

9309 Sycamore Hills Distribution Center - Trucks - South Coast Air Basin, Summer

Percent Reduction	NO <sub>x</sub>	NO <sub>x</sub>	CO	SO <sub>2</sub>	Fugitive PM <sub>10</sub>	Exhaust PM <sub>10</sub>	PM <sub>10</sub> Total	Fugitive PM <sub>2.5</sub>	Exhaust PM <sub>2.5</sub>	PM <sub>2.5</sub> Total	B <sub>20</sub> -CO <sub>2</sub>	NBI <sub>20</sub> -CO <sub>2</sub>	Total CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2e</sub>
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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/1/2021	4/26/2021	5	18	
2	Grading	Grading	4/27/2021	6/29/2021	5	46	
3	Building Construction	Building Construction	6/30/2021	5/12/2022	5	227	
4	Paving	Paving	5/13/2022	6/6/2022	5	17	
5	Architectural Coating	Architectural Coating	6/7/2022	6/29/2022	5	17	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 115

Acres of Paving: 24.18

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 904,650; Non-Residential Outdoor: 301,550; Striped Parking Area: 63,197 (Architectural Coating – sqft)

OffRoad Equipment



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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

**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
Site Preparation	7	18,000	0.00	0.00	14.70	6.90	20,000_LD_Mix	HDT_Mix	HHDT	HHDT
Grading	8	20,000	0.00	0.00	14.70	6.90	20,000_LD_Mix	HDT_Mix	HHDT	HHDT
Building Construction	9	694,000	271.00	0.00	14.70	6.90	20,000_LD_Mix	HDT_Mix	HHDT	HHDT
Paving	6	15,000	0.00	0.00	14.70	6.90	20,000_LD_Mix	HDT_Mix	HHDT	HHDT
Architectural Coating	1	139,000	0.00	0.00	14.70	6.90	20,000_LD_Mix	HDT_Mix	HHDT	HHDT

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**3.1 Mitigation Measures Construction**

Water Exposed Area

**3.2 Site Preparation - 2021**

**Unmitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBP-CO2	Total CO2	CH4	N2O	CO2e
Fugitive Dust					18.0963	0.0000	18.0963	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8909	1.8909		3.885656	3.885656	1.1920		3.715457
<b>Total</b>	<b>3.8882</b>	<b>40.4971</b>	<b>21.1543</b>	<b>0.0380</b>	<b>18.0963</b>	<b>2.0445</b>	<b>20.1107</b>	<b>9.9307</b>	<b>1.8909</b>	<b>11.8116</b>		<b>3.885656</b>	<b>3.885656</b>	<b>1.1920</b>		<b>3.715457</b>

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3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	Non-Biogenic CO2	Total CO2	CH4	N2O	CO2e
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	0.0753	0.0491	0.6758	2.0000e-003	0.2012	1.4900e-003	0.2027	0.0534	1.5700e-003	0.0547		199.2417	199.2417	5.3700e-003		199.3759
<b>Total</b>	<b>0.0753</b>	<b>0.0491</b>	<b>0.6758</b>	<b>2.0000e-003</b>	<b>0.2012</b>	<b>1.4900e-003</b>	<b>0.2027</b>	<b>0.0534</b>	<b>1.5700e-003</b>	<b>0.0547</b>		<b>199.2417</b>	<b>199.2417</b>	<b>5.3700e-003</b>		<b>199.3759</b>

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	Non-Biogenic CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Fugitive Dust					18.0663	0.0000	18.0663	9.5307	0.0000	9.5307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8909	1.8909	0.0000	3.6856569	3.6856569	1.1920		3.7154573
<b>Total</b>	<b>3.8882</b>	<b>40.4971</b>	<b>21.1543</b>	<b>0.0380</b>	<b>18.0663</b>	<b>2.0445</b>	<b>20.1107</b>	<b>9.5307</b>	<b>1.8909</b>	<b>11.8116</b>	<b>0.0000</b>	<b>3.6856569</b>	<b>3.6856569</b>	<b>1.1920</b>		<b>3.7154573</b>

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3.2 Site Preparation - 2021

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Eq-CO2	NRto-CO2	Total CO2	CH4	N2O	CO2e
Daily																
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	0.0733	0.0491	0.6758	2.0000e-003	0.2012	1.4900e-003	0.2027	0.0634	1.3700e-003	0.0647	199.2417	199.2417	199.2417	5.3700e-003	199.3759	199.3759
<b>Total</b>	<b>0.0733</b>	<b>0.0491</b>	<b>0.6758</b>	<b>2.0000e-003</b>	<b>0.2012</b>	<b>1.4900e-003</b>	<b>0.2027</b>	<b>0.0634</b>	<b>1.3700e-003</b>	<b>0.0647</b>		<b>199.2417</b>	<b>199.2417</b>	<b>5.3700e-003</b>		<b>199.3759</b>

3.3 Grading - 2021

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Eq-CO2	NRto-CO2	Total CO2	CH4	N2O	CO2e
Daily																
Fugitive Dust					8.6733	0.0000	8.6733	3.5955	0.0000	3.5955			0.0000			0.0000
Off-Road	4.1912	46.3998	90.8795	0.0620		1.9853	1.9853		1.8265	1.8265	6,007.043	6,007.043	6,007.043	1.9428		6,055.613
<b>Total</b>	<b>4.1912</b>	<b>46.3998</b>	<b>90.8795</b>	<b>0.0620</b>	<b>8.6733</b>	<b>1.9853</b>	<b>10.6587</b>	<b>3.5955</b>	<b>1.8265</b>	<b>5.4230</b>		<b>6,007.043</b>	<b>6,007.043</b>	<b>1.9428</b>		<b>6,055.613</b>

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3.3 Grading - 2021

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
[b]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	0.0837	0.0546	0.7509	2.2200e-003	0.2236	1.6500e-003	0.2252	0.0593	1.5200e-003	0.0608		221.3797	221.3797	5.9700e-003		221.5288
<b>Total</b>	<b>0.0837</b>	<b>0.0546</b>	<b>0.7509</b>	<b>2.2200e-003</b>	<b>0.2236</b>	<b>1.6500e-003</b>	<b>0.2252</b>	<b>0.0593</b>	<b>1.5200e-003</b>	<b>0.0608</b>		<b>221.3797</b>	<b>221.3797</b>	<b>5.9700e-003</b>		<b>221.5288</b>

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
[b]day																
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8795	0.0620		1.9853	1.9853		1.8295	1.8295	0.0000	6.007043	6.007043	1.9428		6.055613
<b>Total</b>	<b>4.1912</b>	<b>46.3998</b>	<b>30.8795</b>	<b>0.0620</b>	<b>8.6733</b>	<b>1.9853</b>	<b>10.6587</b>	<b>3.5966</b>	<b>1.8295</b>	<b>5.4230</b>	<b>0.0000</b>	<b>6.007043</b>	<b>6.007043</b>	<b>1.9428</b>		<b>6.055613</b>

9309 Sycamore Hills Distribution Center - Trucks - South Coast Air Basin, Summer

3.3 Grading - 2021

Mitigated Construction Off-Site

Category	ROG	NOK	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	Non-Biogenic CO2	Total CO2	CH4	N2O	CO2e
Id/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	0.0837	0.0546	0.7509	2.2200e-003	0.2236	1.6500e-003	0.2252	0.0593	1.5200e-003	0.0608		221.3797	221.3797	5.9700e-003		221.5288
<b>Total</b>	<b>0.0837</b>	<b>0.0546</b>	<b>0.7509</b>	<b>2.2200e-003</b>	<b>0.2236</b>	<b>1.6500e-003</b>	<b>0.2252</b>	<b>0.0593</b>	<b>1.5200e-003</b>	<b>0.0608</b>		<b>221.3797</b>	<b>221.3797</b>	<b>5.9700e-003</b>		<b>221.5288</b>

3.4 Building Construction - 2021

Unmitigated Construction On-Site

Category	ROG	NOK	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	Non-Biogenic CO2	Total CO2	CH4	N2O	CO2e
Id/day																
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553,363	2,553,363	0.6160		2,568,794
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>		<b>2,553,363</b>	<b>2,553,363</b>	<b>0.6160</b>		<b>2,568,794</b>

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**3.4 Building Construction - 2021  
Unmitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic	NO2	CO2	Total CO2	CH4	N2O	CO2e
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	0.0000
Vendor																	
	0.7524	24.9529	6.3017	0.0896	1.7341	0.0330	1.7671	0.4992	0.0507	0.5499	7.337155	7.337155	7.348498	6	0.4337		7.348498
Worker																	
	2.9045	1.8944	26.0575	0.0771	7.7573	0.0574	7.8147	2.0573	0.0329	2.1101	7.681874	7.681874	7.687050	1	0.2071		7.687050
<b>Total</b>	<b>3.6569</b>	<b>27.8474</b>	<b>32.3593</b>	<b>0.1457</b>	<b>9.4914</b>	<b>0.1104</b>	<b>9.6017</b>	<b>2.5565</b>	<b>0.1036</b>	<b>2.6600</b>	<b>15.01902</b>	<b>15.01902</b>	<b>15.02594</b>	<b>96</b>	<b>0.6408</b>		<b>15.02594</b>

**Mitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic	NO2	CO2	Total CO2	CH4	N2O	CO2e
Off-Road																	
	1.9009	17.4321	16.5752	0.0289		0.9395	0.9585		0.9013	0.9013	0.0000	2.553363	2.553363	9	0.6160		2.558764
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0289</b>		<b>0.9395</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>	<b>0.0000</b>	<b>2.553363</b>	<b>2.553363</b>	<b>9</b>	<b>0.6160</b>		<b>2.558764</b>

9309 Sycamore Hills Distribution Center - Trucks - South Coast Air Basin, Summer

3.4 Building Construction - 2021

Mitigated Construction Off-Site

Category	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	OH4	N2O	CO2e
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	0.7624	25.9629	6.3017	0.0686	1.7341	0.0530	1.7871	0.4992	0.0507	0.5499		7.337156	7.337155	0.4537		7.349498
Worker	2.9045	1.8944	26.0575	0.0771	7.7573	0.0574	7.8147	2.0573	0.0529	2.1101		7.981874	7.981874	0.2071		7.987050
<b>Total</b>	<b>3.6669</b>	<b>27.8474</b>	<b>32.3593</b>	<b>0.1457</b>	<b>9.4914</b>	<b>0.1104</b>	<b>9.6017</b>	<b>2.5565</b>	<b>0.1036</b>	<b>2.6600</b>		<b>15.01902</b>	<b>15.01902</b>	<b>0.6608</b>		<b>15.00554</b>
												<b>96</b>	<b>96</b>			<b>86</b>

3.4 Building Construction - 2022

Unmitigated Construction On-Site

Category	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	OH4	N2O	CO2e
lb/day																
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2.564333	2.564333	0.6120		2.569532
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>		<b>2.564333</b>	<b>2.564333</b>	<b>0.6120</b>		<b>2.569532</b>
												<b>6</b>	<b>6</b>			<b>2</b>

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**3.4 Building Construction - 2022  
Unmitigated Construction Off-Site**

Category	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
bidday																
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	0.7155	24.6511	5.9696	0.0679	1.7341	0.0451	1.7802	0.4952	0.0441	0.5433		7.272.833	7.272.833	0.4381		7.283.786
Worker	2.7248	1.7114	24.0959	0.0743	7.7573	0.0558	7.8131	2.0573	0.0514	2.1088		7.406.806	7.406.806	0.1872		7.411.485
<b>Total</b>	<b>3.4402</b>	<b>26.3626</b>	<b>30.0655</b>	<b>0.1422</b>	<b>9.4913</b>	<b>0.1019</b>	<b>9.5932</b>	<b>2.5565</b>	<b>0.0955</b>	<b>2.6519</b>		<b>14,679.63</b>	<b>14,679.63</b>	<b>0.6253</b>		<b>14,695.27</b>
94																

**Mitigated Construction On-Site**

Category	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
bidday																
Off-Road	1.7052	15.9159	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2.554.333	2.554.333	0.5120		2.569.832
<b>Total</b>	<b>1.7052</b>	<b>15.9159</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>	<b>0.0000</b>	<b>2,554.333</b>	<b>2,554.333</b>	<b>0.5120</b>		<b>2,569.832</b>
6																

9309 Sycamore Hills Distribution Center - Trucks - South Coast Air Basin, Summer

3.4 Building Construction - 2022

Mitigated Construction Off-Site

Category	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
bidday																
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
Vendor	0.7155	24.6511	5.9696	0.0679	1.7341	0.0461	1.7802	0.4982	0.0441	0.5423		7.272.833	7.272.833	0.4381		7.283.786
Worker	2.7248	1.7114	24.0599	0.0743	7.7573	0.0558	7.8131	2.0573	0.0514	2.1088		2	7.405.806	7.405.806	0.1872	7.411.485
<b>Total</b>	<b>3.4402</b>	<b>26.3626</b>	<b>30.0335</b>	<b>0.1422</b>	<b>9.4913</b>	<b>0.1019</b>	<b>9.5932</b>	<b>2.5556</b>	<b>0.0955</b>	<b>2.6519</b>		<b>14,679.63</b>	<b>14,679.63</b>	<b>0.6253</b>		<b>14,695.27</b>
												<b>94</b>	<b>94</b>			<b>19</b>

3.5 Paving - 2022  
Unmitigated Construction On-Site

Category	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
bidday																
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.660	2,207.660	0.7140		2,225.510
Paving	3.7266					0.0000	0.0000		0.0000	0.0000		3	0.0000			0.0000
<b>Total</b>	<b>4.8294</b>	<b>11.1249</b>	<b>14.5805</b>	<b>0.0228</b>		<b>0.5679</b>	<b>0.5679</b>		<b>0.5225</b>	<b>0.5225</b>		<b>2,207.660</b>	<b>2,207.660</b>	<b>0.7140</b>		<b>2,225.510</b>
												<b>3</b>	<b>3</b>			<b>4</b>

9309 Sycamore Hills Distribution Center - Trucks - South Coast Air Basin, Summer

3.5 Paving - 2022

Unmitigated Construction Off-Site

Category	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	So-CO2	NRB-CO2	Total CO2	CH4	N2O	CO2e
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
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
Worker	0.0589	0.0370	0.5208	1.6100e-003	0.1677	1.2100e-003	0.1689	0.0445	1.1100e-003	0.0456	160.0895	160.0895	160.0895	4.0500e-003		160.1905
<b>Total</b>	<b>0.0589</b>	<b>0.0370</b>	<b>0.5208</b>	<b>1.6100e-003</b>	<b>0.1677</b>	<b>1.2100e-003</b>	<b>0.1689</b>	<b>0.0445</b>	<b>1.1100e-003</b>	<b>0.0456</b>		<b>160.0895</b>	<b>160.0895</b>	<b>4.0500e-003</b>		<b>160.1905</b>

Mitigated Construction On-Site

Category	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	So-CO2	NRB-CO2	Total CO2	CH4	N2O	CO2e
Off-Road	1.1028	11.1249	14.5905	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2.207660	2.207660	0.7140		2.25510
Paving	3.7266					0.0000	0.0000		0.0000	0.0000	0.0000		0.0000			0.0000
<b>Total</b>	<b>4.8294</b>	<b>11.1249</b>	<b>14.5905</b>	<b>0.0228</b>		<b>0.5679</b>	<b>0.5679</b>		<b>0.5225</b>	<b>0.5225</b>	<b>0.0000</b>	<b>2.207660</b>	<b>2.207660</b>	<b>0.7140</b>		<b>2.25510</b>

9309 Sycamore Hills Distribution Center - Trucks - South Coast Air Basin, Summer

3.5 Paving - 2022

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	Non-Biogenic CO2	Total CO2	CH4	N2O	CO2e
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	0.0589	0.0370	0.5208	1.6100e-003	0.1677	1.2100e-003	0.1689	0.0445	1.1100e-003	0.0456		190.0895	190.0895	4.0500e-003		160.1906
<b>Total</b>	<b>0.0589</b>	<b>0.0370</b>	<b>0.5208</b>	<b>1.6100e-003</b>	<b>0.1677</b>	<b>1.2100e-003</b>	<b>0.1689</b>	<b>0.0445</b>	<b>1.1100e-003</b>	<b>0.0456</b>		<b>190.0895</b>	<b>190.0895</b>	<b>4.0500e-003</b>		<b>160.1906</b>

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	Non-Biogenic CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Archit Coating	346.0974					0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000
Off-road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>346.3019</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>

9309 Sycamore Hills Distribution Center - Trucks - South Coast Air Basin, Summer

**3.6 Architectural Coating - 2022**

**Unmitigated Construction Off-Site**

Category	lb/day											lb/day				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	BO-CO2	NBO-CO2	Total CO2	CH4	N2O	CO2e
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
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
Worker	0.5457	0.3428	4.8263	0.0149	1.5537	0.0112	1.5649	0.4121	0.0103	0.4223		1,483,495 <sup>8</sup>	1,483,495 <sup>8</sup>	0.0575		1,484,433 <sup>0</sup>
<b>TOTAL</b>	<b>0.5457</b>	<b>0.3428</b>	<b>4.8263</b>	<b>0.0149</b>	<b>1.5537</b>	<b>0.0112</b>	<b>1.5649</b>	<b>0.4121</b>	<b>0.0103</b>	<b>0.4223</b>		<b>1,483,495<sup>8</sup></b>	<b>1,483,495<sup>8</sup></b>	<b>0.0575</b>		<b>1,484,433<sup>0</sup></b>

**Mitigated Construction On-Site**

Category	lb/day											lb/day				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	BO-CO2	NBO-CO2	Total CO2	CH4	N2O	CO2e
Archic Coating	346,057.4					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
On-Road	0.2045	1.4085	1.8136	2.9700e-03	0.0817	0.0817	0.0817	0.0817	0.0817	0.0817	0.0000	281,448.1	281,448.1	0.0183		281,506.2
<b>TOTAL</b>	<b>346,301.9</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-03</b>	<b>0.0817</b>	<b>0.0817</b>	<b>0.0817</b>	<b>0.0817</b>	<b>0.0817</b>	<b>0.0817</b>	<b>0.0000</b>	<b>281,448.1</b>	<b>281,448.1</b>	<b>0.0183</b>		<b>281,506.2</b>

9309 Sycamore Hills Distribution Center - Trucks - South Coast Air Basin, Summer

3.6 Architectural Coating - 2022

Mitigated Construction Off-Site

Category	lb/day											lb/day				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
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
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
Worker	0.5457	0.3428	4.8263	0.0149	1.5537	0.0112	1.5649	0.4121	0.0103	0.4223	1,483,495 <sup>8</sup>	1,483,495 <sup>8</sup>	1,483,495 <sup>8</sup>	0.0375		1,484,433 <sup>0</sup>
<b>Total</b>	<b>0.5457</b>	<b>0.3428</b>	<b>4.8263</b>	<b>0.0149</b>	<b>1.5537</b>	<b>0.0112</b>	<b>1.5649</b>	<b>0.4121</b>	<b>0.0103</b>	<b>0.4223</b>	<b>1,483,495<sup>8</sup></b>	<b>1,483,495<sup>8</sup></b>	<b>1,483,495<sup>8</sup></b>	<b>0.0375</b>		<b>1,484,433<sup>0</sup></b>

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile



9309 Sycamore Hills Distribution Center - Trucks - South Coast Air Basin, Summer

Category	1b/day										1b/day					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic	NOBiogenic	Total Biogenic	CH4	N2O	CO2e
Mingled	2.4590	56.3797	20.8658	0.2525	8.3096	0.2400	9.0496	2.5129	0.2295	2.7423		25.92898	26.92898	1.2837		26.96108
Unmingled	2.4590	56.3797	20.8658	0.2525	8.3096	0.2400	9.0496	2.5129	0.2295	2.7423		25.92898	26.92898	1.2837		26.96108
												98	98			23
												98	98			23
												98	98			23

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unrefrigerated Annual VMT	Refrigerated Annual VMT
	Weekday	Saturday	Sunday		
General Office Building	9.00	9.00	9.00	103,657	103,657
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	262.40	262.40	262.40	3,447,092	3,447,092
<b>Total</b>	<b>271.40</b>	<b>271.40</b>	<b>271.40</b>	<b>3,550,749</b>	<b>3,550,749</b>

4.3 Trip Type Information

Land Use	Miles						Trip %						Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diversified	Pass-by	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diversified	Pass-by
General Office Building	38.70	38.70	38.70	33.00	48.00	19.00	77	19	4						
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0						
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0						
Unrefrigerated Warehouse-No Rail	38.70	38.70	38.70	59.00	0.00	41.00	92	5	3						

4.4 Fleet Mix



9309 Sycamore Hills Distribution Center - Trucks - South Coast Air Basin, Summer

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.0000000	0.0000000	0.0000000	0.0000000	0.2100000	0.0000000	0.2900000	0.4200000	0.002087	0.001818	0.004803	0.000706	0.000896
Other Asphalt Surfaces	0.5521111	0.043066	0.201891	0.118512	0.015605	0.005963	0.021397	0.031253	0.002087	0.001818	0.004803	0.000706	0.000896
Parking Lot	0.5521111	0.043066	0.201891	0.118512	0.015605	0.005963	0.021397	0.031253	0.002087	0.001818	0.004803	0.000706	0.000896
Unrefrigerated Warehouse-No Rail	0.0000000	0.0000000	0.0000000	0.0000000	0.2100000	0.0000000	0.2900000	0.4200000	0.002087	0.001818	0.004803	0.000706	0.000896

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	1day															
	RO3	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	BO-CO2	NOB-CO2	Total CO2	CH4	N2O	CO2e
Natural Gas Mitigated	0.0370	0.3366	0.2827	2.0200e-003		0.0256	0.0256		0.0256	0.0256	403.8978	403.8978	403.8978	77.400e-003	7.4000e-003	406.2980
Natural Gas Unmitigated	0.0370	0.3366	0.2827	2.0200e-003		0.0256	0.0256		0.0256	0.0256	403.8978	403.8978	403.8978	77.400e-003	7.4000e-003	406.2980

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9309 Sycamore Hills Distribution Center - Trucks - South Coast Air Basin, Summer

**5.2 Energy by Land Use - Natural Gas  
Unmitigated**

Land Use	Natural Gas Use	CO	NOx	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	BO-CO2	NBO-CO2	Total CO2	CH4	N2O	CO2e
General Office Building	190.137	2.0500e-003	0.0185	0.0157	1.1000e-004	1.4200e-003	1.4200e-003	1.4200e-003	1.4200e-003	1.4200e-003		22.3691	22.3691	4.3000e-004	4.1000e-004	22.5020
Other Asphalt Surfaces	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
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
Unrepaired Warehouse-No Rail	3242.99	0.0350	0.3179	0.2671	1.9100e-003	0.0242	0.0242	0.0242	0.0242	0.0242		381.5288	381.5288	7.3100e-003	6.9900e-003	383.7950
<b>Total</b>		<b>0.0370</b>	<b>0.3366</b>	<b>0.2827</b>	<b>2.0200e-003</b>	<b>0.0256</b>	<b>0.0256</b>	<b>0.0256</b>	<b>0.0256</b>	<b>0.0256</b>		<b>403.8978</b>	<b>403.8978</b>	<b>7.7400e-003</b>	<b>7.4000e-003</b>	<b>406.2980</b>

9309 Sycamore Hills Distribution Center - Trucks - South Coast Air Basin, Summer

5.2 Energy by Land Use - Natural Gas  
Mitigated

Land Use	NAU/CA s Use	HOG	NOx	CO	SO2	lb/day						lb/day					
						Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NO <sub>2</sub> -CO <sub>2</sub>	NO <sub>x</sub> -CO <sub>2</sub> Total CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e	
General Office Building	0.190137	2.0500e-003	0.0186	0.0157	1.1000e-004	1.4200e-003	1.4200e-003	1.4200e-003	1.4200e-003	1.4200e-003	1.4200e-003	22.3991	22.3991	4.3000e-004	4.1000e-004	22.5020	
Other Asphalt Surfaces	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	0.0000	
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	0.0000	
Unrefrigerated Warehouse-No Rail	3.24299	0.0350	0.3179	0.2671	1.9100e-003	0.0242	0.0242	0.0242	0.0242	0.0242	0.0242	381.5288	381.5288	7.3100e-003	6.9900e-003	383.7960	
<b>Total</b>		<b>0.0870</b>	<b>0.3365</b>	<b>0.2827</b>	<b>2.0200e-003</b>	<b>0.0296</b>	<b>0.0296</b>	<b>0.0296</b>	<b>0.0296</b>	<b>0.0296</b>	<b>0.0296</b>	<b>403.8978</b>	<b>403.8978</b>	<b>7.7400e-003</b>	<b>7.4000e-003</b>	<b>406.2960</b>	

6.0 Area Detail

6.1 Mitigation Measures Area



9309 Sycamore Hills Distribution Center - Trucks - South Coast Air Basin, Summer

Category	RO3	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	90-CO2	90-CO2 Total	CH4	N2O	CO2e	
Mitigated	13.9324	5.9000e-004	0.0641	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1373	0.1373	3.6000e-004		0.1463
Unmitigated	13.9324	5.9000e-004	0.0641	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1373	0.1373	3.6000e-004		0.1463
Isday																

6.2 Area by SubCategory

Unmitigated

SubCategory	RO3	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	90-CO2	90-CO2 Total	CH4	N2O	CO2e
Architectural Coating	1.6120					0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Consumer Products	12.3145					0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Landscaping	5.9700e-003	5.9000e-004	0.0641	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1373	0.1373	3.6000e-004	0.1463
<b>Total</b>	<b>13.9324</b>	<b>5.9000e-004</b>	<b>0.0641</b>	<b>0.0000</b>		<b>2.3000e-004</b>	<b>2.3000e-004</b>		<b>2.3000e-004</b>	<b>2.3000e-004</b>		<b>0.1373</b>	<b>0.1373</b>	<b>3.6000e-004</b>	<b>0.1463</b>
Isday															

9309 Sycamore Hills Distribution Center - Trucks - South Coast Air Basin, Summer

6.2 Area by SubCategory

Mitigated

SubCategory	RO3	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	BO-CO2	NBO-CO2	Total CO2	CH4	N2O	CO2e
Architectural Coating	1.6120					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	12.3145					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.9700e-003	5.9000e-004	0.0641	0.0000	2.3000e-004	2.3000e-004	2.3000e-004	2.3000e-004	2.3000e-004	2.3000e-004		0.1373	0.1373			3.6000e-004
<b>Total</b>	<b>13.9324</b>	<b>5.9000e-004</b>	<b>0.0641</b>	<b>0.0000</b>	<b>2.3000e-004</b>	<b>2.3000e-004</b>	<b>2.3000e-004</b>	<b>2.3000e-004</b>	<b>2.3000e-004</b>	<b>2.3000e-004</b>		<b>0.1373</b>	<b>0.1373</b>			<b>3.6000e-004</b>

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



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9309 Sycamore Hills Distribution Center - Trucks - South Coast Air Basin, Summer

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

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

Equipment Type	Number
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**11.0 Vegetation**

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9309 Sycamore Hills Distribution Center - Trucks - South Coast Air Basin, Winter

**9309 Sycamore Hills Distribution Center - Trucks  
South Coast Air Basin, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	20,00	1000sqft	0.46	20,000.00	0
Unrefrigerated Warehouse-No Rail	583.10	1000sqft	15.54	583,100.00	0
Other Asphalt Surfaces	16.00	Acre	16.00	696,960.00	0
Parking Lot	8.18	Acre	8.18	356,320.80	0

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	10	Operational Year	2022		
Utility Company	Riverside Public Utilities				
CO2 Intensity (lbMWhr)	1325.65	CH4 Intensity (lbMWhr)	0.029	N2O Intensity (lbMWhr)	0.006

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

9309 Sycamore Hills Distribution Center - Trucks - South Coast Air Basin, Winter

Project Characteristics - See SWAPE comment regarding CO2, CH4, and N2O intensity factors.

Land Use - Consistent with the DEIR's model.

Construction Phase - Total construction length consistent with information provided in the DEIR, but phase lengths are proportionally altered.

Trips and VMT - See SWAPE comment regarding vendor and worker trip numbers.

Grading -

Architectural Coating - See SWAPE comment regarding architectural coating emission factors.

Vehicle Trips - Consistent with the DEIR's model.

Energy Use -

Water And Wastewater - See SWAPE comment regarding indoor water use rate.

Construction Off-road Equipment Mitigation - See SWAPE comment regarding the PM10 and PM2.5 % reductions.

Mobile Land Use Mitigation - See SWAPE comment regarding operational mitigation measures.

Fleet Mix - See SWAPE comment regarding operational vehicle fleet mix. Only trucks. Passenger cars reduced to 0; truck percentages proportionally altered based on CalEEMod defaults. See construction calculations.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	30.00	18.00
tblConstructionPhase	NumDays	75.00	46.00
tblConstructionPhase	NumDays	740.00	227.00
tblConstructionPhase	NumDays	55.00	17.00
tblConstructionPhase	NumDays	55.00	17.00
tblFleetMix	HHD	0.03	0.42
tblFleetMix	HHD	0.03	0.42
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.20	0.00
tblFleetMix	LDT2	0.20	0.00
tblFleetMix	LDT2	0.20	0.00

9309 Sycamore Hills Distribution Center - Trucks - South Coast Air Basin, Winter

\$VehicleTrips	LHD1	0.02	0.21
\$FleetMix	LHD1	0.02	0.21
\$VehicleTrips	LHD2	5.8630e-003	0.08
\$FleetMix	LHD2	5.8630e-003	0.08
\$VehicleTrips	MDV	0.12	0.00
\$FleetMix	MDV	0.12	0.00
\$VehicleTrips	MHD	0.02	0.29
\$FleetMix	MHD	0.02	0.29
\$VehicleTrips	MHD	0.02	0.29
\$FleetMix	MHD	0.02	0.29
\$VehicleTrips	Loadrange	13.39	15.54
\$FleetMix	Loadrange	13.39	15.54
\$VehicleTrips	OC_TL	8.40	38.70
\$FleetMix	OC_TL	8.40	38.70
\$VehicleTrips	OC_TL	8.40	38.70
\$FleetMix	OC_TL	8.40	38.70
\$VehicleTrips	CNW_TL	6.90	38.70
\$FleetMix	CNW_TL	6.90	38.70
\$VehicleTrips	CNW_TL	6.90	38.70
\$FleetMix	CNW_TL	6.90	38.70
\$VehicleTrips	CW_TL	16.60	38.70
\$FleetMix	CW_TL	16.60	38.70
\$VehicleTrips	CW_TL	16.60	38.70
\$FleetMix	CW_TL	16.60	38.70
\$VehicleTrips	ST_TR	2.45	0.45
\$FleetMix	ST_TR	2.45	0.45
\$VehicleTrips	ST_TR	1.68	0.45
\$FleetMix	ST_TR	1.68	0.45
\$VehicleTrips	SU_TR	1.05	0.45
\$FleetMix	SU_TR	1.05	0.45
\$VehicleTrips	SU_TR	1.68	0.45
\$FleetMix	SU_TR	1.68	0.45
\$VehicleTrips	WD_TR	11.03	0.45
\$FleetMix	WD_TR	11.03	0.45
\$VehicleTrips	WD_TR	1.68	0.45
\$FleetMix	WD_TR	1.68	0.45

2.0 Emissions Summary

9309 Sycamore Hills Distribution Center - Trucks - South Coast Air Basin, Winter

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

Year	lb/day											lb/day					
	RO3	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bi-CO2	NBi-CO2	Total CO2	CH4	N2O	CO2e	
2021	5,9025	46,4598	47,1669	0.1659	18,2675	2,0460	20,3134	9,9840	1,8823	11,8663	0.0000	16,89556	16,89556	1,9484	0.0000	16,92792	
2022	346,9048	42,0701	44,7715	0.1827	9,4913	0.9124	10,4037	2,5965	0.8980	3,4145	0.0000	16,57482	16,57482	1,2548	0.0000	16,60619	
Maximum	346,9048	46,4598	47,1669	0.1659	18,2675	2,0460	20,3134	9,9840	1,8823	11,8663	0.0000	16,89556	16,89556	1,9484	0.0000	16,92792	

**Mitigated Construction**

Year	lb/day											lb/day					
	RO3	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bi-CO2	NBi-CO2	Total CO2	CH4	N2O	CO2e	
2021	5,9025	46,4598	47,1669	0.1659	18,2675	2,0460	20,3134	9,9840	1,8823	11,8663	0.0000	16,89556	16,89556	1,9484	0.0000	16,92792	
2022	346,9048	42,0701	44,7715	0.1827	9,4913	0.9124	10,4037	2,5965	0.8980	3,4145	0.0000	16,57482	16,57482	1,2548	0.0000	16,60619	
Maximum	346,9048	46,4598	47,1669	0.1659	18,2675	2,0460	20,3134	9,9840	1,8823	11,8663	0.0000	16,89556	16,89556	1,9484	0.0000	16,92792	
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	

9309 Sycamore Hills Distribution Center - Trucks - South Coast Air Basin, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

Category	RO3	NOX	CO	SO2	lb/day					lb/day						
					Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	BO-CO2	NBO-CO2	Total CO2	CH4	N2O	CO2e
Area	13.9324	5.9000e-004	0.0541	0.0000	2.3000e-004	2.3000e-004	2.3000e-004	2.3000e-004	2.3000e-004	2.3000e-004	0.1373	0.1373	3.9000e-004			0.1463
Energy	0.0370	0.3366	0.2827	2.0200e-003	0.0256	0.0256	0.0256	0.0256	0.0256	0.0256	403.8978	403.8978	7.7400e-003	7.4000e-003	406.2980	
Mobile	2.4802	5.74288	21.3241	0.2510	8.3036	0.2413	9.0508	2.5129	0.2307	2.7435	26.752.95	26.752.95	1.3075			26.755.94
<b>Total</b>	<b>18.4596</b>	<b>58.1638</b>	<b>21.6709</b>	<b>0.2330</b>	<b>8.3036</b>	<b>0.2671</b>	<b>9.0756</b>	<b>2.5129</b>	<b>0.2365</b>	<b>2.7833</b>	<b>27,166.98</b>	<b>27,166.98</b>	<b>1.3156</b>	<b>7.4000e-003</b>	<b>27,202.08</b>	<b>55</b>

**Mitigated Operational**

Category	RO3	NOX	CO	SO2	lb/day					lb/day						
					Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	BO-CO2	NBO-CO2	Total CO2	CH4	N2O	CO2e
Area	13.9324	5.9000e-004	0.0541	0.0000	2.3000e-004	2.3000e-004	2.3000e-004	2.3000e-004	2.3000e-004	2.3000e-004	0.1373	0.1373	3.9000e-004			0.1463
Energy	0.0370	0.3366	0.2827	2.0200e-003	0.0256	0.0256	0.0256	0.0256	0.0256	0.0256	403.8978	403.8978	7.7400e-003	7.4000e-003	406.2980	
Mobile	2.4802	5.74288	21.3241	0.2510	8.3036	0.2413	9.0508	2.5129	0.2307	2.7435	26.752.95	26.752.95	1.3075			26.755.94
<b>Total</b>	<b>18.4596</b>	<b>58.1638</b>	<b>21.6709</b>	<b>0.2330</b>	<b>8.3036</b>	<b>0.2671</b>	<b>9.0756</b>	<b>2.5129</b>	<b>0.2365</b>	<b>2.7833</b>	<b>27,166.98</b>	<b>27,166.98</b>	<b>1.3156</b>	<b>7.4000e-003</b>	<b>27,202.08</b>	<b>55</b>

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Percent Reduction	NO <sub>x</sub>	NO <sub>x</sub>	CO	SO <sub>2</sub>	Fugitive PM <sub>10</sub>	Exhaust PM <sub>10</sub>	PM <sub>10</sub> Total	Fugitive PM <sub>2.5</sub>	Exhaust PM <sub>2.5</sub>	PM <sub>2.5</sub> Total	Biogenic CO <sub>2</sub>	Biogenic CO <sub>2</sub> Total	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2e</sub>
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	Site Preparation	Site Preparation	4/1/2021	4/26/2021	5	18	
2	Grading	Grading	4/27/2021	6/29/2021	5	46	
3	Building Construction	Building Construction	6/30/2021	5/12/2022	5	227	
4	Paving	Paving	5/13/2022	6/6/2022	5	17	
5	Architectural Coating	Architectural Coating	6/7/2022	6/29/2022	5	17	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 11.5

Acres of Paving: 24.18

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 904,650; Non-Residential Outdoor: 301,550; Striped Parking Area: 63,197 (Architectural Coating – sqft)

#### OffRoad Equipment

9309 Sycamore Hills Distribution Center - Trucks - South Coast Air Basin, Winter

Phase Name	Offroad Equipment Count	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	7	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	8	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	9	Excavators	2	8.00	158	0.38
Grading	6	Graders	1	8.00	187	0.41
Grading	159.00	Rubber Tired Dozers	1	8.00	247	0.40
Grading	15.00	Scrapers	2	8.00	367	0.48
Grading	139.00	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	1	Cranes	1	7.00	231	0.29
Building Construction	1	Forklifts	3	8.00	89	0.20
Building Construction	1	Generator Sets	1	8.00	84	0.74
Building Construction	3	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	1	Welders	1	8.00	46	0.45
Paving	2	Pavers	2	8.00	130	0.42
Paving	2	Paving Equipment	2	8.00	132	0.36
Paving	2	Rollers	2	8.00	80	0.38
Architectural Coating	1	Air Compressors	1	6.00	79	0.48

**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
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	694.00	271.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	139.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

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**3.1 Mitigation Measures Construction**

Water Exposed Area

**3.2 Site Preparation - 2021**

**Unmitigated Construction On-Site**

Category	lb/day											lb/day				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bt-CO2	NBr-CO2	Total CO2	CH4	N2O	CO2e
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
On-Road	3.8882	40.4971	21.1543	0.0390		2.0445	2.0445		1.8309	1.8309		3.685656 <sup>9</sup>	3.685656 <sup>9</sup>	1.1920		3.715457 <sup>3</sup>
<b>Total</b>	<b>3.8882</b>	<b>40.4971</b>	<b>21.1543</b>	<b>0.0390</b>	<b>18.0663</b>	<b>2.0445</b>	<b>20.1107</b>	<b>9.9307</b>	<b>1.8309</b>	<b>11.8116</b>		<b>3.685656<sup>9</sup></b>	<b>3.685656<sup>9</sup></b>	<b>1.1920</b>		<b>3.715457<sup>3</sup></b>

9309 Sycamore Hills Distribution Center - Trucks - South Coast Air Basin, Winter

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	90-CO2	N90-CO2	Total CO2	CH4	N2O	CO2e
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	0.0830	0.0540	0.5118	1.8800e-003	0.2012	1.4910e-003	0.2027	0.0534	1.3700e-003	0.0547		186.9672	186.8672	5.0300e-003		186.9829
<b>Total</b>	<b>0.0830</b>	<b>0.0540</b>	<b>0.5118</b>	<b>1.8800e-003</b>	<b>0.2012</b>	<b>1.4910e-003</b>	<b>0.2027</b>	<b>0.0534</b>	<b>1.3700e-003</b>	<b>0.0547</b>		<b>186.9672</b>	<b>186.8672</b>	<b>5.0300e-003</b>		<b>186.9929</b>

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	90-CO2	N90-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Fugitive Dust					18.0663	0.0000	18.0663	9.5307	0.0000	9.5307		0.0000	0.0000			0.0000
Off-Road	3.8892	4.04971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3.685656	3.685656	1.1920		3.715457
<b>Total</b>	<b>3.8892</b>	<b>4.04971</b>	<b>21.1543</b>	<b>0.0380</b>	<b>18.0663</b>	<b>2.0445</b>	<b>20.1107</b>	<b>9.5307</b>	<b>1.8809</b>	<b>11.8116</b>	<b>0.0000</b>	<b>3.685656</b>	<b>3.685656</b>	<b>1.1920</b>		<b>3.715457</b>

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**3.2 Site Preparation - 2021**

**Mitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bo-CO2	NBo-CO2	Total CO2	CH4	N2O	CO2e
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	0.0830	0.0540	0.6118	1.8800e-003	0.2012	1.4900e-003	0.2027	0.0534	1.3700e-003	0.0547		186.8672	186.8672	5.0300e-003		186.9929
<b>Total</b>	<b>0.0830</b>	<b>0.0540</b>	<b>0.6118</b>	<b>1.8800e-003</b>	<b>0.2012</b>	<b>1.4900e-003</b>	<b>0.2027</b>	<b>0.0534</b>	<b>1.3700e-003</b>	<b>0.0547</b>		<b>186.8672</b>	<b>186.8672</b>	<b>5.0300e-003</b>		<b>186.9929</b>

**3.3 Grading - 2021**

**Unmitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bo-CO2	NBo-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965		0.0000				0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6.007043	6.007043	1.9428		6.056.613
<b>Total</b>	<b>4.1912</b>	<b>46.3998</b>	<b>30.8785</b>	<b>0.0620</b>	<b>8.6733</b>	<b>1.9853</b>	<b>10.6587</b>	<b>3.5965</b>	<b>1.8265</b>	<b>5.4230</b>		<b>6.007043</b>	<b>6.007043</b>	<b>1.9428</b>		<b>6.056.613</b>

9309 Sycamore Hills Distribution Center - Trucks - South Coast Air Basin, Winter

3.3 Grading - 2021

Unmitigated Construction Off-Site

Category	ROG	NOK	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bi-CO2	NBi-CO2	Total CO2	CH4	N2O	CO2e
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	0.0922	0.0500	0.6797	2.0800e-003	0.2236	1.6600e-003	0.2252	0.0583	1.5200e-003	0.0608		207.6302	207.6302	5.5800e-003		207.7668
<b>Total</b>	<b>0.0922</b>	<b>0.0500</b>	<b>0.6797</b>	<b>2.0800e-003</b>	<b>0.2236</b>	<b>1.6600e-003</b>	<b>0.2252</b>	<b>0.0583</b>	<b>1.5200e-003</b>	<b>0.0608</b>		<b>207.6302</b>	<b>207.6302</b>	<b>5.5800e-003</b>		<b>207.7668</b>

Mitigated Construction On-Site

Category	ROG	NOK	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bi-CO2	NBi-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Fugitive Dust					8.6733	0.0000	8.6733	3.5955	0.0000	3.5955			0.0000			0.0000
On-Site	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6.0070e-04	6.0070e-04			1.9428
<b>Total</b>	<b>4.1912</b>	<b>46.3998</b>	<b>30.8785</b>	<b>0.0620</b>	<b>8.6733</b>	<b>1.9853</b>	<b>10.6687</b>	<b>3.5955</b>	<b>1.8265</b>	<b>5.4230</b>	<b>0.0000</b>	<b>6.0070e-04</b>	<b>6.0070e-04</b>			<b>1.9428</b>

9309 Sycamore Hills Distribution Center - Trucks - South Coast Air Basin, Winter

3.3 Grading - 2021

Mitigated Construction Off-Site

Category	ROG	NOK	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic	NO <sub>x</sub>	CO <sub>2e</sub>
bidday													
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
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
Worker	0.0922	0.0930	0.6797	2.0800e-003	0.2236	1.6500e-003	0.2252	0.0593	1.5200e-003	0.0608	207.6302	207.6302	5.5900e-003
<b>Total</b>	<b>0.0922</b>	<b>0.0930</b>	<b>0.6797</b>	<b>2.0800e-003</b>	<b>0.2236</b>	<b>1.6500e-003</b>	<b>0.2252</b>	<b>0.0593</b>	<b>1.5200e-003</b>	<b>0.0608</b>	<b>207.6302</b>	<b>207.6302</b>	<b>5.5900e-003</b>

3.4 Building Construction - 2021  
Unmitigated Construction On-Site

Category	ROG	NOK	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic	NO <sub>x</sub>	CO <sub>2e</sub>
bidday													
Off-Road	1.9009	17.4321	16.5752	0.0289		0.9386	0.9386		0.9013	0.9013	2.553363	2.553363	2.568794
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0289</b>		<b>0.9386</b>	<b>0.9386</b>		<b>0.9013</b>	<b>0.9013</b>	<b>2.553363</b>	<b>2.553363</b>	<b>2.568794</b>

