

2.3 Air Quality

An air quality assessment was prepared for the Proposed Project by Ldn Consulting, Inc., entitled, "Air Quality Study Shadow Run Ranch Residential Development TM 5223," dated May 12, 2014. The report was prepared by Jeremy Loudon, who is on the County's CEQA Consultants List of qualified consultants. The report is provided as Appendix B of the technical appendices to this DEIR.

2.3.1 Existing Conditions

2.3.1.1 *Environmental Setting*

The project is located within the San Diego Air Basin (SDAB or Basin), whose climate is dominated by a semi-permanent high pressure cell or region in which air pressure is higher than surrounding areas. 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. Temperature inversions are situations in which warmer polluted air is trapped closer to the earth under a layer of cooler air. As the pollutants become more concentrated in the atmosphere, photochemical reactions occur that produce ozone commonly known as smog.

The climate of the coastal southern California, including the County of San Diego, is determined largely by high pressure that is almost always present off the west coast of North America. High pressure systems are characterized by an upper layer of dry air that warms as it descends. This warm, dry air acts as a lid, restricting cool air located near the surface, creating an inversion of typical temperature conditions.

During the summer and fall, emissions generated in the region combine with abundant sunshine under the influences of topography and the aforementioned inversion to create conditions that are conducive to the formation of photochemical pollutants, such as ozone, and secondary particulates, such as sulfates and nitrates. As a result, air quality in the SDAB is often the poorest during the warmer summer and fall months.

Average summer high temperatures are similar to Bonsall and are approximately 80 degrees Fahrenheit (°F). Average winter low temperatures are approximately 48°F. The average rainfall in the project vicinity is approximately 13.5 inches annually. (Source: <http://www.city-data.com/city/Bonsall-California.htm>, <http://www.weather.com /weather/wxclimatology/monthly/graph/USCA0116>).

The distinctive climate of the project area and the SDAB is determined by its terrain and geographical location. The Basin is located in a coastal plain with connecting

broad valleys and low hills, bounded by the Pacific Ocean in the southwest quadrant with high mountains forming the remainder of the perimeter.

The prevailing winds in the project area move predominately from west to east with an average wind speed of 1.12 meters per second (m/s). Meteorological data from the Escondido air monitoring station was used to represent conditions at the project area's inland location.

2.3.1.2 *Regulatory Setting*

Federal Standards

The Federal Clean Air Act (CAA) was passed in 1970 and further amended in 1990. This law provides the basis for the national air pollution control effort. An important element of the Act included the development of federal air quality standards for criteria pollutants called the National Ambient Air Quality Standards (NAAQS).

The Clean Air Act established Primary Standards, which relates to public health and protections for sensitive populations such as asthmatics, children, and the elderly, and Secondary Standards, which focuses on protections against decreased visibility, damage to animals, crops, vegetation, and buildings.

The EPA Office of Air Quality Planning and Standards (OAQPS) has set National Ambient Air Quality Standards for the following criteria pollutants:

- Carbon Monoxide (CO)
- Lead (Pb)
- Nitrogen Dioxide (NO₂)
- Particulate Matter – less than 10 microns in size (PM₁₀) and less than 2.5 microns in size (PM_{2.5})
- Ozone (O₃)
- Sulfur Dioxide (SO₂)

State Standards

The California Air Resources Board (CARB) is responsible for ensuring implementation of the California Clean Air Act (AB2595), compliance with the federal CAA, as well as for regulating emissions from consumer products and motor vehicles. The CARB establishes the California Ambient Air Quality Standards (CAAQS) for all pollutants for which the federal government has NAAQS (as listed above), with additional standards for visibility reducing particles, sulfates, hydrogen sulfide (H₂S), and vinyl chloride.

Regional Standards

Local air quality management districts, such as the San Diego Air Pollution Control District (SDAPCD), are responsible for ensuring that criteria pollutant levels are below federal and state standards. All air pollution control districts have been formally designated as ‘attainment’ or ‘nonattainment’ for each NAAQS and CAAQS. Air basins that exceed either NAAQS or CAAQS for any criteria pollutant are designated ‘non-attainment’. Currently, there are 18 non-attainment areas for the federal ozone standard, 10 non-attainment areas for the federal PM₁₀ standard, and seven non-attainment areas for the federal PM_{2.5} standards in California. The state has responded by creating the California State Implementation Plan (SIP), which is designed to provide emission reduction strategies in an effort to reach attainment.

