

**Parentetical URBEMIS2002 Assumptions
For: Seawater Desalination Project at Huntington Beach
Date: November 18, 2004**

CONSTRUCTION WORKER TRIPS

- I. On-Site Desalination Facility – 114 Worker trips
- II. Off-Site Product Water Pipeline – 32 Worker trips
- III. Off-Site Product water Underground Booster Pump – 100 worker trips

CONSTRUCTION SOURCES

Phase	Duration	Development
I. On-site Desalination Facility	24 months	Demolition of existing tanks and berms, site remediation, desalination plant construction, above ground product water tank excavation/construction
II. Off-Site Product Water Pipeline	21 months	Pipeline construction (40,050 ft), excavation, grading, soil remediation
III. Site Product Water Underground Booster Pump Stations Construction	18 months	Site Grading, site excavation, grading, landscaping

CONSTRUCTION PHASE 1 - DEMOLITION:

I. On-site Desalination Facility

*Duration – 5 months
Total Cubic Volume – 194,951 cubic feet
Daily total Cubic Volume – 1,771 cubic feet*

II. Off-Site Product Water Pipeline

*Duration – 4 months
Total Cubic Volume – 120131 cubic feet
Daily total Cubic Volume – 1,268.06 cubic feet*

III. Site Product Water Underground Booster Pump Stations

No demolition required.

Equipment:

Phase	Crushing Equip.	Trenchers	Off-Highway Tractor	Off-Highway Truck	Other Equipment	Signal Boards	Cranes	Concrete/Industrial/Saw
I	0	0	2	3	0	0	1	1
II	1	1	0	0	1	2	0	2
III	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

CONSTRUCTION PHASE 2 - SITE GRADING:

Phase	Total Acreage Disturbed	Acreage Disturbed Daily	Duration (months)	Fugitive Dust	Soil Hauling (cubic yards)	Haul Truck Capacity (cubic yards)
I	7	1.0	7	Default	19,200	14
II	3.7	0.2	12	Default	8,800	14
III	1.5	0.1	7	Default	17,400	14

Equipment:

Phase	Tractor/Loaders/Backhoes	Off-Highway Tractor	Off-Highway Truck	Signal Boards	Scrapers	Trenchers	Excavators
I		2	2		1		
II	1	1	2	2		1	1
III	1	1	2		1		1

CONSTRUCTION PHASE 3 – BUILDING EQUIPMENT:

Phase	Duration	Cranes	Other Equip.	Off Highway Tractors	Off Highway Trucks	Tractor/Loader/Backhoe	Trenchers	Signal Boards	Rubber Tired Dozers
I	12 months	1	0	1	2	1	1	0	0
II	13 Months	2	1	1	2	0	0	2	0
III	11 Months	0	1	1	2	0	0	0	1

Phase 3 – Architectural Coatings:

Off

Phase 3 – Asphalt

Phase	Duration	Acres Paved	Paver	Paving Equipment	Surfacing Equipment	Other Equipment	Signal Boards
I	3 Months	1	1	1	1	1	
II	3 Months	2.76	1	1	1	1	1
III	1 Months	0.1	1	1	1	1	

Phase 3 - Worker Commute

(URBEMIS2002 default all phases)

Construction Mitigation:

Refer to URBEMIS2002 file output.

URBEMIS 2002 For Windows 7.5.0

File Name: H:\COMMON\MC Files\URBEMIS2002\HB Desalination I.urb
 Project Name: Seawater Desalination Plant at HB - Construction I
 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

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 ***							
TOTALS (lbs/day, unmitigated)	17.61	121.52	144.12	0.02	14.64	4.61	10.03
TOTALS (lbs/day, mitigated)	17.61	121.52	144.12	0.02	6.71	4.61	2.10
*** 2008 ***							
TOTALS (lbs/day, unmitigated)	22.64	149.24	181.90	0.00	5.73	5.72	0.01
TOTALS (lbs/day, mitigated)	22.64	149.24	181.90	0.00	5.73	5.72	0.01

URBEMIS 2002 For Windows 7.5.0

File Name: H:\COMMON\MC Files\URBEMIS2002\HB Desalination I.urb
 Project Name: Seawater Desalination Plant at HB - Construction I
 Project Location: South Coast Air Basin (Los Angeles area)
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
 (Pounds/Day - Winter)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 ***							
TOTALS (lbs/day, unmitigated)	17.61	121.52	144.12	0.02	14.64	4.61	10.03
TOTALS (lbs/day, mitigated)	17.61	121.52	144.12	0.02	6.71	4.61	2.10

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2008 ***							
TOTALS (lbs/day, unmitigated)	22.64	149.24	181.90	0.00	5.73	5.72	0.01
TOTALS (lbs/day, mitigated)	22.64	149.24	181.90	0.00	5.73	5.72	0.01

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File Name: H:\COMMON\MC Files\URBEMIS2002\HB Desalination I.urb
 Project Name: Seawater Desalination Plant at HB - Construction I
 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

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 ***							
TOTALS (tpy, unmitigated)	2.21	15.04	18.40	0.00	1.42	0.60	0.82
TOTALS (tpy, mitigated)	2.21	15.04	18.40	0.00	0.81	0.60	0.21
*** 2008 ***							
TOTALS (tpy, unmitigated)	1.85	11.64	14.90	0.00	0.47	0.47	0.00
TOTALS (tpy, mitigated)	1.85	11.64	14.90	0.00	0.47	0.47	0.00

URBEMIS 2002 For Windows 7.5.0

File Name: H:\COMMON\MC Files\URBEMIS2002\HB Desalination I.urb
 Project Name: Seawater Desalination Plant at HB - Construction I
 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: January, 2007
 Construction Duration: 24
 Total Land Use Area to be Developed: 7 acres
 Maximum Acreage Disturbed Per Day: 1 acres
 Single Family Units: 0 Multi-Family Units: 0
 Retail/Office/Institutional/Industrial Square Footage: 0

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.74	-	0.74
Off-Road Diesel	17.01	111.27	139.31	-	4.41	4.41	0.00
On-Road Diesel	0.45	9.97	1.68	0.02	0.23	0.19	0.04
Worker Trips	0.15	0.28	3.13	0.00	0.02	0.01	0.01
Maximum lbs/day	17.61	121.52	144.12	0.02	5.40	4.61	0.79
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	10.00	-	10.00
Off-Road Diesel	16.29	105.85	134.40	-	4.26	4.26	0.00
On-Road Diesel	0.21	4.66	0.79	0.01	0.11	0.09	0.02
Worker Trips	0.05	0.03	0.57	0.00	0.01	0.00	0.01
Maximum lbs/day	16.55	110.54	135.76	0.01	14.38	4.35	10.03
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Max lbs/day all phases	17.61	121.52	144.12	0.02	14.64	4.61	10.03
*** 2008***							
Phase 1 - Demolition Emissions							
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 2 - Site Grading Emissions							
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 Construction							
Bldg Const Off-Road Diesel	14.21	90.84	117.00	-	3.36	3.36	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.12	-	-	-	-	-	-
Asphalt Off-Road Diesel	8.26	57.95	64.48	-	2.35	2.35	0.00
Asphalt On-Road Diesel	0.02	0.44	0.08	0.00	0.01	0.01	0.00
Asphalt Worker Trips	0.03	0.02	0.33	0.00	0.01	0.00	0.01
Maximum lbs/day	22.64	149.24	181.90	0.00	5.73	5.72	0.01
Max lbs/day all phases	22.64	149.24	181.90	0.00	5.73	5.72	0.01

Phase 1 - Demolition Assumptions

Start Month/Year for Phase 1: Jan '07
 Phase 1 Duration: 5 months
 Building Volume Total (cubic feet): 194788.38
 Building Volume Daily (cubic feet): 1756.695
 On-Road Truck Travel (VMT): 377.2
 Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	8.0
1	Cranes	190	0.430	8.0
2	Off Highway Tractors	255	0.410	8.0
3	Off Highway Trucks	417	0.490	8.0

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Jun '07
 Phase 2 Duration: 7 months
 On-Road Truck Travel (VMT): 178
 Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	8.0
2	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
1	Scrapers	313	0.660	8.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Jan '08
 Phase 3 Duration: 12 months
 Start Month/Year for SubPhase Building: Jan '08
 SubPhase Building Duration: 11 months
 Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Cranes	190	0.430	8.0
1	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
1	Other Equipment	190	0.620	8.0
1	Tractor/Loaders/Backhoes	79	0.465	8.0
1	Trenchers	82	0.695	8.0

SubPhase Architectural Coatings Turned OFF

Start Month/Year for SubPhase Asphalt: Oct '08
 SubPhase Asphalt Duration: 1 months
 Acres to be Paved: 1

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Other Equipment	190	0.620	8.0
1	Pavers	132	0.590	8.0
1	Paving Equipment	111	0.530	8.0
1	Surfacing Equipment	437	0.490	8.0

CONSTRUCTION EMISSION ESTIMATES MITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.74	-	0.74
Off-Road Diesel	17.01	111.27	139.31	-	4.41	4.41	0.00
On-Road Diesel	0.45	9.97	1.68	0.02	0.23	0.19	0.04
Worker Trips	0.15	0.28	3.13	0.00	0.02	0.01	0.01
Maximum lbs/day	17.61	121.52	144.12	0.02	5.40	4.61	0.79
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	2.07	-	2.07
Off-Road Diesel	16.29	105.85	134.40	-	4.26	4.26	0.00
On-Road Diesel	0.21	4.66	0.79	0.01	0.11	0.09	0.02
Worker Trips	0.05	0.03	0.57	0.00	0.01	0.00	0.01
Maximum lbs/day	16.55	110.54	135.76	0.01	6.45	4.35	2.10
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Max lbs/day all phases 17.61 121.52 144.12 0.02 6.71 4.61 2.10

