ORANGE COUNTY SANITATION DISTRICT

Appendix B

URBEMIS AIR QUALITY MODEL

I:\pdata\00000100\10P\WPWIN\EddieT\URBEMIS\URBEMIS2002\OCSD.urb File Name:
 Project Name:
 Carbon Canyon Dam Sewer

 Project Location:
 South Coast Air Basin (Los Angeles area)

 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT (Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

					PM10	PM10	PM10
*** 2006 ***	ROG	NOx	CO	SO2	TOTAL	EXHAUST	DUST
TOTALS (lbs/day,unmitigated)	14.26	92.44	116.23	0.10	8.66	3.65	5.01
TOTALS (lbs/day, mitigated)	14.26	92.44	116.23	0.10	5.57	3.65	1.92

File Name:I:\pdata\00000100\10P\WPWIN\EddieT\URBEMIS\URBEMIS2002\OCSD.urbProject Name:Carbon Canyon Dam SewerProject Location:South Coast Air Basin (Los Angeles area)On-Road Motor Vehicle EmissionsBased on EMFAC2002 version 2.2

SUMMARY REPORT (Pounds/Day - Winter)

CONSTRUCTION EMISSION ESTIMATES

				PM10	PM10	PM10
ROG	NOx	CO	SO2	TOTAL	EXHAUST	DUST
14.26	92.44	116.23	0.10	8.66	3.65	5.01
14.26	92.44	116.23	0.10	5.57	3.65	1.92
	14.26	14.26 92.44	14.26 92.44 116.23	14.26 92.44 116.23 0.10	ROG NOx CO SO2 TOTAL 14.26 92.44 116.23 0.10 8.66	ROG NOx CO SO2 TOTAL EXHAUST 14.26 92.44 116.23 0.10 8.66 3.65

 File Name:
 I:\pdata\00000100\10P\WPWIN\EddieT\URBEMIS\URBEMIS2002\OCSD.urb

 Project Name:
 Carbon Canyon Dam Sewer

 Project Location:
 South Coast Air Basin (Los Angeles area)

 On-Road Motor Vehicle Emissions
 Based on EMFAC2002 version 2.2

SUMMARY REPORT (Tons/Year)

CONSTRUCTION EMISSION ESTIMATES

CONSTRUCTION EMISSION ESTIMA:	LES						
					PM10	PM10	PM10
*** 2006 ***	ROG	NOx	CO	SO2	TOTAL	EXHAUST	DUST
TOTALS (tpy, unmitigated)	0.67	4.36	5.75	0.00	0.33	0.17	0.16
TOTALS (tpy, mitigated)	0.67	4.36	5.75	0.00	0.21	0.17	0.04

File Name: I:\pdata\00000100\10P\WPWIN\EddieT\URBEMIS\URBEMIS2002\OCSD.urb Project Name: Carbon Canyon Dam Sewer Project Location: South Coast Air Basin (Los Angeles area) On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT (Pounds/Day - Winter)

Construction Start Month and Year: March, 2006 Construction Start Month and Pear: March, 2006 Construction Duration: 6 Total Land Use Area to be Developed: 4.8 acres Maximum Acreage Disturbed Per Day: 0.5 acres Single Family Units: 55.5 Multi-Family Units: 0 Retail/Office/Institutional/Industrial Square Footage: 0

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

					PM10	PM10	PM10
Source	ROG	NOx	CO	SO2	TOTAL	EXHAUST	DUST
*** 2006***							
Phase 1 - Demolition Emission	ns						
Fugitive Dust	-	-	-	-	1.89	-	1.89
Off-Road Diesel	6.67	44.44	54.34	-	1.87	1.87	0.00
On-Road Diesel	0.32	7.16	1.19	0.10	0.17	0.14	0.03
Worker Trips	0.05	0.12	1.18	0.00	0.00	0.00	0.00
Maximum lbs/day	7.04	51.72	56.71	0.10	3.93	2.01	1.92
Phase 2 - Site Grading Emiss:	ions						
Fugitive Dust	-	-	-	-	5.00	-	5.00
Off-Road Diesel	11.70	74.59	97.10	-	2.87	2.87	0.00
On-Road Diesel	0.02	0.42	0.07	0.01	0.01	0.01	0.00
Worker Trips	0.14	0.27	2.94	0.00	0.01	0.00	0.01
Maximum lbs/day	11.86	75.28	100.11	0.01	7.89	2.88	5.01
Phase 3 - Building Construct:	ion						
Bldg Const Off-Road Diesel	10.14	64.81	83.84	-	2.47	2.47	0.00
Bldg Const Worker Trips	0.23	0.11	2.88	0.00	0.04	0.00	0.04
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	0.05	-	-	-	-	-	-
Asphalt Off-Road Diesel	3.79	27.33	29.11	-	1.17	1.17	0.00
Asphalt On-Road Diesel	0.01	0.18	0.04	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.03	0.01	0.36	0.00	0.01	0.00	0.01
Maximum lbs/day	14.26	92.44	116.23	0.00	3.70	3.65	0.05
Max lbs/day all phases	14.26	92.44	116.23	0.10	8.66	3.65	5.01