The SDAPCD along with the San Diego Association of Governments (SANDAG) have developed and implemented a clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB called the San Diego County Regional Air Quality Strategy (RAQS). The SDAPCD has also developed the air basin’s input to the SIP.

2.3.1.3 Existing Air Quality/Attainment Status

Ambient air quality standards indicate the levels of criteria pollutants that are considered safe, with an adequate margin of safety, to protect public health and welfare. Those standards currently in effect for both California and federal quality standards are shown in Table 2.1 of Appendix B.

Currently, San Diego has a ‘non-attainment’ status for federal O₃ and state PM₁₀ and PM_{2.5}. An attainment plan is available for O₃ only.

The RAQS is largely based on populations predictions published by SANDAG. Projects that produce less growth than predicted by SANDAG would generally conform to the RAQS. Projects that create more growth than the SANDAG projections, and projects which are determined to have cumulative impacts, may create a significant impact assuming the project produces unmitigable emissions in excess of the regional standards.

The RAQS update of 2009 mostly clarifies and enhances emission reductions with the implementation of new volatile organic compounds (VOC) and oxides of nitrogen (NO_x) reduction measures. VOC and NO_x are precursors to O₃ formation through photochemical reactions in the atmosphere. The criteria pollutant standards are considered attained when each monitor within a region experiences no exceedances during a period of three calendar years. The nearest long-term air quality monitoring station to the project for O₃, CO, NO_x, PM₁₀, and PM_{2.5} is carried out at the Escondido-East Valley Parkway monitoring station located approximately 16 miles southwest of the project site. See Table 2.4, “Three-Year Ambient Air Quality

Summary near the Project Site,” in the Air Quality report, provided at Appendix B to this DEIR.

Rule 1200 (Toxic Air Contaminants – New Source Review) adopted June 12, 1996, requires evaluation of potential health risks for any new, relocated, or modified emission unit which may increase emissions of one or more toxic air contaminants (TACs) or hazardous air pollutants (HAPs). The rule requires that projects that propose to increase cancer risk to between 1 and 10 in 1 million need to implement Toxics Best Available Control Technology (T-BACT), or impose the most effective emission limitation, emission control device or control technique to reduce cancer risk. At no time shall a project increase the cancer risk to over 10 in 1 million. Projects that create cancer risks of less than 1 in 1 million are not required to implement T-BACT technology.

2.3.2 Analysis of Project Effects and Determination as to Significance

2.3.2.1 Guidelines for the Determination of Significance

The following guidelines are from the County of San Diego’s *Guidelines for Determining Significance and Report Format and Content Requirements, Air Quality* (March 19, 2007). The Proposed Project would have a significant air quality impact if it would:

1. Conflict with or obstruct implementation of the San Diego Regional Air Quality Strategy (RAQS) or applicable portions of the State Implementation Plan (SIP).
2. Result in emissions that would violate any air quality standard or contribute substantially to an existing or proposed air quality violation.
 - a. The project will result in emissions that exceed 250 pounds per day of NO_x, or 75 pounds per day of VOCs.
 - b. The project will result in emissions of carbon monoxide that, when totaled with the ambient concentrations, will exceed a 1-hour concentration of 20 parts per million (ppm) or a 8-hour average of 9 ppm.
 - c. The project will result in emissions of PM_{2.5} that exceed 55 pounds per day.
 - d. The project will result in emissions of PM₁₀ emissions that exceed 100 pounds per day and increase the ambient PM₁₀ concentration by 5 micrograms per cubic meter (5 µg/m³) or greater at the maximum exposed individual.

