APPENDIX I

URBEMIS 2002 For Windows 7.4.2

File Name: C:\Program Files\URBEMIS 2002 For Windows\Projects2k2\forestex.urb
Project Name: Forest Ranch Existing Zoning
Project Location: Mountain Counties and Rural Counties
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT (Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES							
	RÓG	NOx	CO	SO2	PM10		
TOTALS (lbs/day,unmitigated)	27.34	6.76	9.34	0.20	0.03		
OPERATIONAL (VEHICLE) EMISSION I	ESTIMATES						
	ROG	NOx	co	502	PM10		
TOTALS (lbs/day,unmitigated)	24.88	42.14	317.68	0.27	47.82		
SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES							
SOM OF AREA AND OFERALIONAL EMIS	ROG	NOx	co	S02	PM10		
mombic (15+/3+							
TOTALS (lbs/day,unmitigated)	52.22	48.91	327.02	0.47	47.85		

URBEMIS 2002 For Windows 7.4.2

File Name: Project Name:

C:\Program Files\URBEMIS 2002 For Windows\Projects2k2\forestex.urb Forest Ranch Existing Zoning Mountain Counties and Rural Counties

Project Location:

On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT (Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES	(Summer	Pounds per	Day, Unmit:	igated)	
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.52	6.68	2.84	_	0.01
Wood Stoves - No summer emiss	ions				
Fireplaces - No summer emissi	ons				
Landscaping	0.75	0.09	6.50	0.20	0.01
Consumer Prdcts	26.08	_	-	_	_
TOTALS(lbs/day,unmitigated)	27.34	6.76	9.34	0.20	0.03

Single family housing	ROG	NOx	CO	SO2	PM10
	24.88	42.14	317.68	0.27	47.82
TOTAL EMISSIONS (lbs/day)	24.88	42.14	317.68	0.27	47.82

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2010 Temperature (F): 70 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Single family housing	5.54 trips / dwelling units	533.00	2,952.82

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.70	1.10	98.70	0.20
Light Truck < 3,750 lbs	s 15.20	2.00	96.00	2.00
Light Truck 3,751- 5,750	16.20	1.20	98.10	0.70
Med Truck 5,751-8,500	7.30	1.40	95.90	2.70
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	s 0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.60	68.80	31.20	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.40	7.10	85.70	7.20

	Residential			Commercial		
	Home-	Home-	Home-			
	Work	Shop	Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Area

Changes made to the default values for Operations

The operational emission year changed from 2004 to 2010. The operational winter selection item changed from 2 to 1. The operational summer temperature changed from 60 to 70. The travel mode environment settings changed from both to: none

URBEMIS 2002 For Windows 7.4.2

File Name: C:\Program Files\URBEMIS 2002 For Windows\Projects2k2\forestex.urb
Project Name: Forest Ranch Existing Zoning
Project Location: Mountain Counties and Rural Counties
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT (Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES	ROG	NOx	со	so2	PM10		
TOTALS (lbs/day,unmitigated)	763.05	35.33	1,778.83	4.69	272.51		
OPERATIONAL (VEHICLE) EMISSION	ESTIMATES						
	ROG	NOx	co	SO2	PM10		
TOTALS (lbs/day,unmitigated)	31.98	56.08	391.57	0.27	47.82		
SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES							
	ROG	иох	CO	SO2	PM10		
TOTALS (lbs/day,unmitigated)	795.03	91.42	2,170.40	4.96	320.33		

URBEMIS 2002 For Windows 7.4.2

File Name: C:\Program Files\URBEMIS 2002 For Windows\Projects2k2\forestex.urb
Project Name: Forest Ranch Existing Zoning
Project Location: Mountain Counties and Rural Counties
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT (Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES	(Winter	Pounds per	Day, Unmit	igated)	
Source	ROG	NOx	co	SO2	PM10
Natural Gas	0.52	6.68	2.84	-	0.01
Wood Stoves	139.45	21.88	1,117.45	3.65	182.29
Fireplaces	597.01	6.78	658.53	1.04	90.20
Landscaping - No winter emissions					
Consumer Prdcts	26.08	_	-	_	_
TOTALS(lbs/day,unmitigated)	763.05	35.33	1,778.83	4.69	272.51

