APPENDIX G

ON-ROAD VEHICLE CRITERIA POLLUTANT AND GHG EMISSION ESTIMATES

Scenario Year: 2020

All model years in the range 1976 to 2020 — Highest (Most Conservative) EMFAC2007 (version 2.3)

Passenger Vehicles (pounds/mile)		Delivery Trucks (pounds/mile)	
CO	**0.00444247**	CO	**0.00799617**
NOx	**0.00040506**	NOx	**0.00831802**
ROG	**0.00052463**	ROG	**0.00122382**
SOx	**0.00001073**	SOx	**0.00002733**
PM10	**0.00009550**	PM10	**0.00035054**
PM2.5	**0.00006279**	PM2.5	**0.00027128**
CO2	**1.10456157**	CO2	**2.85148109**
CH4	**0.00004495**	CH4	**0.00005330**

Emission Factors for On-Road Passenger Vehicles and Delivery Trucks
Projects in the SCAQMD
Derived from Peak Emissions Inventory (Winter, Annual, Summer)

Emissions (pounds per day) = N x TL x EF
where N = number of trips, TL = trip length (miles/day), and EF = emission factor (pounds per mile)
All the emission factors account for the emissions from start, running and idling exhaust.
In addition, the ROG emission factors include diurnal, hot soak, running
and resting emissions, and the PM10 & PM2.5 emission factors include tire and brake wear.
Delivery truck Efs are an average for MDV and HDV and were used to estimate emissions for buses

# Visitor Vehicles/day		Air Pollutant Emissions	Visitors – lbs/yr (during high and shoulder seasons (240 days))	Buses - lbs/yr (based on 7 day/wk, 50 wk/yr ops)	tons per year	Minus Alt 1
ALTERNATIVE 1						
	18675.83	CO	433226.5723	4437.076634	219	0
		NOx	39501.13542	4615.666883	22	0
VMT/day	406330.1	ROG	51161.13987	679.0979535	26	0
		SOx	1046.08355	15.16690013	1	0
Annual Bus #s	10565	PM10	9312.69502	194.5154942	5	0
Annual Bus VMT	554900	PM2.5	6123.415904	150.5314838	3	0
From GHG Inventory		CO2	107715988.6	1582286.856	49576.86 MT	
		CH4	4383.345218	29.57545526	2.001667 MT	
					49619 CO2E	0
ALTERNATIVE 2						
	14314.17	CO	332048.2278	4926.842256	168	-51
		NOx	30275.8022	5125.145341	18	-4
VMT/day	311433.3	ROG	39212.65895	754.0569545	20	-6
		SOx	801.7748937	16.84102634	0	-1
Annual Bus #s	11265	PM10	7137.752102	215.9861628	4	-1
Annual Bus VMT	616150	PM2.5	4693.316451	167.1471864	2	-1
From GHG Inventory		CO2	82559347.46	1756940.073	38245.22 MT	
		CH4	3359.632359	32.84000137	1.538799 MT	
					38278 CO2E	-11341
ALTERNATIVE 3						
	13935.42	CO	323262.2978	4926.842256	164	-55
		NOx	29474.71051	5125.145341	17	-5
VMT/day	303192.9	ROG	38175.0998	754.0569545	19	-7
		SOx	780.5600896	16.84102634	0	-1
Annual Bus #s	11265	PM10	6948.888603	215.9861628	4	-1
Annual Bus VMT	616150	PM2.5	4569.132232	167.1471864	2	-1
From GHG Inventory		CO2	80374843.57	1756940.073	37254.34 MT	
		CH4	3270.737156	32.84000137	1.498477 MT	
					37286 CO2E	-12333
ALTERNATIVE 4						
	16089.17	CO	373223.2132	5668.487342	189	-30
		NOx	34030.09333	5896.641293	20	-2
VMT/day	350052	ROG	44075.14736	867.5662988	22	-4
		SOx	901.1974077	19.37613174	0	-1
Annual Bus #s	12490	PM10	8022.854971	248.4988896	4	-1
Annual Bus VMT	708900	PM2.5	5275.301899	192.3081076	3	0
From GHG Inventory		CO2	92796956.48	2021414.944	43008.88 MT	
		CH4	3776.236942	37.7834569	1.73001 MT	
					43045 CO2E	-6574

# Visitor Vehicles/day		Air Pollutant Emissions	Visitors – lbs/yr (during high and shoulder seasons (240 days))	Buses - lbs/yr (based on 7 day/wk, 50 wk/yr ops)	tons per year	Minus Alt 1
ALTERNATIVE 5						
	17812.08	CO	413190.0125	8914.933752	211	-8
		NOx	37674.22333	9273.755646	23	1
VMT/day	387537.5	ROG	48794.95713	1364.437391	25	-1
		SOx	997.7025944	30.4731969	1	0
Annual Bus #s	20015	PM10	8881.986511	390.8187502	5	0
Annual Bus VMT	1114900	PM2.5	5840.210309	302.4464792	3	0
From GHG Inventory		CO2	102734166.2	3179116.266	48041.45 MT	
		CH4	4180.617213	59.42273395	1.923249 MT	
					48082 CO2E	-1537
ALTERNATIVE 6						
	18801.25	**CO**	436135.8847	9362.719464	223	4
		NOx	39766.40341	9739.564522	25	3
VMT/day	409058.8	**ROG**	51504.71007	1432.971335	26	0
		SOx	1053.108474	32.00382657	1	0
Annual Bus #s	20715	**PM10**	9375.233979	410.4490758	5	0
Annual Bus VMT	1170900	**PM2.5**	6164.537411	317.6379787	3	0
From GHG Inventory		**CO2**	108439350.2	3338799.207	50701.71 MT	
		CH4	4412.781363	62.40746182	2.029911 MT	
					50744 CO2E	1125