
Appendix B-5

Carbon Sequestration Assessment Memorandum

DATE: June 23, 2025
JOB NO: 15218-09 Sequestration Memo

MESA VERDE SPECIFIC PLAN CARBON SEQUESTRATION ASSESSMENT

Urban Crossroads, Inc. has completed the following Carbon Sequestration Assessment for the Mesa Verde Specific Plan (Project), which is comprised of 1,463.1 acres of undeveloped land located at the current terminuses of Sandalwood Drive and County Line Road in the northwestern portion of the City of Calimesa. This letter describes the potential GHG emission reductions resulting from land use changes at the Project site, including changes in soil carbon accumulation, above and belowground biomass carbon accumulation, and the addition and removal of trees.

SOIL AND BIOMASS CARBON ACCUMULATION

The Project involves land use changes that would result in changes in carbon accumulation associated with both soils and aboveground and belowground biomass. Potential GHG emissions associated with Project land use changes were calculated using CalEEMod based on the acres of land that would be developed, vegetation land use types, biomass cover types, and soil types at the Project site and utilizing CalEEMod default CO₂ accumulation rates. Detailed CalEEMod outputs are provided in Appendix 1.

CARBON SEQUESTRATION

The Project involves both the removal of existing trees and the addition of new ones, which may affect carbon sequestration at the site. Mature trees store substantial carbon, and their removal can lead to immediate emissions and reduced sequestration capacity. Conversely, while young trees initially sequester less carbon, they can contribute significantly over time as they grow. Sequestration associated with the Project was calculated by CalEEMod using the United States Forest Service (USFS) i-Tree Planting tool. Based on data provided by the Project applicant, development of the Project is expected to include the removal of approximately 1,579 trees and the planting of approximately 27,512 trees, for a net increase of approximately 25,933 trees. Appendices 2 and 3 present the detailed i-Tree outputs for the trees to be removed and added, respectively.

GHG EMISSIONS SUMMARY

Table 1 below presents the proposed Project's annual GHG emissions without and with emissions, as detailed in the *Mesa Verde Specific Plan Greenhouse Gas Analysis*. As shown below, land use changes and the removal of above and belowground biomass would result in slight increases in GHG emissions, while the planting of additional trees would result in a slight decrease in GHG emissions.

TABLE 1: PROJECT GHG EMISSIONS SUMMARY

Source	Total MTCO ₂ e/yr	
	Without Mitigation	With Mitigation
Project Emissions	83,269.00	83,123.00
Soil Carbon Accumulation	584.84	
Above and Belowground Carbon Accumulation	1,392.03	
Carbon Sequestration	-886.86	
Total Project Emissions	84,359.01	84,213.01

If you have any questions, please contact me directly at hqureshi@urbanxroads.com.

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CALEEMOD OUTPUTS

15218 Mesa Verde Vegetation Detailed Report

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1.1. Basic Project Information

Data Field	Value
Project Name	15218 Mesa Verde Vegetation
Operational Year	2045
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	25.8
Location	33.99265036755047, -117.07757640138009
County	Riverside-South Coast
City	Calimesa
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5624
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.00	0.00	-0.58	0.00	-0.21	-0.10	-0.10	-0.20	-0.03	-0.03	-0.05	0.00	6,584	6,584	0.00	0.00	0.00	6,584
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.00	0.00	-0.58	0.00	-0.21	-0.10	-0.10	-0.20	-0.03	-0.03	-0.05	0.00	6,584	6,584	0.00	0.00	0.00	6,584
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.00	0.00	-0.58	0.00	-0.21	-0.10	-0.10	-0.20	-0.03	-0.03	-0.05	0.00	6,584	6,584	0.00	0.00	0.00	6,584
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.00	0.00	-0.11	0.00	-0.04	-0.02	-0.02	-0.04	-0.01	-0.01	-0.01	0.00	1,090	1,090	0.00	0.00	0.00	1,090

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	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	0.00

Area	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
Energy	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
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Vegetation	—	0.00	-0.58	—	-0.21	-0.10	-0.10	-0.20	-0.03	-0.03	-0.05	—	6,584	6,584	—	—	—	6,584
Total	0.00	0.00	-0.58	0.00	-0.21	-0.10	-0.10	-0.20	-0.03	-0.03	-0.05	0.00	6,584	6,584	0.00	0.00	0.00	6,584
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	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	0.00
Area	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	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
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Vegetation	—	0.00	-0.58	—	-0.21	-0.10	-0.10	-0.20	-0.03	-0.03	-0.05	—	6,584	6,584	—	—	—	6,584
Total	0.00	0.00	-0.58	0.00	-0.21	-0.10	-0.10	-0.20	-0.03	-0.03	-0.05	0.00	6,584	6,584	0.00	0.00	0.00	6,584
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	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	0.00
Area	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
Energy	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
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Vegetation	—	0.00	-0.58	—	-0.21	-0.10	-0.10	-0.20	-0.03	-0.03	-0.05	—	6,584	6,584	—	—	—	6,584
Total	0.00	0.00	-0.58	0.00	-0.21	-0.10	-0.10	-0.20	-0.03	-0.03	-0.05	0.00	6,584	6,584	0.00	0.00	0.00	6,584
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	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	0.00
Area	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

