

Vintara Park Urbemis results

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Vintara Park.urb
Project Name: Vintara Park
Project Location: Lower Sacramento Valley Air Basin
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

| *** 2006 *** | ROG | NOx | CO | SO2 | PM10 TOTAL | PM10 EXHAUST | PM10 DUST |
|------------------------------|-------|--------|--------|------|---------------|-----------------|--------------|
| TOTALS (lbs/day,unmitigated) | 76.58 | 515.61 | 629.09 | 0.01 | 422.33 | 22.29 | 400.04 |

| *** 2007 *** | ROG | NOx | CO | SO2 | PM10 TOTAL | PM10 EXHAUST | PM10 DUST |
|------------------------------|----------|--------|--------|------|---------------|-----------------|--------------|
| TOTALS (lbs/day,unmitigated) | 1,996.17 | 248.27 | 326.96 | 0.01 | 11.17 | 10.30 | 0.87 |

AREA SOURCE EMISSION ESTIMATES

| | ROG | NOx | CO | SO2 | PM10 |
|------------------------------|-------|-------|-------|------|------|
| TOTALS (lbs/day,unmitigated) | 59.85 | 14.09 | 29.01 | 0.20 | 0.11 |

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

| | ROG | NOx | CO | SO2 | PM10 |
|------------------------------|-------|-------|--------|------|-------|
| TOTALS (lbs/day,unmitigated) | 50.32 | 48.71 | 554.15 | 0.34 | 50.79 |

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

| | ROG | NOx | CO | SO2 | PM10 |
|------------------------------|--------|-------|--------|------|-------|
| TOTALS (lbs/day,unmitigated) | 110.17 | 62.80 | 583.16 | 0.54 | 50.90 |

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Project Name: Vintara Park
Project Location: Lower Sacramento Valley Air Basin
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Winter)

CONSTRUCTION EMISSION ESTIMATES

| *** 2006 *** | ROG | NOx | CO | SO2 | PM10 TOTAL | PM10 EXHAUST | PM10 DUST |
|------------------------------|-------|--------|--------|------|---------------|-----------------|--------------|
| TOTALS (lbs/day,unmitigated) | 76.58 | 515.61 | 629.09 | 0.01 | 422.33 | 22.29 | 400.04 |

| *** 2007 *** | ROG | NOx | CO | SO2 | PM10 TOTAL | PM10 EXHAUST | PM10 DUST |
|------------------------------|----------|--------|--------|------|---------------|-----------------|--------------|
| TOTALS (lbs/day,unmitigated) | 1,996.17 | 248.27 | 326.96 | 0.01 | 11.17 | 10.30 | 0.87 |

AREA SOURCE EMISSION ESTIMATES

| | ROG | NOx | CO | SO2 | PM10 |
|------------------------------|-------|-------|------|------|------|
| TOTALS (lbs/day,unmitigated) | 57.00 | 19.55 | 8.32 | 0.04 | 0.48 |

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

| | ROG | NOx | CO | SO2 | PM10 |
|--|-----|-----|----|-----|------|
|--|-----|-----|----|-----|------|

Vintara Park Urbemis results

| | | | | | |
|--|--------|-------|--------|------|-------|
| TOTALS (lbs/day,unmitigated) | 47.41 | 76.20 | 578.28 | 0.30 | 50.79 |
| SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES | | | | | |
| | ROG | NOx | CO | SO2 | PM10 |
| TOTALS (lbs/day,unmitigated) | 104.41 | 95.75 | 586.60 | 0.33 | 51.27 |

Page: 3
11/03/2005 4:15 PM

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 Project Location: Lower Sacramento Valley Air Basin
 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 |
|---------------------------|-------|-------|-------|------|---------------|-----------------|--------------|
| *** 2006 *** | | | | | | | |
| TOTALS (tpy, unmitigated) | 3.41 | 23.91 | 27.07 | 0.00 | 9.02 | 1.07 | 7.95 |
| *** 2007 *** | | | | | | | |
| TOTALS (tpy, unmitigated) | 32.67 | 17.31 | 20.36 | 0.00 | 0.81 | 0.76 | 0.05 |