DM1 0

DM1 0

DM1 0

Phase 1 - Demolition Assumptions Start Month/Year for Phase 1: Mar '06 Phase 1 Duration: .5 months Building Volume Total (cubic feet): 4500 Building Volume Daily (cubic feet): 4500 On-Road Truck Travel (VMT): 249 Off-Road Equipment No. Type 1 Off Highway Trucks 1 Rubber Tired Loaders 1 Signal Boards	Horsepower 417 165 119	Load Factor 0.490 0.465 0.820	Hours/Day 8.0 8.0 8.0
Phase 2 - Site Grading Assumptions Start Month/Year for Phase 2: Mar '06 Phase 2 Duration: 2.5 months On-Road Truck Travel (VMT): 14 Off-Road Equipment No. Type 2 Excavators 1 Off Highway Trucks 2 Rubber Tired Loaders 1 Signal Boards	Horsepower 180 417 165 119	Load Factor 0.580 0.490 0.465 0.820	Hours/Day 8.0 8.0 8.0 8.0 8.0 8.0

Phase 3 - Building Construction Assumptions Start Month/Year for Phase 3: Jun '06 Phase 3 Duration: 3.0 months

Start Month/Year for SubPhase Building: Jun '06 SubPhase Building Duration: 2.75 months

Off-Road Equipment

No. Type 1 Bore/Drill Rigs 1 Cranes 1 Off Highway Trucks 1 Signal Boards 1 Trenchers SubPhase Architectural Coa Start Month/Year for SubPh SubPhase Asphalt Duration: Acres to be Paved: 0.103	tings Turne ase Asphalt	ed OFF t: Aug '06	sepower 218 190 417 119 82	Load Factor 0.750 0.430 0.490 0.820 0.695	Но	urs/Day 8.0 8.0 8.0 8.0 4.0	
Off-Road Equipment No. Type		Чот	sepower	Load Factor	Чо	urs/Day	
1 Pavers		HOI	132	0.590	но	4.0	
1 Paving Equipment			111	0.530		4.0	
1 Rollers			114	0.430		8.0	
1 Signal Boards			119	0.820		8.0	
-							
CONSTRUCTION EMISSION ESTIMA	TES MITIGA	rED (lbs/d	lay)				
_					PM10	PM10	PM10
Source	ROG	NOx	CO	SO2	TOTAL	EXHAUST	DUST
*** 2006*** Diana 1 Dama litian Driania							
Phase 1 - Demolition Emissic				_	1 00		1 0 0
Fugitive Dust Off-Road Diesel	6.67	44.44	- 54.34	-	1.89 1.87	- 1.87	1.89
On-Road Diesel	0.32	44.44 7.16	1.19	0.10	0.17	0.14	0.00 0.03
Worker Trips	0.05	0.12	1.19	0.00	0.00	0.00	0.03
Maximum lbs/day	7.04	51.72	56.71	0.10	3.93	2.01	1.92
Maximum ibs/day	1.04	51.72	50.71	0.10	3.93	2.01	1.92
Phase 2 - Site Grading Emiss	ions						
Fugitive Dust		-	-	-	1.03	-	1.03
Off-Road Diesel	11.70	74.59	97.10	-	2.87	2.87	0.00
On-Road Diesel	0.02	0.42	0.07	0.01	0.01	0.01	0.00
Worker Trips	0.14	0.27	2.94	0.00	0.01	0.00	0.01
Maximum lbs/day	11.86	75.28	100.11	0.01	3.92	2.88	1.04
_							
Phase 3 - Building Construct	ion						
Bldg Const Off-Road Diesel	10.14	64.81	83.84	-	2.47	2.47	0.00
Bldg Const Worker Trips	0.23	0.11	2.88	0.00	0.04	0.00	0.04
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	0.05	-	-	-	-	-	-
Asphalt Off-Road Diesel	3.79	27.33	29.11	-	1.17	1.17	0.00
Asphalt On-Road Diesel	0.01	0.18	0.04	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.03	0.01	0.36	0.00	0.01	0.00	0.01
Maximum lbs/day	14.26	92.44	116.23	0.00	3.70	3.65	0.05
Max lbs/day all phases	14.26	92.44	116.23	0.10	5.57	3.65	1.92

