APPENDIX C

Air Quality

APPENDIX C1

Air Quality Modeling Assumptions and Results

Summary of Input Parameters for Modeling of Construction Emissions in URBEMIS

	Proposed Project Alternative	Resource Impact Minimization Alternative	Reducd Hillside Development Alternative	Centralized Development Alternative	No Federal Action Alternative	units	source/notes
Total Specific Plan area	3,502.0	3,502.7	3,502.7	3,502.7	3,502.7	acres	land use plan maps
Open Space area (OS)	1,050.9	1,429.0	1,057.6	1,464.4	1,506.1	acres	land use plan maps
Portion of OS that would be graded	194.0	194.0	150.0	20.0	194.0	acres	See note 1
Total area that will be graded	2,645.1	2,267.7	2,595.1	2,058.3	2,190.6	acres	subtraction calculation
Number of years of construction	19	19	19	19	19	years	years 2011-2030
Average area graded annually	139.2	119.4	136.6	108.3	115.3	acres/year	division calculation
Maximum area graded annually	417.6	358.1	409.8	325.0	345.9	acres/year	mult. Avg. by 3 (Note 2)

Notes

1- Per his 8/4/2009 e-mail to A. Kerr, D. Sutton estimated that the are of Open Space (OS) that could potentially be graded under the Proposed Project Alternative would be 194 acres. This is the approx. area of OS east of Placerville Rd. All other areas designated for OS will not be graded. He based this estimate on the grading plan prepared for the Proposed Project Alternative. Because detailed grading plans have not been prepared for the other action alternatives, the area of OS that would be graded under the RIM, RHD, and CD Alternatives were estimated by reviewing their respecting land use plan maps and the topography that appears in aerial photos of the site.

2- It assumed that peak years of construction could be as much as 3 times the average annual construction intensity.

Assumptions

Construction of the land uses developed under the Specific Plan would happen over a 19-year period from 2011 to 2030, although during some years the level of construction activity would be more intense than other years.

No demolition of existing structures would occur.

Grading/ground diturbance will occur on all areas of the project site except for areas designated as Open Space that are located west of Placerville Rd.

Open Space areas east of Placerville Rd. would be graded in order to tier the hill sides for development, for all action alts except the CD Alternative.

Construction under the Specific Plan would not necessarily occur at a consistent (i.e., linear) rate during the construction period.

The most intense years of construction activity may be up to three times the amount of the average year.

No demolition would occur.

Methodology for Modeling Construction Emissions in URBEMIS2007

In the model run for each action alternative, designate that all the construction would occur in a single year.

Estimate total construction emissions for the earliest year when construction would begin (i.e., year 2013).

Thus, designated that each and ever phase of construction (i.e., grading, building erection, asphalt phasing) would begin1/1/2011 and end 12/31/2011.

Estimate the emisisons for the average year by dividing the total emisison levels by the number of years during which construction would occur.

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS\Construction\Proposed Project Construction.urb924

Project Name: Folsom South of 50 Proposed Project Construction

Project Location: Sacramento County AQMD

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

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2011 TOTALS (lbs/day unmitigated)	120.01	128.05	151.36	0.11	571.30	7.47	578.77	119.38	6.85	126.23	22,519.70

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 1/3/2011-12/30/2011 Active Days: 260	**120.01**	**128.05**	**151.36**	**0.11**	**571.30**	**7.47**	**578.77**	**119.38**	**6.85**	**126.23**	**22,519.70**
Asphalt 01/01/2011-12/30/2011	3.39	19.05	11.84	0.00	0.01	1.65	1.67	0.00	1.52	1.53	1,688.09
Paving Off-Gas	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	3.02	18.25	10.34	0.00	0.00	1.62	1.62	0.00	1.49	1.49	1,418.81
Paving On Road Diesel	0.05	0.74	0.26	0.00	0.00	0.03	0.03	0.00	0.03	0.03	129.62
Paving Worker Trips	0.03	0.05	1.24	0.00	0.01	0.00	0.01	0.00	0.00	0.00	139.66
Building 01/01/2011-12/30/2011	6.74	35.45	98.99	0.11	0.47	2.17	2.64	0.17	1.98	2.14	13,231.93
Building Off Road Diesel	3.77	21.85	13.95	0.00	0.00	1.57	1.57	0.00	1.45	1.45	2,259.28
Building Vendor Trips	0.89	10.39	10.33	0.02	0.09	0.42	0.51	0.03	0.38	0.42	2,529.28
Building Worker Trips	2.08	3.22	74.71	0.08	0.38	0.18	0.55	0.14	0.14	0.28	8,443.37
Coating 01/01/2011-12/30/2011	101.08	0.05	1.17	0.00	0.01	0.00	0.01	0.00	0.00	0.00	131.76
Architectural Coating	101.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.03	0.05	1.17	0.00	0.01	0.00	0.01	0.00	0.00	0.00	131.76
Fine Grading 01/01/2011-12/30/2011	8.79	73.50	39.36	0.00	570.81	3.64	574.45	119.21	3.35	122.56	7,467.92
Fine Grading Dust	0.00	0.00	0.00	0.00	570.80	0.00	570.80	119.21	0.00	119.21	0.00
Fine Grading Off Road Diesel	8.73	73.40	37.14	0.00	0.00	3.64	3.64	0.00	3.35	3.35	7,216.54
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.06	0.10	2.22	0.00	0.01	0.01	0.02	0.00	0.00	0.01	251.38

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Phase Assumptions

Phase: Fine Grading 1/1/2011 - 12/30/2011 - Default Fine Site Grading Description

Total Acres Disturbed: 114.15

Maximum Daily Acreage Disturbed: 28.54

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

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 Rubber Tired Dozers (357 hp) operating at a 0.59 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: Paving 1/1/2011 - 12/30/2011 - Default Paving Description

Acres to be Paved: 28.54

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 8 hours per day

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

Phase: Building Construction 1/1/2011 - 12/30/2011 - Default Building Construction Description

Off-Road Equipment:

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

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 1/1/2011 - 12/30/2011 - Default Architectural Coating Description

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

Folsom South of 50
Construction Emissions

Alternative	Units	Pollutant Emissions (lbs/day)									
		ROG	NO_X	CO	SO_X	Total PM_{10}	PM_{10} Exhaust	PM_{10} Fugitive Dust	Total $PM_{2.5}$	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
Proposed Project	Grading	9	74	39	0	574	4	571	123	3	119
	Asphalt Paving	3	19	12	0	2	2	0	2	2	0
	Construction	7	35	99	0	3	2	0	2	2	0
	Arch Coating	101	0	1	0	0	0	0	0	0	0
	Total (unmit)	**120.0**	**128.1**	**151.4**	**0.1**	**578.8**	**7.5**	**571.3**	**126.2**	**6.9**	**119.4**
	Total (mit)	**119.2**	**105.4**			**147.6**	**4.4**	**143.2**	**123.4**	**4.0**	
No Federal Action	Grading	9	74	39	0	474	4	471	102	3	98
	Asphalt Paving	3	17	11	0	1	1	0	1	1	0
	Construction	6	31	74	0	2	2	0	2	2	0
	Arch Coating	72	0	1	0	0	0	0	0	0	0
	Total (unmit)	**89.7**	**121.6**	**125.0**	**0.1**	**478.3**	**7.1**	**471.2**	**105.0**	**6.5**	**98.5**
	Total (mit)	**88.9**	**99.3**			**122.1**	**4.1**	**118.0**	**102.2**	**3.8**	
Resource Impact Minimization	Grading	9	74	39	0	482	4	478	103	3	100
	Asphalt Paving	3	17	11	0	1	1	0	1	1	0
	Construction	6	32	82	0	2	2	0	2	2	0
	Arch Coating	81	0	1	0	0	0	0	0	0	0
	Total (unmit)	**99.2**	**123.0**	**132.8**	**0.1**	**485.8**	**7.2**	**478.6**	**106.6**	**6.6**	**100.0**
	Total (mit)	**98.5**	**100.7**			**124.1**	**4.2**	**119.9**	**103.8**	**3.8**	
Central Development	Grading	9	74	39	0	445	4	441	95	3	92
	Asphalt Paving	3	17	11	0	1	1	0	1	1	0
	Construction	6	34	89	0	3	2	0	2	2	0
	Arch Coating	88	0	1	0	0	0	0	0	0	0
	Total (unmit)	**105.9**	**124.6**	**139.6**	**0.1**	**448.7**	**7.2**	**441.4**	**98.9**	**6.6**	**92.3**
	Total (mit)	**105.1**	**102.3**			**114.9**	**4.2**	**110.7**	**96.1**	**3.9**	
Reduced Hillside Development	Grading	9	74	39	0	565	4	561	121	3	117
	Asphalt Paving	3	19	12	0	2	2	0	2	2	0
	Construction	7	37	99	0	3	2	0	2	2	0
	Arch Coating	98	0	1	0	0	0	0	0	0	0
	Total (unmit)	**116.7**	**129.2**	**150.9**	**0.1**	**569.0**	**7.5**	**561.5**	**124.2**	**6.9**	**117.3**
	Total (mit)	**115.9**	**106.5**			**145.2**	**4.4**	**140.7**	**121.4**	**4.1**	

Off-Road Construction Emissions				
PP	15.52	113.5	6.83	6.29
NFA	15.2	111.55	6.66	6.13
RIM	15.2	111.55	6.66	6.13
CD	15.2	111.55	6.66	6.13
RHD	15.52	113.5	6.83	6.29

Note: 1/29/10 adjusted for revised RHD alternative construction emissions

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS\Construction\Resource Impact Minimization Construction.urb924

Project Name: Folsom South of 50 Resource Impact Minimization Construction

Project Location: Sacramento County AQMD

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

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2011 TOTALS (lbs/day unmitigated)	99.25	122.97	132.80	0.09	478.60	7.16	485.76	100.01	6.57	106.58	20,073.25

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 1/3/2011-12/30/2011 Active Days: 260	**99.25**	**122.97**	**132.80**	**0.09**	**478.60**	**7.16**	**485.76**	**100.01**	**6.57**	**106.58**	**20,073.25**
Asphalt 01/01/2011-12/30/2011	3.01	16.98	10.71	0.00	0.01	1.47	1.48	0.00	1.36	1.36	1,520.66
Paving Off-Gas	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.70	16.30	9.26	0.00	0.00	1.45	1.45	0.00	1.33	1.33	1,272.41
Paving On Road Diesel	0.04	0.62	0.22	0.00	0.00	0.02	0.03	0.00	0.02	0.02	108.59
Paving Worker Trips	0.03	0.05	1.24	0.00	0.01	0.00	0.01	0.00	0.00	0.00	139.66
Building 01/01/2011-12/30/2011	6.12	32.45	81.79	0.09	0.37	2.04	2.41	0.13	1.86	1.99	10,978.67
Building Off Road Diesel	3.77	21.85	13.95	0.00	0.00	1.57	1.57	0.00	1.45	1.45	2,259.28
Building Vendor Trips	0.69	8.03	7.98	0.02	0.07	0.33	0.40	0.02	0.30	0.32	1,954.23
Building Worker Trips	1.67	2.58	59.86	0.07	0.30	0.14	0.44	0.11	0.11	0.22	6,765.16
Coating 01/01/2011-12/30/2011	81.32	0.04	0.94	0.00	0.00	0.00	0.01	0.00	0.00	0.00	106.00
Architectural Coating	81.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.03	0.04	0.94	0.00	0.00	0.00	0.01	0.00	0.00	0.00	106.00
Fine Grading 01/01/2011-12/30/2011	8.79	73.50	39.36	0.00	478.21	3.64	481.85	99.87	3.35	103.22	7,467.92
Fine Grading Dust	0.00	0.00	0.00	0.00	478.20	0.00	478.20	99.87	0.00	99.87	0.00
Fine Grading Off Road Diesel	8.73	73.40	37.14	0.00	0.00	3.64	3.64	0.00	3.35	3.35	7,216.54
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.06	0.10	2.22	0.00	0.01	0.01	0.02	0.00	0.00	0.01	251.38

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Phase Assumptions

Phase: Fine Grading 1/1/2011 - 12/30/2011 - Default Fine Site Grading Description

Total Acres Disturbed: 95.65

Maximum Daily Acreage Disturbed: 23.91

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

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 Rubber Tired Dozers (357 hp) operating at a 0.59 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: Paving 1/1/2011 - 12/30/2011 - Default Paving Description

Acres to be Paved: 23.91

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 1/1/2011 - 12/30/2011 - Default Building Construction Description

Off-Road Equipment:

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

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 1/1/2011 - 12/30/2011 - Default Architectural Coating Description

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

Folsom South of 50
Construction Emissions

Alternative	Units	Pollutant Emissions (lbs/day)									
		ROG	NO_X	CO	SO_X	Total PM_{10}	PM_{10} Exhaust	PM_{10} Fugitive Dust	Total $PM_{2.5}$	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
Proposed Project	Grading	9	74	39	0	574	4	571	123	3	119
	Asphalt Paving	3	19	12	0	2	2	0	2	2	0
	Construction	7	35	99	0	3	2	0	2	2	0
	Arch Coating	101	0	1	0	0	0	0	0	0	0
	Total (unmit)	**120.0**	**128.1**	**151.4**	**0.1**	**578.8**	**7.5**	**571.3**	**126.2**	**6.9**	**119.4**
	Total (mit)	**119.2**	**105.4**			**147.6**	**4.4**	**143.2**	**123.4**	**4.0**	
No Federal Action	Grading	9	74	39	0	474	4	471	102	3	98
	Asphalt Paving	3	17	11	0	1	1	0	1	1	0
	Construction	6	31	74	0	2	2	0	2	2	0
	Arch Coating	72	0	1	0	0	0	0	0	0	0
	Total (unmit)	**89.7**	**121.6**	**125.0**	**0.1**	**478.3**	**7.1**	**471.2**	**105.0**	**6.5**	**98.5**
	Total (mit)	**88.9**	**99.3**			**122.1**	**4.1**	**118.0**	**102.2**	**3.8**	
Resource Impact Minimization	Grading	9	74	39	0	482	4	478	103	3	100
	Asphalt Paving	3	17	11	0	1	1	0	1	1	0
	Construction	6	32	82	0	2	2	0	2	2	0
	Arch Coating	81	0	1	0	0	0	0	0	0	0
	Total (unmit)	**99.2**	**123.0**	**132.8**	**0.1**	**485.8**	**7.2**	**478.6**	**106.6**	**6.6**	**100.0**
	Total (mit)	**98.5**	**100.7**			**124.1**	**4.2**	**119.9**	**103.8**	**3.8**	
Central Development	Grading	9	74	39	0	445	4	441	95	3	92
	Asphalt Paving	3	17	11	0	1	1	0	1	1	0
	Construction	6	34	89	0	3	2	0	2	2	0
	Arch Coating	88	0	1	0	0	0	0	0	0	0
	Total (unmit)	**105.9**	**124.6**	**139.6**	**0.1**	**448.7**	**7.2**	**441.4**	**98.9**	**6.6**	**92.3**
	Total (mit)	**105.1**	**102.3**			**114.9**	**4.2**	**110.7**	**96.1**	**3.9**	
Reduced Hillside Development	Grading	9	74	39	0	565	4	561	121	3	117
	Asphalt Paving	3	19	12	0	2	2	0	2	2	0
	Construction	7	37	99	0	3	2	0	2	2	0
	Arch Coating	98	0	1	0	0	0	0	0	0	0
	Total (unmit)	**116.7**	**129.2**	**150.9**	**0.1**	**569.0**	**7.5**	**561.5**	**124.2**	**6.9**	**117.3**
	Total (mit)	**115.9**	**106.5**			**145.2**	**4.4**	**140.7**	**121.4**	**4.1**	

Off-Road Construction Emissions				
PP	15.52	113.5	6.83	6.29
NFA	15.2	111.55	6.66	6.13
RIM	15.2	111.55	6.66	6.13
CD	15.2	111.55	6.66	6.13
RHD	15.52	113.5	6.83	6.29

Note: 1/29/10 adjusted for revised RHD alternative construction emissions

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS\Construction\Centralized Development Construction.urb924

Project Name: Folsom South of 50 Centralized Development Construction

Project Location: Sacramento County AQMD

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

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2011 TOTALS (lbs/day unmitigated)	105.89	124.56	139.63	0.10	441.44	7.23	448.67	92.25	6.63	98.88	21,021.91

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 1/3/2011-12/30/2011 Active Days: 260	**105.89**	**124.56**	**139.63**	**0.10**	441.44	**7.23**	448.67	92.25	**6.63**	98.88	**21,021.91**
Asphalt 01/01/2011-12/30/2011	2.99	16.93	10.70	0.00	0.01	1.47	1.48	0.00	1.35	1.36	1,512.21
Paving Off-Gas	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.70	16.30	9.26	0.00	0.00	1.45	1.45	0.00	1.33	1.33	1,272.41
Paving On Road Diesel	0.04	0.57	0.20	0.00	0.00	0.02	0.03	0.00	0.02	0.02	100.15
Paving Worker Trips	0.03	0.05	1.24	0.00	0.01	0.00	0.01	0.00	0.00	0.00	139.66
Building 01/01/2011-12/30/2011	6.39	34.09	88.56	0.10	0.41	2.11	2.52	0.15	1.92	2.07	11,927.44
Building Off Road Diesel	3.77	21.85	13.95	0.00	0.00	1.57	1.57	0.00	1.45	1.45	2,259.28
Building Vendor Trips	0.81	9.44	9.40	0.02	0.08	0.38	0.46	0.03	0.35	0.38	2,298.05
Building Worker Trips	1.82	2.81	65.22	0.07	0.33	0.15	0.48	0.12	0.12	0.24	7,370.11
Coating 01/01/2011-12/30/2011	87.71	0.04	1.01	0.00	0.01	0.00	0.01	0.00	0.00	0.00	114.33
Architectural Coating	87.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.03	0.04	1.01	0.00	0.01	0.00	0.01	0.00	0.00	0.00	114.33
Fine Grading 01/01/2011-12/30/2011	8.79	73.50	39.36	0.00	441.01	3.64	444.65	92.10	3.35	95.45	7,467.92
Fine Grading Dust	0.00	0.00	0.00	0.00	441.00	0.00	441.00	92.10	0.00	92.10	0.00
Fine Grading Off Road Diesel	8.73	73.40	37.14	0.00	0.00	3.64	3.64	0.00	3.35	3.35	7,216.54
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.06	0.10	2.22	0.00	0.01	0.01	0.02	0.00	0.00	0.01	251.38

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Phase Assumptions

Phase: Fine Grading 1/1/2011 - 12/30/2011 - Default Fine Site Grading Description

Total Acres Disturbed: 88.21

Maximum Daily Acreage Disturbed: 22.05

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

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 Rubber Tired Dozers (357 hp) operating at a 0.59 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: Paving 1/1/2011 - 12/30/2011 - Default Paving Description

Acres to be Paved: 22.05

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 1/1/2011 - 12/30/2011 - Default Building Construction Description

Off-Road Equipment:

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

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 1/1/2011 - 12/30/2011 - Default Architectural Coating Description

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

Folsom South of 50
Construction Emissions

Alternative	Units	Pollutant Emissions (lbs/day)									
		ROG	NO_X	CO	SO_X	Total PM_{10}	PM_{10} Exhaust	PM_{10} Fugitive Dust	Total $PM_{2.5}$	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
Proposed Project	Grading	9	74	39	0	574	4	571	123	3	119
	Asphalt Paving	3	19	12	0	2	2	0	2	2	0
	Construction	7	35	99	0	3	2	0	2	2	0
	Arch Coating	101	0	1	0	0	0	0	0	0	0
	Total (unmit)	**120.0**	**128.1**	**151.4**	**0.1**	**578.8**	**7.5**	**571.3**	**126.2**	**6.9**	**119.4**
	Total (mit)	**119.2**	**105.4**			**147.6**	**4.4**	**143.2**	**123.4**	**4.0**	
No Federal Action	Grading	9	74	39	0	474	4	471	102	3	98
	Asphalt Paving	3	17	11	0	1	1	0	1	1	0
	Construction	6	31	74	0	2	2	0	2	2	0
	Arch Coating	72	0	1	0	0	0	0	0	0	0
	Total (unmit)	**89.7**	**121.6**	**125.0**	**0.1**	**478.3**	**7.1**	**471.2**	**105.0**	**6.5**	**98.5**
	Total (mit)	**88.9**	**99.3**			**122.1**	**4.1**	**118.0**	**102.2**	**3.8**	
Resource Impact Minimization	Grading	9	74	39	0	482	4	478	103	3	100
	Asphalt Paving	3	17	11	0	1	1	0	1	1	0
	Construction	6	32	82	0	2	2	0	2	2	0
	Arch Coating	81	0	1	0	0	0	0	0	0	0
	Total (unmit)	**99.2**	**123.0**	**132.8**	**0.1**	**485.8**	**7.2**	**478.6**	**106.6**	**6.6**	**100.0**
	Total (mit)	**98.5**	**100.7**			**124.1**	**4.2**	**119.9**	**103.8**	**3.8**	
Central Development	Grading	9	74	39	0	445	4	441	95	3	92
	Asphalt Paving	3	17	11	0	1	1	0	1	1	0
	Construction	6	34	89	0	3	2	0	2	2	0
	Arch Coating	88	0	1	0	0	0	0	0	0	0
	Total (unmit)	**105.9**	**124.6**	**139.6**	**0.1**	**448.7**	**7.2**	**441.4**	**98.9**	**6.6**	**92.3**
	Total (mit)	**105.1**	**102.3**			**114.9**	**4.2**	**110.7**	**96.1**	**3.9**	
Reduced Hillside Development	Grading	9	74	39	0	565	4	561	121	3	117
	Asphalt Paving	3	19	12	0	2	2	0	2	2	0
	Construction	7	37	99	0	3	2	0	2	2	0
	Arch Coating	98	0	1	0	0	0	0	0	0	0
	Total (unmit)	**116.7**	**129.2**	**150.9**	**0.1**	**569.0**	**7.5**	**561.5**	**124.2**	**6.9**	**117.3**
	Total (mit)	**115.9**	**106.5**			**145.2**	**4.4**	**140.7**	**121.4**	**4.1**	

Off-Road Construction Emissions				
PP	15.52	113.5	6.83	6.29
NFA	15.2	111.55	6.66	6.13
RIM	15.2	111.55	6.66	6.13
CD	15.2	111.55	6.66	6.13
RHD	15.52	113.5	6.83	6.29

Note: 1/29/10 adjusted for revised RHD alternative construction emissions

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS and GHG\JANUARY 2010 REVISION DOCs\Reduced Hillside Development Construction (Jan 2010) urb924

Project Name: Folsom South of 50 Reduced Hillside Development Construction

Project Location: Sacramento County AQMD

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

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2011 TOTALS (lbs/day unmitigated)	116.72	129.15	150.87	0.12	561.50	7.52	569.01	117.34	6.89	124.23	22,619.19

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 1/3/2011-12/30/2011 Active Days: 260	**116.72**	**129.15**	**150.87**	**0.12**	**561.50**	**7.52**	**569.01**	**117.34**	**6.89**	**124.23**	**22,619.19**
Asphalt 01/01/2011-12/30/2011	3.39	19.03	11.83	0.00	0.01	1.65	1.66	0.00	1.52	1.53	1,685.87
Paving Off-Gas	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	3.02	18.25	10.34	0.00	0.00	1.62	1.62	0.00	1.49	1.49	1,418.81
Paving On Road Diesel	0.05	0.73	0.26	0.00	0.00	0.03	0.03	0.00	0.03	0.03	127.40
Paving Worker Trips	0.03	0.05	1.24	0.00	0.01	0.00	0.01	0.00	0.00	0.00	139.66
Building 01/01/2011-12/30/2011	6.80	36.58	98.55	0.11	0.47	2.22	2.69	0.17	2.02	2.18	13,338.00
Building Off Road Diesel	3.77	21.85	13.95	0.00	0.00	1.57	1.57	0.00	1.45	1.45	2,259.28
Building Vendor Trips	1.00	11.58	11.51	0.03	0.10	0.47	0.57	0.03	0.43	0.46	2,818.33
Building Worker Trips	2.03	3.15	73.09	0.08	0.37	0.17	0.54	0.13	0.14	0.27	8,260.38
Coating 01/01/2011-12/30/2011	97.74	0.05	1.13	0.00	0.01	0.00	0.01	0.00	0.00	0.00	127.40
Architectural Coating	97.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.03	0.05	1.13	0.00	0.01	0.00	0.01	0.00	0.00	0.00	127.40
Fine Grading 01/01/2011-12/30/2011	8.79	73.50	39.36	0.00	561.01	3.64	564.65	117.16	3.35	120.51	7,467.92
Fine Grading Dust	0.00	0.00	0.00	0.00	561.00	0.00	561.00	117.16	0.00	117.16	0.00
Fine Grading Off Road Diesel	8.73	73.40	37.14	0.00	0.00	3.64	3.64	0.00	3.35	3.35	7,216.54
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.06	0.10	2.22	0.00	0.01	0.01	0.02	0.00	0.00	0.01	251.38

1/28/2010 09:00:11 PM

Phase Assumptions

Phase: Fine Grading 1/1/2011 - 12/30/2011 - Default Fine Site Grading Description

Total Acres Disturbed: 112.21

Maximum Daily Acreage Disturbed: 28.05

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

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 Rubber Tired Dozers (357 hp) operating at a 0.59 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: Paving 1/1/2011 - 12/30/2011 - Default Paving Description

Acres to be Paved: 28.05

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 8 hours per day

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

Phase: Building Construction 1/1/2011 - 12/30/2011 - Default Building Construction Description

Off-Road Equipment:

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

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 1/1/2011 - 12/30/2011 - Default Architectural Coating Description