Single family housing	ROG	NOx	CO	SO2	PM10
	31.98	56.08	391.57	0.27	47.82
TOTAL EMISSIONS (lbs/day)	31.98	56.08	391.57	0.27	47.82

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2010 Temperature (F): 40 Season: Winter

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Single family housing	5.54 trips / dwelling units	533.00	2,952.82

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.70	1.10	98.70	0.20
Light Truck < 3,750 lbs	15.20	2.00	96.00	2.00
Light Truck 3,751- 5,750	16.20	1.20	98.10	0.70
Med Truck 5,751-8,500	7.30	1.40	95.90	2.70
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.60	68.80	31.20	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.40	7.10	85.70	7.20

	Residential				Commercia	l.
	Home- Work	Home- Shop	Home- Other	Commute	Non-Work	Customer
Urban Trip Length (miles)		7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)		7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Area

Changes made to the default values for Operations

The operational emission year changed from 2004 to 2010. The operational winter selection item changed from $\,2$ to 1. The operational summer temperature changed from $\,60$ to 70. The travel mode environment settings changed from $\,$ both to: none

URBEMIS 2002 For Windows 7.4.2

File Name: C:\Program Files\URBEMIS 2002 For Windows\Projects2k2\forestex.urb
Project Name: Forest Ranch Existing Zoning
Project Location: Mountain Counties and Rural Counties
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT (Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES	(Summer	Pounds per	Day, Unmiti	gated)	
Source	ROG	NOx	co	SO2	PM10
Natural Gas	0.52	6.68	2.84	-	0.01
Wood Stoves - No summer emiss	ions				
Fireplaces - No summer emissi	ons				
Landscaping	0.75	0.09	6.50	0.20	0.01
Consumer Prdcts	26.08	_	-	_	_
TOTALS(lbs/day,unmitigated)	27.34	6.76	9.34	0.20	0.03

Single family housing	ROG	NOx	CO	SO2	PM10
	24.88	42.14	317.68	0.27	47.82
TOTAL EMISSIONS (lbs/day)	24.88	42.14	317.68	0.27	47.82

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2010 Temperature (F): 70 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Single family housing	5.54 trips / dwelling units	533.00	2,952.82

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.70	1.10	98.70	0.20
Light Truck < 3,750 lbs	15.20	2.00	96.00	2.00
Light Truck 3,751- 5,750	16.20	1.20	98.10	0.70
Med Truck 5,751-8,500	7.30	1.40	95.90	2.70
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.60	68.80	31.20	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.40	7.10	85.70	7.20

	Residential				Commercia:	l
	Home- Home- Home-					
	Work	Shop	Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Area

Changes made to the default values for Operations

The operational emission year changed from 2004 to 2010. The operational winter selection item changed from $\,2\,$ to $\,1.$ The operational summer temperature changed from $\,60\,$ to $\,70.$ The travel mode environment settings changed from $\,$ both to: none

URBEMIS 2002 For Windows 7.4.2

File Name: C:\Program Files\URBEMIS 2002 For Windows\Projects2k2\forestranch.urb
Project Name: Forest Ranch Project
Project Location: Mountain Counties and Rural Counties
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT (Pounds/Day - Summer)