Construction-Related Mitigation Measures

Phase 2: Soil Disturbance: Apply soil stabilizers to inactive areas Percent Reduction (ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 30.0%) Phase 2: Soil Disturbance: Replace ground cover in disturbed areas quickly Percent Reduction (ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 15.0%) Phase 2: Soil Disturbance: Water exposed surfaces - 2x daily Percent Reduction (ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 34.0%) Phase 2: Stockpiles: Cover all stock piles with tarps Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 9.5%) Phase 2: Unpaved Roads: Water all haul roads 2x daily Percent Reduction (ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 3.0%) Phase 2: Unpaved Roads: Reduce speed on unpaved roads to < 15 mph Percent Reduction (ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 40.0%) Phase 1 - Demolition Assumptions Start Month/Year for Phase 1: Mar '06 Phase 1 Duration: .5 months Building Volume Total (cubic feet): 4500 Building Volume Daily (cubic feet): 4500 On-Road Truck Travel (VMT): 249 Off-Road Equipment Load Factor Hours/Day No. Туре Horsepower Off Highway Trucks 1 417 0.490 8.0 Rubber Tired Loaders 1 165 0.465 8.0 1 Signal Boards 119 0.820 8.0

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Mar '06 Phase 2 Duration: 2.5 months On-Road Truck Travel (VMT): 14 Off-Road Equipment Load Factor Hours/Day Horsepower No. Туре 0.580 8.0 2 180 Excavators Off Highway Trucks 417 0.490 8.0 1 Rubber Tired Loaders Signal Boards 0.465 8.0 2 165 1 119 0.820 8.0 Phase 3 - Building Construction Assumptions Start Month/Year for Phase 3: Jun '06 Phase 3 Duration: 3.0 months Start Month/Year for SubPhase Building: Jun '06 SubPhase Building Duration: 2.75 months Off-Road Equipment No. Type Horsepower Load Factor Hours/Day 1 Bore/Drill Rigs 218 0.750 8.0 1 Cranes 190 0.430 8.0 Off Highway Trucks 417 0.490 8.0 1 Signal Boards 119 0.820 8.0 1 Trenchers 82 0.695 4.0 1 SubPhase Architectural Coatings Turned OFF Start Month/Year for SubPhase Asphalt: Aug '06 SubPhase Asphalt Duration: 0.25 months Acres to be Paved: 0.103 Off-Road Equipment Туре Hours/Day Load Factor Horsepower No. Pavers 0.590 4.0 132 1 Paving Equipment 0.530 111 4.0 1 Rollers 1 114 0.430 8.0 Signal Boards 0.820 8.0 1 119

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

The user has overridden the Default Phase Lengths

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: Replace ground cover in disturbed areas quickly 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 Stockpiles: Cover all stock piles with tarps

Phase 2 mitigation measure Stockpiles: Cover all stock piles with tarps has been changed from off to on. Phase 2 mitigation measure Unpaved Roads: Water all haul roads 2x daily

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.