9309 Sycamore Hills Distribution Center - Trucks - South Coast Air Basin, Winter

**3.4 Building Construction - 2021**  
**Unmitigated Construction Off-Site**

Category	lb/day											lb/day				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	Non-Biogenic CO2	Total CO2	CH4	N2O	CO2e
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
Vendor	0.8010	25.8918	7.0050	0.0967	1.7341	0.0547	1.7887	0.4932	0.0323	0.5215		7.137429	7.137429	0.4949		7149.591
Worker	3.2005	2.0305	23.5867	0.0723	7.7573	0.0574	7.8147	2.0573	0.0329	2.1101		7.204769	7.204769	0.1308		7209.613
<b>Total</b>	<b>4.0015</b>	<b>27.9723</b>	<b>30.5917</b>	<b>0.1390</b>	<b>9.4914</b>	<b>0.1121</b>	<b>9.6034</b>	<b>2.5565</b>	<b>0.1051</b>	<b>2.6616</b>		<b>14.34219</b>	<b>14.34219</b>	<b>0.6787</b>		<b>14,359.16</b>

**Mitigated Construction On-Site**

Category	lb/day											lb/day				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	Non-Biogenic CO2	Total CO2	CH4	N2O	CO2e
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9596	0.9596		0.9013	0.9013	0.0000	2.553363	2.553363	0.6160		2,568.764
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9596</b>	<b>0.9596</b>		<b>0.9013</b>	<b>0.9013</b>	<b>0.0000</b>	<b>2,553.363</b>	<b>2,553.363</b>	<b>0.6160</b>		<b>2,568.764</b>

9309 Sycamore Hills Distribution Center - Trucks - South Coast Air Basin, Winter

**3.4 Building Construction - 2021**  
**Mitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	PM10		PM2.5		Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
					Fugitive	Exhaust	Fugitive	Exhaust						
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	0.9010	25.9918	7.0050	0.0987	1.7341	0.0947	1.7887	0.4892	0.0233	0.5515	7.137429	7.137429	0.4849	7149.551
Worker	3.2005	2.0805	23.5967	0.0723	7.7573	0.0574	7.8147	2.0573	0.0229	2.1101	7.204769	7.204769	0.1938	7209.613
<b>Total</b>	<b>4.0015</b>	<b>27.9723</b>	<b>30.5917</b>	<b>0.1980</b>	<b>9.4914</b>	<b>0.1121</b>	<b>9.6034</b>	<b>2.5565</b>	<b>0.1051</b>	<b>2.6616</b>	<b>14.34219</b>	<b>14.34219</b>	<b>0.6787</b>	<b>14,350.16</b>

**3.4 Building Construction - 2022**  
**Unmitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	PM10		PM2.5		Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
					Fugitive	Exhaust	Fugitive	Exhaust						
lb/day														
Off-Road	1.7062	15.6156	16.3634	0.0289	0.8090	0.8090	0.8090	0.8090	2.554333	2.554333	2.554333	0.6120	2	2,569.632
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0289</b>	<b>0.8090</b>	<b>0.8090</b>	<b>0.8090</b>	<b>0.8090</b>	<b>2.554333</b>	<b>2.554333</b>	<b>2.554333</b>	<b>0.6120</b>	<b>2</b>	<b>2,569.632</b>

9309 Sycamore Hills Distribution Center - Trucks - South Coast Air Basin, Winter

**3.4 Building Construction - 2022  
Unmitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	90-CO2	N90-CO2	Total CO2	CH4	N2O	CO2e
[b]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	0.7519	24.5754	6.6347	0.0661	1.7341	0.0476	1.7817	0.4892	0.0485	0.5447		7.073,699	7,073,699	0.4679		7,089,395
Worker	3.0102	18.791	21.7734	0.0697	7.7573	0.0558	7.8131	2.0573	0.0514	2.1086		6,946,793	6,946,793	0.1750		6,951,188
<b>Total</b>	<b>3.7621</b>	<b>26.4544</b>	<b>28.4081</b>	<b>0.1358</b>	<b>9.4913</b>	<b>0.1034</b>	<b>9.5947</b>	<b>2.5665</b>	<b>0.0999</b>	<b>2.6633</b>		<b>14,020,492</b>	<b>14,020,492</b>	<b>0.6429</b>		<b>14,026,564</b>

**Mitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	90-CO2	N90-CO2	Total CO2	CH4	N2O	CO2e
[b]day																
Off-Road	1.7092	15.8156	18.3834	0.0259		0.8090	0.8090		0.7812	0.7812		0.0000	2,554,333	2,554,333	0.6120	2,569,632
<b>Total</b>	<b>1.7092</b>	<b>15.8156</b>	<b>18.3834</b>	<b>0.0259</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7812</b>	<b>0.7812</b>		<b>0.0000</b>	<b>2,554,333</b>	<b>2,554,333</b>	<b>0.6120</b>	<b>2,569,632</b>



9309 Sycamore Hills Distribution Center - Trucks - South Coast Air Basin, Winter

3.4 Building Construction - 2022

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	90-CO2	NBD-CO2	Total CO2	CH4	N2O	CO2e
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		0.0000
Vendor	0.7519	24.5794	6.6347	0.0661	1.7341	0.0476	1.7817	0.4992	0.0455	0.5447		7,073.699	7,073.699	0.4679		7,088.396
Worker	3.0102	14,791	21,773.4	0.0697	7.7573	0.0558	7.8131	2.0573	0.0514	2.1088		6,946.793	6,946.793	0.1750		6,951.168
<b>Total</b>	<b>3.7621</b>	<b>28,454</b>	<b>28,408.1</b>	<b>0.1358</b>	<b>9.4913</b>	<b>0.1034</b>	<b>9.5947</b>	<b>2.5566</b>	<b>0.0969</b>	<b>2.6533</b>		<b>14,020.49</b>	<b>14,020.49</b>	<b>0.6429</b>		<b>14,026.56</b>
lb/day																

3.5 Paving - 2022

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	90-CO2	NBD-CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Off-Road	1.1028	11.1249	14.5905	0.0228		0.5579	0.5579		0.5225	0.5225		2,207.660	2,207.660	0.7140		2,226.510
Paving	3.7266					0.0000	0.0000		0.0000	0.0000		3	3			4
<b>Total</b>	<b>4.8294</b>	<b>11.1249</b>	<b>14.5905</b>	<b>0.0228</b>		<b>0.5579</b>	<b>0.5579</b>		<b>0.5225</b>	<b>0.5225</b>		<b>2,207.660</b>	<b>2,207.660</b>	<b>0.7140</b>		<b>2,226.510</b>
lb/day																

9309 Sycamore Hills Distribution Center - Trucks - South Coast Air Basin, Winter

3.5 Paving - 2022

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	So-CO2	NBio-CO2	Total CO2	OH4	N2O	CO2e
Bidday																
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
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
Worker	0.0651	0.0406	0.4706	1.5100e-003	0.1677	1.2100e-003	0.1689	0.0445	1.1100e-003	0.0456		150.1468	150.1468	3.7600e-003		150.2414
<b>Total</b>	<b>0.0651</b>	<b>0.0406</b>	<b>0.4706</b>	<b>1.5100e-003</b>	<b>0.1677</b>	<b>1.2100e-003</b>	<b>0.1689</b>	<b>0.0445</b>	<b>1.1100e-003</b>	<b>0.0456</b>		<b>150.1468</b>	<b>150.1468</b>	<b>3.7600e-003</b>		<b>150.2414</b>

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	So-CO2	NBio-CO2	Total CO2	OH4	N2O	CO2e
Bidday																
Off-Road	1.1028	11.1249	14.5905	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2.207660	2.207660	0.7140		2.226510
Paving	3.7266					0.0000	0.0000		0.0000	0.0000	0.0000	3	0.0000			0.0000
<b>Total</b>	<b>4.8294</b>	<b>11.1249</b>	<b>14.5905</b>	<b>0.0228</b>		<b>0.5679</b>	<b>0.5679</b>		<b>0.5225</b>	<b>0.5225</b>	<b>0.0000</b>	<b>2.207660</b>	<b>2.207660</b>	<b>0.7140</b>		<b>2.226510</b>

9309 Sycamore Hills Distribution Center - Trucks - South Coast Air Basin, Winter

3.5 Paving - 2022

Mitigated Construction Off-Site

Category	10day										10day					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bi- CO2	NBO- CO2	Total CO2	CH4	N2O	CO2e
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	0.0651	0.0406	0.4706	1.5100e-003	0.1677	1.2100e-003	0.1689	0.0445	1.1100e-003	0.0456	150.1468	150.1468	150.1468	3.7800e-003		150.2414
<b>Total</b>	<b>0.0651</b>	<b>0.0406</b>	<b>0.4706</b>	<b>1.5100e-003</b>	<b>0.1677</b>	<b>1.2100e-003</b>	<b>0.1689</b>	<b>0.0445</b>	<b>1.1100e-003</b>	<b>0.0456</b>	<b>150.1468</b>	<b>150.1468</b>	<b>150.1468</b>	<b>3.7800e-003</b>		<b>150.2414</b>

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

Category	10day										10day					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bi- CO2	NBO- CO2	Total CO2	CH4	N2O	CO2e
Archit. Coating	346.0574					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	281.4481	281.4481	281.4481	0.0183		281.5062
<b>Total</b>	<b>346.3019</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>	<b>281.4481</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.5062</b>

9309 Sycamore Hills Distribution Center - Trucks - South Coast Air Basin, Winter

3.6 Architectural Coating - 2022

Unmitigated Construction Off-Site

Category	ROG	NOK	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	Non-Biogenic CO2	Total CO2	CH4	N2O	CO2e
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	0.6028	0.3784	4.3610	0.0140	1.5537	0.0112	1.5649	0.4121	0.0103	0.4223		1,391,360 <sup>6</sup>	1,391,360 <sup>6</sup>	0.0351		1,392,237 <sup>0</sup>
<b>Total</b>	<b>0.6028</b>	<b>0.3784</b>	<b>4.3610</b>	<b>0.0140</b>	<b>1.5537</b>	<b>0.0112</b>	<b>1.5649</b>	<b>0.4121</b>	<b>0.0103</b>	<b>0.4223</b>		<b>1,391,360<sup>6</sup></b>	<b>1,391,360<sup>6</sup></b>	<b>0.0351</b>		<b>1,392,237<sup>0</sup></b>

Mitigated Construction On-Site

Category	ROG	NOK	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	Non-Biogenic CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Archit Coating	346.0974					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Site	0.2045	1.4085	1.8136	2.9700e-003	0.0817	0.0817	0.0817	0.0817	0.0817	0.0817	0.0000	281,4481	281,4481	0.0183		281,9062
<b>Total</b>	<b>346.3019</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>	<b>0.0817</b>	<b>0.0817</b>	<b>0.0817</b>	<b>0.0817</b>	<b>0.0817</b>	<b>0.0817</b>	<b>0.0000</b>	<b>281,4481</b>	<b>281,4481</b>	<b>0.0183</b>		<b>281,9062</b>



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**3.6 Architectural Coating - 2022**

**Mitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NO-NO2	NO2-NO2	Total NO2	OH4	N2O	CO2e
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	0.8029	0.3794	4.3910	0.0140	1.5537	0.0112	1.5649	0.4121	0.0103	0.4223	1.391390	0	1.391390	0.0351	0	1392.237
<b>TOTAL</b>	<b>0.8029</b>	<b>0.3794</b>	<b>4.3910</b>	<b>0.0140</b>	<b>1.5537</b>	<b>0.0112</b>	<b>1.5649</b>	<b>0.4121</b>	<b>0.0103</b>	<b>0.4223</b>	<b>1.391390</b>	<b>0</b>	<b>1.391390</b>	<b>0.0351</b>	<b>0</b>	<b>1392.237</b>

**4.0 Operational Detail - Mobile**

**4.1 Mitigation Measures Mobile**



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9309 Sycamore Hills Distribution Center - Trucks - South Coast Air Basin, Winter

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.0000000	0.0000000	0.0000000	0.0000000	0.2100000	0.0000000	0.2900000	0.4200000	0.002087	0.001818	0.004803	0.000708	0.000896
Other Asphalt Surfaces	0.5521111	0.0430066	0.201891	0.118512	0.015605	0.005963	0.021387	0.031253	0.002087	0.001818	0.004803	0.000708	0.000896
Parking Lot	0.5521111	0.0430066	0.201891	0.118512	0.015605	0.005963	0.021387	0.031253	0.002087	0.001818	0.004803	0.000708	0.000896
Unrefrigerated Warehouse-No Rail	0.0000000	0.0000000	0.0000000	0.0000000	0.2100000	0.0000000	0.2900000	0.4200000	0.002087	0.001818	0.004803	0.000708	0.000896

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	RO3	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bi-CO2	NBi-CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Natural Gas Mitigated	0.0070	0.3366	0.2827	2.0000e-003		0.0256	0.0256		0.0256	0.0256	403.8978	403.8978	403.8978	7.7400e-003	7.4000e-003	403.2980
Natural Gas Unmitigated	0.0070	0.3366	0.2827	2.0000e-003		0.0256	0.0256		0.0256	0.0256	403.8978	403.8978	403.8978	7.7400e-003	7.4000e-003	403.2980



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**5.2 Energy by Land Use - Natural Gas  
Unmitigated**

Land Use	Natural Gas Use	lb/day										B/day					
		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	B0-CO2	NB0-CO2	Total CO2	CH4	N2O	CO2e
General Office Building	190137	2.0500e-003	0.0186	0.0157	1.1000e-004	1.4200e-003	1.4200e-003	1.4200e-003	1.4200e-005	1.4200e-005	22.3591	22.3591	4.3000e-004	4.1000e-004	0.0000	0.0000	22.5020
Other Asphalt Surfaces	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	0.0000	0.0000
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	0.0000	0.0000
Unrefrigerated Warehouse-No Hail	3242.99	0.0350	0.3179	0.2671	1.9100e-003	0.0242	0.0242	0.0242	0.0242	0.0242	381.5288	381.5288	7.3100e-003	6.9600e-003	0.0000	0.0000	383.7950
<b>Total</b>		<b>0.0370</b>	<b>0.3365</b>	<b>0.2827</b>	<b>2.0200e-003</b>	<b>0.0246</b>	<b>0.0246</b>	<b>0.0246</b>	<b>0.0246</b>	<b>0.0246</b>	<b>403.8978</b>	<b>403.8978</b>	<b>7.7400e-003</b>	<b>7.4000e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>406.2980</b>

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**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

Land Use	NaturalGas s USE	RO3	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	So-CO2	NSO-CO2 Total CO2	CH4	N2O	CO2e
b/day																
General Offices Building	0.180137	2.0500e-003	0.0185	0.0157	1.1000e-004	1.4200e-003	1.4200e-003	1.4200e-003	1.4200e-003	1.4200e-003	1.4200e-003	22.3591	22.3591	4.3000e-004	4.1000e-004	22.5020
Other Asphalt Surfaces	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	0.0000
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	0.0000
Unrefrigerated Warehouses-No Fuel	3.24299	0.0350	0.3179	0.2571	1.9100e-003	0.0242	0.0242	0.0242	0.0242	0.0242	0.0242	381.5288	381.5288	7.3100e-003	6.9900e-003	383.7950
<b>Total</b>		<b>0.0370</b>	<b>0.3365</b>	<b>0.2627</b>	<b>2.0200e-003</b>	<b>0.0256</b>	<b>0.0256</b>	<b>0.0256</b>	<b>0.0256</b>	<b>0.0256</b>	<b>0.0256</b>	<b>403.8978</b>	<b>403.8978</b>	<b>7.7400e-003</b>	<b>7.4000e-003</b>	<b>405.2980</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**



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Category	ROG	NOK	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bi- CO2	NRB- CO2	Total CO2	CH4	N2O	CO2e
Mixed	13.9324	5.9000e-004	0.0641	0.0000	23000e-004	23000e-004	23000e-004	23000e-004	23000e-004	23000e-004		0.1373	0.1373	3.6000e-004		0.1463
Unmitigated	13.9324	5.9000e-004	0.0641	0.0000	23000e-004	23000e-004	23000e-004	23000e-004	23000e-004	23000e-004		0.1373	0.1373	3.6000e-004		0.1463

6.2 Area by SubCategory  
Unmitigated

SubCategory	ROG	NOK	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bi- CO2	NRB- CO2	Total CO2	CH4	N2O	CO2e
Architectural Coating	1.6120				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Consumer Products	12.3145				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Landscaping	5.9700e-003	5.9000e-004	0.0641	0.0000	23000e-004	23000e-004	23000e-004	23000e-004	23000e-004	23000e-004		0.1373	0.1373	3.6000e-004		0.1463
<b>Total</b>	<b>13.9324</b>	<b>5.9000e-004</b>	<b>0.0641</b>	<b>0.0000</b>	<b>23000e-004</b>	<b>23000e-004</b>	<b>23000e-004</b>	<b>23000e-004</b>	<b>23000e-004</b>	<b>23000e-004</b>		<b>0.1373</b>	<b>0.1373</b>	<b>3.6000e-004</b>		<b>0.1463</b>

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**6.2 Area by SubCategory**

**Mitigated**

SubCategory	NOx	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bi-CO2	NBo-CO2	Total CO2	CH4	N2O	CO2e
Architecture Coating	1.6120					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	12.3145					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.9700e-003	5.9000e-004	0.0641	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1373	0.1373	3.6000e-004		0.1463
<b>Total</b>	<b>13.9324</b>	<b>5.9000e-004</b>	<b>0.0641</b>	<b>0.0000</b>		<b>2.3000e-004</b>	<b>2.3000e-004</b>		<b>2.3000e-004</b>	<b>2.3000e-004</b>		<b>0.1373</b>	<b>0.1373</b>	<b>3.6000e-004</b>		<b>0.1463</b>

**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**



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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 C

Construction			
2021		Total	
Annual Emissions (tons/year)	0.1311	Total DPM (lbs)	253.2460274
Daily Emissions (lbs/day)	0.718356164	Total DPM (g)	114872.398
Construction Duration (days)	274	Total Construction Days	455
Total DPM (lbs)	196.829589	Emission Rate (g/s)	0.00292207
Total DPM (g)	89281.90159	Release Height (meters)	3
Start Date	4/1/2021	Initial Vertical Dimension (meters)	1.5
End Date	12/31/2021	Max Horizontal (meters)	505.0
Construction Days	274	Min Horizontal (meters)	98.0
2022		Total Acreage	12.22923452
Annual Emissions (tons/year)	0.0572	Setting	Urban
Daily Emissions (lbs/day)	0.313424658	Population	326,414
Construction Duration (days)	180	Start Date	4/1/2021
Total DPM (lbs)	56.41643836	End Date	6/30/2022
Total DPM (g)	25590.49644	Total Construction Days	455
Start Date	1/1/2022	Total Years of Operation	28.75
End Date	6/30/2022		
Construction Days	180		

Attachment D

Start date and time 07/19/21 19:06:33

AERSCREEN 16216

SycamoreHills\_Construction

SycamoreHills\_Construction

----- DATA ENTRY VALIDATION -----

	METRIC	ENGLISH
** AREADATA **	-----	-----
Emission Rate:	0.292E-02 g/s	0.232E-01 lb/hr
Area Height:	3.00 meters	9.84 feet
Area Source Length:	505.00 meters	1656.82 feet
Area Source Width:	98.00 meters	321.52 feet
Vertical Dimension:	1.50 meters	4.92 feet
Model Mode:	URBAN	
Population:	326414	
Dist to Ambient Air:	1.0 meters	3. feet

\*\* BUILDING DATA \*\*

No Building Downwash Parameters

\*\* TERRAIN DATA \*\*

No Terrain Elevations

Source Base Elevation: 0.0 meters 0.0 feet

Probe distance: 5000. meters 16404. feet

No flagpole receptors

No discrete receptors used

\*\* FUMIGATION DATA \*\*

No fumigation requested

\*\* METEOROLOGY DATA \*\*

Min/Max Temperature: 250.0 / 310.0 K -9.7 / 98.3 Deg F

Minimum Wind Speed: 0.5 m/s

Anemometer Height: 10.000 meters

Dominant Surface Profile: Urban

Dominant Climate Type: Average Moisture

Surface friction velocity (u\*): not adjusted

DEBUG OPTION ON

AERSCREEN output file:

SycamoreHills\_Construction.out

\*\*\* AERSCREEN Run is Ready to Begin

No terrain used, AERMAP will not be run

\*\*\*\*\*

SURFACE CHARACTERISTICS & MAKEMET

Obtaining surface characteristics...

Using AERMET seasonal surface characteristics for Urban with Average Moisture

Season	Albedo	Bo	zo
Winter	0.35	1.50	1.000
Spring	0.14	1.00	1.000
Summer	0.16	2.00	1.000
Autumn	0.18	2.00	1.000

Creating met files aerscreen\_01\_01.sfc & aerscreen\_01\_01.pfl

Creating met files aerscreen\_02\_01.sfc & aerscreen\_02\_01.pfl

Creating met files aerscreen\_03\_01.sfc & aerscreen\_03\_01.pfl

Creating met files aerscreen\_04\_01.sfc & aerscreen\_04\_01.pfl

Buildings and/or terrain present or rectangular area source, skipping probe

FLOWSECTOR started 07/19/21 19:08:06

\*\*\*\*\*

Running AERMOD

Processing Winter

Processing surface roughness sector 1

\*\*\*\*\*

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 0

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 5

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 10

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 15

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Running AERMOD

Processing Spring

Processing surface roughness sector 1

\*\*\*\*\*

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 0

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 5

```
***** WARNING MESSAGES *****  
*** NONE ***
```

\*\*\*\*\*

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 10

```
***** WARNING MESSAGES *****  
*** NONE ***
```

\*\*\*\*\*

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 15

```
***** WARNING MESSAGES *****  
*** NONE ***
```

\*\*\*\*\*

Running AERMOD

Processing Summer

Processing surface roughness sector 1

\*\*\*\*\*

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 0

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 5

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 10

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 15

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Running AERMOD

Processing Autumn

Processing surface roughness sector 1

\*\*\*\*\*

Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 0

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

\*\*\*\*\*

Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 5

```
***** WARNING MESSAGES *****  
*** NONE ***
```

\*\*\*\*\*

Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 10

```
***** WARNING MESSAGES *****  
*** NONE ***
```

\*\*\*\*\*

Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 15

```
***** WARNING MESSAGES *****  
*** NONE ***
```

FLOWSECTOR ended 07/19/21 19:08:34

REFINE started 07/19/21 19:08:34

AERMOD Finishes Successfully for REFINE stage 3 Winter sector 0

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*

\*\*\* NONE \*\*\*

REFINE ended 07/19/21 19:08:39

\*\*\*\*\*

AERSCREEN Finished Successfully

With no errors or warnings

Check log file for details

\*\*\*\*\*

Ending date and time 07/19/21 19:08:44

Concentration	Distance	Elevation	Diag	Season/Month	Zo sector	Date	H0	U*	W*	DT/DZ	ZICNV		
ZIMCH	M-O	LEN	ZO	BOWEN	ALBEDO	REF	WS	HT	REF	TA	HT		
0.20502E+01	1.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0							
0.21029E+01	25.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0							
0.21525E+01	50.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0							
0.21974E+01	75.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0							
0.22328E+01	100.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0							
0.22691E+01	125.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0							
0.23024E+01	150.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0							
0.23333E+01	175.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0							
0.23617E+01	200.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0							
0.23884E+01	225.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0							
0.24139E+01	250.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0							
* 0.24160E+01	253.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0							
0.18435E+01	275.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0							
0.14642E+01	300.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0							
0.12253E+01	325.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0							
0.10514E+01	350.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0							
0.88597E+00	375.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0							
0.79340E+00	400.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0							
0.71746E+00	425.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0							
0.65308E+00	450.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0							
0.59907E+00	475.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0							
0.55220E+00	500.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0							
0.51169E+00	525.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0							
0.47649E+00	550.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0							
0.44528E+00	575.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0							
0.41738E+00	600.00	0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0

file:///C:/Users/swinn/Downloads/SycamoreHills\_Construction\_max\_conc\_distance.txt[7/21/2021 9:17:26 AM]

1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.39246E+00			625.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0		
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.37017E+00			650.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0		
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.35012E+00			675.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0		
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.33181E+00			700.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0		
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.31507E+00			725.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0		
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.29981E+00			750.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0		
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.28584E+00			775.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0		
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.27302E+00			800.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0		
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.26120E+00			825.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0		
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.25028E+00			850.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0		
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.24017E+00			875.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0		
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.23071E+00			900.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0		
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.22183E+00			925.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0		
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.21355E+00			950.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0		
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.20580E+00			975.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0		
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.19851E+00			1000.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0		
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.19167E+00			1025.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0		
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.18524E+00			1050.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0		
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.17919E+00			1075.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0		
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.17347E+00			1100.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0		
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.16808E+00			1125.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0		
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.16298E+00			1150.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0		
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.15814E+00			1175.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0		
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.15356E+00			1200.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0		
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.14921E+00			1225.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0		
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.14507E+00			1250.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0		
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.14111E+00			1275.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0		

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1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.13733E+00		1300.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.13372E+00		1325.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.13027E+00		1350.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.12698E+00		1375.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.12383E+00		1400.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.12082E+00		1425.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.11793E+00		1450.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.11516E+00		1475.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.11251E+00		1500.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.10996E+00		1525.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.10751E+00		1550.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.10516E+00		1575.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.10289E+00		1600.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.10071E+00		1625.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.98610E-01		1650.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.96586E-01		1675.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.94633E-01		1700.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.92749E-01		1725.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.90930E-01		1750.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.89172E-01		1775.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.87474E-01		1800.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.85832E-01		1825.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.84243E-01		1850.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.82698E-01		1875.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.81201E-01		1900.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.79752E-01		1925.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.78347E-01		1950.00		0.00	0.0	Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.				6.0

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1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.51367E-01	2650.00	0.00	0.0			Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0			
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.50711E-01	2675.00	0.00	0.0			Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0			
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.50069E-01	2700.00	0.00	0.0			Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0			
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.49442E-01	2725.00	0.00	0.0			Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0			
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.48827E-01	2750.00	0.00	0.0			Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0			
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.48226E-01	2775.00	0.00	0.0			Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0			
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.47638E-01	2800.00	0.00	0.0			Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0			
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.47061E-01	2825.00	0.00	0.0			Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0			
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.46497E-01	2850.00	0.00	0.0			Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0			
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.45945E-01	2875.00	0.00	0.0			Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0			
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.45403E-01	2900.00	0.00	0.0			Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0			
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.44873E-01	2925.00	0.00	0.0			Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0			
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.44353E-01	2950.00	0.00	0.0			Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0			
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.43844E-01	2975.00	0.00	0.0			Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0			
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.43344E-01	3000.00	0.00	5.0			Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0			
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.42855E-01	3025.00	0.00	0.0			Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0			
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.42375E-01	3050.00	0.00	0.0			Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0			
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.41904E-01	3075.00	0.00	0.0			Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0			
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.41442E-01	3100.00	0.00	0.0			Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0			
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.40989E-01	3125.00	0.00	0.0			Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0			
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.40544E-01	3150.00	0.00	5.0			Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0			
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.40108E-01	3175.00	0.00	0.0			Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0			
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.39680E-01	3200.00	0.00	5.0			Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0			
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.39259E-01	3225.00	0.00	0.0			Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0			
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.38846E-01	3250.00	0.00	0.0			Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0			
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.38441E-01	3275.00	0.00	0.0			Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0			
1.000	1.50	0.35	0.50	10.0	310.0	2.0													
	0.38043E-01	3300.00	0.00	0.0			Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.	6.0			

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## Responses to Comments

## Sycamore Hills Distribution Center FEIR

1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.37652E-01			3325.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.37268E-01			3350.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.36891E-01			3375.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.36520E-01			3400.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.36156E-01			3425.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.35798E-01			3450.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.35446E-01			3475.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.35100E-01			3500.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.34759E-01			3525.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.34425E-01			3550.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.34096E-01			3575.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.33772E-01			3600.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.33454E-01			3625.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.33141E-01			3650.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.32833E-01			3675.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.32530E-01			3700.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.32231E-01			3725.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.31937E-01			3750.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.31649E-01			3775.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.31364E-01			3800.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.31084E-01			3825.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.30808E-01			3850.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.30536E-01			3875.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.30269E-01			3900.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.30005E-01			3925.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.29746E-01			3950.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0									
0.29490E-01			3975.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21. 6.0

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1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.29238E-01			4000.00	0.00	10.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.		6.0	
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.28990E-01			4025.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.		6.0	
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.28745E-01			4050.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.		6.0	
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.28504E-01			4075.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.		6.0	
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.28267E-01			4100.00	0.00	10.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.		6.0	
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.28033E-01			4125.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.		6.0	
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.27802E-01			4150.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.		6.0	
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.27574E-01			4175.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.		6.0	
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.27350E-01			4200.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.		6.0	
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.27129E-01			4225.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.		6.0	
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.26911E-01			4250.00	0.00	10.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.		6.0	
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.26696E-01			4275.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.		6.0	
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.26484E-01			4300.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.		6.0	
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.26275E-01			4325.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.		6.0	
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.26068E-01			4350.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.		6.0	
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.25865E-01			4375.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.		6.0	
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.25664E-01			4400.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.		6.0	
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.25466E-01			4425.00	0.00	10.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.		6.0	
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.25270E-01			4450.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.		6.0	
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.25077E-01			4475.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.		6.0	
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.24887E-01			4500.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.		6.0	
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.24699E-01			4525.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.		6.0	
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.24513E-01			4550.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.		6.0	
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.24330E-01			4575.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.		6.0	
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.24149E-01			4600.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.		6.0	
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.23971E-01			4625.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.		6.0	
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.23795E-01			4650.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.		6.0	

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1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.23621E-01			4675.00	0.00	15.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.			6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.23449E-01			4700.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.			6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.23280E-01			4725.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.			6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.23113E-01			4750.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.			6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.22947E-01			4775.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.			6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.22784E-01			4800.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.			6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.22622E-01			4825.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.			6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.22463E-01			4850.00	0.00	5.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.			6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.22306E-01			4875.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.			6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.22150E-01			4900.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.			6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.21996E-01			4924.99	0.00	15.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.			6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.21845E-01			4950.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.			6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.21695E-01			4975.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.			6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0												
0.21546E-01			5000.00	0.00	0.0		Winter	0-360	10011001	-1.30	0.043	-9.000	0.020	-999.	21.			6.0
1.000	1.50	0.35	0.50	10.0	310.0	2.0												

Attachment E



Technical Consultation, Data Analysis and  
Litigation Support for the Environment

2656 29<sup>th</sup> Street,  
Suite 201  
Santa Monica, CA  
90405

(949) 887-9013  
[mhagemann@swape.com](mailto:mhagemann@swape.com)

**Matthew F. Hagemann, P.G.,\* C.Hg\*\***

**Geologic and Hydrogeologic  
Characterization, Investigation  
and Remediation Strategies  
Expert Testimony  
Industrial Stormwater Compliance  
CEQA Review**

**Professional Certifications:**

\*Professional Geologist

\*\*Certified Hydrogeologist

**Education:**

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.

B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

**Professional Certifications:**

California Professional Geologist

California Certified Hydrogeologist

**Professional Experience:**

30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. Spent nine years with the U.S. EPA in the Resource Conservation Recovery Act (RCRA) and

Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater. While with EPA, served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. Led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) and directed efforts to improve hydrogeologic characterization and water quality monitoring. For the past 15 years, as a founding partner with SWAPE, developed extensive client relationships and has managed complex projects that include consultations as an expert witness and a regulatory specialist, and managing projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality and greenhouse gas emissions.

Positions held include:

Government:

- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Geologist, U.S. Forest Service (1986 – 1998)

Educational:

- Geology Instructor, Golden West College, 2010 – 2104, 2017;
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);

Private Sector:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);
- Executive Director, Orange Coast Watch (2001 – 2004);
- Geologist, Dames & Moore (1984 – 1986).

**Senior Regulatory and Litigation Support Analyst:**

With SWAPE, responsibilities have included:

- Lead analyst and testifying expert, for both plaintiffs and defendants, in the review of over 300 environmental impact reports and negative declarations since 2003 under CEQA that identify significant issues with regard to

hazardous waste, water resources, water quality, air quality, greenhouse gas emissions, and geologic hazards.

- Recommending additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce exposure to hazards from toxins.
- Stormwater analysis, sampling and best management practice evaluation, for both government agencies and corporate clients, at more than 150 industrial facilities.
- Serving as expert witness for both plaintiffs and defendants in cases including contamination of groundwater, CERCLA compliance in assessment and remediation, and industrial stormwater contamination.
- Technical assistance and litigation support for vapor intrusion concerns, for both government agencies and corporate clients.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.

With Komex H2O Science Inc., duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.
- Lead author for a multi-volume remedial investigation report for an

operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.

- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

**Executive Director:**

As Executive Director with Orange Coast Watch, an Orange County-based not-for-profit water-quality organization, led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

**Hydrogeology:**

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot.

Specific activities included:

- Leading efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiating a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identifying emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. Used

analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. Prepared geologic reports, conducted hearings, and responded to public comments from residents who were very concerned about the impact of designation.
- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Served as a hydrogeologist with the RCRA Hazardous Waste program. Duties included:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
  - Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.

- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

**Policy:**

Served as senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advising the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaping EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, *Oxygenates in Water: Critical Information and Research Needs*.
- Improving the technical training of EPA's scientific and engineering staff.
- Earning an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific principles into the policy-making process.
- Establishing national protocol for the peer review of scientific documents.

**Geology:**

With the U.S. Forest Service, led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities included:

- Mapping geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinating research with community stakeholders who were concerned with natural resource protection.
- Characterizing the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large

hazardous waste site in eastern Oregon. Duties included the following:

- Supervising year-long effort for soil and groundwater sampling.
- Conducting aquifer tests.
  - Investigating active faults beneath sites proposed for hazardous waste disposal.

**Teaching:**

From 1990 to 1998, taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.
- Part time geology instructor at Golden West College in Huntington Beach, California from 2010 to 2014 and in 2017.

**Invited Testimony, Reports, Papers and Presentations:**

**Hagemann, M.F.**, 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

**Hagemann, M.F.**, 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

**Hagemann, M.F.**, 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Colorado.

**Hagemann, M.F.**, 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

**Hagemann, M.F.**, 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells.

Presentation to the Ground Water and Environmental Law Conference, National

Groundwater Association.

**Hagemann, M.F.**, 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

**Hagemann, M.F.**, 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

**Hagemann, M.F.**, 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

**Hagemann, M.F.**, 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal representatives, Parker, AZ.

**Hagemann, M.F.**, 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

**Hagemann, M.F.**, 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

**Hagemann, M.F.**, 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

**Hagemann, M.F.**, 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

**Hagemann, M.F.**, 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

**Hagemann, M.F.**, 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

**Hagemann, M.F.**, 2002. An Estimate of the Cost to Address MTBE Contamination in

Groundwater(and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

**Hagemann, M.F.**, 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

**Hagemann, M.F.**, 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

**Hagemann, M.F.**, 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

**Hagemann, M.F.**, 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

**Hagemann, M.F.**, and VanMouwerik, M., 1999. Potential Water Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F.** 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

**Hagemann, M.F.**, 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

**Hagemann, M.F.**, 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

**Hagemann, M.F.**, and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

**Hagemann, M.F.**, Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

**Hagemann, M. F.**, Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

**Hagemann, M.F.**, 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

**Hagemann, M.F.** and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

**Hagemann, M.F.**, 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

**Hagemann, M.F.**, 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

**Other Experience:**

Selected as subject matter expert for the California Professional Geologist licensing examinations, 2009-2011.

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Attachment F



Technical Consultation, Data Analysis and  
Litigation Support for the Environment

SOIL WATER AIR PROTECTION ENTERPRISE  
525 Broadway Avenue, Suite 203  
Santa Monica, California 90401  
Attn: Paul Rosenfeld, Ph.D.  
Tel: (310) 795-2335  
Fax: (310) 434-0011  
Email: [prosenfeld@swape.com](mailto:prosenfeld@swape.com)

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***Paul Rosenfeld, Ph.D.***

Chemical Fate and Transport & Air Dispersion Modeling

*Principal Environmental Chemist*

**Risk Assessment And Remediation Specialist**

**Education**

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on VOC filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

**Professional Experience**

Dr. Rosenfeld is the environmental chemist at Soil Water Air Protection Enterprise (SWAPE). His focus is the fate and transport of environmental contaminants, risk assessment, and ecological restoration. His project experience ranges from monitoring and modeling of pollution sources as they relate to human and ecological health. Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing, petroleum, MtBE and fuel oxygenates, chlorinated solvents, pesticides, radioactive waste, PCBs, PAHs, dioxins, furans, volatile organics, semi-volatile organics, perchlorate, heavy metals, asbestos, PFOA, unusual polymers, and odor. Significant projects performed by Dr. Rosenfeld include the following:

**Litigation Support**

**Client: Nexsen Pruet, LLC (Charleston, South Carolina)**

Serving as expert in chlorine exposure in railroad tank car accident where approximately 120,000 pounds of chlorine were released.

**Client: Buzbee Law Firm (Houston, Texas)**

Serving as expert in catalyst release and refinery emissions cases against BP Texas City. One case settled regarding worker exposure, but ongoing litigation remains involving ~21,500 plaintiffs who have health claims and are seeking remediation from chemicals released from BP facility.

**Client: Girardi Keese (Los Angeles, California)**

Serving as expert investigating hydrocarbon exposure and property damage for ~600 individuals and ~280 properties in Carson, California, where homes were constructed above a large tank farm formerly owned by Shell.

**Client: Brent Coon Law Firm (Cleveland, Ohio)**

Served as expert calculating an environmental exposure to benzene, PAHs, and VOCs from a Chevron Refinery in Hooven Ohio. Ran AERMOD to calculate cumulative dose.

**Client: Girardi Keese (Los Angeles, California)**

Served as expert testifying on hydrocarbon exposure to a woman who worked on a fuel barge operated by Chevron. Demonstrated that the plaintiff was exposed to excessive amounts of benzene.

**Client: Lundy Davis (Lake Charles, Louisiana)**

Served as consulting expert on an oil field case representing the lease holder of a contaminated oil field. Conducted field work evaluating oil field contamination in Sulfur, Louisiana. Property is owned by Conoco Phillips, but leased by Yellow Rock, a small oil firm.

**Client: Cox Cox Filo (Lake Charles, Louisiana)**

Serving as testifying expert on multimillion gallon oil spill in Lake Charles which occurred on June 19, 2006, resulting in hydrocarbon vapor exposure to hundreds of workers and residents. Prepared air model and calculated dose. Demonstrated that petroleum odor alone can result in significant health harms.

**Client: Cotchett Pitre & McCarthy (San Francisco, California)**

Served as testifying expert representing homeowners who unknowingly purchased homes built on an old oil field in Santa Maria, California. Properties have high concentrations of petroleum hydrocarbons in subsurface soils resulting in diminished property value.

**Client: Baron & Budd (Dallas, Texas) & Weitz & Luxenberg (New York, NY)**

Serving as consulting expert in MTBE Federal Multi District Litigation (MDL) in New York. Consolidated ground water data, created maps for test cases, constructed damage model, evaluated taste and odor threshold levels.

**Client: Law Offices Of Anthony Liberatore P.C. (Los Angeles, California)**

Served as testifying expert representing individuals who rented homes on the Inglewood Oil Field in California. Plaintiffs were exposed to hydrocarbon contaminated water and air, and experienced health harms associated with the petroleum exposure.

**Client: Baron & Budd P.C. Dallas Texas and Korein Tillery (Madison, County)**

Illinois, Private Wells Analysis: Coordinated data acquisition and GIS analysis evaluating private well proximity to leaking underground storage tanks to support litigation noting that private well owners should be compensated for MTBE testing.

**Client: Orange County District Attorney (Orange County, California)**

Coordinated a review of 143 ARCO gas stations in Orange County to assist the District Attorney's prosecution of CCR Title 23 and California Health and Safety Code violators.

**Client: Environmental Litigation Group (Birmingham, Alabama)**

Serving as testifying expert in a health effects case against ABC Coke/Drummond Co for polluting a community with PAHs, benzene, particulate matter, heavy metals, and coke oven emissions. Created air dispersions models and conducted attic dust sampling, exposure modeling, and risk assessment for plaintiffs.

**Client: Masry Vitae (Westlake Village, CA), Engstrom Lipscomb Lack (Los Angeles, CA) & Baron & Budd (Dallas Texas).**

Served as consulting expert in Proposition 65 lawsuit filed against the major oil companies for benzene and toluene releases from gas stations and refineries which contaminated groundwater. Settlement included over \$110 million dollars in injunctive relief.

**Client: Tommy Franks Law Firm (Austin, Texas)**

Served as expert evaluating groundwater contamination which resulted from the hazardous waste injection program and negligent actions of Morton Thiokol and Rohm Hass. Interpreted drinking water contamination and community exposure.

**Client: Baron & Budd (Dallas Texas) and Sher Leff (San Francisco, California)**

Serving as consulting expert for several California cities which have filed defective product cases against Dow Chemical and Shell for 1,2,3-trichloropropane groundwater contamination. Generated maps showing capture zones of impacted wells for various municipalities.

**Client: Baron & Budd (Dallas Texas) and Korein Tillery (Madison County, Illinois)**

Serving as consulting expert for a Class Action defective product Atrazine claim filed in Madison County, Illinois against Syngenta and five other manufactures. The plaintiff class representative is Holiday Shores Water System which is evaluating health issues associated with atrazine, costing out treatment for filtration of public drinking water supplies.

**Client: Weitz & Luxenberg (New York, NY)**

Serving as expert on Property Damage and Nuisance claims resulting from emissions from the Countywide Landfill in Ohio. The landfill had an exothermic reaction or fire resulting from aluminum dross dumping, and the EPA fined the landfill \$10,000,000 dollars.

**Client: Baron & Budd (Dallas Texas)**

Serving as consulting expert for a groundwater contamination case in Pensacola Florida where fluorinated compounds contaminated wells operated by Escambia County.

**Client: Environmental Litigation Group (Birmingham, Alabama)**

Serving as an expert on property damage, medical monitoring and toxic tort claims that have been filed on behalf of over 12,000 plaintiffs who were exposed to PCBs and dioxins/furans resulting from emissions from Monsanto and Cerro Copper's operations in East Sauget, Illinois.

**Client: Environmental Litigation Group (Birmingham, Alabama)**

Served as an expert on groundwater case when Exxon Mobil and Helena Chemical released ethylene dichloride into groundwater resulting in a large plume. Prepared report on the appropriate treatment technology and cost, and flaws with the proposed on site remedy.

**Client: Environmental Litigation Group (Birmingham, Alabama)**

Serving as an expert on air emissions released when a Bartlo Packaging Incorporated facility in West Helena Arkansas exploded resulting in community exposure to pesticides and smoke from combustion of pesticides.

**Client: Omara & Padilla (San Diego, California)**

Served as testifying expert on nuisance case against Nutro Dogfood Company that constructed a large dog food processing facility in the middle of a residential community in Victorville California with no odor control devices. The facility has undergone significant modifications including installation of a regenerative thermal oxidizer.

**Client: Environmental Litigation Group (Birmingham, Alabama)**

Serving as an expert on property damage and medical monitoring claims that have been filed against International Paper resulting from chemical emissions from facilities located in Bastrop Louisiana, Prattville, Alabama, and Georgetown South Carolina.

**Client: Estep and Shafer (West Virginia)**

Served as expert running various air models to calculate acid emissions dose to residents resulting from emissions from a coal fired power plant in West Virginia.

**Client: Watts Law Firm (Austin, Texas), Woodfill Pressler (Houston, Texas), Woska & Ass. (Oklahoma)**

Served as testifying expert on community and worker exposure to CCA, creosote, PAHs, and dioxins/furans from a BNSF and Kopper's Facility in Somerville, Texas. Conducted field sampling, risk assessment, dose assessment and air modelling to quantify exposure to workers and community members.

**Client: Environmental Litigation Group (Birmingham, Alabama)**

Served as expert regarding community exposure to CCA, creosote, PAHs, and dioxins/furans from a Louisiana Pacific wood treatment facility in Florala, Alabama. Conducted blood sampling and environmental sampling to determine environmental exposure to dioxins/furans and PAHs.

**Client: Sanders Law (Colorado Springs, Co) and Vamvoras & Schwartzberg (Lake Charles, Louisiana)**

Serving as expert calculating chemical exposure to over 500 workers from large ethylene dichloride spill in Lake Charles, Louisiana, at the Conoco Phillips Refinery.

**Client: Baron & Budd P.C. (Dallas, Texas)**

Served as consulting expert in a defective product lawsuit against Dow Agrosience focusing on Clopyralid, a recalcitrant herbicide that damaged numerous compost facilities across the United States.

**Client: Sullivan Papain Block McGrath & Cannavo (NY, NY) and The Cochran Firm (Dothan, MS)**

Served as expert regarding community exposure to metals, PAHs PCBs, and dioxins/furans from the burning of Ford Paint Sludge and municipal solid waste in Ringwood, New Jersey.