CONCERNICATION DATECTON DOMENTARD	α.						
<pre>construction emission estimate: *** 2005 *** TOTALS (lbs/day,unmitigated)</pre>	ROG 87.22	NOx 723.16	CO 613.98	SO2 0.02	PM10 TOTAL 233.71	PM10 EXHAUST 33.63	PM10 DUST 200.08
TOTALS (lbs/day, mitigated)	87.22	723.16	613.98	0.02	87.49	33.63	53.86
*** 2006 ***	pog			400	PM10	PM10	PM10
TOTALS (lbs/day,unmitigated)	ROG 961.99	NOx 585.38	CO 807.82	SO2 0.28	TOTAL 30.51	EXHAUST 25.27	DUST 5.24
TOTALS (lbs/day, mitigated)	961.99	585.38	807.82	0.28	30.51	25.27	5.24
1111111 (,],3,	74-705	00000	001102	3120		2012	0.21
AREA SOURCE EMISSION ESTIMATES							
TOTALS (lbs/day,unmitigated)	ROG 119.07	NOx 29.51	CO 43.52	SO2 0.87	PM10 0.12		
OPERATIONAL (VEHICLE) EMISSION	ESTIMATES						
	ROG	NOx	CO	SO2	PM10		
TOTALS (lbs/day,unmitigated)	121.80	200.06	1,476.12	1.25	125.19		
SUM OF AREA AND OPERATIONAL EMI	SSION ESTI	MATES					
	ROG	NOx	co	SO2	PM10		
TOTALS (lbs/day,unmitigated)	240.87	229.57	1,519.64	2.12	125.31		

URBEMIS 2002 For Windows 7.4.2

File Name: C:\Program Files\URBEMIS 2002 For Windows\Projects2k2\forestranch.urb
Project Name: Forest Ranch Project
Project Location: Mountain Counties and Rural Counties
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT (Pounds/Day - Winter)

CONSTRUCTION EMISSION ESTIMATE	ss				PM10	PM10	PM10
*** 2005 ***	ROG	NOx	co	SO2	TOTAL	EXHAUST	DUST
TOTALS (lbs/day, unmitigated)	87.22	723.16	613.98	0.02	233.71	33.63	200.08
TOTALS (lbs/day, mitigated)	87.22	723.16	613.98	0.02	87.49	33.63	53.86
TOTALS (IDS/day, milligated)	01.22	723.10	013.90	0.02	07.43	33.03	33.00
					PM10	PM10	PM10
*** 2006 ***	ROG	NOx	co	SO2	TOTAL	EXHAUST	DUST
TOTALS (lbs/day,unmitigated)	961.99	585.38	807.82	0.28	30.51	25.27	5.24
TOTALS (lbs/day, mitigated)	961.99	585.38	807.82	0.28	30.51	25.27	5.24
TOTALS (IDS/day, micigated)	501.55	303.30	007.02	0.20	30.51	23.2,	0.2.
AREA SOURCE EMISSION ESTIMATES	ROG	NOx	со	SO2	PM10		
TOTALS (lbs/day,unmitigated)	3,311.35	153.45	7,719.43	20.35	1,182.57		
OPERATIONAL (VEHICLE) EMISSION	ESTIMATES ROG	NOx	со	S02	PM10		,
TOTALS (lbs/day,unmitigated)	152.53	240.78	1,769.39	1,25	125.19		
TOTALS (IDS/day, dimitelyaced)	132.33	240.70	1,,05.55	1.25	120.15		
SUM OF AREA AND OPERATIONAL EM	ISSION ESTI	MATES					
•	ROG	NOx	CO	SO2	PM10		
TOTALS (lbs/day,unmitigated)	3,463.87	394.23	9,488.82	21.60	1,307.77		
•	•		-		•		

URBEMIS 2002 For Windows 7.4.2

C:\Program Files\URBEMIS 2002 For Windows\Projects2k2\forestranch.urb File Name:

Project Name: Forest Ranch Project

Project Location: Mountain Counties and Rural Counties On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT (Pounds/Day - Winter)

Construction Start Month and Year: June, 2005

Construction Duration: 12

Total Land Use Area to be Developed: 10 acres Maximum Acreage Disturbed Per Day: 20 acres Single Family Units: 2313 Multi-Family Units: 0 Retail/Office/Institutional/Industrial Square Footage: 19000