*** 2008***

Phase 1 - Demolition Emissions

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 2 - Site Grading Emissions

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 Construction

Bldg Const Off-Road Diesel	14.21	90.84	117.00	-	3.36	3.36	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.12	-	-	-	-	-	-
Asphalt Off-Road Diesel	8.26	57.95	64.48	-	2.35	2.35	0.00
Asphalt On-Road Diesel	0.02	0.44	0.08	0.00	0.01	0.01	0.00
Asphalt Worker Trips	0.03	0.02	0.33	0.00	0.01	0.00	0.01
Maximum lbs/day	22.64	149.24	181.90	0.00	5.73	5.72	0.01
Max lbs/day all phases	22.64	149.24	181.90	0.00	5.73	5.72	0.01

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: Jan '07
 Phase 1 Duration: 5 months
 Building Volume Total (cubic feet): 194788.38
 Building Volume Daily (cubic feet): 1756.695
 On-Road Truck Travel (VMT): 377.2

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	8.0
1	Cranes	190	0.430	8.0
2	Off Highway Tractors	255	0.410	8.0
3	Off Highway Trucks	417	0.490	8.0

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Jun '07
 Phase 2 Duration: 7 months
 On-Road Truck Travel (VMT): 178

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	8.0
2	Off Highway Tractors	255	0.410	8.0
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1	Scrapers	313	0.660	8.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Jan '08
 Phase 3 Duration: 12 months
 Start Month/Year for SubPhase Building: Jan '08
 SubPhase Building Duration: 11 months

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
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1	Cranes	190	0.430	8.0
1	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
1	Other Equipment	190	0.620	8.0
1	Tractor/Loaders/Backhoes	79	0.465	8.0
1	Trenchers	82	0.695	8.0

SubPhase Architectural Coatings Turned OFF

Start Month/Year for SubPhase Asphalt: Oct '08

SubPhase Asphalt Duration: 1 months

Acres to be Paved: 1

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Other Equipment	190	0.620	8.0
1	Pavers	132	0.590	8.0
1	Paving Equipment	111	0.530	8.0
1	Surfacing Equipment	437	0.490	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

Demolition Truck Haul Capacity changed from 20 to 14

Demolition Truck Hauling Miles/Round Trip changed from 30 to 82

Site Grading Truck Haul Capacity (yds³) changed from 20 to 14

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.

URBEMIS 2002 For Windows 7.5.0

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 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
 (Pounds/Day - Summer)

Construction Start Month and Year: January, 2007
 Construction Duration: 24
 Total Land Use Area to be Developed: 7 acres
 Maximum Acreage Disturbed Per Day: 1 acres
 Single Family Units: 0 Multi-Family Units: 0
 Retail/Office/Institutional/Industrial Square Footage: 0

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.74	-	0.74
Off-Road Diesel	17.01	111.27	139.31	-	4.41	4.41	0.00
On-Road Diesel	0.45	9.97	1.68	0.02	0.23	0.19	0.04
Worker Trips	0.15	0.28	3.13	0.00	0.02	0.01	0.01
Maximum lbs/day	17.61	121.52	144.12	0.02	5.40	4.61	0.79
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	10.00	-	10.00
Off-Road Diesel	16.29	105.85	134.40	-	4.26	4.26	0.00
On-Road Diesel	0.21	4.66	0.79	0.01	0.11	0.09	0.02
Worker Trips	0.05	0.03	0.57	0.00	0.01	0.00	0.01
Maximum lbs/day	16.55	110.54	135.76	0.01	14.38	4.35	10.03
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Max lbs/day all phases	17.61	121.52	144.12	0.02	14.64	4.61	10.03
*** 2008***							
Phase 1 - Demolition Emissions							
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 2 - Site Grading Emissions							
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 Construction							
Bldg Const Off-Road Diesel	14.21	90.84	117.00	-	3.36	3.36	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.12	-	-	-	-	-	-
Asphalt Off-Road Diesel	8.26	57.95	64.48	-	2.35	2.35	0.00
Asphalt On-Road Diesel	0.02	0.44	0.08	0.00	0.01	0.01	0.00
Asphalt Worker Trips	0.03	0.02	0.33	0.00	0.01	0.00	0.01
Maximum lbs/day	22.64	149.24	181.90	0.00	5.73	5.72	0.01
Max lbs/day all phases	22.64	149.24	181.90	0.00	5.73	5.72	0.01

Phase 1 - Demolition Assumptions

Start Month/Year for Phase 1: Jan '07

Phase 1 Duration: 5 months

Building Volume Total (cubic feet): 194788.38

Building Volume Daily (cubic feet): 1756.695

On-Road Truck Travel (VMT): 377.2

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	8.0
1	Cranes	190	0.430	8.0
2	Off Highway Tractors	255	0.410	8.0
3	Off Highway Trucks	417	0.490	8.0

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Jun '07

Phase 2 Duration: 7 months

On-Road Truck Travel (VMT): 178

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	8.0
2	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
1	Scrapers	313	0.660	8.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Jan '08

Phase 3 Duration: 12 months

Start Month/Year for SubPhase Building: Jan '08

SubPhase Building Duration: 11 months

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Cranes	190	0.430	8.0
1	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
1	Other Equipment	190	0.620	8.0
1	Tractor/Loaders/Backhoes	79	0.465	8.0
1	Trenchers	82	0.695	8.0

SubPhase Architectural Coatings Turned OFF

Start Month/Year for SubPhase Asphalt: Oct '08

SubPhase Asphalt Duration: 1 months

Acres to be Paved: 1

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Other Equipment	190	0.620	8.0
1	Pavers	132	0.590	8.0
1	Paving Equipment	111	0.530	8.0
1	Surfacing Equipment	437	0.490	8.0

CONSTRUCTION EMISSION ESTIMATES MITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.74	-	0.74
Off-Road Diesel	17.01	111.27	139.31	-	4.41	4.41	0.00
On-Road Diesel	0.45	9.97	1.68	0.02	0.23	0.19	0.04
Worker Trips	0.15	0.28	3.13	0.00	0.02	0.01	0.01
Maximum lbs/day	17.61	121.52	144.12	0.02	5.40	4.61	0.79
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	2.07	-	2.07
Off-Road Diesel	16.29	105.85	134.40	-	4.26	4.26	0.00
On-Road Diesel	0.21	4.66	0.79	0.01	0.11	0.09	0.02
Worker Trips	0.05	0.03	0.57	0.00	0.01	0.00	0.01
Maximum lbs/day	16.55	110.54	135.76	0.01	6.45	4.35	2.10
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Max lbs/day all phases 17.61 121.52 144.12 0.02 6.71 4.61 2.10

*** 2008***

Phase 1 - Demolition Emissions

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 2 - Site Grading Emissions

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 Construction

Bldg Const Off-Road Diesel	14.21	90.84	117.00	-	3.36	3.36	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.12	-	-	-	-	-	-
Asphalt Off-Road Diesel	8.26	57.95	64.48	-	2.35	2.35	0.00
Asphalt On-Road Diesel	0.02	0.44	0.08	0.00	0.01	0.01	0.00
Asphalt Worker Trips	0.03	0.02	0.33	0.00	0.01	0.00	0.01
Maximum lbs/day	22.64	149.24	181.90	0.00	5.73	5.72	0.01

Max lbs/day all phases 22.64 149.24 181.90 0.00 5.73 5.72 0.01

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: Jan '07
Phase 1 Duration: 5 months
Building Volume Total (cubic feet): 194788.38
Building Volume Daily (cubic feet): 1756.695
On-Road Truck Travel (VMT): 377.2

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	8.0
1	Cranes	190	0.430	8.0
2	Off Highway Tractors	255	0.410	8.0
3	Off Highway Trucks	417	0.490	8.0

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Jun '07
Phase 2 Duration: 7 months
On-Road Truck Travel (VMT): 178

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	8.0
2	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
1	Scrapers	313	0.660	8.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Jan '08
Phase 3 Duration: 12 months
Start Month/Year for SubPhase Building: Jan '08
SubPhase Building Duration: 11 months

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
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1	Cranes	190	0.430	8.0
1	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
1	Other Equipment	190	0.620	8.0
1	Tractor/Loaders/Backhoes	79	0.465	8.0
1	Trenchers	82	0.695	8.0

SubPhase Architectural Coatings Turned OFF

Start Month/Year for SubPhase Asphalt: Oct '08

SubPhase Asphalt Duration: 1 months

Acres to be Paved: 1

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Other Equipment	190	0.620	8.0
1	Pavers	132	0.590	8.0
1	Paving Equipment	111	0.530	8.0
1	Surfacing Equipment	437	0.490	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

Demolition Truck Haul Capacity changed from 20 to 14

Demolition Truck Hauling Miles/Round Trip changed from 30 to 82

Site Grading Truck Haul Capacity (yds³) changed from 20 to 14

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.

