issued in the CDFW litigation and in this action under CEQA section 21168.9.

Petitioners rely on CEQA Guidelines section 15090(a)(1) for their argument that any curative analysis must be contained in a new EIR document. (Reply Br., p. 9.) That section is a procedural provision. It specifies only that: "Prior to approving the Project, the lead agency shall certify that (1) the final EIR has been completed in compliance with CEQA." CEQA section 21168.9 establishes the specific procedure by which a part of an EIR may be decertified and the project held in abeyance until the lead agency revises its determination on deficient findings to comply with CEQA. The trial court's writs issued under section 21468.9 thus do not violate section 15090(a)(1), as Petitioners claim. The Court of Appeal, as mentioned above, affirmed this Court's writs with respect to the Landmark and Mission projects. The County has correctly followed the procedure provided in section 21168.9 to remedy its original failure to adequately address GHG emissions for those projects.

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[6] The danger in Petitioners' argument is that an EIR that is revised to correct a particular CEQA deficiency could be attacked on other grounds that were not raised in the original proceedings if a comment period was required for re-approval. The finality of an EIR certification of findings that were not challenged would be compromised.

2. SUBSTANTIAL EVIDENCE SUPPORTS THE CEQA DETERMINATION THAT THE PROJECTS WITH MITIGATION WILL GENERATE ZERO NET ENERGY

The County determined, in certifying the projects for CEQA compliance, that the GHG emissions from the projects, once mitigation measures are fully implemented, will be less than significant. As stated in the Recirculated Analysis:

> *Without considering mitigation, the Project would increase GHG emissions as compared to the existing environmental setting, which could result in potentially significant impact to global climate change. However, with implementation of the thirteen (13) mitigation measures recommended ... the Project would cause no net increase in GHG emissions. Because the Project, as mitigated, would result in no net increase in the GHG emissions level, the Project would have not significant impact on global climate change.* (SR 1618.)

Petitioners argue—it is their main argument--that the County's determination that the GHG emissions with mitigation measures will be less-than-significant is not supported by substantial evidence in the record and therefore violates CEQA sections 21168 and 21168.5. (Pet. Br., pp. 10-13.)

Petitioners' argument fails for multiple reasons. Petitioners, to begin with, fail in their responsibility to "lay out the evidence favorable" to the County's determination "and show why it is lacking." Defend the Bay v. City of Irvine (2004) 119 Cal.App.4th 1261, 1266 [objectors failed to address evidence that the project would not have a significant adverse impact on housing]. Petitioners also fail on the merits because there is substantial evidence in the record for the County's determination that there will be net zero GHG emissions once the mitigation measures are fully deployed. Petitioners, moreover, are barred by the doctrine of res judicata as Judge Torribio previously adjudicated their present claim in the CDFW litigation.

The significance levels for GHG emissions is defined by thresholds. These are provided in Appendix G, Section VII in the CEQA Guidelines, as follows:

> *Threshold 2.1-1: Would the Project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?*
>
> *Threshold 2.2-2: Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?*

The criterion for GHG emissions under CEQA is "the extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environment." Guidelines section 15064.4(b)(1). That the village

projects will increase GHG emission levels is recognized. The Recirculation Analysis states that the Landmark project will increase GHG emissions by 57,695 MTCO2e (metric tonnes of carbon-dioxide equivalent) per year; and the Mission project by 78,832 MTCO2e per year. (For Landmark, see SR 456, and its Table 2.1-3, and for Mission, SR 29678, and its Table 2.1-3).

As to whether a GHG increase caused by a project is significant, the Recirculation Analysis notes "there is no scientific or regulatory consensus regarding what particular quantity of GHG emissions is significant. Further, no agency with regulatory authority and expertise, such as the CARB or SCAQMD, has adopted numeric GHG thresholds for land use development projects for purposes of CEQA." (SR 456, 29678.) However, the Recirculation Analysis concludes that since the mitigated projects will create no net increase in GHG emissions, the projects "GHG emissions are less than significant with mitigation for purposes of Threshold 1." (SR 480, 29702.) The question remains whether that level of emissions, nonetheless, conflict with the statewide emission reductions targets and, thus, could violate Threshold 2. The Recirculation Analysis concludes the mitigated emissions level complies with Threshold 2, saying:

> *[G]iven the Mitigated Project would result in no net increase in GHG emissions—that is, a net zero GHG emissions level, the Project is doing more than its "fair share" to advance statewide policy objectives. Additionally, the Project's emissions at build out are reasonably anticipated to decline due to continued regulatory and technological advancements. Further, the Project's mitigation program advances many of the State's primary policies directed towards the reduction of GHG emissions and the establishment of a clean energy paradigm. Therefore, the Project would not conflict with the statewide emissions reduction targets for 2020, 2030 and 2050 for purposes of Threshold 2.* (SR 482, 29704.)