**Client: Rose, Klein Marias (Los Angeles, CA)**

Serving as expert in Proposition 65 cases, each one citing an individual facility in the Port of Oakland. Prepared air dispersion and risk models to demonstrate that each facility emits diesel particulate matter that results in risks exceeding 1/100,000, hence violating the Proposition 65 Statute.

**Client: Rose, Klein Marias (Los Angeles, CA)**

Serving as expert in 55 Proposition 65 cases, each one citing an individual facility in the Port of Los Angeles and Port of Long Beach as the defendant. Prepared air dispersion and risk models to demonstrate that each facility emits diesel particulate matter that results in risks exceeding 1/100,000, hence violating the Proposition 65 Statute.

**Client: Graham & Associates (Calabasas, CA)**

Served as expert in a case in which General Motors is the plaintiff and BP Arco is the defendant. Conducted air models to demonstrate that sulfur emissions from the BP Arco facility formed sulfuric acid, destroying paint on over 350 automobiles.

**Client: Rose, Klien Marias (Los Angeles, CA) and Environmental Law Foundation (San Francisco, CA)**

Served as expert in a Proposition 65 case against potato chip manufacturers. Conducted an analysis of several brands of potato chips for acrylamide concentration and found that all samples exceeded Proposition 65 No Significant Risk Levels.

**Client: Gonzales & Robinson (Westlake Village, CA)**

Served as testifying expert in a toxic tort case against Chevron (Ortho) for allowing a community to be contaminated with lead arsenate pesticide. Created air dispersion models, soil vadose zone transport models, and evaluated bioaccumulation of lead arsenate in food.

**Client: Environment Now (Santa Monica, CA)**

Served as expert for Environment Now to convince the State of California to file a nuisance claim against the automobile manufactures to recover MediCal damages from expenditures on asthma-related health care costs.

**Client: Trutanich Michell (Long Beach, California)**

Served as expert representing San Pedro Boat Works in the Port of Los Angeles. Prepared air dispersion, particulate air dispersion, and storm water discharge models to demonstrate that Kaiser Bulk Loading is responsible for copper concentrate accumulating in the bay sediment.

**Client: Azurix of North America (Fort Myers, Florida)**

Provided expert opinions, reports and research pertaining to a proposed County Ordinance requiring biosolids applicators to measure VOC and odor concentrations at application sites' boundaries.

**Client: MCP Polyurethane (Pittsburg, Kansas)**

Provided expert opinions and reports regarding metal-laden landfill runoff that damaged a running track by causing the reversion of the polyurethane due to its catalytic properties.

### **Risk Assessment And Modeling**

**Client: ABT-Haskell (San Bernardino, California)**

Prepared air dispersion model for a proposed state-of-the-art enclosed compost facility. Developed odor detection limits to predict 1, 8, and 24-hour off-site concentrations of sulfur, ammonia, and amine as well as prepared a traffic analysis.

**Client: Jefferson PRP Group (Los Angeles, California)**

Evaluated exposure pathways for chlorinated solvents and hexavalent chromium for human health risk assessment of Los Angeles Academy (formerly Jefferson New Middle School) operated by Los Angeles Unified School District.

**Client: Covanta (Susanville California)**

Prepared human health risk assessment for Covanta Energy focusing on agricultural worker exposure to caustic fertilizer.

**Client: CIWMB (Sacramento California)**

Used dispersion models to estimate traveling distance and VOC concentrations downwind from a composting facility for the California Integrated Waste Management Board.

**Client: Carboquimeca (Bogotá, Columbia)**

Evaluated exposure pathways for human health risk assessment for a confidential client focusing on significant concentrations of arsenic and chlorinated solvents contaminating groundwater used for drinking water.

**Client: Navy Base Realignment and Closure Team (Treasure Island, California)**

Used Johnson-Ettinger model to estimate indoor air PCB concentrations and compared estimated values with empirical data collected in homes. Negotiated action levels with DTSC.

**Client: San Diego State University (San Diego California)**

Measured CO<sub>2</sub> flux from soils amended with different quantities of biosolids compost at Camp Pendleton to determine CO<sub>2</sub> credit values for coastal sage under fertilized and non-fertilized conditions.

**Client: Navy Base Realignment and Closure Team (MCAS Tustin, California)**

Evaluated cumulative risk of a multiple pathway scenario with a child resident and a construction worker's exposure to air and soil via particulate and vapor inhalation, incidental soil ingestion, and dermal contact with soil.

**Client: MCAS Miramar (San Diego, California)**

Evaluated exposure pathways of metals in soil, comparing site data to background data. Risk assessment incorporated multiple pathway scenarios assuming child resident and construction worker exposure to particulate and vapor inhalation, soil ingestion, and dermal soil contact.

**Client: Naval Weapons Station (Seal Beach, California)**

Used a multiple pathway model to generate dust emission factors from automobiles driving on dirt roads. Calculated bioaccumulation of metals, PCBs, dioxin congeners and pesticides to estimate human and ecological risk.

**Client: King County, Douglas County (Washington State)**

Measured PM<sub>10</sub> and PM<sub>2.5</sub> emissions from windblown soil treated with biosolids and a polyacrylamide polymer in Douglas County Washington. Used Pilat Mark V impactor for measurement and compared data to EPA particulate regulations.

**Client: King County, Seattle, Washington.**

Conducted emission inventory for several compost and wastewater facilities comparing VOC, particulate, and fungi concentrations to NIOSH values estimating risk to workers and individuals at neighboring facilities.

### **Air Pollution Investigation and Remediation**

**Client: Republic Landfill (Santa Clarita, CA)**

Managed a field investigation of odor around a landfill during 30+ events. Using hedonic tone, butanol scale, dilution-to-threshold values, and odor character to evaluate odor sources and character and intensity.

**Client: California Biomass (Victorville, CA)**

Managed a field investigation of odor around landfill during 9+ events. Using hedonic tone, butanol scale, dilution-to-threshold values, and odor character to evaluate odor sources, character and intensity.

**Client: ABT-Haskell (Redlands, California)**

Assisted in permitting a compost facility that will be completely enclosed with a complex scrubbing system using acid scrubbers, base scrubbers, biofilters, heat exchangers and chlorine to reduce VOC emissions by 99 percent.

**Client: Synagro (Corona, California)**

Designed and monitored 30-foot by 20-foot by 6-foot biofilter for VOC control from an industrial composting facility in Corona, California, reducing VOC emissions by 99 percent.

**Client: Jeff Gage, (Tacoma, Washington)**

Conducted emission inventory at industrial compost facility using GC/MS analyses for VOCs. Evaluated effectiveness of VOC and odor control systems and estimated human health risk.

**Client: Daishowa America (Port Angeles Mill, Washington)**

Analyzed industrial paper sludge and ash for VOCs, heavy metals and nutrients to develop a land application program. Metals were compared to federal guidelines to determine maximum allowable land application rates.

**Client: Jeff Gage (Puyallup Washington)**

Measured effectiveness of biofilters at composting facility and ran EPA dispersion models to estimate traveling distance of odor and human health risk from exposure to volatile organics.

**Surface Water, Groundwater, and Wastewater Investigation/Remediation****Client: Confidential (Downey, California)**

Managed groundwater investigation to determine horizontal extent of 1,000 foot TCE plume associated with a metal finishing shop.

**Client: Confidential (West Hollywood, California)**

Designed soil vapor extraction system that is currently being installed for confidential client. Managed groundwater investigation to determine horizontal extent of TCE plume associated with dry cleaning.

**Client: Synagro Technologies (Sacramento, California)**

Managed groundwater investigation to determine if biosolids application impacted salinity and nutrient concentrations in groundwater.

**Client: Navy Base Realignment and Closure Team (Treasure Island, California)**

Assisted in the design and remediation of PCB, chlorinated solvent, hydrocarbon and lead contaminated groundwater and soil on Treasure Island. Negotiated screening levels with DTSC and Water Board. Assisted in the preparation of FSP/QAPP, RI/FS, and RAP documents and assisted in CEQA document preparation.

**Client: Navy Base Realignment and Closure Team (MCAS Tustin, California)**

Assisted in the design of groundwater monitoring systems for chlorinated solvents at Tustin MCAS. Contributed to the preparation of FS for groundwater treatment.

**Client: MCP (Walnut, California)**

Conducted forensic surface water and sediment sampling. Designed and conducted bench scale laboratory experiments. Demonstrated that metal and organic contaminants in storm water and sediment from landfill flooded and chemically compromised a polyurethane track.

**Client: Mission Cleaning Facility (Salinas California)**

Prepared a RAP and cost estimate for using an oxygen releasing compound (ORC) and molasses to oxidize diesel fuel in soil and groundwater at Mission Cleaning in Salinas.

**Client: King County, Washington**

Established and monitored experimental plots at a US EPA Superfund Site in wetland and upland mine tailings contaminated with zinc and lead in Smelterville, Idaho. Used organic matter and pH adjustment for wetland remediation and erosion control.

**Client: City of Redmond (Richmond, Washington)**

Collected storm water from compost-amended and fertilized turf to measure nutrients in urban runoff. Evaluated effectiveness of organic matter-lined detention ponds on reduction of peak flow during storm events. Drafted compost amended landscape installation guidelines to promote storm water detention and nutrient runoff reduction.

**Client: City of Seattle (Seattle, Washington)**

Measured VOC emissions from Renton wastewater treatment plant in Washington. Ran GC/MS, dispersion models, and sensory panels to characterize, quantify, control and estimate risk from VOCs.

**Client: Plumas County (Quincy, California)**

Installed wetland to treat contaminated water containing 1% copper in an EPA Superfund site. Revegetated 10 acres of acidic and metal laden sand dunes resulting from hydraulic mining. Installed and monitored piezometers in wetland estimating metal loading.

**Client: Adams Egg Farm (St. Kitts, West Indies)**

Designed, constructed, and maintained 3 anaerobic digesters at Springfield Egg Farm, St. Kitts. Digesters treated chicken excrement before effluent discharged into sea. Chicken waste was converted into methane cooking gas.

**Client: BLM (Kremmling Colorado)**

Collected water samples for monitoring program along upper stretch of the Colorado River. Rafted along river, protecting water quality by digging and repairing latrines.

### **Soil Science and Restoration Projects**

**Client: Kinder Morgan (San Diego County California)**

Designed and monitored the restoration of a 110-acre project on Camp Pendleton along a 26-mile pipeline. Managed crew of 20, planting coastal sage, riparian, wetland, native grassland, and marsh ecosystems. Negotiated with the CDFW concerning species planting list and success standards.

**Client: NAVY BRAC (Orote Landfill, Guam)**

Designed and monitored pilot landfill cap mimicking limestone forest. Measured different species' root-penetration into landfill cap. Plants were used to evapotranspire water, reducing water leaching through soil profile.

**Client: LA Sanitation District Puente Hills Landfill (Whittier, California)**

Monitored success of upland and wetland mitigation at Puente Hills Landfill operated by Sanitation Districts of Los Angeles. Negotiated with the Army Corps of Engineers and CDFG to obtain an early sign-off.

**Client: City of Escondido (Escondido California)**

Designed, managed, installed, and monitored a 20-acre coastal sage scrub restoration project at Kit Carson Park, Escondido, California.

**Client: Home Depot (Encinitas, California)**

Designed, managed, installed and monitored a 15-acre coastal sage scrub and wetland restoration project at Home Depot in Encinitas, California.

**Client: Alvarado Water Filtration Plant (San Diego, California)**

Planned, installed and monitored 2-acre riparian and coastal sage scrub mitigation in San Diego California.

**Client: Monsanto and James River Corporation (Clatskanie Oregon)**

Served as a soil scientist on a 50,000-acre hybrid poplar farm. Worked on genetically engineering study of Poplar trees to see if glyphosate resistant poplar clones were economically viable.

**Client: World Wildlife Fund (St. Kitts, West Indies)**

Managed 2-year biodiversity study, quantifying and qualifying the various flora and fauna in St. Kitts' expanding volcanic rainforest. Collaborated with skilled botanists, ornithologists and herpetologists.

**Publications**

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste*, Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & Rosenfeld, P.E. (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., Rosenfeld, P. (2011). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences* 4(2011):113-125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., Rosenfeld, P.E., (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health* 73(6):34-46.

Cheremisinoff, N.P., & Rosenfeld, P.E. (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries*, Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & Rosenfeld, P.E. (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*, Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., Rosenfeld, P. (2009). 'Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States', in Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII*:

*Proceedings of the Seventeenth International Conference on Modelling, Monitoring and Management of Air Pollution*, Tallinn, Estonia. 20-22 July, 2009, Southampton, Boston. WIT Press.

Tam L. K., Wu C. D., Clark J. J. and Rosenfeld, P.E. (2008) A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, Volume 70 (2008) page 002254.

Tam L. K., Wu C. D., Clark J. J. and Rosenfeld, P.E. (2008) Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, Volume 70 (2008) page 000527.

Hensley, A.R. A. Scott, J. J. J. Clark, P. E. Rosenfeld (2007) "Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility" *Environmental Research*. 105, pp 194-197.

Rosenfeld, P.E., J. J. J. Clark, A. R. Hensley, M. Suffet. (2007) "The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities" –*Water Science & Technology* 55(5): 345-357.

Rosenfeld, P. E., M. Suffet. (2007) "The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment" *Water Science & Technology* 55(5): 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., Rosenfeld, P.E., (2007) "Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities," Elsevier Publishing, Boston Massachusetts.

Rosenfeld P.E., and Suffet, I.H. (Mel) (2007) "Anatomy Of An Odor Wheel" *Water Science and Technology*, In Press.

Rosenfeld, P.E., Clark, J.J.J., Hensley A.R., Suffet, I.H. (Mel) (2007) "The use of an odor wheel classification for evaluation of human health risk criteria for compost facilities." *Water Science And Technology*, In Press.

Hensley A.R., Scott, A., Rosenfeld P.E., Clark, J.J.J. (2006) "Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility." *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*, August 21 – 25, 2006. Radisson SAS Scandinavia Hotel in Oslo Norway.

Rosenfeld, P.E., and Suffet I.H. (2004) "Control of Compost Odor Using High Carbon Wood Ash", *Water Science and Technology*, Vol. 49, No. 9. pp. 171-178.

Rosenfeld, P.E., Clark J. J. and Suffet, I.H. (2004) "Value of and Urban Odor Wheel." (2004). WEFTEC 2004. New Orleans, October 2 - 6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004) "Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids" *Water Science and Technology*. Vol. 49, No. 9. pp 193-199.

Rosenfeld, P.E., and Suffet I.H. (2004) "Control of Compost Odor Using High Carbon Wood Ash", *Water Science and Technology*, Vol. 49, No. 9. pp. 171-178.

Rosenfeld, P. E., Grey, M. A., Sellew, P. (2004) Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76 (4): 310-315 JUL-AUG 2004.

Rosenfeld, P. E., Grey, M., (2003) Two stage biofilter for biosolids composting odor control. Seventh International In Situ And On Site Bioremediation Symposium. Batelle Conference Orlando Florida. June 2 and June 6, 2003.

Rosenfeld, P.E., Grey, M and Suffet, M. 2002. "Controlling Odors Using High Carbon Wood Ash." *Biocycle*, March 2002, Page 42.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). "Compost Demonstration Project, Sacramento, California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility Integrated Waste Management Board Public Affairs Office, Publications Clearinghouse (MS-6), Sacramento, CA Publication #442-02-008. April 2002.

Rosenfeld, P.E., and C.L. Henry. 2001. Characterization of odor emissions from three different biosolids. *Water Soil and Air pollution*. Vol. 127 Nos. 1-4, pp. 173-191

Rosenfeld, P.E., and Henry C. L., 2000. Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality*. 29:1662-1668.

Rosenfeld, P.E., C.L. Henry and D. Bennett. 2001. Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73: 363-367.

Rosenfeld, P.E., and C.L. Henry. 2001. Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants *Water Environment Research*, 73: 388-392.

Rosenfeld, P.E., and Henry C. L., 2001. High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. Volume 131 No. 1-4, pp. 247-262

Rosenfeld, P.E, C.L. Henry, R. Harrison. 1998. Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Bellevue Washington.

Chollack, T. and P. Rosenfeld. 1998. *Compost Amendment Handbook For Landscaping*. Prepared for and distributed by the City of Redmond, Washington State.

P. Rosenfeld. 1992. The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, Vol. 3 No. 2.

P. Rosenfeld. 1993. High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, Vol. 7, No. 1, 1993.

**P. Rosenfeld.** 1992. British West Indies, St. Kitts. Surf Report, April issue.

**P. Rosenfeld.** 1998. Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

**P. Rosenfeld.** 1994. Potential Utilization of Small Diameter Trees On Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

**P. Rosenfeld.** 1991. How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

England Environmental Agency, 2002. Landfill Gas Control Technologies. Publishing Organization Environment Agency, Rio House, Waterside Drive, Aztec West, Almondsbury BRISTOL, BS32 4UD

### **Presentations**

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; Rosenfeld, P.E. "Atrazine: A Persistent Pesticide in Urban Drinking Water." Urban Environmental Pollution, Boston, MA, June 20-23, 2010.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; Rosenfeld, P.E. "Bringing Environmental Justice to East St. Louis, Illinois." Urban Environmental Pollution, Boston, MA, June 20-23, 2010.

Rosenfeld, P.E. (2009) "Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States" Presentation at the 2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting, April 19-23, 2009. Tuscon, AZ.

Rosenfeld, P.E. (2009) "Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States" Presentation at the 2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting, April 19-23, 2009. Tuscon, AZ.

Rosenfeld, P. E. (2007) "Moss Point Community Exposure To Contaminants From A Releasing Facility" Platform Presentation at the 23<sup>rd</sup> Annual International Conferences on Soils Sediment and Water, October 15-18, 2007. University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (2007) "The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant" Platform Presentation at the 23<sup>rd</sup> Annual International Conferences on Soils Sediment and Water, October 15-18, 2007. University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (2007) "Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions" Poster Presentation at the 23<sup>rd</sup> Annual International Conferences on Soils Sediment and Water, October 15-18, 2007. University of Massachusetts, Amherst MA.

Rosenfeld P. E. "Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP)" – Platform Presentation at the Association for Environmental Health and Sciences (AEHS) Annual Meeting, San Diego, CA, 3/2007

Rosenfeld P. E. "Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama" – Platform Presentation at the AEHS Annual Meeting, San Diego, CA, 3/2007

Hensley A.R., Scott, A., Rosenfeld P.E., Clark, J.J.J. (2006) "Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility." APHA 134 Annual Meeting & Exposition, Boston Massachusetts. November 4 to 8<sup>th</sup>, 2006.

Paul Rosenfeld Ph.D. "Fate, Transport and Persistence of PFOA and Related Chemicals." Mealey's C8/PFOA Science, Risk & Litigation Conference" October 24, 25. The Rittenhouse Hotel, Philadelphia.

Paul Rosenfeld Ph.D. "Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation PEMA Emerging Contaminant Conference. September 19. Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. "Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP." PEMA Emerging Contaminant Conference. September 19. Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. "Fate, Transport and Persistence of PDBEs." Mealey's Groundwater Conference. September 26, 27. Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. "Fate, Transport and Persistence of PFOA and Related Chemicals." International Society of Environmental Forensics: Focus On Emerging Contaminants. June 7,8. Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. "Rate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals". 2005 National Groundwater Association Ground Water And Environmental Law Conference. July 21-22, 2005. Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. "Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation." 2005 National Groundwater Association Ground Water And Environmental Law Conference. July 21-22, 2005. Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. National Groundwater Association. Environmental Law Conference. May 5-6, 2004. Congress Plaza Hotel, Chicago Illinois.

**Paul Rosenfeld, Ph.D.**, 2004. Perchlorate Toxicology. Presentation to a meeting of the American Groundwater Trust. March 7<sup>th</sup>, 2004. Pheonix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse, 2004. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal representatives, Parker, AZ.

**Paul Rosenfeld, Ph.D.** A National Damage Assessment Model For PCE and Dry Cleaners. Drycleaner Symposium. California Ground Water Association. Radison Hotel, Sacramento, California. April 7, 2004.

**Paul Rosenfeld, Ph.D.** and James Clark Ph.D. Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants. February 20-21, 2003. Hyatt Regency Phoenix Arizona.

**Paul Rosenfeld, Ph.D.** Underground Storage Tank Litigation and Remediation. California CUPA Forum. Marriott Hotel. Anaheim California. February 6-7, 2003.

**Paul Rosenfeld, Ph.D.** Underground Storage Tank Litigation and Remediation. EPA Underground Storage Tank Roundtable. Sacramento California. October 23, 2002

**Rosenfeld, P.E.** and Suffet, M. 2002. Understanding Odor from Compost, Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association. Barcelona Spain. October 7-10.

**Rosenfeld, P.E.** and Suffet, M. 2002. Using High Carbon Wood Ash to Control Compost Odor. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association. Barcelona Spain. October 7-10.

**Rosenfeld, P.E.** and Grey, M. A. 2002. Biocycle Composting For Coastal Sage Restoration. Northwest Biosolids Management Association. Vancouver Washington. September 22-24.

**Rosenfeld, P.E.** and Grey, M. A. 2002. Soil Science Society Annual Conference. Indianapolis, Maryland. November 11-14.

**Rosenfeld, P.E.** 2000. Two stage biofilter for biosolids composting odor control. Water Environment Federation. Anaheim California. September 16, 2000.

**Rosenfeld, P. E.** 2000. Wood ash and biofilter control of compost odor. Biofest. October 16, 2000. Ocean Shores, California

**Rosenfeld, P. E.** 2000. Bioremediation Using Organic Soil Amendments. California Resource Recovery Association. Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. 1998. Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. 1999. An evaluation of ash incorporation with biosolids for odor reduction. Soil Science Society of America. Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. 1998. Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. Brown and Caldwell, Seattle Washington.

Rosenfeld, P.E., C.L. Henry. 1998. Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. Biofest Lake Chelan, Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. 1997. Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. Soil Science Society of America, Anaheim California.

### **Professional History**

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Founding And Managing Partner

UCLA School of Public Health; 2007 to present; Lecturer (Asst Res)

UCLA School of Public Health; 2003 to 2006; Adjunct Professor

UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator

UCLA Institute of the Environment, 2001-2002; Research Associate

Komex H<sub>2</sub>O Science, 2001 to 2003; Senior Remediation Scientist

National Groundwater Association, 2002-2004; Lecturer

San Diego State University, 1999-2001; Adjunct Professor

Anteon Corp., San Diego, 2000-2001; Remediation Project Manager

Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager

Bechtel, San Diego, California, 1999 – 2000; Risk Assessor

King County, Seattle, 1996 – 1999; Scientist

James River Corp., Washington, 1995-96; Scientist

Big Creek Lumber, Davenport, California, 1995; Scientist

Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist

Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Bureau of Land Management, Kremmling Colorado 1990; Scientist

### **Teaching Experience**

**UCLA Department of Environmental Health (Summer 2003 through 2010)** Teach Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focuses on the health effects of environmental contaminants.

**National Ground Water Association, Successful Remediation Technologies.** Custom Course In Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

**National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois.** April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

**California Integrated Waste Management Board, April and May, 2001.** Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

**UCLA Department of Environmental Engineering, February 5 2002 Seminar on Successful Remediation Technologies** focusing on Groundwater Remediation.

**University Of Washington, Soil Science Program, Teaching Assistant** for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

**U.C. Berkeley, Environmental Science Program Teaching Assistant** for Environmental Science 10.

### **Academic Grants Awarded**

**California Integrated Waste Management Board.** \$41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

**Synagro Technologies, Corona California:** \$10,000 grant awarded to San Diego State University. Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

**King County, Department of Research and Technology, Washington State.** \$100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

**Northwest Biosolids Management Association, Washington State.** \$20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

**James River Corporation, Oregon:** \$10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

**United State Forest Service, Tahoe National Forest:** \$15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. \$500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993.

### **Cases that Dr. Rosenfeld Provided Deposition or Trial Testimony**

In the Court of Common Pleas for the Second Judicial Circuit, State of South Carolina, County of Aiken  
David Anderson, et al., *Plaintiffs*, vs. Norfolk Southern Corporation, et al., *Defendants*.  
Case Number: 2007-CP-02-1584

In the Circuit Court of Jefferson County Alabama  
Jaeanette Moss Anthony, et al., *Plaintiffs*, vs. Drummond Company Inc., et al., *Defendants*  
Civil action No. CV 2008-2076

In the Ninth Judicial District Court, Parish of Rapides, State of Louisiana  
Roger Price, et al., *Plaintiffs*, vs. Roy O. Martin, L.P., et al., *Defendants*.  
Civil Suit Number 224,041 Division G

In the United States District Court, Western District Lafayette Division  
Ackle et al., *Plaintiffs*, vs. Citgo Petroleum Corporation, et al., *Defendants*.  
Case Number 2:07CV1052

In the United States District Court for the Southern District of Ohio  
Carolyn Baker, et al., *Plaintiffs*, vs. Chevron Oil Company, et al., *Defendants*.  
Case Number 1:05 CV 227

In the Fourth Judicial District Court, Parish of Calcasieu, State of Louisiana  
Craig Steven Arabie, et al., *Plaintiffs*, vs. Citgo Petroleum Corporation, et al., *Defendants*.  
Case Number 07-2738 G

In the Fourteenth Judicial District Court, Parish of Calcasieu, State of Louisiana  
Leon B. Brydels, *Plaintiffs*, vs. Conoco, Inc., et al., *Defendants*.  
Case Number 2004-6941 Division A

In the District Court of Tarrant County, Texas, 153<sup>rd</sup> Judicial District  
Linda Faust, *Plaintiff*, vs. Burlington Northern Santa Fe Rail Way Company, Witco Chemical Corporation  
A/K/A Witco Corporation, Solvents and Chemicals, Inc. and Koppers Industries, Inc., *Defendants*.  
Case Number 153-212928-05

In the Superior Court of the State of California in and for the County of San Bernardino  
Leroy Allen, et al., *Plaintiffs*, vs. Nutro Products, Inc., a California Corporation and DOES 1 to 100,  
inclusive, *Defendants*.  
John Loney, Plaintiff, vs. James H. Didion, Sr.; Nutro Products, Inc.; DOES 1 through 20, inclusive,  
*Defendants*.  
Case Number VCVVS044671

In the United States District Court for the Middle District of Alabama, Northern Division  
James K. Benefield, et al., *Plaintiffs*, vs. International Paper Company, *Defendant*.  
Civil Action Number 2:09-cv-232-WHA-TFM

In the Superior Court of the State of California in and for the County of Los Angeles  
Leslie Hensley and Rick Hensley, *Plaintiffs*, vs. Peter T. Hoss, as trustee on behalf of the Cone Fee Trust;  
Plains Exploration & Production Company, a Delaware corporation; Rayne Water Conditioning, Inc., a

California corporation; and DOES 1 through 100, *Defendants*.  
Case Number SC094173

In the Superior Court of the State of California in and for the County of Santa Barbara, Santa Maria Branch Clifford and Shirley Adelhelm, et al., all individually, *Plaintiffs*, vs. Unocal Corporation, a Delaware Corporation; Union Oil Company of California, a California corporation; Chevron Corporation, a California corporation; ConocoPhillips, a Texas corporation; Kerr-McGee Corporation, an Oklahoma corporation; and DOES 1 through 100, *Defendants*.  
Case Number 1229251 (Consolidated with case number 1231299)

In the United States District Court for Eastern District of Arkansas, Eastern District of Arkansas Harry Stephens Farms, Inc, and Harry Stephens, individual and as managing partner of Stephens Partnership, *Plaintiffs*, vs. Helena Chemical Company, and Exxon Mobil Corp., successor to Mobil Chemical Co., *Defendants*.  
Case Number 2:06-CV-00166 JMM (Consolidated with case number 4:07CV00278 JMM)

In the United States District Court for the Western District of Arkansas, Texarkana Division Rhonda Brasel, et al., *Plaintiffs*, vs. Weyerhaeuser Company and DOES 1 through 100, *Defendants*.  
Civil Action Number 07-4037

In The Superior Court of the State of California County of Santa Cruz  
Constance Acevedo, et al. *Plaintiffs* Vs. California Spray Company, et al. *Defendants*  
Case No CV 146344

In the District Court of Texas 21<sup>st</sup> Judicial District of Burleson County  
Dennis Davis, *Plaintiff*, vs. Burlington Northern Santa Fe Rail Way Company, *Defendant*.  
Case Number 25,151

**Letter 9 – SWAPE on behalf of Golden State Environmental Justice Alliance****Commenter:** Matt Hagemann and Paul E. Rosenfeld**Date:** July 21, 2021**Response 9.1:**

The commenter states that the commenter has reviewed the Project, provides a brief description of the Project, and summarizes the comment letter's conclusions on issues the commenter has identified regarding the Project's potential air quality, health risk, and greenhouse gas impacts. These issues are identified and addressed in the subsequent responses below. The commenter's claims that the DEIR fails to disclose impacts has been refuted in Responses 9.2 through 9.21; please refer to these responses for discussions on how the Project would not result in the types of impacts alleged by the commenter.

This comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. This comment is noted for the record and no changes to the DEIR are required.

**Response 9.2:**

The commenter summarizes their understanding of CalEEMod and claims that the emissions calculations using CalEEMod are not substantiated and are underestimated based on the subsequent comments. These comments are responded to as below in subsequent responses.

This comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. This comment is noted for the record and no changes to the DEIR are required.

**Response 9.3:**

The comment claims that the proposed offices should be modeled as a land use separate from the proposed warehouses. However, the offices are not a separate land use; rather, they are an auxiliary use associated with the proposed warehouse operations and would be constructed within the proposed warehouse buildings. As outlined in Response 7.31 above, using this Square Feet (SF)/Employee factor to determine employment, the appropriate methodology is to divide the total number of building square feet for Light Industrial building by the SF/Employee factor of 1,030. Therefore, the total Light Industrial building square footage for the Project is 603,100 SF divided by 1,030, which is 585.5, which is rounded to the nearest whole number of 586. To use this method of determining employment it is not correct to use the square footage of office space within the larger warehouse building and then separately calculate the non-office designated areas within the warehouse as Light Industrial. This is in essence double counting and combining two different land use designation types within the same building. Therefore, it is inappropriate and inaccurate to use the SF/Employee factor for within the office portion of the warehouse when the methodology identified above indicates to use the total number of building square feet for the specified Land Use Designation, which for the warehouse buildings is Light Industrial.

The trip generation rate used in the Traffic Operations Analysis accounts for trips associated with all warehouse operations, including trucks and both office and warehouse employees. Additionally, since the total square footage of all warehouse and office space was modeled in CalEEMod, the calculated construction and operational emissions, including mobile, energy, area, water and wastewater, and solid waste sources, account for the proposed office space. As such, the analysis in the DEIR and underlying technical studies is correct and no changes are needed.

This comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. This comment is noted for the record and no changes to the DEIR are required.

#### **Response 9.4:**

The comment claims that the carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O) intensity factors were adjusted without substantiation. As these intensity factors affect only the greenhouse gas (GHG) emissions calculations and not the criteria pollutant calculations, a discussion of the adjustments to the intensity factors is included in the GHG Analysis (page 22-23) and not the Air Quality Analysis. The commenter provides four reasons why the adjustments were not substantiated:

1. The commenter states that the DEIR and Air Quality (AQ) and Health Risk Assessment (HRA) memo fail to provide a source that the utility provider had achieved 36 percent renewables as of 2017. Under the Power Source Disclosure Program, retail utility suppliers are required to annually disclose to their retail consumers the mix of sources used to provide electricity service during the previous calendar year. All Power Content Labels for utility suppliers can be accessed through the California Energy Commission website at <https://www.energy.ca.gov/programs-and-topics/programs/power-source-disclosure/power-content-label>. The Riverside Public Utility 2017 Power Content Label indicates that they had achieved 36 percent renewables as of 2017. A source for this data has been added to the GHG Analysis on page 26 and to DEIR p. 5.7-33 as follows:
  - **Energy** - State regulations and 2017 Scoping Plan measures that would reduce the project's energy-related GHG emissions include RPS (see Section 3.2.2.5), Title 24 Energy Efficiency Standards (see Section 3.2.2.7a), and CALGreen (see Section 3.2.2.7b). The project would be served by Riverside Public Utilities, which has achieved 36 percent renewables as of 2017 (CEC 2018b)<sup>10</sup>. The project's energy related GHG emissions would decrease as Riverside Public Utilities increases its renewables procurement beyond 2020 towards the 2030 goal of 60 percent. Additionally, the project would be constructed in accordance with energy efficiency standards effective at the time building permits are issued. The current 2019 Energy Code is estimated to decrease energy consumption by 30 percent for non-residential buildings when compared to the 2016 Title 24 Energy Code.

<sup>10</sup> California Energy Commission (CEC). 2018b. City of Riverside Public Utilities 2017 Power Content Label. Version July 2018.

2. The comment states that the model includes an 18.4 percent reduction, but the commenter's review of the modeling demonstrates that the CH<sub>4</sub>, CO<sub>2</sub>, and N<sub>2</sub>O intensity factors were reduced by approximately 21 percent, 21 percent, and 17 percent, respectively, instead of using the default in the model of 18.4 percent. These percentages were calculated by the commenter using the values presented in Table 6 of the GHG Analysis. 17 percent is incorrect due to an error in the table (see footnote of Table 5.7-6 below). The default intensity factors included in CalEEMod were based on public utilities inventory reports. The CalEEMod Version 2016.3.2 user's guide indicates that the intensity factors for Riverside Public Utilities are based on a 2007 reporting year. Therefore, the default intensity factor included in CalEEMod Version 2016.3.2 accounts for the amount of RPS that the Riverside Public Utilities had in 2007. As cited in the Union of Concerned Scientists (2012)<sup>11</sup> source provided in the GHG Analysis, Riverside Public Utilities had achieved approximately 18.4 percent renewables. To calculate the intensity factors used in the DEIR analysis, the default values were first increased by 18.4 percent to calculate the intensity factors without any renewable resources and then decreased by 33 percent to calculate the intensity factors with the state mandated 33 percent renewables (note that increasing the default factors by 18.4 percent and then decreasing by 33 percent gets the same result as decreasing by 21 percent as calculated by the commenter). Those calculations are detailed in Table 5.7-6 below.

Further, since preparation of the GHG Analysis a new version of CalEEMod (CalEEMod Version 2020.4.0) has been release that includes updated energy intensity factors that are less than what was modeled. The CalEEMod Version 2016.3.2 user's guide indicates that the updated intensity factors for Riverside Public Utilities are based on a 2021 reporting year. Those updated values are also summarized in Table 5.7-6 below. As a result, the originally calculated GHG emissions summarized in the GHG Analysis and DEIR are conservative. To reflect the updated intensity factors, Project GHG emissions were recalculated using the current 2021 Riverside Public Utilities intensity factors, and the revised emissions are summarized in GHG Analysis Table 6 and Table 5.7-6 of DEIR Section 5.7 GHG Emissions (DEIR p. 5.7-25), which has also been included below, with changes reflected for reference. It was found that the revised energy related GHG emissions associated with the project would be less than previously calculated, and total GHG emissions would still be less than the 10,000 MT CO<sub>2</sub>E screening threshold.

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<sup>11</sup> Union of Concerned Scientists. 2012. Riverside Public Utilities. The Clean Energy Race: How Do California Public Utilities Measure Up. July.

**Table 5.7-6 – Riverside Public Utilities Intensity Factors**

<b>Riverside Public Utilities Intensity Factors (lbs/MWh)</b>				
GHG	CalEEMod Version 2016.3.2 Default values (lbs/MWh)	Intensity Factors with 0% RPS	Intensity Factors with 33% RPS	CalEEMod Version 2020.4.0 Intensity Factor
Carbon Dioxide (CO <sub>2</sub> )	1,325.65	1,569.57	1,051.61	<u>789.983</u>
Methane (CH <sub>4</sub> )	0.029	0.034	0.023	<u>0.033</u>
Nitrous Oxide (N <sub>2</sub> O)	0.006	0.007	0.005*	<u>0.004</u>
*The correct N <sub>2</sub> O intensity factor of 0.005 was used in CalEEMod, however, the incorrect value of 0.004 was reported in Table 6 of the GHG Analysis. Table 6 of the GHG Analysis has been updated to reflect the current 2021 intensity factors.				

3. The comment states that even if the utility provided did achieve 36 percent renewable energy, this does not inherently result in a 36 percent reduction from the 2016 CalEEMod default values. As stated in Response 9.4(1), a source for the 36 percent renewables has been added to the GHG Analysis and RPS as well as DEIR p. 5.7-33. The comment also states that there is no justification explaining how this power mix correlates to 21 percent, 21 percent, and 17 percent reductions. As noted previously, due to an error in the table, the 17 percent calculation is incorrect. Using the previous N<sub>2</sub>O intensity factor of 0.005 would have also resulted in a calculated reduction of 21% as with CO<sub>2</sub> and CH<sub>4</sub>. Refer to Response 9.4(2) for an explanation of how the energy intensity factors were calculated using the previous Riverside Public Utilities 18.4 percent attainment status and an RPS attainment requirement of 33 percent. It should also be noted that since preparation of the GHG Analysis, the state has increased the RPS goals beyond the year 2020 33 percent requirement. SB 100 (2018) further increased the standard set by SB 350 establishing the RPS goal of 44 percent by the end of 2024, 52 percent by the end of 2027, and 60 percent by 2030. Riverside Public Utilities is required to comply with these state RPS goals, and the project would be served by Riverside Public Utilities. Therefore, the project would benefit from a decrease in energy- related GHG emissions as Riverside Public Utilities complies with state RPS requirements. The analysis used the most recent 2021 Riverside Public Utility energy intensity factors (see Table 5.7-6 above). As Riverside Public Utilities further increases their RPS percentage in line with state goals, the energy intensity factors would decrease, and therefore, the project's energy related GHG emissions would decrease. Thus, the GHG analysis is conservative.
4. The comment states that simply stating that the Project's emissions would decrease as the utility provider increases its renewables procurement beyond 2020 towards the 2030 goal of 50 percent does not offer substantial evidence to justify the reductions included in the model. A utility provider's renewables procurement directly relates to the energy intensity factors since increasing the amount of renewable energy and decreasing reliance on fossil fuels reduces the energy related GHG emissions. Refer to responses 9.4(1) and 9.4(2) for justification of the reductions included in the model. Further, as stated in response 9.4(3), the 2030 RPS goal has been increased to 60 percent.

The comment concludes by stating that the unsubstantiated reductions in intensity factors may underestimate the Project's GHG emissions. For the reasons stated above, the energy intensity factors used in the model are conservative and based on the updated 2021 energy intensity factors included in CalEEMod Version 2020.4.0, which are less than the modeled intensity factors. Therefore, the GHG emissions calculated in the public review draft of the GHG Analysis are an overestimate of the Project's actual emissions. GHG emissions were recalculated using the current 2021 Riverside Public Utilities intensity factors. It was found that the revised energy related GHG emissions associated with the Project would be less than previously calculated, and total GHG emissions would still be less than the 10,000 MT CO<sub>2</sub>E screening threshold.

It should be noted that even with this revision to the DEIR, no change to the significance conclusions presented in the DEIR will result. Accordingly, this comment and the subsequent DEIR revisions do not affect the analysis completed or conclusions provided in the DEIR, do not provide new information or evidence related to the analysis completed in the DEIR, and do not reflect on the adequacy or content of the DEIR. This comment is noted for the record, and revisions to the DEIR have been made as noted above.

**Response 9.5:**

The commenter states that the DEIR underestimates the proposed parking lot land use size and that, accordingly, emissions models underestimate the Project's construction-related and operational emissions.

The CalEEMod user's guide states that "if actual lot acreage data is available, the user should override the default value." If the CalEEMod default for the parking lot was used, the total lot acreage analyzed would be 8.18 acres, which would not correctly represent the total site area. Using ArcGIS and the ArcMap mapping programs along with CAD drawings of the site plan, it was determined that approximately 21 acres would be paved and of this, approximately 5 acres would be striped parking spaces. This includes the trailhead parking lot. As shown in Attachment 1 of the DEIR Appendix C, Air Quality Analysis, these areas were modeled as 5 acres "Parking Lot" and 16 acres "Other Asphalt Surfaces". As noted on Page 25 of the Air Quality Analysis, the trailhead parking lot was modeled as a paved and striped parking lot to account for emissions from striping paint and pavement sealant. The parking lot would be partially concrete and partially decomposed granite that would be properly stabilized to reduce dust. The analysis has been revised to include fugitive dust emissions that would occur from vehicles traveling on the decomposed granite. Thus, this is a worst-case analysis since it simultaneously accounts for architectural coatings that would result from pavement striping and dust that would result from decomposed granite. As shown in Table 9 on Page 26 of the Air Quality Analysis, these worst-case emissions would still be less than the applicable thresholds of significant.

This comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. This comment is noted for the record and no changes to the DEIR are required.

**Response 9.6:**

The commenter states the DEIR has unsubstantiated reductions to architectural coating emission factors and that the DEIR fails to mention SCAQMD Rule 1113 or specify the reactive organic gas/volatile organic compound (ROG/VOC) content limits that would be required.

The DEIR, Section 5.2.2.4 Air Quality, p. 5.2-17 is revised as follows to include SCAQMD Rule 1113 compliance:

The project would also be required to comply with SCAQMD Rule 1113, which places VOC content limits on architectural coatings. The coatings used for the project would include building envelop coatings and non-flat coatings, which both have a VOC content limit of 50 grams per liter.

The Project would be required to comply with SCAQMD Rule 1113, which places VOC content limits on architectural coatings. The coatings used for the Project would include building envelop coatings and non-flat coatings, which both have a VOC content limit of 50 grams per liter. The CalEEMod user's guide states that if the user has more detailed site-specific information, the user should override the default values. Therefore, the VOC content limits used in the model were revised to 50 grams per liter. Out of an abundance of caution, criteria pollutant emissions were recalculated using the default VOC content value of 100 grams per liter. The revised emissions are summarized in Tables 6, 7, and 9 of the revised Air Quality Analysis and DEIR Tables 5.2-6, 5.2-7 (see Response 7.8), and 5.2-8 have been updated accordingly (see below). All construction and operational emissions would still be less than the applicable thresholds even without compliance, and air quality impacts would be less than significant.

**Table 5.2-8 – Summary of Project Operational Emissions**

Source	Emissions (pounds per day)					
	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>WINTER</b>						
Area Sources	14	<1	<1	<1	<1	<1
Energy Sources	<1	<1	<1	<1	<1	<1
Mobile Sources – Passenger Cars	1	4 <u>2</u>	47 <u>24</u>	<1	10	3
Mobile Sources – Trucks	2	37	17	<1	10	3
Parcel C Parking Lot Dust	=	=	=	=	<u>9</u>	<u>1</u>
<b>Total</b>	<b>17</b>	<b>38 <u>39</u></b>	<b>34 <u>41</u></b>	<b>&lt;1</b>	<b>19 <u>28</u></b>	<b>6 <u>7</u></b>
<i>Significance Threshold</i>	55	55	550	150	150	55
<i>Exceed Threshold?</i>	No	No	No	No	No	No
<b>SUMMER</b>						
Area Sources	14	<1	<1	<1	<1	<1
Energy Sources	<1	<1	<1	<1	<1	<1
Mobile Sources – Passenger Cars	1	4 <u>2</u>	49 <u>27</u>	<1	10	3
Mobile Sources – Trucks	2	36	16	<1	10	3
Parcel C Parking Lot Dust	=	=	=	=	<u>9</u>	<u>1</u>
<b>Total</b>	<b>17</b>	<b>37 <u>38</u></b>	<b>36 <u>44</u></b>	<b>&lt;1</b>	<b>19 <u>28</u></b>	<b>6 <u>7</u></b>
<i>Significance Threshold</i>	55	55	550	150	150	55
<i>Exceed Threshold?</i>	No	No	No	No	No	No
Note: Emissions were rounded to the nearest whole number. Emissions reported as <1 indicate that emissions were calculated to be less than 0.5 pound per day.						

It should be noted that even with these revisions to the DEIR, no change to the significance conclusions presented in the DEIR will result. Accordingly, this comment and the subsequent DEIR revisions do not affect the analysis completed or conclusions provided in the DEIR, do not provide new information or evidence related to the analysis completed in the DEIR, and do not reflect on the adequacy or content of the DEIR. This comment is noted for the record, and revisions to the DEIR have been made as noted above.

**Response 9.7:**

The commenter states that the DEIR has unsubstantiated changes to individual construction phase lengths. The construction duration and phasing utilized represents a reasonable approximation of the expected construction activity as required by CEQA. The CalEEMod user's guide states that if the user has more detailed site-specific equipment and phase information, the user should override the default values. The specific construction schedule was modified from the CalEEMod defaults based on information provided by the Project Applicant. Page 22 of DEIR Appendix C - Air Quality Analysis has been revised to note that the construction schedule and equipment list are based on a reasonable approximation and information provided by the Project Applicant. Rather than relying on the default construction schedule or proportionally altering the phases based on a different overall construction length, the analysis relies on actual project-specific scheduling and phasing. This information has been provided by an Applicant who has extensive experience with construction projects in the region. As such, the analysis in the DEIR and underlying technical studies is correct and no changes are needed.

