Appendix C
Air Quality and Greenhouse Gas Emission Modeling



Monterey Park Market Place
Caline Results
Ambient CO For Source Receptor Area 11

AQMD Projected CO Concentrations

	Year	One Hour	Year	Eight Hour
	2010	5.1	**2010**	4.1
Ambient	**2020**	5.1	**2020**	4.1
	2015	5.1	**2015**	4.1

1 hr/8hr deterioration 70%

SCAQMD CEQA website: http://www.aqmd.gov/ceqa/handbook/CO/CO.html

	One-Hour CO Concentrations	Eight-Hour CO Concentrations		
Intersections	**1. Garfield & Pomona**	**1. Garfield & Pomona**	**Significant Impact?**	
Receptor	**Project**	**Project**	**1 hour**	**8 Hour**
NE	5.7	4.0	NO	NO
SE	5.6	3.9	NO	NO
SW	5.6	3.9	NO	NO
NW	5.7	4.0	NO	NO
Intersections	**2. Garfield & Via Campo**	**2. Garfield & Via Campo**	**Significant Impact?**	
Receptor	**Project**	**Project**	**1 hour**	**8 Hour**
NE	5.7	4.0	NO	NO
SE	5.9	4.1	NO	NO
SW	5.8	4.1	NO	NO
NW	5.7	4.0	NO	NO
Intersections	**5. Markland & Potrero**	**5. Markland & Potrero**	**Significant Impact?**	
Receptor	**Project**	**Project**	**1 hour**	**8 Hour**
NE	5.6	3.9	NO	NO
SE	5.4	3.8	NO	NO
SW	5.6	3.9	NO	NO
NW	5.5	3.9	NO	NO
Intersections	**6. Markland & Vail**	**6. Markland & Vail**	**Significant Impact?**	
Receptor	**Project**	**Project**	**1 hour**	**8 Hour**
NE	5.5	3.9	NO	NO
SE	5.6	3.9	NO	NO
SW	5.5	3.9	NO	NO
NW	5.4	3.8	NO	NO
Intersections	**11. Paramount & SR-60 WB**	**11. Paramount & SR-60 WB**		
Receptor	**Project**	**Project**	**1 hour**	**8 Hour**
NE	5.7	4.0	NO	NO
SE	5.6	3.9	NO	NO
SW	5.8	4.1	NO	NO
NW	5.6	3.9	NO	NO
Intersections	**13. Paramount & Montebello**	**13. Paramount & Montebello**		
Receptor	**Project**	**Project**	**1 hour**	**8 Hour**
NE	6.0	4.2	NO	NO
SE	5.9	4.1	NO	NO
SW	5.8	4.1	NO	NO
NW	5.6	3.9	NO	NO

Monterey Park Market Place
Caline Results
Ambient CO For Source Receptor Area 11

AQMD Projected CO Concentrations

	Year	One Hour	Year	Eight Hour
	2010	5.1	**2010**	4.1
Ambient	**2020**	5.1	**2020**	4.1
	2015	5.1	**2015**	4.1

1 hr/8hr deterioration 70%

SCAQMD CEQA website: http://www.aqmd.gov/ceqa/handbook/CO/CO.html

	One-Hour CO Concentrations	Eight-Hour CO Concentrations		
Intersections	**17. Montebello & Beverly**	**17. Montebello & Beverly**		
Receptor	**Project**	**Project**	**1 hour**	**8 Hour**
NE	5.7	4.0	NO	NO
SE	5.8	4.1	NO	NO
SW	5.7	4.0	NO	NO
NW	5.7	4.0	NO	NO
Intersections	**20. Rosemead & San Gabriel**	**20. Rosemead & San Gabriel**		
Receptor	**Project**	**Project**	**1 hour**	**8 Hour**
NE	5.7	4.0	NO	NO
SE	5.9	4.1	NO	NO
SW	5.8	4.1	NO	NO
NW	5.9	4.1	NO	NO

Title: LACounty2015
Version: Emfac2007 V2.3 1-Nov-06
Run Date: 8/5/2010 10:45:23
Scenario Year: 2015 - all model years in the range 1971 to 2015 selected
Season: Winter
Area: Los Angeles

Table 1:00 Runing Exhaust Emissions (grams/mile; grams/idle-hour)

Pollutant Carbon Monoxide Temperature: 60F Relative Humidity: 70%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
0	0	0	23.481	51.72	0	0	5.68
5	2.679	4.114	6.378	14.452	26.271	27.934	4.375
10	2.358	3.573	5.017	9.798	17.032	23.472	3.591
15	2.102	3.155	4.122	6.777	11.701	20.572	3.038
20	1.894	2.824	3.508	5.015	8.517	18.775	2.646
25	1.723	2.557	3.072	4.139	6.567	17.836	2.368
30	1.58	2.339	2.757	3.527	5.364	17.655	2.153
35	1.461	2.162	2.529	3.107	4.639	18.245	1.989
40	1.361	2.018	2.369	2.84	4.249	19.743	1.867
45	1.279	1.906	2.27	2.707	4.12	22.447	1.785
50	1.215	1.823	2.23	2.699	4.23	26.903	1.745

Project: Monterey Park Market Place

% COLD START

PROJ *	30%
NO PROJ	30%

% HOT START

PROJ	30%
NO PROJ	30%

*COMPOSITE BASED ON TABLE B.6 of the Caltrans Transportation Project-Level Carbon Monoxide Protocol.

Traffic data: Traffic Volumes, roadway configurations, and speed limits based on Traffic Study provided by Arch Beach Consulting, 2010

Intersection: 1. Garfield & Pomona
Peak Hour: PM
Year: 2015

Speed Limit

Garfield	35
Pomona	40

Scenario: W Project

North Link			South - Link			West - Link			East - Link			
LT	THRU	RT	LT	THRU	RT	LT	THRU	RT	LT	THRU	RT	TOTAL
526	759	0	0	735	114	299	984	309	0	0	0	3,726

Intersection: 2. Garfield & Via Campo
Peak Hour: PM
Year: 2015

Speed Limit

Garfield	35
Via Campo	40

Scenario: W Project

North Link			South - Link			West - Link			East - Link			
LT	THRU	RT	LT	THRU	RT	LT	THRU	RT	LT	THRU	RT	TOTAL
0	1075	321	297	705	0	22	0	95	141	1192	756	4,604

Intersection: 5. Markland & Potrero
Peak Hour: PM
Year: 2015

Speed Limit

Markland	25
Pontrero	40-45

Scenario: W Project

North Link			South - Link			West - Link			East - Link			
LT	THRU	RT	LT	THRU	RT	LT	THRU	RT	LT	THRU	RT	TOTAL
27	61	527	204	205	16	308	579	95	62	40	51	2,175

Project: **Monterey Park Market Place**

% COLD START

PROJ *	30%
NO PROJ	30%

% HOT START

PROJ	30%
NO PROJ	30%

*COMPOSITE BASED ON TABLE B.6 of the Caltrans Transportation Project-Level Carbon Monoxide Protocol.

Traffic data: Traffic Volumes, roadway configurations, and speed limits based on Traffic Study provided by Arch Beach Consulting, 2010

Intersection: 6. Markland & Vail
Peak Hour: **PM**
Year: **2015**
Scenario: **W Project**

Speed Limit
Markland 25
Vail/Via Campo 40

North Link			South - Link			West - Link			East - Link			
LT	THRU	RT	LT	THRU	RT	LT	THRU	RT	LT	THRU	RT	TOTAL
17	196	116	254	255	69	0	0	0	394	1115	153	2,569

Intersection: 11. Paramount & SR-60 WB
Peak Hour: **PM**
Year: **2015**
Scenario: **W Project**

Speed Limit
Paramount 40
SR-60 WB 35

North Link			South - Link			West - Link			East - Link			
LT	THRU	RT	LT	THRU	RT	LT	THRU	RT	LT	THRU	RT	TOTAL
124	668	479	0	904	10	541	23	253	4	6	95	3,107

Intersection: 13. Paramount & Montebello
Peak Hour: **PM**
Year: **2015**
Scenario: **W Project**

Speed Limit
Paramount 40
Montebello 40

North Link			South - Link			West - Link			East - Link			
LT	THRU	RT	LT	THRU	RT	LT	THRU	RT	LT	THRU	RT	TOTAL
12	50	15	253	86	1064	24	337	90	958	591	22	3,502

Intersection: 17. Montebello & Beverly
Peak Hour: **AM**
Year: **2015**
Scenario: **W Project**

Speed Limit
Montebello 40
Beverly 35

North Link			South - Link			West - Link			East - Link			
LT	THRU	RT	LT	THRU	RT	LT	THRU	RT	LT	THRU	RT	TOTAL
214	842	65	209	759	143	97	750	182	243	1,303	290	5,097

Intersection: 20. Rosemead & San Gabriel
Peak Hour: **PM**
Year: **2015**
Scenario: **W Project**

Speed Limit
Rosemead
San Gabriel 40

North Link			South - Link			West - Link			East - Link			
LT	THRU	RT	LT	THRU	RT	LT	THRU	RT	LT	THRU	RT	TOTAL
543	1,144	349	69	956	109	139	123	27	126	748	782	5,115

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: 1. Garfield & Pomona
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	1.0 M/S	Z0=	175. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	5.1 PPM		
SIGTH=	5. DEGREES	TEMP=	15.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	7	-450	7	-150	AG	1285	2.2	.0	13.2
B. NA	9	-150	9	0	AG	759	3.4	.0	10.8
C. ND	9	0	9	150	AG	1068	2.5	.0	9.9
D. NE	7	150	7	450	AG	1068	2.2	.0	13.2
E. SF	-5	450	-5	150	AG	849	2.2	.0	13.2
F. SA	-7	150	-7	0	AG	849	3.4	.0	10.8
G. SD	-7	0	-7	-150	AG	1034	2.5	.0	9.9
H. SE	-5	-150	-5	-450	AG	1034	2.2	.0	13.2
I. WF	450	7	150	7	AG	1592	2.1	.0	16.8
J. WA	150	9	0	9	AG	1293	3.8	.0	14.4
K. WD	0	9	-150	9	AG	1624	2.6	.0	10.8
L. WE	-150	7	-450	7	AG	1624	2.1	.0	16.8
M. NL	0	-150	0	0	AG	526	3.4	.0	9.9
N. WL	150	0	0	0	AG	299	3.8	.0	9.9

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE	17	19	1.8
2. SE	17	-8	1.8
3. SW	-16	-8	1.8
4. NW	-16	19	1.8

♀◘

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: 1. Garfield & Pomona
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE	187.	5.7	.0	.2	.0	.0	.0	.0	.0	.0
2. SE	354.	5.6	.0	.0	.2	.0	.0	.0	.0	.0
3. SW	81.	5.6	.0	.0	.0	.0	.0	.0	.0	.0
4. NW	97.	5.7	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N
1. NE	.0	.2	.0	.0	.0	.0
2. SE	.0	.1	.0	.0	.0	.0
3. SW	.0	.2	.0	.0	.0	.0
4. NW	.0	.3	.0	.0	.0	.0

♀◘

```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

               JOB: 2. Garfield & Via Campo
               RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide
```

I. SITE VARIABLES

```
       U=   1.0 M/S            Z0= 175. CM            ALT=     0. (M)
     BRG= WORST CASE           VD=   .0 CM/S
    CLAS=     7 (G)            VS=   .0 CM/S
    MIXH= 1000. M             AMB=  5.1 PPM
   SIGTH=    5. DEGREES       TEMP= 15.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	*	7	-450	7	-150	* AG	1396	2.2	.0	16.8
B. NA	*	9	-150	9	0	* AG	1396	3.5	.0	14.4
C. ND	*	9	0	9	150	* AG	1311	2.5	.0	10.8
D. NE	*	7	150	7	450	* AG	1311	2.2	.0	16.8
E. SF	*	-7	450	-7	150	* AG	1002	2.2	.0	13.2
F. SA	*	-9	150	-9	0	* AG	705	3.5	.0	10.8
G. SD	*	-9	0	-9	-150	* AG	1483	2.7	.0	9.9
H. SE	*	-7	-150	-7	-450	* AG	1483	2.2	.0	13.2
I. WF	*	450	4	150	4	* AG	117	2.1	.0	9.6
J. WA	*	150	5	0	5	* AG	95	3.5	.0	9.9
K. EF	*	-450	-5	-150	-5	* AG	2089	2.1	.0	13.2
L. EA	*	-150	-9	0	-9	* AG	1948	3.8	.0	14.4
M. ED	*	0	-9	150	-9	* AG	1810	3.9	.0	9.9
N. EE	*	150	-5	450	-5	* AG	1810	2.1	.0	13.2
O. SL	*	0	150	0	0	* AG	297	3.5	.0	9.9
P. WL	*	150	0	0	0	* AG	22	3.5	.0	9.9
Q. EL	*	-150	0	0	0	* AG	141	3.5	.0	9.9

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. NE	*	19	12	1.8
2. SE	*	19	-19	1.8
3. SW	*	-17	-19	1.8
4. NW	*	-17	12	1.8

♀¤

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: 2. Garfield & Via Campo
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE	187.	5.7	.0	.3	.0	.0	.0	.0	.0	.0
2. SE	277.	5.9	.0	.2	.0	.0	.0	.0	.0	.0
3. SW	74.	5.8	.0	.1	.0	.0	.0	.0	.1	.0
4. NW	173.	5.7	.0	.0	.0	.0	.0	.0	.3	.0

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q
1. NE	.0	.0	.0	.0	.1	.0	.0	.0	.0
2. SE	.0	.0	.0	.5	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.1	.3	.0	.0	.0	.0
4. NW	.0	.0	.0	.2	.0	.0	.0	.0	.0

♀◘

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: 5. Markland & Potrero
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	1.0 M/S	Z0=	175. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	5.1 PPM		
SIGTH=	5. DEGREES	TEMP=	15.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	*	4	-450	4	-150	* AG	615	2.5	.0	9.6
B. NA	*	5	-150	5	0	* AG	588	3.8	.0	9.9
C. ND	*	5	0	5	150	* AG	218	2.7	.0	9.9
D. NE	*	4	150	4	450	* AG	218	2.5	.0	9.6
E. SF	*	-4	450	-4	150	* AG	425	2.5	.0	9.6
F. SA	*	-4	150	-4	0	* AG	221	3.6	.0	9.9
G. SD	*	-4	0	-4	-150	* AG	564	3.0	.0	9.9
H. SE	*	-4	-150	-4	-450	* AG	564	2.5	.0	9.6
I. WF	*	450	5	150	5	* AG	982	2.1	.0	13.2
J. WA	*	150	7	0	7	* AG	674	3.4	.0	10.8
K. WD	*	0	7	-150	7	* AG	622	2.4	.0	9.9
L. WE	*	-150	5	-450	5	* AG	622	2.1	.0	13.2
M. EF	*	-450	-5	-150	-5	* AG	153	2.1	.0	13.2
N. EA	*	-150	-7	0	-7	* AG	91	3.4	.0	10.8
O. ED	*	0	-7	150	-7	* AG	771	3.0	.0	9.9
P. EE	*	150	-5	450	-5	* AG	771	2.1	.0	9.6
Q. NL	*	0	-150	0	0	* AG	27	3.6	.0	9.9
R. SL	*	0	150	0	0	* AG	204	3.6	.0	9.9
S. WL	*	150	0	0	0	* AG	308	3.5	.0	9.9
T. EL	*	-150	0	0	0	* AG	62	3.4	.0	9.9

♀◘

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: 5. Markland & Potrero
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE	12	16	1.8
2. SE	12	-16	1.8
3. SW	-8	-16	1.8
4. NW	-8	16	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE	185.	5.6	.0	.2	.0	.0	.0	.0	.0	.0
2. SE	347.	5.4	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	82.	5.6	.0	.0	.0	.0	.0	.0	.0	.0
4. NW	98.	5.5	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
4. NW	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: 6. Markland & Vail
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	1.0 M/S	Z0=	175. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	5.1 PPM		
SIGTH=	5. DEGREES	TEMP=	15.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	5	-450	5	-150	AG	329	2.5	.0	13.2
B. NA	7	-150	7	0	AG	312	3.9	.0	10.8
C. ND	7	0	7	150	AG	590	2.9	.0	9.9
D. NE	5	150	5	450	AG	590	2.5	.0	13.2
E. SF	-5	450	-5	150	AG	578	2.5	.0	13.2
F. SA	-7	150	-7	0	AG	324	3.9	.0	10.8
G. SD	-7	0	-7	-150	AG	408	2.9	.0	9.9
H. SE	-5	-150	-5	-450	AG	408	2.5	.0	13.2
I. WD	0	4	-150	4	AG	86	2.3	.0	9.9
J. WE	-150	4	-450	4	AG	86	2.1	.0	9.6
K. EF	-450	-5	-150	-5	AG	1662	2.1	.0	13.2
L. EA	-150	-7	0	-7	AG	1268	3.2	.0	10.8
M. ED	0	-7	150	-7	AG	1485	2.4	.0	9.9
N. EE	150	-5	450	-5	AG	1485	2.1	.0	13.2
O. NL	0	-150	0	0	AG	17	3.9	.0	9.9
P. SL	0	150	0	0	AG	254	4.1	.0	9.9
Q. EL	-150	0	0	0	AG	394	3.2	.0	9.9

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE	16	8	1.8
2. SE	16	-16	1.8
3. SW	-16	-16	1.8
4. NW	-16	8	1.8

♀¤

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: 6. Markland & Vail
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE	263.	5.5	.0	.0	.0	.0	.0	.0	.0	.0
2. SE	277.	5.6	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	7.	5.5	.0	.0	.0	.0	.0	.1	.0	.0
4. NW	174.	5.4	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q
1. NE	.0	.0	.0	.1	.0	.0	.0	.0	.1
2. SE	.0	.0	.0	.3	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.1	.0	.0	.0	.0	.0
4. NW	.0	.0	.0	.1	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: 17. Montebello & Beverly
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= 1.0 M/S Z0= 175. CM ALT= 0. (M)
BRG= WORST CASE VD= .0 CM/S
CLAS= 7 (G) VS= .0 CM/S
MIXH= 1000. M AMB= 5.1 PPM
SIGTH= 5. DEGREES TEMP= 15.0 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	*	5	-450	5	-150	* AG	1121	2.1	.0	13.2
B. NA	*	9	-150	9	0	* AG	907	3.6	.0	14.4
C. ND	*	9	0	9	150	* AG	1267	2.8	.0	9.9
D. NE	*	5	150	5	450	* AG	1267	2.1	.0	13.2
E. SF	*	-5	450	-5	150	* AG	1111	2.1	.0	13.2
F. SA	*	-9	150	-9	0	* AG	902	3.6	.0	14.4
G. SD	*	-9	0	-9	-150	* AG	1146	2.8	.0	9.9
H. SE	*	-5	-150	-5	-450	* AG	1146	2.1	.0	13.2
I. WF	*	450	5	150	5	* AG	1029	2.2	.0	13.2
J. WA	*	150	7	0	7	* AG	932	3.4	.0	10.8
K. WD	*	0	7	-150	7	* AG	1107	2.5	.0	9.9
L. WE	*	-150	5	-450	5	* AG	1107	2.2	.0	13.2
M. EF	*	-450	-5	-150	-5	* AG	1836	2.2	.0	13.2
N. EA	*	-150	-9	0	-9	* AG	1593	3.5	.0	14.4
O. ED	*	0	-9	150	-9	* AG	1577	2.9	.0	9.9
P. EE	*	150	-5	450	-5	* AG	1577	2.2	.0	13.2
Q. NL	*	0	-150	0	0	* AG	214	3.6	.0	9.9
R. SL	*	0	150	0	0	* AG	209	3.6	.0	9.9
S. WL	*	150	0	0	0	* AG	97	3.4	.0	9.9
T. EL	*	-150	0	0	0	* AG	243	3.4	.0	9.9

♀◘

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: 17. Montebello & Beverly
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE	19	16	1.8
2. SE	19	-19	1.8
3. SW	-19	-19	1.8
4. NW	-19	16	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE	258.	5.7	.0	.0	.1	.0	.0	.0	.0	.0
2. SE	276.	5.8	.0	.1	.0	.0	.0	.0	.0	.0
3. SW	76.	5.7	.0	.0	.0	.0	.0	.0	.0	.0
4. NW	164.	5.7	.0	.1	.0	.0	.0	.0	.2	.0

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0
2. SE	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
4. NW	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0

♀◘

```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

               JOB: 13. Paramount & Montebello
               RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide
```

I. SITE VARIABLES

```
         U=   1.0 M/S            Z0= 175. CM            ALT=     0. (M)
       BRG= WORST CASE           VD=   .0 CM/S
      CLAS=     7 (G)            VS=   .0 CM/S
      MIXH= 1000. M             AMB=  5.1 PPM
     SIGTH=    5. DEGREES       TEMP= 15.0 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	*	4	-450	4	-150	* AG	77	2.1	.0	9.6
B. NA	*	4	-150	4	0	* AG	65	3.6	.0	9.9
C. ND	*	4	0	4	150	* AG	1098	4.5	.0	9.9
D. NE	*	4	150	4	450	* AG	1098	2.1	.0	9.6
E. SF	*	-9	450	-9	150	* AG	1403	2.1	.0	16.8
F. SA	*	-11	150	-11	0	* AG	1150	3.8	.0	14.4
G. SD	*	-11	0	-11	-150	* AG	132	2.4	.0	9.9
H. SE	*	-9	-150	-9	-450	* AG	132	2.1	.0	9.6
I. WF	*	450	7	150	7	* AG	451	2.1	.0	16.8
J. WA	*	150	9	0	9	* AG	427	3.2	.0	14.4
K. WD	*	0	9	-150	9	* AG	1413	2.4	.0	10.8
L. WE	*	-150	7	-450	7	* AG	1413	2.1	.0	16.8
M. EF	*	-450	-9	-150	-9	* AG	1571	2.1	.0	16.8
N. EA	*	-150	-11	0	-11	* AG	613	3.2	.0	14.4
O. ED	*	0	-11	150	-11	* AG	859	2.3	.0	10.8
P. EE	*	150	-9	450	-9	* AG	859	2.1	.0	16.8
Q. NL	*	0	-150	0	0	* AG	12	3.6	.0	9.9
R. SL	*	0	150	0	0	* AG	253	3.6	.0	9.9
S. WL	*	150	0	0	0	* AG	24	3.2	.0	9.9
T. EL	*	-150	0	0	0	* AG	958	3.5	.0	9.9

♀◘

```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   2
```

JOB: 13. Paramount & Montebello
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE	8	19	1.8
2. SE	8	-21	1.8
3. SW	-21	-21	1.8
4. NW	-21	19	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE	355.	6.0	.0	.0	.7	.0	.1	.0	.0	.0
2. SE	356.	5.9	.0	.0	.4	.0	.0	.0	.0	.0
3. SW	8.	5.8	.0	.0	.0	.0	.0	.3	.0	.0
4. NW	123.	5.6	.0	.0	.0	.0	.0	.2	.0	.0

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NW	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0

♀◘

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: 11. Parmount & SR-60 WB
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= 1.0 M/S Z0= 175. CM ALT= 0. (M)
BRG= WORST CASE VD= .0 CM/S
CLAS= 7 (G) VS= .0 CM/S
MIXH= 1000. M AMB= 5.1 PPM
SIGTH= 5. DEGREES TEMP= 15.0 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	7	-450	7	-150	AG	1271	2.1	.0	16.8
B. NA	9	-150	9	0	AG	1147	2.9	.0	14.4
C. ND	9	0	9	150	AG	925	2.2	.0	10.8
D. NE	7	150	7	450	AG	925	2.1	.0	16.8
E. SF	-7	450	-7	150	AG	914	2.1	.0	16.8
F. SA	-7	150	-7	0	AG	914	2.9	.0	10.8
G. SD	-7	0	-7	-150	AG	1540	2.3	.0	10.8
H. SE	-7	-150	-7	-450	AG	1540	2.1	.0	16.8
I. WF	450	4	150	4	AG	817	2.2	.0	9.6
J. WA	150	5	0	5	AG	276	4.1	.0	9.9
K. WD	0	5	-150	5	AG	157	2.7	.0	9.9
L. WE	-150	4	-450	4	AG	157	2.2	.0	9.6
M. EF	-450	-4	-150	-4	AG	105	2.2	.0	9.6
N. EA	-150	-4	0	-4	AG	101	4.1	.0	9.9
O. ED	0	-4	150	-4	AG	485	3.8	.0	9.9
P. EE	150	-4	450	-4	AG	485	2.2	.0	9.6
Q. NL	0	-150	0	0	AG	124	2.9	.0	9.9
R. WL	150	0	0	0	AG	541	4.7	.0	9.9
S. EL	-150	0	0	0	AG	4	4.1	.0	9.9

♀◘

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: 11. Parmount & SR-60 WB

RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE	19	12	1.8
2. SE	19	-8	1.8
3. SW	-16	-8	1.8
4. NW	-16	12	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE	187.	5.7	.0	.2	.0	.0	.0	.0	.0	.0
2. SE	84.	5.6	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	85.	5.8	.0	.0	.0	.0	.0	.0	.1	.0
4. NW	97.	5.6	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S
1. NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE	.0	.0	.0	.0	.0	.0	.3	.0	.0	.2	.0
3. SW	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2	.0
4. NW	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: 20. Rosemead & San Gabriel
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= 1.0 M/S Z0= 175. CM ALT= 0. (M)
BRG= WORST CASE VD= .0 CM/S
CLAS= 7 (G) VS= .0 CM/S
MIXH= 1000. M AMB= 5.1 PPM
SIGTH= 5. DEGREES TEMP= 15.0 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	*	7	-450	7	-150	* AG	2036	2.1	.0	13.2
B. NA	*	11	-150	11	0	* AG	1493	3.3	.0	14.4
C. ND	*	11	0	11	150	* AG	1297	2.4	.0	9.9
D. NE	*	7	150	7	450	* AG	1297	2.1	.0	13.2
E. SF	*	-5	450	-5	150	* AG	1134	2.1	.0	13.2
F. SA	*	-7	150	-7	0	* AG	1065	3.3	.0	10.8
G. SD	*	-7	0	-7	-150	* AG	1877	2.7	.0	9.9
H. SE	*	-5	-150	-5	-450	* AG	1877	2.1	.0	13.2
I. WF	*	450	5	150	5	* AG	289	2.1	.0	13.2
J. WA	*	150	9	0	9	* AG	150	3.8	.0	14.4
K. WD	*	0	9	-150	9	* AG	775	2.6	.0	9.9
L. WE	*	-150	5	-450	5	* AG	775	2.1	.0	13.2
M. EF	*	-450	-5	-150	-5	* AG	1656	2.1	.0	13.2
N. EA	*	-150	-9	0	-9	* AG	1530	4.1	.0	14.4
O. ED	*	0	-9	150	-9	* AG	1166	3.3	.0	9.9
P. EE	*	150	-5	450	-5	* AG	1166	2.1	.0	13.2
Q. NL	*	0	-150	0	0	* AG	543	3.2	.0	9.9
R. SL	*	0	150	0	0	* AG	69	3.0	.0	9.9
S. WL	*	150	0	0	0	* AG	139	3.8	.0	9.9
T. EL	*	-150	0	0	0	* AG	126	3.8	.0	9.9

♀◘

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

RosemeadSanGabriel.txt
JOB: 20. Rosemead & San Gabriel
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE	21	19	1.8
2. SE	21	-19	1.8
3. SW	-16	-19	1.8
4. NW	-16	19	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE	187.	5.7	.0	.3	.0	.0	.0	.0	.0	.0
2. SE	276.	5.9	.0	.2	.0	.0	.0	.0	.0	.0
3. SW	70.	5.8	.0	.1	.0	.0	.0	.0	.2	.0
4. NW	172.	5.9	.0	.0	.0	.0	.0	.0	.3	.0

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0
4. NW	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0

♀◘

GHG Emissions Inventory

		Tons	*Mtons*	*MTons*			*MTons*	
2000 MPTP		***CO2***	***CO2***	***CO2e***	***Percent***	***Proposed Project W/Scoping Plan Reductions - 2020 inventory***	***CO2e***	***Percent***
Natural Gas		1,090	989	993	3%	Natural Gas	844	3%
Hearth		0	0	0	0%	Hearth	0	0%
Landscape		1	0	0	0%	Landscape	0	0%
Consumer Products		0	0	0	0%	Consumer Products	0	0%
Architectural Coatings		0	0	0	0%	Architectural Coatings	0	0%
Area Sources		1,091	990	993	3%	**Area Sources**	844	3%
Transportation		30,278	27,467	27,570	76%	**Transportation**	24,500	76%
Water		115	104	104	0%	Water	83	0%
Purchased Energy		2,378	2,157	2,157	6%	Purchased Energy	1,704	5%
Energy Use		2,493	2,262	2,262	6%	**Energy Use**	1,788	6%
Waste Disposal		97	88	88	0%	**Waste Disposal**	88	0%
Amortized Construction				254	1%	**A. Construction**	254	1%
TOTAL		**33,958**	**30,807**	**31,167**		**TOTAL**	**27,474**	
PER-CAPITA (SP)				**38.9**		**PER-CAPITA (SP)**	**34.3**	

GHG Emissions Inventory

		Tons	*Mtons*	*MTons*			*MTons*	
MPMP Precise Plan		***CO2***	***CO2***	***CO2e***	***Percent***	***Proposed Project W/Scoping Plan Reductions - 2020 inventory***	***CO2e***	***Percent***
Natural Gas		1,270	1,152	1,157	3%	Natural Gas	983	3%
Hearth		0	0	0	0%	Hearth	0	0%
Landscape		3	3	3	0%	Landscape	3	0%
Consumer Products		0	0	0	0%	Consumer Products	0	0%
Architectural Coatings		0	0	0	0%	Architectural Coatings	0	0%
Area Sources		1,273	1,155	1,159	3%	**Area Sources**	986	3%
Transportation		35,214	31,945	32,065	88%	**Transportation**	28,494	89%
Water		163	148	148	0%	Water	118	0%
Purchased Energy		3,050	2,767	2,767	8%	Purchased Energy	2,186	7%
Energy Use		3,213	2,915	2,915	8%	**Energy Use**	2,304	7%
Waste Disposal		128	116	116	0%	**Waste Disposal**	116	0%
Amortized Construction				254	1%	**A. Construction**	254	1%
TOTAL		**39,828**	**36,131**	**36,509**		**TOTAL**	**32,154**	***-4,355***
PER-CAPITA (SP)				**43.3**	**47.7**	**PER-CAPITA (SP)**	**38.1**	**42.0**
	MPMP	2000 MPTP					-12%	
Employees- high	844	801	Percent Increase	17%				
Employees- low	766	801						

SCOPING PLAN REDUCTIONS

[1] Assumes an increase in 15 percent energy efficiency from the 2005 to 2008 Building and Energy Efficiency Standards (Title 24, California Building Code).

[2] Assumes a 20 percent decrease in per-capita water use in accordance with the statewide Draft 20X2020 Water Conservation Plan.

[3] Assumes an increase in renewable energy production of 21 percent. Existing renewable energy production is currently 12 percent of the statewide energy supply and the CARB Scoping Plan goal is 33

[4] Assumes a 42.8 percent increase in fuel efficiency in passenger vehicles from 2009 to 2020 in the CARB 2008 Technical Advisory. Pavley 2 would require a average fleet fuel economy of new cars of 43 mpg by 2020 compared to an existing average of 24.4 mpg. Based on EMFAC fleet mix 1976 through 2020 and an average fuel efficiency across all model years of 24.0 mpg compared to 21.6 mpg without Pavley (or 11.1% increase in fuel efficiency)

Notes: MTons: Metric Tons; MMTons: milllion Metric Tons; SP: Service Population (i.e., employees + population)

Greenhouse Gas Emissions

Construction
From URBEMIS2007

Construction GHG Emissions Summary

From Urbemis2007

Year	Phase 1	Phase 2	**Total**
2011	422	705	**1,127**
2012		2,134	**2,134**
2013		1,204	**1,204**
2014		1,204	**1,204**
2015		1,204	**1,204**
2016		1,204	**1,204**
2017		300	**300**
	422	**7,954**	**8,376**

Conversion to CO2e

Year	Phase 1	Phase 2	**Total**
	0	0	**0**
2010	0	0	**0**
2011	424	707	**1,131**
2012	0	2,141	**2,141**
2013	0	1,207	**1,207**
2014	0	1,207	**1,207**
2015	0	1,207	**1,207**
2016	0	1,207	**1,207**
2017	0	301	**301**
Total By Phase	**424**	**7,978**	**8,401**

Conversion to MTons of CO2e

Year	Phase 1	Phase 2	**Total**
2011	384	642	**1,026**
2012	0	1,942	**1,942**
2013	0	1,095	**1,095**
2014	0	1,095	**1,095**
2015	0	1,095	**1,095**
2016	0	1,095	**1,095**
2017	0	273	**273**
Total By Phase	**384**	**7,237**	**7,622**
30-Year amortized construction GHG emissions			**254**

1 short ton (Ton) equals 0.9071847 metric tons (Mton)

URBEMIS2007, Version 9.2.4. Assumes CO_2 represents 99.6 percent of total CO_{2e} emissions from motorgasoline and 99.7 percent of total from diesel CO2e while CH_4, N_2O, and Fluorinated Gases comprise the remaining percent (BAAQMD 2008).

Greenhouse Gas Emissions

Electricity Sector
Purchased Electricity & Water

Energy Use and Greenhouse Gases Emission from Energy Use

2000 MPTP - From Section 5.5, Utilities & Service Systems

Land Use	Area (ft^2)	Energy Consumption ($kWh/ft^2/Year$)	Energy Consumption KWH/Year	lbs of CO_2e/Year
Total Commercial			7,517,323	4,753,297
			Tons/year	2,377
			lbs/day	13,023

Land Use	Area (ft^2)	Natural Gas Consumption ($BTUs/ft^2/Year$)1	Energy Consumption BTUs/Year	lbs of CO_2e/Year
Total Commercial	515,382	26	13,399,932	2,483
			Tons/year	1
			lbs/day	7

Total		Annual Electricity Use			GHG from Energy + Natural Gas
	KWH/Year	7,517,323		Mtons/Year	2,157
	GWH/Year	8		Tons/Year	2,378

MPMP Precise Plan - From Section 5.5, Utilities & Service Systems

Land Use	Area (ft^2)	Energy Consumption ($kWh/ft^2/Year$)	Energy Consumption KWH/Year	lbs of CO_2e/Year
Total Commercial			9,641,190	6,096,245
			Tons/year	3,048
			lbs/day	16,702

Land Use	Area (ft^2)	Natural Gas Consumption ($BTUs/ft^2/Year$)1	Energy Consumption BTUs/Year	lbs of CO_2e/Year
Total Commercial	600,000	26	15,600,000	2,890
			Tons/year	1
			lbs/day	8

Energy Use and Greenhouse Gases Emission from Energy Use

Total		Annual Electricity Use			
	KWH/Year	9,641,190		Mtons/Year	2,767
	GWH/Year	10		Tons/Year	3,050

Sources

Note: New structures would be constructed to meet newer California Building Code energy efficiency requirements

Source 1: California Energy Commission. 2009, December. Energy Aware Planning Guide

California Energy Emission Factors

0.631	lbs of CO2/kwh	SCE*
0.0000067	lbs of CH4/kwh	For California
0.00000378	lbs of N20/kwh	For California

US EUA http://www.eia.doe.gov/oiaf/1605/ee-factors.html

GHG Potential - Coversion to CO2e	CH4	N20
	21	310
lbs of CO2e/kwh	**0.632**	

* As reported to California Climate Action Registry (CCAR) for SCE

Conversion Factors

0.0005	lbs in a ton
0.9071847	Metric Tons
0.000293	BTU (British Thermal Units) in a kwh
471,000,000	tons of CO2e in 1990 and Goal for 2020:

Energy Use from Project-Related Water Demand

2000 MPTP

Total project-related water demand	81,250	gallons per day
	29,656,250	gallons per year
	29.7	million gallons per day
Energy-intensity	376,634	Kwh/MG

CO2 Emissions from Water Demand

	230,241	lbs of CO2e/year
	631	lbs of CO2e/day
Project-related water-energy	115	tons of CO2e/year
	104	metrics tons of CO2e/year

Table 1-3: Electricity Use in Typical Urban Water Systems		Kwh/MG
	Northern California	Southern California
Water Supply and Conveyance	150	8,900
Water Treatement	100	100
Water Distribution	1,200	1,200
Wastewater Treatment	2,500	2,500
Total	3,950	12,700

California Energy Emission Factors		
0.61	lbs of CO2/kwh	For California
0.0000067	lbs of CH4/kwh	For California
0.00000378	lbs of N20/kwh	For California
Coversion to CO2e	CH4	N20
	21	310
lbs of CO2e/kwh	**0.611**	

Sources

California Energy Commission. 2005, November. California's Water-Energy Relationship. CEC-700.2005-011-SF.