Energy	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
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Vegetation	—	0.00	-0.11	—	-0.04	-0.02	-0.02	-0.04	-0.01	-0.01	-0.01	—	1,090	1,090	—	—	—	1,090
Total	0.00	0.00	-0.11	0.00	-0.04	-0.02	-0.02	-0.04	-0.01	-0.01	-0.01	0.00	1,090	1,090	0.00	0.00	0.00	1,090

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	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	0.00
Total	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	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	0.00
Total	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	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	0.00

Total	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	0.00	0.00
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4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00	
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00	
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00	
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00	
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00	

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	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
Total	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	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
Total	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	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
Total	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

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	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
Total	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	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
Total	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

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------	-----	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipm ent Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipm ent Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipm ent Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetati on	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
-------------	-----	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Grazing	—	—	—	—	—	—	—	—	—	—	—	—	3,462	3,462	—	—	—	3,462
Forest	—	—	—	—	—	—	—	—	—	—	—	—	70.3	70.3	—	—	—	70.3
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,532	3,532	—	—	—	3,532
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Grazing	—	—	—	—	—	—	—	—	—	—	—	—	3,462	3,462	—	—	—	3,462
Forest	—	—	—	—	—	—	—	—	—	—	—	—	70.3	70.3	—	—	—	70.3
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,532	3,532	—	—	—	3,532
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Grazing	—	—	—	—	—	—	—	—	—	—	—	—	573	573	—	—	—	573
Forest	—	—	—	—	—	—	—	—	—	—	—	—	11.6	11.6	—	—	—	11.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	585	585	—	—	—	585

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Grassland	—	—	—	—	—	—	—	—	—	—	—	—	1,719	1,719	—	—	—	1,719
Shrubland	—	—	—	—	—	—	—	—	—	—	—	—	6,407	6,407	—	—	—	6,407
Mixed Forest (Conifer and Broadleaf)	—	—	—	—	—	—	—	—	—	—	—	—	282	282	—	—	—	282

Urban	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	8,408	8,408	—	—	—	8,408
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Grassland	—	—	—	—	—	—	—	—	—	—	—	—	1,719	1,719	—	—	—	1,719
Shrubland	—	—	—	—	—	—	—	—	—	—	—	—	6,407	6,407	—	—	—	6,407
Mixed Forest (Conifer and Broadleaf)	—	—	—	—	—	—	—	—	—	—	—	—	282	282	—	—	—	282
Urban	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	8,408	8,408	—	—	—	8,408
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Grassland	—	—	—	—	—	—	—	—	—	—	—	—	285	285	—	—	—	285
Shrubland	—	—	—	—	—	—	—	—	—	—	—	—	1,061	1,061	—	—	—	1,061
Mixed Forest (Conifer and Broadleaf)	—	—	—	—	—	—	—	—	—	—	—	—	46.7	46.7	—	—	—	46.7
Urban	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,392	1,392	—	—	—	1,392

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
---------	-----	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Various	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	—	—	0.00
Subtotal	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	—	—	0.00
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Various	—	—	—	—	—	—	—	—	—	—	—	—	-5,357	-5,357	—	—	—	-5,357
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	-5,357	-5,357	—	—	—	-5,357
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Various	—	—	-0.58	—	-0.21	-0.10	-0.10	-0.20	-0.03	-0.03	-0.05	—	—	—	—	—	—	—
Subtotal	—	—	-0.58	—	-0.21	-0.10	-0.10	-0.20	-0.03	-0.03	-0.05	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.00	-0.58	—	-0.21	-0.10	-0.10	-0.20	-0.03	-0.03	-0.05	—	-5,357	-5,357	—	—	—	-5,357
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Various	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	—	—	0.00
Subtotal	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	—	—	0.00
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Various	—	—	—	—	—	—	—	—	—	—	—	—	-5,357	-5,357	—	—	—	-5,357
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	-5,357	-5,357	—	—	—	-5,357
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Various	—	—	-0.58	—	-0.21	-0.10	-0.10	-0.20	-0.03	-0.03	-0.05	—	—	—	—	—	—	—
Subtotal	—	—	-0.58	—	-0.21	-0.10	-0.10	-0.20	-0.03	-0.03	-0.05	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	0.00	-0.58	—	-0.21	-0.10	-0.10	-0.20	-0.03	-0.03	-0.05	—	-5,357	-5,357	—	—	—	-5,357
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Various	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	—	—	0.00
Subtotal	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	—	—	0.00
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Various	—	—	—	—	—	—	—	—	—	—	—	—	-887	-887	—	—	—	-887
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	-887	-887	—	—	—	-887
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Various	—	—	-0.11	—	-0.04	-0.02	-0.02	-0.04	-0.01	-0.01	-0.01	—	—	—	—	—	—	—
Subtotal	—	—	-0.11	—	-0.04	-0.02	-0.02	-0.04	-0.01	-0.01	-0.01	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.00	-0.11	—	-0.04	-0.02	-0.02	-0.04	-0.01	-0.01	-0.01	—	-887	-887	—	—	—	-887