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

CONSTRUCTION EMISSION ESTIM	ATES UNMIT	GATED (ID:	s/day)		DW1.0	DM1.0	DW10
Source	ROG	МОх	со	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
Source *** 2005***	ROG	NOX	CO	302	IOIAL	EVUMOSI	D031
Phase 1 - Demolition Emissi	one						
Fugitive Dust	-	<u>-</u>	_	_	0.00	_	0.00
Off-Road Diesel	0.00	0.00	0.00	_	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emis	sions						
Fugitive Dust	_	_	_	_	200.00	-	200.00
Off-Road Diesel	86.14	720.97	590.04	_	33.59	33.59	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	1.08	2.19	23.94	0.01	0.12	0.04	0.08
Off-Road Diesel On-Road Diesel Worker Trips Maximum lbs/day	87.22	723.16	613.98	0.01	233.71	33.63	200.08
Maximum 1557 day	07122	,23.10	013.50	0.01	2001.12	55.55	200.00
Phase 3 - Building Construc	tion						
	56.25	455.48	396.97	_	20.94	20.94	0.00
Bldg Const Worker Trips	11.63	6.89	146.58	0.02	2.70	0.10	2.60
Arch Coatings Off-Gas	0.00	_	_	_	_	_	_
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asnhalt Off-Gas	0 00	-	-	-	-	-	
Asphalt Off-Road Diesel	0.00 0.00 0.00 67.88	0.00	0.00	_	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	67.88	462.37	543.54	0.02	23.65	21.05	2.60
Transfillation 1207 day	07.00	102.5	0.0.0.	0.02	23.05	21.05	2.00
Max lbs/day all phases	87.22	723.16	613.98	0.02	233.71	33.63	200.08
*** 2006***							
Phase 1 - Demolition Emissic	ons				•		
Fugitive Dust	-	-	-	_	0.00	_	0.00
Off-Road Diesel On-Road Diesel Worker Trips	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
							•
Phase 2 - Site Grading Emiss	sions						
Fugitive Dust	_	-	-	_	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-							
Phase 3 - Building Construct	tion						
Bldg Const Off-Road Diesel	56.25	436.37	410.24	-	19.75	19.75	0.00
Bldg Const Worker Trips	10.95	6.58	139.14	0.02	2.71	0.11	2.60
Arch Coatings Off-Gas	862.25	-	-	-	-	_	_
Arch Coatings Worker Trips	10.37	5.39	117.30	0.01	2.71	0.11	2.60
Asphalt Off-Gas	2.76	_	-	-	-	_	-
Asphalt Off-Road Diesel	19.00	121.22	158.64	_	4.92	4.92	0.00
Asphalt On-Road Diesel	0.89	16.96	3.29	0.26	0.40	0.38	0.02
Asphalt Worker Trips	0.09	0.05	1.05	0.00	0.02	0.00	0.02
Maximum lbs/day	0.89 0.09 961.99	585.38	807.82	0.28	30.51	25.27	5.24
Max lbs/day all phases	961.99	585.38	807.82	0.28	30.51	25.27	5.24

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions Start Month/Year for Phase 2: Jun '05 Phase 2 Duration: 1.3 months On-Road Truck Travel (VMT): 0

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
20	Rubber Tired Dozers	352	0.590	8.0
20	Tractor/Loaders/Backhoes	79	0.465	8.0

Phase 3 - Building Construction Assumptions Phase 3 Building Constitution assumptions
Start Month/Year for Phase 3: Jul '05
Phase 3 Duration: 10.7 months
Start Month/Year for SubPhase Building: Jul '05
SubPhase Building Duration: 10.7 months

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
9	Concrete/Industrial saws	84	0.730	8.0
19	Other Equipment	190	0.620	8.0
9	Rough Terrain Forklifts	94	0.475	8.0

Start Month/Year for SubPhase Architectural Coatings: Apr '06 SubPhase Architectural Coatings Duration: 1.1 months

Start Month/Year for SubPhase Asphalt: May '06 SubPhase Asphalt Duration: 0.5 months