URBEMIS 2002 For Windows 7.5.0

File Name: H:\COMMON\MC Files\URBEMIS2002\HB Desalination I.urb
 Project Name: Seawater Desalination Plant at HB - Construction I
 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: January, 2007
 Construction Duration: 24
 Total Land Use Area to be Developed: 7 acres
 Maximum Acreage Disturbed Per Day: 1 acres
 Single Family Units: 0 Multi-Family Units: 0
 Retail/Office/Institutional/Industrial Square Footage: 0

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (tons/year)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.05	-	0.05
Off-Road Diesel	0.95	6.10	7.65	-	0.25	0.25	0.00
On-Road Diesel	0.00	0.51	0.10	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.15	0.00	0.00	0.00	0.00
Total tons/year	0.95	6.61	7.90	0.00	0.30	0.25	0.05
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.77	-	0.77
Off-Road Diesel	1.26	8.12	10.36	-	0.35	0.35	0.00
On-Road Diesel	0.00	0.31	0.07	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	1.26	8.43	10.50	0.00	1.12	0.35	0.77
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.00	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
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total all phases tons/yr	2.21	15.04	18.40	0.00	1.42	0.60	0.82
*** 2008***							
Phase 1 - Demolition Emissions							
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
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
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
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	1.76	11.00	14.19	-	0.44	0.44	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.09	0.64	0.71	-	0.03	0.03	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	1.85	11.64	14.90	0.00	0.47	0.47	0.00
Total all phases tons/yr	1.85	11.64	14.90	0.00	0.47	0.47	0.00

Phase 1 - Demolition Assumptions

Start Month/Year for Phase 1: Jan '07
 Phase 1 Duration: 5 months
 Building Volume Total (cubic feet): 194788.38
 Building Volume Daily (cubic feet): 1756.695
 On-Road Truck Travel (VMT): 377.2
 Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	8.0
1	Cranes	190	0.430	8.0
2	Off Highway Tractors	255	0.410	8.0
3	Off Highway Trucks	417	0.490	8.0

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Jun '07
 Phase 2 Duration: 7 months
 On-Road Truck Travel (VMT): 178
 Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	8.0
2	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
1	Scrapers	313	0.660	8.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Jan '08
 Phase 3 Duration: 12 months
 Start Month/Year for SubPhase Building: Jan '08
 SubPhase Building Duration: 11 months
 Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Cranes	190	0.430	8.0
1	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
1	Other Equipment	190	0.620	8.0
1	Tractor/Loaders/Backhoes	79	0.465	8.0
1	Trenchers	82	0.695	8.0

SubPhase Architectural Coatings Turned OFF
 Start Month/Year for SubPhase Asphalt: Oct '08
 SubPhase Asphalt Duration: 1 months
 Acres to be Paved: 1
 Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Other Equipment	190	0.620	8.0
1	Pavers	132	0.590	8.0
1	Paving Equipment	111	0.530	8.0
1	Surfacing Equipment	437	0.490	8.0

CONSTRUCTION EMISSION ESTIMATES MITIGATED (tons/year)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.05	-	0.05
Off-Road Diesel	0.95	6.10	7.65	-	0.25	0.25	0.00
On-Road Diesel	0.00	0.51	0.10	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.15	0.00	0.00	0.00	0.00
Total tons/year	0.95	6.61	7.90	0.00	0.30	0.25	0.05
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.16	-	0.16
Off-Road Diesel	1.26	8.12	10.36	-	0.35	0.35	0.00
On-Road Diesel	0.00	0.31	0.07	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	1.26	8.43	10.50	0.00	0.51	0.35	0.16
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.00	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
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Total all phases tons/yr 2.21 15.04 18.40 0.00 0.81 0.60 0.21

*** 2008***

Phase 1 - Demolition Emissions

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
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 2 - Site Grading Emissions

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
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 3 - Building Construction

Bldg Const Off-Road Diesel	1.76	11.00	14.19	-	0.44	0.44	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.09	0.64	0.71	-	0.03	0.03	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	1.85	11.64	14.90	0.00	0.47	0.47	0.00

Total all phases tons/yr 1.85 11.64 14.90 0.00 0.47 0.47 0.00

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: Jan '07
Phase 1 Duration: 5 months
Building Volume Total (cubic feet): 194788.38
Building Volume Daily (cubic feet): 1756.695
On-Road Truck Travel (VMT): 377.2

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	8.0
1	Cranes	190	0.430	8.0
2	Off Highway Tractors	255	0.410	8.0
3	Off Highway Trucks	417	0.490	8.0

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Jun '07
Phase 2 Duration: 7 months
On-Road Truck Travel (VMT): 178

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	8.0
2	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
1	Scrapers	313	0.660	8.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Jan '08
Phase 3 Duration: 12 months
Start Month/Year for SubPhase Building: Jan '08
SubPhase Building Duration: 11 months

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
-----	------	------------	-------------	-----------

1	Cranes	190	0.430	8.0
1	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
1	Other Equipment	190	0.620	8.0
1	Tractor/Loaders/Backhoes	79	0.465	8.0
1	Trenchers	82	0.695	8.0

SubPhase Architectural Coatings Turned OFF

Start Month/Year for SubPhase Asphalt: Oct '08

SubPhase Asphalt Duration: 1 months

Acres to be Paved: 1

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Other Equipment	190	0.620	8.0
1	Pavers	132	0.590	8.0
1	Paving Equipment	111	0.530	8.0
1	Surfacing Equipment	437	0.490	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

Demolition Truck Haul Capacity changed from 20 to 14

Demolition Truck Hauling Miles/Round Trip changed from 30 to 82

Site Grading Truck Haul Capacity (yds³) changed from 20 to 14

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.

URBEMIS 2002 For Windows 7.5.0

File Name: H:\COMMON\MC Files\URBEMIS2002\HB Desalination II.urb
 Project Name: Seawater Desalination Plant at HB-Construction II
 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

*** 2007 ***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
TOTALS (lbs/day, unmitigated)	17.44	117.67	140.12	0.01	6.79	4.76	2.03
TOTALS (lbs/day, mitigated)	17.44	117.67	140.12	0.01	5.35	4.76	0.59

*** 2008 ***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
TOTALS (lbs/day, unmitigated)	17.44	113.81	142.11	0.00	4.35	4.34	0.01
TOTALS (lbs/day, mitigated)	17.44	113.81	142.11	0.00	4.35	4.34	0.01

URBEMIS 2002 For Windows 7.5.0

File Name: H:\COMMON\MC Files\URBEMIS2002\HB Desalination II.urb
 Project Name: Seawater Desalination Plant at HB-Construction II
 Project Location: South Coast Air Basin (Los Angeles area)
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
 (Pounds/Day - Winter)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 ***							
TOTALS (lbs/day, unmitigated)	17.44	117.67	140.12	0.01	6.79	4.76	2.03
TOTALS (lbs/day, mitigated)	17.44	117.67	140.12	0.01	5.35	4.76	0.59
*** 2008 ***							
TOTALS (lbs/day, unmitigated)	17.44	113.81	142.11	0.00	4.35	4.34	0.01
TOTALS (lbs/day, mitigated)	17.44	113.81	142.11	0.00	4.35	4.34	0.01

URBEMIS 2002 For Windows 7.5.0

File Name: H:\COMMON\MC Files\URBEMIS2002\HB Desalination II.urb
 Project Name: Seawater Desalination Plant at HB-Construction II
 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

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 ***							
TOTALS (tpy, unmitigated)	1.23	8.55	9.85	0.00	0.49	0.37	0.12
TOTALS (tpy, mitigated)	1.23	8.55	9.85	0.00	0.43	0.37	0.06
*** 2008 ***							
TOTALS (tpy, unmitigated)	2.04	13.56	16.59	0.00	0.54	0.54	0.00
TOTALS (tpy, mitigated)	2.04	13.56	16.59	0.00	0.54	0.54	0.00

URBEMIS 2002 For Windows 7.5.0

File Name: H:\COMMON\MC Files\URBEMIS2002\HB Desalination II.urb
 Project Name: Seawater Desalination Plant at HB-Construction II
 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: April, 2007
 Construction Duration: 21
 Total Land Use Area to be Developed: 3.7 acres
 Maximum Acreage Disturbed Per Day: 0.2 acres
 Single Family Units: 0 Multi-Family Units: 0
 Retail/Office/Institutional/Industrial Square Footage: 0

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.57	-	0.57
Off-Road Diesel	7.36	54.30	55.55	-	2.32	2.32	0.00
On-Road Diesel	0.09	1.60	0.33	0.00	0.05	0.04	0.01
Worker Trips	0.10	0.12	2.47	0.00	0.01	0.00	0.01
Maximum lbs/day	7.55	56.02	58.35	0.00	2.95	2.36	0.59
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	2.00	-	2.00
Off-Road Diesel	15.97	105.87	129.25	-	4.13	4.13	0.00
On-Road Diesel	0.17	3.74	0.63	0.01	0.09	0.07	0.02
Worker Trips	0.06	0.03	0.72	0.00	0.01	0.00	0.01
Maximum lbs/day	16.20	109.64	130.60	0.01	6.23	4.20	2.03
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	17.44	117.67	140.12	-	4.76	4.76	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.00	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	17.44	117.67	140.12	0.00	4.76	4.76	0.00
Max lbs/day all phases	17.44	117.67	140.12	0.01	6.79	4.76	2.03
*** 2008***							
Phase 1 - Demolition Emissions							
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 2 - Site Grading Emissions							
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 Construction							
Bldg Const Off-Road Diesel	17.44	113.81	142.11	-	4.34	4.34	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.11	-	-	-	-	-	-
Asphalt Off-Road Diesel	9.98	70.43	77.67	-	2.89	2.89	0.00
Asphalt On-Road Diesel	0.02	0.40	0.08	0.00	0.01	0.01	0.00
Asphalt Worker Trips	0.03	0.02	0.40	0.00	0.01	0.00	0.01
Maximum lbs/day	17.44	113.81	142.11	0.00	4.35	4.34	0.01
Max lbs/day all phases	17.44	113.81	142.11	0.00	4.35	4.34	0.01

Phase 1 - Demolition Assumptions

Start Month/Year for Phase 1: Apr '07

Phase 1 Duration: 4 months

Building Volume Total (cubic feet): 120131.56

Building Volume Daily (cubic feet): 1361.61

On-Road Truck Travel (VMT): 75

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Concrete/Industrial saws	84	0.730	8.0
1	Crushing/Processing Equip	154	0.780	8.0
1	Other Equipment	190	0.620	8.0
1	Trenchers	82	0.695	8.0

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Aug '07

Phase 2 Duration: 4 months

On-Road Truck Travel (VMT): 142

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Excavators	180	0.580	8.0
1	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
2	Signal Boards	119	0.820	8.0
1	Tractor/Loaders/Backhoes	79	0.465	8.0
1	Trenchers	82	0.695	8.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Dec '07