Substantial evidence supports these determinations. The Recirculation Analysis advises that, for the Landmark and Mission projects, 50 percent of the net GHG emissions reduction will be obtained by requiring GHG-limiting structures on-site or elsewhere in Los Angeles County; and that 50 percent will be achieved through implementing the Newhall Ranch GHG Reduction Plan, which will fund or subsidize investments in off-site GHG reduction programs or obtain certified carbon credits. (SR 1646.) The mitigation strategies are too extensive and detailed to summarize here, but the GHG emission reduction strategies described in the Recirculated Analysis include the following:

> ZNE construction design in the residential, commercial and public structures included in the Landmark and Mission projects;

Electronic charging stations for vehicles to be installed at every residence and in public locations in the development and off-site;

A building retrofit program to improve energy efficiency of existing buildings in disadvantaged communities in the Los Angeles County;

Implementation of the Newhall Ranch GHG Reduction Plan to fully offset all remaining Project-related GHG emissions to zero by funding activities that directly reduce or sequester GHG emissions or obtaining certified carbon credits (cap-and-trade offsets). (SR1618-1619; 30911-30912.)

These mitigation measures will be implemented as conditions that are imposed on the developer to obtain the required governmental permits for the build-out of the projects. (SR 1780.) The Newhall Ranch GHG Reduction Plan provides procedures to quantify the GHG emissions reductions achieved from the mitigation measures as well as procedures to quantify the GHG emissions that must be reduced elsewhere so that the projects will achieve net zero emissions.

The determination made in the Recirculated Analysis that the Project with the mitigation measures will "cause no net increase in GHG emissions" has substantial evidence support in the record. The County relied on technical evidence found in the Recirculated Analysis including Appendix 2.1-A (SR 395-953; 29617-30243) and Appendix 2.7 (SR 28919-29036, 38947-39064). This technical evidence was prepared by experts on the relevant topics including building energy efficiency, GHG emissions estimations, and transportation planning. (SR 1418-1438, 1463-1485, 1519-1525, 1532-1536.) These consultant studies support the finding that with mitigation the GHG emissions from the two village projects will be net zero and, thus, by definition, will be below a significant level.

The California Department of Fish and Wildlife—considering the same thirteen mitigation measures—determined the mitigation measures for the Newhall Ranch development complied with CEQA. (SR 39213-39216 [CDFW NOD].) The County considered and found it reasonable to "consider [CDFW's] methodology, analysis, and mitigation as a source of evidentiary support for the Recirculated Analysis." (SR 51-52, 118.) Moreover, Judge Torribio, acting upon Petitioners' challenge in the CDFW litigation, held that the mitigation measures that Newhall Ranch had adopted in response to the writ of mandate in the CDFW litigation complied with CEQA. The mitigation measures that Judge Torribio found sufficient under CEQA in the CDFW litigation are the same mitigation measures under consideration in this action. Petitioners did not appeal Judge Torribio's decision that Newhall Ranch with the mitigation measures had complied with CEQA.

The California Air Resources Board (CARD), the state agency charged with regulating air quality throughout California, found that "the project as currently

proposed will not result in any net additional greenhouse gas emissions after the identified mitigation measures are fully implemented." (CARB letter of 11/3/16, SR 28917; CARB letter of 6/7/17, SR 29243.) While the CARB letters refer to the CDFW's analysis of Newhall Ranch's RMDP/SCP, Petitioners have acknowledged that the mitigation measures for the Landmark and Mission projects are "identical to the mitigation measures approved by CDFW" for the Newhall Ranch as a whole.