File Name: Project Name: Project Location:

I:\pdata\00000100\10P\WPWIN\EddieT\URBEMIS\URBEMIS2002\OCSD.urb Carbon Canyon Dam Sewer South Coast Air Basin (Los Angeles area) On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DM1 O

DM10

DM10

DETAIL REPORT (Pounds/Day - Summer)

Construction Start Month and Year: March, 2006 Construction Duration: 6 Total Land Use Area to be Developed: 4.8 acres Maximum Acreage Disturbed Per Day: 0.5 acres Single Family Units: 55.5 Multi-Family Units: 0 Retail/Office/Institutional/Industrial Square Footage: 0

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

					PM10	PM10	PM10
Source	ROG	NOx	CO	SO2	TOTAL	EXHAUST	DUST
*** 2006***							
Phase 1 - Demolition Emissio	ns						
Fugitive Dust	-	-	-	-	1.89	-	1.89
Off-Road Diesel	6.67	44.44	54.34	-	1.87	1.87	0.00
On-Road Diesel	0.32	7.16	1.19	0.10	0.17	0.14	0.03
Worker Trips	0.05	0.12	1.18	0.00	0.00	0.00	0.00
Maximum lbs/day	7.04	51.72	56.71	0.10	3.93	2.01	1.92
Phase 2 - Site Grading Emiss	ions						
Fugitive Dust	-	-	-	-	5.00	-	5.00
Off-Road Diesel	11.70	74.59	97.10	-	2.87	2.87	0.00
On-Road Diesel	0.02	0.42	0.07	0.01	0.01	0.01	0.00
Worker Trips	0.14	0.27	2.94	0.00	0.01	0.00	0.01
Maximum lbs/day	11.86	75.28	100.11	0.01	7.89	2.88	5.01
Phase 3 - Building Construct	ion						
Bldg Const Off-Road Diesel	10.14	64.81	83.84	-	2.47	2.47	0.00
Bldg Const Worker Trips	0.23	0.11	2.88	0.00	0.04	0.00	0.04
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	0.05	-	-	-	-		-
Asphalt Off-Road Diesel	3.79	27.33	29.11	-	1.17	1.17	0.00
Asphalt On-Road Diesel	0.01	0.18	0.04	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.03	0.01	0.36	0.00	0.01	0.00	0.01
Maximum lbs/day	14.26	92.44	116.23	0.00	3.70	3.65	0.05
Max lbs/day all phases	14.26	92.44	116.23	0.10	8.66	3.65	5.01

Phase 1 - Demolition Assumptions Start Month/Year for Phase 1: Mar '06 Phase 1 Duration: .5 months Building Volume Total (cubic feet): 4500 Building Volume Daily (cubic feet): 4500 On-Road Truck Travel (VMT): 249 Off-Road Equipment No. Туре Horsepower Load Factor Hours/Day Off Highway Trucks Rubber Tired Loaders Signal Boards 1 417 0.490 8.0 1 165 0.465 8.0 1 119 0.820 8.0 Phase 2 - Site Grading Assumptions Start Month/Year for Phase 2: Mar '06 Phase 2 Duration: 2.5 months On-Road Truck Travel (VMT): 14 Off-Road Equipment Load Factor No. Type Horsepower Hours/Day 2 0.580 Excavators 180 8.0 0.490 1 Off Highway Trucks 417 8.0 2 Rubber Tired Loaders 165 0.465 8.0 Signal Boards 119 0.820 8.0 1 Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Jun '06

Phase 3 Duration: 3.0 months Start Month/Year for SubPhase Building: Jun '06 SubPhase Building Duration: 2.75 months Off-Road Equipment