Phase 3 Duration: 13 months

Start Month/Year for SubPhase Building: Dec '07

SubPhase Building Duration: 10 months

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Cranes	190	0.430	8.0
1	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
1	Other Equipment	190	0.620	8.0
2	Signal Boards	119	0.820	8.0

SubPhase Architectural Coatings Turned OFF

Start Month/Year for SubPhase Asphalt: Oct '08

SubPhase Asphalt Duration: 3 months

Acres to be Paved: 2.76

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Other Equipment	190	0.620	8.0
1	Pavers	132	0.590	8.0
1	Paving Equipment	111	0.530	8.0
1	Signal Boards	119	0.820	8.0
1	Surfacing Equipment	437	0.490	8.0

CONSTRUCTION EMISSION ESTIMATES MITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.57	-	0.57
Off-Road Diesel	7.36	54.30	55.55	-	2.32	2.32	0.00
On-Road Diesel	0.09	1.60	0.33	0.00	0.05	0.04	0.01
Worker Trips	0.10	0.12	2.47	0.00	0.01	0.00	0.01
Maximum lbs/day	7.55	56.02	58.35	0.00	2.95	2.36	0.59
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.41	-	0.41
Off-Road Diesel	15.97	105.87	129.25	-	4.13	4.13	0.00
On-Road Diesel	0.17	3.74	0.63	0.01	0.09	0.07	0.02
Worker Trips	0.06	0.03	0.72	0.00	0.01	0.00	0.01
Maximum lbs/day	16.20	109.64	130.60	0.01	4.64	4.20	0.44
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	17.44	117.67	140.12	-	4.76	4.76	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.00	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	17.44	117.67	140.12	0.00	4.76	4.76	0.00
Max lbs/day all phases	17.44	117.67	140.12	0.01	5.35	4.76	0.59
*** 2008***							
Phase 1 - Demolition Emissions							
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 2 - Site Grading Emissions							
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 Construction							
Bldg Const Off-Road Diesel	17.44	113.81	142.11	-	4.34	4.34	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.11	-	-	-	-	-	-
Asphalt Off-Road Diesel	9.98	70.43	77.67	-	2.89	2.89	0.00
Asphalt On-Road Diesel	0.02	0.40	0.08	0.00	0.01	0.01	0.00
Asphalt Worker Trips	0.03	0.02	0.40	0.00	0.01	0.00	0.01
Maximum lbs/day	17.44	113.81	142.11	0.00	4.35	4.34	0.01
Max lbs/day all phases	17.44	113.81	142.11	0.00	4.35	4.34	0.01

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: Apr '07

Phase 1 Duration: 4 months

Building Volume Total (cubic feet): 120131.56

Building Volume Daily (cubic feet): 1361.61

On-Road Truck Travel (VMT): 75

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Concrete/Industrial saws	84	0.730	8.0
1	Crushing/Processing Equip	154	0.780	8.0
1	Other Equipment	190	0.620	8.0
1	Trenchers	82	0.695	8.0

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Aug '07

Phase 2 Duration: 4 months

On-Road Truck Travel (VMT): 142

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Excavators	180	0.580	8.0
1	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
2	Signal Boards	119	0.820	8.0
1	Tractor/Loaders/Backhoes	79	0.465	8.0
1	Trenchers	82	0.695	8.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Dec '07

Phase 3 Duration: 13 months

Start Month/Year for SubPhase Building: Dec '07

SubPhase Building Duration: 10 months

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Cranes	190	0.430	8.0
1	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
1	Other Equipment	190	0.620	8.0
2	Signal Boards	119	0.820	8.0

SubPhase Architectural Coatings Turned OFF

Start Month/Year for SubPhase Asphalt: Oct '08

SubPhase Asphalt Duration: 3 months

Acres to be Paved: 2.76

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Other Equipment	190	0.620	8.0
1	Pavers	132	0.590	8.0
1	Paving Equipment	111	0.530	8.0
1	Signal Boards	119	0.820	8.0
1	Surfacing Equipment	437	0.490	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

Site Grading Truck Haul Capacity (yds³) changed from 20 to 14

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.

URBEMIS 2002 For Windows 7.5.0

File Name: H:\COMMON\MC Files\URBEMIS2002\HB Desalination II.urb
 Project Name: Seawater Desalination Plant at HB-Construction II
 Project Location: South Coast Air Basin (Los Angeles area)
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
 (Pounds/Day - Summer)

Construction Start Month and Year: April, 2007
 Construction Duration: 21
 Total Land Use Area to be Developed: 3.7 acres
 Maximum Acreage Disturbed Per Day: 0.2 acres
 Single Family Units: 0 Multi-Family Units: 0
 Retail/Office/Institutional/Industrial Square Footage: 0

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.57	-	0.57
Off-Road Diesel	7.36	54.30	55.55	-	2.32	2.32	0.00
On-Road Diesel	0.09	1.60	0.33	0.00	0.05	0.04	0.01
Worker Trips	0.10	0.12	2.47	0.00	0.01	0.00	0.01
Maximum lbs/day	7.55	56.02	58.35	0.00	2.95	2.36	0.59
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	2.00	-	2.00
Off-Road Diesel	15.97	105.87	129.25	-	4.13	4.13	0.00
On-Road Diesel	0.17	3.74	0.63	0.01	0.09	0.07	0.02
Worker Trips	0.06	0.03	0.72	0.00	0.01	0.00	0.01
Maximum lbs/day	16.20	109.64	130.60	0.01	6.23	4.20	2.03
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	17.44	117.67	140.12	-	4.76	4.76	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.00	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	17.44	117.67	140.12	0.00	4.76	4.76	0.00
Max lbs/day all phases	17.44	117.67	140.12	0.01	6.79	4.76	2.03
*** 2008***							
Phase 1 - Demolition Emissions							
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 2 - Site Grading Emissions							
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 Construction							
Bldg Const Off-Road Diesel	17.44	113.81	142.11	-	4.34	4.34	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.11	-	-	-	-	-	-
Asphalt Off-Road Diesel	9.98	70.43	77.67	-	2.89	2.89	0.00
Asphalt On-Road Diesel	0.02	0.40	0.08	0.00	0.01	0.01	0.00
Asphalt Worker Trips	0.03	0.02	0.40	0.00	0.01	0.00	0.01
Maximum lbs/day	17.44	113.81	142.11	0.00	4.35	4.34	0.01
Max lbs/day all phases	17.44	113.81	142.11	0.00	4.35	4.34	0.01

Phase 1 - Demolition Assumptions

Start Month/Year for Phase 1: Apr '07

Phase 1 Duration: 4 months

Building Volume Total (cubic feet): 120131.56

Building Volume Daily (cubic feet): 1361.61

On-Road Truck Travel (VMT): 75

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Concrete/Industrial saws	84	0.730	8.0
1	Crushing/Processing Equip	154	0.780	8.0
1	Other Equipment	190	0.620	8.0
1	Trenchers	82	0.695	8.0

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Aug '07

Phase 2 Duration: 4 months

On-Road Truck Travel (VMT): 142

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Excavators	180	0.580	8.0
1	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
2	Signal Boards	119	0.820	8.0
1	Tractor/Loaders/Backhoes	79	0.465	8.0
1	Trenchers	82	0.695	8.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Dec '07

Phase 3 Duration: 13 months

Start Month/Year for SubPhase Building: Dec '07

SubPhase Building Duration: 10 months

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Cranes	190	0.430	8.0
1	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
1	Other Equipment	190	0.620	8.0
2	Signal Boards	119	0.820	8.0

SubPhase Architectural Coatings Turned OFF

Start Month/Year for SubPhase Asphalt: Oct '08

SubPhase Asphalt Duration: 3 months

Acres to be Paved: 2.76

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Other Equipment	190	0.620	8.0
1	Pavers	132	0.590	8.0
1	Paving Equipment	111	0.530	8.0
1	Signal Boards	119	0.820	8.0
1	Surfacing Equipment	437	0.490	8.0

CONSTRUCTION EMISSION ESTIMATES MITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.57	-	0.57
Off-Road Diesel	7.36	54.30	55.55	-	2.32	2.32	0.00
On-Road Diesel	0.09	1.60	0.33	0.00	0.05	0.04	0.01
Worker Trips	0.10	0.12	2.47	0.00	0.01	0.00	0.01
Maximum lbs/day	7.55	56.02	58.35	0.00	2.95	2.36	0.59
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.41	-	0.41
Off-Road Diesel	15.97	105.87	129.25	-	4.13	4.13	0.00
On-Road Diesel	0.17	3.74	0.63	0.01	0.09	0.07	0.02
Worker Trips	0.06	0.03	0.72	0.00	0.01	0.00	0.01
Maximum lbs/day	16.20	109.64	130.60	0.01	4.64	4.20	0.44
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	17.44	117.67	140.12	-	4.76	4.76	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.00	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	17.44	117.67	140.12	0.00	4.76	4.76	0.00
Max lbs/day all phases	17.44	117.67	140.12	0.01	5.35	4.76	0.59
*** 2008***							
Phase 1 - Demolition Emissions							
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 2 - Site Grading Emissions							
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 Construction							
Bldg Const Off-Road Diesel	17.44	113.81	142.11	-	4.34	4.34	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.11	-	-	-	-	-	-
Asphalt Off-Road Diesel	9.98	70.43	77.67	-	2.89	2.89	0.00
Asphalt On-Road Diesel	0.02	0.40	0.08	0.00	0.01	0.01	0.00
Asphalt Worker Trips	0.03	0.02	0.40	0.00	0.01	0.00	0.01
Maximum lbs/day	17.44	113.81	142.11	0.00	4.35	4.34	0.01
Max lbs/day all phases	17.44	113.81	142.11	0.00	4.35	4.34	0.01

