

Detailed version of the Emission reduction, cost, and benefit summary table (Page 1 Part A of 2 Pages)

DRAFT CONTROL STRATEGY EMISSIONS REDUCTIONS (tons per day)			ROG	NOx	PM10	PM2.5	Diesel PM2.5	SO2	NH3	Benzene	1, 3 Butadiene	Formaldehyde	Acetaldehyde
Stationary Source Measures													
	Notes												
SSM1	Metal Melting Facilities	2											
SSM2	Digital Printing	2											
SSM3	Livestock Waste		0.3000										
SSM4	Natural Gas Processing	1, 4	0.3000										
SSM5	Vacuum Trucks		6.0000										
SSM6	General PM Weight Rate Limitation	1			2.5830	0.2870							
SSM7	Open Burning		0.0400	0.0100		0.0900							
SSM8	Coke Calcining	1						2.6000					
SSM9	Cement Kilns	1		4.3800				0.0000					
SSM10	Refinery Boilers & Heaters	1		2.9000									
SSM11	Residential Fan Type Furnaces	7		4.2000									
SSM12	Large Space Heating	7		1.2000									
SSM13	Dryers, Ovens, Kilns	1		0.2000									
SSM14	Glass Furnaces			0.3800									
SSM15	GHG in Permitting - Energy Efficiency	2											
SSM16	Revise Reg 2 Rule 2 NSR	2											
SSM17	Revise Reg 2 Rule 5 NSR TAC	2											
SSM18	Changes to Toxic Hot Spots Program	2											
<i>Stationary Source Subtotal</i>			6.640	13.270	2.583	0.377		2.600	0.000	0.000	0.000	0.000	0.000
Mobile Source Measures													
	Notes												
MSM A-1	Promote Clean Fuel Efficient Vehicles		0.0500	0.0300	0.0090	0.0050				0.0010	0.00021	0.0007	0.0005
MSM A-2	Zero Emissions Vehicles & Plug-In Hybrids		0.0100	0.0100	0.0090	0.0050				0.0002	0.00004	0.0001	0.0001
MSM A-3	Green Fleets		0.0200	0.0200	0.0300	0.0200				0.0004	0.00008	0.0003	0.0002
MSM A-4	Reduce High-Emitting Vehicles		4.3700	2.0600	0.0300	0.0200				0.0887	0.01835	0.0638	0.0446
MSM B-1	HDV Fleet Modernization		0.1000	5.0000	0.1100	0.0330	0.0660			0.0011	0.00012	0.0085	0.0159
MSM B-2	Software/Catalytic Convertors			0.9900									
MSM B-3	Efficient Drive Trains		0.0100	0.2900	0.0090	0.0095				0.0001	0.00001	0.0009	0.0016
MSM C-1	Construction & Farming Equipment		0.0400	0.7200	0.0200	0.0190							
MSM C-2	Lawn & Garden Equipment		0.0400	0.0090	0.0100	0.0060							
MSM C-3	Recreational Vessels		0.0600	0.0090	0.0000	0.0090							
<i>Mobile Source Subtotal</i>			4.700	9.138	0.227	0.127	0.066	0.000	0.000	0.091	0.019	0.074	0.063

