3.4 AIR QUALITY

This section evaluates the potential impacts of the proposed project on air quality within the San Diego Air Basin. The evaluation is based on the Air Quality Technical Report prepared by Scientific Resources Associated (SRA 2006), which is included as Appendix C to this EIR.

3.4.1 Existing Conditions

Climate and Meteorology

The project site is located in the San Diego Air Basin, which encompasses San Diego County. The overall climate is characterized by warm, dry summers and mild, wet winters. The climate of the proposed project site, and all of San Diego, is dominated by a semi-permanent high pressure cell over the Pacific Ocean. This cell influences the direction of prevailing winds (westerly to northwesterly) and maintains clear skies for much of the year. The high pressure cell also creates two types of temperature inversions that may act to degrade local air quality.

Subsidence inversions occur during the warmer months as descending air associated with the Pacific high pressure cell comes into contact with cool marine air. The boundary between the two layers of air creates a temperature inversion that traps pollutants. The other type of inversion, a radiation inversion, develops on winter nights when air near the ground cools by heat radiation and air aloft remains warm. The shallow inversion layer formed between these two air masses can also trap pollutants. As the pollutants become more concentrated in the atmosphere, photochemical reactions occur that produce ozone, commonly known as smog.

In San Diego County, the months of heaviest precipitation are November through April, averaging about 9 to 14 inches annually. The mean maximum and mean minimum temperatures are approximately 76 degrees Fahrenheit (F) and 48.5 degrees F, respectively. The predominant wind directions are westerly and west-southwesterly throughout the year.

Regulatory Setting

Air quality is defined by ambient air concentrations of specific pollutants determined by the U.S. Environmental Protection Agency (USEPA) to be of concern with respect to the health and welfare of the general public. The USEPA is responsible for enforcing the Federal Clean Air Act (CAA) of 1970 and its 1977 and 1990 Amendments. The CAA required the USEPA to establish the National Ambient Air Quality Standards (NAAQS), which are concentrations of pollutants in the ambient air below which no adverse effects on the public health and welfare are anticipated. In response, the USEPA established both primary and secondary standards for several pollutants (called "criteria" pollutants). The primary standards are designed to protect human health with an adequate margin of safety. The secondary standards are designed to protect property and the public welfare from air pollutants in the atmosphere.

The USEPA established NAAQS for the protection of human health and the public welfare for six criteria pollutants: carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), ozone (O_3), particulates with an aerodynamic diameter less than 10 microns (PM_{10}) and lead

(Pb). New federal standards for particulate matter less than 2.5 microns in diameter and an 8-hour standard for O_3 were proposed in 1997; implementation of these standards is commencing, and limited data for the ambient air quality relative to the new standards are available. Ozone is not emitted directly, but is formed from a complex set of reactions involving precursors such as nitrogen oxides (NO_x) and reactive organic compounds (ROC) or reactive organic gases (ROG); ozone regulations therefore address emissions of these two compounds.

In September 1997, the USEPA promulgated 8-hour O_3 and 24-hour and annual $PM_{2.5}$ national standards (particulate matter less than 2.5 microns in diameter), and the United States Supreme Court in February 2001 upheld these standards. The USEPA is moving forward to develop policies to implement these standards.

The CAA allows states to adopt ambient air quality standards and other regulations provided they are at least as stringent as federal standards. The California Air Resources Board (CARB) has established the more stringent California Ambient Air Quality Standards (CAAQS) for the six criteria pollutants through the California Clean Air Act of 1988, and also has established CAAQS for additional pollutants, including sulfates, hydrogen sulfide, vinyl chloride and visibility-reducing particles. Table 3.4-1 presents a summary of the ambient air quality standards adopted by the federal and California CAAs. Areas that do not meet the NAAQS or the CAAQS for a particular pollutant are considered to be "nonattainment areas" for that pollutant. As of July 28, 2003, the SDAB has been reclassified as an attainment area for the 1-hour NAAQS for O_3. On April 15, 2004, the SDAB was classified as a basic nonattainment area for the 8-hour NAAQS for O_3. The SDAB is an attainment area for the NAAQS for all other criteria pollutants. The SDAB is currently classified as a nonattainment area under the CAAQS for O_3 and PM_{10}.

The CARB is the state regulatory agency with authority to enforce regulations to achieve and maintain the national and California air quality standards. The San Diego County Air Pollution Control District (APCD) is the local agency responsible for the administration and enforcement of air quality regulations for San Diego County.