AREA SOURCE EMISSION ESTIMATES

| | ROG | NOx | CO | SO2 | PM10 |
|---------------------------|------|------|------|------|------|
| TOTALS (tpy, unmitigated) | 9.48 | 2.56 | 3.16 | 0.02 | 0.01 |

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

| | ROG | NOx | CO | SO2 | PM10 |
|---------------------------|------|-------|--------|------|------|
| TOTALS (tpy, unmitigated) | 9.01 | 10.56 | 102.60 | 0.06 | 9.27 |

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

| | ROG | NOx | CO | SO2 | PM10 |
|---------------------------|-------|-------|--------|------|------|
| TOTALS (tpy, unmitigated) | 18.48 | 13.12 | 105.76 | 0.08 | 9.28 |

Page: 4
11/03/2005 4:15 PM

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Vintara Park.urb
 Project Name: Vintara Park
 Project Location: Lower Sacramento Valley Air Basin
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Winter)

Construction Start Month and Year: May, 2006
 Construction Duration: 16
 Total Land Use Area to be Developed: 170 acres
 Maximum Acreage Disturbed Per Day: 40 acres
 Single Family Units: 670 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 |
|--------|-----|-----|----|-----|---------------|-----------------|--------------|
|--------|-----|-----|----|-----|---------------|-----------------|--------------|

Vintara Park Urbemis results

*** 2006***

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 | - | - | - | - | 400.00 | - | 400.00 |
| Off-Road Diesel | 75.80 | 514.72 | 611.35 | - | 22.27 | 22.27 | 0.00 |
| On-Road Diesel | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Worker Trips | 0.78 | 0.89 | 17.74 | 0.01 | 0.06 | 0.02 | 0.04 |
| Maximum lbs/day | 76.58 | 515.61 | 629.09 | 0.01 | 422.33 | 22.29 | 400.04 |

Phase 3 - Building Construction

| | | | | | | | |
|----------------------------|-------|--------|--------|------|------|------|------|
| Bldg Const Off-Road Diesel | 24.91 | 199.27 | 177.35 | - | 9.22 | 9.22 | 0.00 |
| Bldg Const Worker Trips | 3.16 | 1.90 | 40.11 | 0.01 | 0.46 | 0.03 | 0.43 |
| 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 | 28.07 | 201.17 | 217.47 | 0.01 | 9.68 | 9.25 | 0.43 |

Max lbs/day all phases 76.58 515.61 629.09 0.01 422.33 22.29 400.04

*** 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 | - | - | - | - | 0.00 | - | 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 | 24.91 | 190.06 | 184.33 | - | 8.47 | 8.47 | 0.00 |
| Bldg Const Worker Trips | 2.93 | 1.79 | 37.70 | 0.01 | 0.46 | 0.03 | 0.43 |
| Arch Coatings Off-Gas | 1,955.83 | - | - | - | - | - | - |
| Arch Coatings Worker Trips | 2.62 | 1.26 | 32.67 | 0.00 | 0.46 | 0.03 | 0.43 |
| Asphalt Off-Gas | 1.02 | - | - | - | - | - | - |
| Asphalt Off-Road Diesel | 8.94 | 53.13 | 76.03 | - | 1.70 | 1.70 | 0.00 |
| Asphalt On-Road Diesel | 0.16 | 2.53 | 0.60 | 0.01 | 0.07 | 0.07 | 0.00 |
| Asphalt Worker Trips | 0.05 | 0.03 | 0.68 | 0.00 | 0.01 | 0.00 | 0.01 |
| Maximum lbs/day | 1,996.17 | 248.27 | 326.96 | 0.01 | 11.17 | 10.30 | 0.87 |