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

Folsom South of 50
Construction Emissions

Alternative	Units	Pollutant Emissions (lbs/day)									
		ROG	NO_X	CO	SO_X	Total PM_{10}	PM_{10} Exhaust	PM_{10} Fugitive Dust	Total $PM_{2.5}$	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
Proposed Project	Grading	9	74	39	0	574	4	571	123	3	119
	Asphalt Paving	3	19	12	0	2	2	0	2	2	0
	Construction	7	35	99	0	3	2	0	2	2	0
	Arch Coating	101	0	1	0	0	0	0	0	0	0
	Total (unmit)	**120.0**	**128.1**	**151.4**	**0.1**	**578.8**	**7.5**	**571.3**	**126.2**	**6.9**	**119.4**
	Total (mit)	**119.2**	**105.4**			**147.6**	**4.4**	**143.2**	**123.4**	**4.0**	
No Federal Action	Grading	9	74	39	0	474	4	471	102	3	98
	Asphalt Paving	3	17	11	0	1	1	0	1	1	0
	Construction	6	31	74	0	2	2	0	2	2	0
	Arch Coating	72	0	1	0	0	0	0	0	0	0
	Total (unmit)	**89.7**	**121.6**	**125.0**	**0.1**	**478.3**	**7.1**	**471.2**	**105.0**	**6.5**	**98.5**
	Total (mit)	**88.9**	**99.3**			**122.1**	**4.1**	**118.0**	**102.2**	**3.8**	
Resource Impact Minimization	Grading	9	74	39	0	482	4	478	103	3	100
	Asphalt Paving	3	17	11	0	1	1	0	1	1	0
	Construction	6	32	82	0	2	2	0	2	2	0
	Arch Coating	81	0	1	0	0	0	0	0	0	0
	Total (unmit)	**99.2**	**123.0**	**132.8**	**0.1**	**485.8**	**7.2**	**478.6**	**106.6**	**6.6**	**100.0**
	Total (mit)	**98.5**	**100.7**			**124.1**	**4.2**	**119.9**	**103.8**	**3.8**	
Central Development	Grading	9	74	39	0	445	4	441	95	3	92
	Asphalt Paving	3	17	11	0	1	1	0	1	1	0
	Construction	6	34	89	0	3	2	0	2	2	0
	Arch Coating	88	0	1	0	0	0	0	0	0	0
	Total (unmit)	**105.9**	**124.6**	**139.6**	**0.1**	**448.7**	**7.2**	**441.4**	**98.9**	**6.6**	**92.3**
	Total (mit)	**105.1**	**102.3**			**114.9**	**4.2**	**110.7**	**96.1**	**3.9**	
Reduced Hillside Development	Grading	9	74	39	0	565	4	561	121	3	117
	Asphalt Paving	3	19	12	0	2	2	0	2	2	0
	Construction	7	37	99	0	3	2	0	2	2	0
	Arch Coating	98	0	1	0	0	0	0	0	0	0
	Total (unmit)	**116.7**	**129.2**	**150.9**	**0.1**	**569.0**	**7.5**	**561.5**	**124.2**	**6.9**	**117.3**
	Total (mit)	**115.9**	**106.5**			**145.2**	**4.4**	**140.7**	**121.4**	**4.1**	

Off-Road Construction Emissions				
PP	15.52	113.5	6.83	6.29
NFA	15.2	111.55	6.66	6.13
RIM	15.2	111.55	6.66	6.13
CD	15.2	111.55	6.66	6.13
RHD	15.52	113.5	6.83	6.29

Note: 1/29/10 adjusted for revised RHD alternative construction emissions

Folsom South of 50
Construction Emissions

Alternative	Units	Pollutant Emissions (lbs/day)									
		ROG	NO_X	CO	SO_X	Total PM_{10}	PM_{10} Exhaust	PM_{10} Fugitive Dust	Total $PM_{2.5}$	$PM_{2.5}$ Exhaust	$PM_{2.5}$ Fugitive Dust
Proposed Project	Grading	9	74	39	0	574	4	571	123	3	119
	Asphalt Paving	3	19	12	0	2	2	0	2	2	0
	Construction	7	35	99	0	3	2	0	2	2	0
	Arch Coating	101	0	1	0	0	0	0	0	0	0
	Total (unmit)	**120.0**	**128.1**	**151.4**	**0.1**	**578.8**	**7.5**	**571.3**	**126.2**	**6.9**	**119.4**
	Total (mit)	**119.2**	**105.4**			**147.6**	**4.4**	**143.2**	**123.4**	**4.0**	
No Federal Action	Grading	9	74	39	0	474	4	471	102	3	98
	Asphalt Paving	3	17	11	0	1	1	0	1	1	0
	Construction	6	31	74	0	2	2	0	2	2	0
	Arch Coating	72	0	1	0	0	0	0	0	0	0
	Total (unmit)	**89.7**	**121.6**	**125.0**	**0.1**	**478.3**	**7.1**	**471.2**	**105.0**	**6.5**	**98.5**
	Total (mit)	**88.9**	**99.3**			**122.1**	**4.1**	**118.0**	**102.2**	**3.8**	
Resource Impact Minimization	Grading	9	74	39	0	482	4	478	103	3	100
	Asphalt Paving	3	17	11	0	1	1	0	1	1	0
	Construction	6	32	82	0	2	2	0	2	2	0
	Arch Coating	81	0	1	0	0	0	0	0	0	0
	Total (unmit)	**99.2**	**123.0**	**132.8**	**0.1**	**485.8**	**7.2**	**478.6**	**106.6**	**6.6**	**100.0**
	Total (mit)	**98.5**	**100.7**			**124.1**	**4.2**	**119.9**	**103.8**	**3.8**	
Central Development	Grading	9	74	39	0	445	4	441	95	3	92
	Asphalt Paving	3	17	11	0	1	1	0	1	1	0
	Construction	6	34	89	0	3	2	0	2	2	0
	Arch Coating	88	0	1	0	0	0	0	0	0	0
	Total (unmit)	**105.9**	**124.6**	**139.6**	**0.1**	**448.7**	**7.2**	**441.4**	**98.9**	**6.6**	**92.3**
	Total (mit)	**105.1**	**102.3**			**114.9**	**4.2**	**110.7**	**96.1**	**3.9**	
Reduced Hillside Development	Grading	9	74	39	0	565	4	561	121	3	117
	Asphalt Paving	3	19	12	0	2	2	0	2	2	0
	Construction	7	37	99	0	3	2	0	2	2	0
	Arch Coating	98	0	1	0	0	0	0	0	0	0
	Total (unmit)	**116.7**	**129.2**	**150.9**	**0.1**	**569.0**	**7.5**	**561.5**	**124.2**	**6.9**	**117.3**
	Total (mit)	**115.9**	**106.5**			**145.2**	**4.4**	**140.7**	**121.4**	**4.1**	

Off-Road Construction Emissions				
PP	15.52	113.5	6.83	6.29
NFA	15.2	111.55	6.66	6.13
RIM	15.2	111.55	6.66	6.13
CD	15.2	111.55	6.66	6.13
RHD	15.52	113.5	6.83	6.29

Note: 1/29/10 adjusted for revised RHD alternative construction emissions

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS\Construction\No Federal Action Construction.urb924

Project Name: Folsom South of 50 No Federal Action Construction

Project Location: Sacramento County AQMD

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

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2011 TOTALS (lbs/day unmitigated)	89.69	121.56	124.96	0.08	471.15	7.10	478.25	98.45	6.52	104.96	19,040.02

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 1/3/2011-12/30/2011 Active Days: 260	**89.69**	**121.56**	**124.96**	**0.08**	**471.15**	**7.10**	**478.25**	**98.45**	**6.52**	**104.96**	**19,040.02**
Asphalt 01/01/2011-12/30/2011	3.01	16.97	10.71	0.00	0.01	1.47	1.48	0.00	1.36	1.36	1,518.98
Paving Off-Gas	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.70	16.30	9.26	0.00	0.00	1.45	1.45	0.00	1.33	1.33	1,272.41
Paving On Road Diesel	0.04	0.61	0.22	0.00	0.00	0.02	0.03	0.00	0.02	0.02	106.91
Paving Worker Trips	0.03	0.05	1.24	0.00	0.01	0.00	0.01	0.00	0.00	0.00	139.66
Building 01/01/2011-12/30/2011	5.84	31.06	74.06	0.08	0.33	1.98	2.31	0.12	1.81	1.92	9,959.21
Building Off Road Diesel	3.77	21.85	13.95	0.00	0.00	1.57	1.57	0.00	1.45	1.45	2,259.28
Building Vendor Trips	0.60	6.92	6.91	0.02	0.06	0.28	0.34	0.02	0.26	0.28	1,687.76
Building Worker Trips	1.48	2.29	53.20	0.06	0.27	0.12	0.39	0.10	0.10	0.20	6,012.17
Coating 01/01/2011-12/30/2011	72.04	0.04	0.83	0.00	0.00	0.00	0.01	0.00	0.00	0.00	93.91
Architectural Coating	72.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.83	0.00	0.00	0.00	0.01	0.00	0.00	0.00	93.91
Fine Grading 01/01/2011-12/30/2011	8.79	73.50	39.36	0.00	470.81	3.64	474.45	98.33	3.35	101.68	7,467.92
Fine Grading Dust	0.00	0.00	0.00	0.00	470.80	0.00	470.80	98.32	0.00	98.32	0.00
Fine Grading Off Road Diesel	8.73	73.40	37.14	0.00	0.00	3.64	3.64	0.00	3.35	3.35	7,216.54
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.06	0.10	2.22	0.00	0.01	0.01	0.02	0.00	0.00	0.01	251.38

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Phase Assumptions

Phase: Fine Grading 1/1/2011 - 12/30/2011 - Default Fine Site Grading Description

Total Acres Disturbed: 94.18

Maximum Daily Acreage Disturbed: 23.54

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

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 Rubber Tired Dozers (357 hp) operating at a 0.59 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: Paving 1/1/2011 - 12/30/2011 - Default Paving Description

Acres to be Paved: 23.54

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 1/1/2011 - 12/30/2011 - Default Building Construction Description

Off-Road Equipment:

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

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 1/1/2011 - 12/30/2011 - Default Architectural Coating Description

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

Summary of NOx Mitigation Feel by Alternative

Alternative	Nox Mitigation Fee
Proposed Project	$733,139
Resource Impact Minimization	$564,601
Centralized Development	$618,533
Reduced Hillside Development	$824,149
No Federal Action	$517,410

TIPS FOR USE:

1. For both residential and non-residential acreage entries EXCLUDE ONLY undisturbed (not graded) Open Space.
2. Append this calculation sheet to the environmental document.
3. Unmitigated NOx (lbs/day) and duration (days) should be consistent with URBEMIS results.
4. Activity Phase/Time Slice identifiers include the date range from the URBEMIS results and phases included, i.e. fine grading, asphalt, etc.

Construction Emissons Mitigation Fee Calculation

PART 1: PROJECT INFORMATION

Project Name:	Proposed Project Alternative - Folsom South of 50 Specific Plan		
Control/Application #:	Approx. Fee for CEQA disclosure, assuming a consistent rate of construction over the 19-year peroid (2011-2030).		
Single Family Dwelling Units:		*Note: Enter information only in blue bordered cells*	
Multi Family Dwelling Units:		Total Residential Acreage:	
Non-residential Square Feet:		Total Non-residential Acreage:	

PART 2: EMISSIONS INFORMATION

Year	Activity Phase	NOx (lbs/day) unmitigated	NOx (lbs/day) mitigated*	NOx over threshold (lbs/day)	duration (days)	Total significant NOx (lbs)
	Demolition (on road)					
	Demolition (off road)		0.00			
	TOTAL Demolition		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*	128.00	102.40	17.40	5016	87278.40
	Time Slice: *(enter identifiers)*		0.00	0		0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
		Total project Nox over threshold (lbs)	*87278.40*			
		Total project Nox over threshold (tons)	*43.64*			

PART 3: MITIGATION FEE RESULTS

*MITIGATION FEE ($16,000/TON)***	*$698,227*
ADMINISTRATIVE FEE (5.0%)	*$34,911*
TOTAL FEE	***$733,139***

>>> *Fee is to be paid to the SMAQMD, either in total or on a by acre basis, prior to any ground disturbance.*

Mitigation Fee ($/acre)	**#DIV/0!**

* Assumes a construction mitigation plan which achieves a 20% reduction in NOx from on-site, off-road equipment.

** Or the $/ton of NOx cost-effectiveness value in effect at the time the fee is collected.

TIPS FOR USE:

1. For both residential and non-residential acreage entries EXCLUDE ONLY undisturbed (not graded) Open Space.
2. Append this calculation sheet to the environmental document.
3. Unmitigated NOx (lbs/day) and duration (days) should be consistent with URBEMIS results.
4. Activity Phase/Time Slice identifiers include the date range from the URBEMIS results and phases included, i.e. fine grading, asphalt, etc.

Construction Emissons Mitigation Fee Calculation

PART 1: PROJECT INFORMATION

Project Name:	Reduced Impact Minimization - Folsom South of 50 Specific Plan
Control/Application #:	Approx. Fee for CEQA disclosure, assuming a consistent rate of construction over the 19-year peroid (2011-2030).

Single Family Dwelling Units:		*Note: Enter information only in blue bordered cells*	
Multi Family Dwelling Units:		Total Residential Acreage:	
Non-residential Square Feet:		Total Non-residential Acreage:	

PART 2: EMISSIONS INFORMATION

Year	Activity Phase	NOx (lbs/day) unmitigated	NOx (lbs/day) mitigated*	NOx over threshold (lbs/day)	duration (days)	Total significant NOx (lbs)
	Demolition (on road)					
	Demolition (off road)		0.00			
	TOTAL Demolition		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*	123.00	98.40	13.40	5016	67214.40
	Time Slice: *(enter identifiers)*		0.00	0		0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
		Total project Nox over threshold (lbs)	*67214.40*			
		Total project Nox over threshold (tons)	*33.61*			

PART 3: MITIGATION FEE RESULTS

*MITIGATION FEE ($16,000/TON)***	*$537,715*
ADMINISTRATIVE FEE (5.0%)	*$26,886*
TOTAL FEE	***$564,601***

>>> *Fee is to be paid to the SMAQMD, either in total or on a by acre basis, prior to any ground disturbance.*

Mitigation Fee ($/acre) **#DIV/0!**

* Assumes a construction mitigation plan which achieves a 20% reduction in NOx from on-site, off-road equipment.

** Or the $/ton of NOx cost-effectiveness value in effect at the time the fee is collected.

TIPS FOR USE:

1. For both residential and non-residential acreage entries EXCLUDE ONLY undisturbed (not graded) Open Space.
2. Append this calculation sheet to the environmental document.
3. Unmitigated NOx (lbs/day) and duration (days) should be consistent with URBEMIS results.
4. Activity Phase/Time Slice identifiers include the date range from the URBEMIS results and phases included, i.e. fine grading, asphalt, etc.

Construction Emissons Mitigation Fee Calculation

PART 1: PROJECT INFORMATION

Project Name:	Centralized Development Alternative - Folsom South of 50 Specific Plan
Control/Application #:	Approx. Fee for CEQA disclosure, assuming a consistent rate of construction over the 19-year peroid (2011-2030).

Single Family Dwelling Units:		*Note: Enter information only in blue bordered cells*	
Multi Family Dwelling Units:		Total Residential Acreage:	
Non-residential Square Feet:		Total Non-residential Acreage:	

PART 2: EMISSIONS INFORMATION

Year	Activity Phase	NOx (lbs/day) unmitigated	NOx (lbs/day) mitigated*	NOx over threshold (lbs/day)	duration (days)	Total significant NOx (lbs)
	Demolition (on road)					
	Demolition (off road)		0.00			
	TOTAL Demolition		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*	124.60	99.68	14.68	5016	73634.88
	Time Slice: *(enter identifiers)*		0.00	0		0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00

Total project Nox over threshold (lbs)	*73634.88*
Total project Nox over threshold (tons)	*36.82*

PART 3: MITIGATION FEE RESULTS

*MITIGATION FEE ($16,000/TON)***	*$589,079*
ADMINISTRATIVE FEE (5.0%)	*$29,454*
TOTAL FEE	***$618,533***

>>> *Fee is to be paid to the SMAQMD, either in total or on a by acre basis, prior to any ground disturbance.*

Mitigation Fee ($/acre)	**#DIV/0!**

* Assumes a construction mitigation plan which achieves a 20% reduction in NOx from on-site, off-road equipment.

** Or the $/ton of NOx cost-effectiveness value in effect at the time the fee is collected.

TIPS FOR USE:

1. For both residential and non-residential acreage entries EXCLUDE ONLY undisturbed (not graded) Open Space.
2. Append this calculation sheet to the environmental document.
3. Unmitigated NOx (lbs/day) and duration (days) should be consistent with URBEMIS results.
4. Activity Phase/Time Slice identifiers include the date range from the URBEMIS results and phases included, i.e. fine grading, asphalt, etc.

Construction Emissons Mitigation Fee Calculation

PART 1: PROJECT INFORMATION

Project Name:	Reduced Hillside Development Alternative - Folsom South of 50 Specific Plan		
Control/Application #:	Approx. Fee for CEQA disclosure, assuming a consistent rate of construction over the 19-year peroid (2011-2030).		
Single Family Dwelling Units:		*Note: Enter information only in blue bordered cells*	
Multi Family Dwelling Units:		Total Residential Acreage:	
Non-residential Square Feet:		Total Non-residential Acreage:	

PART 2: EMISSIONS INFORMATION

Year	Activity Phase	NOx (lbs/day) unmitigated	NOx (lbs/day) mitigated*	NOx over threshold (lbs/day)	duration (days)	Total significant NOx (lbs)
	Demolition (on road)					
	Demolition (off road)		0.00			
	TOTAL Demolition		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*	130.70	104.56	19.56	5016	98112.96
	Time Slice: *(enter identifiers)*		0.00	0		0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Total project Nox over threshold (lbs)		*98112.96*			
	Total project Nox over threshold (tons)		*49.06*			

PART 3: MITIGATION FEE RESULTS

*MITIGATION FEE ($16,000/TON)***	*$784,904*
ADMINISTRATIVE FEE (5.0%)	*$39,245*
TOTAL FEE	***$824,149***

>>> *Fee is to be paid to the SMAQMD, either in total or on a by acre basis, prior to any ground disturbance.*

Mitigation Fee ($/acre)	**#DIV/0!**

* Assumes a construction mitigation plan which achieves a 20% reduction in NOx from on-site, off-road equipment.

** Or the $/ton of NOx cost-effectiveness value in effect at the time the fee is collected.

TIPS FOR USE:

1. For both residential and non-residential acreage entries EXCLUDE ONLY undisturbed (not graded) Open Space.
2. Append this calculation sheet to the environmental document.
3. Unmitigated NOx (lbs/day) and duration (days) should be consistent with URBEMIS results.
4. Activity Phase/Time Slice identifiers include the date range from the URBEMIS results and phases included, i.e. fine grading, asphalt, etc.

Construction Emissons Mitigation Fee Calculation

PART 1: PROJECT INFORMATION

Project Name:	No Federal Action Alternative - Folsom South of 50 Specific Plan		
Control/Application #:	Approx. Fee for CEQA disclosure, assuming a consistent rate of construction over the 19-year peroid (2011-2030).		
Single Family Dwelling Units:		*Note: Enter information only in blue bordered cells*	
Multi Family Dwelling Units:		Total Residential Acreage:	
Non-residential Square Feet:		Total Non-residential Acreage:	

PART 2: EMISSIONS INFORMATION

Year	Activity Phase	NOx (lbs/day) unmitigated	NOx (lbs/day) mitigated*	NOx over threshold (lbs/day)	duration (days)	Total significant NOx (lbs)
	Demolition (on road)					
	Demolition (off road)		0.00			
	TOTAL Demolition		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*	121.60	97.28	12.28	5016	61596.48
	Time Slice: *(enter identifiers)*		0.00	0		0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Time Slice: *(enter identifiers)*		0.00	0	0	0.00
	Total project Nox over threshold (lbs)		*61596.48*			
	Total project Nox over threshold (tons)		*30.80*			

PART 3: MITIGATION FEE RESULTS

*MITIGATION FEE ($16,000/TON)***	*$492,772*
ADMINISTRATIVE FEE (5.0%)	*$24,639*
TOTAL FEE	***$517,410***

>>> *Fee is to be paid to the SMAQMD, either in total or on a by acre basis, prior to any ground disturbance.*

Mitigation Fee ($/acre)	**#DIV/0!**

* Assumes a construction mitigation plan which achieves a 20% reduction in NOx from on-site, off-road equipment.
** Or the $/ton of NOx cost-effectiveness value in effect at the time the fee is collected.

Dimensions of Area of Ground Disturbance of Off-Site Elements

Detention Basin

width (ft)	length (ft)	% coverage	area (sq ft)	area (acres)
300	500	100%	150,000	3.44

Prairie City Road Interchange

width (ft)	length (ft)	% coverage	area (sq ft)	area (acres)
800	1,500	70%	840,000	19.28

Rowberry Drive Crossing

width (ft)	length (ft)	% coverage	area (sq ft)	area (acres)
800	1,200	85%	816,000	18.73

Oak Avenue Interchange (3 parts)

part	width (ft)	length (ft)	% coverage	area (sq ft)	area (acres)
A	1,000	1,500	60%	900,000	20.66
B	200	800	100%	160,000	3.67
C	1,500	1,000	65%	975,000	22.38
Total				2,035,000	46.72

Roadway Connections into El Dorado County (2 parts)

part	length (ft)	length (miles)	width (ft)	area (sq ft)	area (acres)
A	500	0.09	—	—	
B	1,000	0.19	—	—	
Total	1,500	0.28	40	60,000	1.38

roadway width (ft)	volume of material imported and exported	
40	100	cu yd/day

Force Main Connection to Existing Pump Station

length (ft)	length (miles)	width (ft)	area (sq ft)	area (acres)
2,100	0.40	50	105,000	2.41

trench width (ft)	fill depth around conduit (ft)	volume of material imported and exported	
10	4	84,000	cu ft
		9,333	cu yd
		424	cu yd/day

Conversion Rates

area	43,560	sq ft/acre
distance	5,280	ft/mile
volume	9.0	cu ft/cu yd
work	22.0	work days/month
mass	0.90718474	metric ton/US ton

All site measurements are based on Exhibit 2-9. The % coverage refers to the
Shaded values indicate input parameters used in emissions modeling.

Summary of Maximum Daily Exhaust Emissions of GHGs from Construction of Off-Site Elements (lb/day)

Detention Basin

ROG	NO_X	PM_{10}	$PM_{2.5}$	CO_2	Model Used
4.2	33.6	70.6	16.0	4,159.4	URBEMIS Construction Module

Prairie City Road Interchange

ROG	NO_X	PM_{10}	$PM_{2.5}$	CO_2	Model Used
5.3	40.9	388.0	82.7	4,159.4	URBEMIS Construction Module

Rowberry Drive Crossing

ROG	NO_X	PM_{10}	$PM_{2.5}$	CO_2	Model Used
5.3	40.9	377.0	80.4	4,159.4	URBEMIS Construction Module

Oak Avenue Interchange

ROG	NO_X	PM_{10}	$PM_{2.5}$	CO_2	Model Used
10.6	89.8	938.7	199.1	9,122.2	URBEMIS Construction Module

Roadway Connections into El Dorado County

ROG	NO_X	PM_{10}	$PM_{2.5}$	CO_2	Model Used
5.8	46.1	16.0	4.9	4,916.0	Road Construction Emissions Model

Force Main Connection to Existing Pump Station

ROG	NO_X	PM_{10}	$PM_{2.5}$	CO_2	Model Used
9.8	75.8	27.4	8.0	9,004.2	Road Construction Emissions Model

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Urbemis 2007 Version 9.2.4

Detail Report for Summer Construction Unmitigated Emissions (Pounds/Day)

File Name: C:\Documents and Settings\kerra\Application Data\Urbemis\Version9a\Projects\Folsom South of 50 Specific Plan\Detention Basin.urb924

Project Name: Folsom South of 50 Off-Site Improvements

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES (Summer Pounds Per Day, Unmitigated)

	ROG	NOx	PM10 Dust	PM10 Exhaust	PM10 Total	PM2.5 Dust	PM2.5 Exhaust	PM2.5 Total	CO2
Time Slice 1/3/2011-1/31/2011 Active Days: 21	**4.22**	**33.59**	**68.81**	**1.78**	**70.59**	**14.37**	**1.64**	**16.01**	**3,509.08**
Fine Grading 01/01/2011-01/31/2011	4.22	33.59	68.81	1.78	70.59	14.37	1.64	16.01	3,509.08
Fine Grading Dust	0.00	0.00	68.80	0.00	68.80	14.37	0.00	14.37	0.00
Fine Grading Off Road Diesel	4.18	33.53	0.00	1.78	1.78	0.00	1.64	1.64	3,341.50
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.04	0.06	0.01	0.00	0.01	0.00	0.00	0.01	167.59

Phase Assumptions

Phase: Fine Grading 1/1/2011 - 1/31/2011 - Default Fine Site Grading Description

Total Acres Disturbed: 3.44

Maximum Daily Acreage Disturbed: 3.44

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

2 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 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

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

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Urbemis 2007 Version 9.2.4

Detail Report for Winter Construction Unmitigated Emissions (Pounds/Day)

File Name: C:\Documents and Settings\kerra\Application Data\Urbemis\Version9a\Projects\Folsom South of 50 Specific Plan\Detention Basin.urb924

Project Name: Folsom South of 50 Off-Site Improvements

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES (Winter Pounds Per Day, Unmitigated)

	ROG	NOx	PM10 Dust	PM10 Exhaust	PM10 Total	PM2.5 Dust	PM2.5 Exhaust	PM2.5 Total	CO2
Time Slice 1/3/2011-1/31/2011 Active Days: 21	**4.22**	**33.59**	**68.81**	**1.78**	**70.59**	**14.37**	**1.64**	**16.01**	**3,509.08**
Fine Grading 01/01/2011-01/31/2011	4.22	33.59	68.81	1.78	70.59	14.37	1.64	16.01	3,509.08
Fine Grading Dust	0.00	0.00	68.80	0.00	68.80	14.37	0.00	14.37	0.00
Fine Grading Off Road Diesel	4.18	33.53	0.00	1.78	1.78	0.00	1.64	1.64	3,341.50
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.04	0.06	0.01	0.00	0.01	0.00	0.00	0.01	167.59

Phase Assumptions

Phase: Fine Grading 1/1/2011 - 1/31/2011 - Default Fine Site Grading Description

Total Acres Disturbed: 3.44

Maximum Daily Acreage Disturbed: 3.44

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

2 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 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

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

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Urbemis 2007 Version 9.2.4

Detail Report for Summer Construction Unmitigated Emissions (Pounds/Day)

File Name: C:\Documents and Settings\kerra\Application Data\Urbemis\Version9a\Projects\Folsom South of 50 Specific Plan\Prairie City Road Interchange.urb924

Project Name: Folsom South of 50 Off-Site Improvements

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES (Summer Pounds Per Day, Unmitigated)

	ROG	NOx	PM10 Dust	PM10 Exhaust	PM10 Total	PM2.5 Dust	PM2.5 Exhaust	PM2.5 Total	CO2
Time Slice 1/3/2011-1/31/2011 Active Days: 21	**5.29**	**40.91**	**385.61**	**2.37**	**387.98**	**80.53**	**2.18**	**82.71**	**4,159.41**
Fine Grading 01/01/2011-01/31/2011	5.29	40.91	385.61	2.37	387.98	80.53	2.18	82.71	4,159.41
Fine Grading Dust	0.00	0.00	385.60	0.00	385.60	80.53	0.00	80.53	0.00
Fine Grading Off Road Diesel	5.24	40.84	0.00	2.37	2.37	0.00	2.18	2.18	3,963.89
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.05	0.07	0.01	0.00	0.01	0.00	0.00	0.01	195.52

Phase Assumptions

Phase: Fine Grading 1/1/2011 - 1/31/2011 - Default Fine Site Grading Description

Total Acres Disturbed: 19.28

Maximum Daily Acreage Disturbed: 19.28

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

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 Rubber Tired Dozers (357 hp) operating at a 0.59 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

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Urbemis 2007 Version 9.2.4

Detail Report for Winter Construction Unmitigated Emissions (Pounds/Day)

File Name: C:\Documents and Settings\kerra\Application Data\Urbemis\Version9a\Projects\Folsom South of 50 Specific Plan\Prairie City Road Interchange.urb924

Project Name: Folsom South of 50 Off-Site Improvements

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES (Winter Pounds Per Day, Unmitigated)

	ROG	NOx	PM10 Dust	PM10 Exhaust	PM10 Total	PM2.5 Dust	PM2.5 Exhaust	PM2.5 Total	CO2
Time Slice 1/3/2011-1/31/2011 Active Days: 21	**5.29**	**40.91**	**385.61**	**2.37**	**387.98**	**80.53**	**2.18**	**82.71**	**4,159.41**
Fine Grading 01/01/2011-01/31/2011	5.29	40.91	385.61	2.37	387.98	80.53	2.18	82.71	4,159.41
Fine Grading Dust	0.00	0.00	385.60	0.00	385.60	80.53	0.00	80.53	0.00
Fine Grading Off Road Diesel	5.24	40.84	0.00	2.37	2.37	0.00	2.18	2.18	3,963.89
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.05	0.07	0.01	0.00	0.01	0.00	0.00	0.01	195.52

Phase Assumptions

Phase: Fine Grading 1/1/2011 - 1/31/2011 - Default Fine Site Grading Description

Total Acres Disturbed: 19.28

Maximum Daily Acreage Disturbed: 19.28

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

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 Rubber Tired Dozers (357 hp) operating at a 0.59 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

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Urbemis 2007 Version 9.2.4

Detail Report for Summer Construction Unmitigated Emissions (Pounds/Day)

File Name: C:\Documents and Settings\kerra\Application Data\Urbemis\Version9a\Projects\Folsom South of 50 Specific Plan\Oak Ave Interchange.urb924

Project Name: Folsom South of 50 Off-Site Improvements

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES (Summer Pounds Per Day, Unmitigated)

	ROG	NOx	PM10 Dust	PM10 Exhaust	PM10 Total	PM2.5 Dust	PM2.5 Exhaust	PM2.5 Total	CO2
Time Slice 1/3/2011-1/31/2011 Active Days: 21	**10.55**	**89.79**	**934.41**	**4.28**	**938.69**	**195.14**	**3.94**	**199.08**	**9,122.18**
Fine Grading 01/01/2011-01/31/2011	10.55	89.79	934.41	4.28	938.69	195.14	3.94	199.08	9,122.18
Fine Grading Dust	0.00	0.00	934.40	0.00	934.40	195.14	0.00	195.14	0.00
Fine Grading Off Road Diesel	10.48	89.68	0.00	4.27	4.27	0.00	3.93	3.93	8,842.87
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.07	0.11	0.01	0.01	0.02	0.00	0.00	0.01	279.31

Phase Assumptions

Phase: Fine Grading 1/1/2011 - 1/31/2011 - Default Fine Site Grading Description

Total Acres Disturbed: 46.72

Maximum Daily Acreage Disturbed: 46.72

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

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

3 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

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

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Urbemis 2007 Version 9.2.4

Detail Report for Winter Construction Unmitigated Emissions (Pounds/Day)

File Name: C:\Documents and Settings\kerra\Application Data\Urbemis\Version9a\Projects\Folsom South of 50 Specific Plan\Oak Ave Interchange.urb924

Project Name: Folsom South of 50 Off-Site Improvements

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES (Winter Pounds Per Day, Unmitigated)

	ROG	NOx	PM10 Dust	PM10 Exhaust	PM10 Total	PM2.5 Dust	PM2.5 Exhaust	PM2.5 Total	CO2
Time Slice 1/3/2011-1/31/2011 Active Days: 21	**10.55**	**89.79**	**934.41**	**4.28**	**938.69**	**195.14**	**3.94**	**199.08**	**9,122.18**
Fine Grading 01/01/2011-01/31/2011	10.55	89.79	934.41	4.28	938.69	195.14	3.94	199.08	9,122.18
Fine Grading Dust	0.00	0.00	934.40	0.00	934.40	195.14	0.00	195.14	0.00
Fine Grading Off Road Diesel	10.48	89.68	0.00	4.27	4.27	0.00	3.93	3.93	8,842.87
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.07	0.11	0.01	0.01	0.02	0.00	0.00	0.01	279.31

Phase Assumptions

Phase: Fine Grading 1/1/2011 - 1/31/2011 - Default Fine Site Grading Description

Total Acres Disturbed: 46.72

Maximum Daily Acreage Disturbed: 46.72

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

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

3 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

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

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Urbemis 2007 Version 9.2.4

Detail Report for Summer Construction Unmitigated Emissions (Pounds/Day)

File Name: C:\Documents and Settings\kerra\Application Data\Urbemis\Version9a\Projects\Folsom South of 50 Specific Plan\Rowberry Drive Interchange.urb924

Project Name: Folsom South of 50 Off-Site Improvements

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES (Summer Pounds Per Day, Unmitigated)

	ROG	NOx	PM10 Dust	PM10 Exhaust	PM10 Total	PM2.5 Dust	PM2.5 Exhaust	PM2.5 Total	CO2
Time Slice 1/3/2011-1/31/2011 Active Days: 21	**5.29**	**40.91**	**374.61**	**2.37**	**376.98**	**78.23**	**2.18**	**80.42**	**4,159.41**
Fine Grading 01/01/2011-01/31/2011	5.29	40.91	374.61	2.37	376.98	78.23	2.18	80.42	4,159.41
Fine Grading Dust	0.00	0.00	374.60	0.00	374.60	78.23	0.00	78.23	0.00
Fine Grading Off Road Diesel	5.24	40.84	0.00	2.37	2.37	0.00	2.18	2.18	3,963.89
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.05	0.07	0.01	0.00	0.01	0.00	0.00	0.01	195.52

Phase Assumptions

Phase: Fine Grading 1/1/2011 - 1/31/2011 - Default Fine Site Grading Description

Total Acres Disturbed: 18.73

Maximum Daily Acreage Disturbed: 18.73

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

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 Rubber Tired Dozers (357 hp) operating at a 0.59 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

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Urbemis 2007 Version 9.2.4

Detail Report for Winter Construction Unmitigated Emissions (Pounds/Day)

File Name: C:\Documents and Settings\kerra\Application Data\Urbemis\Version9a\Projects\Folsom South of 50 Specific Plan\Rowberry Drive Interchange.urb924

Project Name: Folsom South of 50 Off-Site Improvements

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES (Winter Pounds Per Day, Unmitigated)

	ROG	NOx	PM10 Dust	PM10 Exhaust	PM10 Total	PM2.5 Dust	PM2.5 Exhaust	PM2.5 Total	CO2
Time Slice 1/3/2011-1/31/2011 Active Days: 21	**5.29**	**40.91**	**374.61**	**2.37**	**376.98**	**78.23**	**2.18**	**80.42**	**4,159.41**
Fine Grading 01/01/2011-01/31/2011	5.29	40.91	374.61	2.37	376.98	78.23	2.18	80.42	4,159.41
Fine Grading Dust	0.00	0.00	374.60	0.00	374.60	78.23	0.00	78.23	0.00
Fine Grading Off Road Diesel	5.24	40.84	0.00	2.37	2.37	0.00	2.18	2.18	3,963.89
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.05	0.07	0.01	0.00	0.01	0.00	0.00	0.01	195.52

Phase Assumptions

Phase: Fine Grading 1/1/2011 - 1/31/2011 - Default Fine Site Grading Description

Total Acres Disturbed: 18.73

Maximum Daily Acreage Disturbed: 18.73

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

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 Rubber Tired Dozers (357 hp) operating at a 0.59 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

Road Construction Emissions Model

Version 6.3.2

Data Entry Worksheet

Note: Required data input sections have a yellow background.
Optional data input sections have a blue background. Only areas with a
yellow or blue background can be modified. Program defaults have a white background.
The user is required to enter information in cells C10 through C25.

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

Input Type

Project Name	Force Main Connection	
Construction Start Year	2011	Enter a Year between 2005 and 2025 (inclusive)
Project Type	1	1 New Road Construction 2 Road Widening 3 Bridge/Overpass Construction
Project Construction Time	1.0	month
Predominant Soil/Site Type: Enter 1, 2, or 3	1	1. Sand Gravel 2. Weathered Rock-Earth 3. Blasted Rock
Project Length	0.4	miles
Total Project Area	2.4	acres
Maximum Area Disturbed/Day	2.4	acres
Water Trucks Used?	1	1. Yes No
Soil Imported	424.0	yd^3/day
Soil Exported	424.0	yd^3/day
Average Truck Capacity	20.0	yd^3 (assume 20 if unknown)

2.

To begin a new project, click this button to clear data previously entered. This button will only work if you opted not to disable macros when loading this spreadsheet.

Road Construction Emissions Model, Version 6.3.2

Emission Estimates for -> Force Main Connection Project Phases (English Units)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	CO2 (lbs/day)
Grubbing/Land Clearing	4.1	18.6	34.6	25.6	1.5	24.1	6.4	1.4	5.0	3,269.4
Grading/Excavation	9.8	77.1	75.8	27.4	3.3	24.1	8.0	3.0	5.0	9,004.2
Drainage/Utilities/Sub-Grade	4.2	17.0	31.7	25.8	1.7	24.1	6.6	1.5	5.0	3,040.1
Paving	2.7	9.4	14.3	1.3	1.3	-	1.2	1.2	-	1,260.8
Maximum (pounds/day)	9.8	77.1	75.8	27.4	3.3	24.1	8.0	3.0	5.0	9,004.2
Total (tons/construction project)	0.1	0.4	0.5	0.3	0.0	0.2	0.1	0.0	0.0	57.5

Notes:

Project Start Year ->	2011
Project Length (months) ->	1
Total Project Area (acres) ->	2
Maximum Area Disturbed/Day (acres) ->	2
Total Soil Imported/Exported (yd^3/day)->	848

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I. Total PM2.5 emissions shown in Column J are the sum of exhaust and fugitive dust emissions shown in columns K and L.

Emission Estimates for -> Force Main Connection Project Phases (Metric Units)	ROG (kgs/day)	CO (kgs/day)	NOx (kgs/day)	Total PM10 (kgs/day)	Exhaust PM10 (kgs/day)	Fugitive Dust PM10 (kgs/day)	Total PM2.5 (kgs/day)	Exhaust PM2.5 (kgs/day)	Fugitive Dust PM2.5 (kgs/day)	CO2 (kgs/day)
Grubbing/Land Clearing	1.9	8.4	15.7	11.6	0.7	11.0	2.9	0.6	2.3	1,486.1
Grading/Excavation	4.4	35.0	34.5	12.5	1.5	11.0	3.6	1.4	2.3	4,092.8
Drainage/Utilities/Sub-Grade	1.9	7.7	14.4	11.7	0.8	11.0	3.0	0.7	2.3	1,381.9
Paving	1.2	4.3	6.5	0.6	0.6	-	0.5	0.5	-	573.1
Maximum (kilograms/day)	4.4	35.0	34.5	12.5	1.5	11.0	3.6	1.4	2.3	4,092.8
Total (megagrams/construction project)	0.1	0.4	0.5	0.2	0.0	0.2	0.1	0.0	0.0	52.2

Notes:

Project Start Year ->	2011
Project Length (months) ->	1
Total Project Area (hectares) ->	1
Maximum Area Disturbed/Day (hectares) ->	1
Total Soil Imported/Exported (meters ^{3}/day)->	648

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I. Total PM2.5 emissions shown in Column J are the sume of exhaust and fugitive dust emissions shown in columns K and L.

Road Construction Emissions Model

Version 6.3.2

Data Entry Worksheet

Note: Required data input sections have a yellow background.
Optional data input sections have a blue background. Only areas with a
yellow or blue background can be modified. Program defaults have a white background.
The user is required to enter information in cells C10 through C25.

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

Input Type		
Project Name	EDC Roadway Connection	
Construction Start Year	2011	Enter a Year between 2005 and 2025 (inclusive)
Project Type	1	1 New Road Construction 2 Road Widening 3 Bridge/Overpass Construction
Project Construction Time	1.0	month
Predominant Soil/Site Type: Enter 1, 2, or 3	1	1. Sand Gravel 2. Weathered Rock-Earth 3. Blasted Rock
Project Length	0.28	miles
Total Project Area	1.4	acres
Maximum Area Disturbed/Day	1.4	acres
Water Trucks Used?	1	1. Yes No
Soil Imported	100.0	yd^3/day
Soil Exported	100.0	yd^3/day
Average Truck Capacity	20.0	yd^3 (assume 20 if unknown)

2.

To begin a new project, click this button to clear data previously entered. This button will only work if you opted not to disable macros when loading this spreadsheet.

Road Construction Emissions Model, Version 6.3.2

Emission Estimates for -> EDC Roadway Connection Project Phases (English Units)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	CO2 (lbs/day)
Grubbing/Land Clearing	4.0	18.1	34.3	15.3	1.5	13.8	4.2	1.3	2.9	3,228.1
Grading/Excavation	5.8	33.4	46.1	16.0	2.2	13.8	4.9	2.0	2.9	4,916.0
Drainage/Utilities/Sub-Grade	4.0	16.6	31.4	15.5	1.7	13.8	4.4	1.5	2.9	2,998.8
Paving	2.6	9.0	14.0	1.2	1.2	-	1.1	1.1	-	1,219.5
Maximum (pounds/day)	5.8	33.4	46.1	16.0	2.2	13.8	4.9	2.0	2.9	4,916.0
Total (tons/construction project)	0.0	0.2	0.4	0.1	0.0	0.1	0.0	0.0	0.0	39.3

Notes:

Project Start Year ->	2011
Project Length (months) ->	1
Total Project Area (acres) ->	1
Maximum Area Disturbed/Day (acres) ->	1
Total Soil Imported/Exported (yd^3/day)->	200

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I. Total PM2.5 emissions shown in Column J are the sum of exhaust and fugitive dust emissions shown in columns K and L.

Emission Estimates for -> EDC Roadway Connection Project Phases (Metric Units)	ROG (kgs/day)	CO (kgs/day)	NOx (kgs/day)	Total PM10 (kgs/day)	Exhaust PM10 (kgs/day)	Fugitive Dust PM10 (kgs/day)	Total PM2.5 (kgs/day)	Exhaust PM2.5 (kgs/day)	Fugitive Dust PM2.5 (kgs/day)	CO2 (kgs/day)
Grubbing/Land Clearing	1.8	8.2	15.6	6.9	0.7	6.3	1.9	0.6	1.3	1,467.3
Grading/Excavation	2.6	15.2	21.0	7.3	1.0	6.3	2.2	0.9	1.3	2,234.6
Drainage/Utilities/Sub-Grade	1.8	7.5	14.3	7.0	0.8	6.3	2.0	0.7	1.3	1,363.1
Paving	1.2	4.1	6.4	0.6	0.6	-	0.5	0.5	-	554.3
Maximum (kilograms/day)	2.6	15.2	21.0	7.3	1.0	6.3	2.2	0.9	1.3	2,234.6
Total (megagrams/construction project)	0.0	0.2	0.4	0.1	0.0	0.1	0.0	0.0	0.0	35.6

Notes:

Project Start Year ->	2011
Project Length (months) ->	1
Total Project Area (hectares) ->	1
Maximum Area Disturbed/Day (hectares) ->	1
Total Soil Imported/Exported (meters ^{3}/day)->	153

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I. Total PM2.5 emissions shown in Column J are the sume of exhaust and fugitive dust emissions shown in columns K and L.

Folsom South of 50
Operational Emissions (Area and Mobile Sources)

SUMMERTIME

Alternative	Emissions Source	Pollutant Emissions (lbs/day)					
		ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Proposed Project	Area	650	179	318	0	1	1
	Mobile	522	224	3,736	7	1,058	205
	Total	1,172	404	4,054	7	1,059	206
No Federal Action	Area	424	127	243	0	1	1
	Mobile	418	183	3,037	6	882	171
	Total	843	310	3,281	6	883	172
Resource Impact Minimization	Area	516	143	279	0	1	1
	Mobile	407	174	2,901	6	821	159
	Total	923	317	3,180	6	822	160
Centralized Development	Area	565	158	247	0	1	1
	Mobile	497	216	3,594	7	1,040	201
	Total	1,062	374	3,841	7	1,040	202
Reduced Hillside Development	Area	690	180	230	0	1	1
	Mobile	517	224	3,726	7	1,069	207
	Total	1,207	405	3,956	7	1,070	208

WINTERTIME

Alternative	Emissions Source	Pollutant Emissions (lbs/day)					
		ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Proposed Project	Area	1,539	386	8,520	28	1,375	1,324
	Mobile	379	323	3,470	6	1,058	205
	Total	1,918	709	11,990	33	2,433	1,529
No Federal Action	Area	974	257	5,330	17	859	826
	Mobile	307	264	2,803	5	882	171
	Total	1,281	521	8,134	22	1,741	997
Resource Impact Minimization	Area	1,205	305	6,648	22	1,073	1,033
	Mobile	296	250	2,695	4	821	159
	Total	1,500	556	9,342	26	1,894	1,192
Centralized Development	Area	1,358	340	7,533	24	1,215	1,170
	Mobile	364	312	3,321	6	1,040	201
	Total	1,722	652	10,854	30	2,255	1,371
Reduced Hillside Development	Area	1,718	411	9,628	31	1,556	1,497
	Mobile	377	323	3,451	6	1,069	207
	Total	2,095	734	13,079	37	2,625	1,705

MAXIMUM DAILY

Alternative	Emissions Source	Pollutant Emissions (lbs/day)					
		ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Proposed Project	Area	1,539	386	8,520	28	1,375	1,324
	Mobile	522	323	3,736	7	1,058	205
	Total	2,061	709	12,256	35	2,433	1,529
No Federal Action	Area	974	257	5,330	17	859	826
	Mobile	418	264	3,037	6	882	171
	Total	1,393	521	8,368	23	1,741	997
Resource Impact Minimization	Area	1,205	305	6,648	22	1,073	1,033
	Mobile	407	250	2,901	6	821	159
	Total	1,612	556	9,548	27	1,894	1,192
Centralized Development	Area	1,358	340	7,533	24	1,215	1,170
	Mobile	497	312	3,594	7	1,040	201
	Total	1,855	652	11,127	31	2,255	1,371
Reduced Hillside Development	Area	1,718	411	9,628	31	1,556	1,497
	Mobile	517	323	3,726	7	1,069	207
	Total	2,235	734	13,354	38	2,625	1,705

Note: 1/29/10 updated for revised RHD alternative

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS\Mobile\Proposed Project Mobile.urb924

Project Name: Folsom South of 50 Proposed Project Mobile-Source Emissions

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	378.56	322.60	3,469.96	5.75	1,057.87	205.28	581,640.62

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	378.56	322.60	3,469.96	5.75	1,057.87	205.28	581,640.62

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Proposed Project	378.56	322.60	3,469.96	5.75	1,057.87	205.28	581,640.62
TOTALS (lbs/day, unmitigated)	378.56	322.60	3,469.96	5.75	1,057.87	205.28	581,640.62

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Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2030 Temperature (F): 50 Season: Winter

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
Proposed Project		10.00	1000 sq ft	24,700.00	247,000.00	612,930.51
					247,000.00	612,930.51

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	47.5	0.0	100.0	0.0
Light Truck < 3750 lbs	10.0	0.0	99.0	1.0
Light Truck 3751-5750 lbs	22.9	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.1	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.1	0.0	81.0	19.0
Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	55.6	44.4
Med-Heavy Truck 14,001-33,000 lbs	1.6	0.0	18.8	81.2
Heavy-Heavy Truck 33,001-60,000 lbs	0.4	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	3.5	34.3	65.7	0.0
School Bus	0.1	0.0	0.0	100.0

Motor Home	0.8	0.0	87.5	12.5	

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	2.4	2.4	2.4	2.7	1.5	1.6
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
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)						
Proposed Project				81.0	9.5	9.5

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS\Mobile\Proposed Project Mobile.urb924

Project Name: Folsom South of 50 Proposed Project Mobile-Source Emissions

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	521.79	224.42	3,735.76	7.10	1,057.87	205.28	715,178.38

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	521.79	224.42	3,735.76	7.10	1,057.87	205.28	715,178.38

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Proposed Project	521.79	224.42	3,735.76	7.10	1,057.87	205.28	715,178.38
TOTALS (lbs/day, unmitigated)	521.79	224.42	3,735.76	7.10	1,057.87	205.28	715,178.38

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Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2030 Temperature (F): 95 Season: Summer

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
Proposed Project		10.00	1000 sq ft	24,700.00	247,000.00	612,930.51
					247,000.00	612,930.51

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	47.5	0.0	100.0	0.0
Light Truck < 3750 lbs	10.0	0.0	99.0	1.0
Light Truck 3751-5750 lbs	22.9	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.1	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.1	0.0	81.0	19.0
Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	55.6	44.4
Med-Heavy Truck 14,001-33,000 lbs	1.6	0.0	18.8	81.2
Heavy-Heavy Truck 33,001-60,000 lbs	0.4	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	3.5	34.3	65.7	0.0
School Bus	0.1	0.0	0.0	100.0

Motor Home	0.8	0.0	87.5	12.5	

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	2.4	2.4	2.4	2.7	1.5	1.6
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
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)						
Proposed Project				81.0	9.5	9.5

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS\Mobile\Resource Impact Minimization Mobile.urb924

Project Name: Folsom South of 50 Resources Impact Minimization Mobile-Source Emissions

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	295.79	250.45	2,694.77	4.46	820.83	159.29	451,397.07

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	295.79	250.45	2,694.77	4.46	820.83	159.29	451,397.07

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Resource Impact Minimization	295.79	250.45	2,694.77	4.46	820.83	159.29	451,397.07
TOTALS (lbs/day, unmitigated)	295.79	250.45	2,694.77	4.46	820.83	159.29	451,397.07

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Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2030 Temperature (F): 50 Season: Winter

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
Resource Impact Minimization		10.00	1000 sq ft	19,200.00	192,000.00	475,583.99
					192,000.00	475,583.99

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	47.5	0.0	100.0	0.0
Light Truck < 3750 lbs	10.0	0.0	99.0	1.0
Light Truck 3751-5750 lbs	22.9	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.1	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.1	0.0	81.0	19.0
Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	55.6	44.4
Med-Heavy Truck 14,001-33,000 lbs	1.6	0.0	18.8	81.2
Heavy-Heavy Truck 33,001-60,000 lbs	0.4	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	3.5	34.3	65.7	0.0
School Bus	0.1	0.0	0.0	100.0

Motor Home	0.8	0.0	87.5	12.5

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	2.8	1.2	1.0
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
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)						
Resource Impact Minimization				81.0	9.5	9.5

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS\Mobile\Resource Impact Minimization Mobile.urb924

Project Name: Folsom South of 50 Resources Impact Minimization Mobile-Source Emissions

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	407.36	174.25	2,900.65	5.51	820.83	159.29	555,011.47

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	407.36	174.25	2,900.65	5.51	820.83	159.29	555,011.47

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Resource Impact Minimization	407.36	174.25	2,900.65	5.51	820.83	159.29	555,011.47
TOTALS (lbs/day, unmitigated)	407.36	174.25	2,900.65	5.51	820.83	159.29	555,011.47

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Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2030 Temperature (F): 95 Season: Summer

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
Resource Impact Minimization		10.00	1000 sq ft	19,200.00	192,000.00	475,583.99
					192,000.00	475,583.99

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	47.5	0.0	100.0	0.0
Light Truck < 3750 lbs	10.0	0.0	99.0	1.0
Light Truck 3751-5750 lbs	22.9	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.1	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.1	0.0	81.0	19.0
Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	55.6	44.4
Med-Heavy Truck 14,001-33,000 lbs	1.6	0.0	18.8	81.2
Heavy-Heavy Truck 33,001-60,000 lbs	0.4	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	3.5	34.3	65.7	0.0
School Bus	0.1	0.0	0.0	100.0

Motor Home	0.8	0.0	87.5	12.5	

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	2.8	1.2	1.0
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
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)						
Resource Impact Minimization				81.0	9.5	9.5

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS\Mobile\Centralized Development Mobile.urb924

Project Name: Folsom South of 50 Centralized Development Mobile-Source Emissions

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	363.67	311.88	3,320.68	5.62	1,039.62	201.44	568,176.39

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	363.67	311.88	3,320.68	5.62	1,039.62	201.44	568,176.39

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Centralize Development	363.67	311.88	3,320.68	5.62	1,039.62	201.44	568,176.39
TOTALS (lbs/day, unmitigated)	363.67	311.88	3,320.68	5.62	1,039.62	201.44	568,176.39

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Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2030 Temperature (F): 50 Season: Winter

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
Centralize Development		10.00	1000 sq ft	23,000.00	230,000.00	602,599.99
					230,000.00	602,599.99

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	47.5	0.0	100.0	0.0
Light Truck < 3750 lbs	10.0	0.0	99.0	1.0
Light Truck 3751-5750 lbs	22.9	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.1	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.1	0.0	81.0	19.0
Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	55.6	44.4
Med-Heavy Truck 14,001-33,000 lbs	1.6	0.0	18.8	81.2
Heavy-Heavy Truck 33,001-60,000 lbs	0.4	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	3.5	34.3	65.7	0.0
School Bus	0.1	0.0	0.0	100.0

Motor Home	0.8	0.0	87.5	12.5	

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	2.8	1.9	1.9
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
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)						
Centralize Development				80.0	10.0	10.0

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS\Mobile\Centralized Development Mobile.urb924

Project Name: Folsom South of 50 Centralized Development Mobile-Source Emissions

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	496.77	216.25	3,593.56	6.95	1,039.62	201.44	699,463.47

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	496.77	216.25	3,593.56	6.95	1,039.62	201.44	699,463.47

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Centralize Development	496.77	216.25	3,593.56	6.95	1,039.62	201.44	699,463.47
TOTALS (lbs/day, unmitigated)	496.77	216.25	3,593.56	6.95	1,039.62	201.44	699,463.47

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Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2030 Temperature (F): 95 Season: Summer

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
Centralize Development		10.00	1000 sq ft	23,000.00	230,000.00	602,599.99
					230,000.00	602,599.99

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	47.5	0.0	100.0	0.0
Light Truck < 3750 lbs	10.0	0.0	99.0	1.0
Light Truck 3751-5750 lbs	22.9	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.1	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.1	0.0	81.0	19.0
Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	55.6	44.4
Med-Heavy Truck 14,001-33,000 lbs	1.6	0.0	18.8	81.2
Heavy-Heavy Truck 33,001-60,000 lbs	0.4	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	3.5	34.3	65.7	0.0
School Bus	0.1	0.0	0.0	100.0

Motor Home	0.8	0.0	87.5	12.5	

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	2.8	1.9	1.9
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
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)						
Centralize Development				80.0	10.0	10.0

Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS\Mobile\No Federal Action Mobile.urb924

Project Name: Folsom South of 50 No Federal Action Mobile-Source Emissions

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	306.65	263.81	2,803.45	4.76	882.30	170.91	481,655.51

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	306.65	263.81	2,803.45	4.76	882.30	170.91	481,655.51

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
No Federal Action	306.65	263.81	2,803.45	4.76	882.30	170.91	481,655.51
TOTALS (lbs/day, unmitigated)	306.65	263.81	2,803.45	4.76	882.30	170.91	481,655.51

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Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2030 Temperature (F): 50 Season: Winter

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
No Federal Action		10.00	1000 sq ft	19,300.00	193,000.00	511,450.02
					193,000.00	511,450.02

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	47.5	0.0	100.0	0.0
Light Truck < 3750 lbs	10.0	0.0	99.0	1.0
Light Truck 3751-5750 lbs	22.9	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.1	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.1	0.0	81.0	19.0
Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	55.6	44.4
Med-Heavy Truck 14,001-33,000 lbs	1.6	0.0	18.8	81.2
Heavy-Heavy Truck 33,001-60,000 lbs	0.4	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	3.5	34.3	65.7	0.0
School Bus	0.1	0.0	0.0	100.0

Motor Home	0.8	0.0	87.5	12.5	

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	2.9	1.6	1.7
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
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)						
No Federal Action				80.0	10.0	10.0

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS\Mobile\No Federal Action Mobile.urb924

Project Name: Folsom South of 50 No Federal Action Mobile-Source Emissions

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	418.31	182.80	3,037.33	5.89	882.30	170.91	593,083.95

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	418.31	182.80	3,037.33	5.89	882.30	170.91	593,083.95

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
No Federal Action	418.31	182.80	3,037.33	5.89	882.30	170.91	593,083.95
TOTALS (lbs/day, unmitigated)	418.31	182.80	3,037.33	5.89	882.30	170.91	593,083.95

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Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2030 Temperature (F): 95 Season: Summer

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
No Federal Action		10.00	1000 sq ft	19,300.00	193,000.00	511,450.02
					193,000.00	511,450.02

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	47.5	0.0	100.0	0.0
Light Truck < 3750 lbs	10.0	0.0	99.0	1.0
Light Truck 3751-5750 lbs	22.9	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.1	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.1	0.0	81.0	19.0
Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	55.6	44.4
Med-Heavy Truck 14,001-33,000 lbs	1.6	0.0	18.8	81.2
Heavy-Heavy Truck 33,001-60,000 lbs	0.4	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	3.5	34.3	65.7	0.0
School Bus	0.1	0.0	0.0	100.0

Motor Home	0.8	0.0	87.5	12.5	

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	2.9	1.6	1.7
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
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)						
No Federal Action				80.0	10.0	10.0

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS and GHG\JANUARY 2010 REVISION DOCs\Reduced Hillside Development Mobile (Jan 2010) urb024

Project Name: Folsom South of 50 Reduced Hillside Development Mobile-Source Emissions

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	377.22	322.88	3,451.37	5.79	1,068.98	207.25	585,578.96

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	377.22	322.88	3,451.37	5.79	1,068.98	207.25	585,578.96

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Reduced Hillside Development	377.22	322.88	3,451.37	5.79	1,068.98	207.25	585,578.96
TOTALS (lbs/day, unmitigated)	377.22	322.88	3,451.37	5.79	1,068.98	207.25	585,578.96

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Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2030 Temperature (F): 50 Season: Winter

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
Reduced Hillside Development		10.00	1000 sq ft	24,200.00	242,000.00	619,519.99
					242,000.00	619,519.99

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	47.5	0.0	100.0	0.0
Light Truck < 3750 lbs	10.0	0.0	99.0	1.0
Light Truck 3751-5750 lbs	22.9	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.1	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.1	0.0	81.0	19.0
Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	55.6	44.4
Med-Heavy Truck 14,001-33,000 lbs	1.6	0.0	18.8	81.2
Heavy-Heavy Truck 33,001-60,000 lbs	0.4	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	3.5	34.3	65.7	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.8	0.0	87.5	12.5

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Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	2.8	1.6	1.6
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
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)						
Reduced Hillside Development				80.0	10.0	10.0

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS and GHG\JANUARY 2010 REVISION DOCs\Reduced Hillside Development Mobile (Jan 2010) urb024

Project Name: Folsom South of 50 Reduced Hillside Development Mobile-Source Emissions

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	517.39	224.19	3,726.23	7.15	1,068.98	207.25	720,552.36

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	517.39	224.19	3,726.23	7.15	1,068.98	207.25	720,552.36

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Reduced Hillside Development	517.39	224.19	3,726.23	7.15	1,068.98	207.25	720,552.36
TOTALS (lbs/day, unmitigated)	517.39	224.19	3,726.23	7.15	1,068.98	207.25	720,552.36

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Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2030 Temperature (F): 95 Season: Summer

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
Reduced Hillside Development		10.00	1000 sq ft	24,200.00	242,000.00	619,519.99
					242,000.00	619,519.99

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	47.5	0.0	100.0	0.0
Light Truck < 3750 lbs	10.0	0.0	99.0	1.0
Light Truck 3751-5750 lbs	22.9	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.1	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.1	0.0	81.0	19.0
Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	55.6	44.4
Med-Heavy Truck 14,001-33,000 lbs	1.6	0.0	18.8	81.2
Heavy-Heavy Truck 33,001-60,000 lbs	0.4	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	3.5	34.3	65.7	0.0
School Bus	0.1	0.0	0.0	100.0

Motor Home	0.8	0.0	87.5	12.5	

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	2.8	1.6	1.6
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
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)						
Reduced Hillside Development				80.0	10.0	10.0

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS\Area Source\Proposed Project Area.urb924

Project Name: Folsom South of 50 Proposed Project Area-Source Emissions

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	1,539.46	386.43	8,520.11	27.71	1,375.08	1,323.62	512,517.77

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	1,539.46	386.43	8,520.11	27.71	1,375.08	1,323.62	512,517.77

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	13.43	176.90	96.07	0.00	0.33	0.33	221,984.65
Hearth	928.13	209.53	8,424.04	27.71	1,374.75	1,323.29	290,533.12
Landscaping - No Winter Emissions							
Consumer Products	460.92						
Architectural Coatings	136.98						
TOTALS (lbs/day, unmitigated)	1,539.46	386.43	8,520.11	27.71	1,375.08	1,323.62	512,517.77

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS\Area Source\Proposed Project Area.urb924

Project Name: Folsom South of 50 Proposed Project Area-Source Emissions

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	649.83	179.43	317.76	0.01	0.93	0.93	222,343.89

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	649.83	179.43	317.76	0.01	0.93	0.93	222,343.89

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	13.43	176.90	96.07	0.00	0.33	0.33	221,984.65
Hearth - No Summer Emissions							
Landscape	38.50	2.53	221.69	0.01	0.60	0.60	359.24
Consumer Products	460.92						
Architectural Coatings	136.98						
TOTALS (lbs/day, unmitigated)	649.83	179.43	317.76	0.01	0.93	0.93	222,343.89

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS\Area Source\Resource Impact Minimization Area.urb924

Project Name: Folsom South of 50 Resource Impact Minimization Area-Source Emissions

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	1,204.53	305.06	6,647.65	21.62	1,072.81	1,032.67	404,519.17

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	1,204.53	305.06	6,647.65	21.62	1,072.81	1,032.67	404,519.17

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	10.68	140.50	75.44	0.00	0.26	0.26	176,465.52
Hearth	724.12	164.56	6,572.21	21.62	1,072.55	1,032.41	228,053.65
Landscaping - No Winter Emissions							
Consumer Products	359.57						
Architectural Coatings	110.16						
TOTALS (lbs/day, unmitigated)	1,204.53	305.06	6,647.65	21.62	1,072.81	1,032.67	404,519.17

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS\Area Source\Resource Impact Minimization Area.urb924

Project Name: Folsom South of 50 Resource Impact Minimization Area-Source Emissions

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	515.65	142.83	279.10	0.01	0.81	0.81	176,795.80

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	515.65	142.83	279.10	0.01	0.81	0.81	176,795.80

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	10.68	140.50	75.44	0.00	0.26	0.26	176,465.52
Hearth - No Summer Emissions							
Landscape	35.24	2.33	203.66	0.01	0.55	0.55	330.28
Consumer Products	359.57						
Architectural Coatings	110.16						
TOTALS (lbs/day, unmitigated)	515.65	142.83	279.10	0.01	0.81	0.81	176,795.80

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS\Area Source\Centralized Development Area.urb924

Project Name: Folsom South of 50 Centralized Development Area-Source Emissions

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	1,358.34	339.76	7,533.35	24.49	1,215.49	1,170.01	450,331.67

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	1,358.34	339.76	7,533.35	24.49	1,215.49	1,170.01	450,331.67

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	11.82	156.04	86.84	0.00	0.29	0.29	195,420.06
Hearth	820.41	183.72	7,446.51	24.49	1,215.20	1,169.72	254,911.61
Landscaping - No Winter Emissions							
Consumer Products	407.47						
Architectural Coatings	118.64						
TOTALS (lbs/day, unmitigated)	1,358.34	339.76	7,533.35	24.49	1,215.49	1,170.01	450,331.67

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS\Area Source\Centralized Development Area.urb924

Project Name: Folsom South of 50 Centralized Development Area-Source Emissions

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	565.32	157.88	247.06	0.01	0.73	0.72	195,680.60

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	565.32	157.88	247.06	0.01	0.73	0.72	195,680.60

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	11.82	156.04	86.84	0.00	0.29	0.29	195,420.06
Hearth - No Summer Emissions							
Landscape	27.39	1.84	160.22	0.01	0.44	0.43	260.54
Consumer Products	407.47						
Architectural Coatings	118.64						
TOTALS (lbs/day, unmitigated)	565.32	157.88	247.06	0.01	0.73	0.72	195,680.60

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS and GHG\JANUARY 2010 REVISION DOCs\Reduced Hillside Development Area (Jan 2010).urb924

Project Name: Folsom South of 50 Reduced Hillside Development Area-Source Emissions

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	1,717.61	411.22	9,627.78	31.32	1,555.54	1,497.31	547,067.06

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	1,717.61	411.22	9,627.78	31.32	1,555.54	1,497.31	547,067.06

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	13.57	178.84	97.66	0.00	0.34	0.33	224,327.79
Hearth	1,049.94	232.38	9,530.12	31.32	1,555.20	1,496.98	322,739.27
Landscaping - No Winter Emissions							
Consumer Products	521.55						
Architectural Coatings	132.55						
TOTALS (lbs/day, unmitigated)	1,717.61	411.22	9,627.78	31.32	1,555.54	1,497.31	547,067.06

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS and GHG\JANUARY 2010 REVISION DOCs\Reduced Hillside Development Area (Jan 2010).urb924

Project Name: Folsom South of 50 Reduced Hillside Development Area-Source Emissions

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	689.94	180.36	229.53	0.01	0.70	0.69	224,542.81

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	689.94	180.36	229.53	0.01	0.70	0.69	224,542.81

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	13.57	178.84	97.66	0.00	0.34	0.33	224,327.79
Hearth - No Summer Emissions							
Landscape	22.27	1.52	131.87	0.01	0.36	0.36	215.02
Consumer Products	521.55						
Architectural Coatings	132.55						
TOTALS (lbs/day, unmitigated)	689.94	180.36	229.53	0.01	0.70	0.69	224,542.81

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS\Area Source\No Federal Action Area.urb924

Project Name: Folsom South of 50 No Federal Action Area-Source Emissions

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	974.37	257.41	5,330.49	17.31	858.57	826.44	339,758.79

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	974.37	257.41	5,330.49	17.31	858.57	826.44	339,758.79

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	9.49	125.47	70.96	0.00	0.24	0.23	156,934.81
Hearth	579.49	131.94	5,259.53	17.31	858.33	826.21	182,823.98
Landscaping - No Winter Emissions							
Consumer Products	287.75						
Architectural Coatings	97.64						
TOTALS (lbs/day, unmitigated)	974.37	257.41	5,330.49	17.31	858.57	826.44	339,758.79

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS\Area Source\No Federal Action Area.urb924

Project Name: Folsom South of 50 No Federal Action Area-Source Emissions

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	424.47	127.44	243.32	0.01	0.71	0.70	157,214.84

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	424.47	127.44	243.32	0.01	0.71	0.70	157,214.84

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	9.49	125.47	70.96	0.00	0.24	0.23	156,934.81
Hearth - No Summer Emissions							
Landscape	29.59	1.97	172.36	0.01	0.47	0.47	280.03
Consumer Products	287.75						
Architectural Coatings	97.64						
TOTALS (lbs/day, unmitigated)	424.47	127.44	243.32	0.01	0.71	0.70	157,214.84

Summary of Roadside TAC Analysis

Road Segment Characteritics	Prairie City Road between Easton Valley Parkway and White Rock Road	Oak Avenue Parkway between Easton Valley Parkway and Road "A"		Oak Avenue Parkway between Road "A" and White Rock Road		Scott Road North between Easton Valley Parkway and Road "A"		Scott Road North between Road "A" and White Rock Road		White Rock Road between Prairie City Road and Scott Road South	White Rock Road between Scott Road South and Oak Avenue Parkway	White Rock Road between Oak Avenue Parkway and Scott Road North	White Rock Road between Scott Road North and Placerville Road
Road segment orientation	north-south	north-south		north-south		north-south		north-south		east-west	east-west	east-west	east-west
Side(s) of road on which project would locate receptors	east side	west side	east side	west side	east side	west side	east side	west side	east side	north side	north side	north side	north side
Setback distance(s) to property line of receptor (feet)	27	33	31	29	27	28	28	28	28	48	48	48	48
Proposed Project Alternative													
No Additional Quarry Truck Traffic													
Existing Vehicle Fleet (Year 2010)	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS
Year 2030 Vehicle Fleet	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS
With Additional Quarry Truck Traffic													
Existing Vehicle Fleet (Year 2010)	PS	PS	PS	LTS	PS	LTS	PS	PS	PS	PS	LTS	LTS	LTS
Year 2030 Vehicle Fleet	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS
Resource Impact Minimization Alternative													
No Additional Quarry Truck Traffic													
Existing Vehicle Fleet (Year 2010)	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS
Year 2030 Vehicle Fleet	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS
With Additional Quarry Truck Traffic													
Existing Vehicle Fleet (Year 2010)	PS	PS	PS	PS	PS	LTS	PS	LTS	PS	PS	PS	PS	LTS
Year 2030 Vehicle Fleet	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS
Centralized Development Alternative													
No Additional Quarry Truck Traffic													
Existing Vehicle Fleet (Year 2010)	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS
Year 2030 Vehicle Fleet	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS
With Additional Quarry Truck Traffic													
Existing Vehicle Fleet (Year 2010)	PS	PS	PS	PS	PS	LTS	PS	LTS	PS	PS	PS	PS	LTS
Year 2030 Vehicle Fleet	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS
Reduced Hillside Development Alternative													
No Additional Quarry Truck Traffic													
Existing Vehicle Fleet (Year 2010)	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS
Year 2030 Vehicle Fleet	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS
With Additional Quarry Truck Traffic													
Existing Vehicle Fleet (Year 2010)	PS	PS	PS	PS	PS	LTS	LTS	LTS	PS	PS	PS	PS	LTS
Year 2030 Vehicle Fleet	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS
No Federal Action Alternative													
No Additional Quarry Truck Traffic													
Existing Vehicle Fleet (Year 2010)	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS
Year 2030 Vehicle Fleet	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS
With Additional Quarry Truck Traffic													
Existing Vehicle Fleet (Year 2010)	PS	PS	PS	PS	PS	LTS	PS	LTS	PS	PS	PS	PS	LTS
Year 2030 Vehicle Fleet	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS	LTS

Summary of Analysis Results Regarding the Need to Perform an HRA

Road Segment Characteritics	Prairie City Road between Easton Valley Parkway and White Rock Road	Oak Avenue Parkway between Easton Valley Parkway and Road "A"		Oak Avenue Parkway between Road "A" and White Rock Road		Scott Road (north) between Easton Valley Parkway and Road "A"	
Road segment orientation	north-south	north-south		north-south		north-south	
Side(s) of road on which project would locate receptors	east side	west side	east side	west side	east side	west side	east side
Setback distance(s) to property line of receptor (feet)	27	33	31	29	27	28	28
Setback distance to use in Tables 1 and 2 of SMAQMD's *Protocol* (feet)	25	25	25	25	25	25	25
Upper Limit of peak-hour traffic volume (trips/hour)	4,000	8,000	4,000	8,000	4,000	8,000	4,000
Whether HRA is Recommended According to SMAQMD's Roadway Protocol							
Proposed Project Alternative							
No Additional Quarry Truck Traffic							
Existing Vehicle Fleet (Year 2010)	No	No	No	No	No	No	No
Year 2030 Vehicle Fleet	No	No	No	No	No	No	No
With Additional Quarry Truck Traffic							
Existing Vehicle Fleet (Year 2010)	Yes	Yes	Yes	No	Yes	No	Yes
Year 2030 Vehicle Fleet	No	No	No	No	No	No	No
Resource Impact Minimization Alternative							
No Additional Quarry Truck Traffic							
Existing Vehicle Fleet (Year 2010)	No	No	No	No	No	No	No
Year 2030 Vehicle Fleet	No	No	No	No	No	No	No
With Additional Quarry Truck Traffic							
Existing Vehicle Fleet (Year 2010)	Yes	Yes	Yes	Yes	Yes	No	Yes
Year 2030 Vehicle Fleet	No	No	No	No	No	No	No
Reduced Hillside Development Alternative							
No Additional Quarry Truck Traffic							
Existing Vehicle Fleet (Year 2010)	No	No	No	No	No	No	No
Year 2030 Vehicle Fleet	No	No	No	No	No	No	No
With Additional Quarry Truck Traffic							
Existing Vehicle Fleet (Year 2010)	Yes	Yes	Yes	Yes	Yes	No	Yes
Year 2030 Vehicle Fleet	No	No	No	No	No	No	No
Centralized Development Alternative							
No Additional Quarry Truck Traffic							
Existing Vehicle Fleet (Year 2010)	No	No	No	No	No	No	No
Year 2030 Vehicle Fleet	No	No	No	No	No	No	No
With Additional Quarry Truck Traffic							
Existing Vehicle Fleet (Year 2010)	Yes	Yes	Yes	Yes	Yes	No	No
Year 2030 Vehicle Fleet	No	No	No	No	No	No	No
No Federal Action Alternative							
No Additional Quarry Truck Traffic							
Existing Vehicle Fleet (Year 2010)	No	No	No	No	No	No	No
Year 2030 Vehicle Fleet	No	No	No	No	No	No	No
With Additional Quarry Truck Traffic							
Existing Vehicle Fleet (Year 2010)	Yes	Yes	Yes	Yes	Yes	No	Yes
Year 2030 Vehicle Fleet	No	No	No	No	No	No	No

Scott Road (north) between Road "A" and White Rock Road		White Rock Road between Prairie City Road and Scott Road South	White Rock Road between Scott Road South and Oak Avenue Parkway	White Rock Road between Oak Avenue Parkway and Scott Road (north)	White Rock Road between Scott Road (north) and Placerville Road
north-south		east-west	east-west	east-west	east-west
west side	east side	north side	north side	north side	north side
28	28	48	48	48	48
25	25	50	50	50	50
8,000	4,000	8,000	8,000	8,000	8,000

No	No	No	No	No	No
No	No	No	No	No	No
Yes	Yes	Yes	No	No	No
No	No	No	No	No	No
No	No	No	No	No	No
No	No	No	No	No	No
No	Yes	Yes	Yes	Yes	No
No	No	No	No	No	No
No	No	No	No	No	No
No	No	No	No	No	No
No	Yes	Yes	Yes	Yes	No
No	No	No	No	No	No
No	No	No	No	No	No
No	No	No	No	No	No
No	Yes	Yes	Yes	Yes	No
No	No	No	No	No	No

Roadway TAC Analysis

Centralized Development Alternative

Road Segment Characteritics *(same for every action alternative)*	units	Source/ Notes	Prairie Cty Rd btwn Easton Valley Pkwy and White Rock Rd	Oak Ave Pkwy btwn Easton Valley Pkwy and Road "A"		Oak Ave Pkwy btwn Road "A" and White Rock Rd		Scott Rd (north) btwn Easton Valley Pkwy and Road "A"		Scott Rd (north) btwn Road "A" and White Rock Rd		White Rock Rd btwn Prairie City Rd and Scott Rd South	White Rock Rd btwn Scott Rd South and Oak Ave Pkwy	White Rock Rd btwn Oak Ave Pkwy and Scott Rd (north)	White Rock Rd btwn Scott Rd (north) and Placerville Rd
Segment ID in Traffic Data	—	1	Sac Co 17	City of Folsom 25		City of Folsom 26		City of Folsom 22		City of Folsom 23		Sac Co 23	Sac Co 24	Sac Co 25	Sac Co 26
Road segment orientation	direction	2	north-south	north-south		north-south		north-south		north-south		east-west	east-west	east-west	east-west
Side(s) of road on which project would locate receptors	direction	2	east side	west side	east side	west side	east side	west side	east side	west side	east side	north side	north side	north side	north side
Setback distance(s) to property line of receptor	feet	3	27	33	31	29	27	28	28	28	28	48	48	48	48
Setback distance to use in Tables 1 and 2 of SMAQMD's *Protocol*	feet	4	25	25	25	25	25	25	25	25	25	50	50	50	50
Upper Limit of peak-hour traffic volume	trips/hour	9	4,000	8,000	4,000	8,000	4,000	8,000	4,000	8,000	4,000	8,000	8,000	8,000	8,000
Road Segment Traffic Volume															
Cumulative ADT from Folsom SOI, all vehicle types, in the year 2030	trips/day	5	32,300	14,100	14,100	13,800	13,800	2,700	2,700	19,900	19,900	43,300	45,500	43,600	28,800
Additional quarry trucks from quarries (avg. annual daily trips [AADT])	trips/day	14	1,176	1,484	1,484	1,484	1,484	797	797	797	797	4,966	1,832	2,979	209
With No Additional Quarry Truck Traffic, No Year Adjustment															
Peak-hour traffic volume (without quarry trucks) (with speed ajustment)	trips/hour	calc	3,839	1,676	1,676	1,640	1,640	321	321	2,365	2,365	5,146	5,408	5,182	3,423
Does SMAQMD's *Protocol* recommend mitigation and/or an HRA?			No	No	No	No	No	No	No	No	No	No	No	No	No
With No Additional Quarry Truck Traffic, Adjusted to 2030 Year															
Peak-hour traffic volume (without quarry trucks) (with speed ajustment)	trips/hour	calc	329	144	144	141	141	27	27	203	203	441	463	444	293
Does SMAQMD's *Protocol* recommend mitigation and/or an HRA?			No	No	No	No	No	No	No	No	No	No	No	No	No
With Additional Quarry Truck Traffic, No Year Adjustment															
Maximum addt'l quarry trucks, daily (based on upper limit of pk-hr traffic vol)	trips/day	6	35	1,402	515	1,410	523	1,703	816	1,249	362	632	574	625	1,015
equivalent freeway volume with additional quarry trucks	trips/day	extrap.	1,327	53,170	19,531	53,473	19,834	64,585	30,946	47,367	13,729	23,968	21,768	23,703	38,493
combined daily traffic volume (regular traffic + quarry-truck-equiv. traffic)	trips/day	sum	33,627	67,270	33,631	67,273	33,634	67,285	33,646	67,267	33,629	67,268	67,268	67,303	67,293
equiv. peak-hour traffic volume (for quarry trucks) (with speed adjustment)	trips/hour	calc	3,997	7,995	3,997	7,996	3,998	7,997	3,999	7,995	3,997	7,995	7,995	7,999	7,998
crosscheck			crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay
Is there capacity for the projected number of trucks from quarries?			No	No	No	No	No	Yes	Yes	Yes	No	No	No	No	Yes
Does SMAQMD's *Protocol* recommend mitigation and/or an HRA?			Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	No
With Additional Quarry Truck Traffic, Adjusted to 2030 Year															
Maximum addt'l quarry trucks, daily (based on upper limit of pk-hr traffic vol)	trips/day	6	9,505	20,344	9,985	20,352	9,993	20,645	10,286	20,191	9,832	19,574	19,516	19,566	19,956
equivalent freeway volume with additional quarry trucks	trips/day	extrap.	360,469	771,529	378,673	771,832	378,976	782,944	390,088	765,727	372,870	742,327	740,128	742,024	756,814
combined daily traffic volume (regular traffic + quarry-truck-equiv. traffic)	trips/day	sum	392,769	785,629	392,773	785,632	392,776	785,644	392,788	785,627	392,770	785,627	785,628	785,624	785,614
equiv. peak-hour traffic volume (for quarry trucks) (with speed adjustment)	trips/hour	calc	3,999	7,999	3,999	7,999	3,999	7,999	3,999	7,999	3,999	7,999	7,999	7,999	7,999
crosscheck			crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay
Is there capacity for the projected number of trucks from quarries?			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Does SMAQMD's *Protocol* recommend mitigation and/or an HRA?			No	No	No	No	No	No	No	No	No	No	No	No	No

Traffic Volume Adjustment Factors	units	value	Source/ Notes
Avg. % of fleet mix that is 5-axle heavy trucks on nearest seg of Hwy 50	ratio	2.64%	10
K-factor	ratio	10.0%	12
Ratio of 2010 truck fleet at local speeds to 2010 truck fleet at freeway speeds	ratio	1.19	11
Ratio of 2030 truck fleet at local speeds to 2010 truck fleet at freeway speeds	ratio	0.10	11

These values are the same for all action alternatives.

Roadway TAC Analysis

Proposed Project Alternative

Road Segment Characteritics *(same for every action alternative)*	units	Source/ Notes	Prairie Cty Rd btwn Easton Valley Pkwy and White Rock Rd	Oak Ave Pkwy btwn Easton Valley Pkwy and Road "A"		Oak Ave Pkwy btwn Road "A" and White Rock Rd		Scott Rd (north) btwn Easton Valley Pkwy and Road "A"		Scott Rd (north) btwn Road "A" and White Rock Rd		White Rock Rd btwn Prairie City Rd and Scott Rd South	White Rock Rd btwn Scott Rd South and Oak Ave Pkwy	White Rock Rd btwn Oak Ave Pkwy and Scott Rd (north)	White Rock Rd btwn Scott Rd (north) and Placerville Rd
Segment ID in Traffic Data	—	1	Sac Co 17	City of Folsom 25		City of Folsom 26		City of Folsom 22		City of Folsom 23		Sac Co 23	Sac Co 24	Sac Co 25	Sac Co 26
Road segment orientation	direction	2	north-south	north-south		north-south		north-south		north-south		east-west	east-west	east-west	east-west
Side(s) of road on which project would locate receptors	direction	2	east side	west side	east side	west side	east side	west side	east side	west side	east side	north side	north side	north side	north side
Setback distance(s) to property line of receptor	feet	3	27	33	31	29	27	28	28	28	28	48	48	48	48
Setback distance to use in Tables 1 and 2 of SMAQMD's *Protocol*	feet	4	25	25	25	25	25	25	25	25	25	50	50	50	50
Upper Limit of peak-hour traffic volume	trips/hour	9	4,000	8,000	4,000	8,000	4,000	8,000	4,000	8,000	4,000	8,000	8,000	8,000	8,000
Road Segment Traffic Volume															
Cumulative ADT from Folsom SOI, all vehicle types, in the year 2030	trips/day	5	31,100	13,600	13,600	14,900	14,900	26,500	26,500	19,800	19,800	44,500	46,800	44,000	29,200
Additional quarry trucks from quarries (avg. annual daily trips [AADT])	trips/day	14	1,484	1,484	1,484	797	797	797	797	4,966	1,832	2,979	209	0	0
With No Additional Quarry Truck Traffic, No Year Adjustment															
Peak-hour traffic volume (without quarry trucks) (with speed ajustment)	trips/hour	calc	3,696	1,616	1,616	1,771	1,771	3,150	3,150	2,353	2,353	5,289	5,562	5,230	3,471
Does SMAQMD's *Protocol* recommend mitigation and/or an HRA?			No	No	No	No	No	No	No	No	No	No	No	No	No
With No Additional Quarry Truck Traffic, Adjusted to 2030 Year															
Peak-hour traffic volume (without quarry trucks) (with speed ajustment)	trips/hour	calc	317	138	138	152	152	270	270	202	202	453	477	448	297
Does SMAQMD's *Protocol* recommend mitigation and/or an HRA?			No	No	No	No	No	No	No	No	No	No	No	No	No
With Additional Quarry Truck Traffic, No Year Adjustment															
Maximum capacity for addt'l quarry trucks, daily (based on upper limit of pk-hr traffic vo	trips/day	6	67	1,416	528	1,381	494	1,075	188	1,252	365	601	540	614	1,004
equivalent freeway volume with additional quarry trucks	trips/day	extrap.	2,541	53,701	20,024	52,373	18,735	40,768	7,130	47,481	13,842	22,792	20,479	23,285	38,076
combined daily traffic volume (regular traffic + quarry-truck-equiv. traffic)	trips/day	sum	33,641	67,301	33,624	67,273	33,635	67,268	33,630	67,281	33,642	67,292	67,279	67,285	67,276
equiv. peak-hour traffic volume (for quarry trucks) (with speed adjustment)	trips/hour	calc	3,998	7,999	3,996	7,996	3,998	7,995	3,997	7,997	3,999	7,998	7,997	7,997	7,996
crosscheck			crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay
Is there capacity for the projected number of trucks from quarries?			No	No	No	Yes	No	Yes	No	No	No	No	Yes	Yes	Yes
Does SMAQMD's *Protocol* recommend mitigation and/or an HRA?			Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	No	No	No
With Additional Quarry Truck Traffic, Adjusted to 2030 Year															
Maximum capacity for addt'l quarry trucks, daily (based on upper limit of pk-hr traffic vo	trips/day	6	9,537	20,357	9,998	20,323	9,964	20,017	9,658	20,000	9,835	19,542	19,482	19,556	19,946
equivalent freeway volume with additional quarry trucks	trips/day	extrap.	361,683	772,022	379,166	770,733	377,876	759,128	366,271	758,483	372,984	741,114	738,838	741,645	756,435
combined daily traffic volume (regular traffic + quarry-truck-equiv. traffic)	trips/day	sum	392,783	785,622	392,766	785,633	392,776	785,628	392,771	778,283	392,784	785,614	785,638	785,645	785,635
equiv. peak-hour traffic volume (for quarry trucks) (with speed adjustment)	trips/hour	calc	3,999	7,999	3,999	7,999	3,999	7,999	3,999	7,924	3,999	7,999	7,999	7,999	7,999
crosscheck			crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay
Is there capacity for the projected number of trucks from quarries?			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Does SMAQMD's *Protocol* recommend mitigation and/or an HRA?			No	No	No	No	No	No	No	No	No	No	No	No	No

Traffic Volume Adjustment Factors	units	value	Source/ Notes
Avg. % of fleet mix that is 5-axle heavy trucks on nearest seg of Hwy 50	ratio	2.64%	10
K-factor	ratio	10.0%	12
Ratio of 2010 truck fleet at local speeds to 2010 truck fleet at freeway speeds	ratio	1.19	11
Ratio of 2030 truck fleet at local speeds to 2010 truck fleet at freeway speeds	ratio	0.10	11

These values are the same for all action alternatives.

	Upper Limit of peak-hour traffic volume by Setback Distance (ft)													
25	4,000	8,000	4,000	8,000	4,000	8,000	4,000	8,000	4,000	4,000	4,000	4,000	4,000	**25**
50	4,000	12,000	4,000	12,000	4,000	12,000	4,000	12,000	4,000	8,000	8,000	8,000	8,000	**50**
100	8,000	20,000	8,000	20,000	8,000	20,000	8,000	20,000	8,000	8,000	8,000	8,000	8,000	**100**
200	16,000	24,000	16,000	24,000	16,000	24,000	16,000	24,000	16,000	16,000	16,000	16,000	16,000	**200**
300	20,000	>24,000	20,000	>24,000	20,000	>24,000	20,000	>24,000	20,000	20,000	20,000	20,000	20,000	**300**
400	24,000	>24,000	24,000	>24,000	24,000	>24,000	24,000	>24,000	24,000	24,000	24,000	24,000	24,000	**400**
500	>24,000	>24,000	>24,000	>24,000	>24,000	>24,000	>24,000	>24,000	>24,000	>24,000	>24,000	>24,000	>24,000	**500**

	Potential Mitigation Measure Options: Capacity for Add'l Quarry Trucks by Setback Distance (ft) (AADT)													
25	67	1,416	528	1,381	494	1,076	188	1,252	365	-286	-347	-273	117	**25**
50	67	2,303	528	2,269	494	1,963	188	2,140	365	601	540	614	1,004	**50**
100	954	4,078	1,416	4,044	1,381	3,738	1,076	3,914	1,252	601	540	614	1,004	**100**
200	2,729	4,965	3,191	4,931	3,156	4,625	2,850	4,802	3,027	2,376	2,315	2,389	2,779	**200**
300	3,616	NA	4,078	NA	4,044	NA	3,738	NA	3,914	3,263	3,202	3,276	3,667	**300**
400	4,504	NA	4,965	NA	4,931	NA	4,625	NA	4,802	4,151	4,090	4,164	4,554	**400**
500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**500**

Notes:

NA = The capacity for additional quarry trucks cannot be determined for this setback distance and roadway orientation due to limitations of the screening tables in SMAQMD's *Roadway Protocol, Version 2.3* . In other words, the upper limit for combined trffic volume (including additional quarry trucks) exceeds a peak-hour volume of 24,000/hr at the particular setback distance.

Why no increased capacity from 25 to 50 feet on some roadway segments? - Include a note explaining why.

Roadway TAC Analysis

Resource Impact Minimization Alternative

Road Segment Characteritics *(same for every action alternative)*	units	Source/ Notes	Prairie Cty Rd btwn Easton Valley Pkwy and White Rock Rd	Oak Ave Pkwy btwn Easton Valley Pkwy and Road "A"		Oak Ave Pkwy btwn Road "A" and White Rock Rd		Scott Rd (north) btwn Easton Valley Pkwy and Road "A"		Scott Rd (north) btwn Road "A" and White Rock Rd		White Rock Rd btwn Prairie City Rd and Scott Rd South	White Rock Rd btwn Scott Rd South and Oak Ave Pkwy	White Rock Rd btwn Oak Ave Pkwy and Scott Rd (north)	White Rock Rd btwn Scott Rd (north) and Placerville Rd
Segment ID in Traffic Data	—	1	Sac Co 17	City of Folsom 25		City of Folsom 26		City of Folsom 22		City of Folsom 23		Sac Co 23	Sac Co 24	Sac Co 25	Sac Co 26
Road segment orientation	direction	2	north-south	north-south		north-south		north-south		north-south		east-west	east-west	east-west	east-west
Side(s) of road on which project would locate receptors	direction	2	east side	west side	east side	west side	east side	west side	east side	west side	east side	north side	north side	north side	north side
Setback distance(s) to property line of receptor	feet	3	27	33	31	29	27	28	28	28	28	48	48	48	48
Setback distance to use in Tables 1 and 2 of SMAQMD's *Protocol*	feet	4	25	25	25	25	25	25	25	25	25	50	50	50	50
Upper Limit of peak-hour traffic volume	trips/hour	9	4,000	8,000	4,000	8,000	4,000	8,000	4,000	8,000	4,000	8,000	8,000	8,000	8,000
Road Segment Traffic Volume															
Cumulative ADT from Folsom SOI, all vehicle types, in the year 2030	trips/day	5	31,600	12,300	12,300	12,500	12,500	25,900	25,900	19,400	19,400	42,500	44,500	43,200	28,200
Additional quarry trucks from quarries (avg. annual daily trips [AADT])	trips/day	14	1,176	1,484	1,484	1,484	1,484	797	797	797	797	4,966	1,832	2,979	209
With No Additional Quarry Truck Traffic, No Year Adjustment															
Peak-hour traffic volume (without quarry trucks) (with speed ajustment)	trips/hour	calc	3,756	1,462	1,462	1,486	1,486	3,078	3,078	2,306	2,306	5,051	5,289	5,135	3,352
Does SMAQMD's *Protocol* recommend mitigation and/or an HRA?			No	No	No	No	No	No	No	No	No	No	No	No	No
With No Additional Quarry Truck Traffic, Adjusted to 2030 Year															
Peak-hour traffic volume (without quarry trucks) (with speed ajustment)	trips/hour	calc	322	125	125	127	127	264	264	198	198	433	453	440	287
Does SMAQMD's *Protocol* recommend mitigation and/or an HRA?			No	No	No	No	No	No	No	No	No	No	No	No	No
With Additional Quarry Truck Traffic, No Year Adjustment															
Maximum addt'l quarry trucks, daily (based on upper limit of pk-hr traffic vol)	trips/day	6	54	1,450	562	1,445	557	1,091	204	1,263	375	654	601	635	1,031
equivalent freeway volume with additional quarry trucks	trips/day	extrap.	2,048	54,990	21,313	54,800	21,124	41,375	7,737	47,898	14,222	24,802	22,792	24,082	39,100
combined daily traffic volume (regular traffic + quarry-truck-equiv. traffic)	trips/day	sum	33,648	67,290	33,613	67,300	33,624	67,275	33,637	67,298	33,622	67,302	67,292	67,282	67,300
equiv. peak-hour traffic volume (for quarry trucks) (with speed adjustment)	trips/hour	calc	3,999	7,998	3,995	7,999	3,996	7,996	3,998	7,999	3,996	7,999	7,998	7,997	7,999
crosscheck			crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay
Is there capacity for the projected number of trucks from quarries?			No	No	No	No	No	Yes	No	Yes	No	No	No	No	Yes
Does SMAQMD's *Protocol* recommend mitigation and/or an HRA?			Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	No
With Additional Quarry Truck Traffic, Adjusted to 2030 Year															
Maximum addt'l quarry trucks, daily (based on upper limit of pk-hr traffic vol)	trips/day	6	9,524	20,392	10,033	20,385	10,027	20,033	9,674	20,204	9,845	19,595	19,542	19,577	19,972
equivalent freeway volume with additional quarry trucks	trips/day	extrap.	361,190	773,349	380,493	773,084	380,265	759,735	366,878	766,220	373,363	743,124	741,114	742,441	757,421
combined daily traffic volume (regular traffic + quarry-truck-equiv. traffic)	trips/day	sum	392,790	785,649	392,793	785,584	392,765	785,635	392,778	785,620	392,763	785,624	785,614	785,641	785,621
equiv. peak-hour traffic volume (for quarry trucks) (with speed adjustment)	trips/hour	calc	3,999	7,999	3,999	7,999	3,999	7,999	3,999	7,999	3,999	7,999	7,999	7,999	7,999
crosscheck			crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay
Is there capacity for the projected number of trucks from quarries?			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Does SMAQMD's *Protocol* recommend mitigation and/or an HRA?			No	No	No	No	No	No	No	No	No	No	No	No	No

Traffic Volume Adjustment Factors	units	value	Source/ Notes
Avg. % of fleet mix that is 5-axle heavy trucks on nearest seg of Hwy 50	ratio	2.64%	10
K-factor	ratio	10.0%	12
Ratio of 2010 truck fleet at local speeds to 2010 truck fleet at freeway speeds	ratio	1.19	11
Ratio of 2030 truck fleet at local speeds to 2010 truck fleet at freeway speeds	ratio	0.10	11

These values are the same for all action alternatives.

Roadway TAC Analysis

Reduced Hillside Alternative

Road Segment Characteritics *(same for every action alternative)*	units	Source/ Notes	Prairie Cty Rd btwn Easton Valley Pkwy and White Rock Rd	Oak Ave Pkwy btwn Easton Valley Pkwy and Road "A"		Oak Ave Pkwy btwn Road "A" and White Rock Rd		Scott Rd (north) btwn Easton Valley Pkwy and Road "A"		Scott Rd (north) btwn Road "A" and White Rock Rd		White Rock Rd btwn Prairie City Rd and Scott Rd South	White Rock Rd btwn Scott Rd South and Oak Ave Pkwy	White Rock Rd btwn Oak Ave Pkwy and Scott Rd (north)	White Rock Rd btwn Scott Rd (north) and Placerville Rd
Segment ID in Traffic Data	—	1	Sac Co 17	City of Folsom 25		City of Folsom 26		City of Folsom 22		City of Folsom 23		Sac Co 23	Sac Co 24	Sac Co 25	Sac Co 26
Road segment orientation	direction	2	north-south	north-south		north-south		north-south		north-south		east-west	east-west	east-west	east-west
Side(s) of road on which project would locate receptors	direction	2	east side	west side	east side	west side	east side	west side	east side	west side	east side	north side	north side	north side	north side
Setback distance(s) to property line of receptor	feet	3	27	33	31	29	27	28	28	28	28	48	48	48	48
Setback distance to use in Tables 1 and 2 of SMAQMD's *Protocol*	feet	4	25	25	25	25	25	25	25	25	25	50	50	50	50
Upper Limit of peak-hour traffic volume	trips/hour	9	4,000	8,000	4,000	8,000	4,000	8,000	4,000	8,000	4,000	8,000	8,000	8,000	8,000
Road Segment Traffic Volume															
Proposed existing + project average annual daily trips (without add'l quarry trucks)	trips/day	5	32,000	14,900	14,900	14,300	14,300	28,600	28,600	20,400	20,400	43,600	45,800	43,900	29,500
Additional quarry trucks from quarries (avg. annual daily trips [AADT])	trips/day	14	1,176	1,484	1,484	1,484	1,484	797	797	797	797	4,966	1,832	2,979	209
With No Additional Quarry Truck Traffic, No Year Adjustment															
Cumulative ADT from Folsom SOI, all vehicle types, in the year 2030	trips/hour	calc	3,803	1,771	1,771	1,700	1,700	3,399	3,399	2,425	2,425	5,182	5,444	5,218	3,506
Does SMAQMD's *Protocol* recommend mitigation and/or an HRA?			No	No	No	No	No	No	No	No	No	No	No	No	No
With No Additional Quarry Truck Traffic, Adjusted to 2030 Year															
Peak-hour traffic volume (without quarry trucks) (with speed ajustment)	trips/hour	calc	326	152	152	146	146	291	291	208	208	444	466	447	300
Does SMAQMD's *Protocol* recommend mitigation and/or an HRA?			No	No	No	No	No	No	No	No	No	No	No	No	No
With Additional Quarry Truck Traffic, No Year Adjustment															
Maximum addt'l quarry trucks, daily (based on upper limit of pk-hr traffic vol)	trips/day	6	43	1,381	494	1,397	510	1,020	133	1,236	349	625	567	617	996
equivalent freeway volume with additional quarry trucks	trips/day	extrap.	1,631	52,373	18,735	52,980	19,341	38,683	5,044	46,874	13,236	23,703	21,503	23,399	37,772
combined daily traffic volume (regular traffic + quarry-truck-equiv. traffic)	trips/day	sum	33,631	67,273	33,635	67,280	33,641	67,283	33,644	67,274	33,636	67,303	67,303	67,299	67,272
equiv. peak-hour traffic volume (for quarry trucks) (with speed adjustment)	trips/hour	calc	3,997	7,996	3,998	7,997	3,998	7,997	3,999	7,996	3,998	7,999	7,999	7,999	7,996
crosscheck			crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay
Is there capacity for the projected number of trucks from quarries?			No	No	No	No	No	Yes	No	Yes	No	No	No	No	Yes
Does SMAQMD's *Protocol* recommend mitigation and/or an HRA?			Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	No
With Additional Quarry Truck Traffic, Adjusted to 2030 Year															
Maximum addt'l quarry trucks, daily (based on upper limit of pk-hr traffic vol)	trips/day	6	9,513	20,323	9,964	20,339	9,980	19,962	9,603	20,178	9,819	19,566	19,508	19,558	19,938
equivalent freeway volume with additional quarry trucks	trips/day	extrap.	360,772	770,733	377,876	771,339	378,483	757,042	364,186	765,234	372,377	742,024	739,824	741,721	756,132
combined daily traffic volume (regular traffic + quarry-truck-equiv. traffic)	trips/day	sum	392,772	785,633	392,776	785,639	392,783	785,642	392,786	785,634	392,777	785,624	785,624	785,621	785,632
equiv. peak-hour traffic volume (for quarry trucks) (with speed adjustment)	trips/hour	calc	3,999	7,999	3,999	7,999	3,999	7,999	3,999	7,999	3,999	7,999	7,999	7,999	7,999
crosscheck			crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay
Is there capacity for the projected number of trucks from quarries?			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Does SMAQMD's *Protocol* recommend mitigation and/or an HRA?			No	No	No	No	No	No	No	No	No	No	No	No	No

Traffic Volume Adjustment Factors	units	value	Source/ Notes
Avg. % of fleet mix that is 5-axle heavy trucks on nearest seg of Hwy 50	ratio	2.64%	10
K-factor	ratio	10.0%	12
Ratio of 2010 truck fleet at local speeds to 2010 truck fleet at freeway speeds	ratio	1.19	11
Ratio of 2030 truck fleet at local speeds to 2010 truck fleet at freeway speeds	ratio	0.10	11

These values are the same for all action alternatives.

Roadway TAC Analysis

No Federal Action Alternative

Road Segment Characteritics *(same for every action alternative)*	units	Source/ Notes	Prairie Cty Rd btwn Easton Valley Pkwy and White Rock Rd	Oak Ave Pkwy btwn Easton Valley Pkwy and Road "A"		Oak Ave Pkwy btwn Road "A" and White Rock Rd		Scott Rd (north) btwn Easton Valley Pkwy and Road "A"		Scott Rd (north) btwn Road "A" and White Rock Rd		White Rock Rd btwn Prairie City Rd and Scott Rd South	White Rock Rd btwn Scott Rd South and Oak Ave Pkwy	White Rock Rd btwn Oak Ave Pkwy and Scott Rd (north)	White Rock Rd btwn Scott Rd (north) and Placerville Rd
Segment ID in Traffic Data	—	1	Sac Co 17	City of Folsom 25		City of Folsom 26		City of Folsom 22		City of Folsom 23		Sac Co 23	Sac Co 24	Sac Co 25	Sac Co 26
Road segment orientation	direction	2	north-south	north-south		north-south		north-south		north-south		east-west	east-west	east-west	east-west
Side(s) of road on which project would locate receptors	direction	2	east side	west side	east side	west side	east side	west side	east side	west side	east side	north side	north side	north side	north side
Setback distance(s) to property line of receptor	feet	3	27	33	31	29	27	28	28	28	28	48	48	48	48
Setback distance to use in Tables 1 and 2 of SMAQMD's *Protocol*	feet	4	25	25	25	25	25	25	25	25	25	50	50	50	50
Upper Limit of peak-hour traffic volume	trips/hour	9	4,000	8,000	4,000	8,000	4,000	8,000	4,000	8,000	4,000	8,000	8,000	8,000	8,000
Road Segment Traffic Volume															
Cumulative ADT from Folsom SOI, all vehicle types, in the year 2030	trips/day	5	31,000	11,700	11,700	13,100	13,100	23,600	23,600	19,300	19,300	42,600	44,900	43,200	28,300
Additional quarry trucks from quarries (avg. annual daily trips [AADT])	trips/day	14	1,176	1,484	1,484	1,484	1,484	797	797	797	797	4,966	1,832	2,979	209
With No Additional Quarry Truck Traffic, No Year Adjustment															
Peak-hour traffic volume (without quarry trucks) (with speed ajustment)	trips/hour	calc	3,685	1,391	1,391	1,557	1,557	2,805	2,805	2,294	2,294	5,063	5,337	5,135	3,364
Does SMAQMD's *Protocol* recommend mitigation and/or an HRA?			No	No	No	No	No	No	No	No	No	No	No	No	No
With No Additional Quarry Truck Traffic, Adjusted to 2030 Year															
Peak-hour traffic volume (without quarry trucks) (with speed ajustment)	trips/hour	calc	316	119	119	133	133	240	240	197	197	434	457	440	288
Does SMAQMD's *Protocol* recommend mitigation and/or an HRA?			No	No	No	No	No	No	No	No	No	No	No	No	No
With Additional Quarry Truck Traffic, No Year Adjustment															
Maximum addt'l quarry trucks, daily (based on upper limit of pk-hr traffic vol)	trips/day	6	69	1,466	578	1,429	541	1,152	264	1,265	378	651	590	635	1,028
equivalent freeway volume with additional quarry trucks	trips/day	extrap.	2,617	55,597	21,920	54,194	20,517	43,689	10,012	47,974	14,335	24,689	22,375	24,082	38,986
combined daily traffic volume (regular traffic + quarry-truck-equiv. traffic)	trips/day	sum	33,617	67,297	33,620	67,294	33,617	67,289	33,612	67,274	33,635	67,289	67,275	67,282	67,286
equiv. peak-hour traffic volume (for quarry trucks) (with speed adjustment)	trips/hour	calc	3,996	7,999	3,996	7,998	3,996	7,998	3,995	7,996	3,998	7,998	7,996	7,997	7,997
crosscheck			crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay
Is there capacity for the projected number of trucks from quarries?			No	No	No	No	No	Yes	No	Yes	No	No	No	No	Yes
Does SMAQMD's *Protocol* recommend mitigation and/or an HRA?			Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	No
With Additional Quarry Truck Traffic, Adjusted to 2030 Year															
Maximum addt'l quarry trucks, daily (based on upper limit of pk-hr traffic vol)	trips/day	6	9,540	20,407	10,049	20,370	10,012	20,094	9,735	20,207	9,848	19,593	19,532	19,577	19,970
equivalent freeway volume with additional quarry trucks	trips/day	extrap.	361,796	773,918	381,100	772,515	379,697	762,048	369,192	766,333	373,477	743,048	740,735	742,441	757,345
combined daily traffic volume (regular traffic + quarry-truck-equiv. traffic)	trips/day	sum	392,796	785,618	392,800	785,615	392,797	785,648	392,792	785,633	392,777	785,648	785,635	785,641	785,645
equiv. peak-hour traffic volume (for quarry trucks) (with speed adjustment)	trips/hour	calc	3,999	7,999	3,999	7,999	3,999	7,999	3,999	7,999	3,999	7,999	7,999	7,999	7,999
crosscheck			crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay	crosscheck okay
Is there capacity for the projected number of trucks from quarries?			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Does SMAQMD's *Protocol* recommend mitigation and/or an HRA?			No	No	No	No	No	No	No	No	No	No	No	No	No

Traffic Volume Adjustment Factors	units	value	Source/ Notes
Avg. % of fleet mix that is 5-axle heavy trucks on nearest seg of Hwy 50	ratio	2.64%	10
K-factor	ratio	10.0%	12
Ratio of 2010 truck fleet at local speeds to 2010 truck fleet at freeway speeds	ratio	1.19	11
Ratio of 2030 truck fleet at local speeds to 2010 truck fleet at freeway speeds	ratio	0.10	11

These values are the same for all action alternatives.

Additional Volume of Quarry Truck Traffic ***All Action Alternatives***	units	Source/ Notes	Prairie Cty Rd btwn Easton Valley Pkwy and White Rock Rd	Oak Ave Pkwy btwn Easton Valley Pkwy and Road "A"		Oak Ave Pkwy btwn Road "A" and White Rock Rd		Scott Rd (north) btwn Easton Valley Pkwy and Road "A"		Scott Rd (north) btwn Road "A" and White Rock Rd		White Rock Rd btwn Prairie City Rd and Scott Rd South	White Rock Rd btwn Scott Rd South and Oak Ave Pkwy	White Rock Rd btwn Oak Ave Pkwy and Scott Rd (north)	White Rock Rd btwn Scott Rd (north) and Placerville Rd
Segment ID in Traffic Data	—	1	Sac Co 17	City of Folsom 25		City of Folsom 26		City of Folsom 22		City of Folsom 23		Sac Co 23	Sac Co 24	Sac Co 25	Sac Co 26
Additional quarry trucks from quarries (peak-day daily trips)	trips/day	7	2,027	2,558	2,558	2,558	2,558	1,374	1,374	1,374	1,374	8,562	3,159	5,137	361
Additional quarry trucks from quarries (avg. annual daily trips [AADT])	trips/day	calc	1,176	1,484	1,484	1,484	1,484	797	797	797	797	4,966	1,832	2,979	209

Ratio of annual average daily quarry truck trips to peak-day daily quarry truck trips	%	13	58%

Screening Tables from SMAQMD's Roadway Protocol, Version 2.3

Upper Limit of peak-hour traffic volume (trips/hour)

Distance btwn Receptor and Edge of Nearest Travel Lane	25-foot	50-foot	100-foot	200-foot	300-foot	400-foot	500-foot
Receptor/Roadway Orientation	setback	setback	setback	setback	setback	setback	setback
receptors east of north-south roads	4,000	4,000	8,000	16,000	20,000	24,000	>24,000
receptors west of north-south roads	8,000	12,000	20,000	24,000	>24,000	>24,000	>24,000
receptors north of east-west roads	4,000	8,000	8,000	16,000	20,000	24,000	>24,000
receptors south of east-west roads	12,000	16,000	20,000	24,000	>24,000	>24,000	>24,000

Source: Based on tiers in Tables 1 and 2 of SMAQMD's *Recommended Protocol for Evaluating the Location of Sensitive Land Uses Adjacent to Major Roadways, Version 2.3* (SMAQMD 2010)

Adjustment Factor for Change in Fleet Speeds and Fleet Year

Title : Truck Fleet in 2010 & 2030
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2010/01/28 14:00:08 Scen Year: 2010 -- All model years in the range 1966 to 2010 selected
Season: Annual Area: Sacramento
Emfac2007 Emission Factors: V2.3 Nov 1 2006 County Average Annual
Table 1: Running Exhaust Emissions (grams/mile; grams/idle-hour)
Pollutant Name: PM10 Temperature: 50F Relative Humidity: 40%
****

Year:	**2010**	**2030**
Model Years:	**1996-2010**	**1896-2030**
Speed MPH	HHD DSL	HHD DSL
0	1.869	0.192
5	2.36	0.111
10	1.602	0.097
15	1.047	0.084
20	0.73	0.075
25	0.613	0.072
30	0.525	0.072
35	0.468	0.075
40	0.441	0.081
45	0.445	0.09
50	0.478	0.103
55	0.542	0.118
60	0.635	0.136
65	0.759	0.157

These rates arerepresentative of traffic speeds on arterial roads at the project site in 2010.

These rates arerepresentative of traffic speeds on arterial roads at the project site in 2030.

Average truck emission rate of speeds 5-40 mph (representing local arterial road with stop lights) in 2010 0.973

Average truck emission rate of speeds 5-40 mph (representing local arterial road with stop lights) in 2030 0.083

Average truck emission rate of all travel speeds in the Year 2010 (and used in SMAQMD's Protocol) 0.819

The cancer risk levels in SMAQMD's *Protocol* are based on emisison factors for all travel speeds and year 2010 emission rates.

Source: This worksheet is based on Trucks Emfac Run.xlsx.

Ratio of 2010 truck fleet traveling at local speeds to 2010 truck fleet at all (default) speeds used to develop the *Roadway Protocol.* **1.19**
Ratio of 2030 truck fleet traveling at local speeds to 2010 truck fleet at all (default) speeds used to develop the *Roadway Protocol.* **0.10**

Note: The above adjustment factors (i.e., ratios) account for the fact that traffic on local arterials through or adjacent to the project site will be travelling at a smaller, lower range of speeds (and, therefore, different emission rates) than the full range of travel speeds used by SMAQMD to develop the screening levels in its *Roadway Protocol* . These adjustment factors are the same for all alternatives. Emission rates for PM_{10} are used to develop these adjustment factors (instead of $PM_{2.5}$) because SMAQMD developed its screening levels in the Roadway Protocol based on PM_{10} emissions.

Highway Data in Sacramento County

Route	Route Suffix	District	County	Postmile Prefix	Postmile	Leg	AADT Total	Total Trucks	Total Truck %	2 Axle Volume	2 Axle Percent	3 Axle Volume	3 Axle Percent	4 Axle Volume	4 Axle Percent	5 Axle Volume	5 Axle Percent	Description	Year Verified/Estimate
50		3	SAC	L	0.35	B	180000	7254	4.03	3076	42.41	684	9.43	303	4.18	3190	43.98	SACRAMENTO, JCT. RTE. 5	04E
50		3	SAC	L	0.35	A	231000	6145	2.66	2669	43.44	623	10.14	281	4.58	2571	41.84	SACRAMENTO, JCT. RTE. 5	04E
50		3	SAC	L	1.37	A	253000	5870	2.32	2550	43.44	595	10.14	269	4.58	2456	41.84	SACRAMENTO, JCT. RTE. 160 15TH/:	04E
50		3	SAC	R	0	A	225000	8348	3.71	4224	50.6	1307	15.66	604	7.23	2213	26.51	JCT. RTES. 51/99	04E
50		3	SAC	R	2.628	B	202000	8383	4.15	4242	50.6	1313	15.66	606	7.23	2222	26.51	SACRAMENTO, 65TH STREET	04E
50		3	SAC	R	2.628	A	211000	8546	4.05	4324	50.6	1338	15.66	618	7.23	2266	26.51	SACRAMENTO, 65TH STREET	04E
50		3	SAC	R	3.674	A	187000	8191	4.38	4273	52.17	1269	15.49	562	6.86	2087	25.48	JCT. RTE. 16	04V
50		3	SAC		12.496	B	149000	8255	5.54	3920	47.49	1456	17.64	638	7.73	2240	27.14	SUNRISE BOULEVARD	02E
50		3	SAC		12.496	A	125000	8000	6.4	3200	40	960	12	320	4	3520	44	SUNRISE BOULEVARD	83E
50		3	SAC		15.759	A	118000	7434	6.3	3078	41.4	900	12.1	223	3	3234	43.5	NIMBUS ROAD	83E
50		3	SAC		17.008	B	117000	7020	6	2948	42	913	13	211	3	2948	42	FOLSOM BOULEVARD/NATOMA	83E
50		3	SAC		17.008	A	94000	4700	5	1612	34.3	611	13	169	3.6	2308	49.1	FOLSOM BOULEVARD/NATOMA	85V
50		3	SAC		21.502	A	95000	6080	6.4	2596	42.7	833	13.7	146	2.4	2505	41.2	SCOTT ROAD	83E
80		3	SAC	M	2.554	B	89000	8482	9.53	3171	37.39	931	10.98	594	7	3786	44.63	SACRAMENTO, JCT. RTE. 5	06V
80		3	SAC	M	2.554	A	157000	8996	5.73	2915	32.4	1169	13	450	5	4462	49.6	SACRAMENTO, JCT. RTE. 5	06E
80		3	SAC	R	10.989	B	130000	8320	6.4	2529	30.4	998	12	300	3.6	4493	54	JCT. RTE. 51	06E
80		3	SAC	R	10.989	A	232000	9025	3.89	2698	29.9	650	7.2	280	3.1	5397	59.8	JCT. RTE. 51	06E
80		3	SAC		14.454	A	185000	9269	5.01	2966	32	603	6.51	272	2.93	5429	58.57	GREENBACK LANE	06V
5		3	SAC		0.018	A	57000	13874	24.34	3224	23.24	506	3.65	228	1.64	9916	71.47	SAN JOAQUIN/SACRAMENTO COUN	04E
5		3	SAC		16.147	A	108000	14267	13.21	3316	23.24	521	3.65	234	1.64	10197	71.47	SACRAMENTO, POCKET/MEADOWV	04E
5		3	SAC		22.565	B	156000	14976	9.6	3654	24.4	884	5.9	359	2.4	10079	67.3	SACRAMENTO, JCT. RTE. 50	87E
5		3	SAC		23.799	A	194000	18624	9.6	4339	23.3	1117	6	503	2.7	12664	68	SACRAMENTO, I STREET	87E
5		3	SAC		26.722	B	168000	16128	9.6	3935	24.4	952	5.9	387	2.4	10854	67.3	SACRAMENTO, JCT. RTE. 80	86V
5		3	SAC		26.722	A	152000	12282	8.08	3338	27.18	640	5.21	346	2.82	7957	64.79	SACRAMENTO, JCT. RTE. 80	07E
5		3	SAC		29.907	B	116000	13400	11.55	3642	27.18	698	5.21	378	2.82	8682	64.79	SACRAMENTO, JCT. RTE. 99 NORTH	07E
5		3	SAC		29.907	A	81000	9370	11.57	2547	27.18	488	5.21	264	2.82	6071	64.79	SACRAMENTO, JCT. RTE. 99 NORTH	07V

Source:
California Department of Transportation. 2009. Traffic Counts for 2007. Available:
<http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/index.htm>. Accessed March 19, 2009.

The segment of Highway 50 at Scott Road is most representative of the Folsom South of 50 Specific Plan Area.

	All Trucks	5-Axle Trucks
Here, the proportion of trucks that make up the AADT is	6.40%	2.64%
For all segments of Hwy 50 in Sacramento County the proportion of trucks is:	4.31%	1.54%
The proportion of trucks that make up the total AADT on Hwy 80, 5, and 50 in Sacramento County is:	6.26%	3.33%

Speed Adjustment Factor

Title : Truck Fleet in 2010 & 2030
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2010/01/28 14:00:08
Scen Year: 2010 -- All model years in the range 1966 to 2010 selected
Season: Annual
Area: Sacramento
Emfac2007 Emission Factors: V2.3 Nov 1 2006
County Average Annual
Table 1: Running Exhaust Emissions (grams/mile; grams/idle-hour)
Pollutant Name: PM10 Temperature: 50F Relative Humidity: 40%

****

Year:	**2010**	**2030**
Model Years:	**1996-2010**	**1896-2030**

Speed MPH	HHD DSL	HHD DSL
0	1.869	0.192
5	2.36	0.111
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15	1.047	0.084
20	0.73	0.075
25	0.613	0.072
30	0.525	0.072
35	0.468	0.075
40	0.441	0.081
45	0.445	0.09
50	0.478	0.103
55	0.542	0.118
60	0.635	0.136
65	0.759	0.157

These rates arerepresentative of traffic speeds on arterial roads at the project site.

Average truck emission rate of speeds 5-40 mph (representing local arterial road with stop lights) in the	0.973
Average truck emission rate of all travel speeds in the Year 2010 (and used in SMAQMD's *Protocol*)	0.819
Speed Adjustment Factor	1.19

The cancer risk levels in SMAQMD's *Protocol* are based on emisison factors for all travel speeds and year 2010 emission rates.

Source: This worksheet is based on Trucks Emfac Run.xlsx.

Adjustment Factors

Ratio of 2010 truck fleet traveling at local speeds to 2010 truck fleet traveling at all (default) speeds used to develop th e *Roadway Protocol.*	1.19

Note: This adjustment factor (i.e., ratio) accounts for the fact that traffic on local arterials through or adjacent to the project site will be travelling at lower speeds (and higher emission factors) than those used in the modeling on which the screening levels in SMAQMD's *Roadway Protocol* are based.

California GHG Emissions Inventory and Forecast for all Sectors

References:
http://www.arb.ca.gov/cc/inventory/data/tables/arb_ghg_inventory_forecast_2008_06_26.xls

(Forecast last updated: June 26, 2008)

		Emissions (MMTCO2E)		
IPCC Category	**Inventory Summary for Scoping Plan**	**1990 Levels**	**2002-2004 Average**	**2020 Forecast**
	Transportation	**150.670**	**179.311**	**225.399**
1A3b	***On Road***	***137.992***	***168.657***	***209.101***
	- Passenger Vehicles	108.945	133.947	160.783
	- Heavy Duty Trucks	29.047	34.710	48.318
1A3dii	***Ships & Commercial Boats***	***2.210***	***3.258***	***6.347***
1A3aii	***Aviation (Intrastate)***	***5.132***	***3.177***	***4.841***
1A3c	***Rail***	***2.331***	***3.005***	***3.757***
1A3	***Unspecified***	***3.006***	***1.215***	***1.353***
	Electric Power	**95.385**	**88.970**	**107.401**
	In-State Generation	***33.808***	***32.152***	***55.039***
1A1ai	- Merchant Owned	2.329	26.014	44.600
1A1ai	- Utility Owned	29.918	5.451	9.751
2G1b	- Transmissions and Distribution	1.561	0.688	0.688
	Imported Electricity	***61.577***	***56.818***	***52.362***
1A1ai	- Unspecified Imports	30.956	24.304	26.130
1A1ai	- Specified Imports	29.605	32.170	25.888
2G1b	- Transmissions and Distribution	1.016	0.344	0.344
	Commercial and Residential	**44.785**	**41.761**	**48.184**
1A4b	***Residential Fuel Use***	***29.657***	***28.515***	***32.100***
1A4b	- Natural Gas	27.734	26.873	30.573
1A4b	- Other Fuels	1.923	1.642	1.527
	Commercial Fuel Use	***13.462***	***11.704***	***13.755***
1A4a	- Natural Gas	7.547	7.946	9.344
1A4a	- Domestic Utilities	0.339	0.496	0.583
1A4a	- Not specified	5.577	3.262	3.827
1A1aii	***CHP***	***1.101***	***1.360***	***2.115***
1A4a	***National Security***	***0.564***	***0.182***	***0.214***
	Industrial	**108.141**	**109.868**	**124.841**
1A1b	***Refineries***	***32.833***	***35.031***	***36.723***
1A2	***Manufacturing***	***31.979***	***27.268***	***28.918***
1A1	***Oil & Gas Extraction***	***14.646***	***14.189***	***14.194***
1A1cii	***Pipelines***	***1.632***	***1.448***	***1.786***
1A5	***Flaring***	***0.150***	***0.114***	***0.108***
1A2i	***Mining***	***0.028***	***0.245***	***0.194***
1A1aii	***CHP***	***24.240***	***29.473***	***40.649***
2D, 2G	***Nonspecified***	***2.633***	***2.101***	***2.269***
4	**Recycling and Waste**	**12.260**	**12.815**	**16.566**
4D1	***Landfills***	***6.260***	***5.640***	***7.660***
4D2	***Waste Water Treatment***	***6.000***	***7.175***	***8.906***
	-Domestic	2.833	3.390	4.190
	-Industrial	3.167	3.785	4.716
	High GWP/Other	**1.267**	**16.211**	**48.189**
2F	***Ozone Depleting Substance Substitutes***	***0.036***	***12.870***	***44.986***
1A5	***Not Specified***	***1.231***	***3.341***	***3.203***
3	**Agriculture**	**23.247**	**27.578**	**29.671**
	Livestock	***11.668***	***13.902***	***16.163***
3A1aii	- Enteric Fermentation (Digestive Process)	6.668	7.026	8.168
3A2ai	- Manure Management	5.000	6.876	7.994
	Crop Growing & Harvesting	***7.074***	***9.044***	***9.041***
3C4, 3C5	- Soil Management	6.540	8.401	8.401
3C1b	- Crop Residue Burning	0.124	0.082	0.078
3C7	- Rice Cultivation	0.410	0.562	0.562
1A4c	***General Fuel Use***	***4.505***	***4.631***	***4.467***
	Forestry and Range Management	**0.190**	**0.190**	**0.190**
3B1	***Fire***	***0.190***	***0.188***	***0.194***
	TOTAL GROSS EMISSIONS	**435.945**	**476.704**	**600.441**
		high (433.29)	high (473.5)	high (596.40)
3B	***Forestry Net Emissions***	***-6.690***	***-4.674***	***0.000***
	TOTAL NET EMISSIONS	**429.255**	**472.030**	**596.400**

California GHG Emissions Inventory and Forecast for Emissions Sectors Applicable to Land Use Development Projects

References:

http://www.arb.ca.gov/cc/inventory/data/tables/arb_ghg_inventory_forecast_2008_06_26.xls

California Energy Commission [CEC] 2007. Impact Analysis 2008 Update to the California Energy Efficiency Standards for Residential and Nonresidential Building

(Forecast last updated: June 26, 2008)

	Emissions (MMTCO2E)				
Inventory Summary for Scoping Plan	**1990 Levels**	**2002-2004 Average**	**2020 Forecast**	**2030 Interpolation**	**2050 (S-3-05)**
Transportation	**137.992**	**168.657**	**209.101**		
- Passenger Vehicles	108.945	133.947	160.783		
- Heavy Duty Trucks	29.047	34.710	48.318		
Electric Power	**95.385**	**88.970**	**107.401**		
In-State Generation	***33.808***	***32.152***	***55.039***		
Imported Electricity	***61.577***	***56.818***	***52.362***		
Commercial and Residential	**44.220**	**41.579**	**47.970**		
Residential Fuel Use	***29.657***	***28.515***	***32.100***		
Commercial Fuel Use	***13.462***	***11.704***	***13.755***		
CHP	***1.101***	***1.360***	***2.115***		
Recycling and Waste	**2.833**	**3.390**	**4.190**		
Waste Water Treatment	***2.833***	***3.390***	***4.190***		
-Domestic	2.833	3.390	4.190		
TOTAL GROSS EMISSIONS	**280.430**	**302.596**	**368.662**	**264.470225**	**56.086**
80% below 1990 by 2050	56.086				
emission reduction per year	10.419				

California GHG-Efficiency Calculations per AB 32 and S-3-05

Demographic Data	1990	2002-2004	2007	2020	2030 (interpolated)
CA Population	29,758,213	36,199,342	37,559,440	44,135,923	49,240,891
CA Employment	14,294,100	16,413,400	17,208,900	20,194,661	22,592,387
CA Service Population[1]	44,052,313	52,612,742	54,768,340	64,330,584	71,833,278

[1] Service Population = Population + Employment

BAU GHG/capita					
GHG/Capita (sector-specific CA inventory)	9.42	8.36	-	8.35	
GHG/SP (sector-specific CA inventory)	6.37	5.75	-	5.73	

AB 32 Goal GHG Efficiency					
GHG/Capita (sector-specific CA inventory)	9.42	7.75	-	**6.35**	**5.37**
GHG/SP (sector-specific CA inventory)	6.37	5.33	-	**4.36**	**3.68**

Sources:	Population data is from the California Department of Finance and U.S. Census Bureau. Total employment information for 1990 and 2000 is from the U.S. Census. Total civilian employment on an annual (seasonally adjusted basis is from the California Department of Finance).
1990-2000 Population	State of California, Department of Finance, E-4 Historical Population Estimates for City, County and the State, 1991-2000, with 1990 and 2000 Census Counts. Sacramento, California, August 2007.
2001-2007 Population	State of California, Department of Finance, E-4 Population Estimates for Cities, Counties and the State, 2001-2007, with 2000 Benchmark. Sacramento, California, May 2007.
2000-2050 Population	State of California, Department of Finance, Population Projections for California and Its Counties 2000-2050, Sacramento, California, July 2007.
1990 - 2006 Employment	California Employment Development Department Labor Market Information Division, (916) 262–2162; U.S. Department of Labor, Bureau of Labor Statistics, (202) 606–6555.
2007 - 2009 Employment	Economic Research Unit of the California Department of Finance. Economic Forecasts, U.S. and California. April 2007.
2010-2050 Employment	Extrapolated as 46% of projected population (the average over last 15 years)

Summary of Modeled Greenhouse Gas (CO_2e) Emissions

Source	CO2e Emissions by Action Alternative 1				
	PP	**RIM**	**RHD**	**CD**	**NF**
Construction Emissions to Occur Over 19-year Buildout (2011-2030) (metric tons)2,3	50,456	44,979	53,089	47,105	42,664
Operational Emissions at Full Buildout (Year 2030) (metric tons per year)					
Area-Source Emissions 4	45,478	36,027	51,681	40,062	31,435
Mobile-Source Emissions 4	111,037	86,171	115,533	108,560	92,043
Indirect Operational Emissions Associated with Electricity Generation [5]	111,049	96,503	155,244	126,154	99,860
Indirect Operational Emissions Associated with Water Consumption [6]	4,993	3,870	5,646	4,594	3,616
Total Operational Emissions (Direct and Indirect)	272,556	222,572	328,104	279,369	226,954
Operational GHG Efficiency Metrics					
Residential Population Accommodated by On-Site Development	24,335	19,584	28,084	20,689	15,808
Employment (jobs) Accommodated by On-Site Development	13,209	9,500	14,179	13,574	11,173
Service Population (SP) Supported by On-Site Development	37,544	29,084	42,263	34,263	26,981
Annual CO_2e/SP	7.26	7.65	7.76	8.15	8.41
Annual CO_2e/SP benchmark that reflect statewide target for Year 2020 (metric tons/year)8			4.36		
Annual CO_2e/SP benchmark that reflect statewide target for Year 2030 (metric tons/year)8			3.68		

Notes:

CO_2e/SP/year = carbon dioxide equivalent per service population per year; GHG = greenhouse gases; SP = service population.

1- The values presented do not include the full life cycle of GHG emissions that would occur over the production/transport of materials used during the construction of each build alternative or used during the operational life of the proposed project, solid waste that would be generated over the life of the project, and the end of life for the materials and processes that would occur as an indirect result of the proposed project. Estimating the GHG emissions associated with these processes would be speculative and would require analysis beyond the current state of the art in impact assessment, and may lead to a false or misleading level of precision in reporting operational GHG emissions. Furthermore, indirect emissions associated with in-state energy production and generation of solid waste would be regulated under AB 32 directly at the source or facility that would handle these processes. The emissions associated with off-site facilities in California would be closely controlled, reported, capped, and traded under AB 32 and California ARB programs, as recommended by ARB's Scoping Plan (ARB 2008X). Therefore, it is assumed that GHG emissions associated with these life-cycle stages would be consistent with AB 32 requirements.

2- Construction emissions were modeled with the URBEMIS 2007 computer model using the same assumptions and input parameters to estimate criteria air pollutant emissions in Section 3.4, “Air Quality.” The URBEMIS 2007 model does not account for CO_2 emissions associated with the production of concrete or other building materials used in project construction. It also does not estimate GHG emissions other than CO_2, though the levels of these pollutants (i.e., CH_4 and N_2O) are expected to be nominal in comparison to the estimated CO_2 levels, even considering their respective global warming potentials. Estimated values represent the levels of construction-generated GHG emissions that would be generated during the entire 19-year construction period. Construction emission estimates do not account for the fact that the intense level of grading that would occur on the eastern side of the project site (compared to the intensity of grading that would be performed in other areas of the site) under the Proposed Project, Reduced Impact Minimization, Reduced Hillside, and No Federal Action alternatives, but not the Centralized Development alternative. This distinction is pertinent because grading is one of the most GHG-intensive phases of construction. However, a more detailed analysis is not provided because grading plans were not available for all action alternatives at the time of the analysis.

3- Construction emission estimates do not account for the fact that the intense level of grading that would occur on the eastern side of the project site (compared to the intensity of grading that would be performed in other areas of the site) under the Proposed Project, Reduced Impact Minimization, Reduced Hillside, and No Federal Action alternatives, but not the Centralized Development alternative. This distinction is pertinent because grading is one of the most GHG-intensive phases of construction. However, a more detailed analysis is not provided because grading plans were not available for all action alternatives at the time of the analysis.

4- Direct operational area-source and mobile-source emissions were modeled using the URBEMIS 2007 computer model, based on VMT and the number of trips obtained from the traffic analysis, as well as the same assumptions and input parameters used to estimate criteria air pollutant emissions in Section 3.2, “Air Quality.” URBEMIS also does not estimate GHG emissions other than CO_2 emissions, although the levels of these pollutants (i.e., CH_4 and N_2O) are expected to be nominal in comparison to the estimated CO_2 levels, even considering their respective global warming potentials.

5- Indirect operational CO2e emissions associated with electricity consumption were estimated using the methodologies and emission factors from the California Climate Action Registry's General Reporting Protocol, Version 3.1 (CCAR 2009).

6- Electricity consumption associated with the consumption of water, including the conveyance, distribution, and treatment of that water, was estimated using estimates of the projected water demand based on population, employment, and student numbers for each alternative, and the average energy intensity for Northern California of 5,411 kilowatt-hours per million gallons associated with this consumption provided by the CEC (CEC 2007). In turn, the indirect operational CO2e emissions associated with this electricity consumption were estimated using the methodologies of the California Climate Action Registry General Reporting Protocol, Version 3.1 (CCAR 2009).

7- Totals may not add exactly due to rounding. Actual values for these parameters are expected to be lower for multiple reasons, which are discussed in detail in the impact analysis.

8- These benchmarks are based on projected increases in the state's population and employment levels and reductions targets established by AB 32.

References:

California Air Resources Board. 2008X. Climate Change Scoping Plan. Sacramento, CA. Available: <http://www.arb.ca.gov/cc/scopingplan/document/scopingplandocument.htm>. Accessed September 2009.

California Climate Action Registry. 2009 (January). *California Climate Action Registry General Reporting Protocol, Version 3.1* . Los Angeles, CA. Available: <http://www.climateregistry.org/resources/docs/protocols/grp/GRP_3.1_January2009.pdf>. Last updated January 2009. Accessed September 10, 2009.

California Energy Commission [CEC] 2007. Water Related Energy Use in California. February 2007. Available at: <http://www.energy.ca.gov/2007publications/CEC-999-2007-008/CEC-999-2007-008.PDF>

Folsom South of 50
Construction and Operational GHG Emissions

Alternative	GHG Emissions ($MT CO_2e$) Construction
Proposed Project	50,456
No Federal Action	42,664
Resource Impact Minimization	44,979
Centralized Development	47,105
Reduced Hillside Development	50,684
Notes: Emissions are total construction schedule emissions.	

Alternative	GHG Emissions Source and Emissions ($MT CO_2e$/yr)					Service Population (SP)	Population GHG Efficiency ($MT CO_2e$/yr/SP)
	Area	Mobile	Electricity	Water	Total Operational		
Proposed Project	45,478	111,037	111,049	23,485	291,049	37,544	7.75
No Federal Action	31,435	92,043	99,860	16,877	240,215	26,981	8.90
Resource Impact Minimization	36,027	86,171	96,503	18,193	236,895	29,084	8.15
Centralized Development	40,062	108,560	126,154	21,433	296,208	34,263	8.65
Reduced Hillside Development	46,995	111,848	145,454	26,399	330,696	42,203	7.84

Notes: $MT CO_2e$ = metric tons of carbon dioxide equivalent

Water consumption does not include outdoor water use for parks.

Service population includes the project's population and jobs (i.e., retail, commercial, and educational).

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS and GHG\Construction\Centralized Development Construction.urb924

Project Name: Folsom South of 50 Centralized Development Construction

Project Location: Sacramento County AQMD

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

	CO2
2011 TOTALS (tons/year unmitigated)	2,732.85

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	CO2
2011	2,732.85
Asphalt 01/01/2011-12/30/2011	196.59
Paving Off-Gas	0.00
Paving Off Road Diesel	165.41
Paving On Road Diesel	13.02
Paving Worker Trips	18.16
Building 01/01/2011-12/30/2011	1,550.57
Building Off Road Diesel	293.71
Building Vendor Trips	298.75
Building Worker Trips	958.11
Coating 01/01/2011-12/30/2011	14.86
Architectural Coating	0.00
Coating Worker Trips	14.86
Fine Grading 01/01/2011-12/30/2011	970.83
Fine Grading Dust	0.00
Fine Grading Off Road Diesel	938.15
Fine Grading On Road Diesel	0.00
Fine Grading Worker Trips	32.68

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Phase Assumptions

Phase: Fine Grading 1/1/2011 - 12/30/2011 - Default Fine Site Grading Description

Total Acres Disturbed: 88.21

Maximum Daily Acreage Disturbed: 22.05

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

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 Rubber Tired Dozers (357 hp) operating at a 0.59 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: Paving 1/1/2011 - 12/30/2011 - Default Paving Description

Acres to be Paved: 22.05

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 1/1/2011 - 12/30/2011 - Default Building Construction Description

Off-Road Equipment:

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

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 1/1/2011 - 12/30/2011 - Default Architectural Coating Description

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

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS and GHG\Construction\Proposed Project Construction.urb924

Project Name: Folsom South of 50 Proposed Project Construction

Project Location: Sacramento County AQMD

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

	CO2
2011 TOTALS (tons/year unmitigated)	2,927.56

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	CO2
2011	2,927.56
Asphalt 01/01/2011-12/30/2011	219.45
Paving Off-Gas	0.00
Paving Off Road Diesel	184.45
Paving On Road Diesel	16.85
Paving Worker Trips	18.16
Building 01/01/2011-12/30/2011	1,720.15
Building Off Road Diesel	293.71
Building Vendor Trips	328.81
Building Worker Trips	1,097.64
Coating 01/01/2011-12/30/2011	17.13
Architectural Coating	0.00
Coating Worker Trips	17.13
Fine Grading 01/01/2011-12/30/2011	970.83
Fine Grading Dust	0.00
Fine Grading Off Road Diesel	938.15
Fine Grading On Road Diesel	0.00
Fine Grading Worker Trips	32.68

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Phase Assumptions

Phase: Fine Grading 1/1/2011 - 12/30/2011 - Default Fine Site Grading Description

Total Acres Disturbed: 114.15

Maximum Daily Acreage Disturbed: 28.54

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

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 Rubber Tired Dozers (357 hp) operating at a 0.59 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: Paving 1/1/2011 - 12/30/2011 - Default Paving Description

Acres to be Paved: 28.54

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 8 hours per day

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

Phase: Building Construction 1/1/2011 - 12/30/2011 - Default Building Construction Description

Off-Road Equipment:

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

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 1/1/2011 - 12/30/2011 - Default Architectural Coating Description

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

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS and GHG\Construction\Resource Impact Minimization Construction.u

Project Name: Folsom South of 50 Resource Impact Minimization Construction

Project Location: Sacramento County AQMD

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

	CO2
2011 TOTALS (tons/year unmitigated)	2,609.52

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	CO2
2011	2,609.52
Asphalt 01/01/2011-12/30/2011	197.69
Paving Off-Gas	0.00
Paving Off Road Diesel	165.41
Paving On Road Diesel	14.12
Paving Worker Trips	18.16
Building 01/01/2011-12/30/2011	1,427.23
Building Off Road Diesel	293.71
Building Vendor Trips	254.05
Building Worker Trips	879.47
Coating 01/01/2011-12/30/2011	13.78
Architectural Coating	0.00
Coating Worker Trips	13.78
Fine Grading 01/01/2011-12/30/2011	970.83
Fine Grading Dust	0.00
Fine Grading Off Road Diesel	938.15
Fine Grading On Road Diesel	0.00
Fine Grading Worker Trips	32.68

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Phase Assumptions

Phase: Fine Grading 1/1/2011 - 12/30/2011 - Default Fine Site Grading Description

Total Acres Disturbed: 95.65

Maximum Daily Acreage Disturbed: 23.91

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

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 Rubber Tired Dozers (357 hp) operating at a 0.59 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: Paving 1/1/2011 - 12/30/2011 - Default Paving Description

Acres to be Paved: 23.91

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 1/1/2011 - 12/30/2011 - Default Building Construction Description

Off-Road Equipment:

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

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 1/1/2011 - 12/30/2011 - Default Architectural Coating Description

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

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS and GHG\JANUARY 2010 REVISION DOCs\Reduced Hillside Development Construction (Jan 2010) urb024

Project Name: Folsom South of 50 Reduced Hillside Development Construction

Project Location: Sacramento County AQMD

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

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2011 TOTALS (tons/year unmitigated)	15.17	16.79	19.61	0.02	72.99	0.98	73.97	15.25	0.90	16.15	2,940.49

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2011	15.17	16.79	19.61	0.02	72.99	0.98	73.97	15.25	0.90	16.15	2,940.49
Asphalt 01/01/2011-12/30/2011	0.44	2.47	1.54	0.00	0.00	0.22	0.22	0.00	0.20	0.20	219.16
Paving Off-Gas	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.39	2.37	1.34	0.00	0.00	0.21	0.21	0.00	0.19	0.19	184.45
Paving On Road Diesel	0.01	0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.56
Paving Worker Trips	0.00	0.01	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.16
Building 01/01/2011-12/30/2011	0.88	4.75	12.81	0.01	0.06	0.29	0.35	0.02	0.26	0.28	1,733.94
Building Off Road Diesel	0.49	2.84	1.81	0.00	0.00	0.20	0.20	0.00	0.19	0.19	293.71
Building Vendor Trips	0.13	1.51	1.50	0.00	0.01	0.06	0.07	0.00	0.06	0.06	366.38
Building Worker Trips	0.26	0.41	9.50	0.01	0.05	0.02	0.07	0.02	0.02	0.04	1,073.85
Coating 01/01/2011-12/30/2011	12.71	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.56
Architectural Coating	12.70	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	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.56
Fine Grading 01/01/2011-12/30/2011	1.14	9.55	5.12	0.00	72.93	0.47	73.41	15.23	0.44	15.67	970.83
Fine Grading Dust	0.00	0.00	0.00	0.00	72.93	0.00	72.93	15.23	0.00	15.23	0.00
Fine Grading Off Road Diesel	1.14	9.54	4.83	0.00	0.00	0.47	0.47	0.00	0.44	0.44	938.15

Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.01	0.01	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.68

Phase Assumptions

Phase: Fine Grading 1/1/2011 - 12/30/2011 - Default Fine Site Grading Description

Total Acres Disturbed: 112.21

Maximum Daily Acreage Disturbed: 28.05

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

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 Rubber Tired Dozers (357 hp) operating at a 0.59 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: Paving 1/1/2011 - 12/30/2011 - Default Paving Description

Acres to be Paved: 28.05

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 8 hours per day

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

Phase: Building Construction 1/1/2011 - 12/30/2011 - Default Building Construction Description

Off-Road Equipment:

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

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 1/1/2011 - 12/30/2011 - Default Architectural Coating Description

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

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS and GHG\Construction\No Federal Action Construction.urb924

Project Name: Folsom South of 50 No Federal Action Construction

Project Location: Sacramento County AQMD

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

	CO2
2011 TOTALS (tons/year unmitigated)	2,475.20

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	CO2
2011	2,475.20
Asphalt 01/01/2011-12/30/2011	197.47
Paving Off-Gas	0.00
Paving Off Road Diesel	165.41
Paving On Road Diesel	13.90
Paving Worker Trips	18.16
Building 01/01/2011-12/30/2011	1,294.70
Building Off Road Diesel	293.71
Building Vendor Trips	219.41
Building Worker Trips	781.58
Coating 01/01/2011-12/30/2011	12.21
Architectural Coating	0.00
Coating Worker Trips	12.21
Fine Grading 01/01/2011-12/30/2011	970.83
Fine Grading Dust	0.00
Fine Grading Off Road Diesel	938.15
Fine Grading On Road Diesel	0.00
Fine Grading Worker Trips	32.68

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Phase Assumptions

Phase: Fine Grading 1/1/2011 - 12/30/2011 - Default Fine Site Grading Description

Total Acres Disturbed: 94.18

Maximum Daily Acreage Disturbed: 23.54

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

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 Rubber Tired Dozers (357 hp) operating at a 0.59 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: Paving 1/1/2011 - 12/30/2011 - Default Paving Description

Acres to be Paved: 23.54

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 1/1/2011 - 12/30/2011 - Default Building Construction Description

Off-Road Equipment:

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

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 1/1/2011 - 12/30/2011 - Default Architectural Coating Description

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

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS and GHG\Mobile\Proposed Project Mobile.urb924

Project Name: Folsom South of 50 Proposed Project Mobile-Source Emissions

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	CO2
TOTALS (tons/year, unmitigated)	122,396.51

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	CO2
TOTALS (tons/year, unmitigated)	122,396.51

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	CO2
Proposed Project	122,396.51
TOTALS (tons/year, unmitigated)	122,396.51

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2030 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
Proposed Project		10.00	1000 sq ft	24,700.00	247,000.00	612,930.51
					247,000.00	612,930.51

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	47.5	0.0	100.0	0.0
Light Truck < 3750 lbs	10.0	0.0	99.0	1.0
Light Truck 3751-5750 lbs	22.9	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.1	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.1	0.0	81.0	19.0

Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	55.6	44.4
Med-Heavy Truck 14,001-33,000 lbs	1.6	0.0	18.8	81.2
Heavy-Heavy Truck 33,001-60,000 lbs	0.4	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	3.5	34.3	65.7	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.8	0.0	87.5	12.5

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	2.4	2.4	2.4	2.7	1.5	1.6
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
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)						
Proposed Project				81.0	9.5	9.5

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS and GHG\Mobile\Resource Impact Minimization Mobile.urb924

Project Name: Folsom South of 50 Resources Impact Minimization Mobile-Source Emissions

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	CO2
TOTALS (tons/year, unmitigated)	94,986.38

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	CO2
TOTALS (tons/year, unmitigated)	94,986.38

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	CO2
Resource Impact Minimization	94,986.38
TOTALS (tons/year, unmitigated)	94,986.38

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2030 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
Resource Impact Minimization		10.00	1000 sq ft	19,200.00	192,000.00	475,583.99
					192,000.00	475,583.99

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	47.5	0.0	100.0	0.0
Light Truck < 3750 lbs	10.0	0.0	99.0	1.0
Light Truck 3751-5750 lbs	22.9	0.0	100.0	0.0

Med Truck 5751-8500 lbs	10.1	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.1	0.0	81.0	19.0
Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	55.6	44.4
Med-Heavy Truck 14,001-33,000 lbs	1.6	0.0	18.8	81.2
Heavy-Heavy Truck 33,001-60,000 lbs	0.4	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	3.5	34.3	65.7	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.8	0.0	87.5	12.5

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	2.8	1.2	1.0
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
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)						
Resource Impact Minimization				81.0	9.5	9.5

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS and GHG\Mobile\Centralized Development Mobile.urb924

Project Name: Folsom South of 50 Centralized Development Mobile-Source Emissions

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	CO2
TOTALS (tons/year, unmitigated)	119,665.45

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	CO2
TOTALS (tons/year, unmitigated)	119,665.45

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	CO2
Centralize Development	119,665.45
TOTALS (tons/year, unmitigated)	119,665.45

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2030 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
Centralize Development		10.00	1000 sq ft	23,000.00	230,000.00	602,599.99
					230,000.00	602,599.99

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	47.5	0.0	100.0	0.0
Light Truck < 3750 lbs	10.0	0.0	99.0	1.0
Light Truck 3751-5750 lbs	22.9	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.1	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.1	0.0	81.0	19.0

Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	55.6	44.4
Med-Heavy Truck 14,001-33,000 lbs	1.6	0.0	18.8	81.2
Heavy-Heavy Truck 33,001-60,000 lbs	0.4	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	3.5	34.3	65.7	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.8	0.0	87.5	12.5

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	2.8	1.9	1.9
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
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)						
Centralize Development				80.0	10.0	10.0

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS and GHG\JANUARY 2010 REVISION DOCs\Reduced Hillside Development Mobile (Jan 2010) urb924

Project Name: Folsom South of 50 Reduced Hillside Development Mobile-Source Emissions

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	85.90	46.92	663.32	1.22	195.09	37.82	123,289.92

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	85.90	46.92	663.32	1.22	195.09	37.82	123,289.92

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Reduced Hillside Development	85.90	46.92	663.32	1.22	195.09	37.82	123,289.92
TOTALS (tons/year, unmitigated)	85.90	46.92	663.32	1.22	195.09	37.82	123,289.92

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2030 Season: Annual

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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
Reduced Hillside Development		10.00	1000 sq ft	24,200.00	242,000.00	619,519.99
					242,000.00	619,519.99

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	47.5	0.0	100.0	0.0
Light Truck < 3750 lbs	10.0	0.0	99.0	1.0
Light Truck 3751-5750 lbs	22.9	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.1	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.1	0.0	81.0	19.0
Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	55.6	44.4
Med-Heavy Truck 14,001-33,000 lbs	1.6	0.0	18.8	81.2
Heavy-Heavy Truck 33,001-60,000 lbs	0.4	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	3.5	34.3	65.7	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.8	0.0	87.5	12.5

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	2.8	1.6	1.6
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
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)						
Reduced Hillside Development				80.0	10.0	10.0

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS and GHG\Mobile\No Federal Action Mobile.urb924

Project Name: Folsom South of 50 No Federal Action Mobile-Source Emissions

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	CO2
TOTALS (tons/year, unmitigated)	101,459.26

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	CO2
TOTALS (tons/year, unmitigated)	101,459.26

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	CO2
No Federal Action	101,459.26
TOTALS (tons/year, unmitigated)	101,459.26

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2030 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
No Federal Action		10.00	1000 sq ft	19,300.00	193,000.00	511,450.02
					193,000.00	511,450.02

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	47.5	0.0	100.0	0.0
Light Truck < 3750 lbs	10.0	0.0	99.0	1.0
Light Truck 3751-5750 lbs	22.9	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.1	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.1	0.0	81.0	19.0
Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	55.6	44.4
Med-Heavy Truck 14,001-33,000 lbs	1.6	0.0	18.8	81.2
Heavy-Heavy Truck 33,001-60,000 lbs	0.4	0.0	0.0	100.0

Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	3.5	34.3	65.7	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.8	0.0	87.5	12.5

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	2.9	1.6	1.7
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
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)						
No Federal Action				80.0	10.0	10.0

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS and GHG\Area Source\Proposed Project Area.urb924

Project Name: Folsom South of 50 Proposed Project Area-Source Emissions

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	CO2
TOTALS (tons/year, unmitigated)	50,129.88

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	CO2
TOTALS (tons/year, unmitigated)	50,129.88

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	CO2
Natural Gas	40,512.20
Hearth	9,585.35
Landscape	32.33
Consumer Products	

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS and GHG\Area Source\Resource Impact Minimization Area.urb924

Project Name: Folsom South of 50 Resource Impact Minimization Area-Source Emissions

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	CO2
TOTALS (tons/year, unmitigated)	39,713.08

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	CO2
TOTALS (tons/year, unmitigated)	39,713.08

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	CO2
Natural Gas	32,204.96
Hearth	7,478.40
Landscape	29.72
Consumer Products	

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS and GHG\Area Source\Centralized Development Area.urb924

Project Name: Folsom South of 50 Centralized Development Area-Source Emissions

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	CO2
TOTALS (tons/year, unmitigated)	44,160.43

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	CO2
TOTALS (tons/year, unmitigated)	44,160.43

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	CO2
Natural Gas	35,664.16
Hearth	8,472.82
Landscape	23.45
Consumer Products	

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS and GHG\JANUARY 2010 REVISION DOCs\Reduced Hillside Development Area (Jan 2010).urb924

Project Name: Folsom South of 50 Reduced Hillside Development Area-Source Emissions

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	166.85	40.44	419.63	1.27	63.70	61.32	51,802.35

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	166.85	40.44	419.63	1.27	63.70	61.32	51,802.35

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	2.48	32.64	17.82	0.00	0.06	0.06	40,939.82
Hearth	43.00	7.66	389.94	1.27	63.61	61.23	10,843.18
Landscape	2.00	0.14	11.87	0.00	0.03	0.03	19.35
Consumer Products	95.18						
Architectural Coatings	24.19						
TOTALS (tons/year, unmitigated)	166.85	40.44	419.63	1.27	63.70	61.32	51,802.35

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: H:\PROJECTS\Folsom South of 50\URBEMIS and GHG\Area Source\No Federal Action Area.urb924

Project Name: Folsom South of 50 No Federal Action Area-Source Emissions

Project Location: Sacramento County AQMD

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	CO2
TOTALS (tons/year, unmitigated)	34,650.56

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	CO2
TOTALS (tons/year, unmitigated)	34,650.56

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	CO2
Natural Gas	28,640.60
Hearth	5,984.76
Landscape	25.20
Consumer Products	

Folsom South of 50
Indirect Emissions (Electricity)

Electricity Consumption

Alternative	Average Demand (MVA)	Peak Demand (MVA)	Average Demand (kilowatts)	Annual Demand (kilowatt-hours)
No Project	0.1	0.2	80	700,800
Proposed Project	39.7	87.3	31,760	278,217,600
No Federal Action	35.7	78	28,560	250,185,600
Resource Impact Minimization	34.5	75.9	27,600	241,776,000
Centralized Development	45.1	97.1	36,080	316,060,800
Reduced Hillside Development	52	111.5	41,600	364,416,000
Notes: MVA = megavolt-amperes				

Power Factor	0.8

Electricity-Generated GHG Emissions

Alternative	Total kWh	Total MWh	Region	Emission Factor (lb CO_2/MWh)	GWP	Emission Factor (lb CH_4/MWh)	GWP	Emission Factor (lb N_2O/MWh)	GWP	Total Emissions (MT CO_2e/year)
No Project	700,800	701	CALI	878.71	1	0.0067	23	0.0037	296	280
Proposed Project	278,217,600	278,218	CALI	878.71	1	0.0067	23	0.0037	296	111,049
No Federal Action	250,185,600	250,186	CALI	878.71	1	0.0067	23	0.0037	296	99,860
Resource Impact Minimization	241,776,000	241,776	CALI	878.71	1	0.0067	23	0.0037	296	96,503
Centralized Development	316,060,800	316,061	CALI	878.71	1	0.0067	23	0.0037	296	126,154
Reduced Hillside Development	364,416,000	364,416	CALI	878.71	1	0.0067	23	0.0037	296	145,454

Notes: kWh = kilowatts; MWh = megawatts; lb = pounds; CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; GWP = global warming potential; MT CO_2e = metric tons of carbon dioxide equivalent.

Sources:
Capitol Utility Specialists 2009
California Climate Action Registry [CCAR] General Reporting Protocol v 3.1 January 2009

Folsom South of 50
Indirect Emissions (Water)

Water Consumption

Alternative	Population	Retail Employees	Commercial Employees	School Staff	Students	Service Population	Annual Emissions (MT CO_2e/yr)
Proposed Project	24,335	7,042	5,589	578	6,940	37,544	23,485
No Federal Action	15,808	6,123	4,634	416	4,987	26,981	16,877
Resource Impact Minimization	19,584	5,489	3,529	482	5,783	29,084	18,193
Centralized Development	20,689	6,612	6,436	526	6,313	34,263	21,433
Reduced Hillside Development	28,084	6,919	6,569	631	7,577	42,203	26,399

Notes: MT CO2e/yr = metric tons carbon dioxide equivalent per year
Source: RMC 2010

APPENDIX C2

Air Quality Management Plan

Folsom Plan Area Specific Plan

Operational Air Quality Mitigation Plan

2nd Draft

Torrence Planning
8 September 2009

TABLE OF CONTENTS

1.0 INTRODUCTION

1.1 PLAN PURPOSE

The primary impetus to prepare an Air Quality Mitigation Plan for the Folsom Plan Area Specific Plan (FPASP) is LAFCO Resolution 1195 dated 6 June 2001 adopting Findings of Fact and a Statement of Overriding Considerations for the City of Folsom Sphere of Influence Amendment (4-97) Among the mitigation measures included in the Statement of Overriding Considerations is Mitigation Measure 4.5-2 that requires "*Prior to submission of any application for annexation of the SOI area or any portion thereof, the City of Folsom will prepare an Air Quality Plan for the SOI area incorporating policies and other measures at least as stringent as those in Sacramento County General Plan policies AQ-2 through AQ-31. For the AQA-15 equivalent measure, the Plan shall include an Indirect Source Review and Mitigation Program that reduces emissions by 35 percent forms the potential emissions that could occur without a review and mitigation program".* The Sacramento Metropolitan Air Quality Management District (SMAQMD) CEQA Guidelines dated July 2004 form the basis of the FPASP Air Quality Mitigation Plan. The 35% reduction in operational emissions required by LAFCO Resolution 1195, and the Draft Environmental Impact Report (DEIR) for the FPASP will satisfy the "all feasible measures" mitigation requirement under CEQA for operational impacts

Secondarily, the preparation of an Air Quality Mitigation Plan will provide guidance for the implementation of the Specific Plan Land Use and Resource Management and Sustainability objective and policies including improved mobility, a reduction in vehicle miles traveled, and improved air quality as required by AB 32 and SB 375. The Air Quality Mitigation Plan will also demonstrate consistency with the Policies, Goals and Objectives of the SACOG Blueprint Principals.

1.2 PROJECT LOCATION & SETTING

The Plan Area consists of approximately 3,510 acres of gently rolling grassland terrain and oak woodlands bounded on the north by Highway 50, White Rock Road to the south, Prairie City Road to the west and the Sacramento/El Dorado County line to the east. Prior to annexation to the City of Folsom, the Plan Area was property was used primarily for cattle grazing. Immediately north of the Plan Area is an existing balanced community of homes, businesses and shopping centers. The unincorporated community of El Dorado Hills is located adjacent to the eastern boundary of the Plan Area and to the south, the Plan Area is bordered by open grassy rangeland. Immediately to the west of the Plan Area is the Aerojet General Corporation facility (See Figure 1.1)

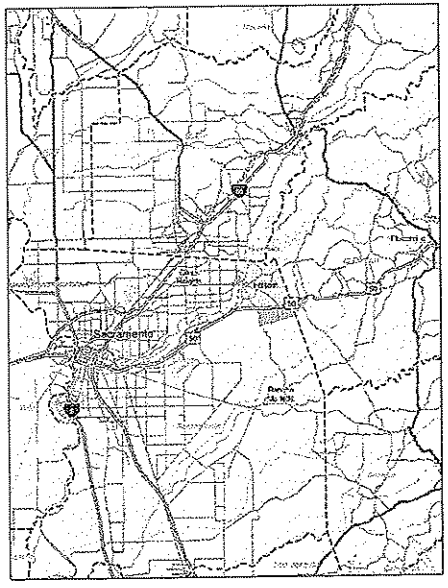

Figure 1.1

1.3 PROJECT HISTORY

City of Folsom Sphere of Influence (SOI)

The Folsom Plan Area Specific Plan is a comprehensively planned expansion of the City of Folsom and is the culmination of a planning process that started in 2001 when the Sacramento Local Agency Formation Commission (LAFCO) approved including the Plan Area property in the City of Folsom's Sphere of Influence (SOI). As part of that process, a Memorandum of Understanding (MOU) between the City of Folsom and Sacramento County and several LAFCO Resolutions were approved. Among the conditions agreed to in these documents was the requirement to complete an "Air Quality Plan" for the SOI property prior to the submittal of an application to LAFCO by the City of Folsom to annex any or all of the SOI property.

Measure W and the Folsom City Charter

In November 2004, Measure W was approved by the City of Folsom voters; that approval requires a number of conditions be met, including completion and certification of an environmental impact report (EIR), prior to the approval by LAFCO of any annexation of SOI property to the City of Folsom. The City Charter was subsequently amended to include the voter approved provisions of Measure W.

The Folsom Plan Area Specific Plan (FPASP)

The FPASP is a City of Folsom approved planning document that sets forth the objectives, policies and standards for development within the Plan Area. The FPASP calls for a comprehensively planned community based on the principals of "Smart Growth" and "Transit Oriented Development". Consistent with these principals, the FPASP encompasses a mix of residential, commercial, employment and public uses complemented by recreation amenities including a significant system of parks and open space, all within close proximity to one another and served and interconnected by a proposed transit system "complete streets", bicycle paths and pedestrian trails.

The FPASP proposes the construction of 10,210 residential housing units, approximately 5 million square feet of commercial retail and office use including a regional shopping center, a town center, public facilities including schools, a municipal center as well as system of local, neighborhood and community parks and open spaces (see Figure 4.1)

Located within the Plan Area is a proposed roadway network that provides north-south connectivity into the City of Folsom as well as parallel capacity for Highway 50. The Plan Area also includes an interconnected system of sidewalks, trails and pathways. This network of sidewalks and trails, coupled with varied mix of land uses throughout the Plan Area, aid in the formation of a walkable community.

A major transportation feature of the FPASP, and a significant air quality mitigation feature, is the proposed transit corridor that links the town and neighborhood centers, the regional commercial center, and proposed higher density residential and mixed-use area. The corridor is proposed to run in the Easton Valley Parkway right-of-way from Prairie City Road to the collector street west of-Placerville Road, then jog-south to Street 'B' , then continue east to the Sacramento Placerville Transportation Corridor (SPTC), then run southeast in a right-of-way shared with the SPTC, to the southern edge of the Plan Area.

SECTION 4
LAND USE DIAGRAM

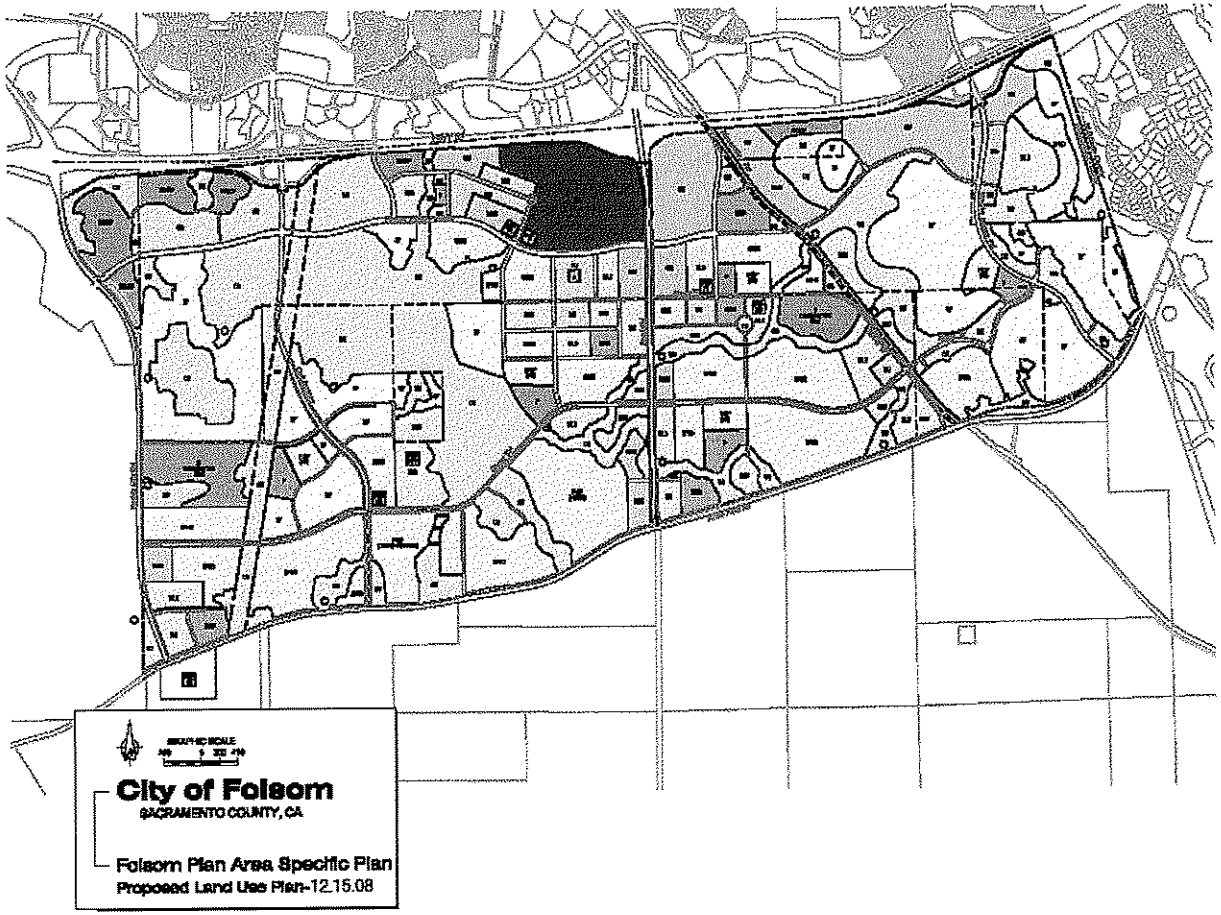

Figure 4.1 Land Use Diagram

An additional transit corridor, not included in the FPASP but directly adjacent to its southern boundary, is the proposed Capital SouthEast Connector (White Rock Road), a multi-modal transportation corridor proposed by the Elk Grove Rancho Cordova – El Dorado Connector Authority to ease Highway 50 congestion and to provide a direct link between the communities of El Dorado Hills, Folsom, Rancho Cordova and Elk Grove.

1.4 PLAN ORGANIZATION

The remainder of this report is organized into five sections: Section 2 describes the proposed scaling methodology, Section 3 is a summary of mitigation measures, Section 4 is a detailed description of the mitigation measures and Section 5 includes report references.

2.0 SCALING METHODOLOGY

The FPASP is a comprehensively planned new community with multiple land uses. The new "Smart Growth" development patterns proposed for the Plan Area insure that the majority of the proposed air quality mitigation measures will apply to the entire Plan Area; however, some measures are limited to a particular Plan Area land use and will only be given credit for mitigating the emissions associated with trip generations for that particular land use (scaling). The FPASP Air Quality Mitigation Plan proposes to use a net site area approach for calculating the scale factor of mitigation measures. Mitigation measures that apply to only one or two land uses are scaled based on the percentage of net site area designated for the land use. To determine the net site area of the FPASP, the area of undeveloped open space is subtracted from the total Plan Area of 3,510.4 acres as shown in the following calculation.

Total FPASP Site Area:	3,510.4 acres
Undeveloped Open Space	-1,053.1 acres
Net Site Area	2,457.3 acres

Individual Plan Area land uses are expressed as a percentage of the net site area. Land use percentages are converted to land use scaling factors as shown in Table 2.1 below:

Table 2.1 Land Use Scaling

Land Use Description [1]	Area (Ac)	Area (Ac)	% of Net Site Area	% of Net Site Area	Scaling Factors	Project Scaling Factors
Single Family Residential (R1)	557.80		22.7%		0.227	
Single Family High Density Residential (R2)	532.50		21.7%		0.217	
Multi-Family Low Density Residential (R3)	266.70		10.9%		0.109	
Multi-Family Medium Density Residential (R4)	67.00		2.7%		0.027	
Multi-Family High Density Residential (R5)	49.90		2.0%		0.020	
Subtotal Residential		1,473.9		60.0%		0.600
Commercial		451.7		18.5%		0.185
Mixed Use		59.1		2.4%		0.024
Schools		121.7		4.9%		0.049
Parks		179.3		7.2%		0.072
Major Circulation		171.6		7.0%		0.070
Totals		2,457.3		100.0%		1.000

[1] From Table 4.1, Folsom Plan Area Specific Plan

3.0 SUMMARY OF MITIGATION MEASURES

The following mitigation measures have been developed by the SMAQMD and are divided into categories based upon the proposed applicable land uses in the Folsom Plan Area Specific Plan. The categories are listed in the Applicable Land Use Column as C for Commercial, R for Residential and M for Mixed Use. Each mitigation measure is used to quantify the approximate emission reduction associated with a particular mitigation measure. The possible points associated with a particular mitigation measure are associated with the percentage of reduction in the project's anticipated operational emissions.

Table 3.1 Summary of SMAQMD Air Quality Mitigation Measures used in the Folsom Plan Area Specific Plan

SMAQMD Measure No.	Title	Applicable Land Use	Description	Mitigation Points Based on Percentage of Net Site Area Scaling Method			
				Possible	Scale	Achieved	Comments
Bicycle/Pedestrian/Transit Mitigation Measures							
1	Bike parking	C & M	*As applicable*, non-residential projects provide *sufficient* short-term and/*or* long-term bicycle parking facilities to meet peak season maximum demand.	0.625	0.209	**0.131**	Applied to Commercial and commercial components of Mixed Use. See Appendix A of the FPASP for bicycle parking requirements.
3	Bicycle parking at multi-unit residential	R *& M*	Long-term bicycle parking is provided at apartment complexes or condominiums without garages.	0.625	0.180	**0.113**	Measure applied to R3, R4 & R5 residential land uses and residential components of Mixed Use. See Appendix A of the FPASP for detailed bicycle parking requirements.

SMAQMD Measure No.	Title	Applicable Land Use	Description	Mitigation Points Based on Percentage of Net Site Area Scaling Method			
				Possible	Scale	Achieved	Comments
4	Proximity to bike path/bike lanes	R,C & M	Entire project is located within *approximately* ½ mile of an existing Class I or Class II bike lane and project design includes a comparable network that connects the project uses to the existing offsite facility.	0.625	1.000	**0.625**	Applied to entire project. See FPASP Figure 7.29 that depicts all Class I bike paths and Class II bike lanes.
5	Pedestrian network	R,C & M	The project provides a pedestrian access network that internally links all uses and connects to all existing or planned external streets and pedestrian facilities contiguous with the project site. *The possible points here are too low. To place greater emphasis on walking as a means to reduce GHG, 4.0 additional possible mitigation points are provided in Measure 99A: Walkable Community*	1.000	1.000	**1.000**	Applied to entire project. See FPASP Figure 7.29 that depicts all Class I bike paths and all paved and unpaved Plan Area trails.
6	Pedestrian barriers minimized	R,C & M	Site design and building placement minimize barriers to pedestrian access and interconnectivity. Physical barriers such as walls, berms, landscaping, and slopes between residential and non-residential uses that *unnecessarily* impede bicycle or pedestrian circulation are *minimized*	1.000	1.000	**1.000**	Applied to entire project. See FPASP Figure 7.29 that depicts all paved and unpaved trails and sidewalks in the Plan Area. This figure also indicates the locations of pedestrian access barriers that are needed for public safety.

SMAQMD Measure No.	Title	Applicable Land Use	Description	Mitigation Points Based on Percentage of Net Site Area Scaling Method			
				Possible	Scale	Achieved	Comments
8	Bus shelter for planned transit service	R,C & M	Project provides transit stops with safe and convenient bicycle/pedestrian access. Project provides essential transit stop improvements (i.e., shelters, route information, benches, and lighting) in anticipation of future transit service.	0.250	1.000	**0.250**	Applied to entire project. See Section 7.10.3 and Figure 7.28 of the FPASP and the FPASP Transit Master Plan for details.
9	Traffic calming	R,C & M	Project design includes pedestrian/bicycle safety and traffic calming measures in excess of jurisdiction requirements. Roadways are designed to reduce motor vehicle speeds and encourage pedestrian and bicycle trips by featuring traffic calming features.	0.250-1.000	1.000	**1.000**	Applied to entire project. See FPASP Section 7.5.11 and Policy 7.6.
Parking Measures							
11	Minimum parking	R,C,M	Provide minimum amount of parking required. Special review of parking required.	0.100-6.000	1.000	**6.000**	Applied to entire project. See detailed description of minimum parking in Section 4.0 of this plan.
13	Pedestrian pathway through parking	C & M	Provide a parking lot design that includes clearly marked and shaded pedestrian pathways between transit facilities and building entrances.	0.500	0.209	**0.105**	Applied to C & M only.

SMAQMD Measure No.	Title	Applicable Land Use	Description	Mitigation Points Based on Percentage of Net Site Area Scaling Method			
				Possible	Scale	Achieved	Comments
Site Design Measures							
17	Orientation to planned alternate transit,	R,C,M	Project is oriented toward planned transit, bicycle, or pedestrian corridor. Setback distance is minimized.	0.250	1.000	**0.250**	Applied to entire project.
18	Residential density	R	Project provides high-density residential development.	1.000-12.000	0.071	**0.852**	The Project's core development area provides high density development. Applied to R4, R5 & M only
19	Street grid	R,C,M	*Project has* multiple and direct street routing (grid style).	1.000	0.809	**0.809**	Applied to R2 through R5, C & M
Mixed-Use Measures							
23	Suburban mixed-use design	R,C,M	Have at least three of the following on-site and/or off-site within ¼ mile: Residential Development, Retail Development, Park, Open Space, or Office.	3.000	1.000	**3.000**	Applied to entire project.
Building Component Measures							
25	No wood-burning fireplace	R	Project does not feature *wood-burning* fireplaces or wood burning stoves.	1.000	0.600	**0.600**	Applied to R only. Additional documentation will be needed for final.

SMAQMD Measure No.	Title	Applicable Land Use	Description	Mitigation Points Based on Percentage of Net Site Area Scaling Method			
				Possible	Scale	Achieved	Comments
27	Energy Star roof	R,C,M	Install Energy Star labeled roof materials.	0.500-1.000	1.000	**1.000**	Applied to entire project. Based on Energy Star labeled roof materials only. Additional documentation will be needed for final.
TDM and Miscellaneous Measures							
33	Transportation Management Association membership	R,C,M	Include permanent TMA membership and funding requirement. Funding to be provided by Community Facilities District or County Service Area or other non-revocable funding mechanism.	5.000	1.000	**5.000**	Applied to entire project.
34	Electric lawnmower	R	Provide complimentary electric lawnmowers to each residential buyer. *Alternatively, require City of Folsom and Home Owner Associations to use electric lawnmowers on City and HOA maintained properties. Enforcement of electric lawnmowers shall be ensured by TMA.*	1.000	0.553	**0.553**	Applied to R1, R2 & R3. *May be applied to R4, R5, & M HOA's and City of Folsom owned property.*

SMAQMD Measure No.	Title	Applicable Land Use Type	Description	Mitigation Points Based on Percentage of Net Site Area Scaling Method			
				Possible	Scale	Achieved	Comments
99A	Walkable Community	C, M & R	The project provides additional pedestrian access networks than specified in SMAQD Measure 5.	4.000	1.000	**4.000**	Applied to entire project.
99B	Transit Corridor	C, M & R	Project establishes a transit corridor that will link the town and neighborhood centers, the regional commercial center and the proposed higher density residential and mixed-use areas of the community to a future off-site regional transit system that includes connections to the RT Gold Line light rail system. The Transit Corridor shall serve as the backbone of the Plan's transit system to provide all residents with access to public transit.	20.000	1.000	**20.000**	Applied to entire project. The FPASP requires the corridor.
99C	Transit Corridor Fees	C, M & R	All projects will pay a City of Folsom Light Rail fee that will assist in the construction of future transit corridor facilities including bus stops and turn-outs, shelters, benches and signs.	2.000	1.000	**2.000**	Applied to entire project.
Total Credit						**48.288**	

4.0 DETAILED DESCRIPTION OF MITIGATION MEASURES

The following is a detailed discussion of each mitigation measure including supportive exhibits, diagrams and Folsom Plan Area Specific Plan policies. As previously stated in Section 3.0, the measures have been developed by the SMAQMD and are divided into categories based upon the proposed applicable land uses in the Folsom Plan Area Specific Plan. The categories are listed in the Applicable Land Use Column as C for Commercial, R for Residential and M for Mixed Use. Each mitigation measure is used to quantify the approximate emission reduction associated with a particular mitigation measure. The possible points associated with a particular mitigation measure are associated with the percentage of reduction in the project's anticipated operational emissions.

Bicycle/Pedestrian/Transit Measures

Mitigation Measure 1: Bike Parking

Non-residential projects provide plentiful short-term and long-term bicycle parking facilities to meet peak-season maximum demand.

Applies to Commercial & Mixed Use	*0.625 Possible Points*	*0.209 Scale Factor*	***0.131 Points***

The FPASP requires short-term bicycle parking for commercial and mixed use projects at a minimum ratio of 1 bicycle parking spaces per 20 required vehicle parking spaces. Long-term bicycle parking is also required at a minimum ratio of 1 bicycle storage space per 20 employee parking spaces. Bicycle parking spaces shall be constructed of either asphalt, concrete or other durable hard surface material and be a minimum of 2-feet by 6-feet and include a 5-foot maneuvering space behind the bicycle. Suitable bicycle racks shall be supplied that allow a bicyclist to use padlock and chain, cable or U-shaped locks to secure a bicycle to the rack. Long-term bicycle storage shall consist of either a 1) bicycle locker, 2) a locked room with access limited to cyclists only, or 3) a standard bicycle rack in a location that is monitored. See FPASP Section 7.11.5 for additional bicycle parking details.

Mitigation Measure 3: Bicycle Parking at Multi-Unit Residential Uses

Long-term bicycle parking is provided at apartment complexes or condominiums without garages.

Applies to Residential, Commercial & Mixed Use	*0.625 Possible Points*	*0.180 Scale Factor*	***0.113 Points***

Bicycle parking for apartments or condominium without garages shall be provided at a ratio of one long-term bicycle parking space per apartment or condominium unit without garages. Long-term bicycle storage shall consist of either a 1) bicycle locker, 2) a locked room with access limited to cyclists only, or 3) a standard bicycle rack in a location that is monitored. See FPASP Section 7.11.5 for additional bicycle parking details at multi-unit residential units.

Mitigation Measure 4: Proximity to Bikepath/Bike Lanes

Entire project is located within approximately ½ mile of an existing Class 1 or Class II bike lane and project design includes a comparable network that connects the project uses to the existing offsite facility.

Applies to Residential, Commercial & Mixed Use	*0.625 Possible Points*	*1.000 Scale Factor*	***0.625 Points***

As shown on FPASP Figure 7.29 all major and minor arterials streets and collector streets include Class II bike lanes. Additionally, approximately 6 miles of Class I bike paths are included in the plan. Figure 7.29 further illustrates that the entire Plan Area is located within approximately ½ mile of the proposed Class I bike paths and Class II bike lanes. Grade separated Class I bike paths occur at Easton Valley Parkway and Alder Creek, Street "A" and Alder Creek, and White Rock Road and Alder Creek. Construction of the Class II bike lanes will occur concurrently with the construction of the arterial and collector streets.

Mitigation Measure 5: Pedestrian Network

The project provides a pedestrian access network that internally links all uses and connects to all existing or planned external streets and pedestrian facilities contiguous with the project site.

Applies to Residential, Commercial & Mixed Use	*1.000 Possible Points*	*1.000 Scale Factor*	***1.000 Points***

As shown on FPASP Figure 7.29 all major and minor arterial, collector and local streets include sidewalks on both sides. Arterial and collector street sidewalks are a minimum of 8-feet in width and are separated from the street by landscape strips of 8-feet. The Town Center sidewalks are increased in width to 15-feet and include 5-foot by 5-foot tree wells. Local streets include 5-foot minimum width sidewalks that are either separated from the street by 6-foot planting strips or attached to the curb and gutter. Additionally, an extensive system of paved and unpaved trails is included within the Plan Area open space. Construction of the sidewalks will occur concurrently with the construction of the streets.

Mitigation Measure 6: Pedestrian Barriers Minimized

Site design and building placement minimize barriers to pedestrian access and interconnectivity. Physical barriers such as walls, berms, landscaping, and slopes between residential and non-residential uses that unnecessarily impede bicycle or pedestrian circulation are minimized

Applies to Residential, Commercial & Mixed Use	*1.000 Possible Points*	*1.000 Scale Factor*	***1.000 Points***

The central portion of the Plan Area is based on a grid pattern of interconnected streets that facilitate pedestrian access between the land uses. Streets with sidewalks provide the pedestrian links between the various land uses with no physical barriers to impede movement. See Figure 6.1 for typical commercial and residential uses adjacent to Street "B"

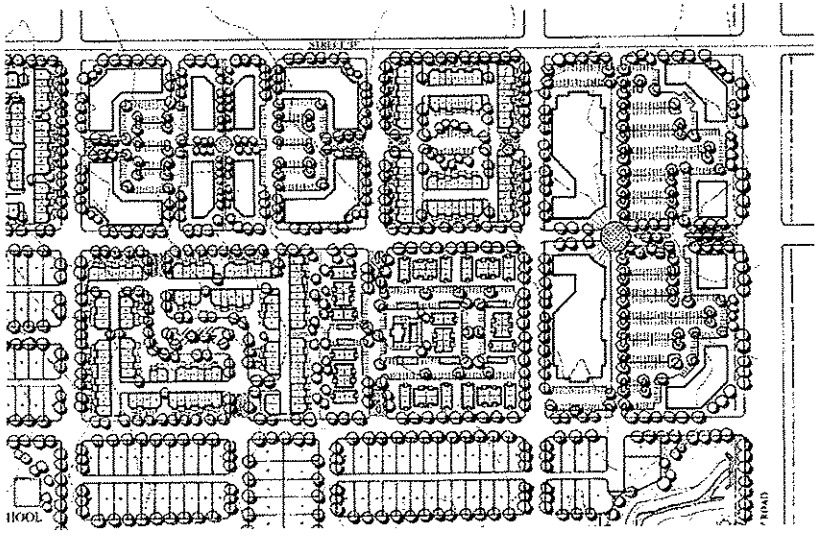

Figure 6.1 Typical Commercial & Residential Uses Adjacent to Street "B"

Mitigation Measure 8: Bus Shelter for Planned Transit Service

Project provides transit stops with safe and convenient bicycle/pedestrian access. Project provides essential transit stop improvements (i.e. shelters, route information, benches, and lighting) in anticipation of future transit service.

Applies to Residential, Commercial & Mixed Use	*0.250 Possible Points*	*1.000 Scale Factor*	***0.250 Points***

The FPASP and its companion Transit Master Plan provide the criteria for transit routes and stops, shelters, benches, lighting and route information. The Specific Plan requires that transit stops and/or bus turnouts be placed in key locations throughout the plan in close proximity to high density housing, commercial areas, office parks, the Town Center and neighborhood centers.

Mitigation Measure 9: Traffic Calming

Project design includes pedestrian/bicycle safety and traffic calming measures in excess of jurisdiction requirements. Roadways are designed to reduce motor vehicle speeds and encourage pedestrian and bicycle trips by featuring traffic calming features.

Applies to Residential, Commercial & Mixed Use	*1.000 Possible Points*	*1.000 Scale Factor*	***1.000 Points***

The FPASP is based on the concept of "complete streets' to insure that all Plan Area streets are designed and operated to enable safe, attractive and comfortable access and travel for all users. The FPASP provides for the use of the following traffic calming features: mid-block bulb-outs, special pavement markings, roundabouts & traffic circles, and on-street parking. See Section 7 of the FPASP for additional traffic calming details.

Parking Measures

Mitigation Measure 11: Minimum Parking

Provide minimum amount of parking required. Special review of parking required.

Applies to Residential, Commercial & Mixed Use	*6.000 Possible Points*	*1.000 Scale Factor*	***6.000 Points***

The FPASP sets its own standard for the minimum amount of required parking. In some instances, the Plan Area requirement is less than what is required by the City of Folsom Municipal Code. Table 11.1 describes the parking requirements for the Plan Area land uses.

Table 11.1 FPASP Minimum Required Parking	
Land Use	Parking
Residential	
Single Family	2.0 covered spaces per unit; 1 additional uncovered space per secondary unit
Single Family High Density	2.0 covered spaces per unit; 1 additional uncovered space per secondary unit
Multi-Family Low Density	
Detached Units	2.0 covered spaces per unit
Attached Units	1.5 covered spaces per unit; 1/2 uncovered space per unit for guests
Multi-Family Medium Density	
Detached Units & Attached Units	2.0 covered spaces per unit; 0.5 uncovered spaces per unit for guests
Multi-Family Units	
2 Bedrooms or less	1.5 covered spaces per unit
3 Bedrooms or more	2.0 covered spaces per unit
Guest	0.5 uncovered spaces per unit for guests
Multi-Family High Density	
2 Bedrooms or less	1.5 covered spaces per unit
3 bedrooms or more	2.0 covered spaces per unit
Guest	0.5 uncovered spaces per unit for guests
Mixed Use	
Residential	1.0 covered spaces per unit
Non-Residential	1.0 spaces per 200 square feet of gross floor area
Office Park	1.0 spaces per 275 square feet of gross floor area
Community Commercial	1.0 spaces per 200 square feet of gross floor area
General Commercial	
Office	1.0 spaces per 200 square feet of gross floor area
Commercial	1.0 spaces per 200 square feet of gross floor area
Regional Commercial	1.0 spaces per 200 square feet of gross floor area

Mitigation Measure 13: Pedestrian Pathway Through Parking

Provide a parking lot design that includes clearly marked and shaded pedestrian pathways between transit facilities and building entrances.

Applies to Commercial & Mixed Use	*0.500 Possible Points*	*0.209 Scale Factor*	***0.105 Points***

FPASP sections 6 and 7 define the criteria for pedestrian pathways through parking lots including the requirement for shade tree planting.

Site Design Measures

Mitigation Measure 17: Orientation Toward Planned Transit, Bikeway, or Pedestrian Corridor

Project is oriented toward planned transit, bicycle, or pedestrian corridor. Setback distance is minimized.

Applies to Residential, Commercial & Mixed Use	*0.250 Possible Points*	*1.000 Scale Factor*	***0.250 Points***

FPASP Section 7 and Figures 7.28 and 7.29 clearly show that all residential, commercial and mixed uses in the Plan Area are within ½ mile of Class 1 bike paths or Class II bike lanes.

Mitigation Measure 18: Residential Density

Project provides high-density residential development.

Applies to Residential Use R4, R5 & M	*12.000 Possible Points*	*0.071 Scale Factor*	***0.852 Points***

Average density is 6.93 Du/Ac for the net site area devoted to residential uses in the Plan Area. Consistent with SMAQMD methodology, mitigation measure 18 is only applied to R4 and R5 residential uses and to the mixed use category.

	Land Use	*Percentage of Residential Units*
R1	Single Family	16.5%
R2	Single Family High Density	28.7%
R3	Multi-Family Low Density	23.8%
R4	Multi-Family Medium Density	12.0%
R5	Multi-Family High Density	12.3%
M	Mixed Use	06.7%

Mitigation Measure 19: Street Grid

Multiple and direct street routing (grid style)

Applies to Residential, Commercial & Mixed Use	*1.000 Possible Points*	*0.809 Scale Factor*	***0.809 Points***

The FPASP features an interconnected system of grid-like streets for the majority of the Plan Area except where topography and sensitive natural features suggest a more site friendly approach. External connections to the existing City of Folsom north of Highway 50 are provided at five locations. Additionally, external connections link the Plan Area to the community of El Dorado Hills to the east and future development to the west of the Plan Area. See FPASP Section 7 for more details and Figure19.1 for a typical detail of the Town Center interconnected street system.

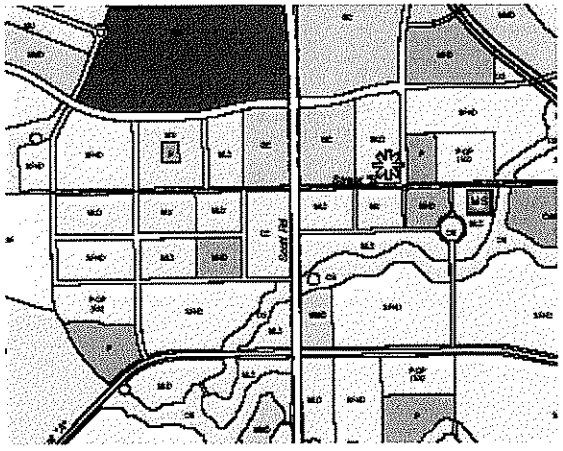

Figure 19.1 – Town Center Street Grid

Mixed-Use Measures

Mitigation Measure 23: Suburban Mixed-Use Design

Have at least three of the following on-site and/or off-site within ½ mile: Residential Development, Retail Development, Park, Open Space, or Office.

Applies to Residential, Commercial & Mixed Use	*3.000 Possible Points*	*1.000 Scale Factor*	***3.000 Points***

See Figure 4.1 earlier in this report and Section 4 of the FPASP that document the range of residential, commercial, residential, mixed use and public uses within the boundaries of the Plan Area.

Building Component Measures

Mitigation Measure 25: No Wood Burning Fireplace

Project does not feature fireplaces or wood burning stoves.

Applies to Residential	*1.000 Possible Points*	*0.600 Scale Factor*	***0.600 Points***

The FPASP prohibits the use of wood burning stoves or fireplaces.

Mitigation Measure 27: Energy Star Roof

Install Energy Star labeled roof materials.

Applies to Residential, Commercial & Mixed Use	*1.000 Possible Points*	*1.00 Scale Factor*	***1.000 Points***

FPASP Policy 10.48 requires the use of Energy Star roof materials.

TDM and Miscellaneous Measures

Mitigation Measure 33: Transportation Management Association Membership

Include permanent TMA membership and funding requirement. Funding to be provided by Community Facilities District or County Service Area or other non-revocable funding mechanism.

Applies to Residential, Commercial & Mixed Use	*5.000 Possible Points*	*1.000 Scale Factor*	***5.000 Points***

FPASP policy 7.3 requires that a Transportation Management Association be established for the Plan Area. Funding details are described in the Plan Area Public Facilities Financing Plan.

Mitigation Measure 34: Electric Lawnmower

Provide a complimentary electric lawnmower to each residential buyer.

Applies to Residential & Commercial/Mixed Use	*1.000 Possible Points*	*0.553 Scale Factor*	***0.553 Points***

This mitigation measure will only apply to R1, R2 and R3 residential use. The measure may be applied to R4 and R5 residential uses and mixed use. FPASP policy 10.29 requires that complimentary electric lawnmowers be given to each single family detached dwelling homeowner.

Mitigation Measure 99A: Walkable Community

The project provides a pedestrian access network that internally links all uses and connects to all existing or planned external streets and pedestrian facilities contiguous with the project site.

Applies to Entire Project	*4.000 Possible Points*	*1.000 Scale Factor*	***4.000 Points***

As shown on FPASP Figure 7.29 all major and minor arterial, collector and local streets include sidewalks on both sides. Arterial and collector street sidewalks are a minimum of 8-feet in width and are separated from the street by landscape strips of 8-feet. The Town Center sidewalks are increased in width to 15-feet and include 5-foot by 5-foot tree wells. Local streets include 5-foot minimum width sidewalks that are either separated from the street by 6-foot planting strips or attached to the curb and gutter. Additionally, an extensive system of paved and unpaved trails is included within the Plan Area open space. Construction of the sidewalks will occur concurrently with the construction of the streets.

Mitigation Measure 99B: Transit Corridor

Project establishes a transit corridor that will link the town and neighborhood centers, the regional commercial center and the proposed higher density residential and mixed-use areas of the community to a future off-site regional transit system that includes connections to the RT Gold Line light rail system. The Transit Corridor shall serve as the backbone of the Plan's transit system to provide all residents with access to public transit. Signal priority schemes at lighted intersections, signage and other intelligent transportation system technologies will be incorporated. Transit-oriented development (TOD) projects will be especially encouraged along the Transit Corridor. See the FPASP Transit Master Plan for additional details.

Applies to Residential, Commercial & Mixed Use	*20.000 Possible Points*	*1.000 Scale Factor*	***20.000 Points***

The FPASP establishes a transit corridor through the Plan Area to provide for future modes of transit travel. See FPASP Section 7 and its companion Transit Master Plan for a detailed description of the transit corridor.

Mitigation Measure 99C: Transit Corridor Fees

All projects will pay a City of Folsom Light Rail fee that will assist in the construction of future transit corridor facilities including bus stops and turn-outs, shelters, benches and signs.

Applies to Residential, Commercial & Mixed Use	*2.000 Possible Points*	*1.000 Scale Factor*	***2.000 Points***

All Plan Area residential, commercial and mixed use projects will pay a fee to the City of Folsom on a per unit or square footage basis to aid in the construction of future transit corridor facilities.

Total Achieved Points	***48.288***

5.0 REFERENCES

- Sacramento Metropolitan Air Quality Management District (SMAQMD): *Recommended Guidance for Land Use Emission Reductions. Version 2.4, August 15, 2007*
- Sacramento Metropolitan Air Quality Management District (SMAQMD): *Model Air Quality Plan, Project "X", September, 2007*