It should be noted that even with these revisions to the DEIR, no change to the significance conclusions presented in the DEIR will result. Accordingly, this comment and the subsequent DEIR revisions do not affect the analysis completed or conclusions provided in the DEIR, do not provide new information or evidence related to the analysis completed in the DEIR, and do not reflect on the adequacy or content of the DEIR. This comment is noted for the record, and revisions to the DEIR have been made as noted above.

**Response 9.8:**

The comment claims that unsubstantiated changes to the default vendor and worker trip numbers were made. As explained in Appendix C of the DEIR – Air Quality Analysis, CalEEMod applies the same worker/vendor trip rates to parking/asphalt surfaces as it does to office/industrial construction, resulting in an overestimate of actual trips. These default values included in CalEEMod are based on Sacramento Metropolitan Air Quality Management District field surveys of residential, commercial, and office development projects, and not on other uses such as asphalt surfaces and parking that require only asphalt and other associated sealants and not actual building materials. The CalEEMod user's guide states that if the user has more detailed site-specific information, the user should override the default values. CalEEMod uses a rate of 0.42 worker trips and 0.1639 vendor trips per 1,000 square feet of industrial building space. However, for parking lots, CalEEMod incorrectly applies these same worker and vendor trip rates to the total square footage of parking area, even though no building construction is associated with the parking areas. The worker trips associated with paving are included in the paving phase. Thus, the trips were reduced to avoid an overestimation. However, out of an abundance of caution, emissions were recalculated using the CalEEMod default values. The revised emissions are

summarized in Tables 6 and 7 of the revised Air Quality Analysis and Table 7 of the revised GHG Analysis. Accordingly, DEIR Tables 5.2-6 and 5.2-7 have been revised (see Response 7.8) and DEIR Table 5.7-6 has been revised (see Response 9.4). All construction emissions would still be less than the applicable thresholds, and air quality and GHG impacts would be less than significant.

Also, out of an abundance of caution, the construction worker fuel consumption and construction vendor fuel consumption for Medium-Heavy-Duty-Trucks (MHDT) were also recalculated using the same CalEEMod default values, and these consumption estimates identified in DEIR Tables 5.5-4 and 5.5-5 are revised as outlined below. Although fuel consumption would be higher due to increased trips, fuel consumption for construction would still be less than significant, as the Project is not anticipated to result in wasteful, inefficient, or unnecessary consumption of energy resources during construction.

**Table 5.5-4 – Construction Worker Fuel Consumption Estimates**

Construction Activity	Worker Trips/Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
<b>2021</b>					
Site Preparation (18 days)	18	14.7	4,763	30.64	155
Grading (47 days)	47	14.7	13,818	30.64	451
Building Construction (132 days)	132	14.7	<del>490,924</del> <u>1,237,975</u>	30.64	<del>16,020</del> <u>40,399</u>
<b>2022</b>					
Building Construction (111 days)	111	14.7	<del>412,820</del> <u>1,041,025</u>	31.57	<del>13,075</del> <u>32,971</u>
Paving (18 days)	18	14.7	<del>3,969</del> <u>24,476</u>	31.57	<del>126</del> <u>775</u>
Architectural Coating (111 days)	111	14.7	<del>208,858</del> <u>33,869</u>	31.57	<del>6,645</del> <u>1,073</u>
Construction Worker Fuel Consumption					<del>36,442</del> <u>75,824</u>

**Table 5.5-5 – Construction Vendor Fuel Consumption Estimates – MHDT**

Construction Activity	Vendor Trips/Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
<b>Vendor</b>					
<b>2021</b>					
Building Construction (132 days)	<del>50</del> <u>125</u>	6.9	<del>45,540</del> <u>113,850</u>	8.88	<del>5,127</del> <u>12,817</u>
<b>2022</b>					
Building Construction (111 days)	<del>50</del> <u>125</u>	6.9	<del>38,295</del> <u>95,738</u>	<del>9.22</del> <u>17</u>	<del>4,153</del> <u>10,422</u>
Total Fuel Consumption – Vendor (MHDT)					<del>9,280</del> <u>23,259</u>

It should be noted that even with these revisions to the DEIR, no change to the significance conclusions presented in the DEIR will result. Accordingly, this comment and the subsequent DEIR revisions do not affect the analysis completed or conclusions provided in the DEIR, do not provide new information or evidence related to the analysis completed in the DEIR, and do not reflect on the adequacy or content of the DEIR. This comment is noted for the record, and revisions to the DEIR have been made as noted above.

**Response 9.9:**

The comment claims that unsubstantiated changes to the vehicle fleet mix were made in the modeling. Two separate models – Passenger Cars and Trucks – were run because the trucks would have greater trip lengths than the employees and CalEEMod does not have an option to input different trip lengths based on vehicle type. The project would generate 573 passenger car trips and 274 truck trips, of which 46 would be 2-axle trucks, 57 would be 3-axle trucks, and 171 would be 4-axle+ trucks. The previous Passenger Car emissions were calculated using 100 percent light duty automobiles. As suggested in the comment, emissions have been recalculated using a more diverse mix of employee vehicles including the following vehicle categories: passenger cars (LDA), light-duty trucks (LDT1 and LDT2), medium-duty trucks (MDV), and motorcycles (MCY). The 573 passenger car trips were modeled by proportionally altering these values based on the CalEEMod default values. Note that CalEEMod also includes other non-truck vehicles such as buses and motor homes; however, these vehicle classifications would not be associated with the project. The revised emissions are summarized in Table 9 of the revised Air Quality Analysis and Table 7 of the revised GHG Analysis. Accordingly, corresponding DEIR Tables 5.2-8 (see revised table under Response 9.6) and 5.7-7 (see revised table under Response 7.8) have been revised as well. For the truck mix, CalEEMod includes four truck categories: LHD1, LHD2, MHD, and HHD. The 2-axle trucks were modeled as LHD1, the 3-axle trucks were modeled as LHD2, and the 4-axle+ trucks were divided proportionally and modeled as MHD and HHD. As such, the truck emission modeling is correct and no changes to the truck modeling is needed. Justification for the modeled vehicle mix has been added to Section 6.2 of the revised Air Quality Analysis and Section 4.2.2 of the revised GHG Analysis.

It should be noted that even with these revisions to the DEIR, no change to the significance conclusions presented in the DEIR will result. Accordingly, this comment and the subsequent DEIR revisions do not affect the analysis completed or conclusions provided in the DEIR, do not provide new information or evidence related to the analysis completed in the DEIR, and do not reflect on the adequacy or content of the DEIR. This comment is noted for the record, and revisions to the DEIR have been made as noted above.

**Response 9.10:**

The comment states that the reduction in indoor water use is unsubstantiated. The comment also states that simply because CalGreen *expects* a 20 percent reduction in indoor water use does not guarantee that this reduction would be implemented locally on the Project site. This statement is incorrect. CalGreen mandatory measures, including the 20 percent reduction in indoor water use, are a *requirement* of the California Green Building Standards Codes and are required for all

new development in order to obtain building permits. As such, the analysis in the DEIR and underlying technical studies is correct. However, out of an abundance of caution, emissions were recalculated using the CalEEMod default water consumption rate. The revised emission calculations are provided in Table 7 of the revised GHG Analysis and corresponding DEIR Table 5.7-7 has been revised accordingly (see revised table under Response 7.8 and below). Revised Project GHG emissions would still be less than the 10,000 MT CO<sub>2</sub>E screening threshold, and GHG emissions would be less than significant as concluded in the DEIR.

**Table 5.7-7 – Summary of Project GHG Emissions (metric tons per year)**

Source	MT CO <sub>2</sub>	MT CH <sub>4</sub>	MT N <sub>2</sub> O	MT CO <sub>2</sub> E
Mobile – Passenger Cars	1,204 <u>1,465</u>	<1	0	1,204 <u>1,466</u>
Mobile – Trucks	4,316	<1	0	4,320
Energy Source	<del>781</del> <u>603</u>	<1	<1	<del>782</del> <u>604</u>
Area Sources	<1	<1	0	<1
Water/Wastewater Sources	<del>728</del> <u>695</u>	<del>4</del> <u>5</u>	<1	<del>846</del> <u>842</u>
Solid Waste Sources	<del>86</del> <u>115</u>	<del>5</del> <u>7</u>	<del>4</del> <u>0</u>	<del>214</del> <u>285</u>
Construction (Amortized over 30 years)	<del>37</del> <u>68</u>	<1	0	<del>38</del> <u>68</u>
<b>Total</b>	<b><del>7,152</del></b> <b><u>7,262</u></b>	<b><del>9</del> <u>12</u></b>	<b>&lt;1</b>	<b><del>7,405*</del></b> <b><u>7,587*</u></b>
<i>SCAQMD Significance Threshold for Industrial Sources</i>				<i>10,000</i>
MT CO <sub>2</sub> E = metric tons of carbon dioxide equivalent MT CH <sub>4</sub> = metric tons of methane MT N <sub>2</sub> O = metric tons of nitrous oxide *The GWPs included in CalEEMod are from the IPCC Fourth Assessment Report. For informational purposes, total emissions calculated by CalEEMod were adjusted to account for the updated IPCC Fifth Assessment Report GWPs. Using the current GWPs, total annual project emissions would be <del>7,428</del> <u>7,618</u> MT CO <sub>2</sub> , and would also be less than the screening threshold. Note that the IPCC updates the GWPs periodically, and the next anticipated update will occur in 2022.				

It should be noted that even with these revisions to the DEIR, no change to the significance conclusions presented in the DEIR will result. Accordingly, this comment and the subsequent DEIR revisions do not affect the analysis completed or conclusions provided in the DEIR, do not provide new information or evidence related to the analysis completed in the DEIR, and do not reflect on the adequacy or content of the DEIR. This comment is noted for the record, and revisions to the DEIR have been made as noted above.

#### **Response 9.11:**

The comment claims that the incorrect fugitive dust reduction was modeled. The modeled reduction of 61 percent is based on the SCAQMD Fugitive Dust Mitigation Measure Table XI-A accessed at <http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/mitigation-measures-and-control-efficiencies/fugitive-dust>. This reduction is based on watering three times per day. As a conservative analysis, the modeling has been revised to reflect a 55 percent reduction in fugitive dust for watering two times per day. The revised emission calculations are summarized in Tables 6 and 7 of the revised Air Quality Analysis and corresponding DEIR Tables 5.2-6 and 5.2-7 (see Response 7.8). Additionally, text in Section 6.1 regarding the project's compliance with SCAQMD Fugitive Dust Rule 403 has been revised as

follows: “This analysis assumes that standard dust and emission control during grading operations would be implemented to reduce potential nuisance impacts and to ensure compliance with SCAQMD Rule 403, which is estimated to result in a 55 percent reduction in fugitive dust from watering twice per day.” The revised construction emissions would still be less than the applicable thresholds, and air quality impacts would be less than significant.

It should be noted that even with these revisions to the DEIR, no change to the significance conclusions presented in the DEIR will result. Accordingly, this comment and the subsequent DEIR revisions do not affect the analysis completed or conclusions provided in the DEIR, do not provide new information or evidence related to the analysis completed in the DEIR, and do not reflect on the adequacy or content of the DEIR. This comment is noted for the record, and revisions to the DEIR have been made as noted above.

**Response 9.12:**

The comment claims that the reduction in solid waste is unsubstantiated and the design feature of providing storage areas for recyclables and green waste and recycling containers in public areas is not formally included as a mitigation measure. As stated in DEIR Section 4.2.6 of the GHG Analysis, “According to a CalRecycle report to the Legislature, as of 2013 California has achieved a statewide 50 percent diversion of solid waste from landfills through “reduce/recycle/compost” programs (CalRecycle 2015). However, AB 341 mandates that 75 percent of the solid waste generated be reduced, recycled, or composted by 2020. Therefore, to account for the continuing actions of recycling requirements under state law (i.e., AB 341), a 25 percent solid waste diversion rate was included in the model.” As such, the analysis in the DEIR and underlying technical studies is correct. However, out of an abundance of caution, the GHG emissions were recalculated without the application of any reduction in solid waste. The revised emission calculations are provided in Table 7 of the revised GHG Analysis and in corresponding DEIR Table 5.7-7 (see revised table in Response 7.8). Revised project GHG emissions would still be less than the 10,000 MT CO<sub>2</sub>E screening threshold, and GHG emissions would be less than significant, without mitigation, as concluded in the DEIR. GHG emissions were below thresholds of significance both with and without accounting for solid waste diversion in the modeling. As such, the design feature of providing recycling storage and containers does not need to be enforced as a mitigation measure as it is not necessary to reduce impacts to less than significant levels.

It should be noted that even with these revisions to the DEIR, no change to the significance conclusions presented in the DEIR will result. Accordingly, this comment and the subsequent DEIR revisions do not affect the analysis completed or conclusions provided in the DEIR, do not provide new information or evidence related to the analysis completed in the DEIR, and do not reflect on the adequacy or content of the DEIR. This comment is noted for the record, and revisions to the DEIR have been made as noted above.

**Response 9.13:**

The comment presents the results of SWAPE’s own CalEEMod emission calculations based on the preceding comments. The commenter attempts to provide updated modeling and claims it is based on information in the DEIR, however, the commenter provides no substantial evidence to support this claim. SWAPE’s calculations represent an overestimation of the Project’s actual construction and operational emissions. While some of SWAPE’s suggestions were incorporated

into the revised emission calculations as detailed in the preceding responses, others do not accurately reflect the project-specific information resulting in emissions that do not accurately reflect project-specific conditions. The following is a list of the parameters that SWAPE adjusted in their calculations as outlined in the first paragraph of the comment, and a discussion of why some were incorporated into the revised emission calculations, and why others are incorrect and were not incorporated into the revised emission calculations:

- Land use types and sizes – See Response 9.3. The comment claims that a separate office use should be modeled. However, the trip generation rate used in the Traffic Operations Analysis accounts for trips associated with all warehouse operations, including trucks and both office and warehouse employees. Additionally, since the total square footage of all warehouse and office space was modeled in CalEEMod, the calculated construction and operational emissions, including mobile, energy, area, water and wastewater, and solid waste sources, account for the proposed office space. Additionally, see Response 9.5. The comment claims that the DEIR underestimates the parking lot size. This is also incorrect since ArcGIS and ArcMap mapping programs along with CAD drawing files of the site plan were used to determine the amount of paving. Therefore, commenter's change in modeled land use is not justified and was not included in the revised modeling.
- Intensity factors – See Response 9.4. The comment states that the incorrect GHG intensity factors were modeled without substantiation. Response 9.4 provides an explanation of the reductions required by RPS and an explanation of how the intensity factor reductions were calculated. The emissions were recalculated using the most recent 2021 Riverside Public Utilities energy intensity factors (see Table 5.7-6 in Response 9.4). The default intensity factors that SWAPE used in their calculations are outdated and do not reflect the current Riverside Public Utilities renewable energy procurement, and therefore result in an overestimation of the project's energy-related GHG emissions.
- Architectural coating emission factors – See Response 9.6. SCAQMD Rule 1113 places VOC content limit on a variety of architectural coatings. The SWAPE CalEEMod calculations modeled a VOC content of 730 grams per liter. This is not correct. This VOC content is for a clear shellac, and this type of architectural coating would not be used for the Project. The ROG emissions calculated by SWAPE are hugely overestimated because it assumes that every exterior and interior surface of the building would be coated in clear shellac. As explained in Response 9.6, the coatings used for the Project would include building envelop coatings and non-flat coatings, which both have a VOC content limit of 50 grams per liter. The use of a VOC content of 730 grams per liter was not included in the revised modeling. However, out of an abundance of caution, criteria pollutant emissions were recalculated using the default VOC content value of 100 grams per liter.
- Vendor and worker trip numbers – See Response 9.8. CalEEMod applies the same worker/vendor trip rates to parking/asphalt surfaces as it does to office/industrial construction, resulting in an overestimate of actual trips. The default worker and vendor trip rates are discussed in Response 9.8. As explained, CalEEMod incorrectly applies these same worker and vendor trip rates to the total square footage of parking area, even though no building construction is associated with the parking areas.

- However, out of an abundance of caution, emissions were recalculated using the CalEEMod default values as recommended by SWAPE.
- Indoor water use rate – See Response 9.10. CalGreen mandatory measures, including the 20 percent reduction in indoor water use, are a requirement of the California Green Building Standards Codes and are required for all new development in order to obtain building permits. As such, the analysis in the DEIR and underlying technical studies is correct. However, out of an abundance of caution, emissions were recalculated using the CalEEMod default water consumption rate as recommended by SWAPE.
  - Construction phase lengths – See Response 9.7. The specific construction schedule was modified from the CalEEMod defaults based on information provided by the Project Applicant, and are based on a reasonable approximation of the project-specific schedule. The CalEEMod user's guide states that if the user has more detailed site-specific equipment and phase information, the user should override the default values. Therefore, the construction phasing and schedule modeled by SWAPE does not accurately reflect actual project conditions, and these changes were not incorporated into the revised modeling.
  - Operational vehicle fleet mix percentages – See Response 9.9. As suggested by SWAPE, the employee trip emissions have been remodeled by proportionally altering the LDA, LDT1, LDT2, MDV, and MCY vehicle categories.
  - PM<sub>10</sub> and PM<sub>2.5</sub> emissions reductions – See Response 9.11. The previously modeled dust reduction rate of 61 percent is based on SCAQMD Fugitive Dust Mitigation Measure Table XI-A, and corresponds to watering 3 times per day. To be consistent with DEIR mitigation measure BIO-3, this reduction was remodeled as 55 percent, corresponding to watering 2 times per day. This reduction is substantiated by SCAQMD.
  - Operational solid waste – See Response 9.12. SWAPE modeled no reduction in operational solid waste. To account for continuing actions of recycling requirements under state law (AB 341), the modeled reduction of 25 percent was substantiated. However, out of an abundance of caution, GHG emissions were recalculated without the application of any reduction in solid waste as recommended by SWAPE.

For these reasons presented in Responses 9.3 through 9.12 and summarized in the bullet point above, the SWAPE CalEEMod calculations presented in Comment 9.13 greatly overestimate project emissions, and do not accurately reflect actual project conditions. As presented in the revised Air Quality Analysis and GHG Analysis and outlined in the revised DEIR Tables below, the recalculated criteria pollutant and GHG emissions associated with construction and operation of the project, would still be less than all applicable thresholds. The analysis in the DEIR is correct, however, these revisions are done in an abundance of caution to illustrate that even without the justified reductions taken in the modeling, impacts would still be less than significant. Thus, as concluded in the DEIR and the underlying technical studies, air quality and GHG impacts would be less than significant.

**Table 5.7-6 – Riverside Public Utilities Intensity Factors**

<b>Riverside Public Utilities Intensity Factors (lbs/MWh)</b>				
GHG	CalEEMod Version 2016.3.2 Default values (lbs/MWh)	Intensity Factors with 0% RPS	Intensity Factors with 33% RPS	CalEEMod Version 2020.4.0 Intensity Factor
Carbon Dioxide (CO <sub>2</sub> )	1,325.65	1,569.57	1,051.61	<u>789.983</u>
Methane (CH <sub>4</sub> )	0.029	0.034	0.023	<u>0.033</u>
Nitrous Oxide (N <sub>2</sub> O)	0.006	0.007	0.005*	<u>0.004</u>

\*The correct N<sub>2</sub>O intensity factor of 0.005 was used in CalEEMod; however, the incorrect value of 0.004 was reported in Table 6 of the GHG Analysis. Table 6 of the GHG Analysis has been updated to reflect the current 2021 intensity factors.

**Table 5.7-7 – Summary of Project GHG Emissions (metric tons per year)**

Source	MT CO <sub>2</sub>	MT CH <sub>4</sub>	MT N <sub>2</sub> O	MT CO <sub>2</sub> E
Mobile – Passenger Cars	1,204 <u>1,465</u>	<1	0	1,204 <u>1,466</u>
Mobile – Trucks	4,316	<1	0	4,320
Energy Source	<del>781</del> <u>603</u>	<1	<1	<del>782</del> <u>604</u>
Area Sources	<1	<1	0	<1
Water/Wastewater Sources	<del>728</del> <u>695</u>	<del>4</del> <u>5</u>	<1	<del>846</del> <u>842</u>
Solid Waste Sources	<del>86</del> <u>115</u>	<del>5</del> <u>7</u>	<del>4</del> <u>0</u>	<del>214</del> <u>285</u>
Construction (Amortized over 30 years)	<del>37</del> <u>68</u>	<1	0	<del>38</del> <u>68</u>
<b>Total</b>	<del>7,152</del> <u>7,262</u>	<del>9</del> <u>12</u>	<1	<del>7,405</del> * <u>7,587</u> *
<i>SCAQMD Significance Threshold for Industrial Sources</i>				<i>10,000</i>

MT CO<sub>2</sub>E = metric tons of carbon dioxide equivalent  
 MT CH<sub>4</sub> = metric tons of methane  
 MT N<sub>2</sub>O = metric tons of nitrous oxide  
 \*The GWPs included in CalEEMod are from the IPCC Fourth Assessment Report. For informational purposes, total emissions calculated by CalEEMod were adjusted to account for the updated IPCC Fifth Assessment Report GWPs. Using the current GWPs, total annual project emissions would be ~~7,428~~ 7,618 MT CO<sub>2</sub>, and would also be less than the screening threshold. Note that the IPCC updates the GWPs periodically, and the next anticipated update will occur in 2022.

**Table 5.2-7 – Maximum Daily Construction Emissions Comparison to SCAQMD Significance Thresholds**

Construction	Emissions (pounds per day)					
	ROG	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Site Preparation	4	41	22	<1	<u>9</u> <u>10</u>	6
Grading	<u>4</u> <u>5</u>	<u>46</u> <u>57</u>	<u>32</u> <u>33</u>	<1	6	<u>2</u> <u>4</u>
Building Construction/Architectural Coatings <sup>1</sup>	<u>32</u> <u>59</u>	<u>29</u> <u>45</u>	<u>34</u> <u>51</u>	<1	<u>6</u> <u>11</u>	<u>2</u> <u>4</u>
Paving/Architectural Coatings <sup>1</sup>	<u>32</u> <u>58</u>	<u>46</u> <u>13</u>	<u>34</u> <u>21</u>	<1	2	1
<b>Maximum Daily Emissions<sup>2</sup></b>	<b><u>32</u><u>59</u></b>	<b><u>46</u><u>57</u></b>	<b><u>34</u><u>51</u></b>	<b>&lt;1</b>	<b><u>9</u><u>11</u></b>	<b>6</b>
<i>SCAQMD Regional Threshold</i>	<i>75</i>	<i>100</i>	<i>550</i>	<i>450</i>	<i>150</i>	<i>55</i>

<i>Exceed Threshold?</i>	No	No	No	No	No	No
<sup>1</sup> The architectural coatings phase of construction was modeled simultaneously with building construction and parking lot paving emissions.						
<sup>2</sup> Emissions were rounded to the nearest whole number, Emissions reported as <1 indicate that emissions were calculated to be less than 0.5 pound per day.						

**Table 5.2-8 – Summary of Project Operational Emissions**

Source	Emissions (pounds per day)					
	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>WINTER</b>						
Area Sources	14	<1	<1	<1	<1	<1
Energy Sources	<1	<1	<1	<1	<1	<1
Mobile Sources – Passenger Cars	1	4 <u>2</u>	47 <u>24</u>	<1	10	3
Mobile Sources – Trucks	2	37	17	<1	10	3
Parcel C Parking Lot Dust	=	=	=	=	<u>9</u>	<u>1</u>
<b>Total</b>	<b>17</b>	<b>38 <u>39</u></b>	<b>34 <u>41</u></b>	<b>&lt;1</b>	<b>19 <u>28</u></b>	<b>6 <u>7</u></b>
<i>Significance Threshold</i>	55	55	550	150	150	55
<i>Exceed Threshold?</i>	No	No	No	No	No	No
<b>SUMMER</b>						
Area Sources	14	<1	<1	<1	<1	<1
Energy Sources	<1	<1	<1	<1	<1	<1
Mobile Sources – Passenger Cars	1	4 <u>2</u>	49 <u>27</u>	<1	10	3
Mobile Sources – Trucks	2	36	16	<1	10	3
Parcel C Parking Lot Dust	=	=	=	=	<u>9</u>	<u>1</u>
<b>Total</b>	<b>17</b>	<b>37 <u>38</u></b>	<b>36 <u>44</u></b>	<b>&lt;1</b>	<b>19 <u>28</u></b>	<b>6 <u>7</u></b>
<i>Significance Threshold</i>	55	55	550	150	150	55
<i>Exceed Threshold?</i>	No	No	No	No	No	No
Note: Emissions were rounded to the nearest whole number. Emissions reported as <1 indicate that emissions were calculated to be less than 0.5 pound per day.						

It should be noted that even with these revisions to the DEIR, no change to the significance conclusions presented in the DEIR will result. Accordingly, this comment and the subsequent DEIR revisions do not affect the analysis completed or conclusions provided in the DEIR, do not provide new information or evidence related to the analysis completed in the DEIR, and do not reflect on the adequacy or content of the DEIR. This comment is noted for the record, and revisions to the DEIR have been made as noted above.

**Response 9.14:**

The commenter summarizes the results of the operational health risk assessment and then goes on to discuss the need for a construction related HRA and states that the DEIR's conclusion for a less than significant impact is flawed for three reasons. Specific responses to each of the three reasons presented in Responses 9.15 through 9.17 below.

**Response 9.15:**

The commenter states that the DEIR fails to quantitatively evaluate the Project's construction-related toxic air contaminant (TAC) emissions or make a reasonable effort to connect these emissions to potential health risk impacts to nearby sensitive receptors.

As part of the FEIR, a detailed construction HRA has been prepared utilizing the appropriate AERMOD modeling software (the same model used in the DEIR for operational HRA), which allows for calculation of annual average concentrations and allows for the geospatial placing of the source and receptors. The construction HRA utilizes the durations identified in SWAPE's comment letter along with the emissions estimates and number of days identified by SWAPE. Refer to Response 9.17 for more details related to the construction HRA methodology. The primary difference in the emissions is they are now appropriately divided over an average 8-hour per day construction period versus the inappropriate 24-hour per day assumption from SWAPE. Use of an 8-hour per day construction period is based on substantial evidence established through the construction surveys that are the basis for the 8-hour per day operations for construction equipment in CalEEMod. Further, an 8-hour workday is a reasonable assumption of construction work based on a typical 40-hour work week and is a recognized typical workday by SCAQMD. Also, as a Project Condition of Approval, construction will be limited to 8 hours a day, 5 days a week. SCAQMD's Fact Sheet for Applying CalEEMod to localized significance thresholds (LSTs) is based on the maximum area a given piece of equipment can pass over in an 8-hour workday, as noted in the DEIR analysis, and assumes that each piece of anticipated construction equipment will operate for 8 hours per day, which, in reality, already would overestimate construction emissions. For example, during grading operations, water trucks would not operate continuously for an 8-hour period but would instead be deployed as necessary—usually three to four times per day – to minimize fugitive dust. In fact, most pieces of equipment would likely operate for fewer hours per day than indicated in the DEIR. Based on the screening-level construction HRA calculations, the maximum estimated risk would be 1.99 in one million which is less than the applicable threshold of 10 in one million. As such, no significant impact would occur and the DEIR finding of less than significant health risks is appropriate. Appendix N to the FEIR includes the risk calculation and AERMOD output files.

It should be noted that even with the inclusion of Appendix N, no change to the significance conclusions presented in the DEIR will result. Accordingly, this comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. This comment is noted for the record, and no revisions to the DEIR are required.

**Response 9.16:**

The commenter states that the OEHHA recommends that all short-term projects lasting at least two-months be evaluated for cancer risks to nearby sensitive receptors and that the Project meets the threshold warranting a quantified construction-related HRA. Please see Response 9.15. As discussed in Response 9.15, as part of the FEIR, a detailed construction HRA has been prepared utilizing the appropriate AERMOD modeling software (the same model used in the DEIR for operational HRA), which allows for calculation of annual average concentrations and allows for the geospatial placing of the source and receptors. As further discussed in Response 9.15, based on the screening-level construction HRA calculations, the maximum estimated risk would be 1.99 in one million which is less than the applicable threshold of 10 in one million. As such, no significant impact would occur and the DEIR finding of less than significant health risks is appropriate. Appendix N to the FEIR includes the risk calculation and AERMOD output files.

It should be noted that even with the inclusion of Appendix N, no change to the significance conclusions presented in the DEIR will result. Accordingly, this comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. This comment is noted for the record, and no revisions to the DEIR are required.

**Response 9.17:**

The commenter states that the Project's operational HRA fails to evaluate cumulative lifetime cancer risk to nearby, existing receptors as a result of combined Project construction and operation. The commenter then states that an updated analysis should quantify the entirety of the Project's construction and operational health risks together. Please see Responses 9.15 and 9.16 above regarding the construction HRA analysis. Contrary to the commenter's assertions, a cumulative stacking of the construction health risks on top of the operational health risk impacts is not appropriate since the concentrations vary by location and the operational risk assessment is based on a separate 30-year exposure scenario consistent with applicable guidance.

The HRA modeled three different time periods of exposure, for three distinct land use types, as summarized in Appendix N of the DEIR. The HRA includes a 30-year exposure scenario for residential occupancies, a 25-year exposure scenario for worker occupancies, and a 9-year exposure scenario for a school-child occupancy. The use of the 30-year and 25-year exposure durations for residential and worker occupancies is based on recommendations published by SCAQMD in their *Risk Assessment Procedures for Rules 1401, 1401.1, & 212* (2017).<sup>12</sup> Page 7 of the SCAQMD guidance clearly identifies the Exposure Duration (ED) for a residential land use as 30-years and a worker location as 25-years. The commenters request for evaluating a 70-year exposure duration is not necessary or supported by substantial evidence. As shown in the additional discussion under Response 7.12, a 70-year exposure duration is very unlikely to occur given average residency times, specifically in California.

Therefore, this comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. This comment is noted for the record and no changes to the DEIR are required.

**Response 9.18:**

The commenter states that the screening-level analysis performed by SWAPE indicates a potentially significant health risk impact. However, the commenter's screening-level HRA has several critical flaws. The commenter utilizes the AERSCREEN model, which is not the most appropriate model for determining concentrations from construction activity for risk calculation. AERSCREEN is limited in that it only produces a 1-hour ground level concentration – risk assessments should be based on an annual average concentration as outlined in the SCAQMD's Mobile Source Toxic Analysis guidance<sup>13</sup>. The commenter attempts to adjust for this by applying

<sup>12</sup> <http://www.aqmd.gov/docs/default-source/permitting/rule-1401-risk-assessment/riskassessproc-v8-1.pdf?sfvrsn=12>

<sup>13</sup> <http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis>

a 10% conversion factor that is based on model documentation from 1992, which may no longer be relevant. Further, SWAPE's emission factor calculation is severely flawed: SWAPE takes the total daily emissions and divides them over a 24-hour period – effectively assuming that construction occurs 24 hours per day 7 days per week. The City of Riverside regulations prohibit construction from occurring 24 hours per day. This critical flaw, along with the aforementioned errors, results in a significant overestimation of the potential risk estimates from construction activity. It is also not appropriate or required to calculate the combined risk from construction and operations; since risk estimates are based on a source-receptor relationship, the point of maximum impact is not likely to be the same and stacking the risk estimates from short-term construction (which would cease upon the completion of each respective phase of construction) to on-going operational activity would not be appropriate and is not warranted.

Additionally, please see Response 9.15 and 9.16 for a discussion of the detailed construction HRA prepared as part of the FEIR, which utilizes the appropriate AERMOD modeling software (the same model used in the DEIR for the operational HRA). As concluded in Response 9.15 and 9.16, based on the screening-level construction HRA calculations, the maximum estimated risk would be 1.99 in one million which is less than the applicable threshold of 10 in one million. As such, no significant impact would occur and the DEIR finding of less than significant health risks is appropriate.

Therefore, this comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. This comment is noted for the record and no changes to the DEIR are required.

**Response 9.19:**

The comment claims that the quantitative GHG analysis is unsubstantiated for the reasons discussed in the previous comments. Refer to responses 9.2 through 9.18. As presented in the revised Air Quality Analysis and GHG Analysis, the recalculated criteria pollutant and GHG emissions associated with construction and operation of the project would be less than all applicable thresholds. Construction and operational criteria pollutant emissions would be less than the SCAQMD thresholds for ROG, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>, and GHG emissions would total 7,587 MT CO<sub>2</sub>E which would be less than the SCAQMD screening threshold of 10,000 MT CO<sub>2</sub>E. Thus, as concluded in the DEIR and the underlying technical studies, air quality and GHG impacts would be less than significant.

It should be noted that even with these revisions to the DEIR, no change to the significance conclusions presented in the DEIR will result. Accordingly, this comment and the subsequent DEIR revisions do not affect the analysis completed or conclusions provided in the DEIR, do not provide new information or evidence related to the analysis completed in the DEIR, and do not reflect on the adequacy or content of the DEIR. This comment is noted for the record, and revisions to the DEIR have been made as noted above.

**Response 9.20:**

The comment incorrectly claims that the GHG analysis is inadequate because the DEIR does not provide substantial evidence of consistency with the Riverside Restorative Growthprint Climate Action Plan (RRG-CAP) emissions reduction target of 49 percent emission reduction from the

2007 baseline. The DEIR and underlying technical study correctly rely on SCAQMD's recommendation, as documented in their September 2010 meeting minutes, to use 10,000 MT CO<sub>2</sub>E as an appropriate threshold to determine if additional analysis is warranted.

Based on the supporting analysis outlined in SCAQMD's draft GHG guidance and meeting notes, this screening level would capture 90 percent of GHG emissions from new industrial projects in the region. This type of market capture analysis captures a substantial fraction of the emissions from future development to accommodate for future population and job growth and excludes small development projects that would contribute a relatively small fraction of the cumulative statewide GHG emissions. The City relies on use this threshold because it has been recommended by SCAQMD and SCAQMD is the expert agency and regional authority for air quality in the South Coast Air Basin. Further, the Interim Thresholds document provides substantial evidence that the thresholds are consistent with the policy goals and GHG reduction targets set by the State. Specifically, the thresholds were set at levels that capture 90 percent of the GHG emissions from the above-described uses, consistent with the Executive Order S-3-05 target of reducing GHGs to 80 percent below 1990 levels by 2050.

There is no requirement to analyze the Project in relation to the presented 49 percent emission reduction from the 2007 baseline identified by the commenter. The DEIR and underlying technical study correctly utilize the SCAQMD-recommended 10,000 MT CO<sub>2</sub>E per year numeric threshold. This threshold is based on the concept of establishing a 90 percent GHG emission capture rate. The market capture rate is based on guidance from the California Air Pollution Control Officers Association (CAPCOA) report CEQA & Climate Change, dated January 2008, which identifies several potential approaches for assessing a project's GHG emissions (CAPCOA 2008)<sup>14</sup>. Following the market capture rate approach, a lead agency defines an acceptable capture rate and identifies the corresponding emissions level. Following rationale presented in the CAPCOA Guidance, the aggregate emissions from all projects with individual annual emissions that are equal to or less than the identified market capture rate would not impede achievement of the state GHG emissions reduction targets codified by AB 32 (2006) and SB 32 (2016) and impacts under CEQA would therefore be less than cumulatively considerable. Further, as identified in Section 3.2.3.3 of the GHG Analysis, the RRG-CAP provides a roadmap for the City to achieve GHG emission reductions through 2035 in line with State GHG reduction goals. Since the SCAQMD screening thresholds are consistent with the policy goals and GHG reduction targets set by the State, the Project in turn would also be consistent with the reduction goals identified in the RRG-CAP. As such, the analysis in the DEIR and underlying technical studies is correct and no changes are needed.

This comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. This comment is noted for the record and no changes to the DEIR are required.

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<sup>14</sup> California Air Pollution Control Officers Association (CAPCOA). 2008. CEQA & Climate Change, Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act, January.

**Response 9.21:**

The comment claims that the Project cannot be found to be consistent with the 2017 Scoping Plan because it is not evaluated against a performance based VMT per capita threshold.

For the purposes of the GHG analysis, there is no requirement to use the presented VMT per capita threshold identified by the commenter. The DEIR and underlying technical study correctly utilize the SCAQMD-recommended 10,000 MT CO<sub>2</sub>E per year numeric threshold for determining significance, as outlined in detail in Response 9.20 above.

Therefore, this comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. This comment is noted for the record and no changes to the DEIR are required.

**Response 9.22:**

The commenter states that as SWAPE's analysis demonstrates potentially significant air quality, health risk, and GHG impacts, SWAPE has recommended feasible mitigation measures.

As summarized in the DEIR and underlying technical studies, the Project would not result in a significant air quality or greenhouse gas impact. As such, there is no nexus to require additional mitigation and no additional mitigation is required. The commenter's claims that the DEIR fails to disclose impacts has been refuted in Responses 9.2 through 9.21; please refer to these responses for discussions on how the Project would not result in the types of impacts alleged by the commenter. However, the Project is already incorporating the following mitigation measures listed by the commenter:

- The Project will install conduit for vehicle charging stations.
- The Project will provide a total of 39 electric vehicle (EV) parking stalls to encourage the use of low or zero-emission vehicles.
- The Project will provide a total of 13 clean air/van pool parking stalls to support and encourage ridesharing.
- Material handling equipment will be electric or propane powered.
- The Project will provide short term and/or long-term bicycle parking accommodations in accordance with the California Green Buildings Standards Code Sections 5.710.6.2.1 to promote the use of bicycles.
- The Project will require building operators (by contract specifications) to turn off equipment, including heavy-duty equipment, motor vehicles, and portable equipment when not in use for more than five minutes. Truck idling shall not exceed five minutes in time. All facilities will post signs requiring that trucks shall not be left idling for more than five minutes pursuant to Title 13 of the California Code of Regulations, Section 2485, which limits idle times to not more than five minutes.
- During grading, heavy-duty construction equipment (i.e., excavators, graders, scrapers, dozers, tractor/loader/backhoes, etc.) shall be California Air Resources Board (CARB)/US Environmental Protection Agency (US EPA) Tier 3 certified. All construction equipment is subject to the CARB In-USE Off-Road Diesel-Fueled Fleets Regulation. This regulation, which applies to all off-road diesel vehicles 25 horsepower or greater, limits unnecessary idling to 5 minutes, requires all construction fleets to be labeled and reported to CARB,

bans Tier 0 equipment and phases out Tier 1 and 2 equipment (thereby replacing fleets with cleaner equipment), and requires that fleets comply with Best Available Control Technology requirements.

Although not required, the following mitigation measures listed by the commenter will be incorporated and added to the EIR and Mitigation Monitoring and Reporting Program (MMRP):

**MM AIR-2:** The Project applicant shall provide electrical hook ups to the power grid, rather than use of diesel-fueled generators, for electric construction tools, such as saws, drills and compressors and use of electric tools whenever feasible.

**MM AIR-3:** The Project applicant shall provide information on transit and ridesharing programs and services to construction employees.

**MM AIR-4:** The Project applicant shall post both interior and exterior facing signs, including signs directed at all dock and delivery areas, identifying idling restrictions and contact information to report violations to the California Air Resources Board (CARB), the South Coast Air Quality Management District (AQMD), and the building manager.

**MM AIR-5:** The Project applicant shall post signs at every truck exit driveway providing directional information to the truck route.

**MM AIR-6:** The Project applicant shall provide tenants with information on incentive programs, such as the Carl Moyer Program and Voucher Incentive Program, to upgrade their fleets.

It should be noted that even with these revisions to the DEIR, no change to the significance conclusions presented in the DEIR will result. Accordingly, this comment and the subsequent DEIR revisions do not affect the analysis completed or conclusions provided in the DEIR, do not provide new information or evidence related to the analysis completed in the DEIR, and do not reflect on the adequacy or content of the DEIR. This comment is noted for the record, and revisions to the DEIR have been made as noted above.

**Response 9.23:**

The commenter states that SWAPE retains the right to revise or amend their report when additional information becomes available. This comment does not relate to the adequacy or content of the DEIR, does not provide new information or evidence related to the analysis in the DEIR, and does not affect the analysis completed or conclusions provided in the DEIR. This comment is noted for the record and revisions to the DEIR are not required.

**Comment Letter 10 – Riverside County Flood Control and Water Conservation District**

Comment letter 10 commences on the next page.

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**From:** Johnson, Sharon <sjohnson@RIVCO.ORG>  
**Sent:** Thursday, July 22, 2021 1:59 PM  
**To:** Hernandez, Veronica  
**Subject:** [External] Sycamore Hills Distribution Center Project  
**Attachments:** City of Riverside Sycamore Hills DCP ~~District~~ Interest Letter.cleaned.pdf

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This email's attachments were cleaned of potential threats by The City of Riverside's Security Gateway.  
Click [here](#) if the original attachments are required (justification needed).

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Hi Veronica.

Attached please find the District's comment letter for the Sycamore Hills Distribution Center Project.

Sharon L. Johnson  
Senior Engineering Technician  
Riverside County Flood Control  
and Water Conservation District  
1995 Market Street  
Riverside, CA 92501  
951-955-8626

*~I may not have the best of everything, but I make the best of everything I have~*

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[County of Riverside California](#)

JASON E. UHLEY  
General Manager-Chief Engineer



1995 MARKET STREET  
RIVERSIDE, CA 92501  
951.955.1200  
951.788.9965 FAX  
www.rcflood.org

RIVERSIDE COUNTY FLOOD CONTROL  
AND WATER CONSERVATION DISTRICT

239280

July 22, 2021

City of Riverside  
Planning Department  
3900 Main Street  
Riverside, CA 92522

Attention: Veronica Hernandez

Re: Sycamore Hills Distribution Center Project  
APN 263-060-002, 263-060-024,  
263-060-026, NOA of a DEIR

The Riverside County Flood Control and Water Conservation District (District) does not normally recommend conditions for land divisions or other land use cases in incorporated cities. The District also does not plan check City land use cases or provide State Division of Real Estate letters or other flood hazard reports for such cases. District comments/recommendations for such cases are normally limited to items of specific interest to the District including District Master Drainage Plan facilities, other regional flood control and drainage facilities which could be considered a logical component or extension of a master plan system, and District Area Drainage Plan fees (development mitigation fees). In addition, information of a general nature is provided.

The District's review is based on the above-referenced project transmittal, received June 7, 2021. The District **has not** reviewed the proposed project in detail, and the following comments do not in any way constitute or imply District approval or endorsement of the proposed project with respect to flood hazard, public health and safety, or any other such issue:

- 10.1  This project would not be impacted by District Master Drainage Plan facilities, nor are other facilities of regional interest proposed.
- This project involves District proposed Master Drainage Plan facilities, namely\_\_\_\_\_, \_\_\_\_\_. The District will accept ownership of such facilities on written request of the City. Facilities must be constructed to District standards, and District plan check and inspection will be required for District acceptance. Plan check, inspection, and administrative fees will be required.
- This project proposes channels, storm drains 36 inches or larger in diameter, or other facilities that could be considered regional in nature and/or a logical extension of the adopted Master Drainage Plan. The District would consider accepting ownership of such facilities on written request of the City. Facilities must be constructed to District standards, and District plan check and inspection will be required for District acceptance. Plan check, inspection, and administrative fees will be required.

City of Riverside - 2 -  
Re: Sycamore Hills Distribution Center Project  
APN 263-060-002, 263-060-024,  
263-060-026, NOA of a DEIR

July 22, 2021

239280

- This project is located within the limits of the District's \_\_\_\_\_ Area Drainage Plan for which drainage fees have been adopted. If the project is proposing to create additional impervious surface area, applicable fees should be paid by cashier's check or money order only to the Flood Control District or City prior to issuance of grading or building permits. Fees to be paid should be at the rate in effect at the time of issuance of the actual permit.
- An encroachment permit shall be obtained for any construction related activities occurring within District right of way or facilities, namely, \_\_\_\_\_. For further information, contact the District's Encroachment Permit Section at 951.955.1266.

10.2 {  The District's previous comments are still valid (see attached letter dated August 20, 2020).

**GENERAL INFORMATION**

10.3 { This project may require a National Pollutant Discharge Elimination System (NPDES) permit from the State Water Resources Control Board. Clearance for grading, recordation, or other final approval should not be given until the City has determined that the project has been granted a permit or is shown to be exempt.