Max lbs/day all phases 1,996.17 248.27 326.96 0.01 11.17 10.30 0.87

Page: 5
11/03/2005 4:15 PM

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: May '06

Phase 2 Duration: 1.8 months

On-Road Truck Travel (VMT): 0

Off-Road Equipment

| No. | Type | Horsepower | Load Factor | Hours/Day |
|-----|----------------------|------------|-------------|-----------|
| 12 | Crawler Tractors | 143 | 0.575 | 8.0 |
| 4 | Graders | 174 | 0.575 | 8.0 |
| 8 | Off Highway Trucks | 417 | 0.490 | 8.0 |
| 4 | Rubber Tired Loaders | 165 | 0.465 | 8.0 |

Vintara Park Urbemis results

| | | | | |
|---|--------------------------|-----|-------|-----|
| 4 | Scrapers | 313 | 0.660 | 8.0 |
| 4 | Tractor/Loaders/Backhoes | 79 | 0.465 | 8.0 |

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Jun '06

Phase 3 Duration: 14.2 months

Start Month/Year for SubPhase Building: Jun '06

SubPhase Building Duration: 14.2 months

Off-Road Equipment

| No. | Type | Horsepower | Load Factor | Hours/Day |
|-----|-----------------|------------|-------------|-----------|
| 12 | Other Equipment | 190 | 0.620 | 8.0 |

Start Month/Year for SubPhase Architectural Coatings: Jul '07

SubPhase Architectural Coatings Duration: 1.4 months

Start Month/Year for SubPhase Asphalt: Aug '07

SubPhase Asphalt Duration: 0.7 months

Acres to be Paved: 6

Off-Road Equipment

| No. | Type | Horsepower | Load Factor | Hours/Day |
|-----|---------|------------|-------------|-----------|
| 4 | Pavers | 132 | 0.590 | 8.0 |
| 4 | Rollers | 114 | 0.430 | 8.0 |

Page: 6

11/03/2005 4:15 PM

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)

| Source | ROG | NOx | CO | SO2 | PM10 |
|-----------------------------------|-------|-------|------|------|------|
| Natural Gas | 1.08 | 13.99 | 5.95 | 0 | 0.03 |
| Hearth | 0.33 | 5.56 | 2.36 | 0.04 | 0.45 |
| Landscaping - No winter emissions | | | | | |
| Consumer Prdcts | 32.78 | - | - | - | - |
| Architectural Coatings | 22.82 | - | - | - | - |
| TOTALS(lbs/day,unmitigated) | 57.00 | 19.55 | 8.32 | 0.04 | 0.48 |

Page: 7

11/03/2005 4:15 PM

UNMITIGATED OPERATIONAL EMISSIONS

| | ROG | NOx | CO | SO2 | PM10 |
|---------------------------|-------|-------|--------|------|-------|
| Single family housing | 47.19 | 75.86 | 575.69 | 0.29 | 50.57 |
| City park | 0.22 | 0.34 | 2.59 | 0.00 | 0.22 |
| TOTAL EMISSIONS (lbs/day) | 47.41 | 76.20 | 578.28 | 0.30 | 50.79 |

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2008 Temperature (F): 40 Season: Winter

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

| Unit Type | Acreege | Trip Rate | No. Units | Total Trips |
|-----------------------|---------|------------------------------|-----------|-------------|
| Single family housing | 114.00 | 8.53 trips/dwelling unit | 670.00 | 5,715.10 |
| City park | | 1.59 trips/acres | 19.90 | 31.64 |
| | | Sum of Total Trips | | 5,746.74 |
| | | Total Vehicle Miles Traveled | | 33,424.92 |

Vehicle Assumptions:

Fleet Mix:

| Vehicle Type | Vintara Park Urbemis results | | | |
|---------------------------|------------------------------|--------------|----------|--------|
| | Percent Type | Non-Catalyst | Catalyst | Diesel |
| Light Auto | 55.00 | 1.60 | 98.00 | 0.40 |
| Light Truck < 3,750 lbs | 15.00 | 2.70 | 95.30 | 2.00 |
| Light Truck 3,751- 5,750 | 16.20 | 1.20 | 97.50 | 1.30 |
| Med Truck 5,751- 8,500 | 7.20 | 1.40 | 95.80 | 2.80 |
| Lite-Heavy 8,501-10,000 | 1.10 | 0.00 | 81.80 | 18.20 |
| Lite-Heavy 10,001-14,000 | 0.40 | 0.00 | 50.00 | 50.00 |
| Med-Heavy 14,001-33,000 | 1.00 | 0.00 | 20.00 | 80.00 |
| Heavy-Heavy 33,001-60,000 | 0.90 | 0.00 | 11.10 | 88.90 |
| Line Haul > 60,000 lbs | 0.00 | 0.00 | 0.00 | 100.00 |
| Urban Bus | 0.20 | 0.00 | 50.00 | 50.00 |
| Motorcycle | 1.70 | 76.50 | 23.50 | 0.00 |
| School Bus | 0.10 | 0.00 | 0.00 | 100.00 |
| Motor Home | 1.20 | 8.30 | 83.30 | 8.40 |

Travel Conditions

| | Residential | | | Commercial | | |
|---------------------------------------|-------------|-----------|------------|------------|----------|----------|
| | Home-Work | Home-Shop | Home-Other | Commute | Non-Work | Customer |
| Urban Trip Length (miles) | 9.7 | 3.8 | 4.6 | 7.8 | 4.5 | 4.5 |
| Rural Trip Length (miles) | 16.8 | 7.1 | 7.9 | 14.7 | 6.6 | 6.6 |
| Trip Speeds (mph) | 35.0 | 35.0 | 35.0 | 35.0 | 35.0 | 35.0 |
| % of Trips - Residential | 27.3 | 21.2 | 51.5 | | | |
| % of Trips - Commercial (by land use) | | | | | | |
| City park | | | | 5.0 | 2.5 | 92.5 |

Page: 8
11/03/2005 4:15 PM

Changes made to the default values for Land Use Trip Percentages

The Trip Rate and/or Acreage values for Single family housing have changed from the defaults 9.57/223.33 to 8.53/114

Changes made to the default values for Construction

Changes made to the default values for Area

The natural gas residential percentage changed from 60 to 100.
The wood stove percentage changed from 35 to 0.
The wood fireplace percentage changed from 10 to 0.
The natural gas fireplace percentage changed from 55 to 100.
The landscape year changed from 2005 to 2008.

Changes made to the default values for Operations

The operational emission year changed from 2005 to 2008.
The operational winter selection item changed from 2 to 1.
The operational summer temperature changed from 85 to 90.

Page: 9
11/03/2005 4:15 PM

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Project Location: Lower Sacramento Valley Air Basin
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

Construction Start Month and Year: May, 2006
Construction Duration: 16
Total Land Use Area to be Developed: 170 acres
Maximum Acreage Disturbed Per Day: 40 acres
Single Family Units: 670 Multi-Family Units: 0
Retail/Office/Institutional/Industrial Square Footage: 0

Vintara Park Urbemis results
 CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