The APCD operates a network of ambient air monitoring stations throughout San Diego County. The nearest ambient monitoring stations to the proposed project site are the Kearny Mesa station, which is located approximately 4 miles to the west of the project site (O_3, PM_{10}, NO_2, and CO); and the Downtown San Diego station, which is located approximately 10.5 miles southwest of the site (the closest monitoring station that measures CO and SO_2). Also, because of its proximity to the site and location in an area that is less congested than downtown San Diego, the Kearny Mesa monitoring station concentrations for all other pollutants except CO and SO_2 are considered most representative of the project site. The Downtown San Diego monitoring station is the nearest location to the project site where CO and SO_2 concentrations are monitored. Ambient concentrations of pollutants from these stations over the last 3 years are presented in Table 3.4-2.

Table 3.4-1
Ambient Air Quality Standards

Pollutant	Average Time	California Standards		National Standards		
		Concentration	Measurement Method	Primary	Secondary	Measurement Method
Ozone (O_3)	1 hour	0.09 ppm (180 $\mu g/m^3$)	Ultraviolet Photometry	0.12 ppm (235 $\mu g/m^3$)	0.12 ppm (235 $\mu g/m^3$)	Ethylene Chemiluminescence
	8 hour	--		0.08 ppm (157 $\mu g/m^3$)	0.08 ppm (157 $\mu g/m^3$)	
Carbon Monoxide (CO)	8 hours	9.0 ppm (10 mg/m^3)	Non-Dispersive Infrared Spectroscopy (NDIR)	9 ppm (10 mg/m^3)	None	Non-Dispersive Infrared Spectroscopy (NDIR)
	1 hour	20 ppm (23 mg/m^3)		35 ppm (40 mg/m^3)		
Nitrogen Dioxide (NO_2)	Annual Average	--	Gas Phase Chemiluminescence	0.053 ppm (100 $\mu g/m^3$)	0.053 ppm (100 $\mu g/m^3$)	Gas Phase Chemiluminescence
	1 hour	0.25 ppm (470 $\mu g/m^3$)		--	--	
Sulfur Dioxide (SO_2)	Annual Average	--	Ultraviolet Fluorescence	0.03 ppm (80 $\mu g/m^3$)	--	Pararosaniline
	24 hours	0.04 ppm (105 $\mu g/m^3$)		0.14 ppm (365 $\mu g/m^3$)	--	
	3 hours	--		--	0.5 ppm (1300 $\mu g/m^3$)	
	1 hour	0.25 ppm (655 $\mu g/m^3$)		--	--	
Respirable Particulate Matter (PM_{10})	24 hours	50 $\mu g/m^3$	Gravimetric or Beta Attenuation	150 $\mu g/m^3$	150 $\mu g/m^3$	Inertial Separation and Gravimetric Analysis
	Annual ArithmeticMean	20 $\mu g/m^3$		50 $\mu g/m^3$	50 $\mu g/m^3$	
Fine Particulate Matter ($PM_{2.5}$)	Annual Arithmetic Mean	12 $\mu g/m^3$	Gravimetric or Beta Attenuation	15 $\mu g/m^3$	--	Inertial Separation and Gravimetric Analysis
	24 hours	--		65 $\mu g/m^3$	--	
Sulfates	24 hours	25 $\mu g/m^3$	Ion Chromatography	--	--	--
Lead (Pb)	30-day Average	1.5 $\mu g/m^3$	Atomic Absorption	--	--	Atomic Absorption
	Calendar Quarter	--		1.5 $\mu g/m^3$	1.5 $\mu g/m^3$	
Hydrogen Sulfide (H_2S)	1 hour	0.03 ppm (42 $\mu g/m^3$)	Ultraviolet Fluorescence	--	--	--
Vinyl Chloride	24 hours	0.010 ppm (26 $\mu g/m^3$)	Gas Chromatography	--	--	--

ppm= parts per million
$\mu g/m^3$ = micrograms per cubic meter
mg/m^3= milligrams per cubic meter
Source: California Air Resources Board July 2005

Table 3.4-2
Ambient Background Concentrations
(ppm unless otherwise indicated)