10.4 { If this project involves a Federal Emergency Management Agency (FEMA) mapped floodplain, then the City should require the applicant to provide all studies, calculations, plans, and other information required to meet FEMA requirements, and should further require that the applicant obtain a Conditional Letter of Map Revision (CLOMR) prior to grading, recordation, or other final approval of the project and a Letter of Map Revision (LOMR) prior to occupancy.

10.5 { If a natural watercourse or mapped floodplain is impacted by this project, the City should require the applicant to obtain a Section 1602 Agreement from the California Department of Fish and Wildlife and a Clean Water Act Section 404 Permit from the U.S. Army Corps of Engineers, or written correspondence from these agencies indicating the project is exempt from these requirements. A Clean Water Act Section 401 Water Quality Certification may be required from the local California Regional Water Quality Control Board prior to issuance of the Corps 404 permit.

Very truly yours,



DEBORAH DE CHAMBEAU  
Engineering Project Manager

Attachment

cc: Riverside County Planning Department  
Attn: Phayvanh Nanthavongdouangsy  
SLJ:blm

JASON E. UHLEY  
General Manager-Chief Engineer



1995 MARKET STREET  
RIVERSIDE, CA 92501  
951.955.1200  
951.788.9965 FAX  
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RIVERSIDE COUNTY FLOOD CONTROL  
AND WATER CONSERVATION DISTRICT

233158

August 20, 2020

City of Riverside  
Planning Department  
3900 Main Street  
Riverside, CA 92522

Attention: Veronica Hernandez

Re: Sycamore Hills Distribution Center Project  
APNs 263-060-002, 263-060-024  
and 263-060-026

The Riverside County Flood Control and Water Conservation District (District) does not normally recommend conditions for land divisions or other land use cases in incorporated cities. The District also does not plan check City land use cases or provide State Division of Real Estate letters or other flood hazard reports for such cases. District comments/recommendations for such cases are normally limited to items of specific interest to the District including District Master Drainage Plan facilities, other regional flood control and drainage facilities which could be considered a logical component or extension of a master plan system, and District Area Drainage Plan fees (development mitigation fees). In addition, information of a general nature is provided.

The District's review is based on the above-referenced project transmittal, received July 31, 2020. The District **has not** reviewed the proposed project in detail, and the following comments do not in any way constitute or imply District approval or endorsement of the proposed project with respect to flood hazard, public health and safety, or any other such issue:

- 10.6 {
- This project would not be impacted by District Master Drainage Plan facilities, nor are other facilities of regional interest proposed.
  - This project involves District proposed Master Drainage Plan facilities, namely \_\_\_\_\_, \_\_\_\_\_. The District will accept ownership of such facilities on written request of the City. Facilities must be constructed to District standards, and District plan check and inspection will be required for District acceptance. Plan check, inspection, and administrative fees will be required.
  - This project proposes channels, storm drains 36 inches or larger in diameter, or other facilities that could be considered regional in nature and/or a logical extension of the adopted Master Drainage Plan. The District would consider accepting ownership of such facilities on written request of the City. Facilities must be constructed to District standards, and District plan check and inspection will be required for District acceptance. Plan check, inspection, and administrative fees will be required.

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And 263-060-026 233158

- This project is located within the limits of the District's \_\_\_\_\_ Area Drainage Plan for which drainage fees have been adopted. If the project is proposing to create additional impervious surface area, applicable fees should be paid by cashier's check or money order only to the Flood Control District or City prior to issuance of grading or building permits. Fees to be paid should be at the rate in effect at the time of issuance of the actual permit.
- An encroachment permit shall be obtained for any construction related activities occurring within District right of way or facilities, namely, \_\_\_\_\_. For further information, contact the District's Encroachment Permit Section at 951.955.1266.
- The District's previous comments are still valid.

- 10.7 { **GENERAL INFORMATION**  
This project may require a National Pollutant Discharge Elimination System (NPDES) permit from the State Water Resources Control Board. Clearance for grading, recordation, or other final approval should not be given until the City has determined that the project has been granted a permit or is shown to be exempt.
- 10.8 { If this project involves a Federal Emergency Management Agency (FEMA) mapped floodplain, then the City should require the applicant to provide all studies, calculations, plans, and other information required to meet FEMA requirements, and should further require that the applicant obtain a Conditional Letter of Map Revision (CLOMR) prior to grading, recordation, or other final approval of the project and a Letter of Map Revision (LOMR) prior to occupancy.
- 10.9 { If a natural watercourse or mapped floodplain is impacted by this project, the City should require the applicant to obtain a Section 1602 Agreement from the California Department of Fish and Wildlife and a Clean Water Act Section 404 Permit from the U.S. Army Corps of Engineers, or written correspondence from these agencies indicating the project is exempt from these requirements. A Clean Water Act Section 401 Water Quality Certification may be required from the local California Regional Water Quality Control Board prior to issuance of the Corps 404 permit.

Very truly yours,



DEBORAH DE CHAMBEAU  
Engineering Project Manager

cc: Riverside County Planning Department  
Attn: John Hildebrand

SLJ/blm

**Letter 10 – Riverside County Flood Control and Water Conservation District****Commenter:** Deborah de Chambeau**Date:** July 22, 2021

**Response 10.1:** The commenter indicates that the project would not be impacted by District Master Drainage Plan facilities, nor are other facilities of regional interest proposed.

This comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. This comment is noted for the record and no changes to the DEIR are required.

**Response 10.2:**

The commenter indicates that the District's previous comments are still valid (in the attached letter dated August 20, 2020). The responses to the August comment letter are outlined below in Responses 10.6 through 10.9.

This comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. This comment is noted for the record and no changes to the DEIR are required.

**Response 10.3:**

The commenter indicates that this project may require a National Pollutant Discharge Elimination System (NPDES) permit from the State Water Resources Control Board (SWRCB). Clearance for grading, recordation, or other final approval should not be given until the City has determined that the project has been granted a permit or is shown to be exempt. The Project does require and will obtain an NPDES permit from the SWRCB.

This comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. This comment is noted for the record and no changes to the DEIR are required.

**Response 10.4:**

The commenter indicates that if this project involves a Federal Emergency Management Agency (FEMA) mapped floodplain, then the City should require the applicant to provide all studies, calculations, plans, and other information needed to meet FEMA requirements, and should further require that the applicant obtain a Conditional Letter of Map Revision (CLOMR) prior to grading recordation, or other final approval of the project and a letter of Map Revision (LOMR) prior to occupancy. The Project is not located within a FEMA mapped floodplain and a CLOMR or LOMR are not required.

This comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. This comment is noted for the record and no changes to the DEIR are required.

**Response 10.5:**

The commenter indicates that if a natural watercourse or mapped floodplain is impacted by this project, the City should require the applicant to obtain a Section 1602 Agreement from the California Department of Fish and Wildlife (CDFW) and a Clean Water Act (CWA) Section 404 Permit from the U.S. Army Corps of Engineers (USACE or Corps), or written correspondence from these agencies indicating the project is exempt from these requirements. A CWA Section 401 Water Quality Certification may be required from the local California Regional Water Quality Control Board (RWQCB or Waterboards) prior to issuance of the Corps 404 permit. The Project will result in impacts to natural watercourses and will need to obtain a Section 404 permit from USACE, Section 401 Certification from the RWQCB, and a Streambed Alteration Agreement from CDFW, as outlined in the DEIR, Section 5.3 Biological Resources, page 5.3-35.

This comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. This comment is noted for the record and no changes to the DEIR are required.

**Response 10.6:**

The commenter indicates that the project would not be impacted by District Master Drainage Plan facilities, nor are other facilities of regional interest proposed. This comment is the same as 10.1.

This comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. This comment is noted for the record and no changes to the DEIR are required.

**Response 10.7:**

The project will have to obtain coverage under the NPDES general Construction permit prior to grading permit issuance by the City. This comment is the same as 10.3. The Project does require and will obtain an NPDES permit from the SWRCB.

This comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. This comment is noted for the record and no changes to the DEIR are required.

**Response 10.8:**

The project site is not located within mapped floodplain and will not require a CLOMR or LOMR. This comment is the same as 10.4. The Project is not located within a FEMA mapped floodplain and a CLOMR or LOMR are not required.

This comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. This comment is noted for the record and no changes to the DEIR are required.

**Response 10.9:**

The project requires a CDFW Section 1602 Lake or Streambed Alteration Agreement, USACE Section 404 permit, and CA Waterboards 401 Water Quality Certification. All said permits have been applied for and must be obtained prior to City issuing the grading permit. This comment is the same as 10.5. The Project will result in impacts to natural watercourses and will need to obtain a Section 404 permit from USACE, Section 401 Certification from the RWQCB, and a Streambed Alteration Agreement from CDFW, as outlined in the DEIR, Section 5.3 Biological Resources, page 5.3-35.

This comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. This comment is noted for the record and no changes to the DEIR are required.

**Comment Letter 11 – Friends of Riverside’s Hills**

Comment letter 11 commences on the next page.

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**From:** watkinshill@juno.com  
**Sent:** Thursday, July 22, 2021 4:59 PM  
**To:** Hernandez, Veronica  
**Subject:** [External] Comments on DEIR for Sycamore Highlands  
**Attachments:** SycamoreHills-FRH-CommentsOnDEIR.cleaned.pdf

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Hi Veronica:  
Please find attached the FRH comments on the DEIR for the Sycamore Highlands Project.  
Thanks,  
Len

July 22nd, 2021

To: Veronica Hernandez, Senior Planner, City of Riverside

From: Leonard Nunnex for Friends of Riverside's Hills (FRH)

Re: Response to Sycamore Hills Distribution Center Draft EIR, State Clearinghouse No. 2020079023.

- 11.1 {
  - The proposed project site is in a very environmentally sensitive area at the southern edge of Sycamore Canyon Wilderness Park (SCWP), a park of approximately 1500 acres. This natural open space area is a critical component in the conservation of biodiversity in Western Riverside County and, as such is a core area within the Western Riverside County Multiple Species Habitat Conservation Plan (the MSHCP). Being within the City of Riverside, it is also important to the enjoyment of natural open space by residents of the area and visitors. The concerns documented in this letter focus on these two issues; the sensitivity of the area requires very carefully constructed mitigation measures.
  - Friends of Riverside's Hills (FRH) is a 501(c)(3) non-profit group dedicated to the preservation and enhancement of the quality of life of the residents of Riverside by maintaining the natural beauty of the City, and by promoting the establishment of a network of linked natural open space areas in the City of Riverside and in the surrounding area.
  - In presenting the concerns of FRH, I need to point out that I am a professor at the University of California Riverside and one aspect of my research concerns the ability of small populations to avoid extinction. For example, two of my early (1990s) peer-reviewed scientific papers (Assessing minimum viable population size: demography meets population genetics, and Estimating the effective population size of conserved populations) have been cited 403 and 388 times, respectively, according to Google Scholar (as of today). As a result of my expertise, I became a member of the Scientific Advisory Panel that was involved in the establishment of the MSHCP.
- 11.2 {
  - Aesthetics**
  - Threshold A: Would the Project have a substantial adverse effect on a scenic vista?**
  - The DEIR states there would be a less than significant impact without mitigation. However, the DEIR failed to consider the significant impact on the many individuals using the adjoining natural space wilderness area, SCWP. The project does incorporate a feature to mitigate this effect: a 42" cable fence with an inner fire-resistant boundary of locally native trees (Figure 3.0-12A). Because this mitigation is required in perpetuity it is important that a mitigation measure be added that requires the cable fencing and vegetation be maintained into the future. In particular, it needs to be required that any trees or plants that die must be replaced with a similar locally native trees or plants.
- 11.3 {
  - Air Quality.**
  - Threshold A: Would the Project conflict with or obstruct implementation of the applicable air quality plan?**

11.3  
cont'd

**Threshold B: Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard?**

Both are considered in the DEIR as Significant without Mitigation. However, the mitigation condition MM AIR-1 (prohibit manufacturing use) does not address the primary source of air pollution resulting from the project, which is the diesel particulate pollution from trucks arriving at, idling, and leaving from the warehouse facility, or from the motorized equipment involved in such activities as loading the trucks. It is stated that idling will be limited to 5 minutes (DEIR sec. 3.2.4); however, unless this is a mitigation measure it is not enforceable and can be ignored in the future. Such a mitigation measure needs to be added, since without it there may be a significant impact on air quality.

11.4

**Biological Resources.**

**Threshold A: Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U. S. Wildlife Service?**

Significant without mitigation; however, the mitigation is inadequate to achieve the stated goal of less than significant.

MM BIO-1 concerns the paniculate tarplant and Robinson's pepper-grass, and relies on restoration based on on-site seed collection or the retention of topsoil. We hope that seed collection has already occurred in a good rainfall year. It is unlikely that many plants would have grown or set viable seed in this current severe drought. If seeds have not yet been collected, they would need to be collected during the appropriate seeding season for these plants in the next, reasonably good rainfall year. That would be in the spring for the pepper-grass and mid-summer to fall for the tarplant. Unfortunately, the mitigation measure, by allowing the option of only using stored topsoil provides no guarantee of success, and the seed collection, by failing to specify the number of parent plants contributing to the seed collection also fails to provide much guarantee of success. Thus, MM BIO-1 does not provide adequate mitigation as defined. At a minimum it should require on-site seed collection (or, if necessary, from nearby locations as defined below) and the use of stored onsite topsoil, with some quantified minima placed on these two components.

11.5

MM NOI-1 concerns least Bell's vireo within 300ft (in SCWP) or within 100ft (inside the project boundaries) of project development. The primary mitigation strategy is a 12ft high noise-reducing fence. Unfortunately, this mitigation measure fails to require the identification of nesting activity, which should result in a cessation of activity within the stated boundaries until nesting is complete. In any event, the mitigation measure fails to mention a minimum distance considered too close for construction activity. For example, if a bird can be seen singing within 10ft of project activity, a sound wall will be totally ineffective at protecting that bird from noise. The appropriate mitigation strategy is to plan the construction outside of the time window of nesting activity (roughly mid-March to the end of August), but, at the very least, to require construction activity to occur during that period at least 300 ft away from the riparian areas. This recommendation links in with (and uses the same general principles as) the less restrictive MM BIO-9 that relates to all bird species.

- 11.5 **cont'd** { See also concerns over noise mitigation listed below.
- 11.6 { **Threshold B: Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?**
- 11.6 { **Threshold C: Would the Project have a substantial adverse effect on Federally-protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**
- 11.6 { Both significant without mitigation; however, all of the mitigation measures relate only to the construction phase of the project and not to the continuing potential impacts to the riparian habitat within and near to the project site.
- 11.7 { **Threshold F: Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?**
- 11.7 { There are some good and important mitigation measures required here, particularly those preventing any light intrusion into SCWP both during construction and beyond. However, again, most of the biological mitigation measures (MM BIO) address issues related to construction. MM BIO-11 is added here and continues this pattern of avoiding impacts that can occur after construction. It is noted that "Temporary impacts shall be returned to pre-existing contours and revegetated with appropriate native species." It should be added that the material used in revegetation should be collected within SCWP or within the local ecoregion (e.g., within M262Bk Section: Southern California Mountains and Valleys, Subsection: Perris Valley and Hills, and M262Bj Section: Southern California Mountains and Valleys, Subsection: Fontana Plain and Calimesa Terraces) otherwise there is a danger of introducing maladapted genotypes that can negatively affect the local population.
- 11.7 { The requirements of the MSHCP urban-wildlands interface require careful evaluation of the plant palette to be used. An appropriate palette was provided by Dr. Montalvo, an expert in restoration; however, we find that a number of inappropriate plants have been retained. These can result in a significant impact and should be removed.
- 11.8 { **Energy.**
- 11.8 { **Threshold B: Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?**
- 11.8 { **Threshold C: Would the Project achieve the goal of energy conservation by the following?**
- 11.8 { **Decreasing overall per capita energy consumption;**
- 11.8 { **Decreasing reliance on fossil fuels such as coal, natural gas and oil; and**
- 11.8 { **Increasing reliance on renewable energy sources.**
- 11.8 { These are listed as less than significant factors; however, while the project does go some way to achieve energy efficiency under California's Green Building Code Title 24 standards, there is one area that needs to be mitigated to ensure progress towards California's goal of achieving

11.8 cont'd. carbon neutrality by increasing reliance on renewable energy. It is stated that the buildings will "have "solar ready" roofs that will structurally accommodate later installation of rooftop solar panels, and that building operators providing rooftop solar panels will submit plans for solar panels prior to occupancy" (DEIR sec. 3.2.4). Unfortunately, nowhere is there an enforceable mitigation measure that ensures solar panels will ever be installed on any building. Even the quoted section does not state that operators will provide rooftop panels. As such there is a potentially significant impact that can easily be mitigated, but at present is not.

11.9 **Noise.**  
**Threshold A: Would the Project result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**  
**Threshold B: Would the Project result in the generation of excessive groundborne vibration or groundborne noise levels?**  
 A: Significant without mitigation; B: Not significant. However, MM NOI-1 only applies during construction. A long-term concern applies to nighttime noise and vibration levels around the western northern and north-eastern loading bays of Building A as large trucks come and go. The potential effect of vibration on animals living in burrows (such as Stephen's kangaroo rat) was not considered, but the vibration coming from large trucks will travel a significant distance.  
 Several mitigation measures are possible: one is to eliminate or significantly reduce the sound of backup warnings during nighttime hours. Another is to prohibit nighttime use during a few hours each night, so that there is a period of continuous quiet during each night when animals are undisturbed.

Thanks for your attention to these issues.  
 Regards,  
 Len Nunney, for Friends of Riverside's Hills.

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**From:** watkinshill@juno.com  
**Sent:** Thursday, July 22, 2021 5:12 PM  
**To:** Hernandez, Veronica  
**Subject:** [External] Attachments for the FRH letter Re Sycamore Hills  
**Attachments:** Attachment to FRH letter-Comments on Plant Palettes for Sycamore Hills Distribution Center A Montalvo.cleaned.pdf; Attachment to FRH letter -plant palettes for Sycamore Hills Distribution Center Montalvo comments and edits.xlsx

11.10 This email's attachments were cleaned of potential threats by The City of Riverside's Security Gateway. Click <<http://securegateway.riverside.tld/UserCheck/PortalMain?IID={B4A285B3-7D77-3240-8E7D-A8DD5FF5B3C8}&origUrl=>>> if the original attachments are required (justification needed).

Hi Veronica:

I realize these attachments to the FRH comments letter are 10 minutes late, but I think they would help evaluate one of our concerns that came up at the very last minute (we thought the issue was resolved because we had submitted these attachments to the developer some time ago at his request). [So](#) if possible please include them with our letter, and if not, please add them to the file so that they can be referenced later if necessary.

Thanks,  
Len

### Sycamore Hills Distribution Center- Comments on Proposed Landscaping and Revegetation Plan (2/4/2021 comments)

Native plants form the backbone of wild plant communities and wildlife habitat. In the wildland-urban interface, landscaping, restoration, and revegetation plans need to be reviewed to ensure they engage practices that protect the integrity of adjacent plant populations, the native vegetation communities, and the diversity of wildlife supported. This is especially important for development plans adjacent to reserves such as the Sycamore Canyon Wilderness Park and Reserve because the choice of plants for planting projects can have long-lasting effects on the reserve. In this period of rapid climate change, the ecological source of plant species, seeds, and other propagules can be especially critical to the establishment and long-term success of the plants used and their ability to reproduce over time. It is important to determine which plants are native to the target planting site and reserve (especially for restoration, water quality, and mitigation plantings) and which plants could potentially escape ornamental landscaping and become invasive within the reserve.

Steps can be taken to ensure that native plant materials for the project are appropriately adapted to the harsh inland environment. Seeds for seeding and container plant production should be obtained from wild populations of the local ecoregion or amplified from seeds sourced from within the interior valleys and foothills (below 2,500 ft. elevation) of Western Riverside County (within the Southern California Inland Mountains and Valleys ecological region). Sourcing of seeds and plant materials is best guided by experts with knowledge of the ecology, genetics, species distributions, and patterns of climate change over the landscape.

11.10  
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Here are a few guidelines with regard to choices of plants for landscaping and mitigation areas:

- In mitigation areas, habitat plantings, and areas immediately adjacent to habitat, use native taxa that are actually local to this region of California, including varieties and subspecies.
- All plant materials used in landscaping adjacent to the Reserve, and which are not native to the local region, must be known to be non-invasive and unlikely to naturalize in the adjacent native habitat.
- Substitutions of California plant species, varieties or subspecies sourced from more coastal or higher rainfall regions should not occur.

Online tools are available to explore what plants are native and the potential of horticultural plants to invade wildlands. Local experts can also be consulted. It is no longer sufficient to exclude only the invasive plants noted in the Western Riverside County MSHCP<sup>1</sup>. Since the time that the MSHCP was signed, additional plants have been found to naturalize and become invasive in wildlands. One can easily consult the California Invasive Plant Council<sup>2</sup> website and search the Consortium of California Herbaria<sup>3</sup> (CCH) and CalFlora<sup>4</sup> databases to see if non-native plants from horticulture are being recorded as naturalized in local wildlands. The latter two databases can be used in concert with the Jepson e-flora<sup>5</sup> and plant profiles of important restoration plants<sup>6</sup> to determine what taxa are native to the area and appropriate to use.

For my review of the plant palettes for this project, I consulted the references noted above together with my personal experience. I have over 25 years of experiences in restoration practice and research involving southern California native plants and vegetation communities.

11.10  
cont'd



Location of project site relative to Sycamore Canyon Wilderness Park Reserve

Developments on the edge of habitat reserves have an opportunity and a special responsibility to use plant species in their landscaping and restoration plans that are compatible with the plants and wildlife of the adjacent reserve lands. This is especially true when there is sensitive habitat within the reserve. The current project overlaps and is adjacent to the Sycamore Canyon Wilderness Park and Reserve in Riverside, California (Reserve). There is sensitive riparian habitat (California State jurisdictional waters) and Steven's Kangaroo Rat Habitat adjacent to the project site. The project will also temporarily impact some habitat and there are plans to revegetate impacted areas. In addition to landscaping next to the Reserve, the plan includes revegetated slopes, water quality basins, and a parking area with native

11.10  
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landscaping. The use of appropriate plant materials is feasible for this site and can be done by providing adequate notice to native plant and seed suppliers. The following review of the plant palettes is provided for the special case of development and planting in the vicinity of sensitive reserve lands.

I have attached an excel spreadsheet with 8 tabs containing notes about the plant palettes provided to me on the landscaping plans in July 2020. Tabs in the spreadsheet refer to the following information regarding the landscaping plan:

- Summary of plant palettes covered (general comments on each palette and general recommendations)
- Plants to remove from palettes (provides links to websites and evidence of invasiveness)
- Hydroseeding palette revisions (detailed comments; palette reworked using PLS pounds and alternative taxa)
- Bio-Retention container plants (detailed comments as to which plants to replace and suggested replacement plants)
- Park Landscape – in DG (comments on each plant taxon and potential replacements)
- Fuel Modification Area (suggest one taxon be replaced owing to flammability issue; provide list of slower to ignite natives good for this zone)
- Trees (comments on trees, which ones should be replaced, and suggested substitutions)
- Shrubs (list of shrubs to replace and replacement suggestions)

Please provide questions in writing. We can always schedule an online meeting to discuss options.

Arliee Montalvo, Ph.D.  
Plant Restoration Ecologist  
montalvo@ucr.edu

Attachment to FRH letter -plant palettes for Sycamore Hills Distribution Center. ~~Montano comments and edits.xlsx~~

**Summary of Plant Palette review. See individual tabs for details on each palette**

See invasive plants tab for details.

Use of 5 gal. containers is not necessary for the shrubs and ground covers. Use 1 gal and save dollars.

11.10  
cont'd

Palette Name	comment summary
Accents	No invasiveness issues and no recommended changes. Not adjacent to reserve. Non-native palette with succulents and Lantana 'Gold Mound'
Trees	Remove invasive tree <i>Rhus lancea</i> . Recommendations for substitutions are provided.
Shrubs	Remove the Texas privet and <i>Baccharis pilularis</i> 'Centennial' which can invade reserve. Potential substitutions are provided.
Groundcover	No issues. OK as is.
Fuel Modification Area	<i>Artemisia californica</i> is quick to ignite and should be replace with a plant with slower ignition potential. Potential substitutions are provided.
Bio Retention Area	All species need to be native to this area because it drains into native areas and non-native plants are likely to disperse downstream. Some species are inappropriate for the site and can invade native streams. Substitutions are provided that make more sense for this hot summer, inland area.
Park Landscape- for DG	Try substituting <i>Eriogonum fasciculatum</i> var. <i>polifolium</i> for the dwarf coyote brush. The <i>Keckiella cordifolia</i> tends to occur in somewhat higher rainfall areas in our region and may not survive well at this hot, exposed location; two potential replacement plants include <i>Solanum xanti</i> and <i>Epilobium canum</i> var. <i>canum</i> .
Seed for hydroseeding	There are multiple problems with this seeding palette. It includes some inappropriate taxa for this site and it lacks a specification for Pure Live Seed (PLS). Recommended changes are provided including specification for PLS pounds that will probably save dollars.

Attachment to FRH letter -plant palettes for Sycamore Hills Distribution Center, Montalvo comments and edits.xlsx

plants to remove from palettes

**Plants to Remove from Plant Palettes. Removal requested because they can be invasive into wildlands.**

Scientific name	Common Name	Problems	Links to sites that describe invasiveness	Calflora Map-naturalized	Normal range of parent taxon (if California plant)
<i>Ligustrum lucidum</i>	Texas privet, tree privet	Plants produce copious berry-like fruits that are dispersed by birds and water. The plant can invade riparian areas.	<a href="https://www.cal-ipc.org/plants/profile/ligustrum-lucidum-profile/">https://www.cal-ipc.org/plants/profile/ligustrum-lucidum-profile/</a>	<a href="https://en.wikipedia.org/wiki/Privet_as_an_invasive_plant">https://en.wikipedia.org/wiki/Privet_as_an_invasive_plant</a>	<a href="https://www.calflora.org/cgi-bin/species_query.cgi?where=calrecnum=12012">https://www.calflora.org/cgi-bin/species_query.cgi?where=calrecnum=12012</a>
<i>Rhus laevis</i>	African sumac	Use male trees or replace. Fruits from female trees are bird dispersed and plants can be invasive in landscaping and riparian areas and ephemeral drainages of the adjacent reserve and other landscaping. Pollen from	<a href="http://www.public.asu.edu/~scapactia/plants/Plant%20html%20files/searsialaoccea.html">http://www.public.asu.edu/~scapactia/plants/Plant%20html%20files/searsialaoccea.html</a>	<a href="https://www.fs.fed.us/r3/resources/health/inv/invasives/shrubsTrees/africanSumac.shtml">https://www.fs.fed.us/r3/resources/health/inv/invasives/shrubsTrees/africanSumac.shtml</a>	<a href="https://www.calflora.org/cgi-bin/species_query.cgi?where=calrecnum=12012">https://www.calflora.org/cgi-bin/species_query.cgi?where=calrecnum=12012</a>
<i>Baccharis pilularis</i> <del>Centenaria</del>	<del>Centenaria</del> coyote bush	Will likely invade reserve. This is a horticultural selection of <i>Baccharis pilularis</i> var. <i>coprosanguinea</i> . The species occurs naturally in more coastal and northern habitats. When planted in our area, it can invade riparian areas. <i>Baccharis pilularis</i> has often been <del>mis</del> specified for planting in our region.	Personal observations in and near Riverside.		<a href="https://www.calflora.org/cgi-bin/species_query.cgi?where=calrecnum=11369">https://www.calflora.org/cgi-bin/species_query.cgi?where=calrecnum=11369</a>
<i>Elaeagnus pungens</i>	silverberry	Plant only away from reserve to prevent spread into reserve. The related <i>E. angustifolia</i> , Russian olive is invasive into seasonally moist places in California. <i>E. pungens</i> invades wildlands throughout the southeastern USA. DO NOT substitute with <i>E. angustifolia</i>	<a href="https://www.invasiveplants.org/subject.html?sub=4526">https://www.invasiveplants.org/subject.html?sub=4526</a>	<a href="https://www.calflora.org/cgi-bin/species_query.cgi?where=calrecnum=2897">https://www.calflora.org/cgi-bin/species_query.cgi?where=calrecnum=2897</a>	
<i>Cassia phyllodes</i> (= <i>Senna artemisioides</i> )	silverleaf cassia	Seeds itself readily into landscaped areas and potentially into adjacent natural areas <del>where</del> moisture exists. Plant away from reserve edges to insure it does not invade reserve.	Personal observation and observations in CalFlora in wildlands.	<a href="https://www.calflora.org/cgi-bin/species_query.cgi?where=calrecnum=8576">https://www.calflora.org/cgi-bin/species_query.cgi?where=calrecnum=8576</a>	

11.10 cont'd

Attachment to FRH letter -plant palettes for Sycamore Hills Distribution Center\_Montalvo\_comments and edits.xlsx

hydroseed palette revisions

Comments on hydroseeding mix for Park Landscape - planted in decomposed granite

The seed mix is being used adjacent to conservation areas or the wildland park reserve. As such, it should use plants that are NATIVE to the area. There should be designation of correct subspecies and varieties and all seed should come from the local ecoregion.

Seed should originate from inland southern California region (not coast or mountains)

The list A below should be replaced with List B which is appropriate for the location. List B provides taxa adapted to our extreme, inland area. It also considers Pure Live Seed (PLS) pounds so that in the total mix, between 25 and 50 live seeds would be deposited per square foot, depending on seeding method. A PLS pound is adjusted from bulk pounds by the seed lot data for the proportion that is live seeds and non-seed material. For example, if a bulk lb. of seed has a 80% germination but is only 50% pure, the PLS of the lot is 40%. For the example seed lot, a PLS pound weighs 2.5 pounds. This assures you are getting the recommended numbers of live seeds/sq foot applied to the location.

**A. Hydroseeding mix in plan document that needs to be revised:**

ID	Botanical Name	Common Name	bulk lb/acre	PLS lb/acre	Notes: A target purity and germination needs to be provided when you give bulk pounds. Use PLS pounds. See table below with revised mix.
	<i>Aristida purpurea</i>	purple three-awn	3		Not from this habitat. Replace with local perennial bunchgrass such as <i>Stipa pulchra</i> , <i>Oxylocha imperfecta</i>
	<i>Artemisia californica</i>	California sage brush	4		taxon OK, but use PLS pounds
	<i>Encelia farinosa</i>	brittlebush, eggcactus	5		taxon OK, but use PLS pounds
	<i>Eriogonum fasciculatum</i>	California buckwheat	12		use var. <i>foliolosum</i> or var. <i>polifolium</i> (not the coastal var. <i>fasciculatum</i> )
	<i>Mimulus aurantiacus</i>	orange bush monkeyflower	2		Wrong species for here. Use <i>Diaplasis longiflorus</i> .
	<i>Salvia apiana</i>	white sage	2		OK
	<i>Salvia mellifera</i>	black sage	2		OK
	<i>Scrimson globe</i> ( <i>Lotus scoparius</i> )	deerweed	5		use var. <i>oreyolatus</i> , (never the coastal var. <i>globe</i> )
	<i>Erysiphe californica</i>	California poppy	3		OK- use native annual seeds, not domesticated seeds
	<i>Lupinus truscatus</i>	collard annual lupine	3		OK
	<i>Salvia columbiana</i>	chia	3		OK
	<i>Plantago erecta</i>		4		OK
	<i>Festuca microstachys</i> ( <i>Vulpia microstachys</i> )		3		OK
			46		58.5 guide in mix target

shrub/subshrubs	common name	PLS lb/acre in mix	example % purity/ % germ	resulting bulk lb.	seeds/ PLS lb.	live seeds/ sq ft**
<i>Scrimson globe</i> var. <i>oreyolatus</i>	inland deerweed	0.70	60/90	1.30	158,840	2.6
<i>Artemisia californica</i>	California sage brush	0.08	50/15	1.07	5,500,000	10.1
<i>Encelia farinosa</i>	brittlebush	0.30	60/40	1.25	450,000	3.1
<i>Eriogonum fasciculatum</i> var. <i>foliolosum</i>	California buckwheat	0.70	65/10	11.67	500,000	8.0
<i>Diaplasis longiflorus</i>	monkey flower	0.05	55/15	0.61	12,000,000	13.8
<i>Salvia apiana</i>	white sage	0.70	50/70	2.00	325,000	5.2
<i>Salvia mellifera</i>	black sage	0.60	50/70	1.71	529,000	7.3
		3.13		19.60		
					subtotal shrubs	50.1
<b>annuals, perennials, and grasses</b>						
<i>Eriogonum confertiflorum</i> var. <i>confertiflorum</i>	golden yarrow	0.20	60/30	1.11	2,750,000	13.6
<i>Erysiphe californica</i> (inland form)	California poppy	0.10	75/98	0.14	1,000,000	2.3
<i>Lupinus truscatus</i>	collard annual lupine	1.10	85/90	1.44	40,000	1.0
<i>Phacelia distans</i>	common phacelia	0.30	90/70	0.48	510,000	3.5
<i>Phacelia minor</i>	California bells	0.10	90/30	0.37	1,453,600	3.3
<i>Plantago erecta</i>	dotseed plantain	1.20	90/80	1.67	250,000	6.9
<i>Salvia columbiana</i>	chia	0.50	90/50	1.43	550,000	6.3
<i>Stipa pulchra</i> (or <i>S. spida</i> )	purple needle grass	1.00	70/60	2.38	125,000	2.9
<i>Vulpia microstachys</i> ( <i>Festuca microstachys</i> )	small fescue	0.75	90/70	1.19	300,000	5.2
		5.25		10.20		
					subtotal herbs/grasses	44.0
					total seeds/sq ft	94.1
other possible substitutions/additions (early annuals):						
<i>Scrimson globe</i>	strigose lotus				400,000	
<i>Phacelia ripensans</i>	branching phacelia			perennial	550,000	
<i>Lupinus bicolor</i> (might list as <i>L. californica</i> )	slender goffwells			make sure if listed as <i>L. californica</i> , it comes from Socal.	4,000,000	
<i>Lupinus bicolor</i>	miniature lupine				100,000	
<i>Poa secunda</i>	sheep bluegrass					

11.10  
cont'd

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Attachment to FRH letter -plant palettes for Sycamore Hills Distribution Center, ~~Moist~~ comments and edits.xlsx

Bio-Retention container plants

11.10  
6007.d

Bio-Retention Area-			
Scientific name	common name	life form	comments
This empties into Sycamore Canyon's streams so needs to use locally appropriate natives			
Remove species in red and replace with those in blue or from the "other local species of moist sites" shown at bottom.			
initial plan- revise for Sycamore Canyon – use plants that occur in western Riverside County, local ecoregion			
1	Rosa californica	California wild rose	shrub ok
2	<del>Baccharis pilularis</del>	coyote bush	shrub No. Not native here and too invasive. <b>Replace</b> with <i>Baccharis salicina</i> (aka. <i>B. eripogon</i> ) and limit use. Better yet, use <i>Frankenia salina</i> .
3	<del>Sambucus mexicana</del>	Mexican elderberry	tall shrub name changed (=S. <i>caerulea</i> ssp. <i>nigra</i> )
4	<del>Mimulus cardinalis</del>	scarlet monkeyflower	perennial herb ok- name changed to <i>Erythraea cardinalis</i>
5	<del>Aristida purpurea</del>	purple three awn	bunch grass No. Not here. <b>Replace</b> with <i>Sporobolus airoides</i> ?
6	<del>Deschampsia caespitosa</del>	tufted hairgrass	perennial grass No. Not native here, <b>replace</b> .
7	<del>Distichlis spicata</del>	salt grass	perennial grass ok
8	<del>Juncus patens</del>	California grey rush	perennial rush no. <b>Replace</b> with <i>J. mexicanus</i> or <i>J. balticus</i> .
9	<del>Muhlenbergia rigens</del>	deergrass	bunch grass ok
revised palette using plants actually native to Sycamore Canyon (use inland sources of plant materials, NOT coastal)			
1	Rosa californica	California wild rose	shrub
2	<i>Frankenia salina</i>	alkali heath	perennial herb can use seeds
3	<i>Sambucus nigra</i> ssp. <i>caerulea</i>	blue elderberry	tall shrub
4	<i>Mimulus cardinalis</i> (=Erythraea c.)	scarlet monkeyflower	perennial herb
5	<i>Sporobolus airoides</i>	alkali sacaton	bunch grass
6	<i>Anemopsis californica</i>	yerba mansa	perennial herb can use seeds and/or containers
7	<i>Distichlis spicata</i>	salt grass	perennial grass use inland source, not coastal. Mycorrhizal.
8	<i>Juncus mexicanus</i> / or <i>Juncus balticus</i>	Mexican rush/ <i>baltic</i> rush	perennial rush this is the one that grow in park, not <i>J. patens</i>
9	<i>Muhlenbergia rigens</i>	deergrass	bunch grass from seeds or containers
other local species of moist sites (e.g., floodplains, ephemeral drainages) that could be substituted for unavailable taxa or added as needed			
	<i>Artemisia douglasiana</i>	California mugwort	perennial herb Plants <b>spread</b> once established.
	<i>Baccharis salicina</i> (aka <i>B. eripogon</i> )	willow baccharis	shrub can take over, use few plants.
	<i>Isocoma mesoensis</i> var. <i>vernonioides</i>	Menzie's goldenbush	shrub don't over use.
	<i>Cyperus eragrostis</i>	tall flatsedge	perennial herb Seeds in on its own. Can be overly competitive if added to seed palette.
	<i>Stachys aiugoides</i> var. <i>rigida</i>	rigid hedge nettle	perennial herb
	<i>Verbena lasiostachys</i> var. <i>scabrata</i>	robust vervain	perennial herb Establishes well from seed in first year.
	<i>Elymus triticoides</i>	trailing wild rye	tall perennial grass difficult to obtain seed from this region.
	<i>Elymus condensatus</i>	giant wild rye	tall perennial grass difficult to obtain seed from this region.
	<i>Urtica dioica</i> ssp. <i>holosericea</i>	stinging nettle	tall perennial herb seeds

11.10 cont'd

**Park Landscape-planted in decomposed granite.**

Scientific name	common name	life form	Riverside WULCOLS IV	comments
1 <del>Sphaeralcea ambigua</del>	desert mallow	shrub	L	Not native here. OK on inside of walls but not directly by park. Only plant males or it will spread into park. Perhaps replace with <del>Eriogonum fasciculatum</del> var. <del>polifolium</del> . Also consider <del>Epilobium caeruleum</del> var. <del>caeruleum</del> .
2 <del>Baccharis pilularis</del> 'Pigeon Point'	dwarf coyote bush	low shrub	L	ok for Riverside, WULCOS says L, not VL. K. <del>gambeloides</del> is the species in the park. It survives our summers better, but becomes completely summer dormant and looks dead. Perhaps replace with <del>Solanum xanthi</del> .
3 <del>Encelia farinosa</del>	brittlebush	shrub	VL	
4 <del>Keckiella cordifolia</del>	heart-leaved penstemon	shrub	L	

See WULCOLS IV <https://ucanr.edu/sites/WUCOLS/>  
Water Use Classification of Landscape Species has been updated.  
WUCOLS IV provides evaluations of the irrigation water needs for over 3,500 taxa (taxonomic plant groups) used in California landscapes.



Attachment to FRH letter -plant palettes for Sycamore Hills Distribution Center, Montalvo comments and edits.xlsx Fuel Modification Area

**Fuel Modification Area-** corrected

Replace species listed here

Scientific name	common name	on plan WULCOLS	RIVERSIDE WULCOLS IV	comments
1 <del>Artemisia californica</del>	California sagebrush (not <del>to be used</del> )	VL	VL	Replace. Too quick to ignite for fuel modification area
2 <del>Cercocarpus betuloides</del>	mountain mahogany	VL	VL	ok
3 <del>Heteromeles arbutifolia</del>	toyon	VL	L	WULOLS input not correct for Riverside.
4 <del>Rhamnus crocea</del>	spiny redberry	VL	L	WULOLS input not correct for Riverside.

**Substitutions: Use plants native to the reserve or shrubs that do not disperse seeds into the wildland and become invasive.**

11.10 ~~good~~ 1 ~~Prunus ilicifolia~~ ssp. ~~ilicifolia~~ ~~hollyleaf~~ cherry evergreen plant, longer time to ignite for low fuel zone

other good plants for this plant palette:

<del>Frangula californica (=Rhamnus californica)</del>	coffee berry		L	evergreen plant, longer time to ignite for low fuel zone
<del>Rhamnus ilicifolia</del>	redberry		L	evergreen plant, longer time to ignite for low fuel zone
<del>Rhus ovata</del>	sugarbush		L	evergreen plant, longer time to ignite for low fuel zone

See WULCOLS IV <https://ucanr.edu/sites/WULCOLS/>  
 Water Use Classification of Landscape Species has been updated.  
 WULCOLS IV provides evaluations of the irrigation water needs for over 3,500 taxa (taxonomic plant groups) used in California landscapes.

Attachment to FRH letter -plant palettes for Sycamore Hills Distribution Center\_Montalvo comments and edits.xlsx

Trees

**Trees-**

Non-native trees that produce seeds that invade both landscaping and park must be replaced

	Scientific name	common name	Riverside		comments
			WULCOLS	WULCOLS IV	
	1 <del>Chilopsis linearis</del>	desert willow	L	L	ok
	2 <del>Chitalpa tashkentensis</del>	<del>chitalpa</del>	L	L	ok
	3 <del>Cercis occidentalis</del>	western redbud	M	L	ok but sensitive to extreme heat
	4 <del>Heteromeles arbutifolia</del>	toyon	L	L	ok
	5 <del>Platanus racemosa</del>	California sycamore	M	Mod/Med	ok-- NEVER replace with other sycamores
	6 <del>Quercus agrifolia</del>	coast live oak	M	L	ok
					DO NOT USE. This tree has naturalized and is invading natural habitats in southern California. For example, it has spread outward from landscaping around the museum at Lake Perris. More and more records are showing up in California. Birds and mammals disperse the seeds.
11.10 cont'd	7 <del>Rhus copallina (=Seecia (Rhus))</del>	African sumac	L	L	<a href="http://www.calflora.org/cgi-bin/species_query.pl?species=Rhuscopallina">www.calflora.org/cgi-bin/species_query.pl?species=Rhuscopallina</a>
	8 <del>Trostanja conferta (=Leptostemon confertus)</del>	Brisbane box	M	Mod/Med	USDA Plants database. Not listed as naturalized in Calif. Biogenic emissions may be high.

Substitutions: Use native trees/ tall shrubs or trees that do not disperse seeds into the wildland and become invasive.

<del>Prunus ilicifolia</del> ssp. <del>ilicifolia</del>	hollyleaf cherry	L	These would be good replacements
<del>Rhus ovata</del>	sugarbush	L	These would be good replacements
<del>Ceanothus 'Ray Hartman'</del>	Ray Hartman ceanothus	L	
<del>Quercus engelmannii</del>	Engelmann oak, mesa oak	L	

See WULCOLS IV <https://ucanr.edu/sites/WULCOLS/> updated and corrected for Riverside  
 Water Use Classification of Landscape Species has been updated.  
 WULCOLS IV provides evaluations of the irrigation water needs for over 3,500 taxa (taxonomic plant groups) used in California landscapes.

**SHRUBS-**

Replace species listed here.

Scientific name	common name	WULCOLS	Riverside WULCOLS IV	comments
1 <del>Baccharis pilularis 'Centenial'</del>	Coyote bush	L	L	not native here and will invade wildland reserve
2 <del>Ligustrum lucidum (=L. j. Texanum)</del>	Texas privet, tree privet	M	M	invasive into riparian areas of reserve
3 <del>Elaeagnus pungens</del>	silverberry	L	L	potentially invasive
4				
5				
6				
7				
8				

11.10 cont'd Suggestions for substitutions

**Substitutions: Use shrubs that are native or that do not disperse seeds into the wildland and become invasive.**

<del>Ceanothus 'Ray Hartman'</del>	<del>Ray Hartman</del> ceanothus		L	
Rhus ovata	sugarbush		L	
<del>Prunus ilicifolia ssp. ilicifolia</del>	<del>hollyleaf</del> cherry		L	
<del>Simmondsia chinensis</del>	jojoba		VL	
<del>Peritoma arborea</del>	bladderpod		L	

see WULCOLS IV search below for trees/shrubs with low water uses for Riverside  
[https://ucanr.edu/sites/WUCOLS/Plant\\_Search/?step=results&city\\_id=328&plant\\_name=&water\\_use=VL&water\\_use=LO&water\\_use=M&plant\\_type=S&plant\\_type=T](https://ucanr.edu/sites/WUCOLS/Plant_Search/?step=results&city_id=328&plant_name=&water_use=VL&water_use=LO&water_use=M&plant_type=S&plant_type=T)

See WULCOLS IV <https://ucanr.edu/sites/WUCOLS/>  
 Water Use Classification of Landscape Species has been updated.  
 WUCOLS IV provides evaluations of the irrigation water needs for over 3,500 taxa (taxonomic plant groups) used in California landscapes.