| Source | ROG | NOx | CO | SO2 | PM10 TOTAL | PM10 EXHAUST | PM10 DUST |
|----------------------------------|----------|--------|--------|------|---------------|-----------------|--------------|
| *** 2006*** | | | | | | | |
| 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 | - | - | - | - | 400.00 | - | 400.00 |
| Off-Road Diesel | 75.80 | 514.72 | 611.35 | - | 22.27 | 22.27 | 0.00 |
| On-Road Diesel | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Worker Trips | 0.78 | 0.89 | 17.74 | 0.01 | 0.06 | 0.02 | 0.04 |
| Maximum lbs/day | 76.58 | 515.61 | 629.09 | 0.01 | 422.33 | 22.29 | 400.04 |
| Phase 3 - Building Construction | | | | | | | |
| Bldg Const Off-Road Diesel | 24.91 | 199.27 | 177.35 | - | 9.22 | 9.22 | 0.00 |
| Bldg Const Worker Trips | 3.16 | 1.90 | 40.11 | 0.01 | 0.46 | 0.03 | 0.43 |
| 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 | 28.07 | 201.17 | 217.47 | 0.01 | 9.68 | 9.25 | 0.43 |
| Max lbs/day all phases | 76.58 | 515.61 | 629.09 | 0.01 | 422.33 | 22.29 | 400.04 |
| *** 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 | - | - | - | - | 0.00 | - | 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 | 24.91 | 190.06 | 184.33 | - | 8.47 | 8.47 | 0.00 |
| Bldg Const Worker Trips | 2.93 | 1.79 | 37.70 | 0.01 | 0.46 | 0.03 | 0.43 |
| Arch Coatings Off-Gas | 1,955.83 | - | - | - | - | - | - |
| Arch Coatings Worker Trips | 2.62 | 1.26 | 32.67 | 0.00 | 0.46 | 0.03 | 0.43 |
| Asphalt Off-Gas | 1.02 | - | - | - | - | - | - |
| Asphalt Off-Road Diesel | 8.94 | 53.13 | 76.03 | - | 1.70 | 1.70 | 0.00 |
| Asphalt On-Road Diesel | 0.16 | 2.53 | 0.60 | 0.01 | 0.07 | 0.07 | 0.00 |
| Asphalt Worker Trips | 0.05 | 0.03 | 0.68 | 0.00 | 0.01 | 0.00 | 0.01 |
| Maximum lbs/day | 1,996.17 | 248.27 | 326.96 | 0.01 | 11.17 | 10.30 | 0.87 |
| Max lbs/day all phases | 1,996.17 | 248.27 | 326.96 | 0.01 | 11.17 | 10.30 | 0.87 |

Page: 10
 11/03/2005 4:15 PM

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
 Start Month/Year for Phase 2: May '06
 Phase 2 Duration: 1.8 months
 On-Road Truck Travel (VMT): 0

Off-Road Equipment

| No. | Type | Horsepower | Load Factor | Hours/Day |
|-----|------------------|------------|-------------|-----------|
| 12 | Crawler Tractors | 143 | 0.575 | 8.0 |

Vintara Park Urbemis results

| | | | | |
|---|--------------------------|-----|-------|-----|
| 4 | Graders | 174 | 0.575 | 8.0 |
| 8 | Off Highway Trucks | 417 | 0.490 | 8.0 |
| 4 | Rubber Tired Loaders | 165 | 0.465 | 8.0 |
| 4 | Scrapers | 313 | 0.660 | 8.0 |
| 4 | Tractor/Loaders/Backhoes | 79 | 0.465 | 8.0 |

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Jun '06

Phase 3 Duration: 14.2 months

Start Month/Year for SubPhase Building: Jun '06

SubPhase Building Duration: 14.2 months

Off-Road Equipment

| No. | Type | Horsepower | Load Factor | Hours/Day |
|-----|-----------------|------------|-------------|-----------|
| 12 | Other Equipment | 190 | 0.620 | 8.0 |

Start Month/Year for SubPhase Architectural Coatings: Jul '07

SubPhase Architectural Coatings Duration: 1.4 months

Start Month/Year for SubPhase Asphalt: Aug '07

SubPhase Asphalt Duration: 0.7 months

Acres to be Paved: 6

Off-Road Equipment

| No. | Type | Horsepower | Load Factor | Hours/Day |
|-----|---------|------------|-------------|-----------|
| 4 | Pavers | 132 | 0.590 | 8.0 |
| 4 | Rollers | 114 | 0.430 | 8.0 |

Page: 11

11/03/2005 4:15 PM

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

| Source | ROG | NOx | CO | SO2 | PM10 |
|-------------------------------|-------|-------|-------|------|------|
| Natural Gas | 1.08 | 13.99 | 5.95 | 0 | 0.03 |
| Hearth - No summer emissions | | | | | |
| Landscaping | 3.17 | 0.10 | 23.06 | 0.20 | 0.08 |
| Consumer Prdcts | 32.78 | - | - | - | - |
| Architectural Coatings | 22.82 | - | - | - | - |
| TOTALS (lbs/day, unmitigated) | 59.85 | 14.09 | 29.01 | 0.20 | 0.11 |

