# Attachment # 3 Air Quality Analysis

#### Clearlake Dollar General Initial Study 5330 Old Highway 53 and 5345 Jones Avenue

This air modeling was conducted on September 22, 2021, using CalEEMod 2020 4.0. Attached is the model findings.

## Clearlake Dollar Store Lake County AQMD, Summary Report

## 1.0 Project Characteristics

#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population	
	10.00		0.00	0.00	0	
Free-Standing Discount store	10.00	1000sqft	0.23	10,000.00	0	

#### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	67
Climate Zone	1			Operational Year	2023
Utility Company	Pacific Gas and Elect	ric Company			
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

#### 1.3 User Entered Comments

Only CalEEMod defaults were used.

Project Characteristics -

Land Use -

Land Use Change -

## 2.0 Peak Daily Emissions

**Peak Daily Construction Emissions** 

**Peak Daily Construction Emissions** 

			Unmitigated							Mitigated						
		ROG	NOX	СО	SO2	PM10	PM2.5	ROG	NOX	СО	SO2	PM10	PM2.5			
Year	Phase		lb/day													
2021	Demolition	0.8944 W	7.2995 S	8.1102 S	0.0128 S	0.4902 S	0.4110 S	0.8944 W	7.2995 S	8.1102 S	0.0128 S	0.4902 S	0.4110 S			
2021	Site Preparation	0.6892 W	7.8436 S	4.2980 S	0.0101 S	0.8711 S	0.3440 S	0.6892 W	7.8436 S	4.2980 S	0.0101 S	0.8711 S	0.3440 S			
2021	Grading	1.3667 W	14.3680 S	6.7643 S	0.0148 S	6.0161 S	3.1734 S	1.3667 W	14.3680 S	6.7643 S	0.0148 S	6.0161 S	3.1734 S			
2021	Building Construction	0.8156 W	8.1786 W	7.4738 S	0.0121 S	0.4887 S	0.4251 W	0.8156 W	8.1786 W	7.4738 S	0.0121 S	0.4887 S	0.4251 W			
2022	Building Construction	0.7209 W	7.1866 W	7.3361 S	0.0121 S	0.4118 S	0.3542 S	0.7209 W	7.1866 W	7.3361 S	0.0121 S	0.4118 S	0.3542 S			
2022	Paving	0.8110 W	5.9911 S	7.9068 S	0.0127 S	0.4451 S	0.3161 S	0.8110 W	5.9911 S	7.9068 S	0.0127 S	0.4451 S	0.3161 S			
2022	Architectural Coating	46.5637 W	1.4126 S	1.8620 S	3.0500e- 003 S	0.0900 S	0.0840 S	46.5637 W	1.4126 S	1.8620 S	3.0500e- 003 S	0.0900 S	0.0840 S			
	Peak Daily Total	46.5637 W	14.3680 S	8.1102 S	0.0148 S	6.0161 S	3.1734 S	46.5637 W	14.3680 S	8.1102 S	0.0148 S	6.0161 S	3.1734 S			
	Air District Threshold															
	Exceed Significance?															

## **Peak Daily Operational Emissions**

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			Unmitigated							Mitigated					
		ROG	NOX	СО	SO2	PM10	PM2.5	ROG	NOX	СО	SO2	PM10	PM2.5		
	Operational Activity		lb/day												
On- Site	Area	0.2777 S	2.0000e- 005 S	2.0400e- 003 S	0.0000 S	1.0000e- 005 S	1.0000e- 005 S	0.2777 S	2.0000e- 005 S	2.0400e- 003 S	0.0000 S	1.0000e- 005 S	1.0000e- 005 S		
On- Site	Energy	2.1100e- 003 S	0.0192 S	0.0161 S	1.2000e- 004 S	1.4600e- 003 S	1.4600e- 003 S	2.1100e- 003 S	0.0192 S	0.0161 S	1.2000e- 004 S	1.4600e- 003 S	1.4600e- 003 S		
Off- Site	Mobile	4.0500 W	2.9934 W	18.9346 S	0.0265 S	2.3657 W	0.6537 W	4.0500 W	2.9934 W	18.9346 S	0.0265 S	2.3657 W	0.6537 W		
	Peak Daily Total	4.3298 W	3.0126 W	18.9527 S	0.0267 S	2.3672 W	0.6552 W	4.3298 W	3.0126 W	18.9527 S	0.0267 S	2.3672 W	0.6552 W		
	Air District Threshold														
	Exceed Significance?														

## 3.0 Annual GHG Emissions

**Annual GHG** 

**Annual GHG** 

			Unmit	tigated		Mitigated						
		CO2	CH4	N2O	CO2e	CO2	CH4	N2O	CO2e			
GHG Activity	Year		MT/yr									
Construction	2021	39.3003			39.6564	39.3003			39.6564			
Construction	2022	24.6312			24.8603	24.6311			24.8603			
Operational	2023	366.9471			388.7530	366.9471			388.7530			
	Total											
	Significance Threshold											
	Exceed Significance?											