Pollutant	Averaging Time	2002	2003	2004	Most Stringent Ambient Air Quality Standard	Monitoring Station
Ozone	8 hour	0.090	0.083	0.087	0.08	Kearny Mesa
	1 hour	0.112	0.107	0.105	0.09	Kearny Mesa
PM_{10}	Annual Geometric Mean	24.5 µg/m^3	29.0 µg/m^3	24.4 µg/m^3	20 µg/m^3	Kearny Mesa
	Annual Arithmetic Mean	25.0 µg/m^3	28.5 µg/m^3	24.9 µg/m^3	50 µg/m^3	Kearny Mesa
	24 hour	49 µg/m^3	289 µg/m^3	44 µg/m^3	50 µg/m^3	Kearny Mesa
$PM_{2.5}$	Annual Arithmetic Mean	12.9 µg/m^3	11.9 µg/m^3	10.9 µg/m^3	12 µg/m^3	Kearny Mesa
	24 hour	36.5 µg/m^3	170.2 µg/m^3	28.5 µg/m^3	65 µg/m^3	Kearny Mesa
NO_2	Annual	0.019	0.018	0.017	0.053	Kearny Mesa
	1 hour	0.080	0.084	0.085	0.25	Kearny Mesa
CO	8 hour	3.54	3.88	4.04	9.0	San Diego
	1 hour	5.0	5.0	4.9	20	San Diego
SO_2	Annual	0.003	0.005	0.004	0.030	San Diego
	24 hour	0.007	0.008	0.008	0.04	San Diego
	3 hour	0.015	0.019	0.020	0.05[1]	San Diego
	1 hour	0.028	0.036	0.042	0.25	San Diego

[1] Secondary NAAQS
Source: www.arb.ca.gov (all pollutants except 1-hour CO and 1-hour and 3-hour SO_2)
www.epa.gov/air/data/monvals.html (1-hour CO, 1-hour and 3-hour SO_2)

Air quality has shown improvement in the SDAB such that the 1-hour federal ozone standard was not exceeded at the Kearny Mesa monitoring station during the time period from 2002 – 2004. The 8-hour federal ozone standard was exceeded once in 2002 and twice in 2004. The federal 24-hour PM_{10} and $PM_{2.5}$ standards were exceeded once at the Kearny Mesa monitoring station in 2003; however, the exceedance occurred during the Cedar Fire event in San Diego County. The annual $PM_{2.5}$ standard was exceeded during 2002. The data from the monitoring stations indicate that air quality is in attainment of all other federal standards. Due to measured exceedances at other monitoring stations, however, the SDAB was classified as nonattainment for the 8-hour NAAQS for O_3. The Kearny Mesa monitoring station measured exceedances of the state 24-hour and annual PM_{10} standards during the period from 2002 to 2004.

Because the Downtown San Diego monitoring station is located where traffic congestion is prevalent, the station sees higher concentrations of CO than are measured elsewhere in San Diego County and the background data are not likely to be representative of background ambient

CO concentrations in the project vicinity. Use of Downtown San Diego background data will therefore provide a conservative estimate of background CO concentrations.

There are no sensitive receptors, as defined in the CEQA Guidelines (i.e., day care centers, schools, retirement homes, and hospitals or medical patients in residential homes which could be impacted by air pollutants) known to be adjacent to the project site, although home daycare facilities and medical patients may be present. The FRS II site, South Portal and the stabilized crossing of the San Diego River are each separated from the closest development by hundreds of feet. The Pipeline Interconnect Reconfiguration and North Portal, however, are located immediately adjacent to the Belsera residential neighborhood. Prevailing winds blow from west to east, into MTRP and away from the residential development to the west. The less frequent Santa Ana winds blow in from the eastern deserts, across MTRP and the proposed project site, towards the residential areas to the west.

3.4.2 Thresholds of Significance

Thresholds used to evaluate potential impacts to air quality are based on applicable criteria in the State CEQA Guidelines (CCR §§15000-15387), Appendix G; the San Diego Air Pollution Control District (SDAPCD) regulations; and the City of San Diego's Significance Determination Thresholds for CEQA. A significant impact to air quality would occur if the project would:

- Conflict with or obstruct implementation of the applicable air quality plan.
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation.
- Result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).
- Expose sensitive receptors to substantial pollutant concentrations.
- Create objectionable odors affecting a substantial number of people.
- Exceed the pollutant emission thresholds in Table 3.4-3.

3.4.3 Impact Analysis

Impacts to the ambient air quality associated with the proposed project would mainly be attributable to construction of proposed project facilities. Construction impacts would include emissions of CO, NO_x, ROC/ROG, SO_x, and PM_{10} associated with heavy equipment exhaust, construction truck traffic, and worker travel to/from the site; and emissions of PM_{10} associated with fugitive dust created by truck travel on dirt roads and grading. Potential impacts from construction are discussed below.