3. Result in a cumulatively considerable net increase of any criteria pollutant for which the San Diego Air Basin is in non-attainment under an applicable Federal or State Ambient Air Quality Standards.
 - a. Construction Emissions: A project that has a significant direct impact on air quality with regard to emissions of PM₁₀ PM_{2.5}, NO_x and/or VOCs, would also have a significant cumulatively considerable net increase.
 - b. Construction Emissions: In the event direct impacts from a proposed project are less than significant, a project may still have a cumulatively considerable impact on air quality if the emissions of concern from the proposed project, in combination with the emissions of concern from other proposed projects or reasonably foreseeable future projects within a proximity relevant to the pollutants of concern, are in excess of the guidelines identified in Table 2-3-1.
 - c. Operational Emissions: A project that does not conform to the RAQS and/or has a significant direct impact on air quality with regard to operational emissions of PM₁₀ PM_{2.5}, NO_x and/or VOCs, would also have a significant cumulatively considerable net increase.
 - d. Projects that cause road intersections to operate at or below LOS E (analysis only required when the addition of peak-hour trips from the proposed project and the surrounding projects exceeds 2,000) and create a CO “hotspot” create a cumulatively considerable net increase of CO.
4. Expose sensitive receptors to substantial pollutant concentrations.
 - a. The project places sensitive receptors near CO “hotspots” or creates CO “hotspots” near sensitive receptors.
 - b. Project implementation will result in exposure to TACs resulting in a maximum incremental cancer risk greater than 1 in 1 million without application of Toxics Best Available Technology (T-BACT) or a health hazard index greater than one would be deemed as having a potentially significant impact.
5. The project which is not an agricultural, commercial or an industrial activity subject to SDAPCD standards, as a result of implementation will either generate objectionable odors or place sensitive receptors next to existing objectionable odors, which will affect a considerable number of persons or the public.

The San Diego County’s Guidelines for Determining Significance and Report Format and Content Requirements, Air Quality, dated March 19, 2007, provide screening criteria to be used in Air Quality Impact Assessments (AQIA) for determining CEQA impacts. These screening thresholds for construction and daily operations are shown in Table 2-3-1, “Screening Thresholds for Criteria Pollutants.”

2.3.2.2 Analysis

Guideline 1: Conflict with or obstruct implementation of the San Diego RAQS or applicable portions of the SIP.

A determination of whether the potential emissions resulting from operations of the proposed project would result in a significant impact is based on an evaluation of the proposed project’s conformance to existing regional or local plans. Any project that proposes development that is consistent with or lower than the growth anticipated by the County of San Diego General Plan would be consistent with the RAQS. If a project proposes development that is greater than that anticipated in the General Plan and SANDAG growth projection, the project would be in conflict with the RAQS and SIP, and might have a potentially significant impact on air quality.

The Proposed Project qualifies as a pipelined project under the rules adopted for the Current General Plan by the Board of Supervisors in 2003. As such it is evaluated under the general plan in effect prior to August 3, 2011. The Project’s proposed 44 lots fall below the allowable density under the General Plan, the Zoning Ordinance, and, in cases where steep slopes are present, the Resource Protection Ordinance (RPO). Therefore the project would be consistent with both the RAQS and the SIP. Guideline 1 is not exceeded and impacts are less than significant. No mitigation is required.

Guideline 2: Result in emissions that would violate any air quality standard or contribute substantially to an existing or proposed air quality violation.

The San Diego APCD does not provide quantitative thresholds for determining the significance of construction or mobile-source related impacts. However, the district does specify Air Quality Impact Analysis (AQIA) trigger levels for new or modified stationary sources. If these incremental levels for stationary sources are exceeded, an AQIA must be performed for the proposed new or modified source.

For CEQA purposes, the screening thresholds, as outlined in SDAPCD Rule 20.2, can be used to demonstrate that a project’s total emissions would not result in a significant impact to air quality. This is consistent with direction provided by the County’s *Guidelines for Determining Significance* for Air Quality.

Guidelines 2a through 2d address the criteria pollutant thresholds individually as follows:

Guideline 2a: The project will result in emissions that exceed 250 pounds per day of NO_x, or 75 pounds per day of VOCs.

Table 2-3-2, “Expected Construction Emissions Summary”, the construction phase of the Proposed Project is anticipated to generate a maximum of 77.73 lbs/day of NO_x. This is below the screening threshold of 250 lbs/day; therefore, construction related NO_x emissions would be less than significant.

As shown in Table 2-3-3, “Expected Daily Pollutant Generation,” the operation phase of the Proposed Project is anticipated to generate 7.01 lbs/day during the summer and 9.37 lbs/day in the winter of NO_x. This is below the screening threshold of 250 lbs/day; therefore, operational related NO_x emissions would be less than significant. In summary, Guideline 2a is not exceeded, and impacts are less than significant. No mitigation is required.