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	0.00	0.00	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
User Defined Industrial	0.00	261	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
User Defined Industrial	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
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User Defined Industrial	0.00	—
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5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
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5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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5.17. User Defined

Equipment Type	Fuel Type
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5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
Grazing	Alfisols	311	62.9
Grazing	Mollisols	4.80	0.97
Grazing	Entisols	541	109
Forest	Alfisols	9.01	4.29
Forest	Mollisols	0.14	0.07
Forest	Entisols	15.7	7.47

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
Grassland	702	109
Shrubland	565	148
Mixed Forest (Conifer and Broadleaf)	36.7	17.5
Urban	100	1,197

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
Various	27,512	0.00	0.00
Various	-1,579	0.00	0.00

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	28.1	annual days of extreme heat
Extreme Precipitation	3.90	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	29.1	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about $\frac{3}{4}$ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	99.1
AQ-PM	50.3

AQ-DPM	35.7
Drinking Water	55.1
Lead Risk Housing	1.83
Pesticides	31.6
Toxic Releases	45.3
Traffic	50.9
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	47.4
Haz Waste Facilities/Generators	79.2
Impaired Water Bodies	12.5
Solid Waste	52.9
Sensitive Population	—
Asthma	55.5
Cardio-vascular	84.1
Low Birth Weights	55.4
Socioeconomic Factor Indicators	—
Education	51.2
Housing	6.89
Linguistic	21.4
Poverty	14.5
Unemployment	9.72

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	72.12883357

Employed	95.58578211
Median HI	89.34941614
Education	—
Bachelor's or higher	68.75401001
High school enrollment	100
Preschool enrollment	38.32926986
Transportation	—
Auto Access	98.98626973
Active commuting	3.195175157
Social	—
2-parent households	82.43295265
Voting	49.26215835
Neighborhood	—
Alcohol availability	93.77646606
Park access	6.441678429
Retail density	5.338123957
Supermarket access	15.96304376
Tree canopy	5.954061337
Housing	—
Homeownership	95.7141024
Housing habitability	96.52252021
Low-inc homeowner severe housing cost burden	60.52867958
Low-inc renter severe housing cost burden	94.8671885
Uncrowded housing	70.21686129
Health Outcomes	—
Insured adults	76.20941871
Arthritis	0.0
Asthma ER Admissions	51.9

High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	61.7
Cognitively Disabled	96.9
Physically Disabled	80.2
Heart Attack ER Admissions	11.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	2.1
SLR Inundation Area	0.0
Children	1.2
Elderly	85.6
English Speaking	87.3
Foreign-born	32.8
Outdoor Workers	85.1

Climate Change Adaptive Capacity	—
Impervious Surface Cover	90.3
Traffic Density	52.9
Traffic Access	23.0
Other Indices	—
Hardship	24.0
Other Decision Support	—
2016 Voting	68.8

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	46.0
Healthy Places Index Score for Project Location (b)	78.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

APPENDIX 2:

I-TREE MODEL OUTPUTS – REMOVED TREES

I-Tree Planting
 Report produced for Calimesa, CA from I-Tree Planting v2.7.2.
 This is an I-Tree* benefits and tree growth forecast.
 Total number of trees planted in this project: 1579
 Electricity Emissions Factor:
 Fuel Emissions Factor:
 Project years: 30
 Annual Tree Mortality: 3
 Run Date: 6-17-2025