US Energy Information Administration (US EIA). 2002, April. Voluntary Reporting of Greenhouse Gases Program, Average Electricty Factors by State and Region. http://www.eia.doe.gov/oiaf/1605/ee-factors.html

Energy Intensity: Amount of energy consumed per unit of water to perform water management-related actions (i.e., desalting, pumping, presurizing, groundwater extraction, conveyance, and treatment)

Kwh/MG: kilowatt hours per million gallon of water

Conversion:	0.0005	lbs in a ton
	0.9071847	tons in a Metric Ton

Energy Use from Project-Related Water Demand

MPMP Precise Plan

Total project-related water demand	115,235	gallons per day
	42,060,775	gallons per year
	42.1	million gallons per day
Energy-intensity	534,172	Kwh/MG

CO2 Emissions from Water Demand

	326,546	lbs of CO2e/year
	895	lbs of CO2e/day
Project-related water-energy	163	tons of CO2e/year
	148	metrics tons of CO2e/year

Table 1-3: Electricity Use in Typical Urban Water Systems		Kwh/MG
	Northern California	Southern California
Water Supply and Conveyance	150	8,900
Water Treatement	100	100
Water Distribution	1,200	1,200
Wastewater Treatment	2,500	2,500
Total	3,950	12,700

California Energy Emission Factors		
0.61	lbs of CO2/kwh	For California
0.0000067	lbs of CH4/kwh	For California
0.00000378	lbs of N20/kwh	For California
Coversion to CO2e	CH4	N20
	21	310
lbs of CO2e/kwh	**0.611**	

Sources

California Energy Commission. 2005, November. California's Water-Energy Relationship. CEC-700.2005-011-SF.

US Energy Information Administration (US EIA). 2002, April. Voluntary Reporting of Greenhouse Gases Program, Average Electricty Factors by State and Region. http://www.eia.doe.gov/oiaf/1605/ee-factors.html

Energy Intensity: Amount of energy consumed per unit of water to perform water management-related actions (i.e., desalting, pumping, presurizing, groundwater extraction, conveyance, and treatment)

Kwh/MG: kilowatt hours per million gallon of water

Conversion:	0.0005	lbs in a ton
	0.9071847	tons in a Metric Ton

Greenhouse Gas Emissions

CAPCOA & Scoping Plan Reductions
EMFAC2007 2020 Fleet Mix
Pavley Fuel Efficiency

CAPCOA GHG Emissions Reductions

		MTons			MTons	
MPMP Precise Plan	*Proposed Project W/Scoping Plan Reductions - 2020 inventory*	*CO2e*	*Percent*	*Proposed Project w/CAPCOA Reductions - 2020 inventory*	*CO2e*	*Percent*
Natural Gas	Natural Gas	983	3%	Natural Gas	934	3%
Hearth	Hearth	0	0%	Hearth	0	0%
Landscape	Landscape	3	0%	Landscape	3	0%
Consumer Products	Consumer Products	0	0%	Consumer Products	0	0%
Architectural Coatings	Architectural Coatings	0	0%	Architectural Coatings	0	0%
Area Sources	**Area Sources**	986	3%	**Area Sources**	937	3%
Transportation	**Transportation**	28,494	89%	**Transportation**	27,249	85%
Water	Water	118	0%	Water	118	0%
Purchased Energy	Purchased Energy	2,186	7%	Purchased Energy	1,791	6%
Energy Use	**Energy Use**	2,304	7%	**Energy Use**	1,909	6%
Waste Disposal	**Waste Disposal**	116	0%	**Waste Disposal**	116	0%
Amortized Construction	**A. Construction**	254	1%	**A. Construction**	254	1%
TOTAL	**TOTAL**	**32,154**	***-4,355***	**TOTAL**	**30,464**	***-1,690***
PER-CAPITA (SP)	**PER-CAPITA (SP)**	**38.1**	**42.0**	**PER-CAPITA (SP)**	**36.1**	**39.8**
		-12%			-17%	

Employees- high
Employees- low

CAPCOA REDUCTIONS	**CAPCOA reductions transportation**	**CAPCOA reductions Energy/Area/Water**		***Total Reductions***
Alt Mode Transportation - Bikes	1 percent			285
Alt Mode Transportation - Walk	1.87 percent			533
Alt Mode Transportation - Transit	1 percent			285
Traffic - Employee Services	0.5 percent			142
Parking - Tree Cover (10% of parking)		3.1 kg/m2	24 acres	
	Kg to MTon conversion	0.0031		
	m2 to acre conversion	1.E+01		
	For 24 acres	301		301
Energy Consumption		5 percent		143
TOTAL				1,690
TOTAL INVENTORY				30,464

Calendar Year: 2020
Model Years: 1976 to 2020
Title: LA2020
Area: Los Angeles
SubArea: Average
Program: Emfac2007 V2.3 Nov 1 2006
Run Date:

SCEN YEAR	VEH CLS	VEH TECH	POP MYR	VMT/1000 (number)	TRIPS (mi/day)	ACCRUAL (per	ODOMETER day)	(mi/yr/veh)	(mi/veh)
2020	1	NCAT	1976	91	1.37	337	5254	382345	228683
2020	1	CAT	1976	664	10.06	2470	5254	382345	
2020	1	DSL	1976	10	0.15	37	5254	382345	
2020	1	ELEC	1976	0	0	0	0	0	
2020	2	NCAT	1976	16	0.36	60	7810	461568	
2020	2	CAT	1976	118	2.65	438	7810	461568	
2020	2	DSL	1976	2	0.05	8	7810	461568	
2020	2	ELEC	1976	0	0	0	0	0	
2020	3	NCAT	1976	24	0.53	88	7819	462105	
2020	3	CAT	1976	173	3.89	643	7819	462105	
2020	3	DSL	1976	1	0.03	4	7819	462105	
2020	3	ELEC	1976	0	0	0	0	0	
2020	4	NCAT	1976	391	7.21	1456	6388	433287	
2020	4	CAT	1976	0	0	0	0	0	
2020	4	DSL	1976	0	0	0	6388	433287	
2020	4	ELEC	1976	0	0	0	0	0	
2020	5	NCAT	1976	86	2.15	2846	8118	559077	
2020	5	CAT	1976	0	0	0	0	0	
2020	5	DSL	1976	0	0.01	5	8118	559077	
2020	5	ELEC	1976	0	0	0	0	0	
2020	6	NCAT	1976	2	0.05	78	7393	535673	
2020	6	CAT	1976	0	0	0	0	0	
2020	6	DSL	1976	0	0	0	7393	535673	
2020	6	ELEC	1976	0	0	0	0	0	
2020	7	NCAT	1976	32	0.28	1454	2896	461566	
2020	7	CAT	1976	0	0	0	0	0	
2020	7	DSL	1976	10	0.11	275	3702	569684	
2020	7	ELEC	1976	0	0	0	0	0	
2020	8	NCAT	1976	5	0.06	211	4496	1083959	
2020	8	CAT	1976	0	0	0	0	0	
2020	8	DSL	1976	13	0.19	66	4669	1733759	
2020	8	ELEC	1976	0	0	0	0	0	
2020	9	NCAT	1976	1	0.01	40	2251	358810	
2020	9	CAT	1976	0	0	0	0	0	
2020	9	DSL	1976	1	0.01	19	2878	442859	
2020	9	ELEC	1976	0	0	0	0	0	
2020	10	NCAT	1976	0	0	0	35637	1603657	
2020	10	CAT	1976	0	0	0	0	0	
2020	10	DSL	1976	3	0.36	13	35637	1603657	
2020	10	ELEC	1976	0	0	0	0	0	
2020	11	NCAT	1976	21	0.01	42	206	54731	
2020	11	CAT	1976	0	0	0	0	0	
2020	11	DSL	1976	0	0	0	0	0	
2020	11	ELEC	1976	0	0	0	0	0	
2020	12	NCAT	1976	2	0.08	9	12122	545499	
2020	12	CAT	1976	0	0	0	0	0	
2020	12	DSL	1976	16	0.59	63	12122	545499	
2020	12	ELEC	1976	0	0	0	0	0	
2020	13	NCAT	1976	52	0.45	5	2810	153136	
2020	13	CAT	1976	0	0	0	0	0	
2020	13	DSL	1976	1	0	0	2810	153136	
2020	13	ELEC	1976	0	0	0	0	0	

2020	1 NCAT	1977	95	1.46	359	5332	377091	229885
2020	1 CAT	1977	961	14.77	3633	5332	377091	
2020	1 DSL	1977	16	0.25	62	5332	377091	
2020	1 ELEC	1977	0	0	0	0	0	
2020	2 NCAT	1977	24	0.54	90	7869	453758	
2020	2 CAT	1977	174	3.96	659	7869	453758	
2020	2 DSL	1977	3	0.06	11	7869	453758	
2020	2 ELEC	1977	0	0	0	0	0	
2020	3 NCAT	1977	36	0.81	135	7878	454286	
2020	3 CAT	1977	261	5.93	988	7878	454286	
2020	3 DSL	1977	1	0.03	5	7878	454286	
2020	3 ELEC	1977	0	0	0	0	0	
2020	4 NCAT	1977	628	11.7	2374	6465	426898	
2020	4 CAT	1977	0	0	0	0	0	
2020	4 DSL	1977	0	0	0	6465	426898	
2020	4 ELEC	1977	0	0	0	0	0	
2020	5 NCAT	1977	0	0	0	0	0	
2020	5 CAT	1977	143	3.62	4734	8221	550959	
2020	5 DSL	1977	1	0.01	7	8221	550959	
2020	5 ELEC	1977	0	0	0	0	0	
2020	6 NCAT	1977	0	0	0	0	0	
2020	6 CAT	1977	6	0.14	198	7500	528280	
2020	6 DSL	1977	1	0.01	7	7500	528280	
2020	6 ELEC	1977	0	0	0	0	0	
2020	7 NCAT	1977	0	0	0	0	0	
2020	7 CAT	1977	38	0.34	1756	2896	458671	
2020	7 DSL	1977	10	0.12	293	3701	565983	
2020	7 ELEC	1977	0	0	0	0	0	
2020	8 NCAT	1977	0	0	0	0	0	
2020	8 CAT	1977	5	0.08	251	4496	1079462	
2020	8 DSL	1977	13	0.19	67	4669	1729090	
2020	8 ELEC	1977	0	0	0	0	0	
2020	9 NCAT	1977	0	0	0	0	0	
2020	9 CAT	1977	3	0.02	128	2251	356559	
2020	9 DSL	1977	1	0.01	33	2878	439981	
2020	9 ELEC	1977	0	0	0	0	0	
2020	10 NCAT	1977	0	0	0	0	0	
2020	10 CAT	1977	0	0	0	35637	1568020	
2020	10 DSL	1977	1	0.12	4	35637	1568020	
2020	10 ELEC	1977	0	0	0	0	0	
2020	11 NCAT	1977	22	0.01	45	219	54525	
2020	11 CAT	1977	0	0	0	0	0	
2020	11 DSL	1977	0	0	0	0	0	
2020	11 ELEC	1977	0	0	0	0	0	
2020	12 NCAT	1977	0	0	0	0	0	
2020	12 CAT	1977	16	0.59	64	12122	533376	
2020	12 DSL	1977	27	1	108	12122	533376	
2020	12 ELEC	1977	0	0	0	0	0	
2020	13 NCAT	1977	0	0	0	0	0	
2020	13 CAT	1977	90	0.78	9	2824	150326	
2020	13 DSL	1977	1	0.01	0	2824	150326	
2020	13 ELEC	1977	0	0	0	0	0	

2020	1 NCAT	1978	76	1.19	292	5412	371759	237668
2020	1 CAT	1978	1442	22.5	5539	5412	371759	
2020	1 DSL	1978	29	0.45	111	5412	371759	
2020	1 ELEC	1978	0	0	0	0	0	
2020	2 NCAT	1978	37	0.85	142	7929	445889	
2020	2 CAT	1978	272	6.22	1044	7929	445889	
2020	2 DSL	1978	9	0.2	34	7929	445889	
2020	2 ELEC	1978	0	0	0	0	0	
2020	3 NCAT	1978	46	1.06	178	7938	446408	
2020	3 CAT	1978	341	7.8	1309	7938	446408	
2020	3 DSL	1978	4	0.1	16	7938	446408	
2020	3 ELEC	1978	0	0	0	0	0	
2020	4 NCAT	1978	76	1.44	293	6544	420434	
2020	4 CAT	1978	559	10.55	2146	6544	420434	
2020	4 DSL	1978	0	0.01	1	6544	420434	
2020	4 ELEC	1978	0	0	0	0	0	
2020	5 NCAT	1978	0	0	0	0	0	
2020	5 CAT	1978	186	4.76	6162	8327	542737	
2020	5 DSL	1978	0	0.01	6	8327	542737	
2020	5 ELEC	1978	0	0	0	0	0	
2020	6 NCAT	1978	0	0	0	0	0	
2020	6 CAT	1978	6	0.14	198	7611	520779	
2020	6 DSL	1978	1	0.03	18	7611	520779	
2020	6 ELEC	1978	0	0	0	0	0	
2020	7 NCAT	1978	0	0	0	0	0	
2020	7 CAT	1978	39	0.35	1803	2896	455775	
2020	7 DSL	1978	22	0.25	623	3701	562281	
2020	7 ELEC	1978	0	0	0	0	0	
2020	8 NCAT	1978	0	0	0	0	0	
2020	8 CAT	1978	4	0.06	190	4496	1074966	
2020	8 DSL	1978	22	0.31	109	4669	1724420	
2020	8 ELEC	1978	0	0	0	0	0	
2020	9 NCAT	1978	0	0	0	0	0	
2020	9 CAT	1978	3	0.02	116	2251	354308	
2020	9 DSL	1978	1	0	14	2878	437103	
2020	9 ELEC	1978	0	0	0	0	0	
2020	10 NCAT	1978	0	0	0	0	0	
2020	10 CAT	1978	1	0.1	4	35637	1532383	
2020	10 DSL	1978	1	0.12	4	35637	1532383	
2020	10 ELEC	1978	0	0	0	0	0	
2020	11 NCAT	1978	33	0.02	65	236	54306	
2020	11 CAT	1978	0	0	0	0	0	
2020	11 DSL	1978	0	0	0	0	0	
2020	11 ELEC	1978	0	0	0	0	0	
2020	12 NCAT	1978	0	0	0	0	0	
2020	12 CAT	1978	52	1.9	207	12122	521254	
2020	12 DSL	1978	51	1.87	204	12122	521254	
2020	12 ELEC	1978	0	0	0	0	0	
2020	13 NCAT	1978	0	0	0	0	0	
2020	13 CAT	1978	117	1.01	12	2839	147502	
2020	13 DSL	1978	3	0.03	0	2839	147502	
2020	13 ELEC	1978	0	0	0	0	0	

2020	1 NCAT	1979	156	2.46	607	5492	366347	239014
2020	1 CAT	1979	1787	28.31	6970	5492	366347	
2020	1 DSL	1979	68	1.08	265	5492	366347	
2020	1 ELEC	1979	0	0	0	0	0	
2020	2 NCAT	1979	30	0.68	115	7991	437960	
2020	2 CAT	1979	323	7.43	1259	7991	437960	
2020	2 DSL	1979	15	0.34	58	7991	437960	
2020	2 ELEC	1979	0	0	0	0	0	
2020	3 NCAT	1979	42	0.98	165	8000	438470	
2020	3 CAT	1979	462	10.66	1803	8000	438470	
2020	3 DSL	1979	10	0.22	37	8000	438470	
2020	3 ELEC	1979	0	0	0	0	0	
2020	4 NCAT	1979	101	1.94	396	6626	413889	
2020	4 CAT	1979	744	14.22	2902	6626	413889	
2020	4 DSL	1979	0	0.01	1	6626	413889	
2020	4 ELEC	1979	0	0	0	0	0	
2020	5 NCAT	1979	0	0	0	0	0	
2020	5 CAT	1979	246	6.39	8147	8435	534411	
2020	5 DSL	1979	1	0.02	9	8435	534411	
2020	5 ELEC	1979	0	0	0	0	0	
2020	6 NCAT	1979	0	0	0	0	0	
2020	6 CAT	1979	12	0.29	403	7724	513168	
2020	6 DSL	1979	1	0.02	9	7724	513168	
2020	6 ELEC	1979	0	0	0	0	0	
2020	7 NCAT	1979	0	0	0	0	0	
2020	7 CAT	1979	59	0.52	2697	2896	452879	
2020	7 DSL	1979	52	0.59	1464	3702	558580	
2020	7 ELEC	1979	0	0	0	0	0	
2020	8 NCAT	1979	0	0	0	0	0	
2020	8 CAT	1979	5	0.07	218	4496	1070470	
2020	8 DSL	1979	29	0.42	149	4669	1719751	
2020	8 ELEC	1979	0	0	0	0	0	
2020	9 NCAT	1979	0	0	0	0	0	
2020	9 CAT	1979	3	0.02	130	2251	352056	
2020	9 DSL	1979	1	0.01	42	2878	434226	
2020	9 ELEC	1979	0	0	0	0	0	
2020	10 NCAT	1979	0	0	0	0	0	
2020	10 CAT	1979	0	0	0	35637	1496746	
2020	10 DSL	1979	2	0.23	9	35637	1496746	
2020	10 ELEC	1979	0	0	0	0	0	
2020	11 NCAT	1979	40	0.03	80	251	54071	
2020	11 CAT	1979	0	0	0	0	0	
2020	11 DSL	1979	0	0	0	0	0	
2020	11 ELEC	1979	0	0	0	0	0	
2020	12 NCAT	1979	0	0	0	0	0	
2020	12 CAT	1979	25	0.94	100	12122	509132	
2020	12 DSL	1979	18	0.71	73	12122	509132	
2020	12 ELEC	1979	0	0	0	0	0	
2020	13 NCAT	1979	0	0	0	0	0	
2020	13 CAT	1979	115	1.01	12	2854	144663	
2020	13 DSL	1979	3	0.03	0	2854	144663	
2020	13 ELEC	1979	0	0	0	0	0	

2020	1 NCAT	1980	0	0	0	0	0	234817
2020	1 CAT	1980	1538	24.75	6091	5576	360855	
2020	1 DSL	1980	72	1.16	286	5576	360855	
2020	1 ELEC	1980	0	0	0	0	0	
2020	2 NCAT	1980	26	0.6	101	8053	429970	
2020	2 CAT	1980	279	6.49	1106	8053	429970	
2020	2 DSL	1980	32	0.75	128	8053	429970	
2020	2 ELEC	1980	0	0	0	0	0	
2020	3 NCAT	1980	38	0.89	151	8063	430470	
2020	3 CAT	1980	415	9.65	1645	8063	430470	
2020	3 DSL	1980	5	0.13	22	8063	430470	
2020	3 ELEC	1980	0	0	0	0	0	
2020	4 NCAT	1980	47	0.91	185	6710	407263	
2020	4 CAT	1980	343	6.64	1358	6710	407263	
2020	4 DSL	1980	1	0.02	4	6710	407263	
2020	4 ELEC	1980	0	0	0	0	0	
2020	5 NCAT	1980	0	0	0	0	0	
2020	5 CAT	1980	208	5.47	6885	8545	525976	
2020	5 DSL	1980	2	0.04	20	8545	525976	
2020	5 ELEC	1980	0	0	0	0	0	
2020	6 NCAT	1980	0	0	0	0	0	
2020	6 CAT	1980	7	0.18	243	7840	505444	
2020	6 DSL	1980	2	0.04	20	7840	505444	
2020	6 ELEC	1980	0	0	0	0	0	
2020	7 NCAT	1980	0	0	0	0	0	
2020	7 CAT	1980	31	0.28	1432	2896	449984	
2020	7 DSL	1980	48	0.54	1332	3701	554878	
2020	7 ELEC	1980	0	0	0	0	0	
2020	8 NCAT	1980	0	0	0	0	0	
2020	8 CAT	1980	3	0.04	143	4497	1065973	
2020	8 DSL	1980	28	0.41	144	4670	1715082	
2020	8 ELEC	1980	0	0	0	0	0	
2020	9 NCAT	1980	0	0	0	0	0	
2020	9 CAT	1980	2	0.01	81	2251	349805	
2020	9 DSL	1980	2	0.02	59	2878	431348	
2020	9 ELEC	1980	0	0	0	0	0	
2020	10 NCAT	1980	0	0	0	0	0	
2020	10 CAT	1980	13	1.38	51	35637	1461109	
2020	10 DSL	1980	170	18.49	680	35637	1461109	
2020	10 ELEC	1980	0	0	0	0	0	
2020	11 NCAT	1980	41	0.03	81	268	53820	
2020	11 CAT	1980	0	0	0	0	0	
2020	11 DSL	1980	0	0	0	0	0	
2020	11 ELEC	1980	0	0	0	0	0	
2020	12 NCAT	1980	0	0	0	0	0	
2020	12 CAT	1980	5	0.17	18	12122	497010	
2020	12 DSL	1980	7	0.24	27	12122	497010	
2020	12 ELEC	1980	0	0	0	0	0	
2020	13 NCAT	1980	0	0	0	0	0	
2020	13 CAT	1980	50	0.44	5	2869	141809	
2020	13 DSL	1980	3	0.03	0	2869	141809	
2020	13 ELEC	1980	0	0	0	0	0	

2020	1 NCAT	1981	0	0	0	0	0	219891
2020	1 CAT	1981	1962	32.05	7887	5662	355279	
2020	1 DSL	1981	124	2.02	497	5662	355279	
2020	1 ELEC	1981	0	0	0	0	0	
2020	2 NCAT	1981	0	0	0	0	0	
2020	2 CAT	1981	390	9.14	1567	8117	421916	
2020	2 DSL	1981	46	1.08	185	8117	421916	
2020	2 ELEC	1981	0	0	0	0	0	
2020	3 NCAT	1981	0	0	0	0	0	
2020	3 CAT	1981	580	13.58	2332	8126	422407	
2020	3 DSL	1981	3	0.08	14	8126	422407	
2020	3 ELEC	1981	0	0	0	0	0	
2020	4 NCAT	1981	37	0.72	148	6794	400554	
2020	4 CAT	1981	371	7.28	1493	6794	400554	
2020	4 DSL	1981	1	0.02	3	6794	400554	
2020	4 ELEC	1981	0	0	0	0	0	
2020	5 NCAT	1981	0	0	0	0	0	
2020	5 CAT	1981	249	6.62	8218	8658	517430	
2020	5 DSL	1981	0	0.01	3	8658	517430	
2020	5 ELEC	1981	0	0	0	0	0	
2020	6 NCAT	1981	0	0	0	0	0	
2020	6 CAT	1981	8	0.19	261	7959	497604	
2020	6 DSL	1981	0	0	2	7959	497604	
2020	6 ELEC	1981	0	0	0	0	0	
2020	7 NCAT	1981	0	0	0	0	0	
2020	7 CAT	1981	49	0.43	2231	2896	447088	
2020	7 DSL	1981	51	0.58	1425	3702	551177	
2020	7 ELEC	1981	0	0	0	0	0	
2020	8 NCAT	1981	0	0	0	0	0	
2020	8 CAT	1981	3	0.05	150	4496	1061477	
2020	8 DSL	1981	31	0.45	159	4669	1710412	
2020	8 ELEC	1981	0	0	0	0	0	
2020	9 NCAT	1981	0	0	0	0	0	
2020	9 CAT	1981	2	0.02	111	2251	347554	
2020	9 DSL	1981	6	0.05	160	2878	428470	
2020	9 ELEC	1981	0	0	0	0	0	
2020	10 NCAT	1981	0	0	0	0	0	
2020	10 CAT	1981	52	5.71	210	35637	1425472	
2020	10 DSL	1981	186	20.22	744	35637	1425472	
2020	10 ELEC	1981	0	0	0	0	0	
2020	11 NCAT	1981	40	0.03	79	285	53552	
2020	11 CAT	1981	0	0	0	0	0	
2020	11 DSL	1981	0	0	0	0	0	
2020	11 ELEC	1981	0	0	0	0	0	
2020	12 NCAT	1981	0	0	0	0	0	
2020	12 CAT	1981	3	0.12	13	12122	484888	
2020	12 DSL	1981	7	0.26	29	12122	484888	
2020	12 ELEC	1981	0	0	0	0	0	
2020	13 NCAT	1981	0	0	0	0	0	
2020	13 CAT	1981	120	1.06	12	2885	138940	
2020	13 DSL	1981	4	0.03	0	2885	138940	
2020	13 ELEC	1981	0	0	0	0	0	

2020	1 NCAT	1982	0	0	0	0	0	221129
2020	1 CAT	1982	2572	42.66	10494	5750	349617	
2020	1 DSL	1982	161	2.67	657	5750	349617	
2020	1 ELEC	1982	0	0	0	0	0	
2020	2 NCAT	1982	0	0	0	0	0	
2020	2 CAT	1982	469	11.07	1913	8184	413799	
2020	2 DSL	1982	61	1.43	247	8184	413799	
2020	2 ELEC	1982	0	0	0	0	0	
2020	3 NCAT	1982	0	0	0	0	0	
2020	3 CAT	1982	760	17.96	3102	8193	414280	
2020	3 DSL	1982	12	0.29	50	8193	414280	
2020	3 ELEC	1982	0	0	0	0	0	
2020	4 NCAT	1982	26	0.52	107	6882	393759	
2020	4 CAT	1982	498	9.9	2032	6882	393759	
2020	4 DSL	1982	9	0.17	36	6882	393759	
2020	4 ELEC	1982	0	0	0	0	0	
2020	5 NCAT	1982	0	0	0	0	0	
2020	5 CAT	1982	225	6.06	7436	8776	508772	
2020	5 DSL	1982	2	0.05	24	8776	508772	
2020	5 ELEC	1982	0	0	0	0	0	
2020	6 NCAT	1982	0	0	0	0	0	
2020	6 CAT	1982	6	0.16	208	8081	489645	
2020	6 DSL	1982	19	0.48	242	8081	489645	
2020	6 ELEC	1982	0	0	0	0	0	
2020	7 NCAT	1982	0	0	0	0	0	
2020	7 CAT	1982	27	0.24	1232	2896	444193	
2020	7 DSL	1982	49	0.56	1384	3701	547475	
2020	7 ELEC	1982	0	0	0	0	0	
2020	8 NCAT	1982	0	0	0	0	0	
2020	8 CAT	1982	3	0.04	128	4496	1056980	
2020	8 DSL	1982	23	0.33	117	4669	1705743	
2020	8 ELEC	1982	0	0	0	0	0	
2020	9 NCAT	1982	0	0	0	0	0	
2020	9 CAT	1982	1	0.01	50	2251	345303	
2020	9 DSL	1982	4	0.04	114	2878	425593	
2020	9 ELEC	1982	0	0	0	0	0	
2020	10 NCAT	1982	0	0	0	0	0	
2020	10 CAT	1982	1	0.17	6	35637	1389836	
2020	10 DSL	1982	43	4.69	173	35637	1389836	
2020	10 ELEC	1982	0	0	0	0	0	
2020	11 NCAT	1982	52	0.05	103	304	53267	
2020	11 CAT	1982	0	0	0	0	0	
2020	11 DSL	1982	0	0	0	0	0	
2020	11 ELEC	1982	0	0	0	0	0	
2020	12 NCAT	1982	0	0	0	0	0	
2020	12 CAT	1982	6	0.21	23	12122	472765	
2020	12 DSL	1982	9	0.32	34	12122	472765	
2020	12 ELEC	1982	0	0	0	0	0	
2020	13 NCAT	1982	0	0	0	0	0	
2020	13 CAT	1982	140	1.24	14	2901	136055	
2020	13 DSL	1982	13	0.11	1	2901	136055	
2020	13 ELEC	1982	0	0	0	0	0	

2020	1 NCAT	1983	0	0	0	0	0	215414
2020	1 CAT	1983	3671	61.82	15196	5839	343868	
2020	1 DSL	1983	159	2.68	659	5839	343868	
2020	1 ELEC	1983	0	0	0	0	0	
2020	2 NCAT	1983	0	0	0	0	0	
2020	2 CAT	1983	565	13.46	2340	8251	405615	
2020	2 DSL	1983	59	1.41	246	8251	405615	
2020	2 ELEC	1983	0	0	0	0	0	
2020	3 NCAT	1983	0	0	0	0	0	
2020	3 CAT	1983	882	20.99	3650	8261	406087	
2020	3 DSL	1983	9	0.22	39	8261	406087	
2020	3 ELEC	1983	0	0	0	0	0	
2020	4 NCAT	1983	0	0	0	0	0	
2020	4 CAT	1983	645	12.99	2670	6972	386878	
2020	4 DSL	1983	5	0.09	19	6972	386878	
2020	4 ELEC	1983	0	0	0	0	0	
2020	5 NCAT	1983	0	0	0	0	0	
2020	5 CAT	1983	232	6.33	7667	8895	499996	
2020	5 DSL	1983	3	0.08	36	8895	499996	
2020	5 ELEC	1983	0	0	0	0	0	
2020	6 NCAT	1983	0	0	0	0	0	
2020	6 CAT	1983	6	0.15	202	8205	481564	
2020	6 DSL	1983	8	0.19	97	8205	481564	
2020	6 ELEC	1983	0	0	0	0	0	
2020	7 NCAT	1983	0	0	0	0	0	
2020	7 CAT	1983	19	0.17	875	2896	441297	
2020	7 DSL	1983	43	0.49	1203	3701	543774	
2020	7 ELEC	1983	0	0	0	0	0	
2020	8 NCAT	1983	0	0	0	0	0	
2020	8 CAT	1983	1	0.02	60	4496	1052484	
2020	8 DSL	1983	20	0.29	102	4669	1701074	
2020	8 ELEC	1983	0	0	0	0	0	
2020	9 NCAT	1983	0	0	0	0	0	
2020	9 CAT	1983	1	0.01	58	2251	343052	
2020	9 DSL	1983	3	0.02	76	2878	422715	
2020	9 ELEC	1983	0	0	0	0	0	
2020	10 NCAT	1983	0	0	0	0	0	
2020	10 CAT	1983	4	0.42	15	35637	1354199	
2020	10 DSL	1983	62	6.76	249	35637	1354199	
2020	10 ELEC	1983	0	0	0	0	0	
2020	11 NCAT	1983	54	0.05	108	325	52963	
2020	11 CAT	1983	0	0	0	0	0	
2020	11 DSL	1983	0	0	0	0	0	
2020	11 ELEC	1983	0	0	0	0	0	
2020	12 NCAT	1983	0	0	0	0	0	
2020	12 CAT	1983	2	0.07	8	12122	460643	
2020	12 DSL	1983	7	0.25	27	12122	460643	
2020	12 ELEC	1983	0	0	0	0	0	
2020	13 NCAT	1983	0	0	0	0	0	
2020	13 CAT	1983	234	2.08	23	2917	133154	
2020	13 DSL	1983	18	0.16	2	2917	133154	
2020	13 ELEC	1983	0	0	0	0	0	

2020	1 NCAT	1984	0	0	0	0	0	216624
2020	1 CAT	1984	6548	111.98	27500	5931	338029	
2020	1 DSL	1984	157	2.69	661	5931	338029	
2020	1 ELEC	1984	0	0	0	0	0	
2020	2 NCAT	1984	0	0	0	0	0	
2020	2 CAT	1984	1044	25.07	4383	8321	397364	
2020	2 DSL	1984	83	1.99	349	8321	397364	
2020	2 ELEC	1984	0	0	0	0	0	
2020	3 NCAT	1984	0	0	0	0	0	
2020	3 CAT	1984	2087	50.12	8765	8331	397826	
2020	3 DSL	1984	8	0.19	33	8331	397826	
2020	3 ELEC	1984	0	0	0	0	0	
2020	4 NCAT	1984	0	0	0	0	0	
2020	4 CAT	1984	1115	22.74	4682	7064	379905	
2020	4 DSL	1984	13	0.26	53	7064	379905	
2020	4 ELEC	1984	0	0	0	0	0	
2020	5 NCAT	1984	0	0	0	0	0	
2020	5 CAT	1984	423	11.72	13991	9018	491101	
2020	5 DSL	1984	6	0.16	75	9018	491101	
2020	5 ELEC	1984	0	0	0	0	0	
2020	6 NCAT	1984	0	0	0	0	0	
2020	6 CAT	1984	16	0.4	516	8334	473359	
2020	6 DSL	1984	16	0.4	198	8334	473359	
2020	6 ELEC	1984	0	0	0	0	0	
2020	7 NCAT	1984	0	0	0	0	0	
2020	7 CAT	1984	47	0.41	2136	2896	438402	
2020	7 DSL	1984	101	1.14	2819	3702	540072	
2020	7 ELEC	1984	0	0	0	0	0	
2020	8 NCAT	1984	0	0	0	0	0	
2020	8 CAT	1984	8	0.1	343	4496	1047988	
2020	8 DSL	1984	46	0.65	232	4670	1696405	
2020	8 ELEC	1984	0	0	0	0	0	
2020	9 NCAT	1984	0	0	0	0	0	
2020	9 CAT	1984	1	0.01	64	2251	340801	
2020	9 DSL	1984	8	0.07	218	2878	419837	
2020	9 ELEC	1984	0	0	0	0	0	
2020	10 NCAT	1984	0	0	0	0	0	
2020	10 CAT	1984	1	0.16	6	35637	1318562	
2020	10 DSL	1984	216	23.49	864	35637	1318562	
2020	10 ELEC	1984	0	0	0	0	0	
2020	11 NCAT	1984	47	0.05	93	347	52638	
2020	11 CAT	1984	0	0	0	0	0	
2020	11 DSL	1984	0	0	0	0	0	
2020	11 ELEC	1984	0	0	0	0	0	
2020	12 NCAT	1984	0	0	0	0	0	
2020	12 CAT	1984	10	0.36	39	12122	448521	
2020	12 DSL	1984	25	0.95	101	12122	448521	
2020	12 ELEC	1984	0	0	0	0	0	
2020	13 NCAT	1984	0	0	0	0	0	
2020	13 CAT	1984	407	3.66	41	2934	130237	
2020	13 DSL	1984	10	0.09	1	2934	130237	
2020	13 ELEC	1984	0	0	0	0	0	

2020	1 NCAT	1985	0	0	0	0	0	217862
2020	1 CAT	1985	8952	155.56	38132	6026	332098	
2020	1 DSL	1985	138	2.4	588	6026	332098	
2020	1 ELEC	1985	0	0	0	0	0	
2020	2 NCAT	1985	0	0	0	0	0	
2020	2 CAT	1985	1330	32.21	5663	8393	389043	
2020	2 DSL	1985	74	1.78	313	8393	389043	
2020	2 ELEC	1985	0	0	0	0	0	
2020	3 NCAT	1985	0	0	0	0	0	
2020	3 CAT	1985	3134	75.93	13349	8402	389496	
2020	3 DSL	1985	5	0.11	20	8402	389496	
2020	3 ELEC	1985	0	0	0	0	0	
2020	4 NCAT	1985	0	0	0	0	0	
2020	4 CAT	1985	1507	31.14	6419	7159	372841	
2020	4 DSL	1985	6	0.12	24	7159	372841	
2020	4 ELEC	1985	0	0	0	0	0	
2020	5 NCAT	1985	0	0	0	0	0	
2020	5 CAT	1985	628	17.63	20760	9143	482084	
2020	5 DSL	1985	7	0.2	89	9143	482084	
2020	5 ELEC	1985	0	0	0	0	0	
2020	6 NCAT	1985	0	0	0	0	0	
2020	6 CAT	1985	30	0.78	992	8467	465025	
2020	6 DSL	1985	26	0.67	326	8467	465025	
2020	6 ELEC	1985	0	0	0	0	0	
2020	7 NCAT	1985	0	0	0	0	0	
2020	7 CAT	1985	85	0.76	3895	2896	435506	
2020	7 DSL	1985	131	1.49	3687	3701	536371	
2020	7 ELEC	1985	0	0	0	0	0	
2020	8 NCAT	1985	0	0	0	0	0	
2020	8 CAT	1985	16	0.22	746	4496	1043491	
2020	8 DSL	1985	52	0.75	264	4669	1691736	
2020	8 ELEC	1985	0	0	0	0	0	
2020	9 NCAT	1985	0	0	0	0	0	
2020	9 CAT	1985	3	0.02	158	2251	338550	
2020	9 DSL	1985	5	0.04	129	2878	416960	
2020	9 ELEC	1985	0	0	0	0	0	
2020	10 NCAT	1985	0	0	0	0	0	
2020	10 CAT	1985	10	1.04	38	35637	1282925	
2020	10 DSL	1985	15	1.67	61	35637	1282925	
2020	10 ELEC	1985	0	0	0	0	0	
2020	11 NCAT	1985	67	0.07	134	371	52291	
2020	11 CAT	1985	0	0	0	0	0	
2020	11 DSL	1985	0	0	0	0	0	
2020	11 ELEC	1985	0	0	0	0	0	
2020	12 NCAT	1985	0	0	0	0	0	
2020	12 CAT	1985	11	0.42	44	12122	436399	
2020	12 DSL	1985	28	1.04	113	12122	436399	
2020	12 ELEC	1985	0	0	0	0	0	
2020	13 NCAT	1985	0	0	0	0	0	
2020	13 CAT	1985	354	3.2	35	2951	127303	
2020	13 DSL	1985	6	0.06	1	2951	127303	
2020	13 ELEC	1985	0	0	0	0	0	

2020	1 NCAT	1986	0	0	0	0	0	219140
2020	1 CAT	1986	11595	204.74	50087	6124	326071	
2020	1 DSL	1986	37	0.65	159	6124	326071	
2020	1 ELEC	1986	0	0	0	0	0	
2020	2 NCAT	1986	0	0	0	0	0	
2020	2 CAT	1986	1704	41.6	7359	8466	380650	
2020	2 DSL	1986	63	1.53	272	8466	380650	
2020	2 ELEC	1986	0	0	0	0	0	
2020	3 NCAT	1986	0	0	0	0	0	
2020	3 CAT	1986	4901	119.74	21169	8476	381093	
2020	3 DSL	1986	17	0.42	74	8476	381093	
2020	3 ELEC	1986	0	0	0	0	0	
2020	4 NCAT	1986	0	0	0	0	0	
2020	4 CAT	1986	1909	39.97	8244	7257	365682	
2020	4 DSL	1986	17	0.35	71	7257	365682	
2020	4 ELEC	1986	0	0	0	0	0	
2020	5 NCAT	1986	0	0	0	0	0	
2020	5 CAT	1986	721	20.53	23843	9273	472940	
2020	5 DSL	1986	11	0.31	137	9273	472940	
2020	5 ELEC	1986	0	0	0	0	0	
2020	6 NCAT	1986	0	0	0	0	0	
2020	6 CAT	1986	45	1.2	1500	8602	456558	
2020	6 DSL	1986	45	1.19	566	8602	456558	
2020	6 ELEC	1986	0	0	0	0	0	
2020	7 NCAT	1986	0	0	0	0	0	
2020	7 CAT	1986	59	0.53	2707	2896	432611	
2020	7 DSL	1986	140	1.58	3916	3702	532669	
2020	7 ELEC	1986	0	0	0	0	0	
2020	8 NCAT	1986	0	0	0	0	0	
2020	8 CAT	1986	28	0.39	1300	4496	1038995	
2020	8 DSL	1986	56	0.8	283	4669	1687066	
2020	8 ELEC	1986	0	0	0	0	0	
2020	9 NCAT	1986	0	0	0	0	0	
2020	9 CAT	1986	3	0.02	137	2251	336299	
2020	9 DSL	1986	3	0.03	96	2878	414082	
2020	9 ELEC	1986	0	0	0	0	0	
2020	10 NCAT	1986	0	0	0	0	0	
2020	10 CAT	1986	14	1.57	58	35637	1247288	
2020	10 DSL	1986	30	3.31	122	35637	1247288	
2020	10 ELEC	1986	0	0	0	0	0	
2020	11 NCAT	1986	72	0.08	143	396	51920	
2020	11 CAT	1986	0	0	0	0	0	
2020	11 DSL	1986	0	0	0	0	0	
2020	11 ELEC	1986	0	0	0	0	0	
2020	12 NCAT	1986	0	0	0	0	0	
2020	12 CAT	1986	11	0.4	43	12122	424277	
2020	12 DSL	1986	208	7.66	833	12122	424277	
2020	12 ELEC	1986	0	0	0	0	0	
2020	13 NCAT	1986	0	0	0	0	0	
2020	13 CAT	1986	331	3	33	2969	124352	
2020	13 DSL	1986	9	0.08	1	2969	124352	
2020	13 ELEC	1986	0	0	0	0	0	

2020	1 NCAT	1987	0	0	0	0	0	221714
2020	1 CAT	1987	15381	276.03	67360	6224	319947	
2020	1 DSL	1987	104	1.86	453	6224	319947	
2020	1 ELEC	1987	0	0	0	0	0	
2020	2 NCAT	1987	0	0	0	0	0	
2020	2 CAT	1987	1849	45.57	8099	8542	372184	
2020	2 DSL	1987	57	1.41	251	8542	372184	
2020	2 ELEC	1987	0	0	0	0	0	
2020	3 NCAT	1987	0	0	0	0	0	
2020	3 CAT	1987	5398	133.08	23641	8552	372617	
2020	3 DSL	1987	26	0.64	113	8552	372617	
2020	3 ELEC	1987	0	0	0	0	0	
2020	4 NCAT	1987	0	0	0	0	0	
2020	4 CAT	1987	2118	44.96	9278	7357	358425	
2020	4 DSL	1987	30	0.64	131	7357	358425	
2020	4 ELEC	1987	0	0	0	0	0	
2020	5 NCAT	1987	0	0	0	0	0	
2020	5 CAT	1987	621	17.95	20551	9405	463667	
2020	5 DSL	1987	14	0.41	179	9405	463667	
2020	5 ELEC	1987	0	0	0	0	0	
2020	6 NCAT	1987	0	0	0	0	0	
2020	6 CAT	1987	52	1.39	1711	8741	447956	
2020	6 DSL	1987	32	0.85	400	8741	447956	
2020	6 ELEC	1987	0	0	0	0	0	
2020	7 NCAT	1987	0	0	0	0	0	
2020	7 CAT	1987	55	0.52	2529	3078	429715	
2020	7 DSL	1987	211	2.39	5906	3702	528968	
2020	7 ELEC	1987	0	0	0	0	0	
2020	8 NCAT	1987	0	0	0	0	0	
2020	8 CAT	1987	31	0.43	1424	4496	1034498	
2020	8 DSL	1987	67	1.16	341	5611	1682397	
2020	8 ELEC	1987	0	0	0	0	0	
2020	9 NCAT	1987	0	0	0	0	0	
2020	9 CAT	1987	2	0.02	105	2393	334048	
2020	9 DSL	1987	10	0.09	293	2878	411204	
2020	9 ELEC	1987	0	0	0	0	0	
2020	10 NCAT	1987	0	0	0	0	0	
2020	10 CAT	1987	8	0.89	33	35637	1211652	
2020	10 DSL	1987	48	5.19	191	35637	1211652	
2020	10 ELEC	1987	0	0	0	0	0	
2020	11 NCAT	1987	65	0.08	130	422	51524	
2020	11 CAT	1987	0	0	0	0	0	
2020	11 DSL	1987	0	0	0	0	0	
2020	11 ELEC	1987	0	0	0	0	0	
2020	12 NCAT	1987	0	0	0	0	0	
2020	12 CAT	1987	7	0.26	29	12122	412154	
2020	12 DSL	1987	122	4.54	486	12122	412154	
2020	12 ELEC	1987	0	0	0	0	0	
2020	13 NCAT	1987	0	0	0	0	0	
2020	13 CAT	1987	378	3.45	38	2987	121383	
2020	13 DSL	1987	6	0.05	1	2987	121383	
2020	13 ELEC	1987	0	0	0	0	0	

2020	1 NCAT	1988	0	0	0	0	0	224699
2020	1 CAT	1988	17420	317.79	77858	6327	313723	
2020	1 DSL	1988	9	0.17	41	6327	313723	
2020	1 ELEC	1988	0	0	0	0	0	
2020	2 NCAT	1988	0	0	0	0	0	
2020	2 CAT	1988	1893	47.06	8460	8620	363642	
2020	2 DSL	1988	51	1.26	226	8620	363642	
2020	2 ELEC	1988	0	0	0	0	0	
2020	3 NCAT	1988	0	0	0	0	0	
2020	3 CAT	1988	5995	149.1	26796	8630	364065	
2020	3 DSL	1988	10	0.26	46	8630	364065	
2020	3 ELEC	1988	0	0	0	0	0	
2020	4 NCAT	1988	0	0	0	0	0	
2020	4 CAT	1988	2597	55.88	11607	7460	351068	
2020	4 DSL	1988	27	0.58	120	7460	351068	
2020	4 ELEC	1988	0	0	0	0	0	
2020	5 NCAT	1988	0	0	0	0	0	
2020	5 CAT	1988	785	22.99	25963	9542	454262	
2020	5 DSL	1988	19	0.56	240	9542	454262	
2020	5 ELEC	1988	0	0	0	0	0	
2020	6 NCAT	1988	0	0	0	0	0	
2020	6 CAT	1988	64	1.74	2113	8885	439215	
2020	6 DSL	1988	49	1.34	620	8885	439215	
2020	6 ELEC	1988	0	0	0	0	0	
2020	7 NCAT	1988	0	0	0	0	0	
2020	7 CAT	1988	74	0.75	3367	3307	426637	
2020	7 DSL	1988	247	2.8	6930	3701	525266	
2020	7 ELEC	1988	0	0	0	0	0	
2020	8 NCAT	1988	0	0	0	0	0	
2020	8 CAT	1988	41	0.56	1856	4496	1030002	
2020	8 DSL	1988	84	1.77	428	6837	1676787	
2020	8 ELEC	1988	0	0	0	0	0	
2020	9 NCAT	1988	0	0	0	0	0	
2020	9 CAT	1988	2	0.02	90	2571	331655	
2020	9 DSL	1988	5	0.05	151	2878	408327	
2020	9 ELEC	1988	0	0	0	0	0	
2020	10 NCAT	1988	0	0	0	0	0	
2020	10 CAT	1988	6	0.71	26	35637	1176015	
2020	10 DSL	1988	306	33.32	1224	35637	1176015	
2020	10 ELEC	1988	0	0	0	0	0	
2020	11 NCAT	1988	47	0.06	93	451	51101	
2020	11 CAT	1988	0	0	0	0	0	
2020	11 DSL	1988	0	0	0	0	0	
2020	11 ELEC	1988	0	0	0	0	0	
2020	12 NCAT	1988	0	0	0	0	0	
2020	12 CAT	1988	9	0.35	38	12122	400032	
2020	12 DSL	1988	136	5.05	542	12122	400032	
2020	12 ELEC	1988	0	0	0	0	0	
2020	13 NCAT	1988	0	0	0	0	0	
2020	13 CAT	1988	431	3.96	43	3006	118396	
2020	13 DSL	1988	8	0.08	1	3006	118396	
2020	13 ELEC	1988	0	0	0	0	0	

2020	1 NCAT	1989	0	0	0	0	0	229166
2020	1 CAT	1989	20655	383.15	94796	6434	307396	
2020	1 DSL	1989	8	0.15	38	6434	307396	
2020	1 ELEC	1989	0	0	0	0	0	
2020	2 NCAT	1989	0	0	0	0	0	
2020	2 CAT	1989	2048	51.4	9398	8700	355022	
2020	2 DSL	1989	68	1.7	312	8700	355022	
2020	2 ELEC	1989	0	0	0	0	0	
2020	3 NCAT	1989	0	0	0	0	0	
2020	3 CAT	1989	7708	193.51	35376	8710	355435	
2020	3 DSL	1989	14	0.35	64	8710	355435	
2020	3 ELEC	1989	0	0	0	0	0	
2020	4 NCAT	1989	0	0	0	0	0	
2020	4 CAT	1989	2822	61.59	12954	7566	343609	
2020	4 DSL	1989	8	0.17	36	7566	343609	
2020	4 ELEC	1989	0	0	0	0	0	
2020	5 NCAT	1989	0	0	0	0	0	
2020	5 CAT	1989	1152	34.23	38091	9683	444719	
2020	5 DSL	1989	15	0.45	189	9683	444719	
2020	5 ELEC	1989	0	0	0	0	0	
2020	6 NCAT	1989	0	0	0	0	0	
2020	6 CAT	1989	102	2.82	3358	9034	430330	
2020	6 DSL	1989	106	2.95	1338	9034	430330	
2020	6 ELEC	1989	0	0	0	0	0	
2020	7 NCAT	1989	0	0	0	0	0	
2020	7 CAT	1989	81	0.88	3677	3577	423330	
2020	7 DSL	1989	285	3.23	7987	3701	521565	
2020	7 ELEC	1989	0	0	0	0	0	
2020	8 NCAT	1989	0	0	0	0	0	
2020	8 CAT	1989	33	0.57	1507	5619	1025506	
2020	8 DSL	1989	126	3.21	639	8305	1669950	
2020	8 ELEC	1989	0	0	0	0	0	
2020	9 NCAT	1989	0	0	0	0	0	
2020	9 CAT	1989	4	0.03	180	2781	329084	
2020	9 DSL	1989	13	0.11	351	2878	405449	
2020	9 ELEC	1989	0	0	0	0	0	
2020	10 NCAT	1989	0	0	0	0	0	
2020	10 CAT	1989	14	1.5	55	35637	1140378	
2020	10 DSL	1989	183	19.97	734	35637	1140378	
2020	10 ELEC	1989	0	0	0	0	0	
2020	11 NCAT	1989	60	0.08	121	481	50651	
2020	11 CAT	1989	0	0	0	0	0	
2020	11 DSL	1989	0	0	0	0	0	
2020	11 ELEC	1989	0	0	0	0	0	
2020	12 NCAT	1989	0	0	0	0	0	
2020	12 CAT	1989	8	0.28	30	12122	387910	
2020	12 DSL	1989	78	2.91	312	12122	387910	
2020	12 ELEC	1989	0	0	0	0	0	
2020	13 NCAT	1989	0	0	0	0	0	
2020	13 CAT	1989	554	5.13	55	3026	115390	
2020	13 DSL	1989	10	0.1	1	3026	115390	
2020	13 ELEC	1989	0	0	0	0	0	

2020	1 NCAT	1990	0	0	0	0	0	235451
2020	1 CAT	1990	21334	402.52	101113	6544	300962	
2020	1 DSL	1990	9	0.16	40	6544	300962	
2020	1 ELEC	1990	0	0	0	0	0	
2020	2 NCAT	1990	0	0	0	0	0	
2020	2 CAT	1990	1976	50.05	9365	8783	346322	
2020	2 DSL	1990	53	1.34	252	8783	346322	
2020	2 ELEC	1990	0	0	0	0	0	
2020	3 NCAT	1990	0	0	0	0	0	
2020	3 CAT	1990	7096	179.79	33630	8793	346725	
2020	3 DSL	1990	22	0.56	105	8793	346725	
2020	3 ELEC	1990	0	0	0	0	0	
2020	4 NCAT	1990	0	0	0	0	0	
2020	4 CAT	1990	2612	57.8	12378	7676	336042	
2020	4 DSL	1990	15	0.34	73	7676	336042	
2020	4 ELEC	1990	0	0	0	0	0	
2020	5 NCAT	1990	0	0	0	0	0	
2020	5 CAT	1990	915	27.58	30240	9830	435036	
2020	5 DSL	1990	15	0.45	187	9830	435036	
2020	5 ELEC	1990	0	0	0	0	0	
2020	6 NCAT	1990	0	0	0	0	0	
2020	6 CAT	1990	107	3.02	3543	9187	421295	
2020	6 DSL	1990	115	3.22	1442	9187	421295	
2020	6 ELEC	1990	0	0	0	0	0	
2020	7 NCAT	1990	0	0	0	0	0	
2020	7 CAT	1990	95	1.13	4350	3886	419753	
2020	7 DSL	1990	395	5.54	11073	4587	517863	
2020	7 ELEC	1990	0	0	0	0	0	
2020	8 NCAT	1990	0	0	0	0	0	
2020	8 CAT	1990	23	0.47	1052	6678	1019887	
2020	8 DSL	1990	135	4.1	681	9964	1661645	
2020	8 ELEC	1990	0	0	0	0	0	
2020	9 NCAT	1990	0	0	0	0	0	
2020	9 CAT	1990	7	0.07	329	3021	326303	
2020	9 DSL	1990	9	0.1	246	3566	402571	
2020	9 ELEC	1990	0	0	0	0	0	
2020	10 NCAT	1990	0	0	0	0	0	
2020	10 CAT	1990	12	1.35	49	35637	1104741	
2020	10 DSL	1990	108	11.78	433	35637	1104741	
2020	10 ELEC	1990	0	0	0	0	0	
2020	11 NCAT	1990	71	0.1	141	513	50170	
2020	11 CAT	1990	0	0	0	0	0	
2020	11 DSL	1990	0	0	0	0	0	
2020	11 ELEC	1990	0	0	0	0	0	
2020	12 NCAT	1990	0	0	0	0	0	
2020	12 CAT	1990	5	0.17	19	12122	375788	
2020	12 DSL	1990	204	7.66	814	12122	375788	
2020	12 ELEC	1990	0	0	0	0	0	
2020	13 NCAT	1990	0	0	0	0	0	
2020	13 CAT	1990	516	4.81	52	3046	112364	
2020	13 DSL	1990	12	0.11	1	3046	112364	
2020	13 ELEC	1990	0	0	0	0	0	

2020	1 NCAT	1991	0	0	0	0	0	241744
2020	1 CAT	1991	21454	411.69	105116	6656	294418	
2020	1 DSL	1991	16	0.31	80	6656	294418	
2020	1 ELEC	1991	0	0	0	0	0	
2020	2 NCAT	1991	0	0	0	0	0	
2020	2 CAT	1991	2456	62.85	12031	8869	337539	
2020	2 DSL	1991	55	1.39	270	8869	337539	
2020	2 ELEC	1991	0	0	0	0	0	
2020	3 NCAT	1991	0	0	0	0	0	
2020	3 CAT	1991	9432	241.38	46210	8880	337932	
2020	3 DSL	1991	20	0.49	96	8880	337932	
2020	3 ELEC	1991	0	0	0	0	0	
2020	4 NCAT	1991	0	0	0	0	0	
2020	4 CAT	1991	2669	59.97	13077	7789	328366	
2020	4 DSL	1991	11	0.25	54	7789	328366	
2020	4 ELEC	1991	0	0	0	0	0	
2020	5 NCAT	1991	0	0	0	0	0	
2020	5 CAT	1991	691	21.18	22849	9981	425206	
2020	5 DSL	1991	7	0.21	85	9981	425206	
2020	5 ELEC	1991	0	0	0	0	0	
2020	6 NCAT	1991	0	0	0	0	0	
2020	6 CAT	1991	87	2.5	2888	9344	412109	
2020	6 DSL	1991	64	1.83	804	9344	412109	
2020	6 ELEC	1991	0	0	0	0	0	
2020	7 NCAT	1991	0	0	0	0	0	
2020	7 CAT	1991	81	1.05	3704	4236	415866	
2020	7 DSL	1991	327	5.37	9181	5359	513276	
2020	7 ELEC	1991	0	0	0	0	0	
2020	8 NCAT	1991	0	0	0	0	0	
2020	8 CAT	1991	28	0.66	1285	7688	1013209	
2020	8 DSL	1991	111	4	563	11762	1651681	
2020	8 ELEC	1991	0	0	0	0	0	
2020	9 NCAT	1991	0	0	0	0	0	
2020	9 CAT	1991	6	0.06	253	3293	323282	
2020	9 DSL	1991	15	0.19	421	4166	399005	
2020	9 ELEC	1991	0	0	0	0	0	
2020	10 NCAT	1991	0	0	0	0	0	
2020	10 CAT	1991	7	0.8	29	35637	1069104	
2020	10 DSL	1991	57	6.21	228	35637	1069104	
2020	10 ELEC	1991	0	0	0	0	0	
2020	11 NCAT	1991	80	0.13	159	550	49657	
2020	11 CAT	1991	0	0	0	0	0	
2020	11 DSL	1991	0	0	0	0	0	
2020	11 ELEC	1991	0	0	0	0	0	
2020	12 NCAT	1991	0	0	0	0	0	
2020	12 CAT	1991	7	0.24	26	12122	363666	
2020	12 DSL	1991	65	2.44	261	12122	363666	
2020	12 ELEC	1991	0	0	0	0	0	
2020	13 NCAT	1991	0	0	0	0	0	
2020	13 CAT	1991	449	4.21	45	3067	109318	
2020	13 DSL	1991	20	0.18	2	3067	109318	
2020	13 ELEC	1991	0	0	0	0	0	

2020	1 NCAT	1992	0	0	0	0	0	248058
2020	1 CAT	1992	19330	377.48	97799	6774	287762	
2020	1 DSL	1992	16	0.31	79	6774	287762	
2020	1 ELEC	1992	0	0	0	0	0	
2020	2 NCAT	1992	0	0	0	0	0	
2020	2 CAT	1992	2279	58.87	11530	8957	328670	
2020	2 DSL	1992	55	1.42	281	8957	328670	
2020	2 ELEC	1992	0	0	0	0	0	
2020	3 NCAT	1992	0	0	0	0	0	
2020	3 CAT	1992	8916	230.4	45108	8967	329053	
2020	3 DSL	1992	16	0.42	81	8967	329053	
2020	3 ELEC	1992	0	0	0	0	0	
2020	4 NCAT	1992	0	0	0	0	0	
2020	4 CAT	1992	3286	74.92	16624	7907	320577	
2020	4 DSL	1992	4	0.1	23	7907	320577	
2020	4 ELEC	1992	0	0	0	0	0	
2020	5 NCAT	1992	0	0	0	0	0	
2020	5 CAT	1992	641	19.95	21206	10136	415225	
2020	5 DSL	1992	5	0.15	61	10136	415225	
2020	5 ELEC	1992	0	0	0	0	0	
2020	6 NCAT	1992	0	0	0	0	0	
2020	6 CAT	1992	74	2.17	2454	9508	402765	
2020	6 DSL	1992	90	2.61	1127	9508	402765	
2020	6 ELEC	1992	0	0	0	0	0	
2020	7 NCAT	1992	0	0	0	0	0	
2020	7 CAT	1992	63	0.89	2864	4622	411630	
2020	7 DSL	1992	249	4.61	6994	6045	507917	
2020	7 ELEC	1992	0	0	0	0	0	
2020	8 NCAT	1992	0	0	0	0	0	
2020	8 CAT	1992	22	0.6	1025	8669	1005521	
2020	8 DSL	1992	109	4.54	551	13650	1639919	
2020	8 ELEC	1992	0	0	0	0	0	
2020	9 NCAT	1992	0	0	0	0	0	
2020	9 CAT	1992	5	0.06	230	3594	319988	
2020	9 DSL	1992	17	0.26	481	4699	394839	
2020	9 ELEC	1992	0	0	0	0	0	
2020	10 NCAT	1992	0	0	0	0	0	
2020	10 CAT	1992	8	0.84	31	35637	1033468	
2020	10 DSL	1992	415	45.23	1659	35637	1033468	
2020	10 ELEC	1992	0	0	0	0	0	
2020	11 NCAT	1992	86	0.14	172	587	49108	
2020	11 CAT	1992	0	0	0	0	0	
2020	11 DSL	1992	0	0	0	0	0	
2020	11 ELEC	1992	0	0	0	0	0	
2020	12 NCAT	1992	0	0	0	0	0	
2020	12 CAT	1992	12	0.43	46	12122	351543	
2020	12 DSL	1992	80	3	322	12122	351543	
2020	12 ELEC	1992	0	0	0	0	0	
2020	13 NCAT	1992	0	0	0	0	0	
2020	13 CAT	1992	429	4.06	43	3088	106251	
2020	13 DSL	1992	34	0.32	3	3088	106251	
2020	13 ELEC	1992	0	0	0	0	0	

2020	1 NCAT	1993	0	0	0	0	0	254416
2020	1 CAT	1993	21314	423.62	111249	6896	280988	
2020	1 DSL	1993	11	0.22	58	6896	280988	
2020	1 ELEC	1993	0	0	0	0	0	
2020	2 NCAT	1993	0	0	0	0	0	
2020	2 CAT	1993	3099	80.89	16177	9049	319713	
2020	2 DSL	1993	71	1.82	368	9049	319713	
2020	2 ELEC	1993	0	0	0	0	0	
2020	3 NCAT	1993	0	0	0	0	0	
2020	3 CAT	1993	11779	307.56	61481	9060	320085	
2020	3 DSL	1993	15	0.4	81	9060	320085	
2020	3 ELEC	1993	0	0	0	0	0	
2020	4 NCAT	1993	0	0	0	0	0	
2020	4 CAT	1993	4198	97.21	21913	8028	312670	
2020	4 DSL	1993	8	0.18	41	8028	312670	
2020	4 ELEC	1993	0	0	0	0	0	
2020	5 NCAT	1993	0	0	0	0	0	
2020	5 CAT	1993	729	23.04	24095	10298	405088	
2020	5 DSL	1993	6	0.18	72	10298	405088	
2020	5 ELEC	1993	0	0	0	0	0	
2020	6 NCAT	1993	0	0	0	0	0	
2020	6 CAT	1993	110	3.26	3629	9676	393257	
2020	6 DSL	1993	110	3.26	1383	9676	393257	
2020	6 ELEC	1993	0	0	0	0	0	
2020	7 NCAT	1993	0	0	0	0	0	
2020	7 CAT	1993	62	0.96	2846	5047	407007	
2020	7 DSL	1993	306	6.25	8585	6669	501872	
2020	7 ELEC	1993	0	0	0	0	0	
2020	8 NCAT	1993	0	0	0	0	0	
2020	8 CAT	1993	25	0.73	1124	9631	996852	
2020	8 DSL	1993	163	7.76	823	15584	1626270	
2020	8 ELEC	1993	0	0	0	0	0	
2020	9 NCAT	1993	0	0	0	0	0	
2020	9 CAT	1993	6	0.08	295	3924	316395	
2020	9 DSL	1993	6	0.09	164	5184	390140	
2020	9 ELEC	1993	0	0	0	0	0	
2020	10 NCAT	1993	0	0	0	0	0	
2020	10 CAT	1993	10	1.14	42	35637	997831	
2020	10 DSL	1993	23	2.49	92	35637	997831	
2020	10 ELEC	1993	0	0	0	0	0	
2020	11 NCAT	1993	118	0.21	236	625	48521	
2020	11 CAT	1993	0	0	0	0	0	
2020	11 DSL	1993	0	0	0	0	0	
2020	11 ELEC	1993	0	0	0	0	0	
2020	12 NCAT	1993	0	0	0	0	0	
2020	12 CAT	1993	5	0.19	21	12122	339421	
2020	12 DSL	1993	75	2.78	298	12122	339421	
2020	12 ELEC	1993	0	0	0	0	0	
2020	13 NCAT	1993	0	0	0	0	0	
2020	13 CAT	1993	347	3.3	35	3110	103163	
2020	13 DSL	1993	56	0.54	6	3110	103163	
2020	13 ELEC	1993	0	0	0	0	0	

2020	1 NCAT	1994	0	0	0	0	0	261511
2020	1 CAT	1994	23130	468.08	123965	7021	274092	
2020	1 DSL	1994	10	0.2	53	7021	274092	
2020	1 ELEC	1994	0	0	0	0	0	
2020	2 NCAT	1994	0	0	0	0	0	
2020	2 CAT	1994	3407	89.87	18261	9143	310664	
2020	2 DSL	1994	73	1.91	391	9143	310664	
2020	2 ELEC	1994	0	0	0	0	0	
2020	3 NCAT	1994	0	0	0	0	0	
2020	3 CAT	1994	12990	342.59	69619	9154	311025	
2020	3 DSL	1994	19	0.51	103	9154	311025	
2020	3 ELEC	1994	0	0	0	0	0	
2020	4 NCAT	1994	0	0	0	0	0	
2020	4 CAT	1994	6045	142.17	32397	8155	304642	
2020	4 DSL	1994	13	0.29	67	8155	304642	
2020	4 ELEC	1994	0	0	0	0	0	
2020	5 NCAT	1994	0	0	0	0	0	
2020	5 CAT	1994	830	26.66	27454	10465	394790	
2020	5 DSL	1994	7	0.22	86	10465	394790	
2020	5 ELEC	1994	0	0	0	0	0	
2020	6 NCAT	1994	0	0	0	0	0	
2020	6 CAT	1994	167	5.07	5535	9851	383581	
2020	6 DSL	1994	130	3.93	1640	9851	383581	
2020	6 ELEC	1994	0	0	0	0	0	
2020	7 NCAT	1994	0	0	0	0	0	
2020	7 CAT	1994	66	1.11	3017	5510	401960	
2020	7 DSL	1994	357	7.93	10007	7256	495203	
2020	7 ELEC	1994	0	0	0	0	0	
2020	8 NCAT	1994	0	0	0	0	0	
2020	8 CAT	1994	25	0.82	1150	10590	987221	
2020	8 DSL	1994	231	12.39	1169	17533	1610685	
2020	8 ELEC	1994	0	0	0	0	0	
2020	9 NCAT	1994	0	0	0	0	0	
2020	9 CAT	1994	11	0.14	492	4283	312471	
2020	9 DSL	1994	6	0.11	176	5641	384956	
2020	9 ELEC	1994	0	0	0	0	0	
2020	10 NCAT	1994	0	0	0	0	0	
2020	10 CAT	1994	12	1.29	48	35637	962194	
2020	10 DSL	1994	7	0.76	27	35637	962194	
2020	10 ELEC	1994	0	0	0	0	0	
2020	11 NCAT	1994	132	0.25	264	668	47896	
2020	11 CAT	1994	2	0	4	668	47896	
2020	11 DSL	1994	0	0	0	0	0	
2020	11 ELEC	1994	0	0	0	0	0	
2020	12 NCAT	1994	0	0	0	0	0	
2020	12 CAT	1994	13	0.49	53	12122	327299	
2020	12 DSL	1994	71	2.61	283	12122	327299	
2020	12 ELEC	1994	0	0	0	0	0	
2020	13 NCAT	1994	0	0	0	0	0	
2020	13 CAT	1994	416	3.99	42	3133	100053	
2020	13 DSL	1994	65	0.63	7	3133	100053	
2020	13 ELEC	1994	0	0	0	0	0	

2020	1 NCAT	1995	0	0	0	0	0	268094
2020	1 CAT	1995	27952	576.3	153164	7153	267071	
2020	1 DSL	1995	70	1.45	386	7153	267071	
2020	1 ELEC	1995	0	0	0	0	0	
2020	2 NCAT	1995	0	0	0	0	0	
2020	2 CAT	1995	4045	107.88	22163	9242	301521	
2020	2 DSL	1995	149	3.93	816	9242	301521	
2020	2 ELEC	1995	0	0	0	0	0	
2020	3 NCAT	1995	0	0	0	0	0	
2020	3 CAT	1995	15001	400.06	82200	9253	301872	
2020	3 DSL	1995	38	1.02	210	9253	301872	
2020	3 ELEC	1995	0	0	0	0	0	
2020	4 NCAT	1995	0	0	0	0	0	
2020	4 CAT	1995	8121	194.13	44501	8285	296487	
2020	4 DSL	1995	28	0.66	152	8285	296487	
2020	4 ELEC	1995	0	0	0	0	0	
2020	5 NCAT	1995	0	0	0	0	0	
2020	5 CAT	1995	1242	40.58	41070	10638	384325	
2020	5 DSL	1995	10	0.33	128	10638	384325	
2020	5 ELEC	1995	0	0	0	0	0	
2020	6 NCAT	1995	0	0	0	0	0	
2020	6 CAT	1995	202	6.23	6678	10034	373731	
2020	6 DSL	1995	202	6.19	2535	10034	373731	
2020	6 ELEC	1995	0	0	0	0	0	
2020	7 NCAT	1995	0	0	0	0	0	
2020	7 CAT	1995	119	2.19	5439	6005	396450	
2020	7 DSL	1995	631	15.13	17703	7829	487947	
2020	7 ELEC	1995	0	0	0	0	0	
2020	8 NCAT	1995	0	0	0	0	0	
2020	8 CAT	1995	35	1.23	1590	11565	976631	
2020	8 DSL	1995	330	19.65	1669	19473	1593153	
2020	8 ELEC	1995	0	0	0	0	0	
2020	9 NCAT	1995	0	0	0	0	0	
2020	9 CAT	1995	11	0.16	497	4668	308188	
2020	9 DSL	1995	13	0.24	363	6086	379315	
2020	9 ELEC	1995	0	0	0	0	0	
2020	10 NCAT	1995	0	0	0	0	0	
2020	10 CAT	1995	19	2.04	75	35637	926557	
2020	10 DSL	1995	68	7.44	273	35637	926557	
2020	10 ELEC	1995	0	0	0	0	0	
2020	11 NCAT	1995	123	0.25	246	713	47228	
2020	11 CAT	1995	41	0.08	82	713	47228	
2020	11 DSL	1995	0	0	0	0	0	
2020	11 ELEC	1995	0	0	0	0	0	
2020	12 NCAT	1995	0	0	0	0	0	
2020	12 CAT	1995	18	0.65	71	12122	315177	
2020	12 DSL	1995	285	10.47	1141	12122	315177	
2020	12 ELEC	1995	0	0	0	0	0	
2020	13 NCAT	1995	0	0	0	0	0	
2020	13 CAT	1995	435	4.2	44	3157	96920	
2020	13 DSL	1995	51	0.49	5	3157	96920	
2020	13 ELEC	1995	0	0	0	0	0	

2020	1 NCAT	1996	0	0	0	0	0	274816
2020	1 CAT	1996	25351	532.52	141700	7288	259918	
2020	1 DSL	1996	51	1.07	285	7288	259918	
2020	1 ELEC	1996	0	0	0	0	0	
2020	2 NCAT	1996	0	0	0	0	0	
2020	2 CAT	1996	4522	121.92	25276	9345	292278	
2020	2 DSL	1996	186	4.96	1038	9345	292278	
2020	2 ELEC	1996	0	0	0	0	0	
2020	3 NCAT	1996	0	0	0	0	0	
2020	3 CAT	1996	14572	392.85	81451	9356	292618	
2020	3 DSL	1996	25	0.66	138	9356	292618	
2020	3 ELEC	1996	0	0	0	0	0	
2020	4 NCAT	1996	0	0	0	0	0	
2020	4 CAT	1996	6904	167.68	38590	8419	288202	
2020	4 DSL	1996	32	0.78	180	8419	288202	
2020	4 ELEC	1996	0	0	0	0	0	
2020	5 NCAT	1996	0	0	0	0	0	
2020	5 CAT	1996	1019	33.83	33686	10818	373687	
2020	5 DSL	1996	8	0.28	105	10818	373687	
2020	5 ELEC	1996	0	0	0	0	0	
2020	6 NCAT	1996	0	0	0	0	0	
2020	6 CAT	1996	205	6.44	6789	10222	363697	
2020	6 DSL	1996	145	4.54	1827	10222	363697	
2020	6 ELEC	1996	0	0	0	0	0	
2020	7 NCAT	1996	0	0	0	0	0	
2020	7 CAT	1996	105	2.1	4803	6536	390445	
2020	7 DSL	1996	501	12.9	14060	8402	480118	
2020	7 ELEC	1996	0	0	0	0	0	
2020	8 NCAT	1996	0	0	0	0	0	
2020	8 CAT	1996	23	0.9	1071	12570	965066	
2020	8 DSL	1996	356	23.31	1802	21397	1573680	
2020	8 ELEC	1996	0	0	0	0	0	
2020	9 NCAT	1996	0	0	0	0	0	
2020	9 CAT	1996	8	0.12	346	5080	303520	
2020	9 DSL	1996	20	0.4	567	6531	373230	
2020	9 ELEC	1996	0	0	0	0	0	
2020	10 NCAT	1996	0	0	0	0	0	
2020	10 CAT	1996	9	0.94	34	35637	890920	
2020	10 DSL	1996	34	3.77	137	35637	890920	
2020	10 ELEC	1996	0	0	0	0	0	
2020	11 NCAT	1996	169	0.37	338	761	46514	
2020	11 CAT	1996	48	0.1	95	761	46514	
2020	11 DSL	1996	0	0	0	0	0	
2020	11 ELEC	1996	0	0	0	0	0	
2020	12 NCAT	1996	0	0	0	0	0	
2020	12 CAT	1996	12	0.44	48	12122	303055	
2020	12 DSL	1996	196	7.22	785	12122	303055	
2020	12 ELEC	1996	0	0	0	0	0	
2020	13 NCAT	1996	0	0	0	0	0	
2020	13 CAT	1996	342	3.33	34	3182	93763	
2020	13 DSL	1996	52	0.51	5	3182	93763	
2020	13 ELEC	1996	0	0	0	0	0	

2020	1 NCAT	1997	0	0	0	0	0	281740
2020	1 CAT	1997	31944	684.08	181426	7430	252630	
2020	1 DSL	1997	52	1.12	297	7430	252630	
2020	1 ELEC	1997	0	0	0	0	0	
2020	2 NCAT	1997	0	0	0	0	0	
2020	2 CAT	1997	5153	140.57	29265	9451	282933	
2020	2 DSL	1997	250	6.76	1419	9451	282933	
2020	2 ELEC	1997	0	0	0	0	0	
2020	3 NCAT	1997	0	0	0	0	0	
2020	3 CAT	1997	18072	492.85	102637	9462	283262	
2020	3 DSL	1997	37	1.01	211	9462	283262	
2020	3 ELEC	1997	0	0	0	0	0	
2020	4 NCAT	1997	0	0	0	0	0	
2020	4 CAT	1997	12271	302.96	69692	8561	279783	
2020	4 DSL	1997	41	1.02	234	8561	279783	
2020	4 ELEC	1997	0	0	0	0	0	
2020	5 NCAT	1997	0	0	0	0	0	
2020	5 CAT	1997	1360	45.97	44984	11007	362869	
2020	5 DSL	1997	13	0.42	158	11007	362869	
2020	5 ELEC	1997	0	0	0	0	0	
2020	6 NCAT	1997	0	0	0	0	0	
2020	6 CAT	1997	257	8.21	8486	10418	353475	
2020	6 DSL	1997	183	5.84	2306	10418	353475	
2020	6 ELEC	1997	0	0	0	0	0	
2020	7 NCAT	1997	0	0	0	0	0	
2020	7 CAT	1997	163	3.55	7456	7096	383909	
2020	7 DSL	1997	646	17.78	18106	8994	471716	
2020	7 ELEC	1997	0	0	0	0	0	
2020	8 NCAT	1997	0	0	0	0	0	
2020	8 CAT	1997	43	1.8	1975	13620	952496	
2020	8 DSL	1997	374	26.71	1895	23307	1552283	
2020	8 ELEC	1997	0	0	0	0	0	
2020	9 NCAT	1997	0	0	0	0	0	
2020	9 CAT	1997	19	0.33	868	5516	298439	
2020	9 DSL	1997	29	0.63	827	6991	366698	
2020	9 ELEC	1997	0	0	0	0	0	
2020	10 NCAT	1997	0	0	0	0	0	
2020	10 CAT	1997	16	1.77	65	35637	855284	
2020	10 DSL	1997	141	15.36	565	35637	855284	
2020	10 ELEC	1997	0	0	0	0	0	
2020	11 NCAT	1997	204	0.48	407	812	45753	
2020	11 CAT	1997	57	0.13	115	812	45753	
2020	11 DSL	1997	0	0	0	0	0	
2020	11 ELEC	1997	0	0	0	0	0	
2020	12 NCAT	1997	0	0	0	0	0	
2020	12 CAT	1997	7	0.26	27	12122	290933	
2020	12 DSL	1997	158	5.85	634	12122	290933	
2020	12 ELEC	1997	0	0	0	0	0	
2020	13 NCAT	1997	0	0	0	0	0	
2020	13 CAT	1997	459	4.51	46	3208	90581	
2020	13 DSL	1997	59	0.57	6	3208	90581	
2020	13 ELEC	1997	0	0	0	0	0	

2020	1 NCAT	1998	0	0	0	0	0	288932
2020	1 CAT	1998	36866	804.96	211590	7576	245200	
2020	1 DSL	1998	76	1.65	434	7576	245200	
2020	1 ELEC	1998	0	0	0	0	0	
2020	2 NCAT	1998	0	0	0	0	0	
2020	2 CAT	1998	7630	210.52	43790	9562	273482	
2020	2 DSL	1998	136	3.72	781	9562	273482	
2020	2 ELEC	1998	0	0	0	0	0	
2020	3 NCAT	1998	0	0	0	0	0	
2020	3 CAT	1998	23405	645.84	134330	9573	273800	
2020	3 DSL	1998	31	0.85	178	9573	273800	
2020	3 ELEC	1998	0	0	0	0	0	
2020	4 NCAT	1998	0	0	0	0	0	
2020	4 CAT	1998	12031	302.14	69052	8708	271222	
2020	4 DSL	1998	26	0.65	148	8708	271222	
2020	4 ELEC	1998	0	0	0	0	0	
2020	5 NCAT	1998	0	0	0	0	0	
2020	5 CAT	1998	1086	37.36	35908	11201	351862	
2020	5 DSL	1998	6	0.19	71	11201	351862	
2020	5 ELEC	1998	0	0	0	0	0	
2020	6 NCAT	1998	0	0	0	0	0	
2020	6 CAT	1998	262	8.54	8655	10622	343057	
2020	6 DSL	1998	127	4.11	1592	10622	343057	
2020	6 ELEC	1998	0	0	0	0	0	
2020	7 NCAT	1998	0	0	0	0	0	
2020	7 CAT	1998	126	2.96	5750	7690	376813	
2020	7 DSL	1998	778	22.9	21805	9620	462723	
2020	7 ELEC	1998	0	0	0	0	0	
2020	8 NCAT	1998	0	0	0	0	0	
2020	8 CAT	1998	70	3.17	3205	14731	938876	
2020	8 DSL	1998	427	32.93	2159	25227	1528976	
2020	8 ELEC	1998	0	0	0	0	0	
2020	9 NCAT	1998	0	0	0	0	0	
2020	9 CAT	1998	22	0.39	983	5978	292923	
2020	9 DSL	1998	37	0.85	1041	7478	359707	
2020	9 ELEC	1998	0	0	0	0	0	
2020	10 NCAT	1998	0	0	0	0	0	
2020	10 CAT	1998	31	3.34	123	35637	819647	
2020	10 DSL	1998	37	4.02	148	35637	819647	
2020	10 ELEC	1998	0	0	0	0	0	
2020	11 NCAT	1998	236	0.59	472	868	44941	
2020	11 CAT	1998	67	0.17	133	868	44941	
2020	11 DSL	1998	0	0	0	0	0	
2020	11 ELEC	1998	0	0	0	0	0	
2020	12 NCAT	1998	0	0	0	0	0	
2020	12 CAT	1998	9	0.33	36	12122	278810	
2020	12 DSL	1998	253	9.41	1012	12122	278810	
2020	12 ELEC	1998	0	0	0	0	0	
2020	13 NCAT	1998	0	0	0	0	0	
2020	13 CAT	1998	406	4.02	41	3235	87373	
2020	13 DSL	1998	84	0.83	8	3235	87373	
2020	13 ELEC	1998	0	0	0	0	0	

2020	1 NCAT	1999	0	0	0	0	0	296467
2020	1 CAT	1999	43693	973.36	253830	7730	237624	
2020	1 DSL	1999	76	1.68	439	7730	237624	
2020	1 ELEC	1999	0	0	0	0	0	
2020	2 NCAT	1999	0	0	0	0	0	
2020	2 CAT	1999	13976	390.07	81192	9678	263920	
2020	2 DSL	1999	522	14.45	3033	9678	263920	
2020	2 ELEC	1999	0	0	0	0	0	
2020	3 NCAT	1999	0	0	0	0	0	
2020	3 CAT	1999	28288	790.26	164336	9690	264227	
2020	3 DSL	1999	41	1.15	241	9690	264227	
2020	3 ELEC	1999	0	0	0	0	0	
2020	4 NCAT	1999	0	0	0	0	0	
2020	4 CAT	1999	12059	308.26	70056	8861	262514	
2020	4 DSL	1999	49	1.25	283	8861	262514	
2020	4 ELEC	1999	0	0	0	0	0	
2020	5 NCAT	1999	0	0	0	0	0	
2020	5 CAT	1999	713	24.94	23576	11406	340661	
2020	5 DSL	1999	19	0.68	245	11406	340661	
2020	5 ELEC	1999	0	0	0	0	0	
2020	6 NCAT	1999	0	0	0	0	0	
2020	6 CAT	1999	655	21.81	21670	10837	332434	
2020	6 DSL	1999	329	10.88	4134	10837	332434	
2020	6 ELEC	1999	0	0	0	0	0	
2020	7 NCAT	1999	0	0	0	0	0	
2020	7 CAT	1999	272	6.91	12407	8314	369123	
2020	7 DSL	1999	1211	38.13	33951	10288	453103	
2020	7 ELEC	1999	0	0	0	0	0	
2020	8 NCAT	1999	0	0	0	0	0	
2020	8 CAT	1999	56	2.72	2553	15915	924146	
2020	8 DSL	1999	596	49.6	3017	27187	1503749	
2020	8 ELEC	1999	0	0	0	0	0	
2020	9 NCAT	1999	0	0	0	0	0	
2020	9 CAT	1999	76	1.5	3450	6463	286945	
2020	9 DSL	1999	29	0.71	805	7998	352229	
2020	9 ELEC	1999	0	0	0	0	0	
2020	10 NCAT	1999	0	0	0	0	0	
2020	10 CAT	1999	24	2.66	98	35637	784010	
2020	10 DSL	1999	26	2.81	103	35637	784010	
2020	10 ELEC	1999	0	0	0	0	0	
2020	11 NCAT	1999	342	0.91	685	927	44074	
2020	11 CAT	1999	97	0.26	193	927	44074	
2020	11 DSL	1999	0	0	0	0	0	
2020	11 ELEC	1999	0	0	0	0	0	
2020	12 NCAT	1999	0	0	0	0	0	
2020	12 CAT	1999	14	0.53	57	12122	266688	
2020	12 DSL	1999	284	10.43	1135	12122	266688	
2020	12 ELEC	1999	0	0	0	0	0	
2020	13 NCAT	1999	0	0	0	0	0	
2020	13 CAT	1999	648	6.47	65	3263	84138	
2020	13 DSL	1999	116	1.16	12	3263	84138	
2020	13 ELEC	1999	0	0	0	0	0	

2020	1 NCAT	2000	0	0	0	0	0	304424
2020	1 CAT	2000	59827	1360.56	351151	7891	229894	
2020	1 DSL	2000	69	1.56	403	7891	229894	
2020	1 ELEC	2000	0	0	0	0	0	
2020	2 NCAT	2000	0	0	0	0	0	
2020	2 CAT	2000	17606	497.64	103334	9800	254242	
2020	2 DSL	2000	520	14.57	3053	9800	254242	
2020	2 ELEC	2000	0	0	0	0	0	
2020	3 NCAT	2000	0	0	0	0	0	
2020	3 CAT	2000	34514	976.31	202577	9811	254537	
2020	3 DSL	2000	63	1.77	368	9811	254537	
2020	3 ELEC	2000	0	0	0	0	0	
2020	4 NCAT	2000	0	0	0	0	0	
2020	4 CAT	2000	13722	357.08	80540	9023	253653	
2020	4 DSL	2000	111	2.89	654	9023	253653	
2020	4 ELEC	2000	0	0	0	0	0	
2020	5 NCAT	2000	0	0	0	0	0	
2020	5 CAT	2000	895	31.88	29590	11620	329255	
2020	5 DSL	2000	20	0.72	255	11620	329255	
2020	5 ELEC	2000	0	0	0	0	0	
2020	6 NCAT	2000	0	0	0	0	0	
2020	6 CAT	2000	711	24.14	23497	11061	321597	
2020	6 DSL	2000	271	9.18	3407	11061	321597	
2020	6 ELEC	2000	0	0	0	0	0	
2020	7 NCAT	2000	0	0	0	0	0	
2020	7 CAT	2000	313	8.59	14290	8968	360809	
2020	7 DSL	2000	1439	48.49	40355	11008	442815	
2020	7 ELEC	2000	0	0	0	0	0	
2020	8 NCAT	2000	0	0	0	0	0	
2020	8 CAT	2000	81	4.28	3712	17194	908230	
2020	8 DSL	2000	700	62.65	3544	29233	1476562	
2020	8 ELEC	2000	0	0	0	0	0	
2020	9 NCAT	2000	0	0	0	0	0	
2020	9 CAT	2000	75	1.61	3409	6971	280482	
2020	9 DSL	2000	57	1.49	1605	8558	344231	
2020	9 ELEC	2000	0	0	0	0	0	
2020	10 NCAT	2000	0	0	0	0	0	
2020	10 CAT	2000	24	2.62	96	35637	748373	
2020	10 DSL	2000	65	7.04	259	35637	748373	
2020	10 ELEC	2000	0	0	0	0	0	
2020	11 NCAT	2000	586	1.67	1171	989	43147	
2020	11 CAT	2000	165	0.47	330	989	43147	
2020	11 DSL	2000	0	0	0	0	0	
2020	11 ELEC	2000	0	0	0	0	0	
2020	12 NCAT	2000	0	0	0	0	0	
2020	12 CAT	2000	18	0.66	72	12122	254566	
2020	12 DSL	2000	178	6.54	711	12122	254566	
2020	12 ELEC	2000	0	0	0	0	0	
2020	13 NCAT	2000	0	0	0	0	0	
2020	13 CAT	2000	665	6.7	67	3292	80875	
2020	13 DSL	2000	152	1.53	15	3292	80875	
2020	13 ELEC	2000	0	0	0	0	0	

2020	1 NCAT	2001	0	0	0	0	0	312897
2020	1 CAT	2001	65994	1532.93	389984	8060	222003	
2020	1 DSL	2001	62	1.43	368	8060	222003	
2020	1 ELEC	2001	0	0	0	0	0	
2020	2 NCAT	2001	0	0	0	0	0	
2020	2 CAT	2001	21199	607.03	125275	9927	244442	
2020	2 DSL	2001	721	20.47	4261	9927	244442	
2020	2 ELEC	2001	0	0	0	0	0	
2020	3 NCAT	2001	0	0	0	0	0	
2020	3 CAT	2001	33044	947	195273	9939	244726	
2020	3 DSL	2001	77	2.2	456	9939	244726	
2020	3 ELEC	2001	0	0	0	0	0	
2020	4 NCAT	2001	0	0	0	0	0	
2020	4 CAT	2001	19462	515.94	115009	9192	244629	
2020	4 DSL	2001	152	4.03	900	9192	244629	
2020	4 ELEC	2001	0	0	0	0	0	
2020	5 NCAT	2001	0	0	0	0	0	
2020	5 CAT	2001	965	35.04	31919	11843	317635	
2020	5 DSL	2001	50	1.83	634	11843	317635	
2020	5 ELEC	2001	0	0	0	0	0	
2020	6 NCAT	2001	0	0	0	0	0	
2020	6 CAT	2001	239	8.29	7907	11295	310537	
2020	6 DSL	2001	155	5.35	1949	11295	310537	
2020	6 ELEC	2001	0	0	0	0	0	
2020	7 NCAT	2001	0	0	0	0	0	
2020	7 CAT	2001	344	10.15	15699	9650	351842	
2020	7 DSL	2001	1244	44.91	34891	11791	431806	
2020	7 ELEC	2001	0	0	0	0	0	
2020	8 NCAT	2001	0	0	0	0	0	
2020	8 CAT	2001	125	7.13	5726	18579	891036	
2020	8 DSL	2001	570	54.78	2883	31422	1447329	
2020	8 ELEC	2001	0	0	0	0	0	
2020	9 NCAT	2001	0	0	0	0	0	
2020	9 CAT	2001	81	1.87	3695	7501	273510	
2020	9 DSL	2001	68	1.96	1914	9166	335673	
2020	9 ELEC	2001	0	0	0	0	0	
2020	10 NCAT	2001	0	0	0	0	0	
2020	10 CAT	2001	22	2.42	89	35637	712736	
2020	10 DSL	2001	94	10.2	375	35637	712736	
2020	10 ELEC	2001	0	0	0	0	0	
2020	11 NCAT	2001	810	2.47	1621	1056	42157	
2020	11 CAT	2001	229	0.7	457	1056	42157	
2020	11 DSL	2001	0	0	0	0	0	
2020	11 ELEC	2001	0	0	0	0	0	
2020	12 NCAT	2001	0	0	0	0	0	
2020	12 CAT	2001	16	0.6	65	12122	242444	
2020	12 DSL	2001	78	2.86	311	12122	242444	
2020	12 ELEC	2001	0	0	0	0	0	
2020	13 NCAT	2001	0	0	0	0	0	
2020	13 CAT	2001	494	5.02	49	3323	77583	
2020	13 DSL	2001	152	1.55	15	3323	77583	
2020	13 ELEC	2001	0	0	0	0	0	

2020	1 NCAT	2002	0	0	0	0	0	321984
2020	1 CAT	2002	76981	1827.3	457990	8237	213944	
2020	1 DSL	2002	146	3.44	868	8237	213944	
2020	1 ELEC	2002	0	0	0	0	0	
2020	2 NCAT	2002	0	0	0	0	0	
2020	2 CAT	2002	13359	387.79	79476	10061	234515	
2020	2 DSL	2002	576	16.54	3428	10061	234515	
2020	2 ELEC	2002	0	0	0	0	0	
2020	3 NCAT	2002	0	0	0	0	0	
2020	3 CAT	2002	45673	1326.64	271730	10073	234787	
2020	3 DSL	2002	56	1.63	334	10073	234787	
2020	3 ELEC	2002	0	0	0	0	0	
2020	4 NCAT	2002	0	0	0	0	0	
2020	4 CAT	2002	22245	601.04	132345	9369	235438	
2020	4 DSL	2002	182	4.9	1082	9369	235438	
2020	4 ELEC	2002	0	0	0	0	0	
2020	5 NCAT	2002	0	0	0	0	0	
2020	5 CAT	2002	1677	62.18	55453	12079	305792	
2020	5 DSL	2002	252	9.31	3173	12079	305792	
2020	5 ELEC	2002	0	0	0	0	0	
2020	6 NCAT	2002	0	0	0	0	0	
2020	6 CAT	2002	426	15.12	14097	11542	299241	
2020	6 DSL	2002	268	9.45	3370	11542	299241	
2020	6 ELEC	2002	0	0	0	0	0	
2020	7 NCAT	2002	0	0	0	0	0	
2020	7 CAT	2002	267	8.47	12198	10357	342192	
2020	7 DSL	2002	1053	40.73	29523	12637	420015	
2020	7 ELEC	2002	0	0	0	0	0	
2020	8 NCAT	2002	0	0	0	0	0	
2020	8 CAT	2002	54	3.33	2472	20087	872457	
2020	8 DSL	2002	421	43.57	2131	33819	1415907	
2020	8 ELEC	2002	0	0	0	0	0	
2020	9 NCAT	2002	0	0	0	0	0	
2020	9 CAT	2002	61	1.51	2772	8052	266009	
2020	9 DSL	2002	25	0.74	693	9824	326507	
2020	9 ELEC	2002	0	0	0	0	0	
2020	10 NCAT	2002	0	0	0	0	0	
2020	10 CAT	2002	43	4.71	173	35637	677099	
2020	10 DSL	2002	85	9.22	339	35637	677099	
2020	10 ELEC	2002	0	0	0	0	0	
2020	11 NCAT	2002	1977	6.42	3953	1128	41101	
2020	11 CAT	2002	558	1.81	1115	1128	41101	
2020	11 DSL	2002	0	0	0	0	0	
2020	11 ELEC	2002	0	0	0	0	0	
2020	12 NCAT	2002	0	0	0	0	0	
2020	12 CAT	2002	14	0.5	54	12122	230322	
2020	12 DSL	2002	246	9.01	982	12122	230322	
2020	12 ELEC	2002	0	0	0	0	0	
2020	13 NCAT	2002	0	0	0	0	0	
2020	13 CAT	2002	596	6.12	60	3356	74260	
2020	13 DSL	2002	181	1.86	18	3356	74260	
2020	13 ELEC	2002	0	0	0	0	0	

2020	1 NCAT	2003	0	0	0	0	0	350418
2020	1 CAT	2003	95730	2324.55	574322	8423	205707	
2020	1 DSL	2003	155	3.74	931	8423	205707	
2020	1 ELEC	2003	27	0.66	163	8423	205707	
2020	2 NCAT	2003	0	0	0	0	0	
2020	2 CAT	2003	13343	392.74	80048	10203	224453	
2020	2 DSL	2003	686	20.03	4114	10203	224453	
2020	2 ELEC	2003	1	0.04	9	10203	224453	
2020	3 NCAT	2003	0	0	0	0	0	
2020	3 CAT	2003	50698	1493.08	304157	10215	224714	
2020	3 DSL	2003	72	2.12	432	10215	224714	
2020	3 ELEC	2003	0	0	0	0	0	
2020	4 NCAT	2003	0	0	0	0	0	
2020	4 CAT	2003	27469	757.24	164796	9556	226069	
2020	4 DSL	2003	167	4.57	999	9556	226069	
2020	4 ELEC	2003	0	0	0	0	0	
2020	5 NCAT	2003	0	0	0	0	0	
2020	5 CAT	2003	2856	108.14	94426	12329	293712	
2020	5 DSL	2003	509	19.16	6401	12329	293712	
2020	5 ELEC	2003	0	0	0	0	0	
2020	6 NCAT	2003	0	0	0	0	0	
2020	6 CAT	2003	513	18.61	16960	11803	287699	
2020	6 DSL	2003	360	12.98	4532	11803	287699	
2020	6 ELEC	2003	0	0	0	0	0	
2020	7 NCAT	2003	0	0	0	0	0	
2020	7 CAT	2003	381	12.96	17421	11095	331835	
2020	7 DSL	2003	1218	50.5	34143	13549	407378	
2020	7 ELEC	2003	0	0	0	0	0	
2020	8 NCAT	2003	0	0	0	0	0	
2020	8 CAT	2003	50	3.3	2264	21734	852370	
2020	8 DSL	2003	574	64.08	2904	36492	1382088	
2020	8 ELEC	2003	0	0	0	0	0	
2020	9 NCAT	2003	0	0	0	0	0	
2020	9 CAT	2003	124	3.3	5682	8625	257957	
2020	9 DSL	2003	27	0.86	745	10533	316683	
2020	9 ELEC	2003	0	0	0	0	0	
2020	10 NCAT	2003	0	0	0	0	0	
2020	10 CAT	2003	55	6.04	222	35637	641463	
2020	10 DSL	2003	29	3.2	114	35637	641463	
2020	10 ELEC	2003	0	0	0	0	0	
2020	11 NCAT	2003	2536	8.8	5072	1204	39974	
2020	11 CAT	2003	715	2.48	1431	1204	39974	
2020	11 DSL	2003	0	0	0	0	0	
2020	11 ELEC	2003	0	0	0	0	0	
2020	12 NCAT	2003	0	0	0	0	0	
2020	12 CAT	2003	30	1.08	118	12122	218199	
2020	12 DSL	2003	175	6.44	702	12122	218199	
2020	12 ELEC	2003	0	0	0	0	0	
2020	13 NCAT	2003	0	0	0	0	0	
2020	13 CAT	2003	837	8.68	84	3390	70904	
2020	13 DSL	2003	220	2.29	22	3390	70904	
2020	13 ELEC	2003	0	0	0	0	0	

2020	1 NCAT	2004	0	0	0	0	0	322274
2020	1 CAT	2004	108920	2707.35	657808	8622	197283	
2020	1 DSL	2004	0	0	0	0	0	
2020	1 ELEC	2004	18	0.44	106	8622	197283	
2020	2 NCAT	2004	0	0	0	0	0	
2020	2 CAT	2004	13571	405.11	81959	10352	214250	
2020	2 DSL	2004	0	0	0	0	0	
2020	2 ELEC	2004	3	0.09	19	10352	214250	
2020	3 NCAT	2004	0	0	0	0	0	
2020	3 CAT	2004	59231	1770.06	357717	10364	214500	
2020	3 DSL	2004	0	0	0	0	0	
2020	3 ELEC	2004	0	0	0	0	0	
2020	4 NCAT	2004	0	0	0	0	0	
2020	4 CAT	2004	33366	938.74	201511	9754	216513	
2020	4 DSL	2004	0	0	0	0	0	
2020	4 ELEC	2004	0	0	0	0	0	
2020	5 NCAT	2004	0	0	0	0	0	
2020	5 CAT	2004	2021	78.13	66811	12590	281384	
2020	5 DSL	2004	1785	68.69	22456	12590	281384	
2020	5 ELEC	2004	0	0	0	0	0	
2020	6 NCAT	2004	0	0	0	0	0	
2020	6 CAT	2004	669	24.81	22119	12078	275896	
2020	6 DSL	2004	518	19.07	6513	12078	275896	
2020	6 ELEC	2004	0	0	0	0	0	
2020	7 NCAT	2004	0	0	0	0	0	
2020	7 CAT	2004	397	14.42	18151	11852	320739	
2020	7 DSL	2004	1603	71.27	44947	14526	393829	
2020	7 ELEC	2004	0	0	0	0	0	
2020	8 NCAT	2004	0	0	0	0	0	
2020	8 CAT	2004	92	6.64	4209	23535	830635	
2020	8 DSL	2004	520	62.85	2631	39516	1345597	
2020	8 ELEC	2004	0	0	0	0	0	
2020	9 NCAT	2004	0	0	0	0	0	
2020	9 CAT	2004	184	5.2	8398	9213	249333	
2020	9 DSL	2004	15	0.52	422	11292	306151	
2020	9 ELEC	2004	0	0	0	0	0	
2020	10 NCAT	2004	0	0	0	0	0	
2020	10 CAT	2004	59	6.42	236	35637	605826	
2020	10 DSL	2004	48	5.65	192	35637	605826	
2020	10 ELEC	2004	0	0	0	0	0	
2020	11 NCAT	2004	2017	7.46	4033	1284	38770	
2020	11 CAT	2004	443	1.64	885	1284	38770	
2020	11 DSL	2004	0	0	0	0	0	
2020	11 ELEC	2004	0	0	0	0	0	
2020	12 NCAT	2004	0	0	0	0	0	
2020	12 CAT	2004	28	1.04	113	12122	206077	
2020	12 DSL	2004	317	11.65	1269	12122	206077	
2020	12 ELEC	2004	0	0	0	0	0	
2020	13 NCAT	2004	0	0	0	0	0	
2020	13 CAT	2004	1122	11.76	112	3426	67514	
2020	13 DSL	2004	277	2.9	28	3426	67514	
2020	13 ELEC	2004	0	0	0	0	0	

2020	1 NCAT	2005	0	0	0	0	0	333414
2020	1 CAT	2005	161380	4111.96	981093	8831	188662	
2020	1 DSL	2005	0	0	0	0	0	
2020	1 ELEC	2005	43	1.11	264	8831	188662	
2020	2 NCAT	2005	0	0	0	0	0	
2020	2 CAT	2005	16358	496.1	99447	10510	203898	
2020	2 DSL	2005	0	0	0	0	0	
2020	2 ELEC	2005	1	0.03	7	10510	203898	
2020	3 NCAT	2005	0	0	0	0	0	
2020	3 CAT	2005	68972	2094.26	419308	10522	204136	
2020	3 DSL	2005	0	0	0	0	0	
2020	3 ELEC	2005	0	0	0	0	0	
2020	4 NCAT	2005	0	0	0	0	0	
2020	4 CAT	2005	28723	825.5	174616	9964	206759	
2020	4 DSL	2005	0	0	0	0	0	
2020	4 ELEC	2005	0	0	0	0	0	
2020	5 NCAT	2005	0	0	0	0	0	
2020	5 CAT	2005	1905	75.27	62993	12868	268794	
2020	5 DSL	2005	2047	80.54	25753	12868	268794	
2020	5 ELEC	2005	0	0	0	0	0	
2020	6 NCAT	2005	0	0	0	0	0	
2020	6 CAT	2005	456	17.32	15083	12369	263818	
2020	6 DSL	2005	622	23.49	7823	12369	263818	
2020	6 ELEC	2005	0	0	0	0	0	
2020	7 NCAT	2005	0	0	0	0	0	
2020	7 CAT	2005	272	10.53	12432	12637	308887	
2020	7 DSL	2005	1880	89.58	52727	15564	379303	
2020	7 ELEC	2005	0	0	0	0	0	
2020	8 NCAT	2005	0	0	0	0	0	
2020	8 CAT	2005	88	6.83	3997	25503	807101	
2020	8 DSL	2005	773	101.6	3912	42957	1306081	
2020	8 ELEC	2005	0	0	0	0	0	
2020	9 NCAT	2005	0	0	0	0	0	
2020	9 CAT	2005	275	8.24	12560	9824	240119	
2020	9 DSL	2005	26	0.98	743	12099	294859	
2020	9 ELEC	2005	0	0	0	0	0	
2020	10 NCAT	2005	0	0	0	0	0	
2020	10 CAT	2005	52	5.69	209	35637	570189	
2020	10 DSL	2005	21	2.27	83	35637	570189	
2020	10 ELEC	2005	0	0	0	0	0	
2020	11 NCAT	2005	2864	11.32	5728	1371	37486	
2020	11 CAT	2005	629	2.48	1257	1371	37486	
2020	11 DSL	2005	0	0	0	0	0	
2020	11 ELEC	2005	0	0	0	0	0	
2020	12 NCAT	2005	0	0	0	0	0	
2020	12 CAT	2005	42	1.58	166	12122	193955	
2020	12 DSL	2005	103	3.78	413	12122	193955	
2020	12 ELEC	2005	0	0	0	0	0	
2020	13 NCAT	2005	0	0	0	0	0	
2020	13 CAT	2005	1336	14.16	134	3464	64088	
2020	13 DSL	2005	289	3.06	29	3464	64088	
2020	13 ELEC	2005	0	0	0	0	0	

2020	1 NCAT	2006	0	0	0	0	0	345531
2020	1 CAT	2006	172159	4498.58	1055232	9055	179831	
2020	1 DSL	2006	0	0	0	0	0	
2020	1 ELEC	2006	865	22.61	5303	9055	179831	
2020	2 NCAT	2006	0	0	0	0	0	
2020	2 CAT	2006	16557	510.22	101482	10678	193388	
2020	2 DSL	2006	0	0	0	0	0	
2020	2 ELEC	2006	83	2.56	510	10678	193388	
2020	3 NCAT	2006	0	0	0	0	0	
2020	3 CAT	2006	72912	2249.64	446909	10691	193613	
2020	3 DSL	2006	0	0	0	0	0	
2020	3 ELEC	2006	0	0	0	0	0	
2020	4 NCAT	2006	0	0	0	0	0	
2020	4 CAT	2006	30081	883.94	184376	10187	196795	
2020	4 DSL	2006	0	0	0	0	0	
2020	4 ELEC	2006	0	0	0	0	0	
2020	5 NCAT	2006	0	0	0	0	0	
2020	5 CAT	2006	3692	148.78	122085	13165	255926	
2020	5 DSL	2006	820	33.02	10309	13165	255926	
2020	5 ELEC	2006	0	0	0	0	0	
2020	6 NCAT	2006	0	0	0	0	0	
2020	6 CAT	2006	710	27.52	23465	12680	251449	
2020	6 DSL	2006	496	19.25	6244	12680	251449	
2020	6 ELEC	2006	0	0	0	0	0	
2020	7 NCAT	2006	0	0	0	0	0	
2020	7 CAT	2006	510	20.97	23276	13443	296250	
2020	7 DSL	2006	1854	94.56	51994	16660	363740	
2020	7 ELEC	2006	0	0	0	0	0	
2020	8 NCAT	2006	0	0	0	0	0	
2020	8 CAT	2006	12	1.05	568	27660	781598	
2020	8 DSL	2006	930	133.29	4704	46877	1263123	
2020	8 ELEC	2006	0	0	0	0	0	
2020	9 NCAT	2006	0	0	0	0	0	
2020	9 CAT	2006	69	2.19	3128	10450	230296	
2020	9 DSL	2006	249	9.85	6988	12951	282760	
2020	9 ELEC	2006	0	0	0	0	0	
2020	10 NCAT	2006	0	0	0	0	0	
2020	10 CAT	2006	52	5.62	206	35637	534552	
2020	10 DSL	2006	41	4.47	164	35637	534552	
2020	10 ELEC	2006	0	0	0	0	0	
2020	11 NCAT	2006	3136	13.22	6270	1464	36114	
2020	11 CAT	2006	688	2.9	1376	1464	36114	
2020	11 DSL	2006	0	0	0	0	0	
2020	11 ELEC	2006	0	0	0	0	0	
2020	12 NCAT	2006	0	0	0	0	0	
2020	12 CAT	2006	18	0.68	73	12122	181833	
2020	12 DSL	2006	116	4.3	463	12122	181833	
2020	12 ELEC	2006	0	0	0	0	0	
2020	13 NCAT	2006	0	0	0	0	0	
2020	13 CAT	2006	1640	17.59	164	3505	60624	
2020	13 DSL	2006	165	1.77	17	3505	60624	
2020	13 ELEC	2006	0	0	0	0	0	

2020	1 NCAT	2007	0	0	0	0	0	358683
2020	1 CAT	2007	182106	4884.29	1123482	9293	170775	
2020	1 DSL	2007	0	0	0	0	0	
2020	1 ELEC	2007	1099	29.48	6782	9293	170775	
2020	2 NCAT	2007	0	0	0	0	0	
2020	2 CAT	2007	16747	524.84	103317	10859	182710	
2020	2 DSL	2007	0	0	0	0	0	
2020	2 ELEC	2007	101	3.17	624	10859	182710	
2020	3 NCAT	2007	0	0	0	0	0	
2020	3 CAT	2007	76690	2406.41	473131	10871	182922	
2020	3 DSL	2007	0	0	0	0	0	
2020	3 ELEC	2007	0	0	0	0	0	
2020	4 NCAT	2007	0	0	0	0	0	
2020	4 CAT	2007	31355	942.98	193440	10425	186608	
2020	4 DSL	2007	0	0	0	0	0	
2020	4 ELEC	2007	0	0	0	0	0	
2020	5 NCAT	2007	0	0	0	0	0	
2020	5 CAT	2007	4157	171.35	137448	13482	242761	
2020	5 DSL	2007	929	38.28	11682	13482	242761	
2020	5 ELEC	2007	0	0	0	0	0	
2020	6 NCAT	2007	0	0	0	0	0	
2020	6 CAT	2007	772	30.71	25542	13013	238769	
2020	6 DSL	2007	529	21.04	6659	13013	238769	
2020	6 ELEC	2007	0	0	0	0	0	
2020	7 NCAT	2007	0	0	0	0	0	
2020	7 CAT	2007	554	24.21	25316	14270	282807	
2020	7 DSL	2007	2012	109.69	56428	17807	347079	
2020	7 ELEC	2007	0	0	0	0	0	
2020	8 NCAT	2007	0	0	0	0	0	
2020	8 CAT	2007	13	1.18	586	30014	753938	
2020	8 DSL	2007	977	153.31	4946	51322	1216246	
2020	8 ELEC	2007	0	0	0	0	0	
2020	9 NCAT	2007	0	0	0	0	0	
2020	9 CAT	2007	74	2.49	3358	11093	219845	
2020	9 DSL	2007	267	11.28	7485	13843	269809	
2020	9 ELEC	2007	0	0	0	0	0	
2020	10 NCAT	2007	0	0	0	0	0	
2020	10 CAT	2007	48	5.22	191	35637	498915	
2020	10 DSL	2007	37	4.08	150	35637	498915	
2020	10 ELEC	2007	0	0	0	0	0	
2020	11 NCAT	2007	3478	15.67	6955	1564	34650	
2020	11 CAT	2007	763	3.44	1527	1564	34650	
2020	11 DSL	2007	0	0	0	0	0	
2020	11 ELEC	2007	0	0	0	0	0	
2020	12 NCAT	2007	0	0	0	0	0	
2020	12 CAT	2007	17	0.64	69	12122	169711	
2020	12 DSL	2007	108	4.02	433	12122	169711	
2020	12 ELEC	2007	0	0	0	0	0	
2020	13 NCAT	2007	0	0	0	0	0	
2020	13 CAT	2007	1829	19.87	183	3549	57119	
2020	13 DSL	2007	185	2.01	19	3549	57119	
2020	13 ELEC	2007	0	0	0	0	0	

2020	1 NCAT	2008	0	0	0	0	0	372904
2020	1 CAT	2008	179300	4939.93	1115135	9550	161482	
2020	1 DSL	2008	0	0	0	0	0	
2020	1 ELEC	2008	1082	29.82	6731	9550	161482	
2020	2 NCAT	2008	0	0	0	0	0	
2020	2 CAT	2008	16214	516.87	100844	11052	171851	
2020	2 DSL	2008	0	0	0	0	0	
2020	2 ELEC	2008	98	3.12	609	11052	171851	
2020	3 NCAT	2008	0	0	0	0	0	
2020	3 CAT	2008	76285	2435.64	474446	11064	172051	
2020	3 DSL	2008	0	0	0	0	0	
2020	3 ELEC	2008	0	0	0	0	0	
2020	4 NCAT	2008	0	0	0	0	0	
2020	4 CAT	2008	30613	943.46	190394	10681	176184	
2020	4 DSL	2008	0	0	0	0	0	
2020	4 ELEC	2008	0	0	0	0	0	
2020	5 NCAT	2008	0	0	0	0	0	
2020	5 CAT	2008	4031	170.31	133291	13823	229279	
2020	5 DSL	2008	906	38.28	11397	13823	229279	
2020	5 ELEC	2008	0	0	0	0	0	
2020	6 NCAT	2008	0	0	0	0	0	
2020	6 CAT	2008	730	29.8	24134	13370	225755	
2020	6 DSL	2008	503	20.55	6332	13370	225755	
2020	6 ELEC	2008	0	0	0	0	0	
2020	7 NCAT	2008	0	0	0	0	0	
2020	7 CAT	2008	537	24.83	24509	15119	268537	
2020	7 DSL	2008	1942	112.87	54452	18989	329272	
2020	7 ELEC	2008	0	0	0	0	0	
2020	8 NCAT	2008	0	0	0	0	0	
2020	8 CAT	2008	14	1.44	657	32585	723923	
2020	8 DSL	2008	1097	188.86	5553	56316	1164925	
2020	8 ELEC	2008	0	0	0	0	0	
2020	9 NCAT	2008	0	0	0	0	0	
2020	9 CAT	2008	79	2.84	3613	11752	208753	
2020	9 DSL	2008	286	12.9	8028	14762	255966	
2020	9 ELEC	2008	0	0	0	0	0	
2020	10 NCAT	2008	0	0	0	0	0	
2020	10 CAT	2008	51	5.61	206	35637	463279	
2020	10 DSL	2008	38	4.18	153	35637	463279	
2020	10 ELEC	2008	0	0	0	0	0	
2020	11 NCAT	2008	1496	7.19	2992	1668	33087	
2020	11 CAT	2008	3065	14.74	6130	1668	33087	
2020	11 DSL	2008	0	0	0	0	0	
2020	11 ELEC	2008	0	0	0	0	0	
2020	12 NCAT	2008	0	0	0	0	0	
2020	12 CAT	2008	17	0.62	66	12122	157588	
2020	12 DSL	2008	102	3.8	408	12122	157588	
2020	12 ELEC	2008	0	0	0	0	0	
2020	13 NCAT	2008	0	0	0	0	0	
2020	13 CAT	2008	1972	21.7	197	3596	53570	
2020	13 DSL	2008	196	2.16	20	3596	53570	
2020	13 ELEC	2008	0	0	0	0	0	

2020	1 NCAT	2009	0	0	0	0	0	388235
2020	1 CAT	2009	173119	4906	1083619	9827	151932	
2020	1 DSL	2009	0	0	0	0	0	
2020	1 ELEC	2009	1572	44.56	9841	9827	151932	
2020	2 NCAT	2009	0	0	0	0	0	
2020	2 CAT	2009	15956	517.99	99873	11262	160800	
2020	2 DSL	2009	0	0	0	0	0	
2020	2 ELEC	2009	145	4.7	907	11262	160800	
2020	3 NCAT	2009	0	0	0	0	0	
2020	3 CAT	2009	74387	2419.44	465615	11275	160987	
2020	3 DSL	2009	0	0	0	0	0	
2020	3 ELEC	2009	0	0	0	0	0	
2020	4 NCAT	2009	0	0	0	0	0	
2020	4 CAT	2009	29490	932.29	184587	10959	165502	
2020	4 DSL	2009	0	0	0	0	0	
2020	4 ELEC	2009	0	0	0	0	0	
2020	5 NCAT	2009	0	0	0	0	0	
2020	5 CAT	2009	3864	167.52	127766	14190	215456	
2020	5 DSL	2009	878	38.07	11048	14190	215456	
2020	5 ELEC	2009	0	0	0	0	0	
2020	6 NCAT	2009	0	0	0	0	0	
2020	6 CAT	2009	735	30.88	24306	13755	212385	
2020	6 DSL	2009	515	21.62	6474	13755	212385	
2020	6 ELEC	2009	0	0	0	0	0	
2020	7 NCAT	2009	0	0	0	0	0	
2020	7 CAT	2009	503	24.59	22952	15985	253419	
2020	7 DSL	2009	1831	113.19	51329	20202	310283	
2020	7 ELEC	2009	0	0	0	0	0	
2020	8 NCAT	2009	0	0	0	0	0	
2020	8 CAT	2009	16	1.74	734	35387	691338	
2020	8 DSL	2009	1216	229.84	6154	61857	1108609	
2020	8 ELEC	2009	0	0	0	0	0	
2020	9 NCAT	2009	0	0	0	0	0	
2020	9 CAT	2009	82	3.11	3744	12426	197000	
2020	9 DSL	2009	299	14.32	8373	15704	241205	
2020	9 ELEC	2009	0	0	0	0	0	
2020	10 NCAT	2009	0	0	0	0	0	
2020	10 CAT	2009	61	6.69	245	35637	427642	
2020	10 DSL	2009	42	4.62	169	35637	427642	
2020	10 ELEC	2009	0	0	0	0	0	
2020	11 NCAT	2009	1721	8.83	3442	1781	31418	
2020	11 CAT	2009	3526	18.09	7052	1781	31418	
2020	11 DSL	2009	0	0	0	0	0	
2020	11 ELEC	2009	0	0	0	0	0	
2020	12 NCAT	2009	0	0	0	0	0	
2020	12 CAT	2009	16	0.59	63	12122	145466	
2020	12 DSL	2009	96	3.59	384	12122	145466	
2020	12 ELEC	2009	0	0	0	0	0	
2020	13 NCAT	2009	0	0	0	0	0	
2020	13 CAT	2009	2007	22.4	201	3646	49974	
2020	13 DSL	2009	194	2.16	19	3646	49974	
2020	13 ELEC	2009	0	0	0	0	0	

2020	1 NCAT	2010	0	0	0	0	0	404653
2020	1 CAT	2010	165326	4826.18	1043106	10128	142106	
2020	1 DSL	2010	0	0	0	0	0	
2020	1 ELEC	2010	1670	48.75	10536	10128	142106	
2020	2 NCAT	2010	0	0	0	0	0	
2020	2 CAT	2010	17225	570.31	108681	11487	149538	
2020	2 DSL	2010	0	0	0	0	0	
2020	2 ELEC	2010	174	5.76	1098	11487	149538	
2020	3 NCAT	2010	0	0	0	0	0	
2020	3 CAT	2010	71526	2372.19	451283	11501	149712	
2020	3 DSL	2010	0	0	0	0	0	
2020	3 ELEC	2010	0	0	0	0	0	
2020	4 NCAT	2010	0	0	0	0	0	
2020	4 CAT	2010	28240	916.75	178176	11260	154543	
2020	4 DSL	2010	0	0	0	0	0	
2020	4 ELEC	2010	0	0	0	0	0	
2020	5 NCAT	2010	0	0	0	0	0	
2020	5 CAT	2010	3621	161.36	119733	14590	201266	
2020	5 DSL	2010	815	36.32	10254	14590	201266	
2020	5 ELEC	2010	0	0	0	0	0	
2020	6 NCAT	2010	0	0	0	0	0	
2020	6 CAT	2010	759	32.89	25105	14174	198630	
2020	6 DSL	2010	542	23.46	6813	14174	198630	
2020	6 ELEC	2010	0	0	0	0	0	
2020	7 NCAT	2010	0	0	0	0	0	
2020	7 CAT	2010	530	27.35	24191	16871	237434	
2020	7 DSL	2010	1937	127.05	54326	21424	290081	
2020	7 ELEC	2010	0	0	0	0	0	
2020	8 NCAT	2010	0	0	0	0	0	
2020	8 CAT	2010	18	2.06	801	38438	655952	
2020	8 DSL	2010	1346	279.12	6809	67908	1046753	
2020	8 ELEC	2010	0	0	0	0	0	
2020	9 NCAT	2010	0	0	0	0	0	
2020	9 CAT	2010	84	3.35	3815	13115	184574	
2020	9 DSL	2010	306	15.54	8567	16654	225500	
2020	9 ELEC	2010	0	0	0	0	0	
2020	10 NCAT	2010	0	0	0	0	0	
2020	10 CAT	2010	56	6.16	226	35637	392005	
2020	10 DSL	2010	38	4.19	153	35637	392005	
2020	10 ELEC	2010	0	0	0	0	0	
2020	11 NCAT	2010	1985	10.88	3969	1902	29637	
2020	11 CAT	2010	4066	22.29	8132	1902	29637	
2020	11 DSL	2010	0	0	0	0	0	
2020	11 ELEC	2010	0	0	0	0	0	
2020	12 NCAT	2010	0	0	0	0	0	
2020	12 CAT	2010	18	0.66	71	12122	133344	
2020	12 DSL	2010	108	4.03	431	12122	133344	
2020	12 ELEC	2010	0	0	0	0	0	
2020	13 NCAT	2010	0	0	0	0	0	
2020	13 CAT	2010	2108	23.88	211	3701	46328	
2020	13 DSL	2010	200	2.26	20	3701	46328	
2020	13 ELEC	2010	0	0	0	0	0	

2020	1 NCAT	2011	0	0	0	0	0	422116
2020	1 CAT	2011	174274	5251.59	1106526	10457	131978	
2020	1 DSL	2011	0	0	0	0	0	
2020	1 ELEC	2011	1760	53.05	11177	10457	131978	
2020	2 NCAT	2011	0	0	0	0	0	
2020	2 CAT	2011	19405	656.41	123207	11737	138050	
2020	2 DSL	2011	0	0	0	0	0	
2020	2 ELEC	2011	196	6.63	1245	11737	138050	
2020	3 NCAT	2011	0	0	0	0	0	
2020	3 CAT	2011	67517	2286.72	428689	11751	138211	
2020	3 DSL	2011	0	0	0	0	0	
2020	3 ELEC	2011	0	0	0	0	0	
2020	4 NCAT	2011	0	0	0	0	0	
2020	4 CAT	2011	26408	881.77	167672	11589	143283	
2020	4 DSL	2011	0	0	0	0	0	
2020	4 ELEC	2011	0	0	0	0	0	
2020	5 NCAT	2011	0	0	0	0	0	
2020	5 CAT	2011	3598	165.22	118987	15028	186675	
2020	5 DSL	2011	805	36.96	10127	15028	186675	
2020	5 ELEC	2011	0	0	0	0	0	
2020	6 NCAT	2011	0	0	0	0	0	
2020	6 CAT	2011	762	34.1	25201	14632	184456	
2020	6 DSL	2011	545	24.36	6850	14632	184456	
2020	6 ELEC	2011	0	0	0	0	0	
2020	7 NCAT	2011	0	0	0	0	0	
2020	7 CAT	2011	556	30.22	25370	17771	220563	
2020	7 DSL	2011	2043	141.58	57284	22642	268657	
2020	7 ELEC	2011	0	0	0	0	0	
2020	8 NCAT	2011	0	0	0	0	0	
2020	8 CAT	2011	19	2.38	850	41749	617514	
2020	8 DSL	2011	1439	327.29	7280	74386	978845	
2020	8 ELEC	2011	0	0	0	0	0	
2020	9 NCAT	2011	0	0	0	0	0	
2020	9 CAT	2011	83	3.49	3778	13815	171459	
2020	9 DSL	2011	304	16.35	8530	17601	208846	
2020	9 ELEC	2011	0	0	0	0	0	
2020	10 NCAT	2011	0	0	0	0	0	
2020	10 CAT	2011	55	6.05	222	35637	356368	
2020	10 DSL	2011	35	3.78	138	35637	356368	
2020	10 ELEC	2011	0	0	0	0	0	
2020	11 NCAT	2011	2464	14.42	4928	2031	27735	
2020	11 CAT	2011	5048	29.55	10096	2031	27735	
2020	11 DSL	2011	0	0	0	0	0	
2020	11 ELEC	2011	0	0	0	0	0	
2020	12 NCAT	2011	0	0	0	0	0	
2020	12 CAT	2011	19	0.7	75	12122	121222	
2020	12 DSL	2011	115	4.27	458	12122	121222	
2020	12 ELEC	2011	0	0	0	0	0	
2020	13 NCAT	2011	0	0	0	0	0	
2020	13 CAT	2011	2224	25.6	222	3762	42627	
2020	13 DSL	2011	210	2.42	21	3762	42627	
2020	13 ELEC	2011	0	0	0	0	0	

2020	1 NCAT	2012	0	0	0	0	0	440541
2020	1 CAT	2012	183168	5710.9	1170330	10822	121521	
2020	1 DSL	2012	0	0	0	0	0	
2020	1 ELEC	2012	2601	81.09	16617	10822	121521	
2020	2 NCAT	2012	0	0	0	0	0	
2020	2 CAT	2012	20587	712.49	131538	12012	126313	
2020	2 DSL	2012	0	0	0	0	0	
2020	2 ELEC	2012	292	10.12	1868	12012	126313	
2020	3 NCAT	2012	0	0	0	0	0	
2020	3 CAT	2012	62811	2175.9	401322	12026	126460	
2020	3 DSL	2012	0	0	0	0	0	
2020	3 ELEC	2012	0	0	0	0	0	
2020	4 NCAT	2012	0	0	0	0	0	
2020	4 CAT	2012	27007	929.87	172557	11953	131694	
2020	4 DSL	2012	0	0	0	0	0	
2020	4 ELEC	2012	0	0	0	0	0	
2020	5 NCAT	2012	0	0	0	0	0	
2020	5 CAT	2012	3736	177.19	123525	15513	171647	
2020	5 DSL	2012	828	39.26	10412	15513	171647	
2020	5 ELEC	2012	0	0	0	0	0	
2020	6 NCAT	2012	0	0	0	0	0	
2020	6 CAT	2012	801	37.13	26494	15140	169824	
2020	6 DSL	2012	573	26.55	7208	15140	169824	
2020	6 ELEC	2012	0	0	0	0	0	
2020	7 NCAT	2012	0	0	0	0	0	
2020	7 CAT	2012	588	33.64	26857	18689	202791	
2020	7 DSL	2012	2181	159.14	61165	23835	246016	
2020	7 ELEC	2012	0	0	0	0	0	
2020	8 NCAT	2012	0	0	0	0	0	
2020	8 CAT	2012	21	2.93	965	45338	575764	
2020	8 DSL	2012	1555	386.37	7871	81158	904459	
2020	8 ELEC	2012	0	0	0	0	0	
2020	9 NCAT	2012	0	0	0	0	0	
2020	9 CAT	2012	81	3.59	3690	14529	157644	
2020	9 DSL	2012	300	16.97	8404	18529	191245	
2020	9 ELEC	2012	0	0	0	0	0	
2020	10 NCAT	2012	0	0	0	0	0	
2020	10 CAT	2012	63	6.84	251	35637	320731	
2020	10 DSL	2012	38	4.13	151	35637	320731	
2020	10 ELEC	2012	0	0	0	0	0	
2020	11 NCAT	2012	2807	17.54	5614	2168	25704	
2020	11 CAT	2012	5752	35.93	11502	2168	25704	
2020	11 DSL	2012	0	0	0	0	0	
2020	11 ELEC	2012	0	0	0	0	0	
2020	12 NCAT	2012	0	0	0	0	0	
2020	12 CAT	2012	20	0.75	81	12122	109100	
2020	12 DSL	2012	124	4.63	496	12122	109100	
2020	12 ELEC	2012	0	0	0	0	0	
2020	13 NCAT	2012	0	0	0	0	0	
2020	13 CAT	2012	2260	26.48	226	3828	38865	
2020	13 DSL	2012	209	2.45	21	3828	38865	
2020	13 ELEC	2012	0	0	0	0	0	

2020	1 NCAT	2013	0	0	0	0	0	459782
2020	1 CAT	2013	191925	6209.21	1232038	11230	110699	
2020	1 DSL	2013	0	0	0	0	0	
2020	1 ELEC	2013	2725	88.16	17493	11230	110699	
2020	2 NCAT	2013	0	0	0	0	0	
2020	2 CAT	2013	21822	774.45	140085	12319	114301	
2020	2 DSL	2013	0	0	0	0	0	
2020	2 ELEC	2013	310	11	1989	12319	114301	
2020	3 NCAT	2013	0	0	0	0	0	
2020	3 CAT	2013	66461	2361.23	426634	12334	114434	
2020	3 DSL	2013	0	0	0	0	0	
2020	3 ELEC	2013	0	0	0	0	0	
2020	4 NCAT	2013	0	0	0	0	0	
2020	4 CAT	2013	28880	1028.2	185389	12360	119741	
2020	4 DSL	2013	0	0	0	0	0	
2020	4 ELEC	2013	0	0	0	0	0	
2020	5 NCAT	2013	0	0	0	0	0	
2020	5 CAT	2013	3888	190.99	128559	16053	156134	
2020	5 DSL	2013	859	42.22	10811	16053	156134	
2020	5 ELEC	2013	0	0	0	0	0	
2020	6 NCAT	2013	0	0	0	0	0	
2020	6 CAT	2013	827	39.78	27349	15706	154684	
2020	6 DSL	2013	593	28.5	7456	15706	154684	
2020	6 ELEC	2013	0	0	0	0	0	
2020	7 NCAT	2013	0	0	0	0	0	
2020	7 CAT	2013	617	37.07	28189	19622	184102	
2020	7 DSL	2013	2279	174.25	63904	24979	222180	
2020	7 ELEC	2013	0	0	0	0	0	
2020	8 NCAT	2013	0	0	0	0	0	
2020	8 CAT	2013	24	3.6	1091	49223	530426	
2020	8 DSL	2013	1689	455.27	8546	88024	823301	
2020	8 ELEC	2013	0	0	0	0	0	
2020	9 NCAT	2013	0	0	0	0	0	
2020	9 CAT	2013	79	3.66	3587	15254	143116	
2020	9 DSL	2013	290	17.21	8133	19418	172716	
2020	9 ELEC	2013	0	0	0	0	0	
2020	10 NCAT	2013	0	0	0	0	0	
2020	10 CAT	2013	66	7.23	265	35637	285094	
2020	10 DSL	2013	40	4.38	160	35637	285094	
2020	10 ELEC	2013	0	0	0	0	0	
2020	11 NCAT	2013	3175	21.17	6349	2314	23536	
2020	11 CAT	2013	6504	43.38	13007	2314	23536	
2020	11 DSL	2013	0	0	0	0	0	
2020	11 ELEC	2013	0	0	0	0	0	
2020	12 NCAT	2013	0	0	0	0	0	
2020	12 CAT	2013	22	0.83	89	12122	96978	
2020	12 DSL	2013	136	5.06	542	12122	96978	
2020	12 ELEC	2013	0	0	0	0	0	
2020	13 NCAT	2013	0	0	0	0	0	
2020	13 CAT	2013	2418	28.88	242	3903	35037	
2020	13 DSL	2013	223	2.66	22	3903	35037	
2020	13 ELEC	2013	0	0	0	0	0	

2020	1 NCAT	2014	0	0	0	0	0	479675
2020	1 CAT	2014	191145	6436.21	1230852	11691	99469	
2020	1 DSL	2014	0	0	0	0	0	
2020	1 ELEC	2014	2714	91.39	17477	11691	99469	
2020	2 NCAT	2014	0	0	0	0	0	
2020	2 CAT	2014	21720	792.1	139862	12668	101982	
2020	2 DSL	2014	0	0	0	0	0	
2020	2 ELEC	2014	308	11.25	1986	12668	101982	
2020	3 NCAT	2014	0	0	0	0	0	
2020	3 CAT	2014	63836	2330.48	411062	12682	102101	
2020	3 DSL	2014	0	0	0	0	0	
2020	3 ELEC	2014	0	0	0	0	0	
2020	4 NCAT	2014	0	0	0	0	0	
2020	4 CAT	2014	28272	1043.47	182056	12823	107381	
2020	4 DSL	2014	0	0	0	0	0	
2020	4 ELEC	2014	0	0	0	0	0	
2020	5 NCAT	2014	0	0	0	0	0	
2020	5 CAT	2014	4339	221.29	143472	16666	140081	
2020	5 DSL	2014	970	49.48	12204	16666	140081	
2020	5 ELEC	2014	0	0	0	0	0	
2020	6 NCAT	2014	0	0	0	0	0	
2020	6 CAT	2014	928	46.48	30696	16350	138978	
2020	6 DSL	2014	661	33.1	8316	16350	138978	
2020	6 ELEC	2014	0	0	0	0	0	
2020	7 NCAT	2014	0	0	0	0	0	
2020	7 CAT	2014	693	43.65	31663	20569	164480	
2020	7 DSL	2014	2554	203.64	71609	26052	197201	
2020	7 ELEC	2014	0	0	0	0	0	
2020	8 NCAT	2014	0	0	0	0	0	
2020	8 CAT	2014	26	4.24	1183	53412	481204	
2020	8 DSL	2014	1832	531.53	9273	94713	735277	
2020	8 ELEC	2014	0	0	0	0	0	
2020	9 NCAT	2014	0	0	0	0	0	
2020	9 CAT	2014	75	3.67	3427	15990	127862	
2020	9 DSL	2014	276	17.11	7750	20252	153298	
2020	9 ELEC	2014	0	0	0	0	0	
2020	10 NCAT	2014	0	0	0	0	0	
2020	10 CAT	2014	75	8.2	301	35637	249458	
2020	10 DSL	2014	44	4.79	176	35637	249458	
2020	10 ELEC	2014	0	0	0	0	0	
2020	11 NCAT	2014	3436	24.47	6872	2470	21222	
2020	11 CAT	2014	7040	50.13	14079	2470	21222	
2020	11 DSL	2014	0	0	0	0	0	
2020	11 ELEC	2014	0	0	0	0	0	
2020	12 NCAT	2014	0	0	0	0	0	
2020	12 CAT	2014	22	0.83	89	12122	84855	
2020	12 DSL	2014	136	5.07	542	12122	84855	
2020	12 ELEC	2014	0	0	0	0	0	
2020	13 NCAT	2014	0	0	0	0	0	
2020	13 CAT	2014	2483	30.3	248	3987	31134	
2020	13 DSL	2014	227	2.77	23	3987	31134	
2020	13 ELEC	2014	0	0	0	0	0	

2020	1 NCAT	2015	0	0	0	0	0	500029
2020	1 CAT	2015	197791	6963.72	1279579	12224	87778	
2020	1 DSL	2015	0	0	0	0	0	
2020	1 ELEC	2015	3831	134.87	24783	12224	87778	
2020	2 NCAT	2015	0	0	0	0	0	
2020	2 CAT	2015	22612	850.83	146283	13071	89314	
2020	2 DSL	2015	0	0	0	0	0	
2020	2 ELEC	2015	438	16.48	2833	13071	89314	
2020	3 NCAT	2015	0	0	0	0	0	
2020	3 CAT	2015	67409	2538.89	436091	13086	89418	
2020	3 DSL	2015	0	0	0	0	0	
2020	3 ELEC	2015	0	0	0	0	0	
2020	4 NCAT	2015	0	0	0	0	0	
2020	4 CAT	2015	30027	1154.01	194253	13356	94558	
2020	4 DSL	2015	0	0	0	0	0	
2020	4 ELEC	2015	0	0	0	0	0	
2020	5 NCAT	2015	0	0	0	0	0	
2020	5 CAT	2015	4507	239.5	149017	17375	123414	
2020	5 DSL	2015	1028	54.63	12931	17375	123414	
2020	5 ELEC	2015	0	0	0	0	0	
2020	6 NCAT	2015	0	0	0	0	0	
2020	6 CAT	2015	1026	53.69	33918	17092	122628	
2020	6 DSL	2015	741	38.78	9321	17092	122628	
2020	6 ELEC	2015	0	0	0	0	0	
2020	7 NCAT	2015	0	0	0	0	0	
2020	7 CAT	2015	743	48.94	33916	21529	143911	
2020	7 DSL	2015	2769	229.04	77633	27027	171149	
2020	7 ELEC	2015	0	0	0	0	0	
2020	8 NCAT	2015	0	0	0	0	0	
2020	8 CAT	2015	31	5.41	1393	57932	427791	
2020	8 DSL	2015	2004	618.96	10139	100867	640564	
2020	8 ELEC	2015	0	0	0	0	0	
2020	9 NCAT	2015	0	0	0	0	0	
2020	9 CAT	2015	69	3.55	3172	16736	111873	
2020	9 DSL	2015	259	16.64	7261	21010	133046	
2020	9 ELEC	2015	0	0	0	0	0	
2020	10 NCAT	2015	0	0	0	0	0	
2020	10 CAT	2015	82	8.98	330	35637	213821	
2020	10 DSL	2015	48	5.24	192	35637	213821	
2020	10 ELEC	2015	0	0	0	0	0	
2020	11 NCAT	2015	3779	28.74	7558	2637	18752	
2020	11 CAT	2015	7743	58.88	15485	2637	18752	
2020	11 DSL	2015	0	0	0	0	0	
2020	11 ELEC	2015	0	0	0	0	0	
2020	12 NCAT	2015	0	0	0	0	0	
2020	12 CAT	2015	23	0.87	92	12122	72733	
2020	12 DSL	2015	142	5.32	568	12122	72733	
2020	12 ELEC	2015	0	0	0	0	0	
2020	13 NCAT	2015	0	0	0	0	0	
2020	13 CAT	2015	2505	31.33	251	4085	27147	
2020	13 DSL	2015	224	2.8	22	4085	27147	
2020	13 ELEC	2015	0	0	0	0	0	

2020	1 NCAT	2016	0	0	0	0	0	520619
2020	1 CAT	2016	193521	7166.56	1255824	12855	75553	
2020	1 DSL	2016	0	0	0	0	0	
2020	1 ELEC	2016	3748	138.8	24323	12855	75553	
2020	2 NCAT	2016	0	0	0	0	0	
2020	2 CAT	2016	22020	859.02	142894	13546	76244	
2020	2 DSL	2016	0	0	0	0	0	
2020	2 ELEC	2016	426	16.64	2768	13546	76244	
2020	3 NCAT	2016	0	0	0	0	0	
2020	3 CAT	2016	65468	2556.33	424846	13562	76332	
2020	3 DSL	2016	0	0	0	0	0	
2020	3 ELEC	2016	0	0	0	0	0	
2020	4 NCAT	2016	0	0	0	0	0	
2020	4 CAT	2016	29267	1178.39	189927	13986	81202	
2020	4 DSL	2016	0	0	0	0	0	
2020	4 ELEC	2016	0	0	0	0	0	
2020	5 NCAT	2016	0	0	0	0	0	
2020	5 CAT	2016	4087	227.68	135141	18213	106040	
2020	5 DSL	2016	930	51.79	11695	18213	106040	
2020	5 ELEC	2016	0	0	0	0	0	
2020	6 NCAT	2016	0	0	0	0	0	
2020	6 CAT	2016	932	51.22	30802	17970	105537	
2020	6 DSL	2016	690	37.95	8682	17970	105537	
2020	6 ELEC	2016	0	0	0	0	0	
2020	7 NCAT	2016	0	0	0	0	0	
2020	7 CAT	2016	674	46.41	30779	22499	122382	
2020	7 DSL	2016	2532	216.02	70999	27873	144122	
2020	7 ELEC	2016	0	0	0	0	0	
2020	8 NCAT	2016	0	0	0	0	0	
2020	8 CAT	2016	29	5.51	1308	62789	369860	
2020	8 DSL	2016	1806	586.58	9140	106034	539697	
2020	8 ELEC	2016	0	0	0	0	0	
2020	9 NCAT	2016	0	0	0	0	0	
2020	9 CAT	2016	63	3.39	2895	17490	95137	
2020	9 DSL	2016	238	15.79	6677	21668	112036	
2020	9 ELEC	2016	0	0	0	0	0	
2020	10 NCAT	2016	0	0	0	0	0	
2020	10 CAT	2016	89	9.69	355	35637	178184	
2020	10 DSL	2016	52	5.65	207	35637	178184	
2020	10 ELEC	2016	0	0	0	0	0	
2020	11 NCAT	2016	3942	31.99	7882	2816	16114	
2020	11 CAT	2016	8075	65.55	16149	2816	16114	
2020	11 DSL	2016	0	0	0	0	0	
2020	11 ELEC	2016	0	0	0	0	0	
2020	12 NCAT	2016	0	0	0	0	0	
2020	12 CAT	2016	22	0.82	87	12122	60611	
2020	12 DSL	2016	134	5.01	536	12122	60611	
2020	12 ELEC	2016	0	0	0	0	0	
2020	13 NCAT	2016	0	0	0	0	0	
2020	13 CAT	2016	2587	33.25	259	4200	23062	
2020	13 DSL	2016	228	2.93	23	4200	23062	
2020	13 ELEC	2016	0	0	0	0	0	

2020	1 NCAT	2017	0	0	0	0	0	541334
2020	1 CAT	2017	201047	7892.72	1306676	13628	62698	
2020	1 DSL	2017	0	0	0	0	0	
2020	1 ELEC	2017	3894	152.87	25308	13628	62698	
2020	2 NCAT	2017	0	0	0	0	0	
2020	2 CAT	2017	23110	940.32	150200	14128	62697	
2020	2 DSL	2017	0	0	0	0	0	
2020	2 ELEC	2017	448	18.21	2909	14128	62697	
2020	3 NCAT	2017	0	0	0	0	0	
2020	3 CAT	2017	68794	2802.02	447117	14145	62770	
2020	3 DSL	2017	0	0	0	0	0	
2020	3 ELEC	2017	0	0	0	0	0	
2020	4 NCAT	2017	0	0	0	0	0	
2020	4 CAT	2017	30719	1305.31	199654	14758	67217	
2020	4 DSL	2017	0	0	0	0	0	
2020	4 ELEC	2017	0	0	0	0	0	
2020	5 NCAT	2017	0	0	0	0	0	
2020	5 CAT	2017	3968	233.5	131215	19238	87827	
2020	5 DSL	2017	902	53.09	11350	19238	87827	
2020	5 ELEC	2017	0	0	0	0	0	
2020	6 NCAT	2017	0	0	0	0	0	
2020	6 CAT	2017	933	54.39	30865	19043	87567	
2020	6 DSL	2017	676	39.39	8504	19043	87567	
2020	6 ELEC	2017	0	0	0	0	0	
2020	7 NCAT	2017	0	0	0	0	0	
2020	7 CAT	2017	652	46.86	29781	23478	99884	
2020	7 DSL	2017	2473	216.21	69350	28562	116249	
2020	7 ELEC	2017	0	0	0	0	0	
2020	8 NCAT	2017	0	0	0	0	0	
2020	8 CAT	2017	29	6.03	1323	68001	307071	
2020	8 DSL	2017	1733	582.21	8770	109649	433663	
2020	8 ELEC	2017	0	0	0	0	0	
2020	9 NCAT	2017	0	0	0	0	0	
2020	9 CAT	2017	58	3.24	2645	18252	77647	
2020	9 DSL	2017	220	14.93	6160	22203	90369	
2020	9 ELEC	2017	0	0	0	0	0	
2020	10 NCAT	2017	0	0	0	0	0	
2020	10 CAT	2017	81	8.8	322	35637	142547	
2020	10 DSL	2017	47	5.17	189	35637	142547	
2020	10 ELEC	2017	0	0	0	0	0	
2020	11 NCAT	2017	4257	36.88	8513	3006	13298	
2020	11 CAT	2017	8721	75.56	17441	3006	13298	
2020	11 DSL	2017	0	0	0	0	0	
2020	11 ELEC	2017	0	0	0	0	0	
2020	12 NCAT	2017	0	0	0	0	0	
2020	12 CAT	2017	23	0.84	90	12122	48489	
2020	12 DSL	2017	138	5.19	554	12122	48489	
2020	12 ELEC	2017	0	0	0	0	0	
2020	13 NCAT	2017	0	0	0	0	0	
2020	13 CAT	2017	2671	35.5	267	4341	18862	
2020	13 DSL	2017	230	3.06	23	4341	18862	
2020	13 ELEC	2017	0	0	0	0	0	

2020	1 NCAT	2018	0	0	0	0	0	562355
2020	1 CAT	2018	207856	8755.69	1355088	14622	49070	
2020	1 DSL	2018	0	0	0	0	0	
2020	1 ELEC	2018	5111	215.3	33322	14622	49070	
2020	2 NCAT	2018	0	0	0	0	0	
2020	2 CAT	2018	23636	1012.96	154091	14881	48569	
2020	2 DSL	2018	0	0	0	0	0	
2020	2 ELEC	2018	581	24.91	3789	14881	48569	
2020	3 NCAT	2018	0	0	0	0	0	
2020	3 CAT	2018	72176	3096.36	470541	14898	48625	
2020	3 DSL	2018	0	0	0	0	0	
2020	3 ELEC	2018	0	0	0	0	0	
2020	4 NCAT	2018	0	0	0	0	0	
2020	4 CAT	2018	32183	1459.63	209813	15752	52459	
2020	4 DSL	2018	0	0	0	0	0	
2020	4 ELEC	2018	0	0	0	0	0	
2020	5 NCAT	2018	0	0	0	0	0	
2020	5 CAT	2018	4106	258.16	135761	20560	68589	
2020	5 DSL	2018	958	60.26	12055	20560	68589	
2020	5 ELEC	2018	0	0	0	0	0	
2020	6 NCAT	2018	0	0	0	0	0	
2020	6 CAT	2018	985	61.58	32584	20427	68524	
2020	6 DSL	2018	720	45	9058	20427	68524	
2020	6 ELEC	2018	0	0	0	0	0	
2020	7 NCAT	2018	0	0	0	0	0	
2020	7 CAT	2018	668	50.01	30494	24468	76405	
2020	7 DSL	2018	2570	228.52	72055	29055	87688	
2020	7 ELEC	2018	0	0	0	0	0	
2020	8 NCAT	2018	0	0	0	0	0	
2020	8 CAT	2018	29	6.49	1316	73585	239070	
2020	8 DSL	2018	1706	580.48	8636	111028	324014	
2020	8 ELEC	2018	0	0	0	0	0	
2020	9 NCAT	2018	0	0	0	0	0	
2020	9 CAT	2018	59	3.43	2689	19021	59396	
2020	9 DSL	2018	227	15.67	6353	22586	68166	
2020	9 ELEC	2018	0	0	0	0	0	
2020	10 NCAT	2018	0	0	0	0	0	
2020	10 CAT	2018	86	9.41	345	35637	106910	
2020	10 DSL	2018	51	5.53	203	35637	106910	
2020	10 ELEC	2018	0	0	0	0	0	
2020	11 NCAT	2018	4563	42.21	9125	3209	10293	
2020	11 CAT	2018	9348	86.49	18695	3209	10293	
2020	11 DSL	2018	0	0	0	0	0	
2020	11 ELEC	2018	0	0	0	0	0	
2020	12 NCAT	2018	0	0	0	0	0	
2020	12 CAT	2018	23	0.87	92	12122	36367	
2020	12 DSL	2018	142	5.32	568	12122	36367	
2020	12 ELEC	2018	0	0	0	0	0	
2020	13 NCAT	2018	0	0	0	0	0	
2020	13 CAT	2018	2782	38.51	278	4523	14521	
2020	13 DSL	2018	233	3.22	23	4523	14521	
2020	13 ELEC	2018	0	0	0	0	0	