No. Type		Hor	sepower	Load Factor	Но	urs/Day	
1 Bore/Drill Rigs			218	0.750		8.0	
1 Cranes			190	0.430		8.0	
1 Off Highway Trucks	5		417	0.490		8.0	
1 Signal Boards			119	0.820		8.0	
1 Trenchers			82	0.695		4.0	
SubPhase Architectural Coa							
Start Month/Year for SubPh	ase Asphal	t: Aug '06	5				
SubPhase Asphalt Duration:	0.25 mont	hs					
Acres to be Paved: 0.103							
Off-Road Equipment							
No. Type		Hor	sepower	Load Factor	HOI	urs/Day	
1 Pavers			132	0.590		4.0	
1 Paving Equipment			111	0.530		4.0	
1 Rollers			114	0.430		8.0	
1 Signal Boards			119	0.820		8.0	
5							
CONSTRUCTION EMISSION ESTIMA	TES MITIGA	FED (lbs/d	lay)				
					PM10	PM10	PM10
Source	ROG	NOx	CO	SO2	TOTAL	EXHAUST	DUST
*** 2006***							
Phase 1 - Demolition Emissio	ns						
Fugitive Dust	-	-	-	-	1.89	-	1.89
Off-Road Diesel	6.67	44.44	54.34	-	1.87	1.87	0.00
On-Road Diesel	0.32	7.16	1.19	0.10	0.17	0.14	0.03
Worker Trips	0.05	0.12	1.18	0.00	0.00	0.00	0.00
Maximum lbs/day	7.04	51.72	56.71	0.10	3.93	2.01	1.92
Phase 2 - Site Grading Emiss	ions						
Fugitive Dust		-	-	-	1.03	_	1.03
Off-Road Diesel	11.70	74.59	97.10	-	2.87	2.87	0.00
On-Road Diesel	0.02	0.42	0.07	0.01	0.01	0.01	0.00
Worker Trips	0.14	0.42	2.94	0.00	0.01	0.00	0.00
Maximum lbs/day	11.86	75.28	100.11	0.00	3.92	2.88	1.04
Maximum 105/day	11.00	/3.20	100.11	0.01	3.92	2.00	1.04
Phase 3 - Building Construct	ion						
Bldg Const Off-Road Diesel	10.14	64.81	83.84	-	2.47	2.47	0.00
Bldg Const Worker Trips	0.23	0.11	2.88	0.00	0.04	0.00	0.04
Arch Coatings Off-Gas	0.00	-		-	-	-	0.01
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.05	-	0.00	-	-	-	0.00
Asphalt Off-Road Diesel	3.79	27.33	29.11	_	1.17	1.17	0.00
Asphalt On-Road Diesel	0.01	0.18	0.04	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.01	0.01	0.36	0.00	0.00	0.00	0.00
Maximum lbs/day	14.26	92.44	116.23	0.00	3.70	3.65	0.01
maximum 105/ day	14.20	22.44	110.23	0.00	3.10	3.05	0.05
Max lbs/day all phases	14.26	92.44	116.23	0.10	5.57	3.65	1.92

Construction-Related Mitigation Measures

Phase 2: Soil Disturbance: Apply soil stabilizers to inactive areas Percent Reduction (ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 30.0%) Phase 2: Soil Disturbance: Replace ground cover in disturbed areas quickly Percent Reduction (ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 15.0%) Phase 2: Soil Disturbance: Water exposed surfaces - 2x daily Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 34.0%) Phase 2: Stockpiles: Cover all stock piles with tarps Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 9.5%) Phase 2: Unpaved Roads: Water all haul roads 2x daily Percent Reduction (ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 3.0%) Phase 2: Unpaved Roads: Reduce speed on unpaved roads to < 15 mph Percent Reduction (ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 40.0%) Phase 1 - Demolition Assumptions Start Month/Year for Phase 1: Mar '06 Phase 1 Duration: .5 months Building Volume Total (cubic feet): 4500 Building Volume Daily (cubic feet): 4500 On-Road Truck Travel (VMT): 249 Off-Road Equipment Type Off Highway Trucks Rubber Tired Loaders Hours/Day No. Load Factor Horsepower 0.490 1 8.0 417 0.465 1 165 8.0 Signal Boards 1 119 0.820 8.0

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Mar '06 Phase 2 Duration: 2.5 months On-Road Truck Travel (VMT): 14 Off-Road Equipment No. Type 2 Excavators 1 Off Highway Trucks	Horsepower 180 417	Load Factor 0.580 0.490	Hours/Day 8.0 8.0
2 Rubber Tired Loaders	165	0.465	8.0
1 Signal Boards	119	0.820	8.0
Phase 3 - Building Construction Assumption Start Month/Year for Phase 3: Jun '06 Phase 3 Duration: 3.0 months Start Month/Year for SubPhase Building: SubPhase Building Duration: 2.75 months Off-Road Equipment			
No. Type	Horsepower	Load Factor	Hours/Day
1 Bore/Drill Rigs	218	0.750	8.0
1 Cranes	190	0.430	8.0
1 Off Highway Trucks	417	0.490	8.0
1 Signal Boards	119	0.490	8.0
1 Trenchers	82	0.620	4.0
SubPhase Architectural Coatings Turned O		0.095	4.0
Start Month/Year for SubPhase Asphalt: A SubPhase Asphalt Duration: 0.25 months Acres to be Paved: 0.103			
Off-Road Equipment No. Type	Horaonowor	Load Factor	Hours/Day
11	Horsepower 132	0.590	4.0
	132	0.530	4.0
1 Paving Equipment 1 Rollers	114	0.430	4.0
		0.430	
1 Signal Boards	119	0.820	8.0

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

The user has overridden the Default Phase Lengths

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: Replace ground cover in disturbed areas quickly 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 Stockpiles: Cover all stock piles with tarps 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.

