



# South Coast Air Quality Management District

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SENT VIA E-MAIL AND USPS:

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## **Mitigated Negative Declaration (MND) for the Proposed Badlands Landfill Integrated Project**

South Coast Air Quality Management District (South Coast AQMD) staff appreciates the opportunity to comment on the above-mentioned document. The following comments are meant as guidance for the Lead Agency and should be incorporated into the Final MND.

### South Coast AQMD Staff's Summary of Project Description

The Lead Agency is proposing to expand the existing landfill by increasing the total disturbance from 278 acres to 871 acres, the disposal footprint from 150 acres to 396 acres, and the daily tonnage from 4,500 tons per day (tpd) to 5,000 tpd on 1,168 acres (Proposed Project). The Proposed Project also includes installation of a green waste composting system, including an aerated static pile (ASP) and/or windrow compost that will accommodate up to 300 tpd total. The Proposed Project is located at 31125 Ironwood Avenue at the eastern terminus of Ironwood Avenue in an unincorporated area of Riverside County near the City of Moreno Valley. Construction of the Proposed Project is expected to take place in 17 phases over approximately 50 years<sup>1</sup>.

### South Coast AQMD Staff's Summary of Air Quality and Health Risk Assessment Analyses

In the Air Quality Analysis section, the Lead Agency quantified the Proposed Project's construction and operational emissions and compared those emissions to South Coast AQMD's recommended regional and localized air quality CEQA significance thresholds. Based on the analysis, the Lead Agency found that the Proposed Project's construction and operational air quality impacts would be less than significant, after the implementation of construction equipment emission off-set credits and compost-related volatile organic compounds (VOC) emissions reductions. Additionally, the Lead Agency assumed the use of construction equipment and off-road diesel-powered operational equipment that meets the United States Environmental Protection Agency's (U.S. EPA) Tier 3 emissions standard or better to quantify the Proposed Project's emissions<sup>2</sup>.

### South Coast AQMD Staff's General Comments

South Coast AQMD staff has comments on the Air Quality Analysis. The Lead Agency did not analyze an overlapping construction and operational scenario. Since construction would last 50 years, it resembles the characteristics of project operation. Construction emissions should be compared to South Coast AQMD's air quality CEQA significance thresholds for operation. The Lead Agency did not quantify emissions resulting from the generation, collection, and control of landfill gas that would occur in the next 50 years<sup>3</sup>, when the landfill is expected to reach capacity and be closed. Furthermore, the air modeling performed for the Proposed Project used improper parameters. Therefore, the Lead Agency may have likely underestimated the Proposed Project's air quality impacts in the MND, and additional mitigation

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<sup>1</sup> MND, Page 39.

<sup>2</sup> *Ibid.* Page 40.

<sup>3</sup> *Ibid.* Page 10.

should be included to reduce impacts in the Final MND. Please see the attachment for more information. Finally, the attachment includes information on South Coast AQMD permits and applicable rules that the Lead Agency should discuss in the Final MND.

#### Conclusion

Pursuant to CEQA Guidelines Section 15074, prior to approving the Proposed Project, the Lead Agency shall consider the MND for adoption together with any comments received during the public review process. Please provide South Coast AQMD with written responses to all comments contained herein prior to the adoption of the Final MND. When responding to issues raised in the comments, response should provide sufficient details giving reasons why specific comments and suggestions are not accepted. There should be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information do not facilitate the purpose and goal of CEQA on public disclosure and are not meaningful, informative, or useful to decision makers and the public who are interested in the Proposed Project. Further, when the Lead Agency makes the finding that the recommended mitigation measures are not feasible, the Lead Agency should describe the specific reasons for rejecting them in the Final MND.

South Coast AQMD staff is available to work with the Lead Agency to address any air quality questions that may arise from this comment letter. Please contact Robert Dalbeck, Assistant Air Quality Specialist, at [RDalbeck@aqmd.gov](mailto:RDalbeck@aqmd.gov) or (909) 396-2139, should you have any questions.

Sincerely,

*Lijin Sun*

Lijin Sun, J.D.

Program Supervisor, CEQA IGR

Planning, Rule Development & Area Sources

Attachment  
CT/LS:RD  
RVC190502-05  
Control Number

## ATTACHMENT

### **South Coast AQMD Air Quality CEQA Significance Thresholds**

1. South Coast AQMD has developed regional air quality CEQA significance thresholds for construction and operation. The Lead Agency quantified the Proposed Project's construction emissions and compared them to South Coast AQMD air quality CEQA significance thresholds for construction. However, since construction activities would occur over a period of 50 years, they are long-term and closely resemble the characteristics of project operation. Therefore, South Coast AQMD staff recommends that the Lead Agency quantify the Proposed Project's construction emissions and compare them to the South Coast AQMD's air quality CEQA *operational* thresholds of significance<sup>4</sup> to determine the level of significance for the Proposed Project's construction air quality impacts in the Final MND (*emphasis added*). If the Lead Agency finds that, after analyzing an overlapping construction and operation scenario, the Proposed Project's air quality impacts would be significant, mitigation measures would be required (CEQA Guidelines Sections 15070 to 15075).

### **Overlapping Construction and Operation Scenario**

2. The Lead Agency stated that construction of the Proposed Project would be completed in 17 phases, each ranging from 11 to 26 acres in size, and occur over the next 50 years<sup>5</sup>. The Proposed Project would also extend the operational life of the landfill by 48 years<sup>6</sup>. The Lead Agency modeled construction emissions using a 26-acre phase as a worst-case impact scenario and operational emissions using the proposed 250-acre increase in the disposal footprint in CalEEMod. However, South Coast AQMD staff found that the Lead Agency did not analyze a scenario in which the Proposed Project's construction and operational activities overlap. Since the Proposed Project's construction activities would occur over 50 years, an overlapping construction and operation scenario is reasonably foreseeable (e.g., phases 1 through 17 would overlap with the proposed increase in operational activity). Therefore, South Coast AQMD staff recommends that the Lead Agency use its best efforts to identify potentially overlapping years, combine construction emissions with operational emissions, and compare the combined emissions to South Coast AQMD's air quality CEQA *operational* thresholds of significance to determine the level of significance in the Final MND (*emphasis added*). If the Lead Agency finds that, after analyzing an overlapping construction and operation scenario, the Proposed Project's air quality impacts would be significant, mitigation measures would be required (CEQA Guidelines Sections 15070 to 15075).

### **Operational Air Quality Impact Analysis**

3. South Coast AQMD staff has comments on the Proposed Project's operational air quality impact analysis as follows.
  - a. The Lead Agency should consider provisions for on-site back up generation of electricity for all landfill collection and control equipment to ensure continuous operation and prevent uncontrolled odors, methane/greenhouse gasses, and VOCs/toxics during a power outage.
  - b. According to accepted models for landfill gas generation, the amount of landfill gas (methane, carbon dioxide, VOCs and toxics) is expected to increase as the waste in place increases, up until the landfill ceases accepting waste. The MND did not include or refer to a generation model for the amount of gas to be generated on an annual basis. In addition, the MND did not estimate the

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<sup>4</sup> South Coast AQMD. March 2015. *South Coast AQMD Air Quality Significance Thresholