Appendix D:
Inventory of Existing Sources of TAC Emissions
(provided on CD at the back of this document)

Emission Assumptions **DPM** Emissions
Visalia Walmart (Expansion: Existing +Project)

Facility Operations

Buildout year: 2010

Emission Factors

1) Onsite Vehicle Emissions

a) Truck

(1) EMFAC2007

(a) Annual Meteorology

Temperature: 65 degF

Relative Humidity: 50%

(b) Calculations for Tulare County

(c) Truck Mix

4+ axle heavy-heavy duty diesel trucks (HHDT)

2 axle diesel trucks (LHDT1)

(d) Onsite Truck and Customer Travel Speed: 15 mph

(e) Idle speed: 0 mph

(e) Truck Idle time: 5 minutes per truck per day

(f) Idle time for customer vehicles: 1 min per day per vehicle

b) Truck TRU

(1) Emission factors derived from CARB 2003 ISOR ATCM for TRUs, Appendix D, Attachment A

(2) TRU size: 34 hp

(3) Cooling time: 0.67 hr/day

(4) Load Factor: 53 %

(5) On/off Cycle Factor 100 %

(5) Emission calculated for both onsite truck travel and in operation while truck is idling

Visalia Walmart (Expansion: Existing +Project) **Emission: DPM**

Processes Modeled **Build-out: 2010**

Onsite delivery traffic
Truck idling
Onsite TRU operations

Facilities in Operation

Location	Truck type	Daily Trucks w/o TRUs	Daily Truck Trips w/o TRUs	Daily Trucks w/TRUs	Daily Truck Trips w/TRUs	Total Daily Trucks	Total Daily Truck Trips
Wal-Mart	4+ axle	9	18	2	4	11	22
Wal-Mart	2 axle	12	24	0	0	12	24
Total		**21**	**42**	**2**	**4**	**23**	**46**

Facility Operations:
Wal-Mart 18 **hrs/day, 52weeks/year**

Emission Factors

Vehicle Class	Exhaust @ 15 mph (g/mi)	Idle (g/hr)	
4+ axle	0.205	0.407	<---- 4+ axle trucks assumes model year 2006 and newer
2 axle	0.656	1.547	

TRU	Exhaust (g/hp-hr)	Idle (g/hp-hr)	
	0.28	0.28	<----- OFFROAD2007 Fleet Average for Tulare County in 2010

Onsite Roadway Links Modeled

Link	Truck Type	Emission Factor (g/mi)	Trips per day (in and out)	Length (m)	Length (mi)	Daily Emissions Over the Link (g/day)	Emissions Over Link (g/sec)
Wal-Mart	4+ axle	0.205	22	412	0.26	1.15E+00	3.16E-06
Wal-Mart	2 axle	0.656	24	482	0.30	4.72E+00	1.01E-05
Total						**5.87E+00**	**1.33E-05**

Truck Idling Idle time 5 minutes

Building/Location	Truck Type	Emission Factor (g/idle-hour)	Idling Time (min)	Daily Trucks	Total Emissions (g/day)	Emissions (g/sec)
Wal-Mart	4+ axle	0.407	5	11	0.37	5.75E-06
Wal-Mart	2 axle	1.547	5	12	1.55	2.39E-05
Total				**23**	**1.92E+00**	**2.96E-05**

Truck TRU Operations

Building/Location - Travel	Truck Type	TRU Size (hp)	Daily Truck Trips w/TRUs	Emission Factor (g/bhp-hr)	Load Factor (%)	On/Off Cycle Factor (%)	Speed (mi/h)	Travel Distance (m)	Travel Distance (mi)	Travel Time (hr)	Average Emissions Over the Link (g/day)	Average Emissions Over Link (g/sec)
Wal-Mart	4+ axle	34	4	0.28	53	100	15	412	0.26	0.017	3.44E-01	5.31E-06
Wal-Mart	2 axle	34	0	0.28	53	100	15	482	0.30	0.020	0.00E+00	0.00E+00
TOTAL			**4**								**3.44E-01**	**5.31E-06**

Building/Location - Idling	Truck Type	TRU Size (hp)	Daily Trucks w/TRUs	Emission Factor (g/bhp-hr)	Load Factor (%)	On/Off Cycle Factor (%)	Cooling Time (hr/day)	Average Emissions (g/day)	Average Emissions (g/sec)
Wal-Mart	4+ axle	34	2	0.28	53	100	0.67	6.76E+00	1.04E-04
Wal-Mart	2 axle	34	0	0.28	53	100	0.67	0.00E+00	0.00E+00
TOTAL			**2**					**6.76E+00**	**1.04E-04**

Emission Summary

Facility Emission Summary	Onsite Travel Emissions (g/sec)	Onsite TRU Travel Emissions (g/sec)	Total Onsite Travel Emissions (g/sec)	Onsite Idle Emissions (g/sec)	Onsite TRU IdleEmissions (g/sec)	Total Onsite Idle Emissions (g/sec)	Number of Idle Sources	Emissions per Idle Source (g/sec)	Total Onsite Emissions (g/sec)
Wal-Mart	3.16E-06	5.31E-06	8.47E-06	0.00E+00	1.04E-04	1.04E-04	1	1.04E-04	1.13E-04
Wal-Mart	1.01E-05	0.00E+00	1.01E-05	0.00E+00	0.00E+00	0.00E+00	1	0.00E+00	1.01E-05
TOTAL	**1.33E-05**	**5.31E-06**	**1.86E-05**	**0.00E+00**	**1.04E-04**	**1.04E-04**			**1.23E-04**

Emission Assumptions Emissions: DPM
Visalia Walmart (Expansion: Existing +Project)

Total Daily Vehicle Trip - Saturday 9652 trips/day - Saturday

Store Operation 24 hrs/day

Trip Generation derived from project traffic report:

Fleet Mix Assumed in the Illingworth and Rodkin Air Quality Report for the Visalia Walmart Expansion 2010

Vehicle Class	Vehicle Mix	% Diesel Vehicles	Vehicle Trips (trips/day)	Diesel Vehicle Trips (trips/day)
LDA + LDT1	98.00%	1.35%	9459	128
MDT	2.00%	7.89%	193	15
			9652	143

Onsite Travel Exhaust Emissions

Assume that the onsite vehicle speed: 15 mph
Assume trip length: 403 m

Vehicle Class	Emission Factor @ 15 mph (g/mi)	Vehicle Trips (trips/day)	Emissions (grams/day)	Average Emissions (grams/sec)
LDA +LDT1	0.192	128	6.1	7.082E-05
MDT	0.113	15	0.4	4.970E-06
Total		143	6.5	7.580E-05

Onsite Idling Emissions

Assume that each vehicle idles for 1 minute
Idling emission factor is derived by multiplying the emission factor at 5 mph by 5

Vehicle Class	Emission Factor at 5 mph (g/mi)	Idle Emission Factor (g/hr)	Number of Vehicles (vehicles/day)	Emissions (Grams/day)	Average Emissions (grams/sec)
LDA + LDT1	0.27	1.37	64	1.5	1.683E-05
MDT	0.16	0.81	8	0.1	1.184E-06
Total			71	1.6	1.802E-05
Total Emissions (all facilities)			9.381E-05 grams/sec		

Parking Lots

Lot	Lot size (m2)	Average Emissions (g/sec)	Average Emission Rate (g/sec-m2)
PARK_1	15537	5.129E-05	3.301E-09
PARK_2	12880	4.252E-05	3.301E-09
Total	28417		

Visalia Walmart (Expansion: Existing +Project)

Offsite Customer Vehicle Emissions Pollutant: **DPM**

Customer Fleet Mix

Vehicle Class	% Vehicle	% Diesel
LDA+LDT	98%	1.35%
MDT	2%	7.89%
Truck Operations	18 hrs/day	
Customer Operations	24 hours/day	

Link #	Description	Link Length (m)	Vehicle Trip (trips/day)	Daily LDA+LDT1 Trips (trips/day)	Daily Diesel LDA+LDT1 Trips (trips/day)	Daily MDT Trips (trips/day)	Daily Diesel MDT Trips (trips/day)
N-W	Noble West of Ben Maddox	317	869	852	11	17	1
NE-1	Noble - Ben Maddox to 198 Exit	260	7384	7236	98	148	12
NE-2	Noble - 198 Exit to West Drive	240	8590	8418	114	172	14
NE-3	Noble - West to East Drive	105	4826	4729	64	97	8
NE-4	Noble - East Drive to Lovers Lane	651	1062	1041	14	21	2
BM-N	Ben Maddox - North of Noble	219	3620	3548	48	72	6
BM-S	Ben Maddox - South of Noble	711	2896	2838	38	58	5
198 E-1	198 East Prior to Exit	232	869	852	11	17	1
198 Exit	198 East - Exit to Noble	382	869	852	11	17	1
198-Entr	198 East - Noble Entrance to 198	406	241	236	3	5	0
198-E-2	198 East - East of Entrance	629	241	236	3	5	0
198-W-1	198 West - Prior to Exit to Mineral	705	241	236	3	5	0
198-W-2	198 West - Exit Segment	266	241	236	3	5	0
198-W-3	198 West - Entrance Segment	319	869	852	11	17	1
198-W-4	198 West - After Mineral Entrance	269	869	852	11	17	1

Customer Emissions

	Emission Factors	
	LDA + LDT	MDT
Speed (mph)	(g/mi)	(g/mi)
25	0.129	0.076
35	0.095	0.056
55	0.067	0.040

Link #	Description	Vehicle Speed (mph)	Emission Factor LDA+LDT (g/mi)	Daily Emissions LDA+LDT (g/day)	Ave Emissions LDA+LDT (g/sec)	Emission Factor MDT (g/mi)	Daily Emissions MDT (g/day)	Ave Emissions MDT (g/sec)	Total Emissions LHA+LDT+MDT (g/sec)
N-W	Noble West of Ben Maddox	35	0.095	0.215	2.485E-06	5.588E-02	1.509E-02	1.747E-07	2.66E-06
NE-1	Noble - Ben Maddox to 198 Exit	35	0.095	1.496	1.732E-05	5.588E-02	1.052E-01	1.217E-06	1.85E-05
NE-2	Noble - 198 Exit to West Drive	35	0.095	1.607	1.860E-05	5.588E-02	1.129E-01	1.307E-06	1.99E-05
NE-3	Noble - West to East Drive	25	0.129	0.537	6.215E-06	7.584E-02	3.767E-02	4.360E-07	6.65E-06
NE-4	Noble - East Drive to Lovers Lane	35	0.095	0.539	6.236E-06	5.588E-02	3.787E-02	4.383E-07	6.67E-06
BM-N	Ben Maddox - North of Noble	35	0.095	0.618	7.151E-06	5.588E-02	4.343E-02	5.026E-07	7.65E-06
BM-S	Ben Maddox - South of Noble	35	0.095	1.605	1.857E-05	5.588E-02	1.128E-01	1.305E-06	1.99E-05
198 E-1	198 East Prior to Exit	55	0.067	0.111	1.286E-06	4.013E-02	7.930E-03	9.178E-08	1.38E-06
198 Exit	198 East - Exit to Noble	25	0.129	0.352	4.071E-06	7.584E-02	2.468E-02	2.856E-07	4.36E-06
198-Entr	198 East - Noble Entrance to 198	25	0.129	0.104	1.200E-06	7.584E-02	7.274E-03	8.419E-08	1.28E-06
198-E-2	198 East - East of Entrance	55	0.067	0.084	9.670E-07	4.013E-02	5.963E-03	6.901E-08	1.04E-06
198-W-1	198 West - Prior to Exit to Mineral	55	0.067	0.094	1.084E-06	4.013E-02	6.683E-03	7.735E-08	1.16E-06
198-W-2	198 West - Exit Segment	25	0.129	0.068	7.862E-07	7.584E-02	4.766E-03	5.516E-08	8.41E-07
198-W-3	198 West - Entrance Segment	25	0.129	0.294	3.400E-06	7.584E-02	2.061E-02	2.385E-07	3.64E-06
198-W-4	198 West - After Mineral Entrance	55	0.067	0.129	1.491E-06	4.013E-02	9.195E-03	1.064E-07	1.60E-06

Data Source: Illingworth and Rodkin. Air Quality Report Visalia Walmart Expansion 2010

Visalia Walmart (Expansion: Existing +Project)

Offsite Truck Vehicle Emissions Pollutant: **DPM**

Truck Fleet Mix

Vehicle Class	% Vehicle	% Diesel
MHDT	52%	100%
HHDT	48%	100%
Truck Operations	18 hrs/day	

Link #	Description	Link Length (m)	Daily Truck Trips (trips/day)	Daily MHDT Trips (trips/day)	Daily Diesel MHDT Trips (trips/day)	Daily HHDT Trips (trips/day)	Daily Diesel HHDT Trips (trips/day)
N-W-T	Noble West of Ben Maddox	317	0	0	0	0	0
NE-1-T	Noble - Ben Maddox to 198 Exit	260	12	6	6	6	6
NE-2-T	Noble - 198 Exit to West Drive	240	36	19	19	17	17
NE-3-T	Noble - West to East Drive	105	36	19	19	17	17
NE-4-T	Noble - East Drive to Lovers Lane	651	12	6	6	6	6
BM-N-T	Ben Maddox - North of Noble	219	12	6	6	6	6
BM-S-T	Ben Maddox - South of Noble	711	0	0	0	0	0
198 E-1-T	198 East Prior to Exit	232	12	6	6	6	6
198 Exit-T	198 East - Exit to Noble	382	12	6	6	6	6
198-Entr-T	198 East - Noble Entrance to 198	406	12	6	6	6	6
198-E-2-T	198 East - East of Entrance	629	12	6	6	6	6
198-W-1-T	198 West - Prior to Exit to Mineral	705	0	0	0	0	0
198-W-2-T	198 West - Exit Segment	266	0	0	0	0	0
198-W-3-T	198 West - Entrance Segment	319	0	0	0	0	0
198-W-4-T	198 West - After Mineral Entrance	269	12	6	6	6	6

Truck Emissions

	Emission Factors		
	MHDT	HHDT	<---- 4+ axle trucks assumes model year 2006 and newer
Speed (mph)	(g/mi)	(g/mi)	
25	0.347	0.176	
35	0.264	0.180	
55	0.289	0.276	

Link #	Description	Vehicle Speed (mph)	Emission Factor MHDT (g/mi)	Daily Emissions MHDT (g/day)	Ave Emissions MHDT (g/sec)	Emission Factor HHDT (g/mi)	Daily Emissions HHDT (g/day)	Ave Emissions HHDT (g/sec)	Total Emissions MHDT+HHDT (g/sec)
N-W-T	Noble West of Ben Maddox	35	0.264	0.000	0.000E+00	1.804E-01	0.000E+00	0.000E+00	0.00E+00
NE-1-T	Noble - Ben Maddox to 198 Exit	35	0.264	0.266	4.104E-06	1.804E-01	1.679E-01	2.591E-06	6.69E-06
NE-2-T	Noble - 198 Exit to West Drive	35	0.264	0.736	1.137E-05	1.804E-01	4.649E-01	7.174E-06	1.85E-05
NE-3-T	Noble - West to East Drive	25	0.347	0.423	6.534E-06	1.757E-01	1.980E-01	3.056E-06	9.59E-06
NE-4-T	Noble - East Drive to Lovers Lane	35	0.264	0.666	1.028E-05	1.804E-01	4.203E-01	6.486E-06	1.68E-05
BM-N-T	Ben Maddox - North of Noble	35	0.264	0.224	3.457E-06	1.804E-01	1.414E-01	2.182E-06	5.64E-06
BM-S-T	Ben Maddox - South of Noble	35	0.264	0.000	0.000E+00	1.804E-01	0.000E+00	0.000E+00	0.00E+00
198 E-1-T	198 East Prior to Exit	55	0.289	0.260	4.006E-06	2.757E-01	2.288E-01	3.532E-06	7.54E-06
198 Exit-T	198 East - Exit to Noble	25	0.347	0.513	7.924E-06	1.757E-01	2.401E-01	3.706E-06	1.16E-05
198-Entr-T	198 East - Noble Entrance to 198	25	0.347	0.546	8.421E-06	1.757E-01	2.552E-01	3.939E-06	1.24E-05
198-E-2-T	198 East - East of Entrance	55	0.289	0.704	1.086E-05	2.757E-01	6.205E-01	9.575E-06	2.04E-05
198-W-1-T	198 West - Prior to Exit to Mineral	55	0.289	0.000	0.000E+00	2.757E-01	0.000E+00	0.000E+00	0.00E+00
198-W-2-T	198 West - Exit Segment	25	0.347	0.000	0.000E+00	1.757E-01	0.000E+00	0.000E+00	0.00E+00
198-W-3-T	198 West - Entrance Segment	25	0.347	0.000	0.000E+00	1.757E-01	0.000E+00	0.000E+00	0.00E+00
198-W-4-T	198 West - After Mineral Entrance	55	0.289	0.301	4.645E-06	2.757E-01	2.653E-01	4.095E-06	8.74E-06

Data Source: Illingworth and Rodkin. Air Quality Report Visalia Walmart Expansion 2010

Emission Assumptions **DPM** Emissions
Visalia Walmart (Existing)

Facility Operations

Buildout year: 2010

Emission Factors

1) Onsite Vehicle Emissions

a) Truck

(1) EMFAC2007

(a) Annual Meteorology

Temperature: 65 degF

Relative Humidity: 50%

(b) Calculations for Tulare County

(c) Truck Mix

4+ axle heavy-heavy duty diesel trucks (HHDT)

2 axle diesel trucks (LHDT1)

(d) Onsite Truck and Customer Travel Speed: 15 mph

(e) Idle speed: 0 mph

(e) Truck Idle time: 5 minutes per truck per day

(f) Idle time for customer vehicles: 1 min per day per vehicle

b) Truck TRU

(1) Emission factors derived from CARB 2003 ISOR ATCM for TRUs, Appendix D, Attachment A

(2) TRU size: 34 hp

(3) Cooling time: 0.67 hr/day

(4) Load Factor: 53 %

(5) On/off Cycle Factor 100 %

(5) Emission calculated for both onsite truck travel and in operation while truck is idling

Travel Link Distances

Building	Distance (m)
WM - 4+ Axle	231
WM - Customer	403
WM - 2 axle	231

Hour of Operation 12 hrs/dy for truck deliveries

12 hrs/day for customer vehicles

Visalia Walmart (Existing) **Emission: DPM**

Processes Modeled **Build-out: 2010**

Onsite delivery traffic
Truck idling
Onsite TRU operations

Facilities in Operation

Location	Truck type	Daily Trucks w/o TRUs	Daily Truck Trips w/o TRUs	Daily Trucks w/TRUs	Daily Truck Trips w/TRUs	Total Daily Trucks	Total Daily Truck Trips
Wal-Mart	4+ axle	8	16	0	0	8	16
Wal-Mart	2 axle	8	16	0	0	8	16
Total		**16**	**32**	**0**	**0**	**16**	**32**

Facility Operations:
Wal-Mart 12 **hrs/day, 52weeks/year**

Emission Factors

Vehicle Class	Exhaust @ 15 mph (g/mi)	Idle (g/hr)	
4+ axle	0.205	0.407	<----- Model Year 2006 and Newer Walmart Trucks
2 axle	0.656	1.547	

TRU	Exhaust (g/hp-hr)	Idle (g/hp-hr)	
	0.28	0.28	<----- OFFROAD2007 Fleet Average for Tulare County in 2010

Onsite Roadway Links Modeled

Link	Truck Type	Emission Factor (g/mi)	Trips per day (in and out)	Length (m)	Length (mi)	Emissions Over the Link (g/day)	Emissions Over Link (g/sec)
Wal-Mart	4+ axle	0.205	16	231	0.14	4.70E-01	1.09E-05
Wal-Mart	2 axle	0.656	16	231	0.14	1.51E+00	3.49E-05
Total						**1.98E+00**	**4.58E-05**

Truck Idling

Idle time 5 minutes

Building/Location	Truck Type	Emission Factor (g/idle-hour)	Idling Time (min)	Daily Trucks	Total Emissions (g/day)	Max Hourly Emissions (g/sec)
Wal-Mart	4+ axle	0.407	5	8	0.27	6.28E-06
Wal-Mart	2 axle	1.547	5	8	1.03	2.39E-05
Total				**16**	**1.30E+00**	**3.01E-05**

Truck TRU Operations

Building/Location - Travel	Truck Type	TRU Size (hp)	Daily Truck Trips w/TRUs	Emission Factor (g/bhp-hr)	Load Factor (%)	On/Off Cycle Factor (%)	Speed (mi/h)	Travel Distance (m)	Travel Distance (mi)	Travel Time (hr)	Average Emissions Over the Link (g/day)	Average Emissions Over Link (g/sec)
Wal-Mart	4+ axle	34	0	0.28	53	100	15	231	0.14	0.010	0.00E+00	0.00E+00
Wal-Mart	2 axle	34	0	0.28	53	100	15	231	0.14	0.010	0.00E+00	0.00E+00
TOTAL			**0**								**0.00E+00**	**0.00E+00**

Building/Location - Idling	Truck Type	TRU Size (hp)	Daily Trucks w/TRUs	Emission Factor (g/bhp-hr)	Load Factor (%)	On/Off Cycle Factor (%)	Cooling Time (hr/day)	Average Emissions (g/day)	Average Emissions (g/sec)
Wal-Mart	4+ axle	34	0	0.28	53	100	0.67	0.00E+00	0.00E+00
Wal-Mart	2 axle	34	0	0.28	53	100	0.67	0.00E+00	0.00E+00
TOTAL			**0**					**0.00E+00**	**0.00E+00**

Emission Summary

Facility Emission Summary	Onsite Travel Emissions (g/sec)	Onsite TRU Travel Emissions (g/sec)	Total Onsite Travel Emissions (g/sec)	Onsite Idle Emissions (g/sec)	Onsite TRU Idle Emissions (g/sec)	Total Onsite Idle Emissions (g/sec)	Number of Idle Sources	Emissions per Idle Source (g/sec)	Total Onsite Emissions (g/sec)
Wal-Mart	1.09E-05	0.00E+00	1.09E-05	6.28E-06	0.00E+00	6.28E-06	1	6.28E-06	1.72E-05
Wal-Mart	3.49E-05	0.00E+00	3.49E-05	2.39E-05	0.00E+00	2.39E-05	1	2.39E-05	5.87E-05
TOTAL	**4.58E-05**	**0.00E+00**	**4.58E-05**	**3.01E-05**	**0.00E+00**	**3.01E-05**			**7.59E-05**

Emission Assumptions Emissions: DPM
Visalia Walmart (Existing)

Total Daily Vehicle Trip - Saturday 7258 trips/day - Saturday

Store Operation 24 hrs/day

Trip Generation derived from project traffic report:

Fleet Mix Assumed in the AQ/HRA

Vehicle Class	Vehicle Mix	% Diesel Vehicles	Vehicle Trips (trips/day)	Diesel Vehicle Trips (trips/day)
LDA + LDT1	98.00%	1.35%	7113	96
MDT	2.00%	7.89%	145	11
			7258	107

Onsite Travel Exhaust Emissions

Assume that the onsite vehicle speed: 15 mph
Assume trip length: 403 m

Vehicle Class	Emission Factor @ 15 mph (g/mi)	Vehicle Trips (trips/day)	Emissions (grams/day)	Average Emissions (grams/sec)
LDA +LDT1	0.192	96	4.6	5.326E-05
MDT	0.113	11	0.3	3.738E-06
Total		107	4.9	5.700E-05

Onsite Idling Emissions

Assume that each vehicle idles for 1 minute
Idling emission factor is derived by multiplying the emission factor at 5 mph by 5

Vehicle Class	Emission Factor at 5 mph (g/mi)	Idle Emission Factor (g/hr)	Number of Vehicles (vehicles/day)	Emissions (Grams/day)	Average Emissions (grams/sec)
LDA + LDT1	0.27	1.37	48	1.1	1.266E-05
MDT	0.16	0.81	6	0.1	8.900E-07
Total			54	1.2	1.355E-05
Total Emissions (all facilities)			7.054E-05 grams/sec		

Parking Lots

Lot	Lot size (m2)	Average Emissions (g/sec)	Average Emission Rate (g/m2-sec)
PARK_1	14732	5.028E-05	3.413E-09
PARK_2	4101	1.400E-05	3.413E-09
PARK_3	1836	6.266E-06	3.413E-09
Total	**20669**		

Visalia Walmart (Existing)

Offsite Customer Vehicle Emissions Pollutant: **DPM**

Customer Fleet Mix

Vehicle Class	% Vehicle	% Diesel
LDA+LDT	98%	1.35%
MDT	2%	7.89%
Truck Operations	12 hrs/day	
Customer Operations	12 hours/day	

Link #	Description	Link Length (m)	Vehicle Trip (trips/day)	Daily LDA+LDT1 Trips (trips/day)	Daily Diesel LDA+LDT1 Trips (trips/day)	Daily MDT Trips (trips/day)	Daily Diesel MDT Trips (trips/day)
N-W	Noble West of Ben Maddox	317	653	640	9	13	1
NE-1	Noble - Ben Maddox to 198 Exit	260	5552	5441	73	111	9
NE-2	Noble - 198 Exit to West Drive	240	6460	6331	85	129	10
NE-3	Noble - West to East Drive	105	3629	3556	48	73	6
NE-4	Noble - East Drive to Lovers Lane	651	798	782	11	16	1
BM-N	Ben Maddox - North of Noble	219	2722	2668	36	54	4
BM-S	Ben Maddox - South of Noble	711	2177	2133	29	44	3
198 E-1	198 East Prior to Exit	232	653	640	9	13	1
198 Exit	198 East - Exit to Noble	382	653	640	9	13	1
198-Entr	198 East - Noble Entrance to 198	406	181	177	2	4	0
198-E-2	198 East - East of Entrance	629	181	177	2	4	0
198-W-1	198 West - Prior to Exit to Mineral	705	181	177	2	4	0
198-W-2	198 West - Exit Segment	266	181	177	2	4	0
198-W-3	198 West - Entrance Segment	319	653	640	9	13	1
198-W-4	198 West - After Mineral Entrance	269	653	640	9	13	1

Customer Emissions

	Emission Factors	
	LDA + LDT	MDT
Speed (mph)	(g/mi)	(g/mi)
25	0.129	0.076
35	0.095	0.056
55	0.067	0.040

Link #	Description	Vehicle Speed (mph)	Emission Factor LDA+LDT (g/mi)	Daily Emissions LDA+LDT (g/day)	Ave Emissions LDA+LDT (g/sec)	Emission Factor MDT (g/mi)	Daily Emissions MDT (g/day)	Ave Emissions MDT (g/sec)	Total Emissions LHA+LDT+MDT (g/sec)
N-W	Noble West of Ben Maddox	35	0.095	0.161	3.734E-06	5.588E-02	1.134E-02	2.625E-07	4.00E-06
NE-1	Noble - Ben Maddox to 198 Exit	35	0.095	1.125	2.604E-05	5.588E-02	7.907E-02	1.830E-06	2.79E-05
NE-2	Noble - 198 Exit to West Drive	35	0.095	1.208	2.797E-05	5.588E-02	8.493E-02	1.966E-06	2.99E-05
NE-3	Noble - West to East Drive	25	0.129	0.404	9.347E-06	7.584E-02	2.833E-02	6.557E-07	1.00E-05
NE-4	Noble - East Drive to Lovers Lane	35	0.095	0.405	9.372E-06	5.588E-02	2.846E-02	6.587E-07	1.00E-05
BM-N	Ben Maddox - North of Noble	35	0.095	0.465	1.075E-05	5.588E-02	3.265E-02	7.559E-07	1.15E-05
BM-S	Ben Maddox - South of Noble	35	0.095	1.206	2.792E-05	5.588E-02	8.479E-02	1.963E-06	2.99E-05
198 E-1	198 East Prior to Exit	55	0.067	0.083	1.933E-06	4.013E-02	5.959E-03	1.379E-07	2.07E-06
198 Exit	198 East - Exit to Noble	25	0.129	0.264	6.119E-06	7.584E-02	1.854E-02	4.293E-07	6.55E-06
198-Entr	198 East - Noble Entrance to 198	25	0.129	0.078	1.803E-06	7.584E-02	5.463E-03	1.265E-07	1.93E-06
198-E-2	198 East - East of Entrance	55	0.067	0.063	1.453E-06	4.013E-02	4.478E-03	1.037E-07	1.56E-06
198-W-1	198 West - Prior to Exit to Mineral	55	0.067	0.070	1.628E-06	4.013E-02	5.019E-03	1.162E-07	1.74E-06
198-W-2	198 West - Exit Segment	25	0.129	0.051	1.181E-06	7.584E-02	3.579E-03	8.285E-08	1.26E-06
198-W-3	198 West - Entrance Segment	25	0.129	0.221	5.110E-06	7.584E-02	1.549E-02	3.585E-07	5.47E-06
198-W-4	198 West - After Mineral Entrance	55	0.067	0.097	2.241E-06	4.013E-02	6.909E-03	1.599E-07	2.40E-06

Visalia Walmart (Existing)

Offsite Truck Vehicle Emissions Pollutant: **DPM**

Truck Fleet Mix

Vehicle Class	% Vehicle	% Diesel
MHDT	52%	100%
HHDT	48%	100%
Truck Operations	12 hrs/day	

Link #	Description	Link Length (m)	Daily Truck Trips (trips/day)	Daily MHDT Trips (trips/day)	Daily Diesel MHDT Trips (trips/day)	Daily HHDT Trips (trips/day)	Daily Diesel HHDT Trips (trips/day)
N-W-T	Noble West of Ben Maddox	317	0	0	0	0	0
NE-1-T	Noble - Ben Maddox to 198 Exit	260	8	4	4	4	4
NE-2-T	Noble - 198 Exit to West Drive	240	24	12	12	12	12
NE-3-T	Noble - West to East Drive	105	24	12	12	12	12
NE-4-T	Noble - East Drive to Lovers Lane	651	8	4	4	4	4
BM-N-T	Ben Maddox - North of Noble	219	8	4	4	4	4
BM-S-T	Ben Maddox - South of Noble	711	0	0	0	0	0
198 E-1-T	198 East Prior to Exit	232	8	4	4	4	4
198 Exit-T	198 East - Exit to Noble	382	8	4	4	4	4
198-Entr-T	198 East - Noble Entrance to 198	406	8	4	4	4	4
198-E-2-T	198 East - East of Entrance	629	8	4	4	4	4
198-W-1-T	198 West - Prior to Exit to Mineral	705	0	0	0	0	0
198-W-2-T	198 West - Exit Segment	266	0	0	0	0	0
198-W-3-T	198 West - Entrance Segment	319	0	0	0	0	0
198-W-4-T	198 West - After Mineral Entrance	269	8	4	4	4	4

Truck Emissions

	Emission Factors		
Speed (mph)	MHDT (g/mi)	HHDT (g/mi)	<------- HHDT emissions assume Model Year 2006 and Newer Walmart Trucks
25	0.347	0.176	
35	0.264	0.180	
55	0.289	0.276	

Link #	Description	Vehicle Speed (mph)	Emission Factor MHDT (g/mi)	Daily Emissions MHDT (g/day)	Ave Emissions MHDT (g/sec)	Emission Factor HHDT (g/mi)	Daily Emission HHDT (g/day)	Ave Emissions HHDT (g/sec)	Total Emissions MHDT+HHDT (g/sec)
N-W-T	Noble West of Ben Maddox	35	0.264	0.000	0.000E+00	1.804E-01	0.000E+00	0.000E+00	0.00E+00
NE-1-T	Noble - Ben Maddox to 198 Exit	35	0.264	0.177	4.104E-06	1.804E-01	1.119E-01	2.591E-06	6.69E-06
NE-2-T	Noble - 198 Exit to West Drive	35	0.264	0.491	1.137E-05	1.804E-01	3.099E-01	7.174E-06	1.85E-05
NE-3-T	Noble - West to East Drive	25	0.347	0.282	6.534E-06	1.757E-01	1.320E-01	3.056E-06	9.59E-06
NE-4-T	Noble - East Drive to Lovers Lane	35	0.264	0.444	1.028E-05	1.804E-01	2.802E-01	6.486E-06	1.68E-05
BM-N-T	Ben Maddox - North of Noble	35	0.264	0.149	3.457E-06	1.804E-01	9.426E-02	2.182E-06	5.64E-06
BM-S-T	Ben Maddox - South of Noble	35	0.264	0.000	0.000E+00	1.804E-01	0.000E+00	0.000E+00	0.00E+00
198 E-1-T	198 East Prior to Exit	55	0.289	0.173	4.006E-06	2.757E-01	1.526E-01	3.532E-06	7.54E-06
198 Exit-T	198 East - Exit to Noble	25	0.347	0.342	7.924E-06	1.757E-01	1.601E-01	3.706E-06	1.16E-05
198-Entr-T	198 East - Noble Entrance to 198	25	0.347	0.364	8.421E-06	1.757E-01	1.702E-01	3.939E-06	1.24E-05
198-E-2-T	198 East - East of Entrance	55	0.289	0.469	1.086E-05	2.757E-01	4.136E-01	9.575E-06	2.04E-05
198-W-1-T	198 West - Prior to Exit to Mineral	55	0.289	0.000	0.000E+00	2.757E-01	0.000E+00	0.000E+00	0.00E+00
198-W-2-T	198 West - Exit Segment	25	0.347	0.000	0.000E+00	1.757E-01	0.000E+00	0.000E+00	0.00E+00
198-W-3-T	198 West - Entrance Segment	25	0.347	0.000	0.000E+00	1.757E-01	0.000E+00	0.000E+00	0.00E+00
198-W-4-T	198 West - After Mineral Entrance	55	0.289	0.201	4.645E-06	2.757E-01	1.769E-01	4.095E-06	8.74E-06

SJVAPCD Air Toxics Hot Spots Facility Inventory Report: Year 2010
Advanced Food Products

FACID	CO	AB	DIS	POLLUTANT_ID	POLLUTANT	Emissions (lbs/year)	Emissions (lbs/hr)
1022	54	SJV	SJU	75070	Acetaldehyde	0.339605001	3.88E-05
1022	54	SJV	SJU	107028	Acrolein	0.295785	3.38E-05
1022	54	SJV	SJU	71432	Benzene	0.635389976	7.25E-05
1022	54	SJV	SJU	110827	Cyclohexane	0.499999989	5.71E-05
1022	54	SJV	SJU	111773	DEGME	0	0.00E+00
1022	54	SJV	SJU	34590948	DPGME	0	0.00E+00
1022	54	SJV	SJU	117817	Di2-EthHxPhthal	2.34999992	2.68E-04
1022	54	SJV	SJU	84742	DiButyl Phthal	0	0.00E+00
1022	54	SJV	SJU	111762	EGBE	1.930000029	2.20E-04
1022	54	SJV	SJU	100414	Ethyl Benzene	1.655894981	1.89E-04
1022	54	SJV	SJU	107211	Ethylene Glycol	0	0.00E+00
1022	54	SJV	SJU	50000	Formaldehyde	1.347464923	1.54E-04
1022	54	SJV	SJU	822060	HexaMeDiisocyan	0	0.00E+00
1022	54	SJV	SJU	110543	Hexane	9.003929809	1.03E-03
1022	54	SJV	SJU	67630	Isopropyl Alcoh	30.08994941	3.43E-03
1022	54	SJV	SJU	78933	MEK	1201.038592	1.37E-01
1022	54	SJV	SJU	67561	Methanol	11.87037526	1.36E-03
1022	54	SJV	SJU	75092	Methylene Chlor	4.449999901	5.08E-04
1022	54	SJV	SJU	7664417	NH3	159.9999964	1.83E-02
1022	54	SJV	SJU	91203	Naphthalene	0.032865001	3.75E-06
1022	54	SJV	SJU	7697372	Nitric Acid	0	0.00E+00
1022	54	SJV	SJU	1151	PAHs-w/o	0.010954999	1.25E-06
1022	54	SJV	SJU	107982	PGME	0	0.00E+00
1022	54	SJV	SJU	7664382	Phosphoric Acid	1481.455781	1.69E-01
1022	54	SJV	SJU	115071	Propylene	58.06149545	6.63E-03
1022	54	SJV	SJU	1310732	Sodium Hydroxid	10319.99969	1.18E+00
1022	54	SJV	SJU	7664939	Sulfuric Acid	0	0.00E+00
1022	54	SJV	SJU	79016	TCE	0	0.00E+00
1022	54	SJV	SJU	1190	Talc w/asbest	0.349999992	4.00E-05
1022	54	SJV	SJU	108883	Toluene	2.903074895	3.31E-04
1022	54	SJV	SJU	1330207	Xylenes	10.40813477	1.19E-03
1022	54	SJV	SJU	7440666	Zinc	0.070000003	7.99E-06
1022	54	SJV	SJU	1314132	Zinc Oxide	0.080000004	9.13E-06
1022	54	SJV	SJU	71363	n-Butyl Alcohol	2.500000037	2.85E-04

Visalia Walmart Expansion Project

Estimate of Toxic Air Emissions From: **Tom's Auto Body Shop**

Business: Motor Vehicle amd mobile equipment coating operation

Emissions Report from the SJVAPCD for 2010

Operation	Annual VOC (tons/yr)	Hourly VOC (tons/hr)
Base Coat	1.30E+00	1.00E-04
Reducers/Thinners	3.38E-02	2.60E-05
Clean-up Solvent	1.77E+00	1.36E-03

Chemical Speciation

CARB Speciate Profile 1448 for Auto Solvents Refinishing dies not identify a carcinogenic constituent
CARB Speciation Profiles 713 and 783 for organic solvent automobile top coat operations, prime and sealers identifies ethyl benzene as the only carcinogenic substance at a rate of 0.5% by weight

Toxics Emission Estimates

Toxic	Annual Emission (lbs/yr)	Hourly Emission (lbs/yr)
Ethylbenzene	1.30E+01	1.00E-03

Visalia Walmart Expansion Project

Calculation of Toxic Air Contaminant Emissions

Benzene from Gasoline Service Station Operations within 1,000 feet of the Project

Locations:

Valley Pacific Petroleum Services	Nella Oil Company
1633 East Mineral King Ave	1375 E. Mineral King Ave
Visalia,CA	Visalia, CA

Basic Assumption

Operational time: 24 hours/day

Summary of Benzene Emissions

Valley Pacific (1)

Process	Emissions (lb/year)	Emissions (lb/hour)
Gasoline Loading Emissions	0.872	1.44E-04
Gasoline Breathing Emissions	2.762	4.55E-04
Gasoline Refueling Emissions	0.798	9.46E-05
Gasoline Spillage Emissions	0.798	9.46E-05
Total	5.2300	7.88E-04

Nella Oil (2)

Process	Emissions (lb/year)	Emissions (lb/hour)
Gasoline Loading Emissions	0.4220	4.81E-05
Gasoline Breathing Emissions	0.1260	1.43E-05
Gasoline Refueling Emissions	2.1100	2.41E-04
Gasoline Spillage Emissions	2.1100	2.41E-04
Total	4.768	5.44E-04

(1) SJVAPCD Facility Summary for Valley Pacific Petroleum Services, Inventory Year 2010

(2) SJVAPCD Facility Summary for Nella Oil Company, Inventory Year 2008

Visalia Walmart Expansion Project **Emission: DPM**
Existing, Planned and Reasonable Foreseeable Emission Sources

Processes Modeled **Assessment Year** **2010**

Onsite delivery traffic
Truck idling
Onsite TRU operations

Facilities in Operation

Location	Truck type	Daily Trucks w/o TRUs	Daily Truck Trips w/o TRUs	Daily Trucks w/TRUs	Daily Truck Trips w/TRUs	Total Daily Trucks	Total Daily Truck Trips
Visalia Toyota	4+ axle	1	2	0	0	1	2
Nisson of Visalia	4+ axle	1	2	0	0	1	2
Visalia Honda	4+ axle	1	2	0	0	1	2
KFC/Round Table	4+ axle	0	0	2	4	2	4
McDonalds#1/LIttle Caesars	4+ axle	0	0	2	4	2	4
Thai Basil	4+ axle	0	0	1	2	1	2
Taco Bell	4+ axle	0	0	1	2	1	2
Carwash/Restaurant	4+ axle	0	0	1	2	1	2
Masaru	4+ axle	0	0	1	2	1	2
Corner Café	4+ axle	0	0	1	2	1	2
McDonalds/WM	4+ axle	0	0	1	2	1	2
Valley Pacific Petroleum Services	4+ axle	1	2	0	0	1	2
Save Mart	4+ axle	2	4	1	2	3	6
Save Mart	2 axle	4	8	0	0	4	8
Chevy	4+ axle	1	2	0	0	1	2
Service Station 2	4+ axle	1	2	0	0	1	2
Advanced Food	4+ axle	16	32	0	0	16	32
	2 axle	0	0	0	0	0	0
	2 axle	0	0	0	0	0	0
Total		**28**	**56**	**11**	**22**	**39**	**78**

Facility Operations:
Facility Operations (Except): 12 **hrs/day, 52weeks/year**
Advanced Food, Gas Stations 24 **hours/day, 52 weeks/year**
Save Mart 18 **hours/day, 52 weeks/year**

Emission Factors

Vehicle Class	Exhaust @ 15 mph (g/mi)	Idle (g/hr)
4+ axle	0.816	0.981
2 axle	0.656	1.547
TRU	**Exhaust (g/hp-hr)**	**Idle (g/hp-hr)**
	0.28	0.28

<----- CARB OFFROAD2007 Average for Tulare County

Onsite Roadway Links Modeled

Location	Truck Type	Emission Factor (g/mi)	Trips per day (in and out)	Length (m)	Length (mi)	Daily Emissions Over the Link (g/day)	Emissions Over Link (g/sec)
Visalia Toyota	4+ axle	0.816	2	116	0.07	1.18E-01	2.72E-06
Nisson of Visalia	4+ axle	0.816	2	94	0.06	9.54E-02	2.21E-06
Visalia Honda	4+ axle	0.816	2	117	0.07	1.19E-01	2.75E-06
KFC/Round Table	4+ axle	0.816	4	87	0.05	1.77E-01	4.09E-06
McDonalds#1/LIttle Caesars	4+ axle	0.816	4	96	0.06	1.95E-01	4.51E-06
Thai Basil	4+ axle	0.816	2	75	0.05	7.61E-02	1.76E-06
Taco Bell	4+ axle	0.816	2	105	0.07	1.07E-01	2.47E-06
Carwash/Restaurant	4+ axle	0.816	2	100	0.06	1.01E-01	2.35E-06
Masaru	4+ axle	0.816	2	150	0.09	1.52E-01	3.52E-06
Corner Café	4+ axle	0.816	2	43	0.03	4.36E-02	1.01E-06
McDonalds/WM	4+ axle	0.816	2	198	0.12	2.01E-01	4.65E-06
Valley Pacific Petroleum Services	4+ axle	0.816	2	33	0.02	3.35E-02	3.87E-07
Save Mart	4+ axle	0.816	6	250	0.16	7.61E-01	1.17E-05
Save Mart	2 axle	0.656	8	250	0.16	8.15E-01	1.26E-05
Chevy	4+ axle	0.816	2	106	0.07	1.08E-01	2.49E-06
Service Station 2	4+ axle	0.656	2	22	0.01	1.79E-02	2.08E-07
Advanced Food	4+ axle	0.816	32	266	0.17	4.32E+00	5.00E-05
			78				
Total						**7.44E+00**	**1.09E-04**

Truck Idling Idle time 15 minutes

Location	Truck Type	Emission Factor (g/idle-hour)	Idling Time (min)	Daily Trucks	Total Emissions (g/day)	Max Hourly Emissions (g/sec)
Visalia Toyota	4+ axle	0.981	15	1	0.25	5.67E-06
Nisson of Visalia	4+ axle	0.981	15	1	0.25	5.67E-06
Visalia Honda	4+ axle	0.981	15	1	0.25	5.67E-06
KFC/Round Table	4+ axle	0.981	15	2	0.49	1.13E-05
McDonalds#1/LIttle Caesars	4+ axle	0.981	15	2	0.49	1.13E-05
Thai Basil	4+ axle	0.981	15	1	0.25	5.67E-06
Taco Bell	4+ axle	0.981	15	1	0.25	5.67E-06
Carwash/Restaurant	4+ axle	0.981	15	1	0.25	5.67E-06
Masaru	4+ axle	0.981	15	1	0.25	5.67E-06
Corner Café	4+ axle	0.981	15	1	0.25	5.67E-06
McDonalds/WM	4+ axle	0.981	15	1	0.25	5.67E-06
Valley Pacific Petroleum Services	4+ axle	0.981	15	1	0.25	2.84E-06
Save Mart	4+ axle	0.981	15	3	0.74	1.13E-05
Save Mart	2 axle	1.547	15	4	1.55	2.39E-05
Chevy	4+ axle	0.981	15	1	0.25	5.67E-06
Service Station 2	4+ axle	0.981	15	1	0.25	2.84E-06
Advanced Food	4+ axle	0.981	15	16	3.92	4.54E-05
Total				**39**	**1.01E+01**	**1.66E-04**

Truck TRU Operations

Location - Travel	Truck Type	TRU Size (hp)	Daily Truck Trips w/TRUs	Emission Factor (g/bhp-hr)	Load Factor (%)	On/Off Cycle Factor (%)	Speed (mi/h)	Travel Distance (m)	Travel Distance (mi)	Travel Time (hr)	Average Emissions Over the Link (g/day)	Average Emissions Over Link (g/sec)
Visalia Toyota	4+ axle	34	0	0.28	53%	100%	15	116	0.07	0.005	0.00E+00	0.00E+00
Nisson of Visalia	4+ axle	34	0	0.28	53%	100%	15	94	0.06	0.004	0.00E+00	0.00E+00
Visalia Honda	4+ axle	34	0	0.28	53%	100%	15	117	0.07	0.005	0.00E+00	0.00E+00
KFC/Round Table	4+ axle	34	4	0.28	53%	100%	15	87	0.05	0.004	7.27E-02	1.68E-06
McDonalds#1/LIttle Caesars	4+ axle	34	4	0.28	53%	100%	15	96	0.06	0.004	8.02E-02	1.86E-06
Thai Basil	4+ axle	34	2	0.28	53%	100%	15	75	0.05	0.003	3.13E-02	7.26E-07
Taco Bell	4+ axle	34	2	0.28	53%	100%	15	105	0.07	0.004	4.39E-02	1.02E-06
Carwash/Restaurant	4+ axle	34	2	0.28	53%	100%	15	100	0.06	0.004	4.18E-02	9.67E-07
Masaru	4+ axle	34	2	0.28	53%	100%	15	150	0.09	0.006	6.27E-02	1.45E-06
Corner Café	4+ axle	34	2	0.28	53%	100%	15	43	0.03	0.002	1.80E-02	4.16E-07
McDonalds/WM	4+ axle	34	2	0.28	53%	100%	15	198	0.12	0.008	8.27E-02	1.92E-06
Valley Pacific Petroleum Services	4+ axle	34	0	0.28	53%	100%	15	33	0.02	0.001	0.00E+00	0.00E+00
Save Mart	4+ axle	34	2	0.28	53%	100%	15	250	0.16	0.010	1.04E-01	1.61E-06
Save Mart	2 axle	34	0	0.28	53%	100%	15	250	0.16	0.010	0.00E+00	0.00E+00
Chevy	4+ axle	34	0	0.28	0.53	100%	15	106	0.07	0.004	0.00E+00	0.00E+00
Service Station 2	4+ axle	34	0	0.28	0.53	100%	15	22	0.01	0.001	0.00E+00	0.00E+00
Advanced Food	4+ axle	34	0	0.28	0.53	100%	15	266	0.17	0.011	0.00E+00	0.00E+00
TOTAL			**22**								**5.38E-01**	**1.16E-05**

Location - Idling	Truck Type	TRU Size (hp)	Daily Trucks w/TRUs	Emission Factor (g/bhp-hr)	Load Factor (%)	On/Off Cycle Factor (%)	Cooling Time (hr/day)	Average Emissions (g/day)	Average Emissions (g/sec)
Visalia Toyota	4+ axle	34	0	0.28	53%	100%	0.67	0.00E+00	0.00E+00
Nisson of Visalia	4+ axle	34	0	0.28	53%	100%	0.67	0.00E+00	0.00E+00
Visalia Honda	4+ axle	34	0	0.28	53%	100%	0.67	0.00E+00	0.00E+00
KFC/Round Table	4+ axle	34	2	0.28	53%	100%	0.67	6.76E+00	1.57E-04
McDonalds#1/LIttle Caesars	4+ axle	34	2	0.28	53%	100%	0.67	6.76E+00	1.57E-04
Thai Basil	4+ axle	34	1	0.28	53%	100%	0.67	3.38E+00	7.83E-05
Taco Bell	4+ axle	34	1	0.28	53%	100%	0.67	3.38E+00	7.83E-05
Carwash/Restaurant	4+ axle	34	1	0.28	53%	100%	0.67	3.38E+00	7.83E-05
Masaru	4+ axle	34	1	0.28	53%	100%	0.67	3.38E+00	7.83E-05
Corner Café	4+ axle	34	1	0.28	53%	100%	0.67	3.38E+00	7.83E-05
McDonalds/WM	4+ axle	34	1	0.28	53%	100%	0.67	3.38E+00	7.83E-05
Valley Pacific Petroleum Services	4+ axle	34	0	0.28	53%	100%	0.67	0.00E+00	0.00E+00
Save Mart	4+ axle	34	1	0.28	53%	100%	0.67	3.38E+00	7.83E-05
Save Mart	2 axle	34	0	0.28	53%	100%	0.67	0.00E+00	0.00E+00
Chevy	4+ axle	34	0	0.28	53%	100%	0.67	0.00E+00	0.00E+00
Service Station 2	4+ axle	34	0	0.28	53%	100%	0.67	0.00E+00	0.00E+00
Advanced Food	4+ axle	34	0	0.28	53%	100%	0.67	0.00E+00	0.00E+00
	2 axle	34	0	0.28	53%	100%	0.67	0.00E+00	0.00E+00
	2 axle	34	0	0.28	53%	100%	0.67	0.00E+00	0.00E+00
TOTAL			**11**					**3.72E+01**	**8.61E-04**

Emission Summary

Facility Emission Summary	Onsite Travel Emissions (g/sec)	Onsite TRU Travel Emissions (g/sec)	Total Onsite Travel Emissions (g/sec)	Onsite Idle Emissions (g/sec)	Onsite TRU Idle Emissions (g/sec)	Total Onsite Idle Emissions (g/sec)	Number of Idle Sources	Emissions per Idle Source (g/sec)	Total Onsite Emissions (g/sec)
Visalia Toyota	2.72E-06	0.00E+00	2.72E-06	5.67E-06	0.00E+00	5.67E-06	1	5.67E-06	8.40E-06
Nisson of Visalia	2.21E-06	0.00E+00	2.21E-06	5.67E-06	0.00E+00	5.67E-06	1	5.67E-06	7.88E-06
Visalia Honda	2.75E-06	0.00E+00	2.75E-06	5.67E-06	0.00E+00	5.67E-06	1	5.67E-06	8.42E-06
KFC/Round Table	4.09E-06	1.68E-06	5.77E-06	1.13E-05	1.57E-04	1.68E-04	1	1.68E-04	1.74E-04
McDonalds#1/LIttle Caesars	4.51E-06	1.86E-06	6.37E-06	1.13E-05	1.57E-04	1.68E-04	1	1.68E-04	1.74E-04
Thai Basil	1.76E-06	7.26E-07	2.49E-06	5.67E-06	7.83E-05	8.39E-05	1	8.39E-05	8.64E-05
Taco Bell	2.47E-06	1.02E-06	3.48E-06	5.67E-06	7.83E-05	8.39E-05	1	8.39E-05	8.74E-05
Carwash/Restaurant	2.35E-06	9.67E-07	3.32E-06	5.67E-06	7.83E-05	8.39E-05	1	8.39E-05	8.72E-05
Masaru	3.52E-06	1.45E-06	4.97E-06	5.67E-06	7.83E-05	8.39E-05	1	8.39E-05	8.89E-05
Corner Café	1.01E-06	4.16E-07	1.43E-06	5.67E-06	7.83E-05	8.39E-05	1	8.39E-05	8.54E-05
McDonalds/WM	4.65E-06	1.92E-06	6.56E-06	5.67E-06	7.83E-05	8.39E-05	1	8.39E-05	9.05E-05
Valley Pacific Petroleum Services	3.87E-07	0.00E+00	3.87E-07	2.84E-06	0.00E+00	2.84E-06	1	2.84E-06	3.22E-06
Save Mart	1.17E-05	1.61E-06	1.34E-05	1.13E-05	7.83E-05	8.96E-05	1	8.96E-05	1.03E-04
Save Mart	1.26E-05	0.00E+00	1.26E-05	2.39E-05	0.00E+00	2.39E-05	1	2.39E-05	3.65E-05
Chevy	2.49E-06	0.00E+00	2.49E-06	5.67E-06	0.00E+00	5.67E-06	1	5.67E-06	8.16E-06
Service Station 2	2.08E-07	0.00E+00	2.08E-07	2.84E-06	0.00E+00	2.84E-06	1	2.84E-06	3.04E-06
Advanced Food	5.00E-05	0.00E+00	5.00E-05	4.54E-05	0.00E+00	4.54E-05	1	4.54E-05	9.54E-05
TOTAL	**1.09E-04**	**1.16E-05**	**1.21E-04**	**1.66E-04**	**8.61E-04**	**1.03E-03**			**1.15E-03**

Visalia Walmart Expansion Project

Freight Train Emissions

Rail Segment: San Joaquin Valley Railroad (Tulare Ave to Main St)

			Reference
Number of daily freight trains	3	trains/day	(1)
Length Of Rail Segment Analyzed:	1128	meters	Assumption
Train speed along segment:	15	mph	(1)
Number of locomotives per train	1		Assumption
Travel Time Along Segment for all Trains	0.047	hr/train	Calculation
Total Travel Time Along Segment for all Trains	51.4	hrs/year	Calculation
Emission Factors			
DPM Emission Factor from ARB Oakland Railyard Study			(2)
Notch Setting:	2		Assumption
Baseline DPM Emission Factor	110	g/hr for GP-38	(2),(3)

Total Average Rail Emissions Along Rail Line	**5659.0**	**g/year**
	1.79E-04	**g/sec**

References

(1) Kimly and Horn: Visalia Walmart Expansion Project Traffic Impact Study 2010
(2) Califofrnia Air Resources Board, Emission Inventory and Dispersion Modeling Report for the Oakland Railyard, Oakland, CA Prepared by Sierra Research, Inc March 2007.
(3) Fresno Council of Governments, Business Plan for Operations of the SJVR in Fresno County, January 2011

Visalia Walmart Expansion Project

Estimation of Restaurant Cooking Emissions from sources located within 1,000 feet of the Project

All restaurants are assumed to be fast-food with under-fired charbroiler equipement as per the recommendation in the SJVAPCD Air Dispersion Modeling Guidance

Source	Street Address	Annual Emissions PAH w/o Naphthalene(1) (pounds/year)	Average Emissions PAH w/o Naphthalene(1) (pounds/hr)	Annual Emissions Naphthalene (pounds/year)	Average Emissions Naphthalene (pounds/hr)
KFC/Round Table	1699 E. Noble	6.66E-03	7.61E-07	3.35E-01	3.82E-05
McDonalds	1819 E. Noble	6.66E-03	7.61E-07	3.35E-01	3.82E-05
Taco Bell	1377 E. Noble	6.66E-03	7.61E-07	3.35E-01	3.82E-05
Carwash/Restaurant	2321 E. Noble	6.66E-03	7.61E-07	3.35E-01	3.82E-05
Masaru	1509 E. Noble	6.66E-03	7.61E-07	3.35E-01	3.82E-05
Corner Café	1718 E. Mineral King	6.66E-03	7.61E-07	3.35E-01	3.82E-05
McDonalds/Little Caesars	1401 E. Noble	6.66E-03	7.61E-07	3.35E-01	3.82E-05
Thai Basil		6.66E-03	7.61E-07	3.35E-01	3.82E-05