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DRAFT CONTROL STRATEGY EMISSIONS REDUCTIONS (tons per day)		CO2	Methane	CO2-e (See note #6)	Cost/Yr	C-E for ROG & NOx	Weighted Multi-Pollutant C-E	\$ Benefit/Yr from MPEM
Stationary Source Measures								
	Notes							
SSM1	Metal Melting Facilities	2						
SSM2	Digital Printing	2						
SSM3	Livestock Waste		3.1000	65.10	\$1,200,000	\$11,000	\$1,500	\$1,126,000
SSM4	Natural Gas Processing	1, 4	5.7000	119.70				\$1,636,000
SSM5	Vacuum Trucks				\$21,900,000	\$10,000	\$10,000	\$10,459,000
SSM6	General PM Weight Rate Limitation	1						\$47,811,000
SSM7	Open Burning							\$15,089,000
SSM8	Coke Calcining	1			\$5,700,000		\$760	\$35,993,000
SSM9	Cement Kilns	1			\$2,800,000	\$1,800	\$1,100	\$11,641,000
SSM10	Refinery Boilers & Heaters	1						\$7,709,000
SSM11	Residential Fan Type Furnaces	7			\$5,000,000	\$3,300	\$2,100	\$11,163,000
SSM12	Large Space Heating	7			\$6,833,333	\$15,600	\$10,200	\$3,191,000
SSM13	Dryers, Ovens, Kilns	1			\$570,000	\$7,800	\$5,100	\$532,000
SSM14	Glass Furnaces				\$760,000	\$5,500	\$3,600	\$1,197,000
SSM15	GHG in Permitting - Energy Efficiency	2						
SSM16	Revise Reg 2 Rule 2 NSR	2						
SSM17	Revise Reg 2 Rule 5 NSR TAC	2						
SSM18	Changes to Toxic Hot Spots Program	2						
<i>Stationary Source Subtotal</i>			8.800	184.80				\$147,547,000
Mobile Source Measures			0.000					
	Notes							
MSM A-1	Promote Clean Fuel Efficient Vehicles	0.00		0.00	\$10,000,000	\$342,000	\$48,000	\$1,005,000
MSM A-2	Zero Emissions Vehicles & Plug-In Hybrids	0.00		0.00	\$14,400,000	\$1,973,000	\$78,000	\$883,000
MSM A-3	Green Fleets	0.00		0.00	\$550,000	\$38,000	\$800	\$3,422,000
MSM A-4	Reduce High-Emitting Vehicles	44.14		44.14	\$333,000	\$140	\$80	\$17,279,000
MSM B-1	HDV Fleet Modernization	0.64		0.64	\$58,333,000	\$31,000	\$9,300	\$30,042,000
MSM B-2	Software/Catalytic Convertors				\$12,500,000	\$35,000	\$23,000	\$2,632,000
MSM B-3	Efficient Drive Trains	0.23		0.23	\$6,667,000	\$61,000	\$13,300	\$2,374,000
MSM C-1	Construction & Farming Equipment				\$2,400,000	\$9,000	\$2,200	\$5,149,000
MSM C-2	Lawn & Garden Equipment	0.00		0.00	\$2,000,000	\$112,000	\$8,700	\$94,000
MSM C-3	Recreational Vessels	0.42		0.42	\$1,000,000	\$40,000	\$2,900	\$1,632,000
<i>Mobile Source Subtotal</i>		45.43	0.000	45.43				\$64,511,000