Page: 12

11/03/2005 4:15 PM

UNMITIGATED OPERATIONAL EMISSIONS

| | ROG | NOx | CO | SO2 | PM10 |
|---------------------------|-------|-------|--------|------|-------|
| Single family housing | 49.83 | 48.49 | 551.79 | 0.34 | 50.57 |
| City park | 0.49 | 0.22 | 2.36 | 0.00 | 0.22 |
| TOTAL EMISSIONS (lbs/day) | 50.32 | 48.71 | 554.15 | 0.34 | 50.79 |

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2008 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

| Unit Type | Acreeage | Trip Rate | No. Units | Total Trips |
|-----------------------|----------|------------------------------|-----------|-------------|
| Single family housing | 114.00 | 8.53 trips/dwelling unit | 670.00 | 5,715.10 |
| City park | | 1.59 trips/acres | 19.90 | 31.64 |
| | | Sum of Total Trips | | 5,746.74 |
| | | Total Vehicle Miles Traveled | | 33,424.92 |

Vehicle Assumptions:

Vintara Park Urbemis results

Fleet Mix:

| Vehicle Type | Percent Type | Non-Catalyst | Catalyst | Diesel |
|---------------------------|--------------|--------------|----------|--------|
| Light Auto | 55.00 | 1.60 | 98.00 | 0.40 |
| Light Truck < 3,750 lbs | 15.00 | 2.70 | 95.30 | 2.00 |
| Light Truck 3,751- 5,750 | 16.20 | 1.20 | 97.50 | 1.30 |
| Med Truck 5,751- 8,500 | 7.20 | 1.40 | 95.80 | 2.80 |
| Lite-Heavy 8,501-10,000 | 1.10 | 0.00 | 81.80 | 18.20 |
| Lite-Heavy 10,001-14,000 | 0.40 | 0.00 | 50.00 | 50.00 |
| Med-Heavy 14,001-33,000 | 1.00 | 0.00 | 20.00 | 80.00 |
| Heavy-Heavy 33,001-60,000 | 0.90 | 0.00 | 11.10 | 88.90 |
| Line Haul > 60,000 lbs | 0.00 | 0.00 | 0.00 | 100.00 |
| Urban Bus | 0.20 | 0.00 | 50.00 | 50.00 |
| Motorcycle | 1.70 | 76.50 | 23.50 | 0.00 |
| School Bus | 0.10 | 0.00 | 0.00 | 100.00 |
| Motor Home | 1.20 | 8.30 | 83.30 | 8.40 |

Travel Conditions

| | Residential | | | Commercial | | |
|---------------------------|-------------|-----------|------------|------------|----------|----------|
| | Home-Work | Home-Shop | Home-Other | Commute | Non-Work | Customer |
| Urban Trip Length (miles) | 9.7 | 3.8 | 4.6 | 7.8 | 4.5 | 4.5 |
| Rural Trip Length (miles) | 16.8 | 7.1 | 7.9 | 14.7 | 6.6 | 6.6 |
| Trip Speeds (mph) | 35.0 | 35.0 | 35.0 | 35.0 | 35.0 | 35.0 |
| % of Trips - Residential | 27.3 | 21.2 | 51.5 | | | |

% of Trips - Commercial (by land use)

| | | | |
|-----------|-----|-----|------|
| City park | 5.0 | 2.5 | 92.5 |
|-----------|-----|-----|------|

Page: 13

11/03/2005 4:15 PM

Changes made to the default values for Land Use Trip Percentages

The Trip Rate and/or Acreage values for Single family housing have changed from the defaults 9.57/223.33 to 8.53/114

Changes made to the default values for Construction

Changes made to the default values for Area

The natural gas residential percentage changed from 60 to 100.
 The wood stove percentage changed from 35 to 0.
 The wood fireplace percentage changed from 10 to 0.
 The natural gas fireplace percentage changed from 55 to 100.
 The landscape year changed from 2005 to 2008.