Acres to be Paved: 11.6

Off-Ro	ad Equipment			
No.	Type	Horsepower	Load Factor	Hours/Day
2	Graders	174	0.575	8.0
2	Off Highway Trucks	417	0.490	8.0
2	Pavers	132	0.590	8.0
2	Paving Equipment	111	0.530	8.0
4	Rollers	114	0.430	8.0

AREA SOURCE EMISSION ESTIMATES	(Winter	Pounds per	Day, Unmi	tigated)	
Source	ROG	NŌх	CO	SO2	PM10
Natural Gas	2.25	29.11	12.38	_	0.06
Wood Stoves	605.17	94.93	4,849.29	15.82	791.07
Fireplaces	2,590.77	29.41	2,857.76	4.53	391.44
Landscaping - No winter emiss	sions				
Consumer Prdcts	113.16	_	-	-	-
TOTALS(lbs/day,unmitigated)	3,311.35	153.45	7,719.43	20.35	1,182.57

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ROG	NOx	CO	SO2	PM10
48.90	77.49	567.85	0.40	40.39
5.73	9.08	66.53	0.05	4.73
85.99	136.27	998.62	0.71	71.03
6.05	9.63	72.34	0.05	4.89
1.95	2.97	22.03	0.02	1.53
3.91	5.35	42.02	0.03	2.63
152.53	240.78	1,769.39	1.25	125.19
	48.90 5.73 85.99 6.05 1.95 3.91	48.90 77.49 5.73 9.08 85.99 136.27 6.05 9.63 1.95 2.97 3.91 5.35	48.90 77.49 567.85 5.73 9.08 66.53 85.99 136.27 998.62 6.05 9.63 72.34 1.95 2.97 22.03 3.91 5.35 42.02	48.90 77.49 567.85 0.40 5.73 9.08 66.53 0.05 85.99 136.27 998.62 0.71 6.05 9.63 72.34 0.05 1.95 2.97 22.03 0.02 3.91 5.35 42.02 0.03

Includes correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2004 Temperature (F): 40 Season: Winter

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Single family housing/Tow Recreational Vehicle Park	5.54 trips / dwelling units 3.33 trips / dwelling units	513.00 100.00	2,842.02 333.00
Retirement community	2.94 trips / dwelling units	1,700.00	4,998.00
Golf Course Office/Professional	28.60 trips / hole 26.60 trips / 1000 sg. ft.	18.00 5.00	514.80 133.00
Medical/Dental	25.50 trips / 1000 sq. ft.	14.00	357.00

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	56.10	2.70	96.80	0.50
Light Truck < 3,750 lb	s 15.10	4.60	92.70	2.70
Light Truck 3,751- 5,75	0 15.60	2.60	96.20	1.20
Med Truck 5,751-8,50	0 6.90	2.90	94.20	2.90
Lite-Heavy 8,501-10,00	0 1.00	0.00	80.00	20.00
Lite-Heavy 10,001-14,00	0 0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,00	0 1.00	10.00	20.00	70.00
Heavy-Heavy 33,001-60,00	0.80	0.00	12.50	87.50
Line Haul > 60,000 lb.	s 0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.60	87.50	12.50	0.00
School Bus	0.20	0.00	0.00	100.00
Motor Home	1.30	15.40	76.90	7.70

1-2	Home-	Residential			Commercial		
Urban Trip Length (miles) Rural Trip Length (miles) Trip Speeds (mph) % of Trips - Residential	Work 10.8 16.8 35.0	Home- Shop 7.3 7.1 35.0 18.0	Home- Other 7.5 7.9 35.0 49.1	Commute 9.5 14.7 35.0	Non-Work C 7.4 6.6 35.0	ustomer 7.4 6.6 35.0	
% of Trips - Commercial (I Golf Course Office/Professional Medical/Dental	oy land	use)		2.0 35.0 7.0	1.0 17.5 3.5	97.0 47.5 89.5	

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

Architectural Coatings: paint thickness (mils) (residential) changed from 1 to .1
Architectural Coatings: paint thickness (mils) (non-res) changed from 1 to .1
Phase 2 mitigation measure Soil Disturbance: Apply soil stabilizers to inactive areas has been changed from off to on.
Phase 2 mitigation measure Soil Disturbance: Water exposed surfaces - 2x daily has been changed from off to on.
Phase 2 mitigation measure Unpaved Roads: Water all haul roads 2x daily has been changed from off to on.
Phase 2 mitigation measure Unpaved Roads: Reduce speed on unpaved roads to < 15 mph has been changed from off to on.