Note:
(1) Assumed to be benzo(a)pyrene in accordance with the SJVAPCD guidance

Roadway AADT and Emissions - Non Walmart Traffic and Emissions

Vehicle Fleet for Local Roadway Traffic

City of Visalia Assumptions

Trucks Comprise 2% of the Daily VMT
3 axle trucks comprise 50 % of the trucks
4+ axle trucks comprise 50% of the trucks

Vehicle Class	City of Visalia Vehicle Distribution	EMFAC2011 Vehicle Mix	EMFAC2011 % Diesel	Diesel Fleet Composite (%)
LDA (Passenger Car)	98.0%	44.2%	0.3%	0.114%
LDT1		7.6%	0.1%	0.007%
LDT2		17.8%	0.0%	0.007%
MDT		22.7%	0.1%	0.015%
LHDT1		6.8%	44.2%	2.934%
LHDT2		1.0%	70.7%	0.672%
SubTotal		100.0%		
MHDT (3 axle)	1.0%	100.0%	86.7%	0.867%
HHDT (4+ axle)	1.0%	100.0%	99.3%	0.993%
Total	100.0%			

Vehicle mix for LDA, LDT1, LDT2, MDT, LHDT1, and LHDT2 derived from EMFAC2011 Daily VMT for Tulare County in 2010
% diesel for all vehicle classes derived from EMFAC2011 for Tulare County in 2010
Diesel Fleet Composite formed by multiplying Vehicle Distribution x EMFAC Vehicle Mix x EMFAC % Diesel

Vehicle Fleet for SR198 Traffic

Cal Trans Assumptions (based on traffic count data of state routes)
Trucks (3 and 4+ axle) comprise 4.1% of the AADT
Remaining vehicles comprise 95.9% percent of the total

Vehicle Class	City of Visalia ehicle Distributic	EMFAC2011 Vehicle Mix	EMFAC2011 % Diesel	Diesel Fleet Composite (%)
LDA (Passenger Car	95.9%	44.2%	0.3%	0.114%
LDT1		7.6%	0.1%	0.007%
LDT2		17.8%	0.0%	0.007%
MDT		22.7%	0.1%	0.015%
LHDT1		6.8%	44.2%	2.934%
LHDT2		1.0%	70.7%	0.672%
SubTotal		100.0%		
MHDT (3 axle)	1.0%	100.0%	86.7%	0.867%
HHDT (4+ axle)	3.1%	100.0%	99.3%	3.079%
Total	100.0%			

Vehicle mix for LDA, LDT1, LDT2, MDT, LHDT1, and LHDT2 derived from EMFAC2011 Daily VMT for Tulare County in 2010
% diesel for all vehicle classes derived from EMFAC2011 for Tulare County in 2010
Diesel Fleet Composite formed by multiplying Vehicle Distribution x EMFAC Vehicle Mix x EMFAC % Diesel

Roadway Segment Diesel AADT

AERMOD Source	Roadway	From	To	Total AADT All Vehicles	AADT Existing Walmart	Net without Walmart AADT	Daily LDA DSL AADT	Daily LDT1 DSL AADT	Daily LDT2 DLS AADT	Daily MDT DSL AADT	Daily LHDT1 DSL AADT	Daily LHDT2 DSL AADT	Daily MHDT DSL AADT	Daily HHDT DSL AADT
NE-1	Noble Ave	Ben Maddox Way	SR198 Exit	13000	5552	7448	8	1	1	1	219	50	65	74
NE-2	Noble Ave	SR198 Exit	West Dr	13000	6460	6540	7	0	0	1	192	44	57	65
NE-3	Noble Ave	West Drive	East Drive	3629	3629	0	0	0	0	0	0	0	0	0
NE-4	Noble Ave	East Drive	Lovers Lane	8600	798	7802	9	1	1	1	229	52	68	77
198 E-1	SR198	SR198 East	Prior to Exit	30500	653	29847	34	2	2	4	876	200	259	919
198 Exit	SR198	SR198 East	Exit to Noble	653	653	0	0	0	0	0	0	0	0	0
198 Entr	SR198	SR198 East	Noble Entrance to SR198	181	181	0	0	0	0	0	0	0	0	0
198 E-2	SR198	SR198 East	East of Entrance	19000	181	18819	21	1	1	3	552	126	163	579
198 W-1	SR198	SR198 West	Prior to Exit to Mineral	19000	181	18819	21	1	1	3	552	126	163	579
198 W-2	SR198	SR198 West	Exit Segment	181	181	0	0	0	0	0	0	0	0	0
198 W-3	SR198	SR198 West	Entrance Segment	653	653	0	0	0	0	0	0	0	0	0
198 W-4	SR198	SR198 West	After Mineral Entrance	30500	653	29847	34	2	2	4	876	200	259	919
BM-S	Ben Maddox Way	Noble Ave	Tulare Ave	15300	2177	13123	15	1	1	2	385	88	114	130
BM-N	Ben Maddox Way	Noble Ave	Mineral King Way	22600	2722	19878	23	1	1	3	583	133	172	197
N-W	Noble Ave	Ben Maddox Way	Court St	5900	653	5247	6	0	0	1	154	35	45	52

Diesel Emission Factors for DPM Emissions

Vehicle Class	25 mph (g/mile)	35 mph (g/mile)	45 mph (g/mile)	55 mph (g/mi)
LDA DSL	0.129	0.095	0.076	0.067
LDT1 DSL	0.178	0.131	0.105	0.092
LDT2 DSL	0.153	0.112	0.090	0.079
MDT DSL	0.076	0.056	0.045	0.04
LHDT1 DSL	0.057	0.042	0.034	0.03
LHDT2 DSL	0.055	0.040	0.032	0.028
MHDT DSL	0.347	0.264	0.245	0.289
HHDT DSL	0.475	0.392	0.395	0.483

EMFAC2011 for Tulare County in 2010

Roadway Diesel Emissions

Vehicle Speeds: LDA, LDT1, LDT2, and MDT travel at 35 mph; 55 mph on SR198
Vehicle Speeds: LHDT, MHDT and HHDT travel at 25 mp; 45 mph on SR198

RMOD Sou	Roadway	From	To	Segment Length (m)	Daily LDA DPM (g/day)	Daily LDT1 DPM (g/day)	Daily LDT2 DPM (g/day)	Daily MDT DPM (g/day)	Daily LHDT1 DPM (g/day)	Daily LHDT2 DPM (g/day)	Daily MHDT DPM (g/day)	Daily HHDT DPM (g/day)	Total DPM (g/day)	Average DPM (g/sec)
NE-1	Noble Ave	Ben Maddox Way	SR198 Exit	260	0.13	0.01	0.01	0.01	2.01	0.44	3.62	5.68	11.91	1.38E-04
NE-2	Noble Ave	SR198 Exit	West Dr	226	0.10	0.01	0.01	0.01	1.54	0.34	2.76	4.33	9.09	1.05E-04
NE-3	Noble Ave	West Drive	East Drive	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00E+00
NE-4	Noble Ave	East Drive	Lovers Lane	651	0.34	0.03	0.02	0.03	5.28	1.17	9.49	14.89	31.24	3.62E-04
198 E-1	SR198	SR198 East	Prior to Exit	216	0.30	0.03	0.02	0.02	4.00	0.86	8.51	48.71	62.45	7.23E-04
198 Exit	SR198	SR198 East	Exit to Noble	373	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00E+00
198 Entr	SR198	SR198 East	Noble Entrance to SR198	406	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00E+00
198 E-2	SR198	SR198 East	East of Entrance	1130	1.01	0.09	0.07	0.08	13.18	2.84	28.06	160.68	206.00	2.38E-03
198 W-1	SR198	SR198 West	Prior to Exit to Mineral	657	0.58	0.05	0.04	0.05	7.66	1.65	16.32	93.42	119.77	1.39E-03
198 W-2	SR198	SR198 West	Exit Segment	266	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00E+00
198 W-3	SR198	SR198 West	Entrance Segment	329	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00E+00
198 W-4	SR198	SR198 West	After Mineral Entrance	218	0.31	0.03	0.02	0.02	4.03	0.87	8.59	49.16	63.03	7.30E-04
BM-S	Ben Maddox Way	Noble Ave	Tulare Ave	673	0.59	0.05	0.04	0.05	9.18	2.03	16.51	25.89	54.33	6.29E-04
BM-N	Ben Maddox Way	Noble Ave	Mineral King Way	134	0.18	0.02	0.01	0.01	2.77	0.61	4.98	7.81	16.39	1.90E-04
N-W	Noble Ave	Ben Maddox Way	Court St	317	0.11	0.01	0.01	0.01	1.73	0.38	3.11	4.88	10.23	1.18E-04

Diesel Emissions calculated as: Emission Factor (g/mi) x Segment Length (mi/trip) x AADT (trips/day)

Data Sources

Illingworth and Rodkin: Air Quality Report, Visalia Walmart Expansion. 2010
City of Visalia Trafic Safety 2010 AADT Lists on Select Streets
California Department of Transpsortation.Traffic Counts on State Highways
ARB EMFAC2011 Mobile Source Emissions Inventory