Petitioners' present claim has been decided adversely to them in an earlier litigation to which they were parties. Judge Torribio, in concluding the CDFW litigation with his May 16, 2018 decision and order, decided that substantial evidence supported CDFW's determination that the mitigation measures for the Newhall Ranch development, of which the village projects are a part, reduced GHG emissions to a less-than-significant level. Judge Torribio's framed the issue as follows:

> *The Department has taken the necessary corrective action to address all deficiencies identified by the Supreme Court, as described in the Judgment and Writ. The issue now is whether substantial evidence supports the Department's determination that the modified Project's greenhouse gas emissions will be less than significant under CEQA.*

Judge Torribio decided that issue as follows:

> *Through these 13 mitigation measures, the Project's greenhouse gas emissions will be reduced to zero, resulting in no significant impact under CEQA. Substantial evidence in the record supports the Department's determination that these mitigation measures can be implemented to reduce greenhouse gas emissions as described in the 2017 AEA.*

The mitigation measures at issue in the CDFW litigation, once the lead agency re-approved the project, are the same as here. The issue of whether substantial evidence supported the lead agency's determination that GHG emissions with mitigation were less-than-significant under CEQA was decided favorably to the lead agency in that litigation. Petitioners were plaintiffs in the CDFW litigation when it was concluded adversely to their position on May 16, 2018. The judgment entered against plaintiffs in the CDFW litigation is final.

Petitioners' present argument that the County's determination that GHG emissions from the village projects, once the mitigation measures are deployed, is not supported by substantial evidence is barred by the doctrine of res judicata. See, Inland Oversight Committee v. City of San Bernardino (2018) 27 Cal.App.5th 771, 779-780, 782-783 (claims under the Water Code that were previously decided on demurrer and not appealed constitute a res judicata and collateral estoppel bar to further litigation).

This court concludes that the County's determination that the GHG analysis for the mitigated Landmark and Mission projects will be less-than-significant as to GHG emissions impacts is supported by substantial evidence.

3. A 30-YEAR PERIOD TO ANALYZE THE PROJECTS' GHG EMISSIONS AND MITIGATION IS SUPPORTED BY SUBSTANTIAL EVIDENCE

The County, on July 18, 2017, in Supplemental Findings determined a 30-year period was an appropriate timeframe to measure, mitigate and monitor for GHG emissions from the Landmark and Mission projects. That Supplemental Finding identifies specific reasons for selecting a 30-year analysis period:

> *The Board finds that a 30-year project life is the appropriate period for evaluating the Project's GHG emissions inventory and mitigation period. The 30-year project life represents the reasonable limit of scientific and evidentiary data for the Project, given current modeling tools, the changing regulatory structure, the level of uncertainty beyond 2050 with respect to regulatory programs mandating further reductions in GHG emissions, and other available information. The 30-year project life has been approved for this project by CARB and is supported by guidance from the South Coast Air Quality Management District, is widely used in CEQA documents by lead agencies including the County, and represents the period of time for which GHG emissions can be reasonably estimated without undue speculation.* (Landmark SR 23; Mission SR 98.)

The body of information to support the County's adoption of a 30-year period to analyze GHG emissions is summarized in the 15 pages of Topical Response 2. (See, for Landmark, SR 1776-1789; for Mission, 31059-31068.) The Topical Response addresses "the evidentiary underpinnings for the greenhouse gas emissions analysts' selection of a 30-year project life and the corresponding duration of [the] mitigation period." (SR 1776.)

Petitioners object to, and argue there is no substantial evidence to justify, a 30-year limit for the analysis and mitigation of the projects' GHG emissions "as there is no substantial evidence the Projects' GHG emissions will cease after 30 years." Petitioners say that while the County "may justify the use of 30 years as an analysis window for estimating a project's total GHG emissions ... these arguments do not support a 30-year limit on mitigation." (Pet. Br. 8:19-20 and 30-31.) Petitioners argue that the County's adoption of 30-year horizon for the GHG analysis violates CEQA sections 21168 and 21168.5. (Pet. Br., pp. 8-9.) The referenced CEQA sections are generic provisions; the CEQA provision that is specific to GHG emissions is CEQA Guidelines section 15064.4.