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DRAFT CONTROL STRATEGY EMISSIONS REDUCTIONS (tons per day)		ROG	NOx	PM10	PM2.5	Diesel PM2.5	SO2	NH3	Benzene	1, 3 Butadiene	Formaldehyde	Acetaldehyde
Transportation Control Measures		Notes										
TCM A-1	Improve Local & Area-Wide Bus Service	0.0279	0.0316	0.0050	0.0010			0.0052	0.0006	0.0001	0.0004	0.0003
TCM A-2	Improve Local & Regional Rail Service	3	0.1386	0.1520	0.0430	0.0280		0.1188	0.0028	0.0006	0.0020	0.0014
TCM B-1	Implement Freeway Performance Initiative		0.9216	3.3150	0.1780	0.1190		0.0678	0.0187	0.0039	0.0135	0.0094
TCM B-2	Improve Transit Efficiency & Use		0.0039	0.0045	0.0005	0.0003		0.0013	0.0001	0.0000164	0.0001	0.00004
TCM B-3	Bay Area Express Lane Network		0.8603	1.3617	0.6600	0.2750		0.1087	0.0175	0.0036	0.0126	0.0088
TCM B-4	Goods Movement Improvements	1	0.5850	4.8175	0.2760	0.0613	0.1227		0.0061	0.0007	0.0498	0.0932
TCM C-1	Voluntary Employer Trip Reduction		0.0761	0.0943	0.0327	0.0040		0.0145	0.0015	0.0003	0.0011	0.0008
TCM C-2	Safe Routes to School and Transit		0.0084	0.0082	0.0010	0.0004		0.0016	0.0002	0.000035	0.0001	0.0001
TCM C-3	Promote Rideshare Services		0.0837	0.1051	0.0130	0.0080		0.0319	0.0017	0.000352	0.0012	0.0009
TCM C-4	Public Outreach and Education		0.0200	0.0200	0.0031	0.0020		0.0093	0.0004	0.000084	0.0003	0.0002
TCM C-5	Smart Driving/Speed Moderation		0.0744	0.1683	0.0100	0.0090			0.0015	0.000312	0.0011	0.0008
TCM D-1	Improve Bicycle Access and Facilities		0.0037	0.0041	0.0004	0.0002		0.0009	0.0001	0.000016	0.0001	0.00004
TCM D-2	Improve Pedestrian Access and Facilities		0.0028	0.0020	0.0002	0.0001		0.0003	0.0001	0.000012	0.000041	0.000028
TCM D-3	Support Local Land Use Strategies		0.2418	0.3111	0.5800	0.1450		0.1571	0.0049	0.001016	0.0035	0.0025
TCM E-1	Value Pricing Strategies		0.0000	0.0105	0.0030	0.0030		0.0058	0.0000	0.000000	0.0000	0.0000
TCM E-2	Parking Pricing & Management Strategies		0.1800	0.1882	0.0246	0.0164		0.0503	0.0037	0.0008	0.0026	0.0018
TCM E-3	Implement Transportation Pricing Reform		0.1152	0.1204	0.0157	0.0105		0.0786	0.0023	0.0005	0.0017	0.0012
TCM Subtotal			3.343	10.714	1.846	0.683	0.123	0.000	0.652	0.012	0.090	0.121
Land Use Measures		Notes										
LUM1	Goods Movement		0.0120	1.7188	0.0153	0.2207						
LUM2	Indirect Source Review Rule		0.3020	0.2441	0.4673	0.1076	0.1821	0.0031	0.0069	0.0014	0.0062	0.0024
LUM3	Enhanced CEQA Program	1	0.4400	0.3500	0.6700	0.1600	0.2600		0.0100	0.0100	0.0100	
LUM4	Land Use Guidelines		0.0774	0.0810	0.0106	0.0070						
LUM5	Reduce Risk in Impacted Communities	2										
LUM6	Enhanced Air Quality Monitoring	2										
LUM Subtotal			0.831	2.394	1.163	0.495	0.442	0.003	0.000	0.017	0.011	0.002
Energy and Climate Measures		Notes										
ECM1	Energy Efficiency	1	0.05	0.52	0.32			0.44				
ECM2	Renewable Energy	1	0.000004	0.000049	0.000030			0.000042				
ECM3	Urban Heat Island Mitigation	10	0.002	0.025	0.015			0.021				
ECM4	Tree Planting	5	0.0050	0.072000	0.0440			0.0620				
ECM Subtotal			0.0570	0.6170	0.3790			0.5230	0.0000	0.0000	0.0000	0.0000
Total for All Measures			15.5718	36.1334	6.1983	2.0611	0.6308	3.1262	0.6519	0.1705	0.0425	0.1806

Notes:

1. These emissions reduction amounts are estimates for year 2020. No information available for 2012.
2. At this time, emission reductions cannot be determined for this control measure.
3. Emission reductions and costs are for year 2020.
4. Control Measure SSM-4 presents emission reductions as a range between 6 and 9 TOG. The most conservative reduction is presented here.
5. Unable to calculate costs for this measure.
6. CO2-e includes the "Kyoto 6" greenhouse gases (including CO2, methane, and N2O) weighted by their global warming potential.
7. Estimated NOx reductions for this measure represent reductions that will be achieved upon full implementation of the measure. Full implementation is not anticipated until year 2030 or 2040.