2020	1 NCAT	2019	0	0	0	0	0	584858
2020	1 CAT	2019	218637	10093.16	1429746	16025	34448	
2020	1 DSL	2019	0	0	0	0	0	
2020	1 ELEC	2019	5376	248.19	35158	16025	34448	
2020	2 NCAT	2019	0	0	0	0	0	
2020	2 CAT	2019	23997	1101.55	156924	15940	33688	
2020	2 DSL	2019	0	0	0	0	0	
2020	2 ELEC	2019	590	27.09	3859	15940	33688	
2020	3 NCAT	2019	0	0	0	0	0	
2020	3 CAT	2019	75598	3473.96	494359	15958	33727	
2020	3 DSL	2019	0	0	0	0	0	
2020	3 ELEC	2019	0	0	0	0	0	
2020	4 NCAT	2019	0	0	0	0	0	
2020	4 CAT	2019	34018	1680.22	222453	17155	36707	
2020	4 DSL	2019	0	0	0	0	0	
2020	4 ELEC	2019	0	0	0	0	0	
2020	5 NCAT	2019	0	0	0	0	0	
2020	5 CAT	2019	4286	293.87	141714	22422	48029	
2020	5 DSL	2019	999	68.49	12565	22422	48029	
2020	5 ELEC	2019	0	0	0	0	0	
2020	6 NCAT	2019	0	0	0	0	0	
2020	6 CAT	2019	1037	70.99	34289	22380	48097	
2020	6 DSL	2019	752	51.44	9453	22380	48097	
2020	6 ELEC	2019	0	0	0	0	0	
2020	7 NCAT	2019	0	0	0	0	0	
2020	7 CAT	2019	682	53.12	31125	25466	51937	
2020	7 DSL	2019	2621	235.2	73488	29321	58633	
2020	7 ELEC	2019	0	0	0	0	0	
2020	8 NCAT	2019	0	0	0	0	0	
2020	8 CAT	2019	29	7.02	1317	79556	165485	
2020	8 DSL	2019	1735	581.34	8781	109348	212986	
2020	8 ELEC	2019	0	0	0	0	0	
2020	9 NCAT	2019	0	0	0	0	0	
2020	9 CAT	2019	62	3.74	2817	19797	40375	
2020	9 DSL	2019	237	16.56	6652	22793	45580	
2020	9 ELEC	2019	0	0	0	0	0	
2020	10 NCAT	2019	0	0	0	0	0	
2020	10 CAT	2019	94	10.26	376	35637	71274	
2020	10 DSL	2019	55	6.03	221	35637	71274	
2020	10 ELEC	2019	0	0	0	0	0	
2020	11 NCAT	2019	4980	49.19	9960	3426	7084	
2020	11 CAT	2019	10204	100.78	20406	3426	7084	
2020	11 DSL	2019	0	0	0	0	0	
2020	11 ELEC	2019	0	0	0	0	0	
2020	12 NCAT	2019	0	0	0	0	0	
2020	12 CAT	2019	25	0.94	101	12122	24244	
2020	12 DSL	2019	156	5.83	623	12122	24244	
2020	12 ELEC	2019	0	0	0	0	0	
2020	13 NCAT	2019	0	0	0	0	0	
2020	13 CAT	2019	2892	42.31	289	4780	9998	
2020	13 DSL	2019	234	3.42	23	4780	9998	
2020	13 ELEC	2019	0	0	0	0	0	

2020	1 NCAT	2020	0	0	0	0	0	614299
2020	1 CAT	2020	222819	11826.07	1461546	18423	18423	
2020	1 DSL	2020	0	0	0	0	0	
2020	1 ELEC	2020	5479	290.81	35940	18423	18423	
2020	2 NCAT	2020	0	0	0	0	0	
2020	2 CAT	2020	24119	1232.76	158205	17749	17749	
2020	2 DSL	2020	0	0	0	0	0	
2020	2 ELEC	2020	593	30.31	3890	17749	17749	
2020	3 NCAT	2020	0	0	0	0	0	
2020	3 CAT	2020	77611	3971.24	509078	17769	17769	
2020	3 DSL	2020	0	0	0	0	0	
2020	3 ELEC	2020	0	0	0	0	0	
2020	4 NCAT	2020	0	0	0	0	0	
2020	4 CAT	2020	35037	1972.26	229821	19552	19552	
2020	4 DSL	2020	0	0	0	0	0	
2020	4 ELEC	2020	0	0	0	0	0	
2020	5 NCAT	2020	0	0	0	0	0	
2020	5 CAT	2020	4338	339.64	143444	25607	25607	
2020	5 DSL	2020	1011	79.15	12718	25607	25607	
2020	5 ELEC	2020	0	0	0	0	0	
2020	6 NCAT	2020	0	0	0	0	0	
2020	6 CAT	2020	1028	80.84	33981	25717	25717	
2020	6 DSL	2020	745	58.58	9368	25717	25717	
2020	6 ELEC	2020	0	0	0	0	0	
2020	7 NCAT	2020	0	0	0	0	0	
2020	7 CAT	2020	693	56.16	31655	26471	26471	
2020	7 DSL	2020	2665	239.13	74738	29313	29313	
2020	7 ELEC	2020	0	0	0	0	0	
2020	8 NCAT	2020	0	0	0	0	0	
2020	8 CAT	2020	29	7.52	1306	85929	85929	
2020	8 DSL	2020	1721	546.32	8708	103638	103638	
2020	8 ELEC	2020	0	0	0	0	0	
2020	9 NCAT	2020	0	0	0	0	0	
2020	9 CAT	2020	65	4.09	2966	20578	20578	
2020	9 DSL	2020	250	17.43	7002	22787	22787	
2020	9 ELEC	2020	0	0	0	0	0	
2020	10 NCAT	2020	0	0	0	0	0	
2020	10 CAT	2020	103	11.28	413	35637	35637	
2020	10 DSL	2020	61	6.63	243	35637	35637	
2020	10 ELEC	2020	0	0	0	0	0	
2020	11 NCAT	2020	5052	53.27	10102	3658	3658	
2020	11 CAT	2020	10350	109.14	20697	3658	3658	
2020	11 DSL	2020	0	0	0	0	0	
2020	11 ELEC	2020	0	0	0	0	0	
2020	12 NCAT	2020	0	0	0	0	0	
2020	12 CAT	2020	23	0.88	94	12122	12122	
2020	12 DSL	2020	145	5.43	579	12122	12122	
2020	12 ELEC	2020	0	0	0	0	0	
2020	13 NCAT	2020	0	0	0	0	0	
2020	13 CAT	2020	2880	46	288	5218	5218	
2020	13 DSL	2020	233	3.72	23	5218	5218	
2020	13 ELEC	2020	0	0	0	0	0	

AVERAGE FUEL EFFICIENCY IN P-2020BASED ON EMFAC 2020 FLEET MIX

1976	228,683		
1977	229,885		
1978	237,668		
1979	239,014		
1980	234,817		
1981	219,891		
1982	221,129		
1983	215,414		
1984	216,624	**MPG**	**GALLONS**
1976-1984	2,043,125	16.0	127,695
1985	217,862		
1986	219,140		
1987	221,714		
1988	224,699		
1989	229,166		
1985-1989	1,112,581	17.5	63,576
1990	235,451	20.3	11,599
1991	241,744	21.2	11,403
1992	248,058	21.0	11,812
1993	254,416	20.6	12,350
1994	261,511	20.8	12,573
1995	268,094	21.1	12,706
1996	274,816	21.2	12,963
1997	281,740	21.5	13,104
1998	288,932	21.6	13,376
1999	296,467	21.4	13,854
2000	304,424	21.9	13,901
2001	312,897	22.1	14,158
2002	321,984	25.1	12,828
2003	350,418	25.1	13,961
2004	322,274	25.1	12,840
2005	333,414	25.1	13,283
2006	345,531	25.1	13,766
2007	358,683	25.1	14,290
2008	372,904	25.1	14,857
2009	388,235	24.4	15,911
2010	404,653	26.0	15,564
2011	422,116	28.9	14,606
2012	440,541	32.4	13,597
2013	459,782	32.7	14,061
2014	479,675	33.4	14,362
2015	500,029	34.5	14,494
2016	520,619	35.7	14,583
2017	541,334	37.7	14,359
2018	562,355	40.1	14,024
2019	584,858	41.6	14,059
2020	614,299	42.5	14,454
TOTAL MILES	14,747,960	**GALLONS**	614,968
		Average Fuel Efficiency P-2020	24.0

AVERAGE FUEL EFFICIENCY IN P-2020 BASED ON EMFAC 2020 FLEET MIX

BAU				
	1976	228,683		
	1977	229,885		
	1978	237,668		
	1979	239,014		
	1980	234,817		
	1981	219,891		
	1982	221,129		
	1983	215,414		
	1984	216,624	**MPG**	**GALLONS**
1976-1984		2,043,125	16.0	127,695
	1985	217,862		
	1986	219,140		
	1987	221,714		
	1988	224,699		
	1989	229,166		
1985-1989		1,112,581	17.5	63,576
	1990	235,451	20.3	11,599
	1991	241,744	21.2	11,403
	1992	248,058	21.0	11,812
	1993	254,416	20.6	12,350
	1994	261,511	20.8	12,573
	1995	268,094	21.1	12,706
	1996	274,816	21.2	12,963
	1997	281,740	21.5	13,104
	1998	288,932	21.6	13,376
	1999	296,467	21.4	13,854
	2000	304,424	21.9	13,901
	2001	312,897	22.1	14,158
	2002	321,984	25.1	12,828
	2003	350,418	25.1	13,961
	2004	322,274	25.1	12,840
	2005	333,414	25.1	13,283
	2006	345,531	25.1	13,766
	2007	358,683	25.1	14,290
	2008	372,904	25.1	14,857
	2009	388,235	24.4	15,911
	2010	404,653	24.4	16,584
	2011	422,116	24.4	17,300
	2012	440,541	24.4	18,055
	2013	459,782	24.4	18,844
	2014	479,675	24.4	19,659
	2015	500,029	24.4	20,493
	2016	520,619	24.4	21,337
	2017	541,334	24.4	22,186
	2018	562,355	24.4	23,047
	2019	584,858	24.4	23,970
	2020	614,299	24.4	25,176
TOTAL MILES		14,747,960	**GALLONS**	683,457
			Average Fuel Efficiency P-2020 BAU	21.6
		percent increase in fuel efficiency on-road because of Pavley		**11.14%**

Average Passenger Car US Fuel Efficiency (1980-2002) - Bureau of Transportation Statistics

	Fleet mpg
1980	16.0
1985	17.5
1990	20.3
1991	21.2
1992	21.0
1993	20.6
1994	20.8
1995	21.1
1996	21.2
1997	21.5
1998	21.6
1999	21.4
2000	21.9
2001	22.1

PAVLEY FUEL EFFICIENCY (Passenger + Trucks)

2002	25.1	0.0%	
2009	24.4	0.0%	
2010	26.0	4.6%	
2011	28.9	14.2%	
2012	32.4	23.5%	
2013	32.7	25.2%	
2014	33.4	26.6%	
2015	34.5	29.1%	
2016	35.7	31.5%	Pavley 1 and Federal CAFÉ
2017	37.7	35.2%	
2018	40.1	39.3%	
2019	41.6	41.5%	
2020	42.5	42.8%	Pavley 2 (Scoping Plan strategy)

Source: CARB, February 25, 2008. Comparison of GHG Reductions for the United States and Canada under US CAFÉ Standards and CARB GHG Regulations.

Greenhouse Gas Emissions

Transportation Sector
CO_{2e} Conversion from BAAQMD

BAAQMD Table B: Generalized GHG Emissions Factors (lbs/usage unit)

Fuel	CO2	CH4	N2O	Unit
GWP	1	21	310	
Liquid Fuels				
Distillate Fuel (Fuel Oil, Diesel)	22.4	0.00053	0.00019	Gallon
Jet Fuel	21.1	0.00052	0.00019	Gallon
Kerosene/Naphtha	21.5	0.00050	0.00018	Gallon
Liquified Petroleum Gases (LPG)	12.8	0.00025	0.00002	Gallon
Motor Gasoline	19.6	0.00055	0.00020	Gallon
Residual Fuel (Bunker C Fuel Oil)	26	0.00022	0.00021	Gallon
Aviation Gasoline	18.4	0.00052	0.00019	Gallon
Bio-diesel	20.7	0.00049	0.00018	Gallon
Propane	12.7	0.00000	0.00000	Gallon
Butane	14.7	0.00000	0.00000	Gallon
Gaseous Fuels				
Natural Gas	120.6	0.00020	0.00020	1000 ft3
Landfill Gas	110.5	0.21050	0.00024	1001 ft3
Digester Gas	104.7	0.02997	0.00030	1002 ft3
Carbon Monoxide	116.1	0.00270	0.00019	1003 ft3
Refinery Waste Gases	139	0.00320	0.00022	1004 ft3
Solids				
Refuse/Waste	2,000	0.29790	0.08980	Ton
Woor and Other	3,814	0.29790	0.08980	Ton
Agricultural Waste Burning	174	0.14000	0.35000	Ton
Petroleum Coke	6,769	0.44920	0.10630	Ton

Source: Bay Area Air Quality Management District. 2008, December. Source Inventory of Bay Area Greenhouse Gas Emissions.

BAAQMD Table B: Generalized GHG Emissions Factors (lbs/usage unit)

CO2	CH4	N2O	Total CO2e	CO2 Percent CO2e	CH4	N2O
22.4	0.0111	0.0589	22.470	99.7%	0.0%	0.3%
21.1	0.0109	0.0589	21.170	99.7%	0.1%	0.3%
21.5	0.0105	0.0558	21.566	99.7%	0.0%	0.3%
12.8	0.0053	0.0062	12.811	99.9%	0.0%	0.0%
19.6	0.0116	0.0620	19.674	99.6%	0.1%	0.3%
26	0.0046	0.0651	26.070	99.7%	0.0%	0.2%
18.4	0.0109	0.0589	18.470	99.6%	0.1%	0.3%
20.7	0.0103	0.0558	20.766	99.7%	0.0%	0.3%
12.7	0.0001	0.0001	12.700	100.0%	0.0%	0.0%
14.7	0.0001	0.0001	14.700	100.0%	0.0%	0.0%
120.6	0.0042	0.0620	120.666	99.9%	0.0%	0.1%
110.5	4.4205	0.0744	114.995	96.1%	3.8%	0.1%
104.7	0.6294	0.0930	105.422	99.3%	0.6%	0.1%
116.1	0.0567	0.0589	116.216	99.9%	0.0%	0.1%
139	0.0672	0.0682	139.135	99.9%	0.0%	0.0%
2000	6.2559	27.8380	2034.094	98.3%	0.3%	1.4%
3814	6.2559	27.8380	3848.094	99.1%	0.2%	0.7%
174	2.9400	108.5000	285.440	61.0%	1.0%	38.0%
6769	9.4332	32.9530	6811.386	99.4%	0.1%	0.5%

Source: Bay Area Air Quality Management District. 2008, December. Source Inventory of Bay Area Greenhouse Gas Emissions.

Greenhouse Gas Emissions

Waste & Recycling Sector

Energy From Waste Disposal - 2000 MPTP

Statewide Waste Profile -2008	Commercial	Residential
Electronics	0.5%	0.7%
Other Organic	30.4%	48.6%
Paper	20.7%	19.6%
Plastic	11.3%	9.2%
Metal	4.5%	4.0%
Inerts and Other	27.8%	11.2%
Glass	1.2%	2.4%
Mixed Residue	0.1%	2.5%
Household Hazardous Waste	0.3%	0.3%
Special Waste	3.1%	1.5%

Source: California Integrated Waste Management Board (now CalRecycle). Revised 2008. Contractor's Report to the Board, California 2008 Statewide Waste Characterization Study.
http://www.calrecycle.ca.gov/Publications/default.asp?pubid=1346

Project-Generated Solid Waste	lbs/day	
Commercial	2,750	(19,253 lbs/week)
Mixed Use Commercial		
Total Commercial	2,750	
Residential		
Mixed Use Residential		
Total Residential	0	
Total	2,750	

Project-Generated Solid Waste by Type	lbs/day	tons/year
Electronics	14	3
Other Organic	836	153
Paper	570	104
Plastic	311	57
Metal	124	23
Inerts and Other	765	140
Glass	33	6
Mixed Residue	3	1
Household Hazardous Waste	9	2
Special Waste	86	16
	2,750	502
Conversion	0.0005	tons/lbs

WARM FIELDS	
Glass	6
Mixed Paper (general)	104
Mixed Metals	25
Mixed Plastics	57
Mixed Organics	153
Mixed MSW	18
Concrete[1]	140

FROM WARM	**88**	**Metric Tons of CO2e**
	97	**Short Tons of CO2e**
metric tons to short tons conversion	1.102311	tons/metric ton

GHG Emissions Analysis -- Summary Report

Version 8 (5/06)

GHG Emissions Waste Management Analysis for
Prepared by:
Project Period for this Analysis: 01/00/00 to 01/00/00

GHG Emissions from Baseline Waste Management ($MTCO_2E$): 88

Commodity	Tons Recycled	Tons Landfilled	Tons Combusted	Tons Composted	Total $MTCO_2E$
Glass	-	6	-	NA	0
Mixed Paper, Broad	-	104	-	NA	36
Mixed Metals	-	25	-	NA	1
Mixed Plastics	-	57	-	NA	2
Mixed Organics	NA	153	-	-	36
Mixed MSW	NA	18	-	NA	8
Concrete	-	140	NA	NA	5

Energy From Waste Disposal - MPMP Precise Plan

Statewide Waste Profile -2008	Commercial	Residential
Electronics	0.5%	0.7%
Other Organic	30.4%	48.6%
Paper	20.7%	19.6%
Plastic	11.3%	9.2%
Metal	4.5%	4.0%
Inerts and Other	27.8%	11.2%
Glass	1.2%	2.4%
Mixed Residue	0.1%	2.5%
Household Hazardous Waste	0.3%	0.3%
Special Waste	3.1%	1.5%

Source: California Integrated Waste Management Board (now CalRecycle). Revised 2008. Contractor's Report to the Board, California 2008 Statewide Waste Characterization Study.
http://www.calrecycle.ca.gov/Publications/default.asp?pubid=1346

Project-Generated Solid Waste	lbs/day	
Commercial	3,600	(25,200 lbs/week)
Mixed Use Commercial		
Total Commercial	3,600	
Residential		
Mixed Use Residential		
Total Residential	0	
Total	3,600	

Project-Generated Solid Waste by Type	lbs/day	tons/year
Electronics	18	3
Other Organic	1,095	200
Paper	746	136
Plastic	407	74
Metal	162	30
Inerts and Other	1,001	183
Glass	44	8
Mixed Residue	4	1
Household Hazardous Waste	11	2
Special Waste	112	20
	3,600	657
Conversion	0.0005	tons/lbs

WARM FIELDS	
Glass	8
Mixed Paper (general)	136
Mixed Metals	33
Mixed Plastics	74
Mixed Organics	200
Mixed MSW	23
Concrete[1]	183

FROM WARM	**116**	**Metric Tons of CO2e**
	128	**Short Tons of CO2e**
metric tons to short tons conversion	1.102311	tons/metric ton

GHG Emissions Analysis -- Summary Report

Version 8 (5/06)

GHG Emissions Waste Management Analysis for

Prepared by:

Project Period for this Analysis: 01/00/00 to 01/00/00

GHG Emissions from Baseline Waste Management ($MTCO_2E$): 116

Commodity	Tons Recycled	Tons Landfilled	Tons Combusted	Tons Composted	Total $MTCO_2E$
Glass	-	8	-	NA	0
Mixed Paper, Broad	-	136	-	NA	47
Mixed Metals	-	33	-	NA	1
Mixed Plastics	-	74	-	NA	3
Mixed Organics	NA	200	-	-	47
Mixed MSW	NA	23	-	NA	10
Concrete	-	183	NA	NA	7

Localized Significance Thresholds

Screening Criteria
SCAQMD Lookup Tables

Construction Localized Significance Thresholds - Monterey Park SEIR

SRA No.	Acres	Source Receptor Distance (meters)	Source Receptor Distance (Feet)
11	5.00	25	82

Source Receptor Area **South San Gabriel Valley**
Distance (meters) 25

NOx	**183**
CO	**1814**
PM10	**14**
PM2.5	**9**

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	5	183	176	184	202	245
	5	183	176	184	202	245
		183	176	184	202	245
CO	5	1814	1984	2549	4024	9342
	5	1814	1984	2549	4024	9342
		1814	1984	2549	4024	9342
PM10	5	14	43	59	91	186
	5	14	43	59	91	186
		14	43	59	91	186
PM2.5	5	9	12	19	34	104
	5	9	12	19	34	104
		9	12	19	34	104

South San Gabriel Valley
5.00 Acres

	25	**50**	**100**	**200**	**500**
NOx	183	176	184	202	245
CO	1814	1984	2549	4024	9342
PM10	14	43	59	91	186
PM2.5	9	12	19	34	104

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
11	5	11	5
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Operation Localized Significance Thresholds - Monterey Park SEIR

SRA No.	Acres	Source Receptor Distance (meters)	Source Receptor Distance (Feet)
11	5.00	25	82

Source Receptor	**South San Gabriel Valley**
Distance (meters)	25
NOx	**183**
CO	**1814**
PM10	**4**
PM2.5	**2**

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	5	183	176	184	202	245
	5	183	176	184	202	245
		183	176	184	202	245
CO	5	1814	1984	2549	4024	9342
	5	1814	1984	2549	4024	9342
		1814	1984	2549	4024	9342
PM10	5	4	11	15	22	45
	5	4	11	15	22	45
		4	11	15	22	45
PM2.5	5	2	3	5	9	25
	5	2	3	5	9	25
		2	3	5	9	25

South San Gabriel Valley

5.00 Acres

	25	**50**	**100**	**200**	**500**
NOx	183	176	184	202	245
CO	1814	1984	2549	4024	9342
PM10	4	11	15	22	45
PM2.5	2	3	5	9	25

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
11	5	11	5
Distance Increment Below			
25			
Distance Increment Above			
25			

Updated: 10/21/2010 - Table C-1. 2006 – 2008

Localized Significance Thresholds USEPA – ISCST3 Dispersion Model

Modeling Files Available Upon Request

ISCST3 Dispersion Model

	Umitigated PM10 (24 hour)	Mitigated PM10 (24 hour)	Umitigated PM2.5 (24 hour)
Area (acres)	85.42	85.42	85.420
Area (meters^2)	345,680	345,680	345,680
Area one side (meters)	588	588	588
Emissions (lbs/day)	85.000	38.000	24.000
Emissions (grams/second)	1.339	0.598	0.378
Emissions (grams/second/meter^2)	**3.873E-06**	**1.731E-06**	**1.09E-06**

Notes

1 acre	4046.825	meters2
1 lbs	453.5925	grams
1 hour	3600	seconds
Construction day	8	hours

Conversion to ppm = 24.45 x concentration (mg/m3) / molecular weight

1 mg/m3	1000	ug/m3

5/26/2010 03:39:56 PM

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: P:\CMP-02.0E\Tech Studies\AQ-GHG\MPMP-ConstructionPhase1.urb924
Project Name: MPMP Precise Plan - Construction Phase I
Project Location: Los Angeles County
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)	0.50	4.16	2.01	0.00	12.14	0.19	12.32	2.54	0.17	2.71	422.31
2011 TOTALS (tons/year mitigated)	0.50	4.16	2.01	0.00	1.91	0.19	2.10	0.40	0.17	0.57	422.31
Percent Reduction	0.00	0.00	0.00	0.00	84.23	0.00	82.97	84.23	0.00	78.93	0.00

Phase Assumptions

Phase: Mass Grading 6/1/2011 - 8/10/2011 - Default Mass Grading Description
Total Acres Disturbed: 49.86
Maximum Daily Acreage Disturbed: 12.46
Fugitive Dust Level of Detail: Default
38.2 lbs per acre-day
On Road Truck Travel (VMT): 0
Off-Road Equipment:
2 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
7 Scrapers (313 hp) operating at a 0.72 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 8/11/2011 - 9/30/2011 - Default Paving Description
Acres to be Paved: 24
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

5/26/2010 03:39:56 PM

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2011	0.50	4.16	2.01	0.00	1.91	0.19	2.10	0.40	0.17	0.57	422.31
Mass Grading 06/01/2011-	0.41	3.74	1.77	0.00	1.91	0.15	2.07	0.40	0.14	0.54	377.64
Mass Grading Dust	0.00	0.00	0.00	0.00	1.91	0.00	1.91	0.40	0.00	0.40	0.00
Mass Grading Off Road Diesel	0.41	3.73	1.70	0.00	0.00	0.15	0.15	0.00	0.14	0.14	368.92
Mass 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
Mass Grading Worker Trips	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.72
Asphalt 08/11/2011-09/30/2011	0.09	0.43	0.24	0.00	0.00	0.03	0.03	0.00	0.03	0.03	44.67
Paving Off-Gas	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.05	0.30	0.17	0.00	0.00	0.03	0.03	0.00	0.02	0.02	23.54
Paving On Road Diesel	0.01	0.12	0.05	0.00	0.00	0.01	0.01	0.00	0.00	0.00	18.26
Paving Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.87

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Mass Grading 6/1/2011 - 8/10/2011 - Default Mass Grading Description

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

5/26/2010 03:39:47 PM

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: P:\CMP-02.0E\Tech Studies\AQ-GHG\MPMP-ConstructionPhase1.urb924
Project Name: MPMP Precise Plan - Construction Phase I
Project Location: Los Angeles County
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)	16.17	146.54	69.27	0.01	475.99	6.00	481.99	99.41	5.52	104.93	14,809.51
2011 TOTALS (lbs/day mitigated)	16.17	146.54	69.27	0.01	75.04	6.00	81.04	15.67	5.52	21.19	14,809.51

Phase Assumptions

Phase: Mass Grading 6/1/2011 - 8/10/2011 - Default Mass Grading Description
Total Acres Disturbed: 49.86
Maximum Daily Acreage Disturbed: 12.46
Fugitive Dust Level of Detail: Default
38.2 lbs per acre-day
On Road Truck Travel (VMT): 0
Off-Road Equipment:
2 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
7 Scrapers (313 hp) operating at a 0.72 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 8/11/2011 - 9/30/2011 - Default Paving Description
Acres to be Paved: 24
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

5/26/2010 03:39:47 PM

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 6/1/2011-8/10/2011 Active	16.17	146.54	69.27	0.00	75.04	6.00	81.04	15.67	5.52	21.19	14,809.51
Mass Grading 06/01/2011-	16.17	146.54	69.27	0.00	75.04	6.00	81.04	15.67	5.52	21.19	14,809.51
Mass Grading Dust	0.00	0.00	0.00	0.00	75.02	0.00	75.02	15.67	0.00	15.67	0.00
Mass Grading Off Road Diesel	16.08	146.37	66.48	0.00	0.00	5.99	5.99	0.00	5.51	5.51	14,467.64
Mass 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
Mass Grading Worker Trips	0.09	0.16	2.79	0.00	0.02	0.01	0.03	0.01	0.01	0.01	341.87
Time Slice 8/11/2011-9/30/2011 Active	4.99	23.05	13.22	0.01	0.04	1.73	1.77	0.01	1.59	1.60	2,414.69
Asphalt 08/11/2011-09/30/2011	4.99	23.05	13.22	0.01	0.04	1.73	1.77	0.01	1.59	1.60	2,414.69
Paving Off-Gas	1.70	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	0.55	6.68	2.69	0.01	0.03	0.28	0.31	0.01	0.26	0.27	986.88
Paving Worker Trips	0.04	0.07	1.27	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.40

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Mass Grading 6/1/2011 - 8/10/2011 - Default Mass Grading Description

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

7/13/2010 02:04:04 PM

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: P:\CMP-02.0E\Tech Studies\AQ-GHG\Construction\MPMP-ConstructionPhase1-WithMitigation.urb924
Project Name: MPMP Precise Plan - Construction Phase I With Mitigation
Project Location: Los Angeles County
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)	16.17	146.54	69.27	0.01	475.99	6.00	481.99	99.41	5.52	104.93	14,809.51
2011 TOTALS (lbs/day mitigated)	16.17	146.54	69.27	0.01	28.76	6.00	34.76	6.01	5.52	11.53	14,809.51

Phase Assumptions

Phase: Mass Grading 6/1/2011 - 8/10/2011 - Default Mass Grading Description
Total Acres Disturbed: 49.86
Maximum Daily Acreage Disturbed: 12.46
Fugitive Dust Level of Detail: Default
38.2 lbs per acre-day
On Road Truck Travel (VMT): 0
Off-Road Equipment:
2 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
7 Scrapers (313 hp) operating at a 0.72 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 8/11/2011 - 9/30/2011 - Default Paving Description
Acres to be Paved: 24
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

7/13/2010 02:04:04 PM

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 6/1/2011-8/10/2011 Active	**16.17**	**146.54**	**69.27**	0.00	28.76	**6.00**	34.76	6.01	**5.52**	11.53	**14,809.51**
Mass Grading 06/01/2011-	16.17	146.54	69.27	0.00	28.76	6.00	34.76	6.01	5.52	11.53	14,809.51
Mass Grading Dust	0.00	0.00	0.00	0.00	28.74	0.00	28.74	6.00	0.00	6.00	0.00
Mass Grading Off Road Diesel	16.08	146.37	66.48	0.00	0.00	5.99	5.99	0.00	5.51	5.51	14,467.64
Mass 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
Mass Grading Worker Trips	0.09	0.16	2.79	0.00	0.02	0.01	0.03	0.01	0.01	0.01	341.87
Time Slice 8/11/2011-9/30/2011 Active	4.99	23.05	13.22	**0.01**	0.04	1.73	1.77	0.01	1.59	1.60	2,414.69
Asphalt 08/11/2011-09/30/2011	4.99	23.05	13.22	0.01	0.04	1.73	1.77	0.01	1.59	1.60	2,414.69
Paving Off-Gas	1.70	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	0.55	6.68	2.69	0.01	0.03	0.28	0.31	0.01	0.26	0.27	986.88
Paving Worker Trips	0.04	0.07	1.27	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.40

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Mass Grading 6/1/2011 - 8/10/2011 - Default Mass Grading Description

For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 3x daily watering mitigation reduces emissions by:

PM10: 61% PM25: 61%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 3x daily watering mitigation reduces emissions by:

PM10: 61% PM25: 61%

5/26/2010 03:28:52 PM

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: P:\CMP-02.0E\Tech Studies\AQ-GHG\MPMP-Construction.urb924
Project Name: MPMP Precise Plan - Construction Phase II
Project Location: Los Angeles County
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)	0.67	6.34	2.93	0.00	15.87	0.27	16.14	3.32	0.25	3.56	705.18
2011 TOTALS (tons/year mitigated)	0.67	6.34	2.93	0.00	2.51	0.27	2.78	0.52	0.25	0.77	705.18
Percent Reduction	0.00	0.00	0.00	0.00	84.20	0.00	82.80	84.17	0.00	78.36	0.00
2012 TOTALS (tons/year unmitigated)	2.25	18.71	9.33	0.00	57.53	0.80	58.33	12.02	0.74	12.75	2,134.38
2012 TOTALS (tons/year mitigated)	2.25	18.71	9.33	0.00	9.08	0.80	9.88	1.90	0.74	2.63	2,134.38
Percent Reduction	0.00	0.00	0.00	0.00	84.22	0.00	83.07	84.21	0.00	79.35	0.00
2013 TOTALS (tons/year unmitigated)	2.39	4.76	7.73	0.01	0.04	0.34	0.37	0.01	0.31	0.32	1,203.78
2013 TOTALS (tons/year mitigated)	2.39	4.76	7.73	0.01	0.04	0.34	0.37	0.01	0.31	0.32	1,203.78
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2014 TOTALS (tons/year unmitigated)	2.33	4.43	7.32	0.01	0.04	0.31	0.35	0.01	0.28	0.30	1,203.71
2014 TOTALS (tons/year mitigated)	2.33	4.43	7.32	0.01	0.04	0.31	0.35	0.01	0.28	0.30	1,203.71
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2015 TOTALS (tons/year unmitigated)	2.26	4.10	6.95	0.01	0.04	0.29	0.32	0.01	0.26	0.28	1,203.66
2015 TOTALS (tons/year mitigated)	2.26	4.10	6.95	0.01	0.04	0.29	0.32	0.01	0.26	0.28	1,203.66
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2016 TOTALS (tons/year unmitigated)	2.20	3.79	6.62	0.01	0.04	0.26	0.30	0.01	0.24	0.25	1,203.59
2016 TOTALS (tons/year mitigated)	2.20	3.79	6.62	0.01	0.04	0.26	0.30	0.01	0.24	0.25	1,203.59
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2017 TOTALS (tons/year unmitigated)	0.53	0.88	1.57	0.00	0.01	0.06	0.07	0.00	0.05	0.06	299.73
2017 TOTALS (tons/year mitigated)	0.53	0.88	1.57	0.00	0.01	0.06	0.07	0.00	0.05	0.06	299.73
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5/26/2010 03:28:52 PM

Phase Assumptions

Phase: Mass Grading 10/1/2011 - 3/31/2012 - Mass Grading + Soil Haul (6 Months)
Total Acres Disturbed: 51.1
Maximum Daily Acreage Disturbed: 12.78
Fugitive Dust Level of Detail: Default
38.2 lbs per acre-day
On Road Truck Travel (VMT): 1526.72
Off-Road Equipment:
2 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
7 Scrapers (313 hp) operating at a 0.72 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: Mass Grading 4/1/2012 - 11/30/2012 - Mass Grading remaining 4 months after Import
Total Acres Disturbed: 49.86
Maximum Daily Acreage Disturbed: 12.46
Fugitive Dust Level of Detail: Default
38.2 lbs per acre-day
On Road Truck Travel (VMT): 0
Off-Road Equipment:
2 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
7 Scrapers (313 hp) operating at a 0.72 load factor for 8 hours per day
1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Trenching 10/1/2011 - 11/30/2012 - Default Trenching Description
Off-Road Equipment:
1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 0 hours per day
1 Trenchers (63 hp) operating at a 0.75 load factor for 8 hours per day

Phase: Paving 12/1/2012 - 3/31/2017 - Default Paving Description
Acres to be Paved: 24
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

5/26/2010 03:28:52 PM

Phase: Building Construction 12/1/2012 - 3/31/2017 - Default Building Construction Description

Off-Road Equipment:

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

2 Forklifts (145 hp) operating at a 0.3 load factor for 7 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

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

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 12/1/2012 - 3/31/2017 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 100

Rule: Residential Interior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 50

Rule: Residential Exterior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 100

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

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2011	0.67	6.34	2.93	0.00	2.51	0.27	2.78	0.52	0.25	0.77	705.18
Mass Grading 10/01/2011-	0.64	6.18	2.83	0.00	2.51	0.25	2.76	0.52	0.23	0.76	691.61
Mass Grading Dust	0.00	0.00	0.00	0.00	2.50	0.00	2.50	0.52	0.00	0.52	0.00
Mass Grading Off Road Diesel	0.52	4.76	2.16	0.00	0.00	0.19	0.19	0.00	0.18	0.18	470.20
Mass Grading On Road Diesel	0.12	1.42	0.57	0.00	0.01	0.06	0.07	0.00	0.05	0.06	210.30
Mass Grading Worker Trips	0.00	0.01	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.11
Trenching 10/01/2011-11/30/2012	0.03	0.16	0.10	0.00	0.00	0.01	0.01	0.00	0.01	0.01	13.56
Trenching Off Road Diesel	0.03	0.15	0.08	0.00	0.00	0.01	0.01	0.00	0.01	0.01	11.54
Trenching Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.02