**Letter 11 – Friends of Riverside’s Hills****Commenter:** Leonard Nunney**Date:** July 22, 2021**Response 11.1:**

This comment provides the commenter’s opinion regarding the sensitivity of the site and generally summarizes the uses surrounding the Project site. The commenter states that the project site is in a very environmentally sensitive area at the southern edge of the Sycamore Canyon Wilderness Park (SWCP) a park of approximately 1500 acres, and this natural open space is a critical component in the conservation of biodiversity in Western Riverside County and is a core area within the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The commenter also opines that the project site is important to the enjoyment of natural open space by residents of the area and visitors. The commenter states he is a professor at the University of California Riverside and focuses his research concerns on the ability of small populations to avoid extinction. He then states the number of scientific papers he has peer reviewed. The commenter is also part of the Scientific Advisory Panel that was involved in the establishment of the MSHCP.

The DEIR clearly identifies that the Project site is located “immediately adjacent to the Sycamore Canyon Wilderness Park which is designated as Public Quasi Public (PQP) lands and Existing Core D of the MSHCP conservation area, as illustrated in Figure 5.3-6 – Riverside County MSHCP Conserved Lands. The Sycamore Canyon Wilderness Park is also designated as part of the Sycamore Canyon-March Air Force Base (AFB) Core Reserve of the SKRHCP.” (DEIR, p. 5.3-28)

The Project site is private property and not a part of the Sycamore Canyon Wilderness Park, which is open to the public. As such, the Project site is not for public use. Nonetheless, the applicant is providing a trailhead parking lot that is not required but being provided as an amenity to park users, thereby adding to the area and making enjoyment of the natural open space of the park more accessible to the public .. In addition, 12.23 acres of the site will be designated as a conservation area, to preserve the existing natural drainage course and riparian vegetation also contributes to the overall open space in the area and adjacent to the Sycamore Canyon Wilderness Park.

This comment is introductory and does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. This comment is noted for the record, and revisions to the DEIR are not required.

**Response 11.2:**

The commenter claims that the DEIR failed to consider the significant impact on the many individuals using the adjoining natural SCWP, without specifying what those significant impacts would be or providing substantial evidence to support the claim. The commenter states the project does incorporate a feature to mitigate this effect: a 42-inch cable fence with an inner fire-resistant boundary of locally native trees, and that because this mitigation is required in perpetuity, it is important that a mitigation measure be added that requires the cable fencing and vegetation be

maintained into the future, and that any trees or plants that die are replaced with similar locally native trees or plants.

Section 5.1 Aesthetics of the DEIR included a thorough and detailed evaluation of the potential aesthetic impacts of the Project, including impacts to views of SCWP users as follows (DEIR, pp. 5.1-19 – 5.1-20):

Public views are those that are experienced from publicly accessible vantage point. Public views of Building A on Parcel 1 will be from two publicly accessible vantage points: Alessandro Boulevard to the south and from trails within the Sycamore Canyon Wilderness Park to the north. As shown in Figure 5.1-2 – Elevation Rendering View A, the public view of Building A from Alessandro Boulevard is softened by the 520-foot setback, landscaping, natural vegetation within the restrictive property/conservation area, and the natural and earth-toned color palette. The Project's landscaping will also partially screen the north elevation of Building A. The view from Sycamore Canyon Wilderness Park south towards Building A on Parcel 1 is shown in Figure 5.1-3 – Elevation Rendering View B. Building A will be screened on this side by the Project's landscaping, including the water quality basin, and the view is softened by the 40-foot set-back of the building from the property line.

Public views of Building B on Parcel 2 will be from two publicly accessible vantage points: Barton Street to the west and from trails within the Sycamore Canyon Wilderness Park to the north. As shown in Figure 5.1-4 – Elevation Rendering View C, the trailhead parking lot and amenities serve as an additional setback between the northern property line with the park and Building B. Building B will be located between ~~6020~~182 feet from the northerly property line of Parcel 2, and 90 feet from the northerly property line of the trailhead parking lot. The trailhead parking lot will largely be decomposed granite, with landscaping and amenities that are complementary to the adjacent Wilderness Park. The Project's enhanced landscaping will also partially screen Building B and its parking areas from Barton Street, as shown in Figure 5.1-5 – Elevation Rendering View D.

With the natural and earth-toned color palette, the articulation of the building facades, the screen walls for the loading dock areas, and the enhanced landscaping, the Project will not substantially degrade the existing visual character or quality of public views of the site and its surroundings. The restricted property/conservation area with existing mature vegetation and the required 20-foot landscape setback at the front of Building A will preserve the existing character of the site along the frontage of Building A and between Buildings A and B. A landscaped buffer will be located along the northern side of Building A and an 8-foot high concrete wall along the northern and eastern sides of Building A to screen the building from the Sycamore Canyon Wilderness Park. Building B will have a 20-foot landscape setback on the western side, along Barton Street. There will also be an 8-foot high tubular metal fence and enhanced landscaping along the western side of Building B to screen the building from Barton Street. An 8-foot high combination screening fence/wall, consisting of a 4-foot high tubular metal fence on top of a 4-foot high screen wall and landscaping with shrubs and trees, will be located along the northerly property line adjacent to the trailhead parking lot to screen Building B from the Sycamore Canyon

Wilderness Park. The trailhead parking lot will also provide a buffer and setback between Building B and the Sycamore Canyon Wilderness Park.

Further, the Building B will be set back between 90 and 190 feet from the Sycamore Canyon Wilderness Park property line. And the landscape buffer between the Sycamore Canyon Wilderness Park property line and the 8-foot screen wall for Building A ranges in depth between 40 to 95 feet.

Therefore, the DEIR did consider and evaluate the views from the SCWP to the Project, and with implementation of the extensive design considerations incorporated into the Project to ensure aesthetic impacts are minimized, potential impacts were found to be less than significant. The DEIR includes Figure 5.1-1, an Elevation Renderings Key Map that identifies views from four different locations open to the public, and corresponding renderings, which reflect the extensive design considerations (including set-backs, trailhead parking lot, landscaping, screening, elevations, color palette, etc.), to show what the Project will look like in the future from these public vantage points, as Figure 5.1-2 Elevation Rendering View A, Figure 5.1-3 Elevation Rendering View B, Figure 5.1-4 Elevation Rendering View C, and Figure, 5.1-5 Elevation Rendering View D. Therefore, the DEIR contains substantial evidence to support the conclusion of less than significant without mitigation.

The City will require, as a standard Condition of Approval, that all landscaping, including fencing, be maintained, including replacement of any dead trees or plants, in perpetuity by the Property Owner. The proposed landscaping is native and will be sourced locally, to the greatest extent feasible.

This comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. This comment is noted for the record and no changes to the DEIR are required.

**Response 11.3:**

The commenter states that while the DEIR Section 5.2 Air Quality states that vehicle/construction vehicle/equipment idling will be limited to five (5) minutes, the idling limitation should be made into an enforceable mitigation measure.

It is stated throughout DEIR Section 5.2 Air Quality as well as the Project's Air Quality Analysis contained in DEIR Appendix C that limiting idling to five (5) minutes is a *requirement* (responder emphasis added) per applicable State regulations. Per DEIR p. 5.2-23,

The Project will require building operators (by contract specifications) to turn off equipment, including heavy-duty equipment, motor vehicles, and portable equipment when not in use for more than five minutes. Truck idling shall not exceed five minutes in time. All facilities will post signs requiring that trucks shall not be left idling for more than five minutes pursuant to Title 13 of the California Code of Regulations, Section 2485, which limits idle times to not more than five minutes.

Thus, while idling limitations are not specifically included as a mitigation measure, limits on idling times would still be made known to drivers by readily visible signage on both buildings in the dock

door areas and be enforced as a requirement via contract specifications. Idling limitations cannot be ignored in the future, as the limitation is codified in Section 2485 of the California Code of Regulations. As outlined in Response 9.22 above, the following mitigation measure has been added to help ensure compliance:

**MM AIR-4:** The Project applicant shall post both interior and exterior facing signs, including signs directed at all dock and delivery areas, identifying idling restrictions and contact information to report violations to the California Air Resources Board (CARB), the South Coast Air Quality Management District (AQMD), and the building manager. Therefore, this comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. No change to the DEIR is necessary.

**Response 11.4:**

The commenter states that mitigation measure MM BIO-1 does not provide adequate mitigation as it relates to on-site seed collection or retention of topsoil regarding the paniculate tarplant and Robinson's pepper-grass. The commenter goes on to state that if seeds have not yet been collected, the seeds would need to be collected during the appropriate seeding season for these plants in the next, reasonably good rainfall year. Lastly, the commenter states the options of seed collection or using stored topsoil provide no guarantee of success.

As discussed on DEIR p. 5.3-28, while the Project site contains suitable habitat for Robinson's pepper-grass, this species has not been observed on site and is not known to occur on site. Per the *Biological Resources and Western Riverside County Multiple Species Habitat Conservation Plan Consistency Report* (DEIR Appendix D), page 9, biologists have visited the site numerous times to conduct various surveys as well as updates to those surveys between 2014 and 2019, over a 5-year period. Further, DEIR p. 5.3-28 additionally discusses that, "impacts from the Project on paniculate tarplant are not expected to be significant as it [potential Project impacts] is not expected to substantially reduce habitat for this species throughout its range." Nonetheless, DEIR p. 5.3-28 states, "To further reduce impacts to this species [paniculate tarplant], MM BIO-1 will be implemented, which will require a qualified biologist collect seed for paniculate tarplant and Robinson's pepper-grass throughout the proposed development footprint of the Project." Thus, as Robinson's pepper-grass has not been observed on site and is not known to occur on site, and as potential impacts to paniculate tarplant are not expected to substantially reduce habitat for the species throughout its range, implementation of MM BIO-1 does provide adequate mitigation in terms of putting forth additional efforts to ensure potential impacts to these species are further reduced. MM BIO-1 was drafted such that if the seed cannot be appropriately collected before grading, either because it is not during the blooming season or it is during a drought season, that the seed bank contained in the topsoil would be an alternative method for capturing appropriate seeds.

Therefore, this comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. No change to the DEIR is necessary.

**Response 11.5:**

The commenter states that mitigation measure MM NOI-1 fails to require the identification of nesting activity and that the appropriate mitigation strategy is to plan the construction outside of the time window of nesting activity ('mid-March to the end of August'). While MM NOI-1 does not specifically require the identification of nesting activity, it is because this mitigation measure is specific to potential noise impacts to biological species and would be implemented *in addition* (responder emphasis added) to all mitigation measures specific to biological resources, including MM BIO-9, which covers nesting bird protections. Per MM BIO-9 on DEIR pp. 5.3-53 to 5.3-54:

Although nesting can occur in any month in southern California for some species, breeding in the study area, given the habitat, would primarily be expected from about 1 February through 31 August. Work from about 1 September through 31 January would avoid most negative affects to birds and nesting activity. If work must be done during the breeding season, surveys for nesting birds should occur no more than three (3) days prior to all vegetation clearing and ground disturbance. If active nests are found, they should be avoided until young have fledged. While there is no established protocol for nest avoidance, when consulted the CDFW generally recommends avoidance buffers of about 500 feet for raptors and threatened/endangered species and 100 – 300 feet for non-raptors. Adherence to these nesting bird recommendations will also avoid and/or mitigate impacts to special status bird species known from the project site which are not covered by the MSHCP.

As shown in the excerpt from MM BIO-9 above, implementation of this mitigation measure would account for the commenter's concerns as the mitigation measure does acknowledge that conducting work outside of the nesting season would avoid most potential impacts to birds and nesting. Further, the mitigation measure requires that nesting bird surveys occur prior to all vegetation and ground disturbance should work need to be conducted during the nesting season. Therefore, the commenter's statement that MM NOI-1 fails to require the identification of nesting activity is only valid in that the identification of nesting behavior is covered under MM BIO-9, which would be implemented *in addition* to the requirements of MM NOI-1.

In addition, the noise mitigation measure MM NOI-1 was included in the Riparian Riverine Determination of Biologically Equivalent or Superior Preservation (DBESP) report that was reviewed by the USFWS and CDFW, the federal and state agencies responsible for protecting endangered species, as well as reviewing for consistency with the MSHCP. USFWS and CDFW reviewed and approved this mitigation measure as part of the DBESP report.

Thus, this comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. No change to the DEIR is necessary.

**Response 11.6:**

The commenter states that regarding Thresholds B and C of DEIR Section 5.3 Biological Resources (thresholds listed on DEIR p. 5.3-27), the mitigation measures do not address "the continuing potential impacts to the riparian habitat within and near to the Project site" outside of Project construction. However, the commenter fails to identify what these "continuing potential

impacts” are. Further, the commenter is incorrect in asserting continuing potential impacts in that the DEIR includes language indicating riparian/riverine resources would be enhanced and conserved in perpetuity. DEIR p. 5.3-35 states, “The DBESP determined that the riparian/riverine resources proposed to be enhanced and conserved in perpetuity would provide a biologically superior riparian habitat for riparian species.” Moreover, condition 6 of **MM BIO-6** states:

Prior to issuance of occupancy permit, in order to reduce impacts to on-site Riparian/Riverine areas and suitable habitat for LBVI, on site mitigation shall include:

6. Revise the existing Restricted Property to include Parcel A (7.19 acres) and Parcel B (5.04 acres), with a combined area of 12.23 acres. The revised 12.23 Restricted Property shall be managed in perpetuity with an endowment funded by the developer and by a CDFW approved 3rd party (such as Rivers and Lands Conservancy “RLC”).

As seen in these excerpts from the DEIR, the riparian/riverine resources would be *managed in perpetuity* (responder emphasis added), which would account for any future or “continued” potential impacts the commenter has failed to identify.

Thus, this comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. No change to the DEIR is necessary.

#### **Response 11.7:**

The commenter inaccurately states that most of the biological mitigation measures primarily address construction-related issues and “avoids impacts that can occur after construction.” Regarding the commenter’s statements concerning light intrusion both during construction and beyond, both mitigation measures MM AES-1 and MM AES-2 as referenced in DEIR Table 5.3-3 – Project Compliance with MSHCP Urban/Wildlands Interface Guidelines (DEIR p. 5.3-43) include language that indicates potential post-construction/operational lighting issues would be addressed and mitigated for. The description of MM AES-1 on DEIR p. 5.3-43 describes how the *completed* (responder emphasis added) warehouse buildings would have nighttime lighting that would be shielded downwards. There would be zero penetration of light beyond the property line and all lighting would have motion detectors and automatically shut off when there is no one at the site. The screening wall on the northerly property line of Parcel 2 will block any vehicle lights from Building B. Additionally, the description of MM AES-2 on DEIR p. 5.3-43 states that the trailhead parking lot would have an entrance gate to control access from dusk to dawn, which would prevent vehicle lights from the trailhead parking lot from shining into the Sycamore Canyon Wilderness Park (SCWP). Therefore, contrary to the commenter’s comments, the DEIR does provide mitigation measures that address potential issues after construction of the Project has been completed.

The commenter further states that a condition should be added to MM BIO-11 that material used in revegetation should be collected from within SCWP or within the local ecoregion. As the commenter states (contained in comment 11.1), the SCWP is a very environmentally sensitive area, and is a core area within the MSHCP. Seed collection from within this environmentally sensitive area should only be done if it can be without detrimental effects to the existing habitat

and would not conflict with the Sycamore Canyon Wilderness Park Stephens' Kangaroo Rat Management Plan and Updated Conceptual Development Plan (SCWP SKRMP).

As outlined in the DEIR the project, including design features and mitigation, was found in compliance with the MSHCP by both the City of Riverside and the USFWS and CDFW, including avoidance of plant species in the plant palette of landscaping and revegetation/restoration plans for projects located next to or near conservation areas. Therefore, the Project has been determined to meet the requirement of the MSHCP for being located adjacent to a conservation area. In addition, the applicant is coordinating with Dr. Arlee Montalvo to further modify the proposed plant palette to make the requested removals and replacements in accordance with her recommendations, which is above and beyond the requirements for compliance with the MSHCP and what is required to accomplish less than significant impacts to biological resources.

Thus, this comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. No change to the DEIR is necessary.

**Response 11.8:**

The commenter states that while the DEIR states that Project buildings would have solar ready roofs that will structurally accommodate later installation of rooftop solar panels, the DEIR does not include an enforceable mitigation measure that ensures solar panels would be installed. As stated throughout DEIR Section 5.5 Energy, the Project will be required to comply with all applicable California Green Building Code Title 24 standards. Per Section 110.10 of the California Energy Code. It is a *mandatory requirement* (responder emphasis added) for nonresidential buildings such as the Project to comply with the Code's solar zone requirements for nonresidential buildings. Accordingly, as the commenter has referenced, the DEIR states that, "building operators providing rooftop solar panels will submit plans for solar panels prior to occupancy" (DEIR p. 5.5-16) in compliance with these requirements. Therefore, contrary to the commenter's comment, it is not necessary to include a mitigation measure for the installation of solar panels as this is already a mandatory requirement for compliance with applicable Title 24 standards.

Thus, this comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. No change to the DEIR is necessary.

**Response 11.9:**

The commenter states that the commenter has a long-term concern regarding nighttime noise and vibration levels around the western and north-eastern loading bays of Building A and recommends mitigation.

Vibration impacts are analyzed in Section 5.4 of DEIR Appendix K, Noise Analysis. As discussed, ground-borne vibration levels due to construction activities would be 0.031 peak particle velocity (PPV) at the self-storage facility and 0.002 PPV at the nearest residential use, and ground-borne vibration levels due to operation (i.e., trucks) would be 0.027 PPV at the self-storage facility and 0.002 PPV at the nearest residential use. These vibration levels would not exceed the significance threshold of 0.2 PPV. In regard to burrowing animals, the effects associated with truck vibration

on them would be speculative. Nonetheless, the on-site travel lane is located as close as 25 feet from the Project boundary. Where the travel lane is at its closest point to the property line on the western side, it is only for a length of approximately 150-160 feet. Trucks generate a vibration level of 0.076 PPV at 25 feet; thus, vibration levels at the Project boundary would not exceed 0.2 PPV. The remainder of the travel lane in the western, northwestern, and north-eastern parts of Parcel 1/Building A, at its closest point to the property line with Sycamore Hills Wilderness Park, ranges from approximately 80-115 feet. As vibration attenuates with distance, potential vibrations from trucks within these other areas of the site closest to the park would be even further reduced.

The comment also suggests possible mitigation measures including reducing the sound of backup warnings during the nighttime hours or prohibiting nighttime use for a few hours. The noise associated with nighttime activities, including backup warnings, was calculated at the adjacent uses. As summarized in Table 11 of the Noise Analysis, nighttime noise levels would not exceed 45 dB(A)  $L_{eq}$  at the on-site conservation areas or the Sycamore Canyon Wilderness Park. Noise associated with on-site activities and backup warnings would be less than significant. Further, reducing the sound or eliminating backup warning signals would be a safety hazard, particularly during the nighttime hours.

Thus, this comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. No change to the DEIR is necessary.

**Response 11.10:** The commenter provides recommended deletions and additions to the landscape plans plant palette.

As outlined in the DEIR the project, including design features and mitigation, was found in compliance with the MSHCP by both the City of Riverside and the USFWS and CDFW, including avoidance of plant species in the plant palette of landscaping and revegetation/restoration plans for projects located next to or near conservation areas. Therefore, the Project has been determined to meet the requirement of the MSHCP for being located adjacent to a conservation area. In addition, the applicant is coordinating with Dr. Arlee Montalvo to further modify the proposed plant palette to make the requested removals and replacements in accordance with her recommendations, which is above and beyond the requirements for compliance with the MSHCP and what is required to accomplish less than significant impacts to biological resources.

Thus, this comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. No change to the DEIR is necessary.

**Comment Letter 12 – California Air Resources Board**

Comment letter 12 commences on the next page.

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**From:** Nucal, Michaela@ARB <Michaela.Nucal@arb.ca.gov>  
**Sent:** Friday, July 23, 2021 9:06 AM  
**To:** Hernandez, Veronica  
**Cc:** Arias, Heather@ARB  
**Subject:** [External] CARB Comments on the Sycamore Hills Distribution Center DEIR (SCH# 2020079023)  
**Attachments:** CEQA Comments - Sycamore Hills Distribution Center DEIR - 7.23.2021.cleaned.pdf

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This email's attachments were cleaned of potential threats by The City of Riverside's Security Gateway. Click [here](#) if the original attachments are required (justification needed).

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Good morning Veronica,

Attached are the California Air Resources Board's comments on the Draft Environmental Impact Report for the Sycamore Hills Distribution Center project.

Thank you,



**Michaela Dastoum**  
Air Pollution Specialist  
Risk Analysis Section  
1001 I Street Sacramento, CA 95814  
[michaela.nucal@arb.ca.gov](mailto:michaela.nucal@arb.ca.gov)

Chat with me on Microsoft Teams! [916\) 264-9661](tel:9162649661)



Gavin Newsom, Governor  
 Jared Blumenfeld, CalEPA Secretary  
 Liane M. Randolph, Chair

July 23, 2021

Veronica Hernandez  
 Senior Planner  
 City of Riverside  
 3900 Main Street, 3<sup>rd</sup> Floor  
 Riverside, California 92522  
[vhernandez@riversideca.gov](mailto:vhernandez@riversideca.gov)

Dear Veronica Hernandez:

12.1 Thank you for providing the California Air Resources Board (CARB) with the opportunity to comment on the Sycamore Hills Distribution Center (Project) Draft Environmental Impact Report (DEIR), State Clearinghouse No. 2020079023. The Project consists of the construction and operation of two transload short-term warehouse buildings totaling 603,100 square feet, primarily for the short-term storage and/or consolidation of manufactured goods prior to their distribution to retail locations or other warehouses. The Project is expected to generate approximately 847 daily vehicle trips, including 274 daily heavy-duty truck trips, along local roadways. The Project is proposed within the City of Riverside (City), California, which is the lead agency for California Environmental Quality Act (CEQA) purposes.

12.1 CARB submitted a comment letter, which is attached to this letter, on the Notice of Preparation (NOP) for the DEIR released in July 2020. CARB's comments, dated August 27, 2020, highlighted the need for preparing a health risk assessment (HRA) for the Project and encouraged the City and applicant to implement all existing and emerging zero emission technologies to minimize exposure to diesel particulate matter (diesel PM) and nitrogen oxides (NOx) emissions for all neighboring communities, and to minimize the greenhouse gases that contribute to climate change. Due to the Project's proximity to residences already disproportionately burdened by multiple sources of pollution, CARB's comments expressed concerns with the potential cumulative health risks associated with the construction and operation of the Project.

12.2 **The DEIR Did Not Model Mobile Air Pollutant Emissions Using CARB's 2021 Emission Factor Model (EMFAC2021)**

12.2 The City and applicant modeled the Project's air pollutant emissions using mobile emission factors obtained from CARB's 2014 Emission Factors model (EMFAC2014). Since the public release of EMFAC2014 in May 2015, CARB has made many updates to the EMFAC model. These updates are reflected in EMFAC2017, released in May 2018, and EMFAC2021, released in January 2021. Some of the updates to the EMFAC model included updates to the heavy-duty truck activity and emission rates, and implementation of CARB's latest regulations.

Veronica Hernandez  
July 23, 2021  
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12.2  
cont'd

EMFAC2014 underestimated diesel PM emission rates from diesel heavy-duty trucks due to limited in-use test data for engine model year 2010 and newer, thus the Project's mobile source diesel PM emissions are likely underestimated in the DEIR. CARB urges the City and applicant to model and report the Project's air pollution emissions from mobile sources using emission factors found in CARB's latest EMFAC2021. Mobile emission factors can be easily obtained by running the EMFAC2021 Web Database: <https://arb.ca.gov/emfac/emissions-inventory>.

12.3

### **The DEIR Did Not Account for Air Pollutant Emissions from Heavy Duty Trucks During On Site Grading**

The DEIR did not account for mobile source air pollutant emissions from grading operations during the Project's construction phase. Based on CARB's review of the California Emissions Estimator Model (CalEEMod) outputs found in Appendix B (Air Quality Studies) of the DEIR, the City and applicant assumed that no heavy-duty truck trips would be required to import or export soil during the on-site grading. Furthermore, the DEIR does not explicitly state the quantity of soil needed to grade the Project site that would support this assumption. If the Project site cannot be graded using existing on-site soil, the soil will need to be imported into the Project site. If that is the case, a large number of heavy-duty truck trips may be required to transport soil.

CARB urges the City and applicant to remodel the Project's construction air pollutant emissions using accurate heavy duty truck trip estimates. Residences and other sensitive receptors (e.g., daycare facilities, senior care facilities, and schools) located near construction haul routes could be exposed to diesel exhaust emissions that were not evaluated in the DEIR. The DEIR should clearly state the total number of heavy-duty truck trips expected during Project construction so the public can fully understand the potential environmental effects of the Project on their communities.

12.4

### **The Final Environmental Impact Report Should Restrict the Operation of Transport Refrigeration Units within the Project Area**

Chapter 3.2 (Project Characteristics) of the DEIR states that the proposed Project would not include the operation of on-site cold storage uses. Consequently, air pollutant emissions associated with cold storage operation were not included in the DEIR. Should the Project later include cold storage uses, residences near the Project-site could be exposed to significantly higher levels of toxic diesel PM and nitrogen oxides (NO<sub>x</sub>), and greenhouse gases than trucks and trailers without TRUs. To ensure TRUs will not operate within the Project site without first quantifying and mitigating their potential impacts, CARB urges the City to include one of the following design measures in the Final Environmental Impact Report (FEIR):

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July 23, 2021  
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12.4  
cont'd

- A Project design measure requiring contractual language in tenant lease agreements that prohibits tenants from operating TRUs within the Project-site; or
- A condition requiring a restrictive covenant over the parcel that prohibits the applicant's use of TRUs on the property, unless the applicant seeks and receives an amendment to its conditional use permit allowing such use.

If the City later chooses to allow TRUs to operate within the Project site, CARB urges the County to re-model the Project's air quality impact analysis and HRA to account for potential health risks. The updated air quality impact analysis and HRA should include the following air pollutant emission reduction measures:

- Include contractual language in tenant lease agreements that requires all loading/unloading docks and trailer spaces to be equipped with electrical hookups for trucks with TRU or auxiliary power units. This requirement will substantially decrease the amount of time that a TRU powered by a fossil-fueled internal combustion engine can operate at the Project-site. Use of zero-emission all-electric plug-in TRUs, hydrogen fuel cell transport refrigeration, and cryogenic transport refrigeration are encouraged and can also be included in lease agreements.<sup>1</sup>
- Include contractual language in tenant lease agreements that requires all TRUs entering the project site to be plug-in capable

12.5

### **The Final Environmental Impact Report Should Include More Mitigation Measures to Further Reduce the Project's Air Pollution Emissions**

The DEIR concluded that the Project would not exceed the South Coast Air Quality Management District's significance thresholds and potential impacts are expected to be less than significant. Therefore, the Project has no mitigation measures specific to air quality except for Mitigation Measure MM AIR-1, which is required to ensure that the actual use of the site is consistent with the use described in the Project Description and analyzed in the project specific air quality analyses. However, the community near the Project site is already exposed to toxic diesel PM emissions from freight operations at existing industrial buildings and vehicular traffic on East Alessandro Boulevard and Interstate 215 (I-215). Due to the Project's proximity to residences and schools, CARB is concerned with the potential cumulative health impacts associated with the construction and operation of the Project. To further reduce the Project's air pollutant emissions, CARB urges the City and applicant to implement the emissions reduction measures listed in CARB's attached comment (Attachment A) on the NOP for the DEIR in the Final Environmental Impact Report.

<sup>1</sup> CARB's Technology Assessment for Transport Refrigerators provides information on the current and projected development of TRUs, including current and anticipated costs. The assessment is available at: [https://www.arb.ca.gov/msprog/tech/techreport/tru\\_07292015.pdf](https://www.arb.ca.gov/msprog/tech/techreport/tru_07292015.pdf).

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July 23, 2021  
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## Conclusion

CARB is concerned about the potential public health impacts should the City approve the Project. To fully understand the Project's environmental impacts, the HRA should be revised in the FEIR using mobile and idling PM<sub>10</sub> emission factors obtained from the latest version of EMFAC (i.e., EMFAC2021). If heavy-duty trucks are required to import or export soil from the site during Project construction, the Project's air quality analysis and HRA should be updated to reflect such activities. The FEIR should include a design measure restricting the operation of TRUs within the Project site. Should the City allow the proposed warehouse building to be used for cold storage, the City should update the Project's air quality analysis and HRA to account for the increase in air pollution and cancer risks resulting from trucks and trailers with TRUs visiting the Project site. Lastly, to reduce the Project's impact on public health, CARB encourages the City to implement the measures listed in Attachment A of this comment letter.

12.6

Given the breadth and scope of projects subject to CEQA review throughout California that have air quality and greenhouse gas impacts, coupled with CARB's limited staff resources to substantively respond to all issues associated with a project, CARB must prioritize its substantive comments here based on staff time, resources, and its assessment of impacts. CARB's deliberate decision to substantively comment on some issues does not constitute an admission or concession that it substantively agrees with the lead agency's findings and conclusions on any issues on which CARB does not substantively submit comments.

CARB appreciates the opportunity to comment on the DEIR for the Project and can provide assistance on zero-emission technologies and emission reduction strategies, as needed. If you have questions, please contact Michaela Nucal, Air Pollution Specialist, via email at [michaela.nucal@arb.ca.gov](mailto:michaela.nucal@arb.ca.gov).

Sincerely,



Robert Krieger, Branch Chief, Risk Reduction Branch

Attachment

cc: See next page.

Veronica Hernandez  
July 23, 2021  
Page 5

cc: State Clearinghouse  
[state.clearinghouse@opr.ca.gov](mailto:state.clearinghouse@opr.ca.gov)

Carlo De La Cruz, Senior Campaign Representative, Sierra Club  
[carlo.delacruz@sierraclub.org](mailto:carlo.delacruz@sierraclub.org)

Lijin Sun, Program Supervisor, CEQA Intergovernmental Review, South Coast Air Quality Management District  
[lsun@aqmd.gov](mailto:lsun@aqmd.gov)

Morgan Capilla, NEPA Reviewer, U.S. Environmental Protection Agency Air Division, Region 9  
[capilla.morgan@epa.gov](mailto:capilla.morgan@epa.gov)

Marven Norman, Policy Specialist, Center for Community Action and Environmental Justice  
[marven.n@ccaej.org](mailto:marven.n@ccaej.org)

Taylor Thomas, Research and Policy Analyst, East Yard Communities for Environmental Justice  
[tbthomas@eycej.org](mailto:tbthomas@eycej.org)

Michaela Nuccal, Air Pollution Specialist, Risk Reduction Branch

**Attachment A**



Gavin Newsom, Governor  
Jared Blumenfeld, CalEPA Secretary  
Mary D. Nichols, Chair

August 27, 2020

Veronica Hernandez  
Senior Planner  
City of Riverside  
3900 Main Street, 3<sup>rd</sup> Floor  
Riverside, California 92522  
Submitted via email: [vhernandez@riversideca.gov](mailto:vhernandez@riversideca.gov)

Dear Veronica Hernandez:

Thank you for providing the California Air Resources Board (CARB) with the opportunity to comment on the Notice of Preparation (NOP) for the Sycamore Hills Distribution Center Project (Project) Draft Environmental Impact Report (DEIR), State Clearinghouse No. 2020079023. The Project includes the development of two warehouse buildings totaling 803,100 square feet. The proposed warehouses will be used for short-term transloading operations, primarily for the short-term storage and/or consolidation of manufactured goods. The Project is located within the City of Riverside, California, which is the lead agency for California Environmental Quality Act (CEQA) purposes.

Freight facilities, such as warehouse and distribution facilities, can result in high daily volumes of heavy-duty diesel truck traffic and operation of on-site equipment (e.g., forklifts and yard tractors) that emit toxic diesel emissions and contribute to regional air pollution and global climate change.<sup>1</sup> CARB has reviewed the NOP and is concerned about the air pollution and health risk impacts that would result should the City approve the Project.

12.7

**I. The Project Would Increase Exposure to Air Pollution in Disadvantaged Communities**

The Project, if approved, will expose nearby disadvantaged communities to elevated levels of air pollution. Residences are located approximately 350 feet south of the Project's southern boundary. In addition to residences, four schools (Taft Elementary School, John F. Kennedy Elementary School, Benjamin Franklin Elementary School, and Edgemont Elementary School) and a daycare center (Little Angels Daycare) are located within 2 miles of the Project. The community near the Project site is already exposed to toxic diesel particulate matter (diesel PM) emissions from freight operations

<sup>1</sup> With regard to greenhouse gas emissions from this project, CARB has been clear that local governments and project proponents have a responsibility to properly mitigate these impacts. CARB's guidance, set out in detail in the Scoping Plan issued in 2017, makes clear that in CARB's expert view, local mitigation is critical to achieving climate goals and reducing greenhouse gases below levels of significance.

Veronica Hernandez  
August 27, 2020  
Page 2

12.7  
Cont'd

at existing industrial buildings, and vehicular traffic on East Alessandro Boulevard and Interstate 215 (I-215). Due to the Project's proximity to residences, schools, and daycares already burdened by multiple sources of air pollution, CARB is concerned with the potential cumulative health impacts associated with the construction and operation of the Project.

The State of California has placed additional emphasis on protecting local communities from the harmful effects of air pollution through the passage of Assembly Bill 617 (AB 617) (Garcia, Chapter 136, Statutes of 2017). AB 617 is a significant piece of air quality legislation that highlights the need for further emission reductions in communities with high exposure burdens, like those in which the Project is located. Diesel PM emissions generated during the construction and operation of the Project would negatively impact the community, which is already impacted by air pollution from existing industrial facilities and vehicular traffic on East Alessandro Boulevard and I-215.

**II. The DEIR Should Quantify and Discuss the Potential Cancer Risks at Residential and Other Sensitive Receptors in the Vicinity of the Proposed Industrial Building**

The Project, as proposed in the NOP, will not include refrigerated storage. The operation of cold storage warehouses would include trucks with transportation refrigeration units (TRU)<sup>2</sup> that emit significantly higher levels of toxic diesel PM emissions, oxides of nitrogen (NOx), and greenhouse gases than trucks without TRUs. To ensure TRUs will not operate within the Project site, CARB urges the City to include one of the following design measures in a revised DEIR:

12.8

- A Project design measure requiring contractual language in tenant lease agreements that prohibits tenants from operating TRUs within the Project site; or
- A condition requiring a restrictive covenant over the parcel that prohibits the applicant's use of TRUs on the property, unless the applicant seeks and receives an amendment to its conditional use permit allowing such use.

If the City chooses to allow TRUs within the Project site, CARB urges the City to model air pollutant emissions from on-site TRUs, as well as prepare a health risk assessment (HRA) that shows the potential health risks. The DEIR should also include the air pollutant reduction measures listed in Attachment A.

In addition to the health risk associated with operations, construction health risks should be included in the air quality section of the DEIR and the Project's HRA. Construction of the Project would result in short-term diesel emissions from the use of both on-road and off-road diesel equipment. The Office of Environmental Health Hazard Assessment's

<sup>2</sup> TRUs are refrigeration systems powered by diesel internal combustion engines that protect perishable goods during transport in an insulated truck and trailer vans, rail cars, and domestic shipping containers.

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(OEHHA) guidance recommends assessing cancer risks for construction projects lasting longer than two months. Since construction would very likely occur over a period lasting longer than two months, the HRA prepared for the Project should include health risks for existing residences near the Project site during construction.

The HRA prepared in support of the Project should be based on the latest OEHHA guidance (2015 Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments),<sup>3</sup> and the South Coast Air Quality Management District's (SCAQMD) CEQA Air Quality Handbook.<sup>4</sup> The HRA should evaluate and present the existing baseline (current conditions), future baseline (full build-out year, without the Project), and future year with the Project. The health risks modeled under both the existing and the future baselines should reflect all applicable federal, state, and local rules and regulations. By evaluating health risks using both baselines, the public and City planners will have a complete understanding of the potential health impacts that would result from the Project.

12.9

**III. Conclusion**

To reduce the exposure of toxic diesel PM emissions in disadvantaged communities already disproportionately impacted by air pollution, the final design of the Project should include all existing and emerging zero-emission technologies to minimize diesel PM and NOx emissions, as well as the greenhouse gases that contribute to climate change. CARB encourages the City and applicant to implement the measures listed in Attachment A of this comment letter to reduce the Project's construction and operational air pollution emissions.

Given the breadth and scope of projects subject to CEQA review throughout California that have air quality and greenhouse gas impacts, coupled with CARB's limited staff resources to substantively respond to all issues associated with a project, CARB must prioritize its substantive comments here based on staff time, resources, and its assessment of impacts. CARB's deliberate decision to substantively comment on some issues does not constitute an admission or concession that it substantively agrees with the lead agency's findings and conclusions on any issues on which CARB does not substantively submit comments.

<sup>3</sup> Office of Environmental Health Hazard Assessment (OEHHA), Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments, February 2015. Accessed at: <https://oehha.ca.gov/media/downloads/crm/2015guidancemanual.pdf>.  
<sup>4</sup> SCAQMD's 1993 Handbook can be found at: <http://www.sqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook>.

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CARB appreciates the opportunity to comment on the NOP for the Project and can provide assistance on zero-emission technologies and emission reduction strategies, as needed. Please include CARB on your State Clearinghouse list of selected State agencies that will receive the DEIR as part of the comment period. If you have questions, please contact Michaela Nucal, Air Pollution Specialist, via email at [michaela.nucal@arb.ca.gov](mailto:michaela.nucal@arb.ca.gov).

Sincerely,



Richard Boyd, Chief  
Risk Reduction Branch  
Transportation and Toxics Division

Attachment

cc: See next page.

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cc: State Clearinghouse  
[state.clearinghouse@opr.ca.gov](mailto:state.clearinghouse@opr.ca.gov)

Carlo De La Cruz  
Senior Campaign Representative  
Sierra Club  
[carlo.delacruz@sierraclub.org](mailto:carlo.delacruz@sierraclub.org)

Lijin Sun  
Program Supervisor  
CEQA Intergovernmental Review  
South Coast Air Quality Management District  
[lsun@aqmd.gov](mailto:lsun@aqmd.gov)

Morgan Capilla  
NEPA Reviewer  
U.S. Environmental Protection Agency  
Air Division, Region 9  
[capilla.morgan@epa.gov](mailto:capilla.morgan@epa.gov)

Taylor Thomas  
Research and Policy Analyst  
East Yard Communities for Environmental Justice  
[tbthomas@eycej.org](mailto:tbthomas@eycej.org)

Andrea Vidaurre  
Policy Analyst  
Center for Community Action and Environmental Justice  
[andrea.v@ccaej.org](mailto:andrea.v@ccaej.org)

Michaela Nucal  
Air Pollution Specialist  
Risk Analysis Section  
Transportation and Toxics Division  
[michaela.nucal@arb.ca.gov](mailto:michaela.nucal@arb.ca.gov)

**ATTACHMENT A****Recommended Air Pollution Emission Reduction Measures  
for Warehouses and Distribution Centers**

The California Air Resources Board (CARB) recommends developers and government planners use all existing and emerging zero to near-zero emission technologies during project construction and operation to minimize public exposure to air pollution. Below are some measures, currently recommended by CARB, specific to warehouse and distribution center projects. These recommendations are subject to change as new zero-emission technologies become available.

**Recommended Construction Measures**

1. Ensure the cleanest possible construction practices and equipment are used. This includes eliminating the idling of diesel-powered equipment and providing the necessary infrastructure (e.g., electrical hookups) to support zero and near-zero equipment and tools.
2. Implement, and plan accordingly for, the necessary infrastructure to support the zero and near-zero emission technology vehicles and equipment that will be operating on site. Necessary infrastructure may include the physical (e.g., needed footprint), energy, and fueling infrastructure for construction equipment, on-site vehicles and equipment, and medium-heavy and heavy-heavy duty trucks.
3. In construction contracts, include language that requires all off-road diesel-powered equipment used during construction to be equipped with Tier 4 or cleaner engines, except for specialized construction equipment in which Tier 4 engines are not available. In place of Tier 4 engines, off-road equipment can incorporate retrofits, such that, emission reductions achieved equal or exceed that of a Tier 4 engine.
4. In construction contracts, include language that requires all off-road equipment with a power rating below 19 kilowatts (e.g., plate compactors, pressure washers) used during project construction be battery powered.
5. In construction contracts, include language that requires all heavy-duty trucks entering the construction site, during the grading and building construction phases be model year 2014 or later. All heavy-duty haul trucks should also meet CARB's lowest optional low-oxides of nitrogen (NO<sub>x</sub>) standard starting in the year 2022.<sup>1</sup>

12.10

<sup>1</sup> In 2013, CARB adopted optional low-NO<sub>x</sub> emission standards for on-road heavy-duty engines. CARB encourages engine manufacturers to introduce new technologies to reduce NO<sub>x</sub> emissions below the current mandatory on-road heavy-duty diesel engine emission standards for model year 2010 and later. CARB's optional low-NO<sub>x</sub> emission standard is available at: <https://www.arb.ca.gov/rsprog/onroad/optionlow/optformax.htm>.

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6. In construction contracts, include language that requires all construction equipment and fleets to be in compliance with all current air quality regulations. CARB is available to assist in implementing this recommendation.

**Recommended Operation Measures**

1. Include contractual language in tenant lease agreements that requires tenants to use the cleanest technologies available, and to provide the necessary infrastructure to support zero-emission vehicles and equipment that will be operating on site.
2. Include contractual language in tenant lease agreements that requires all loading/unloading docks and trailer spaces be equipped with electrical hookups for trucks with transport refrigeration units (TRU) or auxiliary power units. This requirement will substantially decrease the amount of time that a TRU powered by a fossil-fueled internal combustion engine can operate at the project site. Use of zero-emission all-electric plug-in TRUs, hydrogen fuel cell transport refrigeration, and cryogenic transport refrigeration are encouraged and can also be included in lease agreements.<sup>2</sup>
3. Include contractual language in tenant lease agreements that requires all TRUs entering the project site be plug-in capable.
4. Include contractual language in tenant lease agreements that requires future tenants to exclusively use zero-emission light and medium-duty delivery trucks and vans.
5. Include contractual language in tenant lease agreements requiring all TRUs, trucks, and cars entering the Project site be zero-emission.
6. Include contractual language in tenant lease agreements that requires all service equipment (e.g., yard hostlers, yard equipment, forklifts, and pallet jacks) used within the project site to be zero-emission. This equipment is widely available.
7. Include contractual language in tenant lease agreements that requires all heavy-duty trucks entering or on the project site to be model year 2014 or later, expedite a transition to zero-emission vehicles, and be fully zero-emission beginning in 2030.

<sup>2</sup> CARB's Technology Assessment for Transport Refrigerators provides information on the current and projected development of TRUs, including current and anticipated costs. The assessment is available at: [https://www.arb.ca.gov/msprog/tech/techreport/tru\\_07252015.pdf](https://www.arb.ca.gov/msprog/tech/techreport/tru_07252015.pdf).

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8. Include contractual language in tenant lease agreements that requires the tenant be in, and monitor compliance with, all current air quality regulations for on-road trucks including CARB's Heavy-Duty (Tractor-Trailer) Greenhouse Gas Regulation,<sup>3</sup> Periodic Smoke Inspection Program (PSIP),<sup>4</sup> and the Statewide Truck and Bus Regulation.<sup>5</sup>
9. Include contractual language in tenant lease agreements restricting trucks and support equipment from idling longer than 5 minutes while on site.
10. Include contractual language in tenant lease agreements that limits on-site TRU diesel engine runtime to no longer than 15 minutes. If no cold storage operations are planned, include contractual language and permit conditions that prohibit cold storage operations unless a health risk assessment is conducted, and the health impacts fully mitigated.
11. Include rooftop solar panels for each proposed warehouse to the extent feasible, with a capacity that matches the maximum allowed for distributed solar connections to the grid.
12. Including language in tenant lease agreements, requiring the installing of vegetative walls<sup>6</sup> or other effective barriers that separate loading docks and people living or working nearby.