In regards to long-term project operations, the main air quality impacts would be the emissions associated with periodic inspection and maintenance activities to ensure proper operation of the

FRS II and pipeline. Emissions from these activities would be restricted to vehicle emissions and fugitive dust from employee vehicles traveling to the FRS II structure and along pipelines.

Table 3.4-3
Pollutant Emission Thresholds

Pollutant	lbs/hr	lbs/day	Tons/year
Carbon Monoxide (CO)	100	550	100
Oxides of Nitrogen (NO_x)	25	250	40
Particulate Matter (PM_{10})	-	100	15
Oxides of Sulfur (SO_x) [(a)]	25	250	40
Lead and Lead Compounds [(b)]	-	3.2	0.6
Volatile Organic Compounds (VOC)	-	137[(c)]	
Reactive Organic Compounds/Reactive Organic Gases (ROC/ROG)	-	137[(e)]	15 [(d)]

Source: City of San Diego CEQA Significance Determination Thresholds, 2004.

a. San Diego Air Basin has been in attainment of SO_x standard due to sulfur-free natural gas for electricity generation and lack of heavy industrial/manufacturing uses in the region.
b. Lead emissions have steadily declined due to catalytic converters and increased use of lead-free gasoline. San Diego is no longer required to monitor for lead.
c. OC threshold based on SCAQMD levels per South Coast Air Quality Management District (SCAQMD) levels per SDAPCD (9/01).
d. Thresholds level from the South Coast Air Quality Management District (SCAQMD).

These emissions would be periodic and minor, and would not result in significant impacts to air quality for any of the thresholds analyzed below. The following discussion therefore applies only to project construction.

Would the proposed project conflict with or obstruct implementation of the applicable air quality plan?

Construction of the project is anticipated to last for approximately 2 years. In regards to the overall implementation of long-range air quality plans, construction is a temporary impact, and construction emissions would not cause a long-term impact to the ambient air quality. Therefore, the proposed project would not conflict with or obstruct implementation of the applicable air quality plan. This potential long-term impact to air quality would not be significant.

Would the proposed project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Emissions from the construction phase of the project were estimated through the use of emission factors from the ARB's OFFROAD model for heavy construction equipment, as well as methodologies and emission factors from the South Coast Air Quality Management District's CEQA Air Quality Handbook (SCAQMD 1993) and the USEPA's emission factors for fugitive dust. It was assumed that heavy construction equipment would be operating at the site for 10

hours per day, 6 days per week during project construction. Construction equipment, truck trips, and employees were estimated based on the construction requirements and schedule provided by the engineering team. This is a worst-case estimate because construction at the South Portal would be 24 hours per day, 7 days per week, meaning that the emissions from this equipment would not be concentrated during a 10-hour day.

Maximum daily emissions of CO, NO_x, ROC/ROG, SO_x, and PM_{10} were estimated for each of the individual construction phases of the FRS II, pipeline tunnel, and river crossing.

Emissions of pollutants except PM_{10} from fugitive dust generated by grading, truck travel, and blasting were estimated using the California Air Resources Board EMFAC2002 Emissions Model. The total number of construction workers per phase was estimated based on the information provided by the design engineers for the project. Average commute distances for construction personnel were estimated at 17 miles round trip based on the distance from the site to Mission Valley in San Diego. It was assumed per EMFAC2002 model results that construction personnel vehicles would be a mix of light-duty autos and light-duty trucks. Delivery truck emissions were calculated based on the assumption that concrete, delivery, pipe, and welding trucks were represented by heavy-duty vehicles in the EMFAC2002 model.

Emissions associated with fugitive dust (PM_{10}) generated by grading and earthmoving activities were estimated based on approximations of the total estimated disturbed area for the various project components, including the FRS II site (12.8 acres), North Portal (4.5 acres), South Portal (1.3 acres), and Clairemont Mesa Boulevard staging area (2.5 acres). Emissions calculations were based on an emission factor of 10 pounds/acre/day for grading with an average reduction of 51 percent included for the use of water between grading passes to control fugitive dust. This approach to the calculation of emissions is consistent with the SCAQMD CEQA Air Quality Handbook on effectiveness of fugitive dust control measures.

Blasting would be required at the North Portal site during initial North Portal and tunnel construction. Fugitive dust emissions associated with blasting were estimated based on the USEPA's emission factor for blasting for coal mining to remove overburden, which is a similar process.