2012	2.25	18.71	9.33	0.00	9.08	0.80	9.88	1.90	0.74	2.63	2,134.38
Mass Grading 10/01/2011-	0.61	5.73	2.62	0.00	2.51	0.23	2.74	0.52	0.22	0.74	691.61
Mass Grading Dust	0.00	0.00	0.00	0.00	2.50	0.00	2.50	0.52	0.00	0.52	0.00
Mass Grading Off Road Diesel	0.50	4.46	2.02	0.00	0.00	0.18	0.18	0.00	0.17	0.17	470.20
Mass Grading On Road Diesel	0.11	1.27	0.51	0.00	0.01	0.05	0.06	0.00	0.05	0.05	210.30
Mass Grading Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.11
Trenching 10/01/2011-11/30/2012	0.09	0.55	0.37	0.00	0.00	0.05	0.05	0.00	0.04	0.04	50.08
Trenching Off Road Diesel	0.09	0.54	0.31	0.00	0.00	0.05	0.05	0.00	0.04	0.04	42.62
Trenching Worker Trips	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.46
Mass Grading 04/01/2012-	1.35	12.01	5.68	0.00	6.57	0.49	7.06	1.37	0.45	1.82	1,295.83
Mass Grading Dust	0.00	0.00	0.00	0.00	6.56	0.00	6.56	1.37	0.00	1.37	0.00
Mass Grading Off Road Diesel	1.34	12.00	5.45	0.00	0.00	0.49	0.49	0.00	0.45	0.45	1,265.92
Mass 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
Mass Grading Worker Trips	0.01	0.01	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.91
Asphalt 12/01/2012-03/31/2017	0.03	0.17	0.11	0.00	0.00	0.01	0.01	0.00	0.01	0.01	15.33
Paving Off-Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.03	0.16	0.10	0.00	0.00	0.01	0.01	0.00	0.01	0.01	13.36
Paving On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34
Paving Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.63
Building 12/01/2012-03/31/2017	0.05	0.24	0.55	0.00	0.00	0.02	0.02	0.00	0.01	0.01	81.36
Building Off Road Diesel	0.03	0.17	0.12	0.00	0.00	0.01	0.01	0.00	0.01	0.01	18.34
Building Vendor Trips	0.01	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.91
Building Worker Trips	0.01	0.02	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.12
Coating 12/01/2012-03/31/2017	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17
Architectural Coating	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17
2013	2.39	4.76	7.73	0.01	0.04	0.34	0.37	0.01	0.31	0.32	1,203.78
Asphalt 12/01/2012-03/31/2017	0.33	1.95	1.34	0.00	0.00	0.17	0.17	0.00	0.15	0.16	190.54
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.31	1.92	1.19	0.00	0.00	0.17	0.17	0.00	0.15	0.15	166.05
Paving On Road Diesel	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.21
Paving Worker Trips	0.00	0.01	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.27
Building 12/01/2012-03/31/2017	0.58	2.81	6.37	0.01	0.04	0.17	0.20	0.01	0.15	0.17	1,011.09
Building Off Road Diesel	0.39	1.94	1.39	0.00	0.00	0.13	0.13	0.00	0.12	0.12	227.90
Building Vendor Trips	0.06	0.62	0.57	0.00	0.01	0.03	0.03	0.00	0.02	0.03	160.41
Building Worker Trips	0.13	0.25	4.41	0.01	0.03	0.02	0.05	0.01	0.01	0.02	622.79
Coating 12/01/2012-03/31/2017	1.48	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.15
Architectural Coating	1.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.15

5/26/2010 03:28:52 PM

2014	2.33	4.43	7.32	0.01	0.04	0.31	0.35	0.01	0.28	0.30	1,203.71
Asphalt 12/01/2012-03/31/2017	0.31	1.85	1.32	0.00	0.00	0.16	0.16	0.00	0.15	0.15	190.53
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.30	1.82	1.18	0.00	0.00	0.16	0.16	0.00	0.14	0.14	166.05
Paving On Road Diesel	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.21
Paving Worker Trips	0.00	0.01	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.27
Building 12/01/2012-03/31/2017	0.53	2.58	5.99	0.01	0.04	0.15	0.19	0.01	0.14	0.15	1,011.03
Building Off Road Diesel	0.36	1.81	1.35	0.00	0.00	0.11	0.11	0.00	0.10	0.10	227.90
Building Vendor Trips	0.05	0.54	0.53	0.00	0.01	0.02	0.03	0.00	0.02	0.02	160.41
Building Worker Trips	0.12	0.23	4.12	0.01	0.03	0.02	0.05	0.01	0.01	0.03	622.72
Coating 12/01/2012-03/31/2017	1.48	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.15
Architectural Coating	1.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.15
2015	2.26	4.10	6.95	0.01	0.04	0.29	0.32	0.01	0.26	0.28	1,203.66
Asphalt 12/01/2012-03/31/2017	0.29	1.73	1.30	0.00	0.00	0.15	0.15	0.00	0.13	0.13	190.53
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.28	1.71	1.17	0.00	0.00	0.14	0.14	0.00	0.13	0.13	166.05
Paving On Road Diesel	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.21
Paving Worker Trips	0.00	0.01	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.27
Building 12/01/2012-03/31/2017	0.49	2.36	5.64	0.01	0.04	0.14	0.18	0.01	0.13	0.14	1,010.98
Building Off Road Diesel	0.33	1.68	1.31	0.00	0.00	0.10	0.10	0.00	0.10	0.10	227.90
Building Vendor Trips	0.05	0.48	0.49	0.00	0.01	0.02	0.03	0.00	0.02	0.02	160.42
Building Worker Trips	0.11	0.21	3.84	0.01	0.03	0.02	0.05	0.01	0.01	0.03	622.66
Coating 12/01/2012-03/31/2017	1.48	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.15
Architectural Coating	1.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.15
2016	2.20	3.79	6.62	0.01	0.04	0.26	0.30	0.01	0.24	0.25	1,203.59
Asphalt 12/01/2012-03/31/2017	0.27	1.62	1.28	0.00	0.00	0.13	0.13	0.00	0.12	0.12	190.53
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.26	1.60	1.16	0.00	0.00	0.13	0.13	0.00	0.12	0.12	166.05
Paving On Road Diesel	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.21
Paving Worker Trips	0.00	0.01	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.27
Building 12/01/2012-03/31/2017	0.44	2.18	5.33	0.01	0.04	0.13	0.16	0.01	0.12	0.13	1,010.91
Building Off Road Diesel	0.30	1.56	1.28	0.00	0.00	0.09	0.09	0.00	0.08	0.08	227.90
Building Vendor Trips	0.05	0.42	0.45	0.00	0.01	0.02	0.02	0.00	0.02	0.02	160.42
Building Worker Trips	0.10	0.20	3.60	0.01	0.03	0.02	0.05	0.01	0.02	0.03	622.59
Coating 12/01/2012-03/31/2017	1.48	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.15
Architectural Coating	1.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.15

2017	0.53	0.88	1.57	0.00	0.01	0.06	0.07	0.00	0.05	0.06	299.73
Asphalt 12/01/2012-03/31/2017	0.06	0.38	0.31	0.00	0.00	0.03	0.03	0.00	0.03	0.03	47.45
Paving Off-Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.06	0.37	0.29	0.00	0.00	0.03	0.03	0.00	0.03	0.03	41.35
Paving On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.05
Paving Worker Trips	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.05
Building 12/01/2012-03/31/2017	0.10	0.50	1.25	0.00	0.01	0.03	0.04	0.00	0.03	0.03	251.75
Building Off Road Diesel	0.07	0.36	0.31	0.00	0.00	0.02	0.02	0.00	0.02	0.02	56.76
Building Vendor Trips	0.01	0.09	0.11	0.00	0.00	0.00	0.01	0.00	0.00	0.00	39.95
Building Worker Trips	0.02	0.05	0.84	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.04
Coating 12/01/2012-03/31/2017	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.54
Architectural Coating	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.54

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Mass Grading 10/1/2011 - 3/31/2012 - Mass Grading + Soil Haul (6 Months)

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

The following mitigation measures apply to Phase: Mass Grading 4/1/2012 - 11/30/2012 - Mass Grading remaining 4 months after Import

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

5/26/2010 03:29:10 PM

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: P:\CMP-02.0E\Tech Studies\AQ-GHG\MPMP-Construction.urb924
Project Name: MPMP Precise Plan - Construction Phase II
Project Location: Los Angeles County
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)	20.57	195.08	90.06	0.06	488.43	8.24	496.67	102.03	7.58	109.61	21,697.71
2011 TOTALS (lbs/day mitigated)	20.57	195.08	90.06	0.06	77.18	8.24	85.42	16.15	7.58	23.72	21,697.71
2012 TOTALS (lbs/day unmitigated)	19.49	180.99	83.78	0.06	488.43	7.59	496.02	102.03	6.98	109.01	21,697.63
2012 TOTALS (lbs/day mitigated)	19.49	180.99	83.78	0.06	77.18	7.59	84.77	16.15	6.98	23.13	21,697.63
2013 TOTALS (lbs/day unmitigated)	18.33	36.47	59.20	0.06	0.28	2.59	2.87	0.10	2.37	2.47	9,224.37
2013 TOTALS (lbs/day mitigated)	18.33	36.47	59.20	0.06	0.28	2.59	2.87	0.10	2.37	2.47	9,224.37
2014 TOTALS (lbs/day unmitigated)	17.82	33.95	56.13	0.06	0.28	2.38	2.66	0.10	2.18	2.28	9,223.86
2014 TOTALS (lbs/day mitigated)	17.82	33.95	56.13	0.06	0.28	2.38	2.66	0.10	2.18	2.28	9,223.86
2015 TOTALS (lbs/day unmitigated)	17.32	31.39	53.25	0.06	0.28	2.20	2.48	0.10	2.02	2.12	9,223.46
2015 TOTALS (lbs/day mitigated)	17.32	31.39	53.25	0.06	0.28	2.20	2.48	0.10	2.02	2.12	9,223.46
2016 TOTALS (lbs/day unmitigated)	16.84	29.08	50.75	0.06	0.28	2.01	2.28	0.10	1.83	1.93	9,222.91
2016 TOTALS (lbs/day mitigated)	16.84	29.08	50.75	0.06	0.28	2.01	2.28	0.10	1.83	1.93	9,222.91
2017 TOTALS (lbs/day unmitigated)	16.42	26.98	48.39	0.06	0.28	1.84	2.11	0.10	1.68	1.78	9,222.56
2017 TOTALS (lbs/day mitigated)	16.42	26.98	48.39	0.06	0.28	1.84	2.11	0.10	1.68	1.78	9,222.56

5/26/2010 03:29:10 PM

Phase Assumptions

Phase: Mass Grading 10/1/2011 - 3/31/2012 - Mass Grading + Soil Haul (6 Months)
Total Acres Disturbed: 51.1
Maximum Daily Acreage Disturbed: 12.78
Fugitive Dust Level of Detail: Default
38.2 lbs per acre-day
On Road Truck Travel (VMT): 1526.72
Off-Road Equipment:
2 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
7 Scrapers (313 hp) operating at a 0.72 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: Mass Grading 4/1/2012 - 11/30/2012 - Mass Grading remaining 4 months after Import
Total Acres Disturbed: 49.86
Maximum Daily Acreage Disturbed: 12.46
Fugitive Dust Level of Detail: Default
38.2 lbs per acre-day
On Road Truck Travel (VMT): 0
Off-Road Equipment:
2 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
7 Scrapers (313 hp) operating at a 0.72 load factor for 8 hours per day
1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Trenching 10/1/2011 - 11/30/2012 - Default Trenching Description
Off-Road Equipment:
1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 0 hours per day
1 Trenchers (63 hp) operating at a 0.75 load factor for 8 hours per day

Phase: Paving 12/1/2012 - 3/31/2017 - Default Paving Description
Acres to be Paved: 24
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

5/26/2010 03:29:10 PM

Phase: Building Construction 12/1/2012 - 3/31/2017 - Default Building Construction Description

Off-Road Equipment:

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

2 Forklifts (145 hp) operating at a 0.3 load factor for 7 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

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

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 12/1/2012 - 3/31/2017 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 100

Rule: Residential Interior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 50

Rule: Residential Exterior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 100

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

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 10/3/2011-12/30/2011	20.57	195.08	90.06	0.06	77.18	8.24	85.42	16.15	7.58	23.72	21,697.71
Mass Grading 10/01/2011-	19.77	190.31	86.94	0.06	77.18	7.83	85.00	16.15	7.20	23.34	21,280.35
Mass Grading Dust	0.00	0.00	0.00	0.00	76.95	0.00	76.95	16.07	0.00	16.07	0.00
Mass Grading Off Road Diesel	16.08	146.37	66.48	0.00	0.00	5.99	5.99	0.00	5.51	5.51	14,467.64
Mass Grading On Road Diesel	3.60	43.77	17.67	0.06	0.22	1.82	2.04	0.07	1.68	1.75	6,470.84
Mass Grading Worker Trips	0.09	0.16	2.79	0.00	0.02	0.01	0.03	0.01	0.01	0.01	341.87
Trenching 10/01/2011-11/30/2012	0.80	4.78	3.12	0.00	0.00	0.41	0.41	0.00	0.38	0.38	417.35
Trenching Off Road Diesel	0.78	4.75	2.61	0.00	0.00	0.41	0.41	0.00	0.38	0.38	355.20
Trenching Worker Trips	0.02	0.03	0.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.16
Time Slice 1/2/2012-3/30/2012 Active	19.49	180.99	83.78	0.06	77.18	7.59	84.77	16.15	6.98	23.13	21,697.63
Mass Grading 10/01/2011-	18.74	176.45	80.72	0.06	77.18	7.19	84.37	16.15	6.62	22.76	21,280.29
Mass Grading Dust	0.00	0.00	0.00	0.00	76.95	0.00	76.95	16.07	0.00	16.07	0.00
Mass Grading Off Road Diesel	15.36	137.16	62.30	0.00	0.00	5.59	5.59	0.00	5.14	5.14	14,467.64
Mass Grading On Road Diesel	3.30	39.13	15.83	0.06	0.22	1.60	1.81	0.07	1.47	1.54	6,470.84
Mass Grading Worker Trips	0.08	0.15	2.60	0.00	0.02	0.01	0.03	0.01	0.01	0.01	341.81
Trenching 10/01/2011-11/30/2012	0.76	4.55	3.06	0.00	0.00	0.39	0.40	0.00	0.36	0.36	417.34
Trenching Off Road Diesel	0.74	4.52	2.59	0.00	0.00	0.39	0.39	0.00	0.36	0.36	355.20
Trenching Worker Trips	0.01	0.03	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.15

Time Slice 4/2/2012-11/30/2012 Active	16.20	141.86	67.96	0.00	75.04	5.99	81.03	15.67	5.51	21.18	15,226.79
Mass Grading 04/01/2012-	15.44	137.31	64.89	0.00	75.04	5.60	80.63	15.67	5.15	20.82	14,809.45
Mass Grading Dust	0.00	0.00	0.00	0.00	75.02	0.00	75.02	15.67	0.00	15.67	0.00
Mass Grading Off Road Diesel	15.36	137.16	62.30	0.00	0.00	5.59	5.59	0.00	5.14	5.14	14,467.64
Mass 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
Mass Grading Worker Trips	0.08	0.15	2.60	0.00	0.02	0.01	0.03	0.01	0.01	0.01	341.81
Trenching 10/01/2011-11/30/2012	0.76	4.55	3.06	0.00	0.00	0.39	0.40	0.00	0.36	0.36	417.34
Trenching Off Road Diesel	0.74	4.52	2.59	0.00	0.00	0.39	0.39	0.00	0.36	0.36	355.20
Trenching Worker Trips	0.01	0.03	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.15
Time Slice 12/3/2012-12/31/2012	18.90	39.04	62.58	0.06	0.28	2.82	3.10	0.10	2.58	2.68	9,224.97
Asphalt 12/01/2012-03/31/2017	2.66	15.74	10.43	0.00	0.01	1.38	1.39	0.00	1.27	1.27	1,460.06
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.55	15.48	9.17	0.00	0.00	1.37	1.37	0.00	1.26	1.26	1,272.41
Paving On Road Diesel	0.02	0.20	0.08	0.00	0.00	0.01	0.01	0.00	0.01	0.01	32.29
Paving Worker Trips	0.04	0.07	1.18	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.37
Building 12/01/2012-03/31/2017	4.87	23.29	52.02	0.06	0.27	1.44	1.71	0.10	1.31	1.41	7,748.43
Building Off Road Diesel	3.26	15.87	11.00	0.00	0.00	1.08	1.08	0.00	1.00	1.00	1,746.33
Building Vendor Trips	0.51	5.33	4.73	0.01	0.04	0.23	0.27	0.01	0.21	0.22	1,229.19
Building Worker Trips	1.11	2.09	36.30	0.05	0.23	0.13	0.36	0.08	0.11	0.19	4,772.91
Coating 12/01/2012-03/31/2017	11.37	0.01	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.48
Architectural Coating	11.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.01	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.48
Time Slice 1/1/2013-12/31/2013 Active	18.33	36.47	59.20	0.06	0.28	2.59	2.87	0.10	2.37	2.47	9,224.37
Asphalt 12/01/2012-03/31/2017	2.50	14.93	10.26	0.00	0.01	1.29	1.30	0.00	1.19	1.19	1,460.04
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	14.70	9.09	0.00	0.00	1.28	1.28	0.00	1.18	1.18	1,272.41
Paving On Road Diesel	0.01	0.17	0.07	0.00	0.00	0.01	0.01	0.00	0.01	0.01	32.29
Paving Worker Trips	0.03	0.06	1.10	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.35
Building 12/01/2012-03/31/2017	4.46	21.53	48.83	0.06	0.27	1.30	1.57	0.10	1.18	1.28	7,747.85
Building Off Road Diesel	2.99	14.88	10.67	0.00	0.00	0.97	0.97	0.00	0.89	0.89	1,746.33
Building Vendor Trips	0.46	4.73	4.37	0.01	0.04	0.20	0.24	0.01	0.18	0.20	1,229.21
Building Worker Trips	1.01	1.92	33.79	0.05	0.23	0.13	0.36	0.08	0.11	0.19	4,772.30
Coating 12/01/2012-03/31/2017	11.37	0.01	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.48
Architectural Coating	11.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.01	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.48

5/26/2010 03:29:10 PM

Time Slice 1/1/2014-12/31/2014 Active	17.82	33.95	56.13	0.06	0.28	2.38	2.66	0.10	2.18	2.28	9,223.86
Asphalt 12/01/2012-03/31/2017	2.36	14.15	10.10	0.00	0.01	1.21	1.22	0.00	1.11	1.12	1,460.03
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.27	13.94	9.01	0.00	0.00	1.20	1.20	0.00	1.10	1.10	1,272.41
Paving On Road Diesel	0.01	0.15	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	32.29
Paving Worker Trips	0.03	0.06	1.03	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.33
Building 12/01/2012-03/31/2017	4.09	19.80	45.92	0.06	0.27	1.17	1.44	0.10	1.06	1.16	7,747.35
Building Off Road Diesel	2.74	13.86	10.34	0.00	0.00	0.86	0.86	0.00	0.79	0.79	1,746.33
Building Vendor Trips	0.42	4.17	4.03	0.01	0.04	0.17	0.22	0.01	0.16	0.17	1,229.23
Building Worker Trips	0.93	1.77	31.55	0.05	0.23	0.14	0.36	0.08	0.11	0.20	4,771.80
Coating 12/01/2012-03/31/2017	11.37	0.01	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.48
Architectural Coating	11.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.01	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.48
Time Slice 1/1/2015-12/31/2015 Active	17.32	31.39	53.25	0.06	0.28	2.20	2.48	0.10	2.02	2.12	9,223.46
Asphalt 12/01/2012-03/31/2017	2.22	13.26	9.95	0.00	0.01	1.12	1.13	0.00	1.03	1.03	1,460.01
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.12	13.07	8.93	0.00	0.00	1.11	1.11	0.00	1.02	1.02	1,272.41
Paving On Road Diesel	0.01	0.13	0.05	0.00	0.00	0.01	0.01	0.00	0.00	0.01	32.29
Paving Worker Trips	0.03	0.05	0.96	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.32
Building 12/01/2012-03/31/2017	3.73	18.12	43.20	0.06	0.27	1.09	1.35	0.10	0.99	1.08	7,746.97
Building Off Road Diesel	2.50	12.84	10.05	0.00	0.00	0.80	0.80	0.00	0.73	0.73	1,746.33
Building Vendor Trips	0.38	3.65	3.72	0.01	0.04	0.15	0.20	0.01	0.14	0.15	1,229.27
Building Worker Trips	0.85	1.63	29.43	0.05	0.23	0.14	0.36	0.08	0.11	0.20	4,771.38
Coating 12/01/2012-03/31/2017	11.37	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.48
Architectural Coating	11.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.48
Time Slice 1/1/2016-12/30/2016 Active	16.84	29.08	50.75	0.06	0.28	2.01	2.28	0.10	1.83	1.93	9,222.91
Asphalt 12/01/2012-03/31/2017	2.07	12.40	9.81	0.00	0.01	1.02	1.03	0.00	0.94	0.95	1,459.99
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.98	12.24	8.87	0.00	0.00	1.02	1.02	0.00	0.93	0.93	1,272.41
Paving On Road Diesel	0.01	0.12	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.00	32.29
Paving Worker Trips	0.03	0.05	0.90	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.30
Building 12/01/2012-03/31/2017	3.41	16.67	40.84	0.06	0.27	0.98	1.25	0.10	0.89	0.99	7,746.44
Building Off Road Diesel	2.28	11.92	9.82	0.00	0.00	0.70	0.70	0.00	0.65	0.65	1,746.33
Building Vendor Trips	0.35	3.24	3.46	0.01	0.04	0.14	0.18	0.01	0.12	0.14	1,229.29
Building Worker Trips	0.78	1.51	27.56	0.05	0.23	0.14	0.37	0.08	0.12	0.20	4,770.82
Coating 12/01/2012-03/31/2017	11.37	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.48
Architectural Coating	11.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.48

Time Slice 1/2/2017-3/31/2017 Active	16.42	26.98	48.39	0.06	0.28	1.84	2.11	0.10	1.68	1.78	9,222.56
Asphalt 12/01/2012-03/31/2017	1.95	11.61	9.69	0.00	0.01	0.95	0.95	0.00	0.87	0.87	1,459.98
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.86	11.46	8.80	0.00	0.00	0.94	0.94	0.00	0.86	0.86	1,272.41
Paving On Road Diesel	0.01	0.10	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.29
Paving Worker Trips	0.02	0.05	0.84	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.29
Building 12/01/2012-03/31/2017	3.10	15.36	38.61	0.06	0.27	0.89	1.16	0.10	0.81	0.90	7,746.10
Building Off Road Diesel	2.07	11.06	9.62	0.00	0.00	0.63	0.63	0.00	0.58	0.58	1,746.33
Building Vendor Trips	0.32	2.90	3.23	0.01	0.04	0.12	0.16	0.01	0.11	0.12	1,229.33
Building Worker Trips	0.71	1.39	25.76	0.05	0.23	0.14	0.37	0.08	0.12	0.20	4,770.44
Coating 12/01/2012-03/31/2017	11.37	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.48
Architectural Coating	11.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.48

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Mass Grading 10/1/2011 - 3/31/2012 - Mass Grading + Soil Haul (6 Months)

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

The following mitigation measures apply to Phase: Mass Grading 4/1/2012 - 11/30/2012 - Mass Grading remaining 4 months after Import

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

7/13/2010 02:04:49 PM

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: P:\CMP-02.0E\Tech Studies\AQ-GHG\Construction\MPMP-ConstructionPhase2-WithMit.urb924
Project Name: MPMP Precise Plan - Construction Phase II With Mitigation
Project Location: Los Angeles County
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)	20.57	195.08	90.06	0.06	488.43	8.24	496.67	102.03	7.58	109.61	21,697.71
2011 TOTALS (lbs/day mitigated)	20.57	195.08	90.06	0.06	29.71	8.24	37.95	6.23	7.58	13.81	21,697.71
2012 TOTALS (lbs/day unmitigated)	19.49	180.99	83.78	0.06	488.43	7.59	496.02	102.03	6.98	109.01	21,697.63
2012 TOTALS (lbs/day mitigated)	19.49	180.99	83.78	0.06	65.04	7.59	71.03	13.59	6.98	19.09	21,697.63
2013 TOTALS (lbs/day unmitigated)	18.33	36.47	59.20	0.06	0.28	2.59	2.87	0.10	2.37	2.47	9,224.37
2013 TOTALS (lbs/day mitigated)	18.33	36.47	59.20	0.06	0.28	2.59	2.87	0.10	2.37	2.47	9,224.37
2014 TOTALS (lbs/day unmitigated)	17.82	33.95	56.13	0.06	0.28	2.38	2.66	0.10	2.18	2.28	9,223.86
2014 TOTALS (lbs/day mitigated)	17.82	33.95	56.13	0.06	0.28	2.38	2.66	0.10	2.18	2.28	9,223.86
2015 TOTALS (lbs/day unmitigated)	17.32	31.39	53.25	0.06	0.28	2.20	2.48	0.10	2.02	2.12	9,223.46
2015 TOTALS (lbs/day mitigated)	17.32	31.39	53.25	0.06	0.28	2.20	2.48	0.10	2.02	2.12	9,223.46
2016 TOTALS (lbs/day unmitigated)	16.84	29.08	50.75	0.06	0.28	2.01	2.28	0.10	1.83	1.93	9,222.91
2016 TOTALS (lbs/day mitigated)	16.84	29.08	50.75	0.06	0.28	2.01	2.28	0.10	1.83	1.93	9,222.91
2017 TOTALS (lbs/day unmitigated)	16.42	26.98	48.39	0.06	0.28	1.84	2.11	0.10	1.68	1.78	9,222.56
2017 TOTALS (lbs/day mitigated)	16.42	26.98	48.39	0.06	0.28	1.84	2.11	0.10	1.68	1.78	9,222.56

7/13/2010 02:04:49 PM

Phase Assumptions

Phase: Mass Grading 10/1/2011 - 3/31/2012 - Mass Grading + Soil Haul (6 Months)
Total Acres Disturbed: 51.1
Maximum Daily Acreage Disturbed: 12.78
Fugitive Dust Level of Detail: Default
38.2 lbs per acre-day
On Road Truck Travel (VMT): 1526.72
Off-Road Equipment:
2 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
7 Scrapers (313 hp) operating at a 0.72 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: Mass Grading 4/1/2012 - 11/30/2012 - Mass Grading remaining 4 months after Import
Total Acres Disturbed: 49.86
Maximum Daily Acreage Disturbed: 12.46
Fugitive Dust Level of Detail: Default
38.2 lbs per acre-day
On Road Truck Travel (VMT): 0
Off-Road Equipment:
2 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
7 Scrapers (313 hp) operating at a 0.72 load factor for 8 hours per day
1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Trenching 10/1/2011 - 11/30/2012 - Default Trenching Description
Off-Road Equipment:
1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 0 hours per day
1 Trenchers (63 hp) operating at a 0.75 load factor for 8 hours per day

Phase: Paving 12/1/2012 - 3/31/2017 - Default Paving Description
Acres to be Paved: 24
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

7/13/2010 02:04:49 PM

Phase: Building Construction 12/1/2012 - 3/31/2017 - Default Building Construction Description

Off-Road Equipment:

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

2 Forklifts (145 hp) operating at a 0.3 load factor for 7 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

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

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 12/1/2012 - 3/31/2017 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 100

Rule: Residential Interior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 50

Rule: Residential Exterior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 100

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

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 10/3/2011-12/30/2011	**20.57**	**195.08**	**90.06**	**0.06**	29.71	**8.24**	37.95	6.23	**7.58**	13.81	**21,697.71**
Mass Grading 10/01/2011-	19.77	190.31	86.94	0.06	29.71	7.83	37.53	6.23	7.20	13.43	21,280.35
Mass Grading Dust	0.00	0.00	0.00	0.00	29.48	0.00	29.48	6.16	0.00	6.16	0.00
Mass Grading Off Road Diesel	16.08	146.37	66.48	0.00	0.00	5.99	5.99	0.00	5.51	5.51	14,467.64
Mass Grading On Road Diesel	3.60	43.77	17.67	0.06	0.22	1.82	2.04	0.07	1.68	1.75	6,470.84
Mass Grading Worker Trips	0.09	0.16	2.79	0.00	0.02	0.01	0.03	0.01	0.01	0.01	341.87
Trenching 10/01/2011-11/30/2012	0.80	4.78	3.12	0.00	0.00	0.41	0.41	0.00	0.38	0.38	417.35
Trenching Off Road Diesel	0.78	4.75	2.61	0.00	0.00	0.41	0.41	0.00	0.38	0.38	355.20
Trenching Worker Trips	0.02	0.03	0.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.16
Time Slice 1/2/2012-3/30/2012 Active	19.49	180.99	83.78	**0.06**	29.71	7.59	37.30	6.23	6.98	13.21	21,697.63
Mass Grading 10/01/2011-	18.74	176.45	80.72	0.06	29.71	7.19	36.90	6.23	6.62	12.85	21,280.29
Mass Grading Dust	0.00	0.00	0.00	0.00	29.48	0.00	29.48	6.16	0.00	6.16	0.00
Mass Grading Off Road Diesel	15.36	137.16	62.30	0.00	0.00	5.59	5.59	0.00	5.14	5.14	14,467.64
Mass Grading On Road Diesel	3.30	39.13	15.83	0.06	0.22	1.60	1.81	0.07	1.47	1.54	6,470.84
Mass Grading Worker Trips	0.08	0.15	2.60	0.00	0.02	0.01	0.03	0.01	0.01	0.01	341.81
Trenching 10/01/2011-11/30/2012	0.76	4.55	3.06	0.00	0.00	0.39	0.40	0.00	0.36	0.36	417.34
Trenching Off Road Diesel	0.74	4.52	2.59	0.00	0.00	0.39	0.39	0.00	0.36	0.36	355.20
Trenching Worker Trips	0.01	0.03	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.15

Time Slice 4/2/2012-11/30/2012 Active	16.20	141.86	67.96	0.00	65.04	5.99	71.03	13.59	5.51	19.09	15,226.79
Mass Grading 04/01/2012-	15.44	137.31	64.89	0.00	65.03	5.60	70.63	13.58	5.15	18.73	14,809.45
Mass Grading Dust	0.00	0.00	0.00	0.00	65.02	0.00	65.02	13.58	0.00	13.58	0.00
Mass Grading Off Road Diesel	15.36	137.16	62.30	0.00	0.00	5.59	5.59	0.00	5.14	5.14	14,467.64
Mass 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
Mass Grading Worker Trips	0.08	0.15	2.60	0.00	0.02	0.01	0.03	0.01	0.01	0.01	341.81
Trenching 10/01/2011-11/30/2012	0.76	4.55	3.06	0.00	0.00	0.39	0.40	0.00	0.36	0.36	417.34
Trenching Off Road Diesel	0.74	4.52	2.59	0.00	0.00	0.39	0.39	0.00	0.36	0.36	355.20
Trenching Worker Trips	0.01	0.03	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.15
Time Slice 12/3/2012-12/31/2012	18.90	39.04	62.58	0.06	0.28	2.82	3.10	0.10	2.58	2.68	9,224.97
Asphalt 12/01/2012-03/31/2017	2.66	15.74	10.43	0.00	0.01	1.38	1.39	0.00	1.27	1.27	1,460.06
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.55	15.48	9.17	0.00	0.00	1.37	1.37	0.00	1.26	1.26	1,272.41
Paving On Road Diesel	0.02	0.20	0.08	0.00	0.00	0.01	0.01	0.00	0.01	0.01	32.29
Paving Worker Trips	0.04	0.07	1.18	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.37
Building 12/01/2012-03/31/2017	4.87	23.29	52.02	0.06	0.27	1.44	1.71	0.10	1.31	1.41	7,748.43
Building Off Road Diesel	3.26	15.87	11.00	0.00	0.00	1.08	1.08	0.00	1.00	1.00	1,746.33
Building Vendor Trips	0.51	5.33	4.73	0.01	0.04	0.23	0.27	0.01	0.21	0.22	1,229.19
Building Worker Trips	1.11	2.09	36.30	0.05	0.23	0.13	0.36	0.08	0.11	0.19	4,772.91
Coating 12/01/2012-03/31/2017	11.37	0.01	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.48
Architectural Coating	11.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.01	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.48
Time Slice 1/1/2013-12/31/2013 Active	18.33	36.47	59.20	0.06	0.28	2.59	2.87	0.10	2.37	2.47	9,224.37
Asphalt 12/01/2012-03/31/2017	2.50	14.93	10.26	0.00	0.01	1.29	1.30	0.00	1.19	1.19	1,460.04
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	14.70	9.09	0.00	0.00	1.28	1.28	0.00	1.18	1.18	1,272.41
Paving On Road Diesel	0.01	0.17	0.07	0.00	0.00	0.01	0.01	0.00	0.01	0.01	32.29
Paving Worker Trips	0.03	0.06	1.10	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.35
Building 12/01/2012-03/31/2017	4.46	21.53	48.83	0.06	0.27	1.30	1.57	0.10	1.18	1.28	7,747.85
Building Off Road Diesel	2.99	14.88	10.67	0.00	0.00	0.97	0.97	0.00	0.89	0.89	1,746.33
Building Vendor Trips	0.46	4.73	4.37	0.01	0.04	0.20	0.24	0.01	0.18	0.20	1,229.21
Building Worker Trips	1.01	1.92	33.79	0.05	0.23	0.13	0.36	0.08	0.11	0.19	4,772.30
Coating 12/01/2012-03/31/2017	11.37	0.01	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.48
Architectural Coating	11.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.01	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.48

Time Slice 1/1/2014-12/31/2014 Active	17.82	33.95	56.13	0.06	0.28	2.38	2.66	0.10	2.18	2.28	9,223.86
Asphalt 12/01/2012-03/31/2017	2.36	14.15	10.10	0.00	0.01	1.21	1.22	0.00	1.11	1.12	1,460.03
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.27	13.94	9.01	0.00	0.00	1.20	1.20	0.00	1.10	1.10	1,272.41
Paving On Road Diesel	0.01	0.15	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	32.29
Paving Worker Trips	0.03	0.06	1.03	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.33
Building 12/01/2012-03/31/2017	4.09	19.80	45.92	0.06	0.27	1.17	1.44	0.10	1.06	1.16	7,747.35
Building Off Road Diesel	2.74	13.86	10.34	0.00	0.00	0.86	0.86	0.00	0.79	0.79	1,746.33
Building Vendor Trips	0.42	4.17	4.03	0.01	0.04	0.17	0.22	0.01	0.16	0.17	1,229.23
Building Worker Trips	0.93	1.77	31.55	0.05	0.23	0.14	0.36	0.08	0.11	0.20	4,771.80
Coating 12/01/2012-03/31/2017	11.37	0.01	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.48
Architectural Coating	11.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.01	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.48
Time Slice 1/1/2015-12/31/2015 Active	17.32	31.39	53.25	0.06	0.28	2.20	2.48	0.10	2.02	2.12	9,223.46
Asphalt 12/01/2012-03/31/2017	2.22	13.26	9.95	0.00	0.01	1.12	1.13	0.00	1.03	1.03	1,460.01
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.12	13.07	8.93	0.00	0.00	1.11	1.11	0.00	1.02	1.02	1,272.41
Paving On Road Diesel	0.01	0.13	0.05	0.00	0.00	0.01	0.01	0.00	0.00	0.01	32.29
Paving Worker Trips	0.03	0.05	0.96	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.32
Building 12/01/2012-03/31/2017	3.73	18.12	43.20	0.06	0.27	1.09	1.35	0.10	0.99	1.08	7,746.97
Building Off Road Diesel	2.50	12.84	10.05	0.00	0.00	0.80	0.80	0.00	0.73	0.73	1,746.33
Building Vendor Trips	0.38	3.65	3.72	0.01	0.04	0.15	0.20	0.01	0.14	0.15	1,229.27
Building Worker Trips	0.85	1.63	29.43	0.05	0.23	0.14	0.36	0.08	0.11	0.20	4,771.38
Coating 12/01/2012-03/31/2017	11.37	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.48
Architectural Coating	11.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.48
Time Slice 1/1/2016-12/30/2016 Active	16.84	29.08	50.75	0.06	0.28	2.01	2.28	0.10	1.83	1.93	9,222.91
Asphalt 12/01/2012-03/31/2017	2.07	12.40	9.81	0.00	0.01	1.02	1.03	0.00	0.94	0.95	1,459.99
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.98	12.24	8.87	0.00	0.00	1.02	1.02	0.00	0.93	0.93	1,272.41
Paving On Road Diesel	0.01	0.12	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.00	32.29
Paving Worker Trips	0.03	0.05	0.90	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.30
Building 12/01/2012-03/31/2017	3.41	16.67	40.84	0.06	0.27	0.98	1.25	0.10	0.89	0.99	7,746.44
Building Off Road Diesel	2.28	11.92	9.82	0.00	0.00	0.70	0.70	0.00	0.65	0.65	1,746.33
Building Vendor Trips	0.35	3.24	3.46	0.01	0.04	0.14	0.18	0.01	0.12	0.14	1,229.29
Building Worker Trips	0.78	1.51	27.56	0.05	0.23	0.14	0.37	0.08	0.12	0.20	4,770.82
Coating 12/01/2012-03/31/2017	11.37	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.48
Architectural Coating	11.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.48