The court concludes, contrary to Petitioners' arguments, that the 30-year timeframe for the analysis of GHG emissions is a discretionary decision under Guidelines section 15064.4 and is supported by substantial evidence. The

reduction in GHG emissions required by the on-site and off-site mitigation measures, moreover, will continue beyond the 30-year period established in the mitigation plan for the two village projects.

A public agency has substantial discretion to select an appropriate methodology to analyze the environmental impacts of a project. With respect to impacts from GHG emissions, CEQA Guidelines section 15064.4(a)(1) authorizes an agency's "careful judgment" in "the determination of significance greenhouse gas emissions." The Supreme Court, in considering the Newhall Ranch program EIR, relied on section 15064.4 to uphold the CDFW's choices in selecting the means to analyze GHG emissions. Center for Biological Diversity, Id. at 217. Section 15064.4, in subdivision (b) identifies certain factors that are to inform the public agency "when assessing the significance of impacts from greenhouse gas emissions on the environment." The Supreme Court, in upholding CDFW's methodology while rejecting its conclusions, quoted the factors listed in section 15064.4, subd. (b), signifying that a public agency's determinations as to the effectiveness of mitigating measures in meeting GHG emission goals should be reviewed in light of those factors. Subdivision (b) provides:

> *(b) 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 the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;*
>
> *(2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.*
>
> *(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.*

The County justifies (in Topical Response 2) its selection of a 30-year window for analyzing the significance of GHG emissions for a development project because state environmental agencies have adopted that standard. CARB, the California agency for administering California's GHG policies (Health & Safety Code section 38510), approved CDFW's 30-year project life in its study of GHG emissions for the Newhall Ranch development. (SR 28625-28626, 1781, 31074, 28917, 29243, 1781, 31074.) CARB has also approved the use of a 30-year project life in certifying "leadership projects" (under AB 900) to mitigate all project-related GHG emissions to net zero. The guidance issued by the Southern California Air Quality Management District (SCAQMD) supports a 30-year projected life for CEQA evaluation for new development projects. (SR 28626-28627, 1782-1783, 31075-31076.)

Petitioners discount the importance of CARB's endorsement for a 30-year review period for GHG emissions by saying "these 30-year windows are for the purpose of analyzing GHG emissions, and it does not indicate that CARB would support limiting GHG mitigation to the first 30 years of a project's operation." (Pet. Br. 9:25-27.) Petitioners do not recognize (or at least do not talk about) the fact that the mitigation measures adopted by the County require the building of energy-saving structures at the project sites and of the retrofitting of older structures elsewhere in the County to achieve the net zero goals. The structural designs that reduce GHG emissions likely will continue beyond 30 years. (SR 1778.) Topical Response 2 adds: "During and after the 30-year project life, the Project would be subject to a range of existing and future regulatory standards and policies applicable to the built environment." (SR 1778.)

Petitioners, in their reply, argue that an assumed 30-year project life for the measurement of environmental impacts, even though a standard adopted by responsible state and local agencies, is an artificial and inadequate limitation for the analysis of continuing GHG emissions and, for that reason, does not comply with CEQA. This Court disagrees. CEQA does not require the analysis nor the mitigation of environmental impacts which are speculative. CEQA, therefore, does not require, as Petitioners suggest, that "if accurate estimates for the Projects' future GHG emissions are difficult to come by now," a mitigation obligation plan may be deferred until those emissions are known. (Reply Br., p.7.) The County, in its finding that is quoted at the beginning of this section, has stated valid reasons, supported at length in the Recirculation Analysis, for the methodology it used to approve a GHG emissions mitigation plan for the two village projects. The County's selection of a 30-year analysis period is justified under CEQA Guidelines section 15064.4 and substantial evidence.

4. CEQA DOES NOT REQUIRE A PROJECT TO MITIGATE GHG EMISSIONS TO A LEVEL THAT IS BELOW LESS-THAN-SIGNIFICANT

Petitioners argue—briefly in their opening brief (Pet. Br. 7: 33-8:15) and more extensively in their reply (Reply 4:27-6:6)—that, if the unmitigated impacts of a project are significant, the adoption of mitigation measures to bring the mitigated impacts to less-than-significant does not comply with CEQA, saying: "CEQA ... requires significant impacts to be mitigated to *minimize* them, not to reduce them to zero, or to a level where they are insignificant." (Reply 5:20-21, italic orig.)