<sup>3</sup> In December 2008, CARB adopted a regulation to reduce greenhouse gas emissions by improving the fuel efficiency of heavy-duty tractors that pull 53-foot or longer box-type trailers. The regulation applies primarily to owners of 53-foot or longer box-type trailers, including both dry-van and refrigerated-van trailers, and owners of the heavy-duty tractors that pull them on California highways. CARB's Heavy-Duty (Tractor-Trailer) Greenhouse Gas Regulation is available at: <https://www.arb.ca.gov/cc/hdghg/hdghg.htm>.

<sup>4</sup> The PSIP program requires that diesel and bus fleet owners conduct annual smoke opacity inspections of their vehicles and repair those with excessive smoke emissions to ensure compliance. CARB's PSIP program is available at: <https://www.arb.ca.gov/enr/hdvp/hdvp.htm>.

<sup>5</sup> The regulation requires that newer heavier trucks and buses must meet particulate matter filter requirements beginning January 1, 2012. Lighter and older heavier trucks must be replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent. CARB's Statewide Truck and Bus Regulation is available at: <https://www.arb.ca.gov/trsprog/onrdiesel/onrdiesel.htm>.

<sup>6</sup> Effectiveness of Sound Wall-Vegetation Combination Barriers as Near-Roadway Pollutant Mitigation Strategies (2017) is available at: <https://ww2.arb.ca.gov/sites/default/files/classic/research/apr/past/13-305.pdf>.

**Letter 12 – California Air Resources Board****Commenter:** Robert Krieger**Date:** July 23, 2021**Response 12.1:**

The commenter provides a summary of the Project Description information. The commenter also indicates CARB submitted a comment letter on the Notice of Preparation for the Project (attached) that highlighted the need for preparing a health risk assessment (HRA) for the Project and encouraged the City and applicant to implement all existing and emerging zero emission technologies to minimize exposure to diesel particulate matter and nitrogen oxides emissions for all neighboring communities, and to minimize the greenhouse gases that contribute to climate change.

A Health Risk Assessment was prepared for the project and is contained in Appendix C to the DEIR and discusses the Project's potential impacts regarding DPM emissions, cancer risk, non-carcinogenic risk, residential exposure, worker exposure, and school children exposure. Because construction and operational activity would not result in an exceedance of the SCAQMD's DPM cancer risk exposure threshold of 10 in one million, or non-cancer risk threshold of 1.0, sensitive receptors would not be exposed to substantial DPM pollutant concentrations during Project construction or operation, and impacts would be less than significant with Mitigation Measure MM AIR-1. (DEIR, pp. 5.2-33 – 5.2-35.) As summarized in the DEIR and underlying technical studies, the Project would not result in a significant air quality or health risk impact from exposure to nitrogen oxides or diesel particulate matter emissions. As such, there is no obligation under CEQA to further reduce potential impacts via mitigation and no mitigation is required, as further detailed in Responses 9.2 through 9.21.

As outlined in Response 7.10 above, environmental justice is not an environmental impact required to be evaluated or considered pursuant to CEQA, per CEQA Guidelines Article 9. Contents of Environmental Impact Reports, Sections 15120 to 15132. Nonetheless, the air quality analysis contained in the DEIR demonstrates the Project would not result in environmental justice issues (disproportionate impacts to disadvantaged communities) as further outlined below.

The air quality analysis prepared for the Project provides an assessment of potential cumulative air quality impacts. The SCAQMD shares the responsibility with California Air Resources Board (CARB) for ensuring that all federal and state ambient air quality standards are achieved and maintained throughout the air basin. The SCAQMD has developed methodologies and thresholds of significance that are widely used throughout the air basin. SCAQMD staff has suggested in the cumulative significance methodologies contained in the CEQA Air Quality Handbook that the emissions-based thresholds be used to determine if a project's contribution to regional cumulative emissions is cumulatively considerable. These thresholds were used in the Air Quality Analysis to assess the significance of the Project -specific and cumulative air quality impacts. Air quality impacts are basin-wide, and air quality is affected by all pollutant sources in the basin. Therefore, the ambient air quality measurements provided in the Air Quality Analysis provide a summary of basin-wide cumulative air quality impacts. As the individual Project thresholds are designed to help achieve attainment with cumulative basin-wide standards, they are also appropriate for

assessing the Project's contribution to cumulative impacts. As shown in Tables 7 and 9 of the Air Quality Analysis (Appendix C to the DEIR) and corresponding Tables 5.2-7 and 5.2-8 of the DEIR (pp. 5.2-26, 5.2-32), construction and operational emissions would be less than the applicable project-level thresholds. Additionally, the project would be consistent with the growth projections used to develop the AQMP and would therefore not conflict with implementation of the AQMP or applicable portions of the State Implementation Plan (SIP). As such, air quality impacts would be less than significant.

On DEIR pp. 5.2-31 to 5.2-32, in response to Threshold C, which questions whether the Project would expose sensitive receptors to substantial pollutant concentrations, the DEIR describes the localized significance threshold (LST) analysis utilized in determining these potential impacts. DEIR pp. 5.2-31 to 5.2-32 state that, "LSTs were developed in response to environmental justice and health concerns raised by the public regarding exposure of individuals to criteria pollutants in local communities." These pages of the DEIR further state that, "the Project was analyzed for its potential to result in significant health risk impacts resulting from short-term construction and long-term operational emissions" and that it was determined, "the Project would not exceed the SCAQMD LSTs during construction and operational activities."

Thus, the DEIR does include analysis relevant to environmental justice issues as the LSTs utilized in determining potential impacts to sensitive receptors were developed in response to environmental justice concerns and the Project HRA assesses potential Project-related health risks to residents, workers, and school children.

Further, as stated on DEIR p. 5.2-37 under Cumulative Environmental Effects, "SCAQMD considers the thresholds for project-specific impacts and cumulative impacts to be the same. Therefore, projects that exceed project-specific significance thresholds are considered by SCAQMD to be cumulatively considerable." DEIR p. 5.2-37 goes on to state, "in terms of localized air quality impacts, construction and operation of the Project would not have a cumulatively considerable impact due to criteria pollutant emission." Therefore, as the Project was determined not to exceed any of the emissions significance thresholds, including localized significance thresholds, and would accordingly not result in cumulatively significant air quality impacts, the Project would not result in significant impacts regarding the environmental justice issues stated by the commenter.

This comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. This comment is noted for the record and no changes to the DEIR are required.

**Response 12.2:**

The commenter claims that the DEIR modeled the Project's air pollutant emissions using mobile emission factors obtained from CARB's 2014 Emission Factors model (EMFAC2014) despite updates to the EMFAC model, including diesel particulate matter emission factors for diesel heavy-duty trucks. The commenter states that EMFAC 2014 underestimated diesel PM (DPM) emission rates from diesel heavy-duty trucks and thus the Project's mobile source DPM emissions

are likely underestimated in the DEIR. The commenter goes on to recommend the use of EMFAC2021, which was released in January 2021.

The Mobile Source Health Risk Assessment (HRA, Appendix C) was prepared in July 2020 prior to the release of EMFAC 2021. The Mobile Source HRA “evaluates the potential mobile source health risk impacts to sensitive receptors (residents) and adjacent workers associated with the development of the Project, more specifically, health risk impacts (cancer and non-cancer risks) as a result of exposure to diesel Particulate matter (DPM) as a result of heavy-duty diesel trucks accessing the site.” (HRA, p. 1) The Mobile Source HRA did in fact utilize EMFAC 2017, per Section 3.1 On-site and Off-Site Truck Activity, page 8,

Vehicle DPM emissions were estimated using emission factors for particulate matter less than 10 micrometer (um) in diameter (PM10) generated with the 2017 version of the Emissions FACTor model (EMFAC) developed by the CARB. EMFAC 2017 is a mathematical model that was developed to calculate emission rates from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB to project change in future emissions from on-road mobile sources (4). The most recent version of this model, EMFAC 2017, incorporates regional motor vehicle data, information and estimates regarding the distribution of vehicle miles traveled (VMT) by speed, and number of starts per day.

Therefore, the Mobile Source HRA prepared for the Project to evaluate health risk impacts from heavy-duty diesel trucks utilized the appropriate mobile emission factors using EMFAC 2017, as recommended by the commenter, and did not underestimate diesel emissions.

Further, the Air Quality Analysis (Appendix C) also utilized EMFAC 2017 emission factors for the operational Localized Significance Thresholds (LST) calculations, as outlined below.

Per DEIR Appendix C – Air Quality Analysis p. 29:

Once operational, on-site sources of emissions associated with the project would be passenger cars arriving at and departing from the facility, and trucks maneuvering on-site and idling at the proposed loading docks. The site plan identifies 49 loading docks on the east side of Building A, 39 loading docks on the west side of Building A, and 34 loading docks on the south side of Building B. The project would also include the operation of up to three non-diesel yard trucks used to move freight around the warehouse. For the operational LST analysis, on-site passenger car and truck travel and idling emissions were modeled in the AERMOD dispersion model using emission factors for CO, NO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> generated by EMFAC2017. Therefore, the DEIR and its underlying technical studies utilized EMFAC 2017 mobile emission factors for diesel heavy-duty trucks, as recommended by the commenter, and did not underestimate DPM emissions.

Further, the notice of preparation (NOP) for the Project was published on July 28, 2020 *prior* to CARB’s release of the EMFAC2021 model update. Moreover, at present, EMFAC2021 is not yet approved for use by the U.S. EPA. The EMFAC2017 model *is* the currently approved model for use and was correctly utilized in the Project’s Mobile Source HRA and operational LST analysis. As such, the analysis in the DEIR and underlying technical studies are correct and no changes are needed.

Therefore, this comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. This comment is noted for the record and no changes to the DEIR are required.

**Response 12.3:**

The commenter states that the DEIR did not account for air pollutant emissions from heavy-duty trucks during on-site grading.

As stated in Section 6.1 of the Air Quality Analysis, “During the grading phase, soil quantities would be balanced on-site between the two building areas with no net import or export.” The modeling assumes that this soil hauling between Parcel 1 and Parcel 2 would be done with the modeled grading equipment, which includes graders and scrapers capable of moving large quantities of soil. To be conservative and account for the usage of trucks to haul soil from one parcel to the other, 40,000 cubic yards of soil hauling has been added to the grading phase with a trip length of one mile. The revised emissions are summarized in Tables 6 and 7 of the revised Air Quality Analysis and Table 7 of the revised GHG Analysis. Accordingly, corresponding DEIR Tables 5.2-6, 5.2-7, and 5.7-7 have been revised as well (see revised tables under Response 7.8). All construction emissions would still be less than the applicable thresholds, and air quality and GHG impacts would be less than significant.

It should be noted that even with these revisions to the DEIR, no change to the significance conclusions presented in the DEIR will result. Accordingly, this comment and the subsequent DEIR revisions do not affect the analysis completed or conclusions provided in the DEIR, do not provide new information or evidence related to the analysis completed in the DEIR, and do not reflect on the adequacy or content of the DEIR. This comment is noted for the record, and revisions to the DEIR have been made as noted above.

**Response 12.4:** The commenter correctly indicates the DEIR states that the proposed Project would not include the operation of on-site cold storage uses and that the air pollutant emissions associated with cold storage operation were not included in the DEIR. CARB urges the City to include one of the following design measures in the FEIR: 1) contractual language in tenant lease agreements that prohibits tenants from operating TRUs within the project site or a condition of approval requiring a restrictive covenant over the parcel that prohibits the applicants use of TRUs on the property.

Mitigation Measure MM AIR-1 is revised accordingly, as requested by CARB, to include a restrictive covenant that also restricts the use of TRUs:

**MM AIR-1:** The project applicant is required to record a covenant on the property (Parcels 1 and 2) that prohibit manufacturing, fulfillment center, and use of Transportation Refrigeration Units (TRUs). Proof of the record of covenant shall be submitted to the City of Riverside Planning Department prior to issuance of Building Permits.

As summarized in the DEIR and underlying technical studies, the proposed Project that was analyzed (as defined in the Project Description of the DEIR) was High-Cube Transload Short-Term Warehouse, and not fulfillment center warehouse or refrigerated warehouse and correlating use of TRUs on trucks. Therefore, the EIR and supporting technical studies do not evaluate or

cover other uses of the site, and if other uses are proposed or would be allowed on the site, that would require new air quality, greenhouse gas, and HRA modeling and analyses, as well as subsequent CEQA review and approval by the City.

Therefore, this comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. This comment is noted for the record and no changes to the DEIR are required.

**Response 12.5:**

The commenter states that the community near the Project site is already exposed to toxic diesel PM emissions from freight operations at existing industrial buildings and vehicular traffic on East Alessandro Boulevard and Interstate 215. Due to the Project's proximity to residences and schools, the commenter is concerned with the potential cumulative health impacts. To further reduce the Project's air pollutant emissions CARB urges the City and applicant to implement the emissions reduction measures listed in CARB's attached comment on the NOP for the DEIR.

As summarized in the DEIR and underlying technical studies, the Project would not result in a significant air quality or health risk impact, including cumulative impacts. As such, there is no obligation under CEQA to further reduce potential impacts via mitigation and no mitigation is required. As outlined in Response 12.4 above, Mitigation Measure MM AIR-1 is revised accordingly, as requested by CARB, to include a restrictive covenant that also restricts the use of TRUs.

As outlined in Response 9.22 above, the Project is already incorporating the following:

- The Project will install conduit for vehicle charging stations.
- The Project will provide a total of 39 electric vehicle (EV) parking stalls to encourage the use of low or zero-emission vehicles.
- The Project will provide a total of 13 clean air/van pool parking stalls to support and encourage ridesharing.
- Material handling equipment will be electric or propane powered.
- The Project will provide short term and/or long-term bicycle parking accommodations in accordance with the California Green Buildings Standards Code Sections 5.710.6.2.1 to promote the use of bicycles.
- The Project will require building operators (by contract specifications) to turn off equipment, including heavy-duty equipment, motor vehicles, and portable equipment when not in use for more than five minutes. Truck idling shall not exceed five minutes in time. All facilities will post signs requiring that trucks shall not be left idling for more than five minutes pursuant to Title 13 of the California Code of Regulations, Section 2485, which limits idle times to not more than five minutes.
- During grading, heavy-duty construction equipment (i.e., excavators, graders, scrapers, dozers, tractor/loader/backhoes, etc.) shall be California Air Resources Board (CARB)/US Environmental Protection Agency (US EPA) Tier 3 certified. All construction equipment is subject to the CARB In-USE Off-Road Diesel-Fueled Fleets Regulation. This regulation, which applies to all off-road diesel vehicles 25 horsepower or greater, limits unnecessary idling to 5 minutes, requires all construction fleets to be labeled and reported to CARB,

bans Tier 0 equipment and phases out Tier 1 and 2 equipment (thereby replacing fleets with cleaner equipment), and requires that fleets comply with Best Available Control Technology requirements.

Although not required, the following mitigation measures are incorporated, added to the EIR and Mitigation Monitoring and Reporting Program (MMRP):

**MM AIR-2:** The Project applicant shall provide electrical hook ups to the power grid, rather than use of diesel-fueled generators, for electric construction tools, such as saws, drills and compressors and use of electric tools whenever feasible.

**MM AIR-3:** The Project applicant shall provide information on transit and ridesharing programs and services to construction employees.

**MM AIR-4:** The Project applicant shall post both interior and exterior facing signs, including signs directed at all dock and delivery areas, identifying idling restrictions and contact information to report violations to the California Air Resources Board (CARB), the South Coast Air Quality Management District (AQMD), and the building manager.

**MM AIR-5:** The Project applicant shall post signs at every truck exit driveway providing directional information to the truck route.

**MM AIR-6:** The Project applicant shall provide tenants with information on incentive programs, such as the Carl Moyer Program and Voucher Incentive Program, to upgrade their fleets.

**MM AIR-7:** The Project applicant shall include contractual language in tenant lease agreements that requires all service equipment (e.g., yard hostlers, yard equipment, forklifts, and pallet jacks) used within the project site to be zero-emission.

**MM AIR-8:** The Project applicant shall include contractual language in tenant lease agreements restricting trucks and support equipment from idling longer than 5 minutes while on site.

**MM AIR-9:** The Project applicant shall include contractual language in tenant lease agreements that prohibit cold storage operations unless a health risk assessment is conducted and the health impacts are mitigated, if found significant.

**MM AIR-10:** Include rooftop solar panels to the extent feasible, with a capacity to supply 15% of the entire Project's electrical demand.

The design features and/or additional mitigation measures above partially accomplish the commenters Attachment A Recommended Construction Measures 1 and 2. Although not required, Mitigation measures MM AIR-7 through MM AIR-9 accomplish the commenters Attachment A Recommended Operations Measures 6, 9, and 10. Mitigation measure MM AIR-10 partially accomplishes the commenters Attachment A Operations Measure 11. As the Project does not include use of TRUs, the commenters Attachment A Recommended Operation Measures 2, 3 and part of 4 are not applicable. The commenters Attachment A Recommended Operation Measures 12 includes installing vegetative walls or other effective barriers that separate loading docks and people living or working nearby, is also not applicable as the loading docks are not close to people living or working nearby. The closest existing residences and commercial uses are approximately 225 feet of the Project site boundary or parcel line, across Alessandro Boulevard. The Building A set back from Alessandro Boulevard is 520 feet and greater

for Building B, thus loading docks for Building A and B are set back from nearest residences by at least 745 feet or greater.

It should be noted that even with these revisions to the DEIR, no change to the significance conclusions presented in the DEIR will result. Accordingly, this comment and the subsequent DEIR revisions do not affect the analysis completed or conclusions provided in the DEIR, do not provide new information or evidence related to the analysis completed in the DEIR, and do not reflect on the adequacy or content of the DEIR. This comment is noted for the record, and revisions to the DEIR have been made as noted above.

**Response 12.6:**

The commenter indicates that to fully understand the Project's environmental impacts, the HRA should be revised using the latest version of EMFAC, EMCAC 2021. If heavy-duty trucks are required to import or export soils from the site during Project construction, the Project's air quality analysis and HRA should be updated to reflect such activities. The commenter states the FEIR should include a design measure restricting the operation of TRUs and if the City should allow the warehouse buildings to be used for cold storage, the City should update the Project's air quality analysis and HRA to account for these. The commenter also encourages the City to implement the measures listed in Attachment A to their comment letter.

For all the reasons set forth above in Responses to Comments 12.1 through 12.5, no new information of substantial importance has been added to the EIR, and no new significant environmental impacts or substantial increases in existing significance impacts exist. Accordingly, recirculation of the DEIR is not required. (State CEQA Guidelines 15088.5)

**Response 12.7:**

The commenter indicates that the Project will expose nearby disadvantaged communities to elevated levels of air pollution. The commenter states that there are residences located approximately 350 feet south of the Project's southern boundary and there are four schools and a daycare center within 2 miles of the Project. The commenter is concerned with the potential cumulative health impacts associated with the Project and that diesel PM emissions generated by the Project would negatively impact the community that is already impacted by air pollution from existing industrial facilities and vehicular traffic on Alessandro Boulevard and I-215.

The EIR did identify the nearby sensitive receptors and analyze DPM using the appropriate methodology and thresholds. A Health Risk Assessment was prepared for the project and is contained in Appendix C to the DEIR and discusses the Project's potential impacts regarding DPM emissions, cancer risk, non-carcinogenic risk, residential exposure, worker exposure, and school children exposure. Because construction and operational activity would not result in an exceedance of the SCAQMD's DPM cancer risk exposure threshold of 10 in one million, or non-cancer risk threshold of 1.0, sensitive receptors would not be exposed to substantial DPM pollutant concentrations during Project construction or operation, and impacts would be less than significant with Mitigation Measure MM AIR-1. (DEIR, pp. 5.2-33 – 5.2-35.)

On DEIR pp. 5.2-31 to 5.2-32, in response to Threshold C, which questions whether the Project would expose sensitive receptors to substantial pollutant concentrations, the DEIR describes the

localized significance threshold (LST) analysis utilized in determining these potential impacts. DEIR pp. 5.2-31 to 5.2-32 state that, "LSTs were developed in response to environmental justice and health concerns raised by the public regarding exposure of individuals to criteria pollutants in local communities." These pages of the DEIR further state that, "the Project was analyzed for its potential to result in significant health risk impacts resulting from short-term construction and long-term operational emissions" and that it was determined, "the Project would not exceed the SCAQMD LSTs during construction and operational activities."

Thus, the DEIR does include analysis relevant to environmental justice issues as the LSTs utilized in determining potential impacts to sensitive receptors were developed in response to environmental justice concerns and the Project HRA assesses potential Project-related health risks to residents, workers, and school children.

Further, as stated on DEIR p. 5.2-37 under Cumulative Environmental Effects, "SCAQMD considers the thresholds for project-specific impacts and cumulative impacts to be the same. Therefore, projects that exceed project-specific significance thresholds are considered by SCAQMD to be cumulatively considerable." DEIR p. 5.2-37 goes on to state, "in terms of localized air quality impacts, construction and operation of the Project would not have a cumulatively considerable impact due to criteria pollutant emission." Therefore, as the Project was determined not to exceed any of the emissions significance thresholds, including localized significance thresholds, and would accordingly not result in cumulatively significant air quality impacts, the Project would not result in significant impacts regarding the environmental justice issues stated by the commenter.

Therefore, this comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. This comment is noted for the record and no changes to the DEIR are required.

**Response 12.8:**

The commenter indicates that the Project, as proposed, will not include refrigerated storage and operation of cold storage warehouses would include trucks with transportation refrigeration units (TRUs) that emit significantly higher levels of toxic DPM, oxides of nitrogen, and greenhouse gases than trucks without TRUs. The commenter requests the City to include as a project design measure to ensure TRUs will not operate at the Project, that contractual language in tenant lease agreements prohibit tenants from operating TRUs or a condition requiring a restrictive covenant over the parcel that prohibits the use of TRUs.

As outlined in Response 12.4 above, Mitigation Measure MM AIR-1 is revised accordingly, as requested by CARB, to include a restrictive covenant that also restricts the use of TRUs. If the applicant were to request future use of TRUs at the site a new HRA would need to be prepared in accordance with the latest OEHHA, CARB, and SCAQMD guidance, and the City would need to conduct subsequent CEQA review.

It should be noted that even with these revisions to the DEIR, no change to the significance conclusions presented in the DEIR will result. Accordingly, this comment and the subsequent DEIR revisions do not affect the analysis completed or conclusions provided in the DEIR, do not

provide new information or evidence related to the analysis completed in the DEIR, and do not reflect on the adequacy or content of the DEIR. This comment is noted for the record, and revisions to the DEIR have been made as noted above.

**Response 12.9:**

The commenter indicates they encourage the City and applicant to implement the measures listed in Attachment A of this comment letter to reduce the Project's construction and operational air pollution emissions.

As outlined in more detail in Response 12.5 above, the design features and/or additional mitigation measures listed above partially accomplish the commenters Attachment A Recommended Construction Measures 1 and 2. Although not required, Mitigation measures MM AIR-7 through MM AIR-9 accomplish the commenters Attachment A Recommended Operations Measures 6, 9, and 10. Mitigation measure MM AIR-10 partially accomplishes the commenters Attachment A Operations Measure 11. As the Project does not include use of TRUs, the commenters Attachment A Recommended Operation Measures 2, 3 and part of 4 are not applicable. The commenters Attachment A Recommended Operation Measures 12 includes installing vegetative walls or other effective barriers that separate loading docks and people living or working nearby, is also not applicable as the loading docks are not close to people living or working nearby. The closest existing residences and commercial uses are approximately 225 feet of the Project site boundary or parcel line, across Alessandro Boulevard. The Building A set back from Alessandro Boulevard is 520 feet and greater for Building B, thus loading docks for Building A and B are set back from nearest residences by at least 745 feet or greater.

It should be noted that even with these revisions to the DEIR, no change to the significance conclusions presented in the DEIR will result. Accordingly, this comment and the subsequent DEIR revisions do not affect the analysis completed or conclusions provided in the DEIR, do not provide new information or evidence related to the analysis completed in the DEIR, and do not reflect on the adequacy or content of the DEIR. This comment is noted for the record, and revisions to the DEIR have been made as noted above.

**Comment Letters Received After Close of the DEIR Comment Review Period**

**Comment Letter 13 – Golden State Environmental Justice Alliance**

Comment letter 13 commences on the next page.



To: City of Riverside Planning Commission  
Veronica Hernandez, Senior Planner

From: Golden State Environmental Justice Alliance

Subject: Sycamore Hills Distribution Center

This letter is to serve as further comment in addition to all previously submitted comments and documents by Golden State Environmental Justice Alliance and our consultant SWAPE.

**CalEnviroScreen 4.0 Information**

CalEnviroScreen is a mapping tool that helps identify California communities that are most affected by many sources of pollution, and where people are often especially vulnerable to pollution's effects. CalEnviroScreen uses environmental, health, and socioeconomic information to produce scores for every census tract in the state. The scores are mapped so that different communities can be compared. An area with a high score is one that experiences a much higher pollution burden than areas with low scores. CalEnviroScreen ranks communities based on data that are available from state and federal government sources. CalEnviroScreen is updated and maintained by The Office of Environmental Health Hazard Assessment, on behalf of the California Environmental Protection Agency.

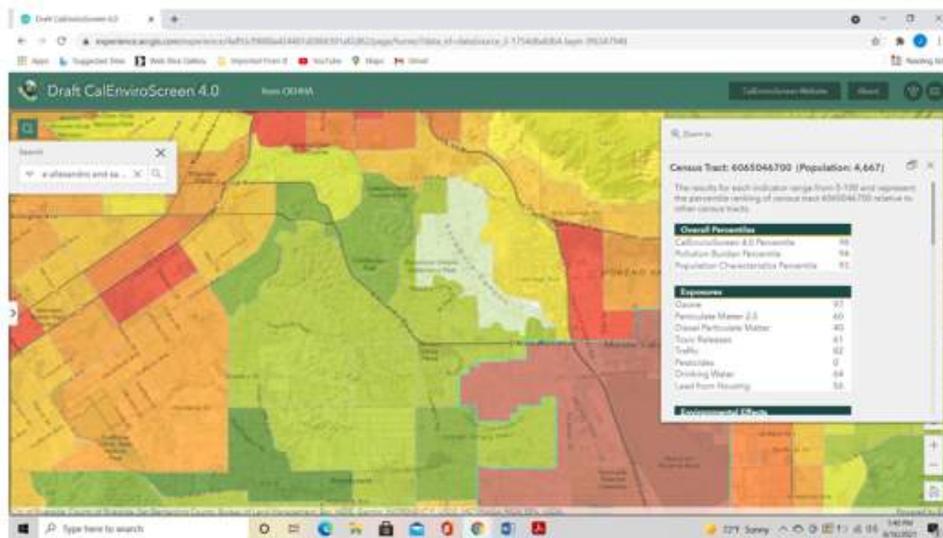
13.1

**CalEnviroScreen Data on Sycamore Hills Distribution Center Project Location/Area**

The above listed project sits in the south east of census tract 6065042217. Overall, when compared to other census tracts, the project site census tract is in the 33rd percentile regarding pollution. As far as pollution burden is concerned, this census tract is also in the 33rd percentile. However, the census tract the project site shares its southern border with (6065046700) has some of the worst pollution in the state being in the 98<sup>th</sup> percentile for overall pollution and 94<sup>th</sup> in pollution burden on its residents. This data represents that only 2 percent of other census tracts have worse overall pollution, it also means this census tract has worse pollution burden on its population than 93 percent of the state. In terms of Ozone, this census tract is in the 97th percentile, Particulate Matter 2.5 60th percentile, Diesel Particulate Matter 40th percentile, Toxic Releases 61st percentile and Traffic 82nd percentile. The census tract to the East of the project site (6065042505) also as some of the worst pollution in the state. Overall it is in the 98<sup>th</sup> percentile and the pollution burden

on its residents is in the 90<sup>th</sup> percentile. This data represents that only 2 percent of other census tracts have worse overall pollution, it also means this census tract has worse pollution burden on its population than 89 percent of the state. In terms of Ozone, this census tract is in the 98th percentile, Particulate Matter 2.5 64th percentile, Diesel Particulate Matter 64th percentile, Toxic Releases 65th percentile and Traffic 84th percentile to name a few. It should further be noted the closest major highway to the project site is the auxiliary interstate highway I-215, which runs through both previously mentioned census tracts.

13.1  
cont'd



**Conclusion**

Consider the above referenced information when making this important decision. Realize that you and the citizens of this area face some of the WORST POLLUTION in the entire state of California.

13.2

It is the responsibility of the City's elected and appointed officials to make environmentally responsible development decisions. Based on the CalEnviroScreen data, this is more than sufficient evidence of the further air quality impacts that the citizenry of Riverside and its surrounding area will continue to encounter with further development of another warehouse/distribution center. We are not against development, as we believe it is necessary for further economic growth in our current society. Development needs to be conducted with the highest of expectations to ensure the local population does not suffer further air quality burdens.

We stand by our comments and believe the EIR is flawed and needs to be redrafted and recirculated for public review.

Respectfully Submitted,

*Steven Piepkorn*

Steven Piepkorn  
GSEJA

**Source -**

<https://experience.arcgis.com/experience/4af93cf9888a424481d2868391af2d82/page/home/>

**Glossary of Terms**

Ozone - Amount of daily maximum 8-hour Ozone concentration

Particulate Matter 2.5 - Annual mean PM 2.5 concentrations

Diesel Particulate Matter - Diesel PM emissions from on-road and non-road sources

Toxic Releases - Toxicity-weighted concentrations of modeled chemical releases to air from facility emissions and off-site incineration.

Traffic -Traffic density, in vehicle-kilometers per hour per road length, within 150 meters of the census tract boundary.

**Letter 13 – Golden State Environmental Justice Alliance****Commenter:** Stephen Piepkorn**Date:** August 17, 2021**Response 13.1:**

The commenter provides their own summary of what CalEnviroScreen is, what agency updates and maintains it, what census tract the project is located in, and data on the census tract rankings for various pollution burdens, overall pollution, ozone, diesel particulate matter, etc.. The commenter also indicates that Interstate-215 freeway runs through the Project site census tract, as well as the census tract to the east of the Project site. The commenter additionally states that surrounding census tracts to the south and east of the Project site experience comparatively higher pollution than the rest of the State and that this information must be considered in the context of the Project.

Please see Responses 7.10 and 7.18. While the DEIR does not specifically cite CalEnviroScreen data in its analysis, the DEIR and its underlying technical studies do include a cumulative impact analysis as well as analysis relevant to environmental justice issues in reviewing potential Project impacts. As stated on p. iv of the CalEnviroScreen 3.0 January 2017 document (CalEnviroScreen 4.0 is still in its draft state as of October 2021),

During the initial consideration and adoption of CalEnviroScreen, concerns were raised about its potential for misuse. To ensure proper use and understanding we explained that the tool is not a substitute for a cumulative impacts analysis under the California Environmental Quality Act (CEQA). Nor is the intent to restrict the authority of government agencies in permit and land-use decisions. Furthermore, CalEnviroScreen may not be the appropriate tool to guide all public policy decisions.

Therefore, the DEIR was not required to utilize CalEnviroScreen in its analysis and has fulfilled CEQA requirements by including a cumulative impact analysis for potential air quality impacts.

The SCAQMD has developed methodologies and thresholds of significance that are widely used throughout the air basin. SCAQMD staff has suggested in the cumulative significance methodologies contained in the CEQA Air Quality Handbook that the emissions-based thresholds be used to determine if a project's contribution to regional cumulative emissions is cumulatively considerable. These thresholds were used in the Air Quality Analysis to assess the significance of the Project -specific and cumulative air quality impacts. Air quality impacts are basin-wide, and air quality is affected by all pollutant sources in the basin. Therefore, the ambient air quality measurements provided in the Air Quality Analysis provide a summary of basin-wide cumulative air quality impacts. As the individual Project thresholds are designed to help achieve attainment with cumulative basin-wide standards, they are also appropriate for assessing the Project's contribution to cumulative impacts.

As discussed in Response 7.10, per DEIR p. 5.2-37 under Cumulative Environmental Effects, "SCAQMD considers the thresholds for project-specific impacts and cumulative impacts to be the same. Therefore, projects that exceed project-specific significance thresholds are considered by

SCAQMD to be cumulatively considerable.” DEIR p. 5.2-37 goes on to state, “in terms of localized air quality impacts, construction and operation of the Project would not have a cumulatively considerable impact due to criteria pollutant emission.” Therefore, the Project was determined not to exceed any of the emissions significance thresholds, including localized significance thresholds, and would accordingly not result in cumulatively significant air quality impacts.

Additionally, per Responses 7.10 and 7.18, DEIR pp. 5.2-31 to 5.2-32 state that, “LSTs were developed in response to environmental justice and health concerns raised by the public regarding exposure of individuals to criteria pollutants in local communities” and that it was determined, “the Project would not exceed the SCAQMD LSTs during construction and operational activities.” Response 7.10 further discusses that the Project’s Health Risk Assessment (HRA; DEIR Appendix C) discusses the Project’s potential impacts regarding diesel particulate matter (DPM) emissions, cancer risk, non-carcinogenic risk, residential exposure, worker exposure, and school children exposure. Further, the Project was determined not to exceed any of the emissions significance thresholds, including localized significance thresholds, and would accordingly not result in cumulatively significant air quality impacts.

Thus, the DEIR and its underlying technical studies have considered the Project in the context of potential impacts to local communities and within a cumulative context and it has been determined the Project would not result in significant air quality impacts in these regards.

Therefore, this comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. This comment is noted for the record and no changes to the DEIR are required.

**Response 13.2:**

The commenter states that it is the responsibility of the City’s elected and appointed officials to make environmentally responsible development decisions. The commenter further states that based on the CalEnviroScreen data, there is evidence of further air quality impacts that the citizenry of Riverside and its surrounding area will continue to encounter with further development of another warehouse/distribution center.

The DEIR, Section 5.2 Air Quality, under subheadings *Physical Setting* and *Existing Air Quality*, (p. 5.2-2) acknowledges that the Project site is located in the South Coast Air Basin, which consists of Orange County, coastal and mountain portions of Los Angeles County, as well as Riverside and San Bernardino Counties, with topographical features such as mountains that form a natural barrier to the dispersion of air pollutants. The DEIR also acknowledges there is a gradual degradation of air quality from coastal areas to inland areas and that the basin is designated as in nonattainment for state air quality standards for eight-hour ozone and PM<sub>2.5</sub>, and for state PM<sub>10</sub> standards. Thus, the DEIR acknowledges that the Project site is in an area of poor air quality and, as discussed in Response 13.1 above, was not required to utilize CalEnviroScreen data in its analysis.

Further, as outlined in Response 7.10, the air quality analysis contained in the DEIR demonstrates the Project would not result in significant air quality impacts, either from a project specific or cumulative perspective, as further outlined below.

The air quality analysis prepared for the Project provides an assessment of potential cumulative air quality impacts. The SCAQMD shares the responsibility with California Air Resources Board (CARB) for ensuring that all federal and state ambient air quality standards are achieved and maintained throughout the air basin. The SCAQMD has developed methodologies and thresholds of significance that are widely used throughout the air basin. SCAQMD staff has suggested in the cumulative significance methodologies contained in the CEQA Air Quality Handbook that the emissions-based thresholds be used to determine if a project's contribution to regional cumulative emissions is cumulatively considerable. These thresholds were used in the Air Quality Analysis to assess the significance of the Project -specific and cumulative air quality impacts. Air quality impacts are basin-wide, and air quality is affected by all pollutant sources in the basin. Therefore, the ambient air quality measurements provided in the Air Quality Analysis provide a summary of basin-wide cumulative air quality impacts. As the individual Project thresholds are designed to help achieve attainment with cumulative basin-wide standards, they are also appropriate for assessing the Project's contribution to cumulative impacts. As shown in Tables 7 and 9 of the Air Quality Analysis (Appendix C to the DEIR), construction and operational emissions would be less than the applicable project-level thresholds. Additionally, the project would be consistent with the growth projections used to develop the AQMP and would therefore not conflict with implementation of the AQMP or applicable portions of the SIP. CalEnviroScreen 4.0 is not a recommended method of evaluating potential air quality impacts. As such, air quality impacts would be less than significant.

On DEIR pp. 5.2-31 to 5.2-32, in response to Threshold C, which questions whether the Project would expose sensitive receptors to substantial pollutant concentrations, the DEIR describes the localized significance threshold (LST) analysis utilized in determining these potential impacts. DEIR pp. 5.2-31 to 5.2-32 state that, "LSTs were developed in response to environmental justice and health concerns raised by the public regarding exposure of individuals to criteria pollutants in local communities." These pages of the DEIR further state that, "the Project was analyzed for its potential to result in significant health risk impacts resulting from short-term construction and long-term operational emissions" and that it was determined, "the Project would not exceed the SCAQMD LSTs during construction and operational activities." Additionally, the Project's Health Risk Assessment (HRA; DEIR Appendix C) discusses the Project's potential impacts regarding diesel particulate matter (DPM) emissions, cancer risk, non-carcinogenic risk, residential exposure, worker exposure, and school children exposure. Further, as described in Response 9.15, as part of the FEIR, a detailed construction HRA has been prepared utilizing the appropriate AERMOD modeling software (the same model used in the DEIR for operational HRA), which allows for calculation of annual average concentrations and allows for the geospatial placing of the source and receptors. Thus, contrary to the commenter's statements, the DEIR does include analysis relevant to environmental justice issues as the LSTs utilized in determining potential impacts to sensitive receptors were developed in response to environmental justice concerns and

the Project HRA assesses potential Project-related health risks to residents, workers, and school children.

Further, as stated on DEIR p. 5.2-37 under Cumulative Environmental Effects, “SCAQMD considers the thresholds for project-specific impacts and cumulative impacts to be the same. Therefore, projects that exceed project-specific significance thresholds are considered by SCAQMD to be cumulatively considerable.” DEIR p. 5.2-37 goes on to state, “in terms of localized air quality impacts, construction and operation of the Project would not have a cumulatively considerable impact due to criteria pollutant emission.” Therefore, as the Project was determined not to exceed any of the emissions significance thresholds, including localized significance thresholds, and would accordingly not result in cumulatively significant air quality impacts, the Project would not result in significant impacts regarding the environmental justice issues stated by the commenter.

Therefore, this comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. This comment is noted for the record and no changes to the DEIR are required.

Comment Letter 14 – Lenora Mitchell



Public Comment for August 19, 2021  
 City Planning Commission Meeting  
 Prepared by the Planning Staff at 8:00 a.m. on August 19, 2021

Item	Name	Neighborhood	Position	Comments
<p>7. PLANNING CASES P20-0025 (PM), P19-0626 (MCUP), P19-0627 (DR), P20-0258 (VR), P20-0282 (GE), AND P20-0024 (EIR): Proposal by Darrell Butler and Khosro Khaloghi to consider the following entitlements for the development of two warehouse buildings totaling 603,100 square feet on 48.64 acres: 1) Parcel Map to subdivide the project site into two parcels and three lettered parcels; 2) Minor Conditional Use Permit to permit an industrial center over 400,00 square feet in area; 3) Design Review for the proposed site design and building elevations; 4) Variances to allow the installation of combination retaining/freestanding walls wherein the retaining portion ranges from 6.4 to 7.6 feet in height, where a maximum retaining portion height of 4 feet is permitted by the Zoning Code; to allow combination retaining/freestanding walls with a combined height of 14.4 feet, where a maximum combined height of 10 feet is permitted by the Zoning Code; and to allow a total of 388 parking spaces for Building A, where a minimum of 430 parking spaces are required by the Zoning Code; 5) Grading Exceptions to allow the installation of three retaining walls with a maximum height of 11.5 feet, where the Grading Code allows a maximum height of 6 feet; and 6) Environmental Impact Report. The project site is situated on the north side of Alessandro Boulevard, east of Barton Street and west of San Geronio Drive, in Ward 2. The City of Riverside has prepared a Draft Environmental Impact Report for this project. All significant effects of the proposed project have been reduced to less than significant with implementation of mitigation measures, with the exception of impacts to transportation. Contact Planner: Veronica Hernandez, Senior Planner, 951-826 3965, vhernandez@riversideca.gov</p>	<p>Lenora Mitchell</p>	<p>14.1</p>	<p>Oppose</p>	<p>Hello. As a resident who will be directly affected, I strongly oppose the development of 2 warehouse buildings situated on the north side of Alessandro, east of Barton, adjacent to Sycamore Canyon Natural Park. This development will have a very negative impact on the quality of my life. It is too close to homes and too far along Alessandro, away from the 215 freeway. Trucks will be driving down Alessandro for approximately 1.5 miles to access the 430+ parking spaces planned, and then they will return. Most certainly, air quality in the area, MY AREA, will be diminished. My health will be made poorer. Bicyclists will be choking on the increased smog, fumes and air particulates. Natural habitats will be destroyed. In addition, California is currently experiencing an extreme water shortage that is so bad, the state has cut water supplies to our farmers. The whole state is suffering and large development projects such as this one, use HUGE AMOUNTS OF WATER during construction. Surely that must be taken into consideration. Do we need more concrete in Riverside? Absolutely not. We need more open spaces for the actual residents to enjoy. We do not need to enrich developers from out of the area who could not care less about our local Riverside citizens. Riverside Planning Department, please do not let this go through!</p>

**Letter 14 – Lenora Mitchell****Commenter:** Lenora Mitchell**Date:** August 19, 2021**Response 14.1:**

The commenter indicates she is a resident of the City and opposes the project as it is too close to homes and too far away from the 215 Freeway, resulting in numerous truck trips along Alessandro Boulevard. The commentor states that the air quality in the area will be diminished with the increased smog, fumes and air particulates. The commentor states natural habitats will be destroyed and that the project will use huge amounts of water during construction during a water shortage. The commenter states we need more open spaces for residents to enjoy.

As identified in the DEIR, Section 5.12 Transportation the DEIR acknowledges that the Project will generate additional truck trips on Alessandro Boulevard. As outlined in Table 5.12-8 – Trip Generation Summary (Actual Vehicles), page 5.12-39, the Project is anticipated to result in 847 daily trips. However, the DEIR concluded that the Project will not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities: potential impacts are less than significant and not mitigation is required. (DEIR p., 5.12-51)

As identified in the DEIR, Section 5.2 Air Quality, Subsection 5.2.2.4 Local Regulations, “The City adopted Good Neighbor Guidelines for Siting New and/or Modified Warehouse/Distribution Facilities (GNG) in October 2008 to focus on the relationship between land use, permitting and air quality. They also highlight strategies that can help minimize the impacts of diesel emissions associated with warehouse/distribution centers. Specifically, the Guidelines help to minimize the impacts of diesel particulate matter from on-road trucks associated with warehouses and distribution centers on existing communities and sensitive receptors. On November 10, 2020, the Riverside City Council adopted updates to the GNG, in addition to associated amendments to Title 19 – Zoning Code of the Riverside Municipal Code (RMC), the Hunter Business Park Specific Plan, and the Sycamore Canyon Business Park Specific Plan related to siting industrial uses in the City when located adjacent to sensitive receptors, including residential neighborhoods, schools, parks, playgrounds, day care centers, nursing homes, hospitals, and other public spaces. (DEIR, pp. 5.2-18 – 5.2-19) The Project was found to be consistent with both the 2008 and the 2020 GNGs. (DEIR, pp. 5.2-27 – 5.2-30)

As outlined in Responses 7.10 and 13.2, the air quality analysis contained in the DEIR demonstrates the Project would not result in significant air quality impacts, either from a project specific or cumulative perspective.

The DEIR contains a thorough and detailed analysis of the Project’s impacts to natural habitats. The DEIR acknowledges that the Project will result in 0.80 acre of permanent impacts and 0.02 acre of temporary impacts to riparian/riverine areas, as well as grassland areas that are suitable habitat for Stephens’ kangaroo rat; however, with implementation of mitigation measures MM BIO-2 through MM BIO-8, impacts would be reduced to less than significant. (DEIR, p. 5.3-29) For example, as stated on DEIR p. 5.3-53, MM BIO-6 includes the following, which would serve to reduce to impacts to on-site riparian/riverine areas and suitable habitat for least Bell’s vireo (LBVI):

1. Enhancement of a total of 1.58 acres of riparian habitat: 0.01 acre in Drainages A, 1.34 acres in B, and 0.23 acre in Area C.
2. Create (establish) 0.61 acre of in-kind riparian woodland in Area C.
3. Restoration of 0.02 acre of riparian habitat in Drainage B.
4. The non-jurisdictional, non- riparian/riverine upland areas of slopes associated with the access road will be restored/ replanted with native seed mix.
5. The roadway/access to Parcel 1/ Building A shall include culverts to provide a hydrological connection to the riparian habitat on the east side of the roadway and a corridor for small wildlife species.
6. Revise the existing Restricted Property to include Parcel A (7.19 acres) and Parcel B (5.04 acres), with a combined area of 12.23 acres. The revised 12.23 Restricted Property shall be managed in perpetuity with an endowment funded by the developer and by a CDFW approved 3rd party (such as Rivers and Lands Conservancy “RLC”).