Group	Idea	Tree Group	Initial Num	Species	Initial DBH	Distance to Direction	Building	Vir	TreeCond	CrownLigh	DBH (inche	Height (fee	Surviving T	Basal Area	Canopy Cove	Biomass (s	CO2 Avoidi	CO2 Avoidi	CO2 Sequester	CO2 Sequester	Electricity	Electricity	Fuel Saved	Fuel Saved	Rainfall Interc	Evaporation (g	Transpiration (g	Avoided Run	Avoided Run	O3 Remov	NO2 Avoidi	NO2 Remo	SO2 Avoidi	SO2 Remo	VOC Avoidi	PM2.5 Avoi	PM2.5 Rerr	Avoided Va	Removal Value (\$)
1	2	Athel tam	2	Athel tama	1	0-19	north (0A°)	post-1980	excellent	full sun	21.8	75.4	0.83	2.1	610.7	1.8	0	\$0.00	9,051.60	\$534.12	0	\$0.00	0	\$0.00	5,444.00	5,432.80	55,231.00	542.8	\$4.85	12.38	0	0.85	0	0.29	0	0	0.07	\$0.00	\$0.15
2	3	Blue gum	3	Blue gum e	1	0-19	north (0A°)	post-1980	excellent	full sun	21.8	67.4	1.2	3.2	1,166.00	3.5	0	\$0.00	18,098.50	\$1,067.96	0	\$0.00	0	\$0.00	11,109.00	11,086.20	112,705.00	1,107.70	\$9.90	27.57	0	1.87	0	0.65	0	0	0.16	\$0.00	\$0.32
3	1	Carob(Ce	1	Carob(Cer	1	0-19	north (0A°)	post-1980	excellent	full sun	15.6	57.7	0.41	0.55	98.2	0.3	0	\$0.00	1,503.50	\$88.72	0	\$0.00	0	\$0.00	1,169.40	1,166.90	11,863.50	116.6	\$1.04	2.26	0	0.16	0	0.05	0	0	0.01	\$0.00	\$0.03
4	11	Chinabe	11	Chinaberry	1	0-19	north (0A°)	post-1980	excellent	full sun	21.8	71.4	4.5	11.8	4,131.30	9	0	\$0.00	45,818.70	\$2,703.68	0	\$0.00	0	\$0.00	37,709.00	37,631.50	382,571.60	3,759.90	\$33.60	47.59	0	2.94	0	1.12	0	0	0.32	\$0.00	\$0.71
5	163	Europe	163	European C	1	0-19	north (0A°)	post-1980	excellent	full sun	17.3	65.6	67	109.9	19,510.60	90.8	0	\$0.00	497,399.70	\$29,350.72	0	\$0.00	0	\$0.00	254,431.30	253,908.20	2,581,298.10	25,369.00	\$226.70	593.36	0	40.74	0	14.03	0	0	3.44	\$0.00	\$7.09
6	5	Black loc	5	Black locu	1	0-19	north (0A°)	post-1980	excellent	full sun	21.8	75.6	2.1	5.3	2,594.20	4.2	0	\$0.00	21,541.20	\$1,271.11	0	\$0.00	0	\$0.00	21,743.10	21,698.40	220,591.50	2,168.00	\$19.37	28.05	0	1.73	0	0.66	0	0	0.19	\$0.00	\$0.41
7	4	Californi	4	California	1	0-19	north (0A°)	post-1980	excellent	full sun	21.8	78.9	1.7	4.3	1,738.70	2.6	0	\$0.00	13,669.10	\$806.59	0	\$0.00	0	\$0.00	14,135.80	14,106.70	143,412.90	1,409.50	\$12.59	21.88	0	1.33	0	0.51	0	0	0.16	\$0.00	\$0.29
8	1	Chinese l	1	Chinese pit	1	0-19	north (0A°)	post-1980	excellent	full sun	17	40.9	0.41	0.65	229	0.5	0	\$0.00	2,643.00	\$155.96	0	\$0.00	0	\$0.00	2,233.30	2,228.70	22,657.20	222.7	\$1.99	2.64	0	0.16	0	0.06	0	0	0.02	\$0.00	\$0.04
9	1	Fremont c	1	Fremont cc	1	0-19	north (0A°)	post-1980	excellent	full sun	21.8	74.9	0.41	1.1	516.8	0.7	0	\$0.00	3,696.50	\$218.13	0	\$0.00	0	\$0.00	3,574.30	3,566.90	36,262.10	356.4	\$3.18	5.11	0	0.31	0	0.12	0	0	0.04	\$0.00	\$0.07
10	15	Europea	15	European t	1	0-19	north (0A°)	post-1980	excellent	full sun	12.1	16.6	6.2	5	1,058.80	2.2	0	\$0.00	11,363.20	\$670.52	0	\$0.00	0	\$0.00	12,885.80	12,859.30	130,731.00	1,284.80	\$11.48	14.21	0	0.89	0	0.34	0	0	0.09	\$0.00	\$0.23
11	1	Glossy pr	1	Glossy priv	1	0-19	north (0A°)	post-1980	excellent	full sun	17	64.9	0.41	0.65	116.9	0.4	0	\$0.00	2,305.10	\$136.02	0	\$0.00	0	\$0.00	1,333.80	1,331.00	13,531.40	133	\$1.19	3.12	0	0.21	0	0.07	0	0	0.02	\$0.00	\$0.04
12	3	Prairie su	3	Prairie su	1	0-19	north (0A°)	post-1980	excellent	full sun	15.6	39.9	1.2	1.6	610.7	0.8	0	\$0.00	4,378.50	\$258.37	0	\$0.00	0	\$0.00	6,561.00	6,547.50	66,563.60	654.2	\$5.85	7.2	0	0.45	0	0.17	0	0	0.05	\$0.00	\$0.12
13	3	Californi	3	California l	1	0-19	north (0A°)	post-1980	excellent	full sun	17.3	41.4	1.2	2	626.7	1.4	0	\$0.00	7,644.80	\$451.11	0	\$0.00	0	\$0.00	7,328.50	7,313.40	74,350.40	730.7	\$6.53	15.08	0	1.05	0	0.36	0	0	0.08	\$0.00	\$0.19
14	8	Laurel su	8	Laurel sum	1	0-19	north (0A°)	post-1980	excellent	full sun	15.6	39	3.3	4.4	1,447.40	5	0	\$0.00	26,142.20	\$1,542.61	0	\$0.00	0	\$0.00	15,700.50	15,668.20	159,287.50	1,565.50	\$13.99	28.78	0	2.05	0	0.7	0	0	0.15	\$0.00	\$0.39
15	7	Tree of he	7	Tree of hea	1	0-19	north (0A°)	post-1980	excellent	full sun	21.8	53.2	2.9	7.5	2,622.10	6.5	0	\$0.00	33,466.80	\$1,974.82	0	\$0.00	0	\$0.00	23,836.90	23,787.90	241,834.00	2,376.70	\$21.24	34.07	0	2.08	0	0.8	0	0	0.24	\$0.00	\$0.47
16	1	Willow sp	1	Willow spp	1	0-19	north (0A°)	post-1980	excellent	full sun	17	50.9	0.41	0.65	233.8	0.4	0	\$0.00	1,912.60	\$112.86	0	\$0.00	0	\$0.00	2,319.90	2,315.20	23,536.50	231.3	\$2.07	2.86	0	0.18	0	0.07	0	0	0.02	\$0.00	\$0.04
17	381	Coastal liv	381	Coastal liv	1	0-19	north (0A°)	post-1980	excellent	full sun	12.1	55.4	158	126.1	66,095.30	90.9	0	\$0.00	466,644.30	\$27,535.89	0	\$0.00	0	\$0.00	723,384.30	721,897.20	7,338,996.80	72,127.80	\$644.53	1,696.61	0	116.37	0	40.09	0	0	9.87	\$0.00	\$20.21
18	969	Scrub c	969	Scrub oak()	1	0-19	north (0A°)	post-1980	excellent	full sun	15.6	64.3	401	532.3	235,814.00	425.1	0	\$0.00	2,263,084.60	\$133,540.80	0	\$0.00	0	\$0.00	2,401,519.80	2,396,582.90	24,364,292.40	239,452.60	\$2,139.75	3,425.84	0	209.4	0	80.44	0	0	24.04	\$0.00	\$47.07