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: Apr '07
 Phase 1 Duration: 4 months
 Building Volume Total (cubic feet): 120131.56
 Building Volume Daily (cubic feet): 1361.61
 On-Road Truck Travel (VMT): 75

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Concrete/Industrial saws	84	0.730	8.0
1	Crushing/Processing Equip	154	0.780	8.0
1	Other Equipment	190	0.620	8.0
1	Trenchers	82	0.695	8.0

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Aug '07
 Phase 2 Duration: 4 months
 On-Road Truck Travel (VMT): 142

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Excavators	180	0.580	8.0
1	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
2	Signal Boards	119	0.820	8.0
1	Tractor/Loaders/Backhoes	79	0.465	8.0
1	Trenchers	82	0.695	8.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Dec '07
 Phase 3 Duration: 13 months

Start Month/Year for SubPhase Building: Dec '07

SubPhase Building Duration: 10 months

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Cranes	190	0.430	8.0
1	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
1	Other Equipment	190	0.620	8.0
2	Signal Boards	119	0.820	8.0

SubPhase Architectural Coatings Turned OFF

Start Month/Year for SubPhase Asphalt: Oct '08

SubPhase Asphalt Duration: 3 months

Acres to be Paved: 2.76

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Other Equipment	190	0.620	8.0
1	Pavers	132	0.590	8.0
1	Paving Equipment	111	0.530	8.0
1	Signal Boards	119	0.820	8.0
1	Surfacing Equipment	437	0.490	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

Site Grading Truck Haul Capacity (yds3) changed from 20 to 14

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
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Phase 2 mitigation measure Soil Disturbance: Water exposed surfaces - 2x daily
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Phase 2 mitigation measure Stockpiles: Cover all stock piles with tarps
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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.

URBEMIS 2002 For Windows 7.5.0

File Name: H:\COMMON\MC Files\URBEMIS2002\HB Desalination II.urb
 Project Name: Seawater Desalination Plant at HB-Construction II
 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: April, 2007
 Construction Duration: 21
 Total Land Use Area to be Developed: 3.7 acres
 Maximum Acreage Disturbed Per Day: 0.2 acres
 Single Family Units: 0 Multi-Family Units: 0
 Retail/Office/Institutional/Industrial Square Footage: 0

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (tons/year)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.04	-	0.04
Off-Road Diesel	0.32	2.40	2.44	-	0.12	0.12	0.00
On-Road Diesel	0.00	0.08	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.11	0.00	0.00	0.00	0.00
Total tons/year	0.32	2.48	2.55	0.00	0.16	0.12	0.04
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.08	-	0.08
Off-Road Diesel	0.72	4.64	5.68	-	0.20	0.20	0.00
On-Road Diesel	0.00	0.14	0.04	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.04	0.00	0.00	0.00	0.00
Total tons/year	0.72	4.78	5.76	0.00	0.28	0.20	0.08
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.19	1.29	1.54	-	0.05	0.05	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.00	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
Total tons/year	0.19	1.29	1.54	0.00	0.05	0.05	0.00
Total all phases tons/yr	1.23	8.55	9.85	0.00	0.49	0.37	0.12
*** 2008***							
Phase 1 - Demolition Emissions							
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
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
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
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	1.71	11.25	14.04	-	0.45	0.45	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.33	2.31	2.55	-	0.09	0.09	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	2.04	13.56	16.59	0.00	0.54	0.54	0.00
Total all phases tons/yr	2.04	13.56	16.59	0.00	0.54	0.54	0.00

Phase 1 - Demolition Assumptions

Start Month/Year for Phase 1: Apr '07

Phase 1 Duration: 4 months

Building Volume Total (cubic feet): 120131.56

Building Volume Daily (cubic feet): 1361.61

On-Road Truck Travel (VMT): 75

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Concrete/Industrial saws	84	0.730	8.0
1	Crushing/Processing Equip	154	0.780	8.0
1	Other Equipment	190	0.620	8.0
1	Trenchers	82	0.695	8.0

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Aug '07

Phase 2 Duration: 4 months

On-Road Truck Travel (VMT): 142

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Excavators	180	0.580	8.0
1	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
2	Signal Boards	119	0.820	8.0
1	Tractor/Loaders/Backhoes	79	0.465	8.0
1	Trenchers	82	0.695	8.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Dec '07

Phase 3 Duration: 13 months

Start Month/Year for SubPhase Building: Dec '07

SubPhase Building Duration: 10 months

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Cranes	190	0.430	8.0
1	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
1	Other Equipment	190	0.620	8.0
2	Signal Boards	119	0.820	8.0

SubPhase Architectural Coatings Turned OFF

Start Month/Year for SubPhase Asphalt: Oct '08

SubPhase Asphalt Duration: 3 months

Acres to be Paved: 2.76

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Other Equipment	190	0.620	8.0
1	Pavers	132	0.590	8.0
1	Paving Equipment	111	0.530	8.0
1	Signal Boards	119	0.820	8.0
1	Surfacing Equipment	437	0.490	8.0

CONSTRUCTION EMISSION ESTIMATES MITIGATED (tons/year)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.04	-	0.04
Off-Road Diesel	0.32	2.40	2.44	-	0.12	0.12	0.00
On-Road Diesel	0.00	0.08	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.11	0.00	0.00	0.00	0.00
Total tons/year	0.32	2.48	2.55	0.00	0.16	0.12	0.04
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.02	-	0.02
Off-Road Diesel	0.72	4.64	5.68	-	0.20	0.20	0.00
On-Road Diesel	0.00	0.14	0.04	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.04	0.00	0.00	0.00	0.00
Total tons/year	0.72	4.78	5.76	0.00	0.22	0.20	0.02
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.19	1.29	1.54	-	0.05	0.05	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.00	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

Total tons/year	0.19	1.29	1.54	0.00	0.05	0.05	0.00
Total all phases tons/yr	1.23	8.55	9.85	0.00	0.43	0.37	0.06
*** 2008***							
Phase 1 - Demolition Emissions							
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
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
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
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	1.71	11.25	14.04	-	0.45	0.45	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.33	2.31	2.55	-	0.09	0.09	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	2.04	13.56	16.59	0.00	0.54	0.54	0.00
Total all phases tons/yr	2.04	13.56	16.59	0.00	0.54	0.54	0.00

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%)
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Phase 1 - Demolition Assumptions

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 Building Volume Total (cubic feet): 120131.56
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Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Aug '07
 Phase 2 Duration: 4 months
 On-Road Truck Travel (VMT): 142

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Excavators	180	0.580	8.0
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1	Tractor/Loaders/Backhoes	79	0.465	8.0
1	Trenchers	82	0.695	8.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Dec '07
 Phase 3 Duration: 13 months

Start Month/Year for SubPhase Building: Dec '07

SubPhase Building Duration: 10 months

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Cranes	190	0.430	8.0
1	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
1	Other Equipment	190	0.620	8.0
2	Signal Boards	119	0.820	8.0

SubPhase Architectural Coatings Turned OFF

Start Month/Year for SubPhase Asphalt: Oct '08

SubPhase Asphalt Duration: 3 months

Acres to be Paved: 2.76

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Other Equipment	190	0.620	8.0
1	Pavers	132	0.590	8.0
1	Paving Equipment	111	0.530	8.0
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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.

URBEMIS 2002 For Windows 7.5.0

File Name: H:\COMMON\MC Files\URBEMIS2002\HB Desalination III.urb
 Project Name: Seawater Desalination Project at HB - Construction III
 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

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 ***							
TOTALS (lbs/day, unmitigated)	17.60	116.84	146.02	0.01	5.57	4.54	1.03
TOTALS (lbs/day, mitigated)	17.60	116.84	146.02	0.01	4.78	4.54	0.24

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2008 ***							
TOTALS (lbs/day, unmitigated)	17.58	113.66	147.16	0.01	5.21	4.18	1.03
TOTALS (lbs/day, mitigated)	17.58	113.66	147.16	0.01	4.42	4.18	0.24

URBEMIS 2002 For Windows 7.5.0

File Name: H:\COMMON\MC Files\URBEMIS2002\HB Desalination III.urb
 Project Name: Seawater Desalination Project at HB - Construction III
 Project Location: South Coast Air Basin (Los Angeles area)
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
 (Pounds/Day - Winter)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 ***							
TOTALS (lbs/day, unmitigated)	17.60	116.84	146.02	0.01	5.57	4.54	1.03
TOTALS (lbs/day, mitigated)	17.60	116.84	146.02	0.01	4.78	4.54	0.24
*** 2008 ***							
TOTALS (lbs/day, unmitigated)	17.58	113.66	147.16	0.01	5.21	4.18	1.03
TOTALS (lbs/day, mitigated)	17.58	113.66	147.16	0.01	4.42	4.18	0.24

URBEMIS 2002 For Windows 7.5.0

File Name: H:\COMMON\MC Files\URBEMIS2002\HB Desalination III.urb
 Project Name: Seawater Desalination Project at HB - Construction III
 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

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 ***							
TOTALS (tpy, unmitigated)	1.14	7.71	9.65	0.00	0.36	0.30	0.06
TOTALS (tpy, mitigated)	1.14	7.71	9.65	0.00	0.31	0.30	0.01

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2008 ***							
TOTALS (tpy, unmitigated)	1.68	10.69	13.63	0.00	0.39	0.38	0.01
TOTALS (tpy, mitigated)	1.68	10.69	13.63	0.00	0.38	0.38	0.00

URBEMIS 2002 For Windows 7.5.0

File Name: H:\COMMON\MC Files\URBEMIS2002\HB Desalination III.urb
 Project Name: Seawater Desalination Project at HB - Construction III
 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: July, 2007
 Construction Duration: 18
 Total Land Use Area to be Developed: 1.5 acres
 Maximum Acreage Disturbed Per Day: 0.1 acres
 Single Family Units: 0 Multi-Family Units: 0
 Retail/Office/Institutional/Industrial Square Footage: 0