Changes made to the default values for Area

Changes made to the default values for Operations

The pass by trips option switch changed from off to on. The double counting internal work trip limit changed from to 81.836. The double counting shopping trip limit changed from to 40.918. The double counting other trip limit changed from to 882.046. The travel mode environment settings changed from both to: both

URBEMIS 2002 For Windows 7.4.2

File Name: C:\Program Files\URBEMIS 2002 For Windows\Projects2k2\forestranch.urb
Project Name: Forest Ranch Project
Project Location: Mountain Counties and Rural Counties
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT (Pounds/Day - Summer)

Construction Start Month and Year: June, 2005

Construction Duration: 12

Total Land Use Area to be Developed: 10 acres Maximum Acreage Disturbed Per Day: 20 acres Single Family Units: 2313 Multi-Family Units: 0
Retail/Office/Institutional/Industrial Square Footage: 19000

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

CONSTRUCTION EMISSION ESTIM	IATES UNMITI	GATED (lbs	s/day)		D141.0	D143.0	D) (1 0
	200	170	00	000	PM10	PM10	PM10 DUST
Source *** 2005***	ROG	NOx	co	SO2	TOTAL	EXHAUST	D031
Phase 1 - Demolition Emissi	one						
Fugitive Dust	Olis -	_	_	_	0.00	_	0.00
Off-Road Diesel	0.00	0.00	0.00	_	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum ibs/day	0.00	0.00	0.00	0.00	0.00	••••	0.00
Phase 2 - Site Grading Emis	sions						
Fugitive Dust	-	_	_	_	200.00	-	200.00
Off-Road Diesel	86.14	720.97	590.04	_	33.59	33.59	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	1.08	2.19	23.94	0.01	0.12	0.04	0.08
On-Road Diesel Worker Trips Maximum lbs/day	87.22	723.16	613.98	0.01	233.71	33.63	200.08
					•		
Phase 3 - Building Construc	tion						
Bldg Const Off-Road Diesel	56.25	455.48	396.97	-	20.94	20.94	0.00
Bldg Const Worker Trips	11.63	6.89	146.58	0.02	2.70	0.10	2.60
Arch Coatings Off-Gas	0.00	-	_	_	-		-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	_	-	_	_	_	.
Asphalt Off-Road Diesel	0.00	0.00	0.00	_	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	67.88	462.37	543.54	0.02	23.65	21.05	2.60
Max lbs/day all phases	87.22	723.16	613.98	0.02	233.71	33.63	200.08
*** 2006***							
Phase 1 - Demolition Emissi	one						
Fugitive Dust	-	_	_	_	0.00	_	0.00
Off-Road Diesel	0.00	0.00	0.00	_	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day		0.00	0.00	0.00	0.00	0.00	0.00
Maximum ibs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emis	sions						
Fugitive Dust	_	_	_	-	0.00	_	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construct	tion						
Bldg Const Off-Road Diesel	56.25	436.37	410.24	-	19.75	19.75	0.00
Bldg Const Worker Trips	10.95	6.58	139.14	0.02	2.71	0.11	2.60
Arch Coatings Off-Gas	862.25	_	-	_	-	-	_
Arch Coatings Worker Trips		5.39	117.30	0.01	2.71	0.11	2.60
Asphalt Off-Gas	2.76	-	-	-	-	-	_
Asphalt Off-Road Diesel	19.00	121.22	158.64	-	4.92	4.92	0.00
Asphalt On-Road Diesel	0.89		3.29	0.26	0.40	0.38	0.02
Asphalt Worker Trips	0.09 961.99	0.05	1.05	0.00	0.02	0.00	0.02
Maximum lbs/day	961.99	585.38	807.82	0.28	30.51	25.27	5.24
Max lbs/day all phases	961.99	585.38	807.82	0.28	30.51	25.27	5.24