As listed under MM BIO-6, the Project would include additions of land to the Restricted Property, which would serve as further compensation for impacts. Additionally, per DEIR p. 5.3-53, MM BIO-8 includes payment of the Stephen’s Kangaroo Rat Habitat Conservation Plan (SKRHCP) fee to the City of Riverside prior to issuance of a grading permit.

As outlined in the DEIR, Section 5.14 Utilities and Service Systems (DEIR, pp. 5.14-17 – 5.14-20),

As discussed in Section 5.14.1, *Setting/Water Supply and Demand*, Western is a member agency of the Metropolitan Water District which obtains water under normal water year conditions, and relies entirely on imported SWP and Colorado River (CRA) water supplies (GP 2025, p. 5.16-37). Water supplies from the SWP and CRA are increasingly constrained due to California’s current drought situation and Metropolitan has developed a Water Supply Allocation Plan (WSAP) and Water Surplus and Demand Management Plan (WSDM) to provide guidance on managing regional water supply actions. When the WSAP is in effect Metropolitan member agencies, including Western, do not lose their ability to receive imported water but instead are limited in the amounts that they can purchase without being assessed a surcharge. Nevertheless, Western has developed a Drought Contingency Plan and an Emergency Response and Recovery Plan to address catastrophes (GP 2025 PEIR, p. 5.16-38).

Additionally, Metropolitan has comprehensive plans to address up to a 50 percent reduction in its water supplies and a catastrophic interruption in water supplies through its Water Surplus and Drought Management and Water Supply Allocation Plans (RUWMP, p. ES-5).

Per the Sycamore Canyon Business Park Specific Plan, Western has stated that there is adequate water volume available to serve any potential industrial development within the Specific Plan Area. Additionally, per Metropolitan’s 2015 UWMP report, Western will have sufficient water supply available to serve the Project including any reasonably foreseeable future development during normal, dry and multiple dry years. Therefore, sufficient water supplies exist to serve the Project, and **impacts are less than significant**.

Therefore, there is adequate water supply for the Project’s water use during construction and operations, even in multiple dry years, or a drought.

As outlined in Response 11.1, the applicant is providing a trailhead parking lot that is not required but being provided as an amenity to Sycamore Canyon Wilderness Park users, including residents.

Therefore, this comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. This comment is noted for the record and no changes to the DEIR are required.

**Comment Letter 15 – Greater Riverside Chambers of Commerce**

Comment letter 15 commences on the next page.



**GREATER RIVERSIDE  
CHAMBERS OF COMMERCE**

*The Chamber...building a stronger local economy*

July 26, 2021

Chair Richard Kirby  
Planning Commission  
City of Riverside  
3900 Main Street,  
Riverside, CA 92501

**Subject: Sycamore Hills Distribution Center Project - SUPPORT**

Dear Chair Kirby and Members of the Planning Commission,

15.1

On behalf of the Greater Riverside Chambers of Commerce, representing over 1,200 local employers and 110,000 jobs in the Inland Southern California region, we respectfully SUPPORT KB Development's proposed development of the Sycamore Hills Distribution Center on East Alessandro Boulevard.

The Chamber's EastHills Business Council met with KB Development and voted in unanimous support of the project due to the investment and connectivity this development will bring to the EastHills area. The project will bring two 400,000 and 200,000 square foot centers to the currently vacant zoned commercial land. The buildings and landscaping will complement the surrounding area with natural aesthetics and colors.

In preservation of the surrounding trails and wild landscape, the development proposed to build out a parking lot adjacent to the Sycamore Canyon trails to allow residents to safely park without impeding on the land and to encourage healthy outdoor activities. The proposed project will also be built out 500 feet away from the conservation areas.

The Sycamore Hills Distribution Center will also bring needed jobs to the region. With the after-effects of COVID-19, the introduction of new employment opportunities in the area will boost the region towards economic growth and trajectory.

For these reasons, the Chamber requests your support of the proposed development of the Sycamore Hills Distribution Center on East Alessandro Boulevard.

Thank you for your consideration. Should you have any questions, please do not hesitate to contact me at 951-683-7100.

Respectfully,

Cindy Roth  
President/CEO

CR/jd

**Letter 15 – Greater Riverside Chambers of Commerce****Commenter:** Cindy Roth**Date:** July 26, 2021**Response 15.1:**

The commenter indicates that the Greater Riverside Chambers of Commerce supports this project and does not have any questions, comments, or concerns about the project or the CEQA analysis detailed in the FEIR. Also, the commenter requests further project support from the Chair (Richard Kirby) and members of the City of Riverside Planning Commission.

Therefore, this comment does not affect the analysis completed or conclusions provided in the DEIR, does not provide new information or evidence related to the analysis completed in the DEIR, and does not reflect on the adequacy or content of the DEIR. This comment is noted for the record and no changes to the DEIR are required.

## 2.4 References

The following references were used in the preparation of this section of the FEIR:

Appendix C	Revised Air Quality Impact Analysis
Appendix D	Revised Burrowing Owl Focused Survey Report
Appendix H	Revised Greenhouse Gas Analysis
Appendix M	Federal Aviation Administration (FAA) Determination Letters
Appendix N	Construction Health Risk Assessment
Appendix O	Floor Plans for Buildings A and B
CalEnviroScreen 3.0	“CalEnviroScreen 3.0 – Updated to the California Communities Environmental Health Screening Tool,” <i>Office of Environmental Health Hazard Assessment (OEHHA)</i> , January 2017. (Accessible at: <a href="https://oehha.ca.gov/media/downloads/calenviroscreen/report/ces3report.pdf">https://oehha.ca.gov/media/downloads/calenviroscreen/report/ces3report.pdf</a> )
CAPCOA Market Capture Rate	California Air Pollution Control Officers Association (CAPCOA). 2008. CEQA & Climate Change, Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act, January.
City of Riverside Public Utilities 2017 Power Content	California Energy Commission (CEC). 2018b. City of Riverside Public Utilities 2017 Power Content Label. Version July 2018.
ESRI ArcMap 10.8	Environmental Systems Research Institute (ESRI) Aeronautical Reconnaissance Coverage Geographic Information System (ARCGIS) Desktop Version 10.8.
Integrated Public Use Microdata Series 5.0	Steven Ruggles, J. Trent Alexander, Katie Genadek, Ronald Goeken, Matthew B. Schroeder, and Matthew Sobek. Integrated Public Use Microdata Series: Version 5.0 [Machine-readable database]. Minneapolis: University of Minnesota, 2010.
OEHHA IPUMS-USA	Office of Environmental Health Hazard Assessment (OEHHA) Integrated Public Use Microdata Series (IPUMS-USA). (Accessible here: <a href="http://oehha.ca.gov/air/hot_spots/SRP/Appendix%20L.pdf">http://oehha.ca.gov/air/hot_spots/SRP/Appendix%20L.pdf</a> )

Riverside Public Utilities RPS in 2007	Union of Concerned Scientists. 2012. Riverside Public Utilities. The Clean Energy Race: How Do California Public Utilities Measure Up. July.
SCAQMD Mobile Source Toxic Analysis Guidance	South Coast Air Quality Management District (SCAQMD). <i>Mobile Source Toxic Analysis Guidance</i> . 2002. (Accessible at: <a href="http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis">http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis</a> )
SCAQMD Risk Assessment Procedures for Rules 1401, 1401.1, & 212	South Coast Air Quality Management District (SCAQMD). <i>Risk Assessment Procedures for Rules 1401, 1401.1, &amp; 212</i> . 2017. (Accessible at: <a href="http://www.aqmd.gov/docs/default-source/permitting/rule-1401-risk-assessment/riskassessproc-v8-1.pdf?sfvrsn=12">http://www.aqmd.gov/docs/default-source/permitting/rule-1401-risk-assessment/riskassessproc-v8-1.pdf?sfvrsn=12</a> )
USEPA Exposure Factors Handbook	United States Environmental Protection Agency (USEPA). <i>Exposure Factors Handbook (1997, Final Report)</i> . (Accessible at: <a href="http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=12464#Download">http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=12464#Download</a> )
USEPA Risk Assessment Guidance for Superfund – Vol 1: Human Health Eval Manual	United States Environmental Protection Agency (USEPA). <i>Risk Assessment Guidance for Superfund – Volume 1 Human Health Evaluation Manual</i> . (Available at: <a href="http://www.epa.gov/oswer/riskassessment/ragsa/pdf/rags_a.pdf">http://www.epa.gov/oswer/riskassessment/ragsa/pdf/rags_a.pdf</a> )

### 3.0 Revisions to the Draft EIR

This section presents other specific changes to the text of the Draft EIR that have been made to clarify information presented in the Draft EIR or to update information presented in the Draft EIR based on new regulatory or policy guidance since preparation of the Draft EIR. The changes in this section are in addition to the changes and revisions to the Draft EIR that have been made in response to the comments received on the Draft EIR, as presented in Section 2.0, Response to Comments. However, the revisions presented above in Section 2.0 are also shown below. These revisions are not considered significant new information that would trigger Draft EIR recirculation pursuant to State CEQA Guidelines Section 15088.5. For example, they do not disclose a new or substantially worsened significant environmental impact, a new feasible mitigation measure, or new alternative. Rather, the revisions correct or clarify information presented.

Where revisions to the main text are called for, the section and page are set forth, followed by the appropriate revision. Added text is indicated with underlined text. Text deleted from the Draft EIR is shown in ~~strikethrough~~. Page numbers correspond to the page numbers of the Draft EIR. Furthermore, any and all revisions related to mitigation measures have been incorporated into the final Mitigation Monitoring and Reporting Program (see Section 4).

### 3.1 Text Revisions to the Draft EIR

Section 3.2 Project Description, Table 3.0-4 – Building B p. 3.0-23 changes as follows:

Table 3.0-4: Building B

City’s Site Development Standard			Proposed
<b>Max Floor Area Ratio</b>	1.50		0.45
<b>Building Height</b>	45 feet		42-45 feet
<b>Building Minimum Setbacks</b>	Front Yard (West)	50 feet	90 feet
	Side Yard (North & South)	0 feet	<u>60</u> & <del>20</del> 182 feet
	Rear Yard (East)	0 feet	57 feet
<b>Minimum Parking</b>	Office: 1 space/250 sq. ft. (10,000 sq. ft.)	40 spaces	235 spaces 45 trailer stalls
	Warehouse: 1 space/1,000 sq. ft. (193,100 sq. ft.)	194 spaces	

	<b>Total:</b>	234 spaces	
<b>Minimum Landscape Setbacks</b>	Front: (West)	20 feet	20 feet
	Side:	0 feet	0 feet
	Rear:	0 feet	0 feet

**Section 3.4 Discretionary Actions and Approvals pp. 3.0-42-3.0-43 changes as follows:**

March Joint Powers Authority

- Restrictive Covenant Amendment

Metropolitan Water District of Southern California

- Issuance of Public Road Easement

U.S. Army Corps of Engineers

- Section 404 Permit for Disposal of Dredge or Fill Material per the Clean Water Act
- Concurrence with Restrictive Covenant Amendment

**Section 5.1.5 Aesthetics, pp. 5.1-19 - 5.1-20 changes as follows:**

Building B will be located between ~~2060~~-182 feet from the northern property line of Parcel 2, and 90 feet from the northerly property line of the trailhead parking lot.

**Section 5.2.2.4 Air Quality, p. 5.2-17 changes as follows:**

The project would also be required to comply with SCAQMD Rule 1113, which places VOC content limits on architectural coatings. The coatings used for the project would include building envelop coatings and non-flat coatings, which both have a VOC content limit of 50 grams per liter.

The GP 2025 contains objectives and policies to protect air quality within the City in the Air Quality Element. The following objectives and policies are applicable to the Project:

**Objective AQ-1:** Adopt land use policies that site polluting facilities away from sensitive receptors and vice versa; improve jobs-housing balance; reduce vehicle miles travelled and length of work trips; and improve the flow of traffic.

**Policy AQ-1.1:** Ensure that all land use decisions, including enforcement actions, are made in an equitable fashion to protect residents, regardless of age, culture, ethnicity, gender, race, socioeconomic status, or geographic location, from the health effects of air pollution.

**Policy AQ-1.2:** Consider potential environmental justice issues in reviewing impacts (including cumulative impacts for each project proposed).

Section 5.2.5 Air Quality, Tables 5.2-6 and 5.2-7, p. 5.2-26 changes as follows:

**Table 5.2-6 – Total Annual Construction Emissions Comparison to General Conformity de Minimis Levels**

Construction	Emissions (tons per year)					
	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Year 2021 Emissions (tons/year)	<del>0.35</del> <u>0.49</u>	<del>3.29</del> <u>4.59</u>	<del>2.78</del> <u>3.97</u>	0.01	<del>0.54</del> <u>0.88</u>	<del>0.25</del> <u>0.36</u>
Year 2022 Emissions (tons/year)	<del>1.77</del> <u>3.27</u>	<del>1.64</del> <u>2.44</u>	<del>1.95</del> <u>2.84</u>	0.01	<del>0.33</del> <u>0.62</u>	<del>0.13</del> <u>0.21</u>
Total Emissions (tons)	<del>2.12</del> <u>3.76</u>	<del>4.94</del> <u>7.02</u>	<del>4.73</del> <u>6.78</u>	<del>0.04</del> <u>0.02</u>	<del>0.83</del> <u>1.49</u>	<del>0.38</del> <u>0.57</u>
Maximum Annual Emissions (tons/year)	<del>1.77</del> <u>3.27</u>	<del>3.29</del> <u>4.59</u>	<del>2.78</del> <u>3.94</u>	0.01	<del>0.54</del> <u>0.88</u>	<del>0.25</del> <u>0.36</u>
De Minimis Levels	10	10	100	--	100	70
Exceed Threshold?	No	No	No	--	No	No

**Table 5.2-7 – Maximum Daily Construction Emissions Comparison to SCAQMD Significance Thresholds**

Construction	Emissions (pounds per day)					
	ROG	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Site Preparation	4	41	22	<1	<u>9</u> <u>10</u>	6
Grading	<del>4</del> <u>5</u>	<del>46</del> <u>57</u>	<del>32</del> <u>33</u>	<1	6	<del>2</del> <u>4</u>
Building Construction/Architectural Coatings <sup>1</sup>	<del>32</del> <u>59</u>	<del>29</del> <u>45</u>	<del>34</del> <u>51</u>	<1	<del>6</del> <u>11</u>	<del>2</del> <u>4</u>
Paving/Architectural Coatings <sup>1</sup>	<del>32</del> <u>58</u>	<del>46</del> <u>13</u>	<del>34</del> <u>21</u>	<1	2	1
<b>Maximum Daily Emissions<sup>2</sup></b>	<b><del>32</del><u>59</u></b>	<b><del>46</del><u>57</u></b>	<b><del>34</del><u>51</u></b>	<b>&lt;1</b>	<b><del>9</del><u>11</u></b>	<b>6</b>
SCAQMD Regional Threshold	75	100	550	450	150	55
Exceed Threshold?	No	No	No	No	No	No

<sup>1</sup>The architectural coatings phase of construction was modeled simultaneously with building construction and parking lot paving emissions.  
<sup>2</sup>Emissions were rounded to the nearest whole number, Emissions reported as <1 indicate that emissions were calculated to be less than 0.5 pound per day.

Section 5.2.5 Air Quality, p. 5.2-30 changes as follows:

**MM AIR-1:** The project applicant is required to record a covenant on the property (Parcels 1 and 2) that prohibit manufacturing, fulfillment center, and use of Transportation Refrigeration Units (TRUs). Proof of the record of covenant shall be submitted to the City of Riverside Planning Department prior to issuance of Building Permits.

Section 5.2.5 Air Quality, Table 5.2-8, p. 5.2-31 changes as follows:

**Table 5.2-8 – Summary of Project Operational Emissions**

Source	Emissions (pounds per day)					
	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>WINTER</b>						
Area Sources	14	<1	<1	<1	<1	<1
Energy Sources	<1	<1	<1	<1	<1	<1
Mobile Sources – Passenger Cars	1	<u>4</u> <u>2</u>	<del>17</del> <u>24</u>	<1	10	3
Mobile Sources – Trucks	2	37	17	<1	10	3
Parcel C Parking Lot Dust	--	--	--	--	<u>9</u>	<u>1</u>
<b>Total</b>	<b>17</b>	<b><del>38</del><u>39</u></b>	<b><del>34</del><u>41</u></b>	<b>&lt;1</b>	<b><del>19</del><u>28</u></b>	<b><del>6</del><u>7</u></b>

<i>Significance Threshold</i>	55	55	550	150	150	55
<i>Exceed Threshold?</i>	No	No	No	No	No	No
<b>SUMMER</b>						
Area Sources	14	<1	<1	<1	<1	<1
Energy Sources	<1	<1	<1	<1	<1	<1
Mobile Sources – Passenger Cars	1	4 2	49 27	<1	10	3
Mobile Sources – Trucks	2	36	16	<1	10	3
Parcel C Parking Lot Dust	--	--	--	--	9	1
<b>Total</b>	<b>17</b>	<b>37 38</b>	<b>36 44</b>	<b>&lt;1</b>	<b>19 28</b>	<b>6-7</b>
<i>Significance Threshold</i>	55	55	550	150	150	55
<i>Exceed Threshold?</i>	No	No	No	No	No	No
Note: Emissions were rounded to the nearest whole number. Emissions reported as <1 indicate that emissions were calculated to be less than 0.5 pound per day.						

**Section 5.2.5 Air Quality, Table 5.2-9, p. 5.2-32 changes as follows:**

**Table 5.2-9 – Localized Construction Emissions**

	<b>CO</b>	<b>NO<sub>x</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
<b>Maximum Daily On-Site Emission</b>	<u>3331</u>	<u>3946</u>	<u>910</u>	<u>56</u>
<b>LST Threshold</b>	6,860	488	75	31
<b>Threshold Exceeded?</b>	No	No	No	No

**Section 5.2.5 Air Quality, p. 5.2-36 changes as follows:**

**MM AIR-1:** The project applicant is required to record a covenant on the property (Parcels 1 and 2) that prohibit manufacturing, fulfillment center, and use of Transportation Refrigeration Units (TRUs). Proof of the record of covenant shall be submitted to the City of Riverside Planning Department prior to issuance of Building Permits.

**MM AIR-2:** The Project applicant shall provide electrical hook ups to the power grid, rather than use of diesel-fueled generators, for electric construction tools, such as saws, drills and compressors and use of electric tools whenever feasible.

**MM AIR-3:** The Project applicant shall provide information on transit and ridesharing programs and services to construction employees.

**MM AIR-4:** The Project applicant shall post both interior and exterior facing signs, including signs directed at all dock and delivery areas, identifying idling restrictions and contact information to report violations to the California Air Resources Board (CARB), the South Coast Air Quality Management District (AQMD), and the building manager.

**MM AIR-5:** The Project applicant shall post signs at every truck exit driveway providing directional information to the truck route.

**MM AIR-6:** The Project applicant shall provide tenants with information on incentive programs, such as the Carl Moyer Program and Voucher Incentive Program, to upgrade their fleets.

**MM AIR-7:** The Project applicant shall include contractual language in tenant lease agreements that requires all service equipment (e.g., yard hostlers, yard equipment, forklifts, and pallet jacks) used within the project site to be zero-emission.

**MM AIR-8:** The Project applicant shall include contractual language in tenant lease agreements restricting trucks and support equipment from idling longer than 5 minutes while on site.

**MM AIR-9:** The Project applicant shall include contractual language in tenant lease agreements that prohibit cold storage operations unless a health risk assessment is conducted and the health impacts are mitigated, if found significant.

**MM AIR-10:** Include rooftop solar panels to the extent feasible, with a capacity to supply 15% of the entire Project's electrical demand.

**Section 5.3.1 Biological Resources, p. 5.3-8 changes as follows:**

Burrowing owl (*Athene cunicularia*; BUOW) is protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code and is a CDFW SSC. BUOW focused surveys were conducted in 2018 with updated focused surveys conducted in 2020 on April 24, May 7, May 21, and June 5, 2020. No rain was present within five (5) days of each survey in accordance with the Burrowing Owl Survey Instructions for the Western Riverside MSHCP Area. Based on the results of the 2018 and 2020 BUOW focused surveys, BUOW are presumed absent on the Project site (ELMT p. 15). Although no individual BUOW or BUOW sign was observed during the surveys, potentially suitable BUOW burrows were recorded via CNDDDB observations within a five (5) mile radius of the BSA as shown on Figure 5.3-5 – CNDDDB BUOW Observations.

**Section 5.3.1 Biological Resources, pp. 5.3-49 and 5.3-53 changes as follows:**

**MM BIO-1:** Prior to issuance of a grading permit, a Qualified Biologist shall collect seed during the blooming period for paniculate tarplant and Robinson's pepper grass throughout the proposed development footprint of the project, if they occur. The seeds shall be stored in accordance with the biologist's recommendations until restoration efforts are commenced within the existing and additional Restricted Property/conservation area. If seed is not collected prior to grading permit issuance then topsoil, where identified by the Qualified biologist, shall be salvaged, and temporarily stored in accordance with the qualified biologist's recommendations until restoration efforts are commenced. On site restoration efforts shall incorporate the collected seed or salvaged topsoil.

**MM BIO-7:** To reduce potential impacts to MSHCP covered species and to comply with the MSHCP, payment of the MSHCP mitigation fee shall be provided to the City of Riverside prior to issuance of a grading building permit for the project.

**Section 5.4.6 Cultural Resources, p. 5.4-36 changes as follows:**

**MM CUL-9:** Sites CA-RIV-11769, CA-RIV-11770, CA-RIV-11772, CA-RIV-2486, CA-RIV-2487, CA-RIV-2488, and CA-RIV-2489 will be impacted during grading and construction activities and the soils surrounding them will be disturbed. Prior to any grading in the associated areas, the Project Applicant, the Consulting Tribes, and the City will formalize a written agreement to identify

the area that will be subject to “Controlled Grading” during construction of the Project. The Pechanga and Soboba Tribes, the Project Applicant, and the City will develop an exhibit that outlines the area subject to controlled grading, and that area will be highlighted on the rough grading plans, precise grading plans or other off-site improvement plans that may impact this site. “Controlled Grading” shall include, without limitation, the slow and deliberate excavation and removal of soils employing the smallest reasonable cuts in certain areas using light scrapers (for example Caterpillar 623 or 627), dozers (for example D6- D8), front end loaders, excavators, skip loaders, dump trucks, and motor graders. A controlled grading plan will be monitored by the Project Archeologist and Tribal Monitor(s) to ensure the systematic removal of the ground surface surrounding these features are monitored to allow for the identification of resources. Results of all controlled grading activities shall be included in the Phase IV monitoring report.

**Section 5.7.5 Greenhouse Gas Emissions, Table 5.7-6, p. 5.7-25 changes as follows:**

**Table 5.7-6 – Riverside Public Utilities Intensity Factors**

<b>Riverside Public Utilities Intensity Factors (lbs/MWh)</b>				
GHG	CalEEMod Version 2016.3.2 Default values (lbs/MWh)	Intensity Factors with 0% RPS	Intensity Factors with 33% RPS	CalEEMod Version 2020.4.0 Intensity Factor
Carbon Dioxide (CO <sub>2</sub> )	1,325.65	1,569.57	1,051.61	<u>789.983</u>
Methane (CH <sub>4</sub> )	0.029	0.034	0.023	<u>0.033</u>
Nitrous Oxide (N <sub>2</sub> O)	0.006	0.007	0.005*	<u>0.004</u>

\*The correct N<sub>2</sub>O intensity factor of 0.005 was used in CalEEMod; however, the incorrect value of 0.004 was reported in Table 6 of the GHG Analysis. Table 6 of the GHG Analysis has been updated to reflect the current 2021 intensity factors.

**Section 5.7.5 Greenhouse Gas Emissions, Table 5.7-7, p. 5.7-26 changes as follows:**

**Table 5.7-7 – Summary of Project GHG Emissions (metric tons per year)**

Source	MT CO <sub>2</sub>	MT CH <sub>4</sub>	MT N <sub>2</sub> O	MT CO <sub>2</sub> E
Mobile – Passenger Cars	<u>1,204</u> <u>1,465</u>	<1	0	<u>1,204</u> <u>1,466</u>
Mobile – Trucks	4,316	<1	0	4,320
Energy Source	<u>781-603</u>	<1	<1	<u>782-604</u>
Area Sources	<1	<1	0	<1
Water/Wastewater Sources	<u>728-695</u>	<u>4-5</u>	<1	<u>846-842</u>
Solid Waste Sources	<u>86-115</u>	<u>5-7</u>	<u>4-0</u>	<u>214-285</u>
Construction (Amortized over 30 years)	<u>37-68</u>	<1	0	<u>38-68</u>
<b>Total</b>	<b><u>7,152</u></b> <b><u>7,262</u></b>	<b><u>9-12</u></b>	<b>&lt;1</b>	<b><u>7,405*</u></b> <b><u>7,587*</u></b>
<i>SCAQMD Significance Threshold for Industrial Sources</i>				<i>10,000</i>
MT CO <sub>2</sub> E = metric tons of carbon dioxide equivalent MT CH <sub>4</sub> = metric tons of methane MT N <sub>2</sub> O = metric tons of nitrous oxide *The GWPs included in CalEEMod are from the IPCC Fourth Assessment Report. For informational purposes, total emissions calculated by CalEEMod were adjusted to account for the updated IPCC Fifth Assessment Report GWPs. Using the current GWPs, total annual project emissions would be <u>7,428</u> <u>7,618</u> MT CO <sub>2</sub> , and would also be less than the screening threshold. Note that the IPCC updates the GWPs periodically, and the next anticipated update will occur in 2022.				

As shown in Table 5.7-7, the Project would result in a net increase of ~~7,405~~ 7,587 MT CO<sub>2</sub>E per year. As discussed previously, the SCAQMD's 10,000 MT CO<sub>2</sub>E screening level is appropriate for exempting industrial projects that are too small to have significant impacts from further analysis.

### Conclusion

As discussed, the Project's GHG analysis utilizes the SCAQMD's *Interim CEQA GHG Significance Thresholds for Stationary Sources, Rules, and Plans*. The interim thresholds are a tiered approach; project impacts may be determined to be less than significant under each tier or require further analysis under subsequent tiers. Because the Project is subject to CEQA and is not subject to a regional GHG emissions reduction plan, the Project does not fall under Tiers 1 or 2. As shown in Table 5.7-7 – Summary of Project GHG Emissions, construction and operation of the Project would result in the annual equivalent emission of ~~7,405~~ 7,587 MT CO<sub>2</sub>E in 2023. Project GHG emissions would be less than the applicable SCAQMD screening level of 10,000 MT CO<sub>2</sub>E for industrial uses. As Project emissions would be less than the 10,000 MT CO<sub>2</sub>E screening level, GHG emissions impacts would be **less than significant with Mitigation Measure MM AIR-1**.

### Section 5.7.6 Greenhouse Gas Emissions, p. 5.7-33 changes as follows:

- Energy** – State regulations and 2017 Scoping Plan measures that would reduce the project's energy-related GHG emissions include RPS (see Section 3.2.2.5), Title 24 Energy Efficiency Standards (see Section 3.2.2.7a), and CALGreen (see Section 3.2.2.7b). The project would be served by Riverside Public Utilities, which has achieved 36 percent renewables as of 2017 (CEC 2018b). The project's energy related GHG emissions would decrease as Riverside Public Utilities increases its renewables procurement beyond 2020 towards the 2030 goal of ~~50~~ 60 percent. Additionally, the project would be constructed in accordance with energy efficiency standards effective at the time building permits are issued. The current 2019 Energy Code is estimated to decrease energy consumption by 30 percent for non-residential buildings when compared to the 2016 Title 24 Energy Code.

**Table 5.7-7 – Summary of Project GHG Emissions (metric tons per year)**

Source	MT CO <sub>2</sub>	MT CH <sub>4</sub>	MT N <sub>2</sub> O	MT CO <sub>2</sub> E
Mobile – Passenger Cars	<del>1,204</del> <u>1,465</u>	<1	0	<del>1,204</del> <u>1,466</u>
Mobile – Trucks	<del>4,316</del>	<1	0	<del>4,320</del>
Energy Source	<del>781-603</del>	<1	<1	<del>782-604</del>
Area Sources	<1	<1	0	<1
Water/Wastewater Sources	<del>728-695</del>	<del>4-5</del>	<1	<del>846-842</del>
Solid Waste Sources	<del>86-115</del>	<del>5-7</del>	<del>4-0</del>	<del>214-285</del>
Construction (Amortized over 30 years)	<del>37-68</del>	<1	0	<del>38-68</del>
<b>Total</b>	<del>7,152</del> <u>7,262</u>	<del>9</del> <u>12</u>	<1	<del>7,405*</del> <u>7,587*</u>
<i>SCAQMD Significance Threshold for Industrial Sources</i>				10,000
MT CO <sub>2</sub> E = metric tons of carbon dioxide equivalent				
MT CH <sub>4</sub> = metric tons of methane				

MT N<sub>2</sub>O = metric tons of nitrous oxide  
 \*The GWPs included in CalEEMod are from the IPCC Fourth Assessment Report. For informational purposes, total emissions calculated by CalEEMod were adjusted to account for the updated IPCC Fifth Assessment Report GWPs. Using the current GWPs, total annual project emissions would be ~~7,428~~ 7,618 MT CO<sub>2</sub>, and would also be less than the screening threshold. Note that the IPCC updates the GWPs periodically, and the next anticipated update will occur in 2022.

**Section 5.7.5 Greenhouse Gas Emissions, Table 5.7-8, p. 5.7-34 changes as follows:**

**Table 5.7-8 – Project Consistency with RRG-CAP GHG Reduction Measures**

Number	Strategy/Goal	Project Consistency
<b>State and Regional Energy Measures</b>		
The following are state and regional measures that are expected to reduce GHG emissions associated with the energy sector.		
SR-1	<b>Renewable Portfolio Standard (RPS)</b> <u>Utilities must secure 33 percent of their power from renewable sources by 2020.</u>	The Project would be served by Riverside Public Utilities, which has achieved 36 percent renewables as of 2017. The Project’s energy-related GHG emissions would decrease as Riverside Public Utilities increases its renewables procurement beyond 2020 towards the 2030 goal of <del>50</del> <u>60</u> percent. The Project would not conflict or interfere with RPS.

**Section 5.7.7 Greenhouse Gas Emissions, p. 5.7-41 changes as follows:**

As shown in Table 5.7-7, the Project would result in a net increase of ~~7,405~~ 7,587 MT CO<sub>2</sub>E per year, which would be less than the 10,000 MT CO<sub>2</sub>E screening level. Additionally, the Project would be consistent with applicable RRG-CAP measures and is in line with the GHG reductions needed to achieve the 2050 GHG emission reduction targets identified by EO S-3-05. Therefore, the Project would not generate GHG emissions that would cause a significant impact on the environment and the impacts are **less than significant with Mitigation Measure MM AIR-1**.

**Section 6.4.1 Population Growth, p. 6.0-6 changes as follows:**

However, the anticipated number of employees for both buildings was calculated using the County of Riverside generation rate<sup>1</sup> to be approximately 586. This number represents approximately ~~0.3~~ 1.3 percent of the expected opportunities within the City by 2045. Thus, the Project will not induce substantial population growth and impacts would be less than significant.

**Section 6.4.2 Economic Growth, p. 6.0-6 changes as follows:**

Additionally, as described above in Section 6.4.1, the 586 employment opportunities represent approximately ~~0.3~~ 1.3 percent of the expected opportunities within the City by 2045.

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<sup>1</sup> County of Riverside General Plan Square Feet/Employee Factor of 1,030 SF per employee for Light Industrial land use, Appendix E-2: Socioeconomic Build-Out Assumptions and Methodology, April 11, 2017, <https://planning.rctlma.org/General-Plan-Zoning/General-Plan>

### 3.2 Appendix Revisions to the Draft EIR and New Final EIR Appendix

#### 3.2.1 Revised Draft EIR Appendices

Appendix B – Revised Consistency with General Plan and Specific Plan Policies, pp. 29-30 of Appendix B are changed as follows:

Air Quality Element			
Objective AQ-1:	Adopt land use policies that site polluting facilities away from sensitive receptors and vice versa; improve job-housing balance; reduce vehicle miles traveled and length of work trips; and improve the flow of traffic.		
Policy AQ-1.1	<u>Ensure that all land use decisions, including enforcement actions, are made in an equitable fashion to protect residents, regardless of age, culture, ethnicity, gender, race, socioeconomic status, or geographic location, from the health effects of air pollution.</u>	<u>Section 5.2 as well as Project’s Air Quality Analysis discuss the localized significance threshold (LST) analysis utilized in determining potential air quality impacts to sensitive receivers. The LSTs “were developed in response to environmental justice and health concerns raised by the public regarding exposure of individuals to criteria pollutants in local communities” (DEIR pp. 5.2-31 to 5.2-32). It was determined “the Project would not exceed the SCAQMD LSTs during construction and operational activities.”</u>	<u>Consistent</u>
Policy AQ-1.2	<u>Consider potential environmental justice issues in reviewing impacts (including cumulative impacts for each project proposed</u>	<u>As stated under Policy AQ-1.1 above, Section 5.2 as well as Project’s Air Quality Analysis discuss the localized significance threshold (LST) analysis utilized in determining potential air quality impacts to sensitive receivers. The LSTs “were developed in response to environmental justice and health concerns raised by the public regarding exposure of individuals to criteria pollutants in local communities” (DEIR pp. 5.2-31 to 5.2-32). The Project was determined not to exceed any of the emissions significance thresholds, including localized significance thresholds, and would accordingly not result in</u>	<u>Consistent</u>

		<u>cumulatively significant air quality impacts.</u>	
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Appendix B – Revised Consistency with General Plan and Specific Plan Policies, pp. 9-10 of Appendix B are changed as follows:

<u>Circulation and Community Mobility Element</u>			
<u>Objective CCM-2:</u>	<u>Build and maintain a transportation system that combines a mix of transportation modes and transportation system management techniques, and that is designed to meet the needs of Riverside’s residents and businesses, while minimizing the transportation system’s impacts on air quality, the environment and adjacent development.</u>		
<u>Policy CCM-2.3</u>	<u>Maintain LOS D or better on Arterial Streets wherever possible. At key locations, such as City Arterials that are used by regional freeway bypass traffic and at heavily traveled freeway interchanges, allow LOS E at peak hours as the acceptable standard on a case-by-case basis.</u>	<u>The DEIR was prepared while the State and City were transitioning from LOS to VMT as a CEQA impact. While the DEIR includes LOS and VMT analysis, the Office of Planning and Research confirms that auto delay, on its own, is no longer an environmental impact under CEQA. While the Project would not be consistent with this policy, the Project would not have a significant impact related to LOS because LOS is not considered an environmental impact.</u>	<u>Inconsistent</u>
<u>Policy CCM-2.4</u>	<u>Minimize the occurrence of streets operating at LOS F by building out the planned street network and by integrating land use and transportation in accordance with the General Plan principles.</u>	<u>Although the General Plan target LOS will be exceeded at the Sycamore Canyon Boulevard and Alessandro Boulevard intersection, the intersection is currently built out to its General Plan ultimate cross-section and until additional right-of-way beyond those designated in the General Plan is obtained, there are no anticipated feasible improvements.</u>  <u>Additionally, the DEIR was prepared while the State and City were transitioning from LOS to VMT as a CEQA impact. While the DEIR includes LOS and VMT analysis, the Office of Planning and Research confirms that auto delay, on its own, is no longer an environmental impact under CEQA. While Project would not</u>	<u>Inconsistent</u>

		<p><u>be consistent with this policy, the Project would not have a significant impact related to LOS because LOS is not considered an environmental impact.</u></p>	
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Appendix B – Table 3 – Project Consistency with the 2020-2045 Connect SoCal RTP/SCS is added, p. 54 of Appendix B is changed as follows:

**Table 3- Project Consistency with the 2020-2045 Connect SoCal RTP/SCS**

<p><u>2020-2045 RTP/SCS Goal 4: Increase person and goods movement and travel choices within the transportation system.</u></p>	<p><b><u>Consistent:</u></b> <u>The Project proposes a logistics center within the SCBPSP on a site that has been designated for industrial uses since 1984. The SCBPSP is strategically located near State Route 60 and Interstate 215, which provide good access to the Ports of Long Beach and Los Angeles.</u></p>
<p><u>2020-2045 RTP SCS Goal 5: Reduce greenhouse gas emissions and improve air quality.</u></p>	<p><b><u>Consistent:</u></b> <u>The Air Quality and Greenhouse Gas analysis (DEIR Appendix C and H) conducted for the Project determined it would not result in emissions that would exceed thresholds or result in significant impacts. The Project will meet or exceed all applicable standards under California’s Green Building Code (CalGreen) and Title 24. The Project includes design considerations to help reduce emissions both during construction and operations including:</u></p> <p><u>Energy Efficiency</u></p> <ul style="list-style-type: none"> <li>• <u>Design building shells and components, such as windows, roof systems and electrical systems to meet California Title 24 Standards for nonresidential buildings.</u></li> <li>• <u>Use of Energy Star products such as appliances, building products, heating and cooling equipment, appliances, and other energy-efficient equipment.</u></li> <li>• <u>Install efficient lighting and lighting control systems. Solar or light-emitting diodes (LEDs) will be installed for outdoor lighting. Lighting will incorporate motion sensors that turn them off when not in use.</u></li> <li>• <u>Install skylights on the rooftops, 2.5% of roof area of the buildings and incorporate the use of natural light.</u></li> <li>• <u>Achieve construction energy efficiencies and energy conservation through bulk purchase, transport, and</u></li> </ul>

	<p><u>use of construction materials. Use of materials in bulk reduces the preparation and transport of construction materials as well as transport and disposal of construction waste.</u></p> <ul style="list-style-type: none"> <li>• <u>Use trees and landscaping on west and south exterior building walls to reduce energy use.</u></li> </ul> <p><u>Renewable Energy</u></p> <ul style="list-style-type: none"> <li>• <u>Design buildings to have “solar ready” roofs that will structurally accommodate later installation of rooftop solar panels. Building operators providing rooftop solarpanels will submit plans for solar panels prior to occupancy.</u></li> </ul> <p><u>Water Conservation and Efficiency</u></p> <ul style="list-style-type: none"> <li>• <u>Create water-efficient landscapes in compliance with the City’s Water Efficient Landscape and Irrigation Ordinance 19.570.</u></li> <li>• <u>Surface parking lots will be landscaped in accordance with City standards to reduce heat island effect.</u></li> <li>• <u>Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls and sensors for landscaping according to the City’s Water Efficient Landscape and Irrigation Ordinance 19.570, which complies with the California Department of Water Resources Model Efficient Landscape Ordinance.</u></li> <li>• <u>Design buildings to be water efficient. Install water-efficient fixtures and appliances.</u></li> <li>• <u>Restrict watering methods (e.g., prohibit systems that apply water to non-vegetated surfaces) and control runoff.</u></li> <li>• <u>Provide education about water conservation and available programs and incentives to the building operators to distribute to employees.</u></li> </ul> <p><u>Solid Waste Measures</u></p> <ul style="list-style-type: none"> <li>• <u>Sort, recycle, and divert from landfills Project-related construction and demolition waste in accordance with mandatory regulatory requirements.</u></li> <li>• <u>Provide interior and exterior storage areas for recyclables and green waste and adequate recycling containers located in public areas.</u></li> <li>• <u>The property operator will provide readily available information provided by the City for employee education about reducing waste and available recycling services.</u></li> </ul>
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	<p><u>VMT, Transportation and Motor Vehicles</u></p> <ul style="list-style-type: none"> <li>• <u>Limit idling time for commercial vehicles to no more than five minutes.</u></li> <li>• <u>Implement sidewalks to facilitate and encourage pedestrian and access, which would reduce vehicle miles traveled (VMT).</u></li> <li>• <u>Provide a total of 39 electric vehicle (EV) parking stalls to encourage the use of low or zero-emission vehicles.</u></li> <li>• <u>Provide a total 13 clean air/van pool parking stalls to support and encourage ridesharing.</u></li> <li>• <u>Provide short-term and long-term bicycle parking per the Cal Green Code Sections 5.710.6.2.1 and 5.710.6.2.2, respectively.</u></li> <li>• <u>The Building Operator will support and encourage ridesharing and transit for the construction crew.</u></li> </ul> <p><u>On-Site Equipment and Loading Docks</u></p> <ul style="list-style-type: none"> <li>• <u>The Project will require building operators (by contract specifications) to turn off equipment, including heavy-duty equipment, motor vehicles, and portable equipment, when not in use for more than 5 minutes. Truck idling shall not exceed 5 minutes in time. All facilities will post signs requiring that trucks shall not be left idling for more than 5 minutes pursuant to Title 13 of the California Code of Regulations, Section 2485, which limits idle times to not more than five minutes.</u></li> </ul> <p><u>Construction</u></p> <ul style="list-style-type: none"> <li>• <u>Require Construction Equipment to Turn Off When Not in Use.</u></li> <li>• <u>Use “green” building materials where feasible, such as those materials that are resource efficient and recycled and manufactured in an environmentally conscious way.</u></li> <li>• <u>During grading heavy-duty construction equipment shall be CARB/ US EPA Tier 3 certified. All construction equipment is subject to the CARB In-Use Off-Road Diesel-Fueled Fleets Regulation.</u></li> </ul>
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Revisions to the Draft EIR

Sycamore Hills Distribution Center Project FEIR

<p><u>2020-2045 RTP/SCS Goal 6: Support healthy and equitable communities.</u></p>	<p><b><u>Consistent:</u></b> The Project includes design considerations to promote walking and the use of bicycles:</p> <ul style="list-style-type: none"> <li>• <u>Implement sidewalks to facilitate and encourage pedestrian and access.</u></li> <li>• <u>Promote the use of bicycles as an alternative means of transportation by providing short-term and long-term bicycle parking per the California Green Building Standards Code Sections 5.710.6.2.1 and 5.710.6.2.2, respectively.</u></li> </ul> <p><u>The Project also includes a trailhead parking area adjacent to the Sycamore Canyon WildernessPark, which is a popular location for mountain biking and hiking.</u></p>
<p><u>2020-2045 RTP SCS Goal 7: Adapt to a changing climate and support an integrated regional development pattern and transportation network.</u></p>	<p><b><u>Consistent:</u></b> The Project proposes a logistics center within the <u>SCBPSP on a site that has been designated for industrial uses since 1984. The SCBPSP is strategically located near State Route 60 and Interstate 215, which provide good access to the Ports of Long Beach and Los Angeles. The Project includes design considerations to promote the use of an integrated transportation network:</u></p> <ul style="list-style-type: none"> <li>• <u>Implement sidewalks to facilitate and encourage pedestrian and access, which would reduce vehicle miles traveled (VMT).</u></li> <li>• <u>Provide a total of 39 electric vehicle (EV) parking stalls to encourage the use of low or zero-emission vehicles.</u></li> <li>• <u>Provide a total13 clean air/van pool parking stalls to support and encourage ridesharing.</u></li> <li>• <u>Provide short-term and long-term bicycle parking per theCal Green Code Sections 5.710.6.2.1 and 5.710.6.2.2, respectively.</u></li> </ul>
<p><u>2020-2045 RTP/SCS Goal 9: Encourage development of diverse housing types in areas that are supported by multiple transportation options.</u></p>	<p><b><u>Not Applicable:</u></b> Encouraging development of diverse housing types in areas that are supported by multiple transportation options is beyond the scope of the proposed Project and the authority ofthe Project proponents. The Project site is within the <u>SCBPSP and has been planned for industrial uses since 1984. The SCBPSP is strategically located in proximity to State Route 60and Interstate 215.</u></p>

<p><u>2020-2045 RTP/SCS Goal 10: Promote conservation of natural and agricultural lands and restoration of habitats.</u></p>	<p><b><u>Not Applicable.</u></b> <u>Promoting conservation of natural and agricultural lands and restoration of habitats is beyond the scope of the proposed Project and the authority of the Project proponents. However, the Project does not include any component that would impede the attainment of this goal.</u></p>
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Appendix C – Revised Air Quality Impact Analysis

Appendix D – Revised Burrowing Owl Focused Survey Report

Appendix H – Revised Greenhouse Gas Analysis

**3.2.2 New Final EIR Appendix**

Appendix M – Federal Aviation Administration (FAA) Determination Letters

Appendix N – Construction Health Risk Assessment

Appendix O – Floor Plans for Buildings A and B