Roadway AADT and Emissions - All Traffic and TOG Emissions

Vehicle Fleet for Local Roadway Traffic

City of Visalia Assumptions

Trucks Comprise 2% of the Daily VMT
3 axle trucks comprise 50 % of the trucks
4+ axle trucks comprise 50% of the trucks

Vehicle Class	City of Visalia Vehicle Distribution	EMFAC2011 Vehicle Mix	EMFAC2011 % Diesel	
LDA (Passenger Car)	98.0%	44.2%	0.3%	
LDT1		7.6%	0.1%	
LDT2		17.8%	0.0%	
MDT		22.7%	0.1%	
LHDT1		6.8%	44.2%	
LHDT2		1.0%	70.7%	
SubTotal		100.0%		
MHDT (3 axle truck)	1.0%	100.0%	86.7%	
HHDT (4+ axle truck)	1.0%	100.0%	99.3%	
Total	100.0%			

Vehicle mix for LDA, LDT1, LDT2, MDT, LHDT1, and LHDT2 derived from EMFAC2011 Daily VMT for Tulare County in 2010
% diesel for all vehicle classes derived from EMFAC2011 for Tulare County in 2010
Diesel Fleet Composite formed by multiplying Vehicle Distribution x EMFAC Vehicle Mix x EMFAC % Diesel

Vehicle Fleet for SR198 Traffic

Cal Trans Assumptions (based on traffic count data of state routes)
Trucks (3 and 4+ axle) comprise 4.1% of the AADT
Remaining vehicles comprise 95.9% percent of the total

Vehicle Class	City of Visalia ehicle Distributio	EMFAC2011 Vehicle Mix	EMFAC2011 % Diesel		
LDA (Passenger	95.9%	44.2%	0.3%		
LDT1		7.6%	0.1%		
LDT2		17.8%	0.0%		
MDT		22.7%	0.1%		
LHDT1		6.8%	44.2%		
LHDT2		1.0%	70.7%		
SubTotal		100.0%			
MHDT (3 axle)	1.0%	100.0%	86.7%		
HHDT (4+ axle)	3.1%	100.0%	99.3%		
Total	100.0%				

Vehicle mix for LDA, LDT1, LDT2, MDT, LHDT1, and LHDT2 derived from EMFAC2011 Daily VMT for Tulare County in 2010
% diesel for all vehicle classes derived from EMFAC2011 for Tulare County in 2010
Diesel Fleet Composite formed by multiplying Vehicle Distribution x EMFAC Vehicle Mix x EMFAC % Diesel

Roadway Segment Diesel AADT

AERMOD Source	Roadway	From	To	Total AADT All Vehicles	AADT Walmart Project	Total with Project AADT	Daily LDA GAS AADT	Daily LDT1 GAS AADT	Daily LDT2 GAS AADT	Daily MDT GAS AADT	Daily LHDT1 GAS AADT	Daily LHDT2 GAS AADT	Daily MHDT GAS AADT	Daily HHDT GAS AADT
NE-1	Noble Ave	Ben Maddox Way	SR198 Exit	13000	216	13216	5708	981	2298	2941	490	37	18	1
NE-2	Noble Ave	SR198 Exit	West Dr	13000	1832	14832	6406	1101	2579	3301	550	41	20	1
NE-3	Noble Ave	West Drive	East Drive	3629	2130	5759	2487	428	1002	1282	214	16	8	0
NE-4	Noble Ave	East Drive	Lovers Lane	8600	1197	9797	4231	727	1704	2181	364	27	13	1
198 E-1	SR198	SR198 East	Prior to Exit	30500	264	30764	13287	2284	5350	6847	1142	86	41	2
198 Exit	SR198	SR198 East	Exit to Noble	653	898	1551	670	115	270	345	58	4	2	0
198 Entr	SR198	SR198 East	Noble Entrance to SR198	181	719	900	389	67	157	200	33	3	1	0
198 E-2	SR198	SR198 East	East of Entrance	19000	216	19216	8300	1427	3342	4277	713	53	26	1
198 W-1	SR198	SR198 West	Prior to Exit to Mineral	19000	216	19216	8300	1427	3342	4277	713	53	26	1
198 W-2	SR198	SR198 West	Exit Segment	181	60	241	104	18	42	54	9	1	0	0
198 W-3	SR198	SR198 West	Entrance Segment	653	60	713	308	53	124	159	26	2	1	0
198 W-4	SR198	SR198 West	After Mineral Entrance	30500	60	30560	13199	2269	5315	6802	1134	85	41	2
BM-S	Ben Maddox Way	Noble Ave	Tulare Ave	15300	60	15360	6634	1140	2671	3419	570	43	20	1
BM-N	Ben Maddox Way	Noble Ave	Mineral King Way	22600	216	22816	9854	1694	3968	5078	847	63	30	2
N-W	Noble Ave	Ben Maddox Way	Court St	5900	216	6116	2642	454	1064	1361	227	17	8	0

GAS Emission Factors for TOG Emissions (includes exhaust and running loss)

Vehicle Class	25 mph (g/mile)	35 mph (g/mile)	45 mph (g/mile)	55 mph (g/mi)
LDA GAS	0.332	0.274	0.252	0.253
LDT1 GAS	0.902	0.757	0.702	0.704
LDT2 GAS	0.491	0.407	0.376	0.376
MDT GAS	0.364	0.291	0.264	0.262
LHDT1 GAS	0.702	0.571	0.515	0.491
LHDT2 GAS	0.865	0.698	0.624	0.596
MHDT GAS	3.335	2.681	2.394	2.283
HHDT GAS	4.461	3.061	2.456	2.208

EMFAC2011 for Tulare County in 2010

Roadway GAS Emissions

Vehicle Speeds: LDA, LDT1, LDT2, and MDT travel at 35 mph; 55 mph on SR198
Vehicle Speeds: LHDT, MHDT and HHDT travel at 25 mp; 45 mph on SR198

RMOD Sou	Roadway	From	To	Segment Length (m)	Daily LDA TOG (g/day)	Daily LDT1 TOG (g/day)	Daily LDT2 TOG (g/day)	Daily MDT TOG (g/day)	Daily LHDT1 TOG (g/day)	Daily LHDT2 TOG (g/day)	Daily MHDT TOG (g/day)	Daily HHDT TOG (g/day)	Total TOG (g/day)	Average TOG (g/sec)
NE-1	Noble Ave	Ben Maddox Way	SR198 Exit	260	252.34	119.93	151.20	138.30	55.60	5.13	9.46	0.64	732.59	8.48E-03
NE-2	Noble Ave	SR198 Exit	West Dr	226	246.16	116.99	147.50	134.91	54.24	5.01	9.23	0.62	714.65	8.27E-03
NE-3	Noble Ave	West Drive	East Drive	105	44.41	21.10	26.61	24.34	9.78	0.90	1.67	0.11	128.92	1.49E-03
NE-4	Noble Ave	East Drive	Lovers Lane	651	468.36	222.60	280.64	256.70	103.19	9.52	17.56	1.18	1359.75	1.57E-02
198 E-1	SR198	SR198 East	Prior to Exit	216	450.54	215.68	270.14	240.81	78.87	7.16	13.14	0.68	1277.01	1.48E-02
198 Exit	SR198	SR198 East	Exit to Noble	373	39.22	18.78	23.52	20.96	6.87	0.62	1.14	0.06	111.18	1.29E-03
198 Entr	SR198	SR198 East	Noble Entrance to SR198	406	24.77	11.86	14.85	13.24	4.34	0.39	0.72	0.04	70.22	8.13E-04
198 E-2	SR198	SR198 East	East of Entrance	1130	1472.24	704.77	882.74	786.89	257.73	23.39	42.92	2.22	4172.90	4.83E-02
198 W-1	SR198	SR198 West	Prior to Exit to Mineral	657	855.98	409.77	513.24	457.51	149.85	13.60	24.96	1.29	2426.19	2.81E-02
198 W-2	SR198	SR198 West	Exit Segment	266	4.35	2.08	2.61	2.32	0.76	0.07	0.13	0.01	12.32	1.43E-04
198 W-3	SR198	SR198 West	Entrance Segment	329	15.90	7.61	9.54	8.50	2.78	0.25	0.46	0.02	45.08	5.22E-04
198 W-4	SR198	SR198 West	After Mineral Entrance	218	451.70	216.23	270.83	241.42	79.08	7.18	13.17	0.68	1280.28	1.48E-02
BM-S	Ben Maddox Way	Noble Ave	Tulare Ave	673	759.12	360.79	454.86	416.06	167.26	15.44	28.47	1.92	2203.90	2.55E-02
BM-N	Ben Maddox Way	Noble Ave	Mineral King Way	134	224.52	106.71	134.53	123.05	49.47	4.57	8.42	0.57	651.82	7.54E-03
N-W	Noble Ave	Ben Maddox Way	Court St	317	142.37	67.67	85.31	78.03	31.37	2.90	5.34	0.36	413.35	4.78E-03

Diesel Emissions calculated as: Emission Factor (g/mi) x Segment Length (mi/trip) x AADT (trips/day)

Data Sources

Illingworth and Rodkin: Air Quality Report, Visalia Walmart Expansion. 2010
City of Visalia Trafic Safety 2010 AADT Lists on Select Streets
California Department of Transpsortation,Traffic Counts on State Highways
ARB EMFAC2011 Mobile Source Emission Model