Petitioners provide no case authority for their position; they rely on their interpretation of the statutory language. CEQA section 21100(b)(3) provides:

> *The environmental impact report shall include a detailed statement setting forth all of the following: ...*

(3) *Mitigation measures proposed to minimize the significant effects on the environment, including, but not limited to, measures to reduce the wasteful, inefficient, and unnecessary consumption of energy.*

Citing a definition from a dictionary, Petitioners say the word "minimize" means "to reduce to the smallest possible amount, size, or degree." However, in common parlance, the word "minimize" means to reduce in size or in significance, and that appears to be its meaning in 21100(b)(3) because the balance of the provision requires "measures to reduce ... the consumption of energy." The mitigation measures adopted for the village projects do satisfy a minimization requirement because, when implemented, they will reduce the consumption of energy in the construction and operation phases of the projects. Moreover, the phrase from section 21100(b)(3) refers to mitigation measures that "minimize the significant effects on the environment," and, if the projects with mitigation will not generate a net increase in GHG emissions, there will be no "significant effects on the environment." Petitioners' definitional argument, therefore, is not persuasive.

Petitioners' argument, more to the point, is beyond the requirement of the CEQA statute. Under CEQA an agency is mandated to adopt mitigation measures that reduce adverse environmental impacts from a project to less than significance. CEQA section 21081; CEQA Guidelines 15091. If GHG emissions for the Newhall Ranch Project as a whole are mitigated to net zero, as the County has required, the emissions from the construction and operation of the projects are mitigated to less-than- significant. The statutory scheme does not require more from the County and the real party.

5. THE LEVEL OF SIGNIFICANCE FOR THE GHG EMISSIONS IS BASED ON THE THRESHOLDS IN APPENDIX G, SECTION VII OF CEQA GUIDELINES

Petitioners raise the argument that the Recirculation Analysis adopted the existing GHG emissions as the significance threshold. (Op. Br. 7:5-22; Reply 4:8-25.) Since the existing project sites are used for agricultural purposes, their existing GHG emissions are low, namely 698 MTCO2e/year for the Landmark project site (compared with anticipated project emissions [unmitigated] of 58,393 MTCO2e/yr. at build-out) and 369 for the present Mission site (compared with 79,202 MTCO2/yr. [unmitigated] at build out). (SR 1642, 30935; see Table 2.1-3 for Landmark at SR1648.) Petitioners argue that "based on this adopted threshold, any increase above the existing baseline GHG emissions would be significant, requiring further mitigation, if feasible, and, if infeasible, a statement of overriding considerations." (Pet. Br. 7:20-22.)

The immediate response from the County and Real Party is that such argument was waived because it was not raised (exhausted) during the public comment period, as required by CEQA section 21177(a). (Opp. Br. 22:14-18.)

Petitioners' reply appears to concede that this objection was not raised in the proceedings below, but still argues that "SCOPE is not required to have exhausted administrative remedies on this issue because it is not a 'grounds for noncompliance with [CEQA].' (§21177(a).)" This Court assumes, however, from Petitioners' argument as stated in the preceding paragraph, that Petitioners do contend that the County adopted an incorrect baseline and, thus, violated CEQA violation. If that is Petitioners' contention, the objection is dismissed for Petitioners' failure to exhaust under CEQA section 21177(a).

Petitioners' argument is also rejected on its merits. The Recirculated Analysis, which was prepared separately for each village project, states that with mitigation, the GHG significance thresholds will comply with the thresholds provided in "Section VII, Greenhouse Gas Emissions, of Appendix G of the CEQA Guidelines." (SR 1618, 1643-1644, 30911, 30937-30939.) Such analysis also complies with CEQA section 15064.4 (which contains provisions specific to GHG emissions). The County determined that the mitigation regime complies with the thresholds and will reduce emissions from the projects to a less-than-significant level; and this Court has found, supra pp. 9-12, that the County's determinations are supported by substantial evidence. CEQA jurisprudence, nonetheless, also provides that "the comparative baseline for a significance determination should normally be the existing physical conditions." Center for Biological Diversity, 62 Cal.4th supra at 224-225; also Guidelines section15126.2(a). The Recirculation Analysis, in some instances, as noted above, also compares GHG emissions at the natural site ("existing baseline conditions") with the projected GHG emissions from the construction and operation of the projects. These comparisons, in this case, do not establish the thresholds for the levels of significance for GHG emissions.