Guideline 2b: The project will result in emissions of carbon monoxide that when totaled with the ambient concentrations will exceed a 1-hour concentration of 20 parts per million (ppm) or a 9-hour average of 9 ppm.

CO emissions are the result of the combustion processes and therefore primarily associated with mobile source emissions (vehicles). CO concentrations tend to be higher in urban areas where there are many mobile-source emissions. CO “hotspots” or pockets where the CO concentration exceeds the NAAQS and/or CAAQS have been found to occur only at signalized intersections that operate at or below level of service (LOS) E with peak-hour trips for intersections exceeding 3,000 trips. Therefore, any project that would place receptors within 500 feet of a signalized intersection operating at or below LOS E whose peak-hour trips exceed 3,000 trips must conduct a “hotspot” analysis for CO.

Based on the traffic study conducted for the Proposed Project, at no time will the project directly or cumulatively cause existing intersections within the project study area to operate at LOS E or F and therefore will not require micro-scale CO emission analysis. Guideline 2b is not exceeded and impacts are less than significant. No mitigation is required.

Guideline 2c: The project will result in emissions of PM_{2.5} that exceed 55 pounds per day.

As shown in Table 2-3-2, during its construction phase, the Proposed Project is anticipated to generate 31.24 lbs/day of PM_{2.5}. This is below the screening threshold of 55 lbs/day; therefore construction related PM_{2.5} emissions are less than significant.

Per Table 2-3-3, the operation phase of the Proposed Project is anticipated to generate 1.90 lbs/day PM_{2.5} during the summer and 9.10 lbs/day PM_{2.5} during the winter. This is below the screening threshold of 55 lbs/day; therefore operational related PM_{2.5} emissions are less than significant. In summary, Guideline 2c is not exceeded, and impacts are less than significant. No mitigation is required.

Guideline 2d: The project will result in emissions of PM₁₀ that exceed 100 pounds per day and increase the ambient PM₁₀ concentration by 5 micrograms per cubic meter (5 µg/m³) or greater at the maximum exposed individual.

As shown in Table 2-3-2, during the grading phase of the Proposed Project, PM₁₀ emissions are anticipated to generate approximately 137.5 pounds lb/day, which exceeds the 100 lb/day limit. This represents a significant impact. **(Impact AQ-1)**.

The operation phase of the Proposed Project is anticipated to generate 9.75 lbs/day PM₁₀ during the summer and 17.23 lbs/day PM₁₀ during the winter. This is below the screening threshold of 100 lbs/day for PM₁₀ emissions; therefore, operational related PM₁₀ emissions are less than significant.

In summary, construction related PM₁₀ emissions exceed the screening thresholds and operational PM₁₀ emissions do not exceed the threshold. Mitigation is required for construction-related PM₁₀ emissions.

Guideline 3: Result in a cumulatively considerable net increase of any criteria pollutant for which the San Diego Air Basin is in non-attainment under an applicable Federal or State Ambient Air Quality Standard (including emissions which exceed the SLTs for ozone precursors listed in Table 2-3-1).

Guidelines 3a through 3d provide the analysis for cumulative impacts concerning criteria non-attainment pollutants.

Guideline 3a: Construction Emissions: A project that has a significant direct impact on air quality with regard to emissions of PM₁₀ PM_{2.5}, NO_x and/or VOCs, would also have a significant cumulatively considerable net increase.

As shown in the analysis above, the Proposed Project has been determined to have a potentially significant impact to air quality from construction emissions of PM₁₀. Therefore the Proposed Project is anticipated to have a significant cumulative impact for this criteria pollutant. Guideline 3a is exceeded, and impacts are significant. Mitigation is required **(Impact AQ-2)**.

Guideline 3b: Construction Emissions: In the event direct impacts from a proposed project are less than significant, a project may still have a cumulatively considerable impact on air quality if the emissions of concern from the proposed project, in combination with the emissions of concern from other proposed projects or reasonably foreseeable future projects within a proximity relevant to the pollutants of concern, are in excess of the guidelines identified in Table 2-3-1.

There are no identified projects within the worst-case construction emission radius as predicted by the SCREEN3 model. For those criteria pollutants which do not have significant impacts as a result of the Proposed Project (ROG, NO_x, CO, SO_x, and

PM_{2.5}), since no overlapping construction emissions are expected, Guideline 3b is not exceeded, impacts are less than significant. No mitigation is required.