Time Slice 1/2/2017-3/31/2017 Active	16.42	26.98	48.39	0.06	0.28	1.84	2.11	0.10	1.68	1.78	9,222.56
Asphalt 12/01/2012-03/31/2017	1.95	11.61	9.69	0.00	0.01	0.95	0.95	0.00	0.87	0.87	1,459.98
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.86	11.46	8.80	0.00	0.00	0.94	0.94	0.00	0.86	0.86	1,272.41
Paving On Road Diesel	0.01	0.10	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.29
Paving Worker Trips	0.02	0.05	0.84	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.29
Building 12/01/2012-03/31/2017	3.10	15.36	38.61	0.06	0.27	0.89	1.16	0.10	0.81	0.90	7,746.10
Building Off Road Diesel	2.07	11.06	9.62	0.00	0.00	0.63	0.63	0.00	0.58	0.58	1,746.33
Building Vendor Trips	0.32	2.90	3.23	0.01	0.04	0.12	0.16	0.01	0.11	0.12	1,229.33
Building Worker Trips	0.71	1.39	25.76	0.05	0.23	0.14	0.37	0.08	0.12	0.20	4,770.44
Coating 12/01/2012-03/31/2017	11.37	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.48
Architectural Coating	11.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.48

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Mass Grading 10/1/2011 - 3/31/2012 - Mass Grading + Soil Haul (6 Months)

For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:
PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:
PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 3x daily watering mitigation reduces emissions by:
PM10: 61% PM25: 61%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:
PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:
PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 3x daily watering mitigation reduces emissions by:
PM10: 61% PM25: 61%

The following mitigation measures apply to Phase: Mass Grading 4/1/2012 - 11/30/2012 - Mass Grading remaining 4 months after Import

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:
PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 3x daily watering mitigation reduces emissions by:
PM10: 61% PM25: 61%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:
PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:
PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 3x daily watering mitigation reduces emissions by:
PM10: 61% PM25: 61%

CONSTRUCTION

Tier 3 Construction Equipment
Mitigation Supplement to URBEMIS2007

Mitigation Measure for Tier 3 Construction Equipment

According to SCAQMD Off-road MM, NMHC+NOx = 95% NOX and 5% VOC

SITE PREPARATION - PHASE I

Mass Grading				0.002046	g/lbs	
				NOx Tier 3 (g/bhhr)	NOx Tier 3 (lbs/bhhr)	**NOx Tier 3 (lbs/day)**
2 Graders	174 hp	0.61 load factor	8 hour/day	2.85	0.0058311	9.90
1 Rubber Tired Dozer	357 hp	0.59 load factor	8 hour/day	2.85	0.0058311	9.83
7 Scrapers	313 hp	0.72 load factor	8 hour/day	2.85	0.0058311	73.59
1 Water Truck	189 hp	0.5 load factor	8 hour/day	2.85	0.0058311	4.41
					Off-Road Grading w/Tier 3 (lbs/day)	**98**
					Urbemis On-Road	**0**
					URBEMIS Worker Trips	**0**
					TOTAL with Tier 3	**98**
					URBEMIS (lbs/day)	147
					Reduction From URBEMIS (lbs/day)	49
					SCAQMD Thresholds	**100**
					Exceeds Threshold w/Tier 3	**NO**

SITE PREPARATION - PHASE II

Mass Grading				0.002046	g/lbs	
				NOx Tier 3 (g/bhhr)	NOx Tier 3 (lbs/bhhr)	**NOx Tier 3 (lbs/day)**
2 Graders	174 hp	0.61 load factor	8 hour/day	2.85	0.0058311	9.90
1 Rubber Tired Dozer	357 hp	0.59 load factor	8 hour/day	2.85	0.0058311	9.83
7 Scrapers	313 hp	0.72 load factor	8 hour/day	2.85	0.0058311	73.59
1 Water Truck	189 hp	0.5 load factor	8 hour/day	2.85	0.0058311	4.41
					Grading w/Tier 3 (lbs/day)	**98**
					Urbemis On-Road	**44**
					URBEMIS Worker Trips	**0**
					TOTAL with Tier 3	**142**
Trenching				0.002046	g/lbs	
				NOx Tier 3 (g/bhhr)	NOx Tier 3 (lbs/bhhr)	NOx Tier 3 (lbs/day)
1 Tractor/Loader/Backhoe	108 hp	0.55 load factor	8 hour/day	2.85	0.0058311	2.77
1 Trencher	63 hp	0.75 load factor	8 hour/day	2.85	0.0058311	2.20
					Trenching w/Tier 3 (lbs/day)	**5**
					URBEMIS Worker Trips	**0**
					TOTAL with Tier 3	**5**
					TOTAL GRADING + TRENCHING PHASE II	**147**
					URBEMIS (lbs/day)	195
					Reduction From URBEMIS (lbs/day)	48
					SCAQMD Thresholds	**100**
					Exceeds Threshold w/Tier 3	**YES**

EPA Tier 1 through 3 Nonroad Diesel Engine Emission Standards, g/kwh (g/bhp hr)							
Engine Power	**Tier**	**Year**	**CO**	**HC**	**NMHC+NOx**	**NOx**	**PM**
8	Tier 1	2000	8.0 (6.0)	-	10.5 (7.8)	-	1.0 (0.75)
(hp < 11)	Tier 2	2005	8.0 (6.0)	-	7.5 (5.6)	-	0.8 (0.6)
8 ≤ kW < 19	Tier 1	2000	6.6 (4.9)	-	9.5 (7.1)	-	0.8 (0.6)
(11 ≤ hp < 25)	Tier 2	2005	6.6 (4.9)	-	7.5 (5.6)	-	0.8 (0.6)
19≤ kW < 37	Tier 1	1999	5.5 (4.1)	-	9.5 (7.1)	-	0.8 (0.6)
(25 ≤ hp < 50)	Tier 2	2004	5.5 (4.1)	-	7.5 (5.6)	-	0.6 (0.45)
37 ≤ kW < 75	Tier 1	1998	-	-	-	9.2 (6.9)	-
(50 ≤ hp < 100)	Tier 2	2004	5.0 (3.7)	-	7.5 (5.6)	-	0.4 (0.3)
	Tier 3	2008	5.0 (3.7)	-	4.7 (3.5)	-	-†
75 ≤ kW < 130	Tier 1	1997	-	-	-	9.2 (6.9)	-
(100 ≤ hp < 175)	Tier 2	2003	5.0 (3.7)	-	6.6 (4.9)	-	0.3 (0.22)
	Tier 3	2007	5.0 (3.7)	-	4.0 (3.0)	-	-†
130 ≤ kW < 225	Tier 1	1996	11.4 (8.5)	1.3 (1.0)	-	9.2 (6.9)	0.54 (0.4)
(175 ≤ hp < 300)	Tier 2	2003	3.5 (2.6)	-	6.6 (4.9)	-	0.2 (0.15)
	Tier 3	2006	3.5 (2.6)	-	4.0 (3.0)	-	-†
225 ≤ kW < 450	Tier 1	1996	11.4 (8.5)	1.3 (1.0)	-	9.2 (6.9)	0.54 (0.4)
(300 ≤ hp < 600)	Tier 2	2001	3.5 (2.6)	-	6.4 (4.8)	-	0.2 (0.15)
	Tier 3	2006	3.5 (2.6)	-	4.0 (3.0)	-	-†
450 ≤ kW < 560	Tier 1	1996	11.4 (8.5)	1.3 (1.0)	-	9.2 (6.9)	0.54 (0.4)
(600 ≤ hp < 750)	Tier 2	2002	3.5 (2.6)	-	6.4 (4.8)	-	0.2 (0.15)
	Tier 3	2006	3.5 (2.6)	-	4.0 (3.0)	-	-†
kW ≥ 560	Tier 1	2000	11.4 (8.5)	1.3 (1.0)	-	9.2 (6.9)	0.54 (0.4)
(hp ≥ 750)	Tier 2	2006	3.5 (2.6)	-	6.4 (4.8)	-	0.2 (0.15)

http://www.dieselnet.com/standards/us/nonroad.php

6/9/2010 05:31:42 PM

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: P:\CMP-02.0E\Tech Studies\AQ-GHG\2000 MPTP-Operation.urb924
Project Name: Operation - 2000 MPTP
Project Location: Los Angeles County
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)	0.64	0.91	1.04	0.00	0.00	0.00	1,090.77

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	14.37	20.83	177.56	0.30	52.77	10.24	30,277.72

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	15.01	21.74	178.60	0.30	52.77	10.24	31,368.49

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.07	0.91	0.76	0.00	0.00	0.00	1,090.26
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscape	0.02	0.00	0.28	0.00	0.00	0.00	0.51
Consumer Products	0.00						
Architectural Coatings	0.55						
TOTALS (tons/year, unmitigated)	0.64	0.91	1.04	0.00	0.00	0.00	1,090.77

6/9/2010 05:31:42 PM

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Regnl shop. center	14.37	20.83	177.56	0.30	52.77	10.24	30,277.72
TOTALS (tons/year, unmitigated)	14.37	20.83	177.56	0.30	52.77	10.24	30,277.72

Operational Settings:

Does not include correction for passby trips
Does not include double counting adjustment for internal trips
Analysis Year: 2017 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
Regnl shop. center		36.26	1000 sq ft	515.00	18,673.90	167,560.89
					18,673.90	167,560.89

6/9/2010 05:31:42 PM

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	53.1	0.2	99.8	0.0
Light Truck < 3750 lbs	6.7	0.0	98.5	1.5
Light Truck 3751-5750 lbs	23.1	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.2	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.5	0.0	80.0	20.0
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.4	45.8	54.2	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)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Regnl shop. center				2.0	1.0	97.0

6/9/2010 05:31:11 PM

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: P:\CMP-02.0E\Tech Studies\AQ-GHG\2000 MPTP-Operation.urb924
Project Name: Operation - 2000 MPTP
Project Location: Los Angeles County
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)	3.49	5.00	5.73	0.00	0.02	0.02	5,976.81

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	75.73	106.84	992.29	1.75	289.18	56.09	171,416.97

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	79.22	111.84	998.02	1.75	289.20	56.11	177,393.78

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	0.36	4.98	4.18	0.00	0.01	0.01	5,974.00
Hearth - No Summer Emissions							
Landscape	0.12	0.02	1.55	0.00	0.01	0.01	2.81
Consumer Products	0.00						
Architectural Coatings	3.01						
TOTALS (lbs/day, unmitigated)	3.49	5.00	5.73	0.00	0.02	0.02	5,976.81

6/9/2010 05:31:11 PM

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Regnl shop. center	75.73	106.84	992.29	1.75	289.18	56.09	171,416.97
TOTALS (lbs/day, unmitigated)	75.73	106.84	992.29	1.75	289.18	56.09	171,416.97

Operational Settings:

Does not include correction for passby trips
Does not include double counting adjustment for internal trips
Analysis Year: 2017 Temperature (F): 80 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
Regnl shop. center		36.26	1000 sq ft	515.00	18,673.90	167,560.89
					18,673.90	167,560.89

6/9/2010 05:31:11 PM

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	53.1	0.2	99.8	0.0
Light Truck < 3750 lbs	6.7	0.0	98.5	1.5
Light Truck 3751-5750 lbs	23.1	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.2	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.5	0.0	80.0	20.0
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.4	45.8	54.2	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)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Regnl shop. center				2.0	1.0	97.0

6/9/2010 05:31:30 PM

Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: P:\CMP-02.0E\Tech Studies\AQ-GHG\2000 MPTP-Operation.urb924
Project Name: Operation - 2000 MPTP
Project Location: Los Angeles County
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)	3.37	4.98	4.18	0.00	0.01	0.01	5,974.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	84.81	128.67	934.25	1.44	289.18	56.09	154,882.04

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	88.18	133.65	938.43	1.44	289.19	56.10	160,856.04

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	0.36	4.98	4.18	0.00	0.01	0.01	5,974.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping - No Winter Emissions							
Consumer Products	0.00						
Architectural Coatings	3.01						
TOTALS (lbs/day, unmitigated)	3.37	4.98	4.18	0.00	0.01	0.01	5,974.00

6/9/2010 05:31:30 PM

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Regnl shop. center	84.81	128.67	934.25	1.44	289.18	56.09	154,882.04
TOTALS (lbs/day, unmitigated)	84.81	128.67	934.25	1.44	289.18	56.09	154,882.04

Operational Settings:

Does not include correction for passby trips
Does not include double counting adjustment for internal trips
Analysis Year: 2017 Temperature (F): 60 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
Regnl shop. center		36.26	1000 sq ft	515.00	18,673.90	167,560.89
					18,673.90	167,560.89

6/9/2010 05:31:30 PM

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	53.1	0.2	99.8	0.0
Light Truck < 3750 lbs	6.7	0.0	98.5	1.5
Light Truck 3751-5750 lbs	23.1	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.2	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.5	0.0	80.0	20.0
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.4	45.8	54.2	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)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Regnl shop. center				2.0	1.0	97.0

7/29/2010 08:40:21 AM

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: P:\CMP-02.0E\Tech Studies\AQ-GHG\operation\MPMP-Operation.urb924
Project Name: Operation - MPMP
Project Location: Los Angeles County
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)	0.85	1.08	2.58	0.00	0.01	0.01	1,273.28

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	15.24	22.03	187.76	0.32	55.82	10.83	32,016.15

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	16.09	23.11	190.34	0.32	55.83	10.84	33,289.43

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.08	1.06	0.89	0.00	0.00	0.00	1,270.20
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscape	0.13	0.02	1.69	0.00	0.01	0.01	3.08
Consumer Products	0.00						
Architectural Coatings	0.64						
TOTALS (tons/year, unmitigated)	0.85	1.08	2.58	0.00	0.01	0.01	1,273.28

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Racquetball/health	0.55	0.79	6.72	0.01	2.00	0.39	1,145.23
Fast food rest. w/ drive thru	0.89	1.32	11.25	0.02	3.34	0.65	1,916.68
Free-standing discount store	4.75	6.93	59.07	0.10	17.56	3.41	10,073.32
Discount club	3.75	5.30	45.17	0.08	13.43	2.60	7,702.82
Regnl shop. center	2.29	3.38	28.82	0.05	8.57	1.66	4,914.26
Home improvement superstore	3.01	4.31	36.73	0.06	10.92	2.12	6,263.84
TOTALS (tons/year, unmitigated)	15.24	22.03	187.76	0.32	55.82	10.83	32,016.15

Operational Settings:

Does not include correction for passby trips
Does not include double counting adjustment for internal trips
Analysis Year: 2017 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
Racquetball/health		27.90	1000 sq ft	25.00	697.50	6,335.04
Fast food rest. w/ drive thru		233.47	1000 sq ft	5.00	1,167.35	10,602.46
Free-standing discount store		45.02	1000 sq ft	138.00	6,212.76	55,747.09
Discount club		19.39	1000 sq ft	245.01	4,750.74	42,628.42
Regnl shop. center		89.17	1000 sq ft	33.99	3,030.89	27,196.16
Home improvement superstore		25.25	1000 sq ft	153.00	3,863.25	34,664.94
					19,722.49	177,174.11

7/29/2010 08:40:21 AM

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	53.1	0.2	99.8	0.0
Light Truck < 3750 lbs	6.7	0.0	98.5	1.5
Light Truck 3751-5750 lbs	23.1	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.2	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.5	0.0	80.0	20.0
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.4	45.8	54.2	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)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Racquetball/health				5.0	2.5	92.5
Fast food rest. w/ drive thru				5.0	2.5	92.5
Free-standing discount store				2.0	1.0	97.0
Discount club				2.0	1.0	97.0
Regnl shop. center				2.0	1.0	97.0
Home improvement superstore				2.0	1.0	97.0

8/25/2010 10:34:12 AM

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: P:\CMP-02.0E\Tech Studies\AQ-GHG\operation\MPMP-OperationWEEKEND.urb924
Project Name: Operation - MPMP WEEKEND
Project Location: Los Angeles County
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)	0.85	1.08	2.58	0.00	0.01	0.01	1,273.28

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	20.57	29.97	255.56	0.43	75.95	14.73	43,572.12

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	21.42	31.05	258.14	0.43	75.96	14.74	44,845.40

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.08	1.06	0.89	0.00	0.00	0.00	1,270.20
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscape	0.13	0.02	1.69	0.00	0.01	0.01	3.08
Consumer Products	0.00						
Architectural Coatings	0.64						
TOTALS (tons/year, unmitigated)	0.85	1.08	2.58	0.00	0.01	0.01	1,273.28

8/25/2010 10:34:12 AM

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Racquetball/health	0.64	0.92	7.85	0.01	2.33	0.45	1,336.92
Fast food rest. w/ drive thru	1.29	1.92	16.38	0.03	4.86	0.94	2,790.01
Free-standing discount store	5.71	8.35	71.23	0.12	21.17	4.11	12,145.27
Discount club	4.14	5.88	50.14	0.08	14.90	2.89	8,548.98
Regnl shop. center	3.17	4.70	40.06	0.07	11.91	2.31	6,831.03
Home improvement superstore	5.62	8.20	69.90	0.12	20.78	4.03	11,919.91
TOTALS (tons/year, unmitigated)	20.57	29.97	255.56	0.43	75.95	14.73	43,572.12

Operational Settings:

Does not include correction for passby trips
Does not include double counting adjustment for internal trips
Analysis Year: 2017 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
Racquetball/health		32.57	1000 sq ft	25.00	814.25	7,395.43
Fast food rest. w/ drive thru		339.85	1000 sq ft	5.00	1,699.25	15,433.44
Free-standing discount store		54.28	1000 sq ft	138.00	7,490.64	67,213.51
Discount club		21.52	1000 sq ft	245.01	5,272.62	47,311.17
Regnl shop. center		123.95	1000 sq ft	33.99	4,213.06	37,803.79
Home improvement superstore		48.05	1000 sq ft	153.00	7,351.65	65,966.35
					26,841.47	241,123.69

8/25/2010 10:34:12 AM

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	53.1	0.2	99.8	0.0
Light Truck < 3750 lbs	6.7	0.0	98.5	1.5
Light Truck 3751-5750 lbs	23.1	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.2	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.5	0.0	80.0	20.0
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.4	45.8	54.2	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)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Racquetball/health				5.0	2.5	92.5
Fast food rest. w/ drive thru				5.0	2.5	92.5
Free-standing discount store				2.0	1.0	97.0
Discount club				2.0	1.0	97.0
Regnl shop. center				2.0	1.0	97.0
Home improvement superstore				2.0	1.0	97.0

7/29/2010 08:39:59 AM

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: P:\CMP-02.0E\Tech Studies\AQ-GHG\operation\MPMP-Operation.urb924
Project Name: Operation - MPMP
Project Location: Los Angeles County
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)	4.67	5.92	14.14	0.00	0.04	0.04	6,976.85

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	80.39	112.96	1,049.43	1.84	305.76	59.30	181,258.86

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	85.06	118.88	1,063.57	1.84	305.80	59.34	188,235.71

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	0.42	5.80	4.87	0.00	0.01	0.01	6,960.00
Hearth - No Summer Emissions							
Landscape	0.74	0.12	9.27	0.00	0.03	0.03	16.85
Consumer Products	0.00						
Architectural Coatings	3.51						
TOTALS (lbs/day, unmitigated)	4.67	5.92	14.14	0.00	0.04	0.04	6,976.85

7/29/2010 08:39:59 AM

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Racquetball/health	2.90	4.04	37.59	0.07	10.93	2.12	6,483.61
Fast food rest. w/ drive thru	4.63	6.75	62.92	0.11	18.30	3.55	10,851.10
Free-standing discount store	25.00	35.55	330.13	0.58	96.21	18.66	57,030.00
Discount club	19.92	27.18	252.44	0.44	73.57	14.27	43,609.43
Regnl shop. center	12.01	17.34	161.06	0.28	46.93	9.10	27,822.03
Home improvement superstore	15.93	22.10	205.29	0.36	59.82	11.60	35,462.69
TOTALS (lbs/day, unmitigated)	80.39	112.96	1,049.43	1.84	305.76	59.30	181,258.86

Operational Settings:

Does not include correction for passby trips
Does not include double counting adjustment for internal trips
Analysis Year: 2017 Temperature (F): 80 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
Racquetball/health		27.90	1000 sq ft	25.00	697.50	6,335.04
Fast food rest. w/ drive thru		233.47	1000 sq ft	5.00	1,167.35	10,602.46
Free-standing discount store		45.02	1000 sq ft	138.00	6,212.76	55,747.09
Discount club		19.39	1000 sq ft	245.01	4,750.74	42,628.42
Regnl shop. center		89.17	1000 sq ft	33.99	3,030.89	27,196.16
Home improvement superstore		25.25	1000 sq ft	153.00	3,863.25	34,664.94
					19,722.49	177,174.11

7/29/2010 08:39:59 AM

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	53.1	0.2	99.8	0.0
Light Truck < 3750 lbs	6.7	0.0	98.5	1.5
Light Truck 3751-5750 lbs	23.1	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.2	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.5	0.0	80.0	20.0
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.4	45.8	54.2	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)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Racquetball/health				5.0	2.5	92.5
Fast food rest. w/ drive thru				5.0	2.5	92.5
Free-standing discount store				2.0	1.0	97.0
Discount club				2.0	1.0	97.0
Regnl shop. center				2.0	1.0	97.0
Home improvement superstore				2.0	1.0	97.0

8/25/2010 10:33:45 AM

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: P:\CMP-02.0E\Tech Studies\AQ-GHG\operation\MPMP-OperationWEEKEND.urb924
Project Name: Operation - MPMP WEEKEND
Project Location: Los Angeles County
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)	4.67	5.92	14.14	0.00	0.04	0.04	6,976.85

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	108.17	153.73	1,428.21	2.51	416.13	80.72	246,682.68

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	112.84	159.65	1,442.35	2.51	416.17	80.76	253,659.53

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	0.42	5.80	4.87	0.00	0.01	0.01	6,960.00
Hearth - No Summer Emissions							
Landscape	0.74	0.12	9.27	0.00	0.03	0.03	16.85
Consumer Products	0.00						
Architectural Coatings	3.51						
TOTALS (lbs/day, unmitigated)	4.67	5.92	14.14	0.00	0.04	0.04	6,976.85

8/25/2010 10:33:45 AM

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Racquetball/health	3.36	4.71	43.89	0.08	12.76	2.48	7,568.86
Fast food rest. w/ drive thru	6.73	9.83	91.58	0.16	26.64	5.17	15,795.37
Free-standing discount store	29.98	42.86	398.04	0.70	116.00	22.50	68,760.29
Discount club	21.95	30.17	280.18	0.49	81.65	15.84	48,399.95
Regnl shop. center	16.62	24.10	223.87	0.39	65.24	12.65	38,673.77
Home improvement superstore	29.53	42.06	390.65	0.69	113.84	22.08	67,484.44
TOTALS (lbs/day, unmitigated)	108.17	153.73	1,428.21	2.51	416.13	80.72	246,682.68

Operational Settings:

Does not include correction for passby trips
Does not include double counting adjustment for internal trips
Analysis Year: 2017 Temperature (F): 80 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
Racquetball/health		32.57	1000 sq ft	25.00	814.25	7,395.43
Fast food rest. w/ drive thru		339.85	1000 sq ft	5.00	1,699.25	15,433.44
Free-standing discount store		54.28	1000 sq ft	138.00	7,490.64	67,213.51
Discount club		21.52	1000 sq ft	245.01	5,272.62	47,311.17
Regnl shop. center		123.95	1000 sq ft	33.99	4,213.06	37,803.79
Home improvement superstore		48.05	1000 sq ft	153.00	7,351.65	65,966.35
					26,841.47	241,123.69

8/25/2010 10:33:45 AM

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	53.1	0.2	99.8	0.0
Light Truck < 3750 lbs	6.7	0.0	98.5	1.5
Light Truck 3751-5750 lbs	23.1	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.2	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.5	0.0	80.0	20.0
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.4	45.8	54.2	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)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Racquetball/health				5.0	2.5	92.5
Fast food rest. w/ drive thru				5.0	2.5	92.5
Free-standing discount store				2.0	1.0	97.0
Discount club				2.0	1.0	97.0
Regnl shop. center				2.0	1.0	97.0
Home improvement superstore				2.0	1.0	97.0

7/29/2010 08:40:09 AM

Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: P:\CMP-02.0E\Tech Studies\AQ-GHG\operation\MPMP-Operation.urb924
Project Name: Operation - MPMP
Project Location: Los Angeles County
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)	3.93	5.80	4.87	0.00	0.01	0.01	6,960.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	89.82	136.05	987.95	1.52	305.76	59.30	163,775.28

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	93.75	141.85	992.82	1.52	305.77	59.31	170,735.28

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	0.42	5.80	4.87	0.00	0.01	0.01	6,960.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping - No Winter Emissions							
Consumer Products	0.00						
Architectural Coatings	3.51						
TOTALS (lbs/day, unmitigated)	3.93	5.80	4.87	0.00	0.01	0.01	6,960.00

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Racquetball/health	3.22	4.86	35.36	0.05	10.93	2.12	5,858.47
Fast food rest. w/ drive thru	5.29	8.14	59.18	0.09	18.30	3.55	9,804.85
Free-standing discount store	28.12	42.81	310.82	0.48	96.21	18.66	51,528.87
Discount club	21.89	32.74	237.68	0.37	73.57	14.27	39,402.85
Regnl shop. center	13.63	20.88	151.63	0.23	46.93	9.10	25,138.30
Home improvement superstore	17.67	26.62	193.28	0.30	59.82	11.60	32,041.94
TOTALS (lbs/day, unmitigated)	89.82	136.05	987.95	1.52	305.76	59.30	163,775.28

Operational Settings:

Does not include correction for passby trips
Does not include double counting adjustment for internal trips
Analysis Year: 2017 Temperature (F): 60 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
Racquetball/health		27.90	1000 sq ft	25.00	697.50	6,335.04
Fast food rest. w/ drive thru		233.47	1000 sq ft	5.00	1,167.35	10,602.46
Free-standing discount store		45.02	1000 sq ft	138.00	6,212.76	55,747.09
Discount club		19.39	1000 sq ft	245.01	4,750.74	42,628.42
Regnl shop. center		89.17	1000 sq ft	33.99	3,030.89	27,196.16
Home improvement superstore		25.25	1000 sq ft	153.00	3,863.25	34,664.94
					19,722.49	177,174.11

7/29/2010 08:40:09 AM

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	53.1	0.2	99.8	0.0
Light Truck < 3750 lbs	6.7	0.0	98.5	1.5
Light Truck 3751-5750 lbs	23.1	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.2	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.5	0.0	80.0	20.0
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.4	45.8	54.2	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)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Racquetball/health				5.0	2.5	92.5
Fast food rest. w/ drive thru				5.0	2.5	92.5
Free-standing discount store				2.0	1.0	97.0
Discount club				2.0	1.0	97.0
Regnl shop. center				2.0	1.0	97.0
Home improvement superstore				2.0	1.0	97.0

8/25/2010 10:34:00 AM

Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: P:\CMP-02.0E\Tech Studies\AQ-GHG\operation\MPMP-OperationWEEKEND.urb924
Project Name: Operation - MPMP WEEKEND
Project Location: Los Angeles County
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)	3.93	5.80	4.87	0.00	0.01	0.01	6,960.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	121.65	185.14	1,344.54	2.08	416.13	80.72	222,888.56

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	125.58	190.94	1,349.41	2.08	416.14	80.73	229,848.56

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	0.42	5.80	4.87	0.00	0.01	0.01	6,960.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping - No Winter Emissions							
Consumer Products	0.00						
Architectural Coatings	3.51						
TOTALS (lbs/day, unmitigated)	3.93	5.80	4.87	0.00	0.01	0.01	6,960.00

8/25/2010 10:34:00 AM

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Racquetball/health	3.75	5.67	41.28	0.06	12.76	2.48	6,839.08
Fast food rest. w/ drive thru	7.69	11.84	86.14	0.13	26.64	5.17	14,272.40
Free-standing discount store	33.83	51.61	374.75	0.58	116.00	22.50	62,127.65
Discount club	24.22	36.33	263.79	0.41	81.65	15.84	43,731.27
Regnl shop. center	18.91	29.03	210.78	0.33	65.24	12.65	34,943.29
Home improvement superstore	33.25	50.66	367.80	0.57	113.84	22.08	60,974.87
TOTALS (lbs/day, unmitigated)	121.65	185.14	1,344.54	2.08	416.13	80.72	222,888.56

Operational Settings:

Does not include correction for passby trips
Does not include double counting adjustment for internal trips
Analysis Year: 2017 Temperature (F): 60 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
Racquetball/health		32.57	1000 sq ft	25.00	814.25	7,395.43
Fast food rest. w/ drive thru		339.85	1000 sq ft	5.00	1,699.25	15,433.44
Free-standing discount store		54.28	1000 sq ft	138.00	7,490.64	67,213.51
Discount club		21.52	1000 sq ft	245.01	5,272.62	47,311.17
Regnl shop. center		123.95	1000 sq ft	33.99	4,213.06	37,803.79
Home improvement superstore		48.05	1000 sq ft	153.00	7,351.65	65,966.35
					26,841.47	241,123.69

8/25/2010 10:34:00 AM

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	53.1	0.2	99.8	0.0
Light Truck < 3750 lbs	6.7	0.0	98.5	1.5
Light Truck 3751-5750 lbs	23.1	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.2	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.5	0.0	80.0	20.0
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.4	45.8	54.2	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)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Racquetball/health				5.0	2.5	92.5
Fast food rest. w/ drive thru				5.0	2.5	92.5
Free-standing discount store				2.0	1.0	97.0
Discount club				2.0	1.0	97.0
Regnl shop. center				2.0	1.0	97.0
Home improvement superstore				2.0	1.0	97.0

Criteria Air Pollutants

Comparison of 2000 MPTP
to the MPMP Precise Plan

Weekday

2000 MPTP	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
ANNUAL 2000 MPTP							
	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Stationary	1	1	1	0	0	0	1,091
Mobile	14	21	178	0	53	10	30,278
TOTAL	15	22	179	0	53	10	31,368
SUMMER 2000 MPTP							
	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Stationary	3	5	6	0	0	0	5,977
Mobile	76	107	992	2	289	56	171,417
TOTAL	79	112	998	2	289	56	177,394
WINTER 2000 MPTP							
	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Stationary	3	5	4	0	0	0	5,974
Mobile	85	129	934	1	289	56	154,882
TOTAL	88	134	938	1	289	56	160,856
Maximum Daily	88	134	998	2	289	56	177,394

Weekday

MPMP Precise Plan	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
ANNUAL MPMP							
	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Area	1	1	3	0	0	0	1,273
Mobile	15	22	188	0	56	11	32,016
Total	16	23	190	0	56	11	33,289
Average Annual Mobile	17	24	207	0	61	12	35,214
SUMMER MPMP							
	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Area	5	6	14	0	0	0	6,977
Mobile	80	113	1,049	2	306	59	181,259
Total	85	119	1,064	2	306	59	188,236
WINTER MPMP							
	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Area	4	6	5	0	0	0	6,960
Mobile	90	136	988	2	306	59	163,775
Total	94	142	993	2	306	59	170,735
Maximum Daily	94	142	1,064	2	306	59	188,236
Increase	6	8	66	0	17	3	10,842
	6%	6%	7%	5%	6%	6%	6%
2000 MPTP from 2000 EIR	142	329	1,155	0	118	NA	NA
Increase	-48	-187	-91	2	188	NA	NA
	-34%	-57%	-8%	1740%	159%	NA	NA

Weekend

2000 MPTP	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
ANNUAL 2000 MPTP							
	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Stationary	1	1	1	0	0	0	1,091
Mobile	14	21	178	0	53	10	30,278
TOTAL	15	22	179	0	53	10	31,368
SUMMER 2000 MPTP							
	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Stationary	3	5	6	0	0	0	5,977
Mobile	76	107	992	2	289	56	171,417
TOTAL	79	112	998	2	289	56	177,394
WINTER 2000 MPTP							
	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Stationary	3	5	4	0	0	0	5,974
Mobile	85	129	934	1	289	56	154,882
TOTAL	88	134	938	1	289	56	160,856
Maximum Daily	88	134	998	2	289	56	177,394

Weekend

MPMP Precise Plan	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
ANNUAL MPMP							
	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Area	1	1	3	0	0	0	1,273
Mobile	21	30	256	0	76	15	43,572
Total	21	31	258	0	76	15	44,845
Average Annual Mobile	17	24	207	0	61	12	35,214
SUMMER MPMP							
	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Area	5	6	14	0	0	0	6,977
Mobile	108	154	1,428	3	416	81	246,683
Total	113	160	1,442	3	416	81	253,660
WINTER MPMP							
	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Area	4	6	5	0	0	0	6,960
Mobile	122	185	1,345	2	416	81	222,889
Total	126	191	1,349	2	416	81	229,849
Maximum Daily	126	191	1,442	3	416	81	253,660
Increase	37	57	444	1	127	25	76,266
	42%	43%	45%	43%	44%	44%	43%
2000 MPTP from 2000 EIR	142	329	1,155	0	118	NA	NA
Increase	-16	-138	287	2	298	NA	NA
	-12%	-42%	25%	2410%	253%	NA	NA

SAN GABRIEL FIRE DEPT, CALIFORNIA (047785)

Period of Record Monthly Climate Summary

Period of Record : 5/ 1/1939 to 12/31/2009

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	69.1	70.2	71.7	75.2	77.7	82.5	88.8	89.7	88.1	82.2	75.3	69.8	78.4
Average Min. Temperature (F)	41.8	43.6	45.9	49.1	53.5	57.2	61.1	61.5	59.4	53.8	46.4	41.9	51.3
Average Total Precipitation (in.)	3.70	3.98	3.00	1.21	0.28	0.09	0.02	0.07	0.35	0.56	1.64	2.35	17.24
Average Total SnowFall (in.)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Average Snow Depth (in.)	0	0	0	0	0	0	0	0	0	0	0	0	0

Percent of possible observations for period of record.
Max. Temp.: 98.6% Min. Temp.: 98.5% Precipitation: 98.8% Snowfall: 95.6% Snow Depth: 95.6%
Check Station Metadata or Metadata graphics for more detail about data completeness.

Western Regional Climate Center, wrcc@dri.edu

SAN GABRIEL FIRE DEPT, CALIFORNIA

Period of Record General Climate Summary - Temperature

Station:(047785) SAN GABRIEL FIRE DEPT

From Year=1939 To Year=2009

	Monthly Averages			Daily Extremes				Monthly Extremes				Max. Temp.	
	Max.	Min.	Mean	High	Date	Low	Date	Highest Mean	Year	Lowest Mean	Year	>= 90 F	<= 32
	F	F	F	F	dd/yyyy or yyyymmdd	F	dd/yyyy or yyyymmdd	F	-	F	-	# Days	# Da
January	69.1	41.8	55.5	94	18/1971	22	04/1949	62.5	1986	45.7	1949	0.1	0
February	70.2	43.6	56.9	94	02/1995	21	06/2003	62.9	1995	50.8	1956	0.4	0
March	71.7	45.9	58.8	101	26/1988	31	01/1945	64.6	1997	51.9	1952	0.5	0
April	75.2	49.1	62.2	106	06/1989	34	09/1953	68.2	1992	54.2	1967	2.2	0
May	77.7	53.5	65.6	106	20/1942	38	13/1962	73.3	1997	61.2	1977	2.6	0
June	82.5	57.2	69.9	111	26/1990	43	01/1971	77.0	1981	64.5	1965	4.7	0
July	88.8	61.1	74.9	108	01/1985	46	07/1948	80.6	2006	71.0	1944	13.1	0
August	89.7	61.5	75.6	112	07/1983	50	26/1943	80.5	1992	71.8	1948	15.8	0
September	88.1	59.4	73.7	112	04/1988	42	28/1948	82.0	1984	68.3	1965	12.6	0
October	82.2	53.8	68.0	108	10/1991	33	30/1971	75.2	2003	62.5	1946	6.8	0
November	75.3	46.4	60.8	101	02/1997	30	23/1947	65.7	2008	55.7	1994	1.5	0
December	69.8	41.9	55.8	96	03/1958	24	22/1990	60.6	1950	50.2	1971	0.2	0
Annual	78.4	51.3	64.8	112	19830807	21	20030206	67.7	1997	62.0	1948	60.5	0
Winter	69.7	42.5	56.1	96	19581203	21	20030206	60.2	1986	49.4	1949	0.7	0
Spring	74.9	49.5	62.2	106	19420520	31	19450301	67.6	1997	58.8	1953	5.3	0
Summer	87.0	59.9	73.5	112	19830807	43	19710601	77.5	1981	70.1	1948	33.6	0
Fall	81.9	53.2	67.5	112	19880904	30	19471123	72.7	2003	64.2	1946	20.9	0

Table updated on Apr 15, 2010

For monthly and annual means, thresholds, and sums:
Months with 5 or more missing days are not considered
Years with 1 or more missing months are not considered
Seasons are climatological not calendar seasons

Winter = Dec., Jan., and Feb. Spring = Mar., Apr., and May

Summer = Jun., Jul., and Aug. Fall = Sep., Oct., and Nov.