

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Users\Steve\Documents\De Novo Planning Group\Projects\ENV 010 - Davis Cannery Park EIR\Admin Draft EIR\TheCannery\_urbemis.urb924

Project Name: The Cannery

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2013 TOTALS (tons/year unmitigated)	0.52	4.71	2.57	0.00	17.69	0.23	17.92	3.70	0.21	3.91	689.61
2013 TOTALS (tons/year mitigated)	0.52	4.71	2.57	0.00	4.34	0.23	4.56	0.91	0.21	1.12	689.61
Percent Reduction	0.00	0.00	0.00	0.00	75.50	0.00	74.53	75.47	0.00	71.42	0.00
2014 TOTALS (tons/year unmitigated)	3.44	3.82	11.83	0.01	0.07	0.21	0.28	0.02	0.19	0.22	1,781.39
2014 TOTALS (tons/year mitigated)	1.21	3.82	11.83	0.01	0.07	0.21	0.28	0.02	0.19	0.22	1,781.39
Percent Reduction	64.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2015 TOTALS (tons/year unmitigated)	5.21	3.66	12.03	0.02	0.08	0.21	0.29	0.03	0.19	0.22	1,934.46
2015 TOTALS (tons/year mitigated)	1.95	3.66	12.03	0.02	0.08	0.21	0.29	0.03	0.19	0.22	1,934.46
Percent Reduction	62.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2016 TOTALS (tons/year unmitigated)	5.15	3.32	11.25	0.02	0.08	0.19	0.26	0.03	0.17	0.19	1,934.69
2016 TOTALS (tons/year mitigated)	1.89	3.32	11.25	0.02	0.08	0.19	0.26	0.03	0.17	0.19	1,934.69
Percent Reduction	63.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2017 TOTALS (tons/year unmitigated)	3.61	1.25	4.36	0.01	0.03	0.07	0.10	0.01	0.06	0.07	802.45





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2015	5.21	3.66	12.03	0.02	0.08	0.21	0.29	0.03	0.19	0.22	1,934.46
Building 02/01/2014-05/31/2017	0.73	3.66	11.99	0.02	0.08	0.21	0.29	0.03	0.19	0.22	1,929.11
Building Off Road Diesel	0.35	2.11	1.67	0.00	0.00	0.13	0.13	0.00	0.12	0.12	294.84
Building Vendor Trips	0.10	1.07	1.05	0.00	0.01	0.04	0.06	0.00	0.04	0.04	365.15
Building Worker Trips	0.28	0.48	9.26	0.01	0.06	0.03	0.10	0.02	0.03	0.05	1,269.12
Coating 06/01/2014-09/30/2017	4.48	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.35
Architectural Coating	4.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.35
2016	5.15	3.32	11.25	0.02	0.08	0.19	0.26	0.03	0.17	0.19	1,934.69
Building 02/01/2014-05/31/2017	0.67	3.32	11.21	0.02	0.08	0.19	0.26	0.03	0.17	0.19	1,929.34
Building Off Road Diesel	0.32	1.94	1.65	0.00	0.00	0.11	0.11	0.00	0.11	0.11	294.84
Building Vendor Trips	0.09	0.94	0.98	0.00	0.01	0.04	0.05	0.00	0.03	0.04	365.18
Building Worker Trips	0.26	0.44	8.58	0.01	0.06	0.03	0.10	0.02	0.03	0.05	1,269.33
Coating 06/01/2014-09/30/2017	4.48	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.35
Architectural Coating	4.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.35
2017	3.61	1.25	4.36	0.01	0.03	0.07	0.10	0.01	0.06	0.07	802.45
Building 02/01/2014-05/31/2017	0.25	1.25	4.34	0.01	0.03	0.07	0.10	0.01	0.06	0.07	798.44
Building Off Road Diesel	0.12	0.74	0.67	0.00	0.00	0.04	0.04	0.00	0.04	0.04	122.00
Building Vendor Trips	0.03	0.35	0.38	0.00	0.01	0.01	0.02	0.00	0.01	0.01	151.12
Building Worker Trips	0.10	0.17	3.29	0.01	0.03	0.01	0.04	0.01	0.01	0.02	525.32
Coating 06/01/2014-09/30/2017	3.36	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.01
Architectural Coating	3.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.01

Phase Assumptions

Phase: Demolition 3/1/2013 - 6/30/2013 - Phase 2 of Processing Plant Demolition

Building Volume Total (cubic feet): 2250000

Building Volume Daily (cubic feet): 22500

On Road Truck Travel (VMT): 312.5

Off-Road Equipment:

1 Crushing/Processing Equip (142 hp) operating at a 0.78 load factor for 8 hours per day

1 Dumpers/Tenders (16 hp) operating at a 0.38 load factor for 8 hours per day

3 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day

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1 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