The maximum daily totals for individual construction phases of the three major project components (FRS II, pipeline tunnel, and river crossing) were evaluated in terms of the thresholds (Table 3.4-3). Based on the evaluation of individual component construction, thresholds for daily emissions of CO, ROC/ROG, and SO_x would not be exceeded (Table 3.4-5). The threshold of 250 pounds per day for NO_x would be exceeded during excavation of the FRS II, pouring of structural concrete for the FRS II, and excavation of the inlet and outlet tunnels. The threshold of 100 pounds per day for PM_{10} would be exceeded during the same phases, as well as site floor construction of the FRS II, final grading of the FRS II, and construction of the North Portal. The results for NO_x and PM_{10} for these construction phases are presented in Table 3.4-4. The complete tabulated results, and assumptions regarding the equipment types, numbers, locations, and duration of use can be found in the Air Quality Technical Report, Appendix C. Based on the construction schedule in Table 2-1, emissions of NO_x and PM_{10} would exceed the thresholds from Month 3 through Month 17 of construction, or for approximately 14 months.

Table 3.4-4
Individual Construction Phase Results for NO_x and PM_{10} Where Maximum Daily Emissions Would Exceed Thresholds

Construction Phase	NO_x	PM_{10}
	lbs/day	
FRS II Phase I Excavation	407.26	372.45
FRS II Phase II Excavation	438.19	373.89
FRS II Structural Concrete	342.28	205.80
FRS II Site Floor	102.46*	196.85
FRS II Final Grading	22.12*	142.40
Inlet Tunnel Excavation (North Portal)	387.17	171.93
Outlet Tunnel Excavation (South Portal)	407.80	243.92
Pipeline Interconnect Reconfiguration Grading	387.17	177.05

*NOx threshold not exceeded

In addition, because certain construction phases would proceed simultaneously, a total project maximum daily scenario was evaluated. Based on the construction schedule, the maximum combined emissions would occur for one month during Month 6, when simultaneous excavation for the FRS II shafts, FRS II structure, and inlet and outlet tunnel excavation would occur.

The maximum daily emissions estimated for a potential worst-case time of the construction schedule are summarized in Table 3.4-5. Table 3.4-5 also provides the air quality standards for CO, NO_x, ROC/ROG, SO_x and PM_{10} that would be applicable to the proposed project.

Table 3.4-5
Estimated Potential Worst-Case Maximum Daily Construction Emissions*

Construction Phase	CO	NO_x	ROC/ROG	SO_x	PM_{10}
	lbs/day				
FRS II Structure Excavation	136.52	407.26	33.60	1.01	372.45
Tunnel Excavation – North Portal	137.32	387.17	34.85	0.86	171.93
Tunnel Excavation – South Portal	152.22	407.80	36.76	1.17	243.92
Tunnel Shaft Construction	42.08	107.79	10.36	0.21	40.45
TOTAL	**468.14**	**1,310.02**	**115.57**	**3.25**	**828.75**
Significance Criteria	550	250	137	250	100
Significant?	*No*	**YES**	*No*	*No*	**YES**

* All four construction phases listed assumed to occur simultaneously for one month during Month 6 of the project.

As shown in Table 3.4-5, potential worst-case maximum daily emissions associated with the construction phase of the project would be above the emission thresholds for NO_x and PM_{10}. Emissions would be less than the significance thresholds for CO, ROC/ROG, and SO_x. The assumptions regarding the equipment types, numbers, locations, and duration of use can be found in the Air Quality Technical Report, Appendix C.

In summary, maximum daily emissions of NO_x associated with construction of the FRS II would exceed the significance threshold during the excavation and structural concrete construction phases. Maximum daily emissions of NO_x associated with construction of the pipeline tunnel would exceed the significance threshold during excavation of the tunnels from both the North and South Portals. These NO_x emissions would cause a significant short-term impact to air quality (**Impact AQ 1**).

Maximum daily emissions of PM_{10} associated with construction of the FRS II would exceed the significance threshold during the excavation, structural concrete construction, floor construction, and final grading of the FRS II site. Maximum daily emissions of PM_{10} associated with construction of the pipeline tunnel also would exceed the significance threshold during the North Portal construction and excavation of the tunnel from the North and South Portals. These PM_{10} emissions would cause a significant short-term impact to air quality (**Impact AQ 2**).

Maximum daily emissions associated with construction of the stabilized river crossing would not exceed the significance thresholds for any of the criteria pollutants. Impacts to air quality associated with this project component would be less than significant.