Cumulative graph data

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Sequesterr	1589.911	3851.519	6765.88	10304.37	14448.97	19173.21	24451.1	30219.65	36498.86	43248.96	50444.4	58060.25	66071.92	74455.422	83187.38	92245.09	101474.2	110777.7752	120136.5247	129536.5	138967.7	147868.7	156250	164130.0613	171533.583	178488.4184	185024.29	191171.59	196960.5	202420
Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avoided Ru	35.05194	75.9053	122.3772	174.3812	231.8648	294.7854	363.1008	436.7639	515.7204	599.9082	689.2566	783.6867	883.1115	987.436812	1096.561	1210.378	1328.772	1451.588741	1578.649762	1709.781	1844.812	1983.573	2125.414	2269.730882	2415.96899	2563.622065	2712.2306	2861.38	3010.698	3159.852
Air Pollutio	0.737811	1.625583	2.662555	3.851321	5.19015	6.683157	8.308969	10.07657	11.97185	13.99981	16.1595	18.44965	20.86967	23.4175539	26.09176	28.89061	31.81199	34.8523346	38.00729613	41.27252	44.64369	48.11649	51.6749	55.303742	58.989296	62.71872709	66.480404	70.263873	74.05968	77.85929
Combined	1625.701	3929.049	6890.92	10482.6	14686.03	19474.68	24822.51	30666.49	37026.56	43862.87	51149.81	58862.39	66975.91	75466.2763	84310.03	93484.36	102834.8	112264.2163	121753.1818	131287.6	140857.1	149900.4	158427	166455.0959	174008.542	181114.7592	187803	194103.23	200045.3	205657.7