Guideline 3c: Operational Emissions: A project that does not conform to the RAQS and/or has a significant direct impact on air quality with regard to operational emissions of PM₁₀ PM_{2.5}, NO_x and/or VOCs, would also have a significant cumulatively considerable net increase.

As discussed under Guideline 1, the Proposed Project’s density falls within the limits created by SANDAG and the General Plan and is therefore in conformance with the RAQS on that basis.

Additionally, the Proposed Project was analyzed for potential air quality impacts associated with anticipated operational traffic. Based on the traffic study conducted for the Proposed Project, as many as 528 daily trips will be generated. Rural trip assumptions in the URBEMIS2007 program were used for this analysis.

Table 2-3-3 shows the anticipated operational emissions during summer and winter. The analysis shows that the Proposed Project is not anticipated to exceed the screening level thresholds for any of the criteria pollutants. Guideline 3c is not exceeded, and impacts are less than significant. No mitigation is required.

Guideline 3d: Projects that cause road intersections to operate at or below LOS E (analysis only required when the addition of peak-hour trips from the proposed project and the surrounding projects exceeds 2,000) and create a CO “hotspot” create a cumulatively considerable net increase of CO.

As described under the analysis of Guideline 2b, above, the Proposed Project is not anticipated to directly or cumulatively cause existing intersections within the project study area to operate at LOS E or F, and is therefore not anticipated to create a cumulatively considerable net increase of CO. Guideline 3d is not exceeded and impacts are less than significant. No mitigation is required.

Guideline 4: Expose sensitive receptors to substantial pollutant concentrations.

Air quality regulators typically define sensitive receptors as schools, hospitals, resident care facilities, day-care centers, or other facilities that may house individuals with health conditions that would be adversely impacted by changes in air quality. For the purposes of CEQA analysis, the County’s definition of a sensitive receptor is extended to include residents. There are residents in the vicinity that are located to the east and south of the project, however the nearest receptor is 180 meters east of the site which is identified in Figure 1-B “Proposed Project Site Plan,” in the Air Quality report, provided at Appendix B to this DEIR. The two primary emissions of concern regarding health effects for land development projects are diesel-fired particulates and carbon monoxide.

Guidelines 4a and 4b provide the analysis for potential impacts to sensitive receptors.

Guideline 4a: The project places sensitive receptors near CO “hotspots” or creates CO “hotspots” near sensitive receptors.

As shown in the analysis under Guidelines 2b and 3d, above, the Proposed Project is not anticipated to directly or cumulatively cause existing intersections within the project study area to operate at LOS E or F, and is therefore not exposing sensitive receptors to CO ‘hotspots.’ In addition, the project does not create any CO “hotspots” near the project site during construction or operation phases. Guideline 4a is not exceeded and impacts are less than significant. Mitigation is not required.

Guideline 4b: Project implementation will result in exposure to TACs resulting in a maximum incremental cancer risk greater than 1 in 1 million without application of Toxics Best Available Technology (T-BACT) or a health hazard index greater than one would be deemed as having a potentially significant impact.

For typical land use projects that do not propose stationary sources of emissions regulated by SDAPCD, such as the Proposed Project, diesel fired particulates (DPM) are the primary TAC of concern.

Health risks associated with exposure to carcinogenic compounds are defined in terms of the probability of developing cancer as a result of exposure to a chemical at a given concentration. The Proposed Project is expected to generate maximum DPM during grading of the site, anticipated to take place over the course of approximately 314 work days at 8 hours per day. The Proposed Project was estimated to put 0.63 individuals per million at risk, which is below the restriction limit of one individual in one million. It should be noted that the calculation is based on the maximum DPM, which is projected to occur approximately 498 meters from the geometric center of the site. Sensitive receptors including the existing residential development onsite would not be exposed to DPM in excess of that which is predicted in the analysis as all receptors are either within or beyond the 498-meter radius and would have a CR of less than 0.63 individuals per million. Also, the nearest sensitive receptor was analysed and it was found that the cancer risk at that location was only 0.51. Guideline 4b is not exceeded and impacts are less than significant. No mitigation is required.

Guideline 5: The project which is not an agricultural, commercial or an industrial activity subject to SDAPCD standards, as a result of implementation will either generate objectionable odors or place sensitive receptors next to existing objectionable odors, which will affect a considerable number of persons or the public.