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
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 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	1.00	-	1.00
Off-Road Diesel	17.25	112.43	141.57	-	4.45	4.45	0.00
On-Road Diesel	0.19	4.22	0.71	0.01	0.10	0.08	0.02
Worker Trips	0.16	0.19	3.74	0.00	0.02	0.01	0.01
Maximum lbs/day	17.60	116.84	146.02	0.01	5.57	4.54	1.03
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Max lbs/day all phases	17.60	116.84	146.02	0.01	5.57	4.54	1.03
*** 2008***							
Phase 1 - Demolition Emissions							
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 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	1.00	-	1.00
Off-Road Diesel	17.25	109.62	142.80	-	4.10	4.10	0.00
On-Road Diesel	0.18	3.85	0.66	0.01	0.09	0.07	0.02
Worker Trips	0.15	0.19	3.70	0.00	0.02	0.01	0.01
Maximum lbs/day	17.58	113.66	147.16	0.01	5.21	4.18	1.03
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	12.47	79.64	102.75	-	2.94	2.94	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.01	-	-	-	-	-	-
Asphalt Off-Road Diesel	8.26	57.95	64.48	-	2.35	2.35	0.00
Asphalt On-Road Diesel	0.00	0.04	0.01	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.03	0.02	0.33	0.00	0.01	0.00	0.01
Maximum lbs/day	12.47	79.64	102.75	0.00	2.95	2.94	0.01
Max lbs/day all phases	17.58	113.66	147.16	0.01	5.21	4.18	1.03

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Jul '07

Phase 2 Duration: 7 months

On-Road Truck Travel (VMT): 162

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Excavators	180	0.580	8.0
1	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
1	Other Equipment	190	0.620	8.0
1	Scrapers	313	0.660	8.0
1	Tractor/Loaders/Backhoes	79	0.465	8.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Feb '08

Phase 3 Duration: 11 months

Start Month/Year for SubPhase Building: Feb '08

SubPhase Building Duration: 10 months

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
1	Other Equipment	190	0.620	8.0
1	Rubber Tired Loaders	165	0.465	8.0

SubPhase Architectural Coatings Turned OFF

Start Month/Year for SubPhase Asphalt: Dec '08

SubPhase Asphalt Duration: 1 months

Acres to be Paved: 0.1

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Other Equipment	190	0.620	8.0
1	Pavers	132	0.590	8.0
1	Paving Equipment	111	0.530	8.0
1	Surfacing Equipment	437	0.490	8.0

CONSTRUCTION EMISSION ESTIMATES MITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
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 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.21	-	0.21
Off-Road Diesel	17.25	112.43	141.57	-	4.45	4.45	0.00
On-Road Diesel	0.19	4.22	0.71	0.01	0.10	0.08	0.02
Worker Trips	0.16	0.19	3.74	0.00	0.02	0.01	0.01
Maximum lbs/day	17.60	116.84	146.02	0.01	4.78	4.54	0.24
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Max lbs/day all phases	17.60	116.84	146.02	0.01	4.78	4.54	0.24

*** 2008***

Phase 1 - Demolition Emissions

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 2 - Site Grading Emissions

Fugitive Dust	-	-	-	-	0.21	-	0.21
Off-Road Diesel	17.25	109.62	142.80	-	4.10	4.10	0.00
On-Road Diesel	0.18	3.85	0.66	0.01	0.09	0.07	0.02
Worker Trips	0.15	0.19	3.70	0.00	0.02	0.01	0.01
Maximum lbs/day	17.58	113.66	147.16	0.01	4.42	4.18	0.24

Phase 3 - Building Construction

Bldg Const Off-Road Diesel	12.47	79.64	102.75	-	2.94	2.94	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.01	-	-	-	-	-	-
Asphalt Off-Road Diesel	8.26	57.95	64.48	-	2.35	2.35	0.00
Asphalt On-Road Diesel	0.00	0.04	0.01	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.03	0.02	0.33	0.00	0.01	0.00	0.01
Maximum lbs/day	12.47	79.64	102.75	0.00	2.95	2.94	0.01

Max lbs/day all phases 17.58 113.66 147.16 0.01 4.42 4.18 0.24

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: Phase Turned OFF

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Jul '07

Phase 2 Duration: 7 months

On-Road Truck Travel (VMT): 162

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Excavators	180	0.580	8.0
1	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
1	Other Equipment	190	0.620	8.0
1	Scrapers	313	0.660	8.0
1	Tractor/Loaders/Backhoes	79	0.465	8.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Feb '08

Phase 3 Duration: 11 months

Start Month/Year for SubPhase Building: Feb '08

SubPhase Building Duration: 10 months

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
1	Other Equipment	190	0.620	8.0
1	Rubber Tired Loaders	165	0.465	8.0

SubPhase Architectural Coatings Turned OFF

Start Month/Year for SubPhase Asphalt: Dec '08

SubPhase Asphalt Duration: 1 months

Acres to be Paved: 0.1

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Other Equipment	190	0.620	8.0
1	Pavers	132	0.590	8.0
1	Paving Equipment	111	0.530	8.0
1	Surfacing Equipment	437	0.490	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

Site Grading Truck Haul Capacity (yds3) changed from 20 to 14

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.

URBEMIS 2002 For Windows 7.5.0

File Name: H:\COMMON\MC Files\URBEMIS2002\HB Desalination III.urb
 Project Name: Seawater Desalination Project at HB - Construction III
 Project Location: South Coast Air Basin (Los Angeles area)
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
 (Pounds/Day - Summer)

Construction Start Month and Year: July, 2007
 Construction Duration: 18
 Total Land Use Area to be Developed: 1.5 acres
 Maximum Acreage Disturbed Per Day: 0.1 acres
 Single Family Units: 0 Multi-Family Units: 0
 Retail/Office/Institutional/Industrial Square Footage: 0

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
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 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	1.00	-	1.00
Off-Road Diesel	17.25	112.43	141.57	-	4.45	4.45	0.00
On-Road Diesel	0.19	4.22	0.71	0.01	0.10	0.08	0.02
Worker Trips	0.16	0.19	3.74	0.00	0.02	0.01	0.01
Maximum lbs/day	17.60	116.84	146.02	0.01	5.57	4.54	1.03
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Max lbs/day all phases	17.60	116.84	146.02	0.01	5.57	4.54	1.03
*** 2008***							
Phase 1 - Demolition Emissions							
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 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	1.00	-	1.00
Off-Road Diesel	17.25	109.62	142.80	-	4.10	4.10	0.00
On-Road Diesel	0.18	3.85	0.66	0.01	0.09	0.07	0.02
Worker Trips	0.15	0.19	3.70	0.00	0.02	0.01	0.01
Maximum lbs/day	17.58	113.66	147.16	0.01	5.21	4.18	1.03
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	12.47	79.64	102.75	-	2.94	2.94	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.01	-	-	-	-	-	-
Asphalt Off-Road Diesel	8.26	57.95	64.48	-	2.35	2.35	0.00
Asphalt On-Road Diesel	0.00	0.04	0.01	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.03	0.02	0.33	0.00	0.01	0.00	0.01
Maximum lbs/day	12.47	79.64	102.75	0.00	2.95	2.94	0.01
Max lbs/day all phases	17.58	113.66	147.16	0.01	5.21	4.18	1.03

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Jul '07

Phase 2 Duration: 7 months

On-Road Truck Travel (VMT): 162

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Excavators	180	0.580	8.0
1	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
1	Other Equipment	190	0.620	8.0
1	Scrapers	313	0.660	8.0
1	Tractor/Loaders/Backhoes	79	0.465	8.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Feb '08

Phase 3 Duration: 11 months

Start Month/Year for SubPhase Building: Feb '08

SubPhase Building Duration: 10 months

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
1	Other Equipment	190	0.620	8.0
1	Rubber Tired Loaders	165	0.465	8.0

SubPhase Architectural Coatings Turned OFF

Start Month/Year for SubPhase Asphalt: Dec '08

SubPhase Asphalt Duration: 1 months

Acres to be Paved: 0.1

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Other Equipment	190	0.620	8.0
1	Pavers	132	0.590	8.0
1	Paving Equipment	111	0.530	8.0
1	Surfacing Equipment	437	0.490	8.0

CONSTRUCTION EMISSION ESTIMATES MITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
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 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.21	-	0.21
Off-Road Diesel	17.25	112.43	141.57	-	4.45	4.45	0.00
On-Road Diesel	0.19	4.22	0.71	0.01	0.10	0.08	0.02
Worker Trips	0.16	0.19	3.74	0.00	0.02	0.01	0.01
Maximum lbs/day	17.60	116.84	146.02	0.01	4.78	4.54	0.24
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Max lbs/day all phases	17.60	116.84	146.02	0.01	4.78	4.54	0.24

*** 2008***

Phase 1 - Demolition Emissions

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 2 - Site Grading Emissions

Fugitive Dust	-	-	-	-	0.21	-	0.21
Off-Road Diesel	17.25	109.62	142.80	-	4.10	4.10	0.00
On-Road Diesel	0.18	3.85	0.66	0.01	0.09	0.07	0.02
Worker Trips	0.15	0.19	3.70	0.00	0.02	0.01	0.01
Maximum lbs/day	17.58	113.66	147.16	0.01	4.42	4.18	0.24

Phase 3 - Building Construction

Bldg Const Off-Road Diesel	12.47	79.64	102.75	-	2.94	2.94	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.01	-	-	-	-	-	-
Asphalt Off-Road Diesel	8.26	57.95	64.48	-	2.35	2.35	0.00
Asphalt On-Road Diesel	0.00	0.04	0.01	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.03	0.02	0.33	0.00	0.01	0.00	0.01
Maximum lbs/day	12.47	79.64	102.75	0.00	2.95	2.94	0.01

Max lbs/day all phases 17.58 113.66 147.16 0.01 4.42 4.18 0.24

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: Phase Turned OFF

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Jul '07

Phase 2 Duration: 7 months

On-Road Truck Travel (VMT): 162

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Excavators	180	0.580	8.0
1	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
1	Other Equipment	190	0.620	8.0
1	Scrapers	313	0.660	8.0
1	Tractor/Loaders/Backhoes	79	0.465	8.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Feb '08

Phase 3 Duration: 11 months

Start Month/Year for SubPhase Building: Feb '08

SubPhase Building Duration: 10 months

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
1	Other Equipment	190	0.620	8.0
1	Rubber Tired Loaders	165	0.465	8.0

SubPhase Architectural Coatings Turned OFF

Start Month/Year for SubPhase Asphalt: Dec '08

SubPhase Asphalt Duration: 1 months

Acres to be Paved: 0.1

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Other Equipment	190	0.620	8.0
1	Pavers	132	0.590	8.0
1	Paving Equipment	111	0.530	8.0
1	Surfacing Equipment	437	0.490	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

Site Grading Truck Haul Capacity (yds3) changed from 20 to 14

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.