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DRAFT CONTROL STRATEGY EMISSIONS REDUCTIONS (tons per day)		CO2	Methane	CO2-e (See note #6)	Cost/Yr	C-E for ROG & NOx	Weighted Multi-Pollutant C-E	\$ Benefit/Yr from MPEM
Transportation Control Measures								
	Notes							
TCM A-1	Improve Local & Area-Wide Bus Service	22.36		22.81	\$340,433,000	\$15,670,000	\$1,018,000	\$617,000
TCM A-2	Improve Local & Regional Rail Service	3	506.29	516.41	\$1,200,000,000	\$11,315,000	\$165,000	\$12,430,000
TCM B-1	Implement Freeway Performance Initiative	2,403.07		2,451.13	\$51,667,000	\$33,000	\$1,500	\$54,387,000
TCM B-2	Improve Transit Efficiency & Use	6.01		6.13	\$25,667,000	\$8,377,000	\$296,000	\$152,000
TCM B-3	Bay Area Express Lane Network	1,855.00		1,892.10	\$108,000,000	\$133,000	\$3,400	\$70,685,000
TCM B-4	Goods Movement Improvements	1	3,965.88	4,045.19	\$40,000,000	\$20,000	\$700	\$82,172,000
TCM C-1	Voluntary Employer Trip Reduction	94.73		96.62	\$3,600,000	\$88,000	\$4,100	\$2,240,000
TCM C-2	Safe Routes to School and Transit	8.02		8.18	\$13,333,000	\$3,361,000	\$172,000	\$211,000
TCM C-3	Promote Rideshare Services	150.03		153.03	\$5,667,000	\$125,000	\$4,000	\$3,808,000
TCM C-4	Public Outreach and Education	39.63		40.42	\$4,333,333	\$297,000	\$7,600	\$981,000
TCM C-5	Smart Driving/Speed Moderation	176.00		179.52	\$1,000,000	\$11,000	\$400	\$3,753,000
TCM D-1	Improve Bicycle Access and Facilities	4.36		4.44	\$1,500,000	\$527,000	\$24,000	\$110,000
TCM D-2	Improve Pedestrian Access and Facilities	1.72		1.76	\$40,000	\$23,000	\$1,500	\$49,000
TCM D-3	Support Local Land Use Strategies	856.50		873.63	\$5,866,667	\$29,000	\$400	\$36,598,000
TCM E-1	Value Pricing Strategies	9.68		9.87	\$26,000,000	\$6,784,100	\$107,300	\$733,000
TCM E-2	Parking Pricing & Management Strategies	288.34		294.11	\$1,478,171,000	\$10,996,900	\$354,000	\$7,268,000
TCM E-3	Implement Transportation Pricing Reform	184.49		188.18	\$471,143,000	\$5,478,100	\$165,000	\$5,561,000
	TCM Subtotal	10,572.10	0.000	10,783.54				\$281,755,000
Land Use Measures								
	Notes							
LUM1	Goods Movement	2,510.93		2,561.14	\$1,449,000	\$2,000		\$65,101,000
LUM2	Indirect Source Review Rule	333.43		340.09	\$1,412,000	\$7,100	\$100	\$52,864,000
LUM3	Enhanced CEQA Program	1	438.50	447.27				\$76,216,000
LUM4	Land Use Guidelines	136.27		139.00				\$2,805,000
LUM5	Reduce Risk in Impacted Communities	2						
LUM6	Enhanced Air Quality Monitoring	2						
	LUM Subtotal	3,419.12	0.000	3,487.50				\$196,986,000
Energy and Climate Measures								
	Notes							
ECM1	Energy Efficiency	1	532.42	543.06	-\$20,086,000	-\$97,000	-\$1,100	\$65,906,000
ECM2	Renewable Energy	1	0.06	0.06	\$11,392,000	\$584,159,000	\$6,273,000	\$6,000
ECM3	Urban Heat Island Mitigation	10	25.35	30.42	-\$39,649,000	-\$4,023,000	-\$42,600	\$3,137,000
ECM4	Tree Planting	5	74.48	75.96	\$71,049,000	\$2,528,000	\$27,000	\$9,093,000
	ECM Subtotal	632.30	0.0000	649.51				\$78,142,000
Total for All Measures		14,668.95	8.8000	15,150.78				\$768,942,000

Notes:

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6. CO2-e includes the "Kyoto 6" greenhouse gases (including CO2, methane, and N2O) weighted by their global warming potential.
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