Odors Onsite

Potential onsite odor generators would include those resulting from short-term construction activities, such as asphalt and concrete paving, and painting. However, these aspects of the overall project are anticipated to be short-lived, and as a result are not anticipated to cause significant odor impacts.

The Proposed Project will place sensitive receptors within a residential development that is combined with onsite agricultural uses. Agriculture has been carried out on the site for over 60 years, and the nature of that activity will not be changed by the Proposed Project. Future homeowners will be aware of the agricultural nature of the development; every lot is anticipated to contain existing agriculture, and every new homeowner will have the opportunity to participate in agricultural production. Every new homeowner will be provided a full disclosure statement to this effect, informing them to expect that continued agricultural use onsite may result in the continued generation of associated odors. Any odors associated with the continued agricultural use will be understood and accepted as part of living within the Proposed Project and near to surrounding similar agricultural grove operations. Odors are expected to be minimal as the onsite and nearby agricultural operations are groves and not dairies, chicken ranches or other animal operations which can produce strong odors. Therefore, impacts would be less than significant.

Odors Offsite

The two nuisance-odor generating land uses in the vicinity of the Proposed Project are the Gregory Canyon Landfill and the Pala Wastewater Treatment Plant. However, these uses are over one mile distant from the Proposed Project site, and the intervening topography will serve to further eliminate the potential for odor impacts. Additionally, the focused air quality study for the landfill indicated that any generated odors would be contained through the implementation of the operation plan for that project, which calls for covering waste with soil as soon as it is brought in. As a result, odor impacts from offsite sources are not anticipated and impacts are less than significant.

In summary, onsite and offsite odor impacts will be less than significant. Guideline 5 is not exceeded and impacts are less than significant. No mitigation is required.

2.3.3 Cumulative Impact Analysis

Guidelines 3a through 3d analyze the Proposed Project's potential for cumulative air quality impacts. One impact was found to be significant. Because the construction phase of the Proposed Project is anticipated to create emissions of PM₁₀ in excess of the thresholds, a cumulative impact for that criteria pollutant was identified (AQ-2).

2.3.4 Significance of Impacts Prior to Mitigation

- AQ-1 Short-term construction impacts for PM₁₀ emissions are significant prior to the application of mitigation measures.
- AQ-2 Cumulative impacts related to PM₁₀ emissions are significant prior to the application of mitigation measures.

2.3.5 Mitigation

The following actions shall occur throughout the duration of the grading construction:

M-AQ-1 and M-AQ-2.

In Order to mitigate for emissions of PM₁₀ and diesel particulate matter, the project shall comply with the following Air Quality measures:

- a) All haul/dump trucks entering or leaving the site with soil or fill material must maintain at least 2 feet of freeboard or cover loads of all haul/dump trucks securely (unnumbered design measure).
- b) Dust control measures of the Grading Ordinance will be enhanced with a minimum of three (3) daily applications of water to the construction areas, between dozer/scrapper passes and on any unpaved roads within the project limits.
- c) Grading is to be terminated in winds exceed 25 mph.
- d) Sweepers and water trucks shall be used to control dust and debris at public street access points.
- e) Dirt storage piles will be stabilized by chemical binders, tarps, fencing or other suppression measures.
- f) Internal construction-roadways will be stabilized by paving, chip sealing or chemicals after rough grading.
- g) A minimum of four 15-mph signs shall be posted and enforced on unpaved areas during construction.
- h) Electricity from the utility grid shall be used to power construction equipment to the maximum extent feasible.

The applicant shall comply with the Air Quality requirements of this condition. The following actions shall occur throughout the duration of the grading construction. The County shall make sure that the grading contractor complies with the Air Quality requirements of this condition. The County building inspection department shall contact the Department of Planning and Development Services for referral to Code Enforcement if the applicant fails to comply with this condition.

2.3.6 Conclusion

The Proposed Project was analyzed for possible impacts to air quality by a County-approved consultant. The analysis concluded that temporary construction activities are anticipated to result in PM₁₀ emissions in excess of the screening thresholds identified by the County. This direct impact is carried forward in the cumulative analysis and results in a significant cumulative effect as well (AQ-1 and AQ-2). Impacts for PM₁₀ emissions will be mitigated through the implementation of grading operations best management practices as listed in numbers 1 through 6 above in sub-chapter 2.3.5. With implementation of these mitigation measures, construction related PM₁₀ emissions would be reduced to 63.51 lbs/day, which is below a level of significance.