URBEMIS 2002 For Windows 7.5.0

File Name: H:\COMMON\MC Files\URBEMIS2002\HB Desalination III.urb
 Project Name: Seawater Desalination Project at HB - Construction III
 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: July, 2007
 Construction Duration: 18
 Total Land Use Area to be Developed: 1.5 acres
 Maximum Acreage Disturbed Per Day: 0.1 acres
 Single Family Units: 0 Multi-Family Units: 0
 Retail/Office/Institutional/Industrial Square Footage: 0

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (tons/year)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
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
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.06	-	0.06
Off-Road Diesel	1.14	7.44	9.36	-	0.30	0.30	0.00
On-Road Diesel	0.00	0.27	0.06	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.23	0.00	0.00	0.00	0.00
Total tons/year	1.14	7.71	9.65	0.00	0.36	0.30	0.06
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.00	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
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total all phases tons/yr	1.14	7.71	9.65	0.00	0.36	0.30	0.06
*** 2008***							
Phase 1 - Demolition Emissions							
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
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.01	-	0.01
Off-Road Diesel	0.19	1.21	1.57	-	0.05	0.05	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	0.04	0.00	0.00	0.00	0.00
Total tons/year	0.19	1.25	1.62	0.00	0.06	0.05	0.01
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	1.40	8.80	11.30	-	0.30	0.30	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.09	0.64	0.71	-	0.03	0.03	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	1.49	9.44	12.01	0.00	0.33	0.33	0.00
Total all phases tons/yr	1.68	10.69	13.63	0.00	0.39	0.38	0.01

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Jul '07

Phase 2 Duration: 7 months

On-Road Truck Travel (VMT): 162

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Excavators	180	0.580	8.0
1	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
1	Other Equipment	190	0.620	8.0
1	Scrapers	313	0.660	8.0
1	Tractor/Loaders/Backhoes	79	0.465	8.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Feb '08

Phase 3 Duration: 11 months

Start Month/Year for SubPhase Building: Feb '08

SubPhase Building Duration: 10 months

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
1	Other Equipment	190	0.620	8.0
1	Rubber Tired Loaders	165	0.465	8.0

SubPhase Architectural Coatings Turned OFF

Start Month/Year for SubPhase Asphalt: Dec '08

SubPhase Asphalt Duration: 1 months

Acres to be Paved: 0.1

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Other Equipment	190	0.620	8.0
1	Pavers	132	0.590	8.0
1	Paving Equipment	111	0.530	8.0
1	Surfacing Equipment	437	0.490	8.0

CONSTRUCTION EMISSION ESTIMATES MITIGATED (tons/year)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
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
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.01	-	0.01
Off-Road Diesel	1.14	7.44	9.36	-	0.30	0.30	0.00
On-Road Diesel	0.00	0.27	0.06	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.23	0.00	0.00	0.00	0.00
Total tons/year	1.14	7.71	9.65	0.00	0.31	0.30	0.01
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.00	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
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total all phases tons/yr	1.14	7.71	9.65	0.00	0.31	0.30	0.01

*** 2008***

Phase 1 - Demolition Emissions

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
Total tons/year	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 2 - Site Grading Emissions

Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.19	1.21	1.57	-	0.05	0.05	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	0.04	0.00	0.00	0.00	0.00
Total tons/year	0.19	1.25	1.62	0.00	0.05	0.05	0.00

Phase 3 - Building Construction

Bldg Const Off-Road Diesel	1.40	8.80	11.30	-	0.30	0.30	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	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	0.09	0.64	0.71	-	0.03	0.03	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	1.49	9.44	12.01	0.00	0.33	0.33	0.00

Total all phases tons/yr 1.68 10.69 13.63 0.00 0.38 0.38 0.00

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: Phase Turned OFF

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Jul '07
Phase 2 Duration: 7 months
On-Road Truck Travel (VMT): 162
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Excavators	180	0.580	8.0
1	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
1	Other Equipment	190	0.620	8.0
1	Scrapers	313	0.660	8.0
1	Tractor/Loaders/Backhoes	79	0.465	8.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Feb '08
Phase 3 Duration: 11 months
Start Month/Year for SubPhase Building: Feb '08
SubPhase Building Duration: 10 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Off Highway Tractors	255	0.410	8.0
2	Off Highway Trucks	417	0.490	8.0
1	Other Equipment	190	0.620	8.0
1	Rubber Tired Loaders	165	0.465	8.0

SubPhase Architectural Coatings Turned OFF
Start Month/Year for SubPhase Asphalt: Dec '08
SubPhase Asphalt Duration: 1 months
Acres to be Paved: 0.1
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Other Equipment	190	0.620	8.0
1	Pavers	132	0.590	8.0
1	Paving Equipment	111	0.530	8.0
1	Surfacing Equipment	437	0.490	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

Site Grading Truck Haul Capacity (yds3) changed from 20 to 14

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.

SOx

12/01/04
09:19:00

*** SCREEN3 MODEL RUN ***
*** VERSION DATED 96043 ***

Seawater Desalination Plant - SOx

SIMPLE TERRAIN INPUTS:

```

SOURCE TYPE           =          POINT
EMISSION RATE (G/S)   =          .157000E-03
STACK HEIGHT (M)      =          3.0000
STK INSIDE DIAM (M)   =          .0800
STK EXIT VELOCITY (M/S) =          1.0000
STK GAS EXIT TEMP (K) =          505.3700
AMBIENT AIR TEMP (K)  =          293.0000
RECEPTOR HEIGHT (M) =          40.0000
URBAN/RURAL OPTION   =          URBAN
BUILDING HEIGHT (M)   =          .0000
MIN HORIZ BLDG DIM (M) =          .0000
MAX HORIZ BLDG DIM (M) =          .0000

```

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

BUOY. FLUX = .007 M**4/S**3; MOM. FLUX = .001 M**4/S**2.

*** FULL METEOROLOGY ***

*** SCREEN AUTOMATED DISTANCES ***

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
20.	.3557E-12	1	1.0	1.0	320.0	3.42	6.38	4.85	NO
100.	.1815E-01	1	1.0	1.0	320.0	3.42	31.38	25.17	NO
200.	.2042E-01	4	1.0	1.0	320.0	3.42	30.79	27.20	NO
300.	.1671E-01	4	1.0	1.0	320.0	3.42	45.36	40.23	NO
400.	.1500E-01	5	1.0	1.0	10000.0	8.49	40.88	25.35	NO
500.	.1412E-01	5	1.0	1.0	10000.0	8.49	50.23	30.28	NO
600.	.1263E-01	5	1.0	1.0	10000.0	8.49	59.29	34.86	NO
700.	.1114E-01	5	1.0	1.0	10000.0	8.49	68.08	39.14	NO
800.	.9816E-02	6	1.0	1.0	10000.0	7.54	76.61	43.17	NO
900.	.8688E-02	6	1.0	1.0	10000.0	7.54	84.90	46.99	NO
1000.	.7739E-02	6	1.0	1.0	10000.0	7.54	92.98	50.61	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 20. M:
 141. .2163E-01 3 1.0 1.0 320.0 3.42 30.39 28.40 NO

DWASH= MEANS NO CALC MADE (CONC = 0.0)
 DWASH=NO MEANS NO BUILDING DOWNWASH USED
 DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
 DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
 DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

 * SUMMARY OF TERRAIN HEIGHTS ENTERED FOR *
 * SIMPLE ELEVATED TERRAIN PROCEDURE *

SOx

TERRAIN HT (M)	DISTANCE RANGE (M)	
-----	MINIMUM	MAXIMUM
0.	20.	1000.

*** SUMMARY OF SCREEN MODEL RESULTS ***

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
-----	-----	-----	-----
SIMPLE TERRAIN	.2163E-01	141.	0.

** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **

NOX

12/01/04
09:13:41

*** SCREEN3 MODEL RUN ***
*** VERSION DATED 96043 ***

Seawater Desalination Plant - NOX

SIMPLE TERRAIN INPUTS:

```

SOURCE TYPE           =          POINT
EMISSION RATE (G/S)  =          1.57000
STACK HEIGHT (M)     =          3.0000
STK INSIDE DIAM (M)  =          .0800
STK EXIT VELOCITY (M/S)=          1.0000
STK GAS EXIT TEMP (K) =          505.3700
AMBIENT AIR TEMP (K) =          293.0000
RECEPTOR HEIGHT (M) =          40.0000
URBAN/RURAL OPTION   =          URBAN
BUILDING HEIGHT (M)  =          .0000
MIN HORIZ BLDG DIM (M) =          .0000
MAX HORIZ BLDG DIM (M) =          .0000

```

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

BUOY. FLUX = .007 M**4/S**3; MOM. FLUX = .001 M**4/S**2.