APPENDIX 3:
I-TREE MODEL OUTPUTS – ADDED TREES

I-Tree Planting
 Report produced for Calimesa, CA from I-Tree Planting v2.7.2.
 This is an I-Tree* benefits and tree growth forecast.
 Total number of trees planted in this project: 27512
 Electricity Emissions Factor:
 Fuel Emissions Factor:
 Project years: 30
 Annual Tree Mortality: 3
 Run Date: 6-17-2025

Group	Idea	Tree	Group	Initial Num	Species	Initial DBH	Distance to Direction	Building/Vir	TreeCondit	CrownLigh	DBH (inche	Height (fee	Surviving T	BasalArea	Canopy Cover	Biomass	CO2 Avoided	CO2 Avoided	CO2 Sequeste	CO2 Sequeste	Electricity	Electricity	Fuel Saved	Fuel Saved	Rainfall Intercep	Evaporation (gal	Transpiration (g	Avoided Runof	Avoided Runoff	O3 Remov	NO2 Avoided	NO2 Remo	SO2 Avoided	SO2 Remo	VOC Avoided	PM2.5 Avoi	PM2.5 Avoi	PM2.5 Rerr	Avoided Va	Removal Value (\$)
1	445	Bottle t	445	Bottle tree	1	0-19	north (0A)	post-1980	excellent	full sun	17.3	44.2	184	299.9	64,525.00	142.3	0	\$0.00	773,848.10	\$45,663.47	0	\$0.00	0	\$0.00	807,822.60	806,161.90	8,195,654.00	80,547.00	\$719.77	1,068.56	0	65.81	0	25.17	0	0	7.28	\$0.00	\$15.43	
2	445	Carob(Cer	445	Carob(Cer	1	0-19	north (0A)	post-1980	excellent	full sun	15.6	57.7	184	244.5	43,700.40	129	0	\$0.00	669,062.10	\$39,480.23	0	\$0.00	0	\$0.00	520,361.80	519,292.10	5,279,260.20	51,884.60	\$463.64	1,005.23	0	70.99	0	24.2	0	0	5.43	\$0.00	\$13.28	
3	445	Citrus:	445	Citrus spp	1	0-19	north (0A)	post-1980	excellent	full sun	15.6	23.1	184	244.5	105,538.80	252.1	0	\$0.00	1,309,554.40	\$77,274.60	0	\$0.00	0	\$0.00	1,138,699.20	1,136,358.30	11,552,517.50	113,538.30	\$1,014.58	2,657.99	0	182.37	0	62.82	0	0	15.46	\$0.00	\$31.73	
4	445	Ginkgo	445	Ginkgo(Gin	1	0-19	north (0A)	post-1980	excellent	full sun	12.1	52.5	184	147.3	54,330.10	33.9	0	\$0.00	173,801.50	\$10,255.73	0	\$0.00	0	\$0.00	602,556.00	601,317.30	6,113,149.70	60,080.10	\$536.88	689.94	0	43.1	0	16.35	0	0	4.44	\$0.00	\$10.98	
5	445	Callery	445	Callery pez	1	0-19	north (0A)	post-1980	excellent	full sun	17	38.1	184	288.3	104,336.50	219.7	0	\$0.00	1,125,701.20	\$66,425.73	0	\$0.00	0	\$0.00	1,037,924.40	1,035,790.70	10,530,120.90	103,490.20	\$924.79	1,446.98	0	88.63	0	34	0	0	10.08	\$0.00	\$20.18	
6	445	Callery	445	Callery pez	1	0-19	north (0A)	post-1980	excellent	full sun	17	38.1	184	288.3	104,336.50	219.7	0	\$0.00	1,125,701.20	\$66,425.73	0	\$0.00	0	\$0.00	1,037,924.40	1,035,790.70	10,530,120.90	103,490.20	\$924.79	1,446.98	0	88.63	0	34	0	0	10.08	\$0.00	\$20.18	
7	445	Joshua	445	Joshua tree	1	0-19	north (0A)	post-1980	excellent	full sun	15.6	60.8	184	244.5	46,342.00	124.4	0	\$0.00	655,789.10	\$38,697.01	0	\$0.00	0	\$0.00	569,673.80	568,502.70	5,779,542.70	56,801.50	\$507.58	798.17	0	58.99	0	19.78	0	0	3.84	\$0.00	\$12.60	