6. WATER SUPPLY IMPACTS DO NOT REQUIRE PREPARATION OF AN EIR SUPPLEMENT OR A NEW WATER SUPPLY ASSESSMENT

With respect to the availability of water supplies, Petitioners advance two arguments to challenge the County's approvals for the Landmark Village and Mission Village projects.

Petitioners contend that the County, before re-approving the village projects on July 18, 2017, was required to prepare and adopt a new water supply assessment under Water Code section 10910(h).

Petitioners also argue that "new information" describing California's drought conditions require the County to prepare and certify a supplemental environmental impact report for water supply impacts under CEQA section 21166.

Neither of these contentions has merit, as discussed below.

THE COUNTY'S RE-APPROVAL OF THE PROJECTS DID NOT REQUIRE THE PREPARATION OF NEW WATER SUPPLY ASSESSMENTS

The County prepared a water supply assessment ("WSA") for each village project before the projects were approved (on February 21, 2012 for Landmark; on October 25, 2011 for Mission). The separate WSAs for the two projects are dated January 2010 and describe the same water supply availability. (LV 8004-8036, MV 25072-25103.) The WSAs were required by California Water Code section 10910(h). The County's compliance with the Water Code provision is also required by CEQA section 21151.9. The WSAs are intended to provide the County with an analysis to show that the affected water system will have sufficient water supplies to meet the existing and planned future development for the area. (LV 8009.)

The County did not prepare new WSAs before it re-approved the village projects on July 18, 2017. Petitioners argue that the County violated CEQA section 21151.9, as well as Water Code section 10910, by failing, when re-approving the Village projects, to obtain new WSAs for each project. (Pet. Br., pp. 25-28.)

Respondents' first response it that Petitioners waived (failed to exhaust) this argument by not raising it in the public comment period before the County re-approved of the projects on July 18, 2017. Objections that a project does not comply with CEQA mandates must be presented "orally or in writing during the public comment period" or before the agency takes final action on the project. CEQA section 21177. If the objections are not presented in that time period, they are waived. The Court finds, as this issue was not timely raised, it was waived.

Ignoring their failure to raise any objection in the public comment period, Petitioners assert that when the County "decided to proceed by preparing the Recirculated Analysis [it] triggered the requirement in Water Code § 10910(c)(1) that the County request new WSAs for the two Projects." (Pet.Br. 25: 27-29.) Petitioners further argue that "[t]hough the courts upheld the water supply analysis in the 2011 EIRs, SB 610 and CEQA required the County to prepare new Water Supply Assessments as part of the process of recirculating portions of the EIRs." (Pet. Br. 28: 11-13.) Petitioners' argument, as stated, relies on a false assumption, as the 2011 EIRs neither in whole nor part were recirculated. The County prepared a new Recirculation Analysis to address GHG emissions, but otherwise left the 2011 EIRs in place. Petitioners' further argument that the County's circulation of the Recirculated Analysis triggered automatically a statutory requirement for new WSAs is erroneous. Water Code section 10910(h) provides in relevant part:

> *(h) ...if a project has been the subject of a water supply assessment that complies with the requirements of this part, no additional water supply assessment shall be required for subsequent projects that were part of a larger project ... unless one or more of the following changes occurs: ... (2) Changes in the circumstances or conditions substantially affecting the ability ... to provide a sufficient supply of water for the project [;] (3) Significant new information becomes available that was not known and could not have been known at the time when the assessment was prepared.*

Petitioners concede that there has not been any change that effects "a sufficient supply of water for the project." They say, in fact, that Newhall Ranch "rigged the system to ensure its projects will be given priority in water allocation." (Pet. Br. 27:14-15.) Petitioners proffer as "significant new information" various reports about drought conditions (discussed in the next section), but the 2011 EIRs water service sections evaluate the effect of "past and current drought conditions" on water availability for the projects and the area. (LV 4732-4734, MV 6150-6153; also SR 39367, 39383.)