Changes made to the default values for Operations

The operational emission year changed from 2005 to 2008.
 The operational winter selection item changed from 2 to 1.
 The operational summer temperature changed from 85 to 90.

Page: 14

11/03/2005 4:15 PM

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Vintara Park.urb
 Project Name: Vintara Park
 Project Location: Lower Sacramento Valley Air Basin
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
 (Tons/Year)

Construction Start Month and Year: May, 2006
 Construction Duration: 16
 Total Land Use Area to be Developed: 170 acres
 Maximum Acreage Disturbed Per Day: 40 acres

Vintara Park Urbemis results

Single Family Units: 670 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 |
|----------------------------------|-------|-------|-------|------|---------------|-----------------|--------------|
| *** 2006*** | | | | | | | |
| 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 | - | - | - | - | 7.92 | - | 7.92 |
| Off-Road Diesel | 1.50 | 10.19 | 12.10 | - | 0.44 | 0.44 | 0.00 |
| On-Road Diesel | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Worker Trips | 0.01 | 0.02 | 0.32 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total tons/year | 1.51 | 10.21 | 12.42 | 0.00 | 8.36 | 0.44 | 7.92 |
| Phase 3 - Building Construction | | | | | | | |
| Bldg Const Off-Road Diesel | 1.70 | 13.59 | 12.10 | - | 0.63 | 0.63 | 0.00 |
| Bldg Const Worker Trips | 0.20 | 0.11 | 2.55 | 0.00 | 0.03 | 0.00 | 0.03 |
| 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 | 1.90 | 13.70 | 14.65 | 0.00 | 0.66 | 0.63 | 0.03 |
| Total all phases tons/yr | 3.41 | 23.91 | 27.07 | 0.00 | 9.02 | 1.07 | 7.95 |
| *** 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 | - | - | - | - | 0.00 | - | 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 | 2.19 | 16.73 | 16.22 | - | 0.75 | 0.75 | 0.00 |
| Bldg Const Worker Trips | 0.24 | 0.13 | 3.04 | 0.00 | 0.04 | 0.00 | 0.04 |
| Arch Coatings Off-Gas | 30.12 | - | - | - | - | - | - |
| Arch Coatings Worker Trips | 0.04 | 0.02 | 0.50 | 0.00 | 0.01 | 0.00 | 0.01 |
| Asphalt Off-Gas | 0.01 | - | - | - | - | - | - |
| Asphalt Off-Road Diesel | 0.07 | 0.41 | 0.59 | - | 0.01 | 0.01 | 0.00 |
| Asphalt On-Road Diesel | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Asphalt Worker Trips | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total tons/year | 32.67 | 17.31 | 20.36 | 0.00 | 0.81 | 0.76 | 0.05 |
| Total all phases tons/yr | 32.67 | 17.31 | 20.36 | 0.00 | 0.81 | 0.76 | 0.05 |

Page: 15
 11/03/2005 4:15 PM

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
 Start Month/Year for Phase 2: May '06
 Phase 2 Duration: 1.8 months
 On-Road Truck Travel (VMT): 0

Vintara Park Urbemis results

Off-Road Equipment

| No. | Type | Horsepower | Load Factor | Hours/Day |
|-----|--------------------------|------------|-------------|-----------|
| 12 | Crawler Tractors | 143 | 0.575 | 8.0 |
| 4 | Graders | 174 | 0.575 | 8.0 |
| 8 | Off Highway Trucks | 417 | 0.490 | 8.0 |
| 4 | Rubber Tired Loaders | 165 | 0.465 | 8.0 |
| 4 | Scrapers | 313 | 0.660 | 8.0 |
| 4 | Tractor/Loaders/Backhoes | 79 | 0.465 | 8.0 |