Phase: Fine Grading 8/15/2013 - 8/30/2013 - Finish grade of road and building pads

Total Acres Disturbed: 78.52

Maximum Daily Acreage Disturbed: 19.63

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day

3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Fine Grading 11/1/2013 - 11/30/2013 - Place base rock

Total Acres Disturbed: 78.52

Maximum Daily Acreage Disturbed: 19.63

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 1076.19

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 8 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Fine Grading 12/1/2013 - 12/30/2013 - Concrete Work

Total Acres Disturbed: 78.52

Maximum Daily Acreage Disturbed: 19.63

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 63.64

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 8 hours per day

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1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Mass Grading 7/1/2013 - 8/15/2013 - Clear/Grub and Rough Grading

Total Acres Disturbed: 78.52

Maximum Daily Acreage Disturbed: 19.63

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 3235.29

Off-Road Equipment:

1 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day

1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 8 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

1 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 8 hours per day

2 Scrapers (313 hp) operating at a 0.72 load factor for 8 hours per day

3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Trenching 9/1/2013 - 10/31/2013 - Underground Utilities/Joint Trench

Off-Road Equipment:

1 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day

1 Other General Industrial Equipment (238 hp) operating at a 0.51 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 0 hours per day

Phase: Paving 1/1/2014 - 1/15/2014 - AC Paving

Acres to be Paved: 19.63

Off-Road Equipment:

1 Pavers (100 hp) operating at a 0.62 load factor for 8 hours per day

2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day

2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours per day

Phase: Building Construction 2/1/2014 - 5/31/2017 - Building Construction

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 7 hours per day

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- 3 Forklifts (145 hp) operating at a 0.3 load factor for 8 hours per day
- 1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day
- 3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 6/1/2014 - 9/30/2017 - Architectural Coating  
 Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250  
 Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250  
 Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250  
 Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.11	1.49	0.76	0.00	0.00	0.00	1,885.17
Hearth	3.59	0.64	32.61	0.11	5.32	5.12	906.05
Landscape	0.30	0.02	2.05	0.00	0.01	0.01	3.43
Consumer Products	5.80						
Architectural Coatings	1.51						
<b>TOTALS (tons/year, unmitigated)</b>	<b>11.31</b>	<b>2.15</b>	<b>35.42</b>	<b>0.11</b>	<b>5.33</b>	<b>5.13</b>	<b>2,794.65</b>

Area Source Changes to Defaults

- Percentage of residences with wood stoves changed from 35% to 45%
- Percentage of residences with wood fireplaces changed from 10% to 0%

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	4.60	6.39	53.69	0.06	10.16	1.97	5,716.55

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Apartments low rise	2.17	2.77	23.31	0.02	4.41	0.85	2,481.67
City park	0.01	0.01	0.07	0.00	0.01	0.00	7.47
Office park	2.76	3.85	32.12	0.03	6.09	1.18	3,422.14
Community Center	0.11	0.17	1.36	0.00	0.27	0.05	150.44
Retail	3.79	5.79	46.25	0.05	9.21	1.78	5,116.40
<b>TOTALS (tons/year, unmitigated)</b>	<b>13.44</b>	<b>18.98</b>	<b>156.80</b>	<b>0.16</b>	<b>30.15</b>	<b>5.83</b>	<b>16,894.67</b>

Operational Settings:

Includes correction for passby trips

Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 0.00 Nonresidential Trip % Reduction: 0.00

Analysis Year: 2014 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	40.00	12.83	dwelling units	336.00	4,310.88	32,268.07
Apartments low rise	17.80	5.96	dwelling units	314.00	1,871.44	14,008.22
City park		1.59	acres	4.70	7.47	42.52
Office park		17.50	1000 sq ft	157.33	2,753.28	19,339.32
Community Center		22.88	1000 sq ft	5.50	125.84	860.56
Retail		54.40	1000 sq ft	78.67	4,279.65	29,266.48
					13,348.56	95,785.17

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	48.4	0.4	99.4	0.2
Light Truck < 3750 lbs	10.9	0.9	95.4	3.7
Light Truck 3751-5750 lbs	21.9	0.5	99.5	0.0



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Med Truck 5751-8500 lbs	9.7	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	76.5	23.5
Lite-Heavy Truck 10,001-14,000 lbs	0.7	0.0	42.9	57.1
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.9	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	3.5	51.4	48.6	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

Travel Conditions

	Residential			Commute	Commercial	
	Home-Work	Home-Shop	Home-Other		Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			

% of Trips - Commercial (by land use)

City park	5.0	2.5	92.5
Office park	48.0	24.0	28.0
Community Center	2.0	1.0	97.0
Retail	2.0	1.0	97.0

Operational Changes to Defaults