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions Start Month/Year for Phase 2: Jun '05

Phase 2 Duration: 1.3 months On-Road Truck Travel (VMT): 0

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
20	Rubber Tired Dozers	352	0.590	8.0
20	Tractor/Loaders/Backhoes	79	0.465	8.0

Phase 3 - Building Construction Assumptions Start Month/Year for Phase 3: Jul '05 Phase 3 Duration: 10.7 months Start Month/Year for SubPhase Building: Jul '05

SubPhase Building Duration: 10.7 months Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
9	Concrete/Industrial saws	84	0.730	8.0
19	Other Equipment	190	0.620	8.0
9	Rough Terrain Forklifts	94	0.475	8.0
Start M	onth/Year for SubPhase Architectura	l Coatings: 1	Apr '06	
SubPhase	e Architectural Coatings Duration: :	1.1 months	-	
Start M	onth/Year for SubPhase Asphalt: May	'06		
SubPhase	e Asphalt Duration: 0.5 months			
Acres to	o be Paved: 11.6			
Off-Pos	d Fauinment			

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Graders	174	0.575	8.0
2	Off Highway Trucks	417	0.490	8.0
2	Pavers	132	0.590	8.0
2	Paving Equipment	111	0.530	8.0
4	Rollers	114	0.430	8.0

AREA SOURCE EMISSION ESTIMATES	(Summer	Pounds per	Day, Unmiti	gated)	
Source	ROG	NOx	co	S02	PM10
Natural Gas	2.25	29.1 1	12.38	- `	0.06
Wood Stoves - No summer emiss:	lons				
Fireplaces - No summer emission	ons	•			
Landscaping	3.67	0.40	31.13	0.87	0.06
Consumer Prdcts	113.16	_	_	_	_
TOTALS(lbs/day,unmitigated)	119.07	29.51	43.52	0.87	0.12

	ROG	NOX	CO	SO2	PM10
Single family housing/Tow	38.55	64.37	474.72	0.40	40.39
Recreational Vehicle Park	4.59	7.54	55.62	0.05	4.73
Retirement community	69.25	113.20	834.85	0.71	71.03
Golf Course	4.81	8.02	58.82	0.05	4.89
Office/Professional	1.52	2.47	18.26	0.02	1.53
Medical/Dental	3.07	4.46	33.84	0.03	2.63
TOTAL EMISSIONS (lbs/day)	121.80	200.06	1,476.12	1.25	125.19

Includes correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2004 Temperature (F): 60 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Single family housing/Tow	5.54 trips / dwelling units	513.00	2,842.02
Recreational Vehicle Park	3.33 trips / dwelling units	100.00	333.00
Retirement community	2.94 trips / dwelling units	1,700.00	4,998.00
Golf Course	28.60 trips / hole	18.00	514.80
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Lite-Heavy 8,501-10,000	0 1.00	0.00	80.00	20.00
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	0 1.00	10.00	20.00	70.00
Heavy-Heavy 33,001-60,000	0.80	0.00	12.50	87.50
Line Haul > 60,000 lb:	s 0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.60	87.50	12.50	0.00
School Bus	0.20	0.00	0.00	100.00
Motor Home	1.30	15.40	76.90	7.70

Traver commercials	Residential		Commercial			
Urban Trip Length (miles) Rural Trip Length (miles) Trip Speeds (mph) % of Trips - Residential		Home- Shop 7.3 7.1 35.0 18.0	Home- Other 7.5 7.9 35.0 49.1	Commute 9.5 14.7 35.0	Non-Work 6.6 35.0	Customer 7.4 6.6 35.0
% of Trips - Commercial () Golf Course Office/Professional Medical/Dental	by land	use)		2.0 35.0 7.0	1.0 17.5 3.5	97.0 47.5 89.5

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