File Name: I:\pdata\00000100\10P\WPWIN\EddieT\URBEMIS\URBEMIS2002\OCSD.urb Project Name: Carbon Canyon Dam Sewer Project Location: South Coast Air Basin (Los Angeles area) On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT (Tons/Year)

Construction Start Month and Year: March, 2006 Construction Duration: 6 Total Land Use Area to be Developed: 4.8 acres Maximum Acreage Disturbed Per Day: 0.5 acres Single Family Units: 55.5 Multi-Family Units: 0 Retail/Office/Institutional/Industrial Square Footage: 0

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (tons/year)

CONSTRUCTION EMISSION ESTIMATE	S UNMITIC	ATED (tons	/year)			5144.0	
0	Pod	20	60	000	PM10	PM10	PM10
Source	ROG	NOx	CO	SO2	TOTAL	EXHAUST	DUST
*** 2006***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.01	-	0.01
Off-Road Diesel	0.04	0.24	0.30	-	0.01	0.01	0.00
On-Road Diesel	0.00	0.04	0.01	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Total tons/year	0.04	0.28	0.32	0.00	0.02	0.01	0.01
Phase 2 - Site Grading Emission	ns						
Fugitive Dust	-	-	-	-	0.15	-	0.15
Off-Road Diesel	0.32	2.05	2.67	-	0.08	0.08	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	0.07	0.00	0.00	0.00	0.00
Total tons/year	0.32	2.05	2.74	0.00	0.23	0.08	0.15
Phase 3 - Building Construction	n						
Bldg Const Off-Road Diesel	0.30	1.95	2.53	-	0.08	0.08	0.00
Bldg Const Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00
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	0.01	0.08	0.08		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
Total tons/year	0.31	2.03	2.69	0.00	0.08	0.08	0.00
10001 0010,1001	0.01	2.05	2.05	0.00	0.00	0.00	0.00
Total all phases tons/yr	0.67	4.36	5.75	0.00	0.33	0.17	0.16

Phase 1 - Demolition Assumptions Start Month/Year for Phase 1: Mar '06 Phase 1 Duration: .5 months Building Volume Total (cubic feet): 4500 Building Volume Daily (cubic feet): 4500 On-Road Truck Travel (VMT): 249 Off-Road Equipment			. (7
No. Type	Horsepower	Load Factor	Hours/Day
1 Off Highway Trucks	417	0.490	8.0
1 Rubber Tired Loaders	165	0.465	8.0
1 Signal Boards	119	0.820	8.0
Phase 2 - Site Grading Assumptions Start Month/Year for Phase 2: Mar '06 Phase 2 Duration: 2.5 months On-Road Truck Travel (VMT): 14 Off-Road Equipment			
No. Type	Horsepower	Load Factor	Hours/Day
2 Excavators	180	0.580	8.0
1 Off Highway Trucks	417	0.490	8.0
2 Rubber Tired Loaders	165	0.465	8.0
1 Signal Boards	119	0.820	8.0
Phase 3 - Building Construction Assumptions			

Phase 3 - Building Construction Assumptions Start Month/Year for Phase 3: Jun '06 Phase 3 Duration: 3.0 months

Start Month/Year for SubPhase Building: Jun '06 SubPhase Building Duration: 2.75 months Off-Road Equipment