Petitioners, therefore, do not demonstrate any requirement for the preparation of new WSAs before the County re-approved the village projects.

PETITIONERS FAIL TO IDENTIFY "NEW INFORMATION" THAT REQUIRE THE PREPARATION OF A SUPPLEMENTAL EIR

Petitioners contend that they, during the public comment period for the Recirculated Analysis, provided "new information" that undermines the water sustainability findings made in the 2011 EIRs. They argue "[n]ew information shows the water supply is not as reliable as assumed in the 2011 EIRs because of climate change, raising concerns about Santa Clarita's water supply." (Pet. Br. 24:22-24.) Petitioners want the Court to issue an order under CEQA section 21166 to require the County to prepare supplemental EIRs to address the projects' water supply impacts. (Pet. Br. pp.14-24.)

CEQA imposes a high bar to requiring the preparation of a supplemental EIR after an EIR is certified. No supplement may be ordered unless "substantial changes occur with respect to the circumstances under which the project is being undertaken which will require major revisions in the environmental impact report." CEQA section 21166(b). Guidelines section 15162(a)(3) requires the moving parties to show that "[n]ew information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence" when the EIR was certified satisfies one or more defined standard, the pertinent one being that "[s]ignificant effects previously examined will be substantially more severe than shown in the previous EIR." Petitioners' showing must be based on "substantial evidence in light of the whole record."

To apply this standard, because Petitioners argue the "[n]ew information shows the water supply is not as reliable as assumed in the 2011 EIRs," the Court must review the 2011 EIRs for their analysis of water sustainability and also the "new information" provided by Petitioners about water sustainability.

Turning to the 2011 EIRs and supporting documentation, there is for each village project an extensive discussion of the available water supplies. The water demand for each project is identified; the water sources required to meet that demand are committed; and the water quantities available over rainfall cycles is estimated.

The Landmark and Mission projects will have access to the potable water presently used by the Newhall Ranch for agricultural irrigation. Newhall Ranch has contract rights to take 7,038 acre feet per year (afy) from the Alluvial aquifer (LV 10819, 10938; MV 6049, 6171), from which Landmark will receive 608 afy and Mission will receive 1,676 afy annually. (LV 10938; MV 6172.) (The projects' total water demand—potable and non-potable--is 972 afy annually for Landmark, and 2,919 afy for Mission, with those totals estimated to increase 10 percent in drought years. LV 10819; MV 6049.) The 2011 EIRs analyze the effect of single year and multi-year drought conditions on the availability of water from all sources. That analysis builds on the 2005 and 2010 urban water management plans (UWMP) prepared by local water companies. (See, for the 2005 UWMP, LV 16173, 16254, 16257; and for 2010 UWMP, LV 8382, 8441, 8456; and see LV 2256-2283; MV 2673-2700.) The UWMPs must be prepared by local water purveyors every five years by state law, Water Code section 10610 et seq, and must provide detailed projections (20-year projections) for local water conditions. Water Code §10631, subd. (c)(1)(C). The 2011 EIRs discuss fully the effect of cyclical low rainfall and drought years on the aquifer water sources in Santa Clarita Valley. (LV 4681, 4734, MV 6062, 6157; LV 4695, MV 6078.)

The Court, having reviewed this extensive record, agrees with the opposition brief (p. 35) in its statement that:

> *Climate and groundwater supply patterns that vary from year-to-year were known, disclosed, discussed, analyzed, and accounted for in the 2010 Urban Water Management Plan (UWMP) and the 2011 EIRs for the two projects.*

Petitioners do not dispute that the water sustainability conclusions reported in the 2011 EIRs were the best available in year 2011. Nor do Petitioners contest the methodology by which the 2011 EIRs supported their conclusions as to water sustainability in cyclical rainfall periods typical of Southern California.

The 2011 EIRs reached the following conclusion with respect to water supplies available for the village projects:

> *Water sources expected to serve the [Village] are the applicant's agricultural water from the Alluvial aquifer to the project's potable demand, and recycled water from the Newhall Ranch WRP ... to meet the project's non-potable demand. These local supplies are readily available from the local groundwater basin, and from existing and approved water reclamation plants ....*

The 2011 EIRs conclude that the local water supplies are adequate "to serve the projects and their anticipated populations" under average and drought conditions and, in addition, "existing and future uses in Santa Clarita Valley." (LV 10818-10819; MV 6048-6049.) The water supply assessments prepared in January by local purveyors as required under state law are consistent with those conclusions. (LV 8004-8036; MV 25073-25105).