The potential worst-case construction impact was estimated to occur for one month (Month 6) when simultaneous excavation for the FRS II shafts, FRS II structure, and inlet and outlet tunnels would occur. Based on this analysis, the total project worst-case emissions would also result in a significant short-term impact for NO_x and PM_{10} given the project's anticipated exceedence of air quality standards and a cumulative net increase in criteria pollutants for which the SDAB is designated non-attainment **(Impacts AQ 1 and AQ 2)**.

Would the proposed project result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (Including release emissions which exceed quantitative thresholds for ozone precursors)?

The proposed project would not result in a cumulatively considerable net increase of any criteria pollutants because the construction impacts would end within 2 years of the start of construction and there would be very little air pollutants associated with the proposed project following construction. Most of the operations and maintenance of the FRS II and pipeline tunnel would be handled by existing Water Authority crews that patrol the existing right-of-way and inspect and repair the existing FRS I and associated facilities within MTRP. This impact would be less than significant.

Would the proposed project expose sensitive receptors to substantial pollutant concentrations?

Construction impacts would be focused within the West Fortuna area of MTRP, which does not contain any developed facilities that would be considered sensitive receptors. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations, and would not release substantial quantities of air contaminants beyond the boundaries of the premises upon which the stationary source emitting the contaminants is located.

Diesel exhaust particulate matter is known to the state of California as carcinogenic compounds. The risks associated with exposure to substances with carcinogenic effects are typically evaluated based on a lifetime of chronic exposure, which is defined in the California Air Pollution Control Officers' Association (CAPCOA) Air Toxics "Hot Spots" Program Risk Assessment Guidelines (CAPCOA 1993) as 24 hours per day, 7 days per week, 365 days per year, for 70 years. Diesel exhaust particulate matter would be emitted during construction from heavy equipment used in the construction process. Because diesel exhaust particulate matter is considered to be carcinogenic, long-term exposure to diesel exhaust emissions could result in adverse health impacts. However, the total project duration is 2 years and there are no sensitive receptors that would be subjected to constant exposure, so this relatively short-term risk would be less than significant.

Would the proposed project create objectionable odors affecting a substantial number of people?

The primary odor that would be created during construction would be that of diesel exhaust from trucks and construction equipment. Prevailing winds would disperse the exhaust to the east, away from the residential development in Tierrasanta. Diesel exhaust odors would be most prevalent during Santa Ana conditions, but would not be expected to rise to the level of objectionable for most persons. Furthermore, odors associated with construction activities would be focused at the construction sites within MTRP, and the proposed project would not create objectionable odors affecting a substantial number of people. Operation of the proposed project facilities would not create objectionable odors affecting a substantial number of people for three reasons. First, raw water has a faint odor that most people do not consider to be objectionable. Second, there are currently a series of vents and blow-off valves along the raw water aqueducts in MTRP that do not emit objectionable odors. Third, the proposed vents would be constructed in MTRP, which consists of thousands of acres of open space with the prevailing winds blowing from west to east, away from the closest development. This impact would not be significant.

Would the proposed project exceed the pollutant emission thresholds in Table 3.4-3?

As evaluated above, emissions from construction of certain phases of the project would exceed the thresholds for NO_x and PM_{10}. These impacts would be significant for approximately 14 months when these construction phases would occur (**Impacts AQ 1 and AQ 2**).

3.4.4 Mitigation Measures

To reduce significant NO_x impacts caused by emissions generated by construction equipment during construction, the Water Authority shall implement the following mitigation measure:

AQ 1-1 Heavy-duty diesel equipment engines shall be properly tuned and maintained in compliance with State of California emissions regulations to ensure minimum emissions under normal operation. The Water Authority shall require its construction contractors to implement this measure to the extent practical.

AQ 2-1 Vehicles hauling dirt or fill shall be covered with a tarp or by other means.

3.4.5 Residual Impacts after Mitigation

Implementation of the mitigation measures recommended above would reduce short-term impacts to air quality, but given the emissions estimated in Tables 3.4-4 and 3.4-5, the impacts would not be expected to be reduced to below a level of significance by the above measures. In addition, the estimates incorporated a 51 percent reduction in fugitive dust from watering as part of PM_{10} modeling. Therefore, the impact of peak emissions would remain significant during the approximately 14 months when the construction of individual components would cause NO_x and PM_{10} thresholds to be exceeded. A Statement of Overriding Considerations would be necessary for project approval. This significant impact to air quality would be temporary because it would cease upon the completion of construction.

This page intentionally left blank.