The estimated risk level for exposure to TACs (AQ-3) from diesel emissions during grading activities was 0.64 individuals per million, which is below the 1 individual per million threshold. The Proposed Project was determined to not exceed the incremental cancer risk..

Operational emissions from the Proposed Project are also anticipated. Most of these emissions are the result of project related traffic, but also include emissions resulting from natural gas usage, landscaping equipment, and repainting. The analysis concluded that emissions generated during long-term project operational activity will not exceed significance thresholds for criteria pollutant emissions. Additionally, the project will not result in any CO 'hotspots,' thus the project is not expected to result in adverse impacts for emissions of CO. Because the project will not exceed San Diego County Screening Level Thresholds or any County of San Diego significance thresholds, the project will not result in a significant impact.

The analysis also concluded that the Proposed Project will not result in a significant odor impact.

The Proposed Project fully mitigates for anticipated impacts resulting from PM₁₀ emissions, and all other guidelines of significance are met. No additional impacts are anticipated. No further mitigation is required.

Pollutant	Total Emissions (Pounds per Day)
Construction Emissions	
Respirable Particulate Matter (PM ₁₀ and PM _{2.5})	100 and 55
Nitrogen Oxide (NO _x)	250
Sulfur Oxide (SO _x)	250
Carbon Monoxide (CO)	550
Volatile Organic Compounds (VOCs)	75
Reactive Organic Gases (ROG) SCAQMD	75
Operational Emissions	
Respirable Particulate Matter (PM ₁₀ and PM _{2.5})	100 and 55
Nitrogen Oxide (NO _x)	250
Sulfur Oxide (SO _x)	250
Carbon Monoxide (CO)	550
Lead and Lead Compounds	3.2
Volatile Organic Compounds (VOCs)	75
Reactive Organic Gases (ROG) SCAQMD	75

Table
2-3-1

Screening Threshold for Criteria Pollutants



Year	ROG	NO _x	CO	SO ₂	PM ₁₀ (Dust)	PM ₁₀ (Exhaust)	PM ₁₀ (Total)	PM _{2.5} (Dust)	PM _{2.5} (Exhaust)	PM _{2.5} (Total)
2013 (lb/day) Unmitigated	9.45	77.73	41.80	0.00	133.95	3.55	137.50	27.98	3.27	31.24
Significance Threshold (lb/day)	75	250	550	250	-	-	100	-	-	55
Exceeds Screening Threshold	No	No	No	No	-	-	Yes	-	-	No
2013(lb/day) Mitigated	9.45	77.73	41.80	0.00	60.29	3.55	63.84	12.59	3.27	15.86
Exceeds Screening Threshold	No	No	No	No	-	-	No	-	-	No
2014 (lb/day) Unmitigated	44.06	18.67	19.96	0.01	0.06	1.33	1.37	0.02	1.22	1.24
Exceeds Screening Threshold	No	No	No	No	-	-	No	-	-	No

Table
2-3-2

Expected Construction Emissions Summary



	ROG	NO_x	CO	SO_x	PM₁₀	PM_{2.5}
Summer Scenario						
Area Source Emission Estimates (Lb/Day)	3.17	0.57	2.19	0.00	0.01	0.01
Operational Vehicle Emissions (Lb/Day)	3.83	6.44	45.64	0.05	9.74	1.89
Total (Lb/Day)	7.00	7.01	47.83	0.05	9.75	1.90
SCAQMD Thresholds	75	250	550	250	100	55
Significant?	No	No	No	No	No	No
Winter Scenario						
Area Source Emission Estimates (Lb/Day)	11.67	1.62	46.86	0.15	7.49	7.21
Operational Vehicle Emissions (Lb/Day)	4.47	7.75	51.28	0.05	9.74	1.89
Total (Lb/Day)	16.14	9.37	98.14	0.20	17.23	9.10
SCAQMD Thresholds	75	250	550	250	100	55
Significant?	No	No	No	No	No	No
Daily pollutant generation assumes trip distances within URBEMIS 2007						

**Table
2-3-3**

Expected Daily Pollutant Generation