8	445	Bronze	445	Bronze loq	1	0-19	north (0A)	post-1980	excellent	full sun	15.6	50.4	184	244.5	43,898.70	234.1	0	\$0.00	1,213,105.20	\$71,583.29	0	\$0.00	0	\$0.00	524,027.80	522,950.50	5,316,452.70	52,250.20	\$466.91	975.42	0	69.26	0	23.56	0	0	5.2	\$0.00	\$13.16	
9	445	Feijoa:	445	Feijoa spp	1	0-19	north (0A)	post-1980	excellent	full sun	15.6	51.3	184	244.5	69,920.30	349.2	0	\$0.00	1,816,440.20	\$107,185.07	0	\$0.00	0	\$0.00	915,596.50	913,714.30	9,289,059.80	91,293.00	\$815.79	2,132.38	0	145.96	0	50.32	0	0	12.51	\$0.00	\$25.38	
10	445	Jacara	445	Jacaranda	1	0-19	north (0A)	post-1980	excellent	full sun	17	60.5	184	288.3	79,107.90	152	0	\$0.00	809,228.00	\$47,751.18	0	\$0.00	0	\$0.00	761,591.60	760,025.90	7,726,623.60	75,937.40	\$678.58	1,466.03	0	103.57	0	35.3	0	0	7.92	\$0.00	\$19.41	
11	445	Goldenrai	445	Goldenrain	1	0-19	north (0A)	post-1980	excellent	full sun	12.1	51.6	184	147.3	67,488.20	121.6	0	\$0.00	626,828.30	\$36,988.08	0	\$0.00	0	\$0.00	764,344.30	762,773.00	7,754,551.40	76,211.80	\$681.03	986.33	0	60.88	0	23.25	0	0	6.66	\$0.00	\$14.48	
12	445	Callery	445	Callery pez	1	0-19	north (0A)	post-1980	excellent	full sun	17	38.1	184	288.3	104,336.50	219.7	0	\$0.00	1,125,701.20	\$66,425.73	0	\$0.00	0	\$0.00	1,037,924.40	1,035,790.70	10,530,120.90	103,490.20	\$924.79	1,446.98	0	88.63	0	34	0	0	10.08	\$0.00	\$20.18	
13	445	Callery	445	Callery pez	1	0-19	north (0A)	post-1980	excellent	full sun	17	38.1	184	288.3	104,336.50	219.7	0	\$0.00	1,125,701.20	\$66,425.73	0	\$0.00	0	\$0.00	1,037,924.40	1,035,790.70	10,530,120.90	103,490.20	\$924.79	1,446.98	0	88.63	0	34	0	0	10.08	\$0.00	\$20.18	
14	445	Bigleaf	445	Bigleaf ma	1	0-19	north (0A)	post-1980	excellent	full sun	21.8	70.3	184	476.1	167,683.60	288.4	0	\$0.00	1,491,766.60	\$88,026.63	0	\$0.00	0	\$0.00	1,537,786.10	1,534,624.70	15,601,399.30	153,330.80	\$1,370.16	2,228.68	0	136	0	52.29	0	0	15.75	\$0.00	\$30.29	
15	445	Japanes	445	Japanes ash	1	0-19	north (0A)	post-1980	excellent	full sun	12.1	24.2	184	147.3	127,132.20	161	0	\$0.00	392,543.40	\$23,163.33	0	\$0.00	0	\$0.00	630,779.90	629,483.20	6,399,491.50	62,894.30	\$562.02	684.16	0	42.97	0	16.25	0	0	4.31	\$0.00	\$11.30	
16	445	White i	445	White alder	1	0-19	north (0A)	post-1980	excellent	full sun	21.8	78.6	184	476.1	167,353.50	181.2	0	\$0.00	953,216.30	\$56,247.69	0	\$0.00	0	\$0.00	1,530,479.10	1,527,332.70	15,527,266.90	152,602.20	\$1,363.55	2,345.59	0	142.34	0	54.91	0	0	16.94	\$0.00	\$30.75	
17	445	Velvet	445	Velvet ash	1	0-19	north (0A)	post-1980	excellent	full sun	17	68.5	184	288.3	127,132.20	161	0	\$0.00	832,908.60	\$49,148.53	0	\$0.00	0	\$0.00	1,108,077.90	1,105,799.90	11,241,853.00	110,485.10	\$987.29	1,507.65	0	92.59	0	35.47	0	0	10.39	\$0.00	\$21.36	