The County, on July 18, 2017, in re-approving the village projects (after re-analyzing the GHG emissions with the new mitigation measures) relied on the water assessments in the 2011 EIRs, saying:

> *Based on the water supply impacts already assessed, the County has determined that there are no identified substantial changes in the Landmark Village Project or its circumstances that warrant any further review of analysis of the Landmark Village Project's water supply impacts.* (For Landmark, SR 2543.)

Petitioners presented their "new information" during the public comment period for the Recirculation Analysis. Petitioners submitted the various reports identified below:

(1) A GSI Water Solutions, Inc. report dated 12/15/14 (SR 3972, 33272);
(2) A report titled "Drought and Equity in the San Francisco Bay Area dated June, 2016 (SR 7019-7022 and et seq.);
(3) Text of video "Water Deeply" on an internet site (SR 7047-53); and
(4) An Environmental Research Letter titled "Future land-use related water demand in California" published May 18, 2016 (SR 7056-7063).

Petitioners argue that the above reports predict that climate change will become substantially more severe so as to imperil the water supplies needed for the projects and that this development is not sufficiently discussed in the 2011 EIRs. They say "the circumstances under which the Projects are being undertaken have changed substantially." (Pet. Br. 14: 30-31.)

The "new information" identified by Petitioners does not, in the Court's view, show that "substantial changes [have] occur]red] ... which will require major revisions" in the 2011 EIRs. Petitioners argue that the handful of reports that they introduced into the record to show that the rainfall reductions since 2011 have rendered as doubtful the projections of water availability contained

in the 2011 EIRs. The 2011 EIRs contain data to show the cyclical patterns of rainfall in Southern California. The County and the real party, in their joint opposition brief, argue the breadth and sufficiency of the data to support the EIR conclusions that the projects will have water sustainability. (Opp. Br., pp.35-39.) Respondents, therefore, argue that Petitioners' "new information" is neither new nor inconsistent with the cyclical pattern recognized in the 2011 EIRs. Yet Petitioners do not respond to this criticism nor discuss any specific deficiencies in the data in 2011 EIRs. Petitioners, because of that oversight, have not demonstrated "substantial evidence in the entire record" to carry their burden.

The "new information" that Petitioners offer is, moreover, too short-term to support broad conclusions that climate change will drastically reduce water availability for the projects or for Santa Clarita Valley. Only the GSI report addresses water availability in Santa Clarita Valley, and the GSI report, to the extent material, contained new data for a limited number of years. Petitioners' argument, moreover, is undercut by their admission there was "heavy rainfall in the winter of 2016-2017." (Pet. Br. 24:15.) While the heavy rainfall for the 2016-2017 winter is minimized in the record (SR 2308), such was acknowledged in the opening brief, noted in the opposition brief (Op. Br. 39:5-6) and discussed at the writ hearing. (9/15/18 transcript, pp. 68-69.) The admission of heavy rainfall in the winter of 2016-2017 limits the evidentiary value of the "new information" put forward by Petitioners to meet CEQA's standard for the preparation of an EIR supplement.

The Court finds that Petitioners have not carried their burden to establish substantial evidence from the record to require the preparation of an EIR supplement to address water sustainability issues for the village projects.

PREPARATION OF JUDGMENT

The Court shall enter Judgment on the Verified Petition for Writ of Mandate for respondent County of Los Angeles and real party Newhall Land and Farming Company. Respondent's counsel is to prepare, serve, and lodge a form of Judgment that with consistent with the Court's Statement of Decision within 10 days.

Once the Judgment is signed the parties are directed to retrieve and retain in their offices the binders containing the administrative record and Joint Appendix submitted by each side.

The Clerk is directed to serve this Decision on Petition for Writ of Mandate on the parties by U.S. Mail and fax this date.

DATED: December 19, 2018

Richard L. Fruin, Jr.

RICHARD L. FRUIN, JR.
Superior Court of California
HON. RICHARD L. FRUIN, JR.