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Jun '06

Phase 3 Duration: 14.2 months

Start Month/Year for SubPhase Building: Jun '06

SubPhase Building Duration: 14.2 months

Off-Road Equipment

| No. | Type | Horsepower | Load Factor | Hours/Day |
|-----|-----------------|------------|-------------|-----------|
| 12 | Other Equipment | 190 | 0.620 | 8.0 |

Start Month/Year for SubPhase Architectural Coatings: Jul '07

SubPhase Architectural Coatings Duration: 1.4 months

Start Month/Year for SubPhase Asphalt: Aug '07

SubPhase Asphalt Duration: 0.7 months

Acres to be Paved: 6

Off-Road Equipment

| No. | Type | Horsepower | Load Factor | Hours/Day |
|-----|---------|------------|-------------|-----------|
| 4 | Pavers | 132 | 0.590 | 8.0 |
| 4 | Rollers | 114 | 0.430 | 8.0 |

Page: 16

11/03/2005 4:15 PM

AREA SOURCE EMISSION ESTIMATES (Tons per Year, Unmitigated)

| Source | ROG | NOx | CO | SO2 | PM10 |
|---------------------------|------|------|------|------|------|
| Natural Gas | 0.20 | 2.55 | 1.09 | 0.00 | 0.00 |
| Hearth | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Landscaping | 0.29 | 0.01 | 2.07 | 0.02 | 0.01 |
| Consumer Prdcts | 5.98 | - | - | - | - |
| Architectural Coatings | 3.01 | - | - | - | - |
| TOTALS (tpy, unmitigated) | 9.48 | 2.56 | 3.16 | 0.02 | 0.01 |

Page: 17

11/03/2005 4:15 PM

UNMITIGATED OPERATIONAL EMISSIONS

| | ROG | NOx | CO | SO2 | PM10 |
|---------------------------|------|-------|--------|------|------|
| Single family housing | 8.93 | 10.51 | 102.16 | 0.06 | 9.23 |
| City park | 0.07 | 0.05 | 0.44 | 0.00 | 0.04 |
| TOTAL EMISSIONS (tons/yr) | 9.01 | 10.56 | 102.60 | 0.06 | 9.27 |

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2008

Season: Annual

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

| Unit Type | Acreage | Trip Rate | No. Units | Total Trips |
|-----------------------|---------|--------------------------|-----------|-------------|
| Single family housing | 114.00 | 8.53 trips/dwelling unit | 670.00 | 5,715.10 |
| City park | | 1.59 trips/acres | 19.90 | 31.64 |

Sum of Total Trips 5,746.74

Vehicle Assumptions:

Fleet Mix:

| Vehicle Type | Percent Type | Non-Catalyst | Catalyst | Diesel |
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| Lite-Heavy 8,501-10,000 | 1.10 | 0.00 | 81.80 | 18.20 |
| Lite-Heavy 10,001-14,000 | 0.40 | 0.00 | 50.00 | 50.00 |
| Med-Heavy 14,001-33,000 | 1.00 | 0.00 | 20.00 | 80.00 |
| Heavy-Heavy 33,001-60,000 | 0.90 | 0.00 | 11.10 | 88.90 |
| Line Haul > 60,000 lbs | 0.00 | 0.00 | 0.00 | 100.00 |
| Urban Bus | 0.20 | 0.00 | 50.00 | 50.00 |
| Motorcycle | 1.70 | 76.50 | 23.50 | 0.00 |
| School Bus | 0.10 | 0.00 | 0.00 | 100.00 |
| Motor Home | 1.20 | 8.30 | 83.30 | 8.40 |

Travel Conditions

| | Residential | | | Commercial | | |
|---------------------------------------|-------------|-----------|------------|------------|----------|----------|
| | Home-Work | Home-Shop | Home-Other | Commute | Non-Work | Customer |
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| % of Trips - Residential | 27.3 | 21.2 | 51.5 | | | |
| % of Trips - Commercial (by land use) | | | | | | |
| City park | | | | 5.0 | 2.5 | 92.5 |

Page: 18
 11/03/2005 4:15 PM

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