*** FULL METEOROLOGY ***

*** SCREEN AUTOMATED DISTANCES ***

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
20.	.3557E-08	1	1.0	1.0	320.0	3.42	6.38	4.85	NO
100.	181.5	1	1.0	1.0	320.0	3.42	31.38	25.17	NO
200.	204.2	4	1.0	1.0	320.0	3.42	30.79	27.20	NO
300.	167.1	4	1.0	1.0	320.0	3.42	45.36	40.23	NO
400.	150.0	5	1.0	1.0	10000.0	8.49	40.88	25.35	NO
500.	141.2	5	1.0	1.0	10000.0	8.49	50.23	30.28	NO
600.	126.3	5	1.0	1.0	10000.0	8.49	59.29	34.86	NO
700.	111.4	5	1.0	1.0	10000.0	8.49	68.08	39.14	NO
800.	98.16	6	1.0	1.0	10000.0	7.54	76.61	43.17	NO
900.	86.88	6	1.0	1.0	10000.0	7.54	84.90	46.99	NO
1000.	77.39	6	1.0	1.0	10000.0	7.54	92.98	50.61	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 20. M:
141. 216.3 3 1.0 1.0 320.0 3.42 30.39 28.40 NO

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

* SUMMARY OF TERRAIN HEIGHTS ENTERED FOR *
* SIMPLE ELEVATED TERRAIN PROCEDURE *

NOx

TERRAIN HT (M)	DISTANCE RANGE (M)	
-----	MINIMUM	MAXIMUM
0.	20.	1000.

*** SUMMARY OF SCREEN MODEL RESULTS ***

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
-----	-----	-----	-----
SIMPLE TERRAIN	216.3	141.	0.

** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **

PM10

11/30/04
23:50:39

*** SCREEN3 MODEL RUN ***
*** VERSION DATED 96043 ***

Seawater Desalination PLant - PM10

SIMPLE TERRAIN INPUTS:

```

SOURCE TYPE           =          POINT
EMISSION RATE (G/S)  =          .830000E-01
STACK HEIGHT (M)     =          3.0000
STK INSIDE DIAM (M)  =          .0800
STK EXIT VELOCITY (M/S)=          1.0000
STK GAS EXIT TEMP (K) =          505.3700
AMBIENT AIR TEMP (K) =          293.0000
RECEPTOR HEIGHT (M) =          40.0000
URBAN/RURAL OPTION   =          URBAN
BUILDING HEIGHT (M)  =          .0000
MIN HORIZ BLDG DIM (M) =          .0000
MAX HORIZ BLDG DIM (M) =          .0000

```

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
A NON-REGULATORY ANEMOMETER HEIGHT (HANE) OF***** METERS WAS ENTERED.

BUOY. FLUX = .007 M**4/S**3; MOM. FLUX = .001 M**4/S**2.

*** FULL METEOROLOGY ***

*** SCREEN AUTOMATED DISTANCES ***

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	UHANE (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
20.	.1881E-09	1	1.0	1.0	320.0	3.42	6.38	4.85	NO
100.	9.595	1	1.0	1.0	320.0	3.42	31.38	25.17	NO
200.	10.79	4	1.0	1.0	320.0	3.42	30.79	27.20	NO
300.	8.832	4	1.0	1.0	320.0	3.42	45.36	40.23	NO
400.	7.932	5	1.0	1.0	10000.0	8.49	40.88	25.35	NO
500.	7.463	5	1.0	1.0	10000.0	8.49	50.23	30.28	NO
600.	6.677	5	1.0	1.0	10000.0	8.49	59.29	34.86	NO
700.	5.887	5	1.0	1.0	10000.0	8.49	68.08	39.14	NO
800.	5.189	6	1.0	1.0	10000.0	7.54	76.61	43.17	NO
900.	4.593	6	1.0	1.0	10000.0	7.54	84.90	46.99	NO
1000.	4.091	6	1.0	1.0	10000.0	7.54	92.98	50.61	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 20. M:
 141. 11.44 3 1.0 1.0 320.0 3.42 30.39 28.40 NO

DWASH= MEANS NO CALC MADE (CONC = 0.0)
 DWASH=NO MEANS NO BUILDING DOWNWASH USED
 DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
 DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
 DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

 * SUMMARY OF TERRAIN HEIGHTS ENTERED FOR *
 * SIMPLE ELEVATED TERRAIN PROCEDURE *

PM10

TERRAIN HT (M)	DISTANCE RANGE (M)	
-----	MINIMUM	MAXIMUM
0.	20.	1000.

*** SUMMARY OF SCREEN MODEL RESULTS ***

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
-----	-----	-----	-----
SIMPLE TERRAIN	11.44	141.	0.

** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **

CO

12/01/04
09:29:16

*** SCREEN3 MODEL RUN ***
*** VERSION DATED 96043 ***

Seawater Desalination Plant - CO

SIMPLE TERRAIN INPUTS:

```

SOURCE TYPE           =          POINT
EMISSION RATE (G/S)   =          2.25000
STACK HEIGHT (M)      =          3.0000
STK INSIDE DIAM (M)   =          .0800
STK EXIT VELOCITY (M/S) =          1.0000
STK GAS EXIT TEMP (K) =          505.3700
AMBIENT AIR TEMP (K)  =          293.0000
RECEPTOR HEIGHT (M) =          40.0000
URBAN/RURAL OPTION    =          URBAN
BUILDING HEIGHT (M)   =          .0000
MIN HORIZ BLDG DIM (M) =          .0000
MAX HORIZ BLDG DIM (M) =          .0000

```

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

BUOY. FLUX = .007 M**4/S**3; MOM. FLUX = .001 M**4/S**2.

*** FULL METEOROLOGY ***

*** SCREEN AUTOMATED DISTANCES ***

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
20.	.5098E-08	1	1.0	1.0	320.0	3.42	6.38	4.85	NO
100.	260.1	1	1.0	1.0	320.0	3.42	31.38	25.17	NO
200.	292.6	4	1.0	1.0	320.0	3.42	30.79	27.20	NO
300.	239.4	4	1.0	1.0	320.0	3.42	45.36	40.23	NO
400.	215.0	5	1.0	1.0	10000.0	8.49	40.88	25.35	NO
500.	202.3	5	1.0	1.0	10000.0	8.49	50.23	30.28	NO
600.	181.0	5	1.0	1.0	10000.0	8.49	59.29	34.86	NO
700.	159.6	5	1.0	1.0	10000.0	8.49	68.08	39.14	NO
800.	140.7	6	1.0	1.0	10000.0	7.54	76.61	43.17	NO
900.	124.5	6	1.0	1.0	10000.0	7.54	84.90	46.99	NO
1000.	110.9	6	1.0	1.0	10000.0	7.54	92.98	50.61	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 20. M:
 141. 310.0 3 1.0 1.0 320.0 3.42 30.39 28.40 NO

DWASH= MEANS NO CALC MADE (CONC = 0.0)
 DWASH=NO MEANS NO BUILDING DOWNWASH USED
 DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
 DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
 DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

 * SUMMARY OF TERRAIN HEIGHTS ENTERED FOR *
 * SIMPLE ELEVATED TERRAIN PROCEDURE *

CO

TERRAIN HT (M)	DISTANCE RANGE (M)	
-----	MINIMUM	MAXIMUM
0.	20.	1000.

*** SUMMARY OF SCREEN MODEL RESULTS ***

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
-----	-----	-----	-----
SIMPLE TERRAIN	310.0	141.	0.

** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **

Emfac 2002 (version2.2) Emission Factors for On-Road Vehicles

$$\text{Emissions (lbs/day)} = N \times TL \times EF$$

N is the number of trips

TL is the trip length (miles/day)

EF = Emissions Factors

Passenger Vehicles (pounds/mile)		Delivery Trucks (pounds/mile)	
CO	0.013925	CO	0.019135
NO _x	0.001489	NO _x	0.026756
ROG	0.001497	ROG	0.002779
SO _x	0.000009	SO _x	0.000248
PM ₁₀	0.000114	PM ₁₀	0.000887

Assumptions:

Passenger Vehicles

28 worker trips per day

50 miles maximum one trip

Delivery Trucks

4 trips per day

25 miles maximum trip

Operational Emissions from the Seawater Desalination Project

Passenger Vehicles

$$\text{CO} = 28 \times 100 \times 0.014 = 39.2 \text{ lbs/day}$$

$$\text{NO}_x = 28 \times 100 \times 0.0015 = 4.2 \text{ lbs/day}$$

$$\text{ROG} = 28 \times 100 \times 0.0015 = 4.2 \text{ lbs/day}$$

$$\text{SO}_x = 28 \times 100 \times 0.000009 = 0.03 \text{ lbs/day}$$

$$\text{PM}_{10} = 28 \times 100 \times 0.000114 = 0.32 \text{ lbs/day}$$

Delivery Trucks

$$\text{CO} = 4 \times 50 \times 0.019 = 3.8 \text{ lbs/day}$$

$$\text{NO}_x = 4 \times 50 \times 0.027 = 5.4 \text{ lbs/day}$$

$$\text{ROG} = 4 \times 50 \times 0.0027 = 0.54 \text{ lbs/day}$$

$$\text{SO}_x = 4 \times 50 \times 0.00089 = 0.08 \text{ lbs/day}$$

$$\text{PM}_{10} = 4 \times 50 \times 0.000248 = 0.05 \text{ lbs/day}$$

Totals

$$\text{CO} = 43.0 \text{ lbs/day}$$

$$\text{NO}_x = 4.74 \text{ lbs/day}$$

$$\text{ROG} = 9.6 \text{ lbs/day}$$

$$\text{SO}_x = 0.08 \text{ lbs/day}$$

$$\text{PM}_{10} = .4 \text{ lbs/day}$$