No. Type 1 Bore/Drill Rigs 1 Cranes 1 Off Highway Trucks 1 Signal Boards 1 Trenchers SubPhase Architectural Coati Start Month/Year for SubPhas SubPhase Asphalt Duration: 0 Acres to be Paved: 0.103 Off-Road Equipment No. Type	e Asphalt	2 1 4 1 1 0FF : Aug '06 5	epower 18 90 17 19 82 epower	Load Factor 0.750 0.430 0.490 0.820 0.695 Load Factor		urs/Day 8.0 8.0 8.0 8.0 4.0 4.0	
1 Pavers			32	0.590	110	4.0	
1 Paving Equipment			11	0.530		4.0	
1 Rollers			14	0.430		8.0	
1 Signal Boards			19	0.820		8.0	
CONSTRUCTION EMISSION ESTIMATE	S MITIGATH	ED (tons/y	ear)				
					PM10	PM10	PM10
Source *** 2006***	ROG	NOx	CO	SO2	TOTAL	EXHAUST	DUST
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.01	-	0.01
Off-Road Diesel	0.04	0.24	0.30	-	0.01	0.01	0.00
On-Road Diesel	0.00	0.04	0.01	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Total tons/year	0.04	0.28	0.32	0.00	0.02	0.01	0.01
Phase 2 - Site Grading Emissio	n .a						
Fugitive Dust	115	_	-	-	0.03	-	0.03
Off-Road Diesel	0.32	2.05	2.67	-	0.03	0.08	0.03
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
Total tons/year	0.32	2.05	2.74	0.00	0.11	0.08	0.00
iotai tons, yeai	0.52	2.05	2.74	0.00	0.11	0.00	0.03
Phase 3 - Building Construction	n						
Bldg Const Off-Road Diesel	0.30	1.95	2.53	-	0.08	0.08	0.00
Bldg Const Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00
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	0.01	0.08	0.08	-	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
Total tons/year	0.31	2.03	2.69	0.00	0.08	0.08	0.00
Total all phases tons/yr	0.67	4.36	5.75	0.00	0.21	0.17	0.04

Construction-Related Mitigation Measures

Phase 2: Soil Disturbance: Apply soil stabilizers to inactive areas Percent Reduction (ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 30.0%) Phase 2: Soil Disturbance: Replace ground cover in disturbed areas quickly Percent Reduction (ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 15.0%) Phase 2: Soil Disturbance: Water exposed surfaces - 2x daily Percent Reduction (ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 34.0%) Phase 2: Stockpiles: Cover all stock piles with tarps Percent Reduction (ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 9.5%) Phase 2: Unpaved Roads: Water all haul roads 2x daily Percent Reduction (ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 3.0%) Phase 2: Unpaved Roads: Reduce speed on unpaved roads to < 15 mph Percent Reduction (ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 40.0%) Phase 1 - Demolition Assumptions Start Month/Year for Phase 1: Mar '06 Phase 1 Duration: .5 months Building Volume Total (cubic feet): 4500 Building Volume Daily (cubic feet): 4500 On-Road Truck Travel (VMT): 249 Off-Road Equipment Load Factor Hours/Day No. Type Horsepower Off Highway Trucks Rubber Tired Loaders Signal Boards 0.490 1 417 8.0 0.465 1 165 8.0 1 119 0.820 8.0

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Mar '06 Phase 2 Duration: 2.5 months On-Road Truck Travel (VMT): 14 Off-Road Equipment No. Type 2 Excavators 1 Off Highway Trucks 2 Rubber Tired Loaders 1 Signal Boards	Horsepower 180 417 165 119	Load Factor 0.580 0.490 0.465 0.820	Hours/Day 8.0 8.0 8.0 8.0 8.0
Phase 3 - Building Construction Assumptions Start Month/Year for Phase 3: Jun '06 Phase 3 Duration: 3.0 months Start Month/Year for SubPhase Building: Ju SubPhase Building Duration: 2.75 months	ın '06		
Off-Road Equipment			
No. Type	Horsepower	Load Factor	Hours/Day
1 Bore/Drill Rigs	218	0.750	8.0
1 Cranes	190	0.430	8.0
1 Off Highway Trucks	417	0.490	8.0
1 Signal Boards	119	0.820	8.0
1 Trenchers	82	0.695	4.0
SubPhase Architectural Coatings Turned OFF	?		
Start Month/Year for SubPhase Asphalt: Aug SubPhase Asphalt Duration: 0.25 months Acres to be Paved: 0.103 Off-Road Equipment	g '06		
No. Type	Horsepower	Load Factor	Hours/Day
1 Pavers	132	0.590	4.0
1 Paving Equipment	111	0.530	4.0
1 Rollers	114	0.430	8.0
1 Signal Boards	119	0.820	8.0

-

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

The user has overridden the Default Phase Lengths 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: Replace ground cover in disturbed areas quickly 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 Stockpiles: Cover all stock piles with tarps 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.