18	445	Velvet	445	Velvet ash	1	0-19	north (0A)	post-1980	excellent	full sun	17	68.5	184	288.3	127,132.20	161	0	\$0.00	832,908.60	\$49,148.53	0	\$0.00	0	\$0.00	1,108,077.90	1,105,799.90	11,241,853.00	110,485.10	\$987.29	1,507.65	0	92.59	0	35.47	0	0	10.39	\$0.00	\$21.36	
19	445	Sweetg	445	Sweetgum	1	0-19	north (0A)	post-1980	excellent	full sun	21.8	80	184	476.1	148,644.90	197.4	0	\$0.00	1,007,817.80	\$59,469.63	0	\$0.00	0	\$0.00	1,238,795.20	1,236,248.50	12,568,027.70	123,518.80	\$1,103.76	1,978.50	0	119.6	0	46.24	0	0	14.51	\$0.00	\$25.27	
20	445	Sweetg	445	Sweetgum	1	0-19	north (0A)	post-1980	excellent	full sun	21.8	80	184	476.1	148,644.90	197.4	0	\$0.00	1,007,817.80	\$59,469.63	0	\$0.00	0	\$0.00	1,238,795.20	1,236,248.50	12,568,027.70	123,518.80	\$1,103.76	1,978.50	0	119.6	0	46.24	0	0	14.51	\$0.00	\$25.27	
21	445	Tulip tr	445	Tulip tree(L	1	0-19	north (0A)	post-1980	excellent	full sun	21.8	89.3	184	476.1	126,867.90	292	0	\$0.00	1,494,664.00	\$88,197.60	0	\$0.00	0	\$0.00	1,788,239.90	1,784,563.70	18,142,344.60	178,303.20	\$1,593.32	2,687.12	0	163.4	0	62.96	0	0	19.25	\$0.00	\$35.68	
22	445	Chines	445	Chinese pit	1	0-19	north (0A)	post-1980	excellent	full sun	17	40.9	184	288.3	101,921.70	227.7	0	\$0.00	1,176,122.40	\$69,401.00	0	\$0.00	0	\$0.00	993,800.20	991,757.10	10,082,464.10	99,090.60	\$865.47	1,174.26	0	73.09	0	27.78	0	0	7.68	\$0.00	\$18.28	
23	445	Califor	445	California f	1	0-19	north (0A)	post-1980	excellent	full sun	12.1	48.2	184	147.3	74,711.40	47.3	0	\$0.00	248,780.40	\$14,680.11	0	\$0.00	0	\$0.00	799,827.40	798,183.20	8,114,540.10	79,749.80	\$712.64	1,051.89	0	64.82	0	24.78	0	0	7.15	\$0.00	\$15.25	
24	445	Londoi	445	London pla	1	0-19	north (0A)	post-1980	excellent	full sun	17	49.3	184	288.3	121,574.60	121.2	0	\$0.00	620,475.40	\$36,613.21	0	\$0.00	0	\$0.00	1,061,760.50	1,059,577.80	10,771,946.90	105,866.90	\$946.03	1,421.41	0	87.41	0	33.46	0	0	9.75	\$0.00	\$20.35	
25	445	Londoi	445	London pla	1	0-19	north (0A)	post-1980	excellent	full sun	17	49.3	184	288.3	121,574.60	121.2	0	\$0.00	620,475.40	\$36,613.21	0	\$0.00	0	\$0.00	1,061,760.50	1,059,577.80	10,771,946.90	105,866.90	\$946.03	1,421.41	0	87.41	0	33.46	0	0	9.75	\$0.00	\$20.35	
26	445	Madroi	445	Madrone sc	1	0-19	north (0A)	post-1980	excellent	full sun	15.6	78.1	184	244.5	106,851.40	211	0	\$0.00	1,096,305.30	\$64,691.13	0	\$0.00	0	\$0.00	1,164,051.80	1,161,656.70	11,809,728.50	116,066.20	\$1,037.17	2,715.05	0	186.35	0	64.19	0	0	15.78	\$0.00	\$32.43	
27	445	Eastern	445	Eastern rec	1	0-19	north (0A)	post-1980	excellent	full sun	15.6	57.7	184	244.5	103,530.00	144	0	\$0.00	746,791.90	\$44,066.93	0	\$0.00	0	\$0.00	1,099,126.80	1,096,867.30	11,151,041.60	109,592.60	\$979.32	1,268.27	0	79.17	0	30.04	0	0	8.19	\$0.00	\$20.06	
28	445	Eastern	445	Eastern rec	1	0-19	north (0A)	post-1980	excellent	full sun	15.6	57.7	184	244.5	103,530.00	144	0	\$0.00	746,791.90	\$44,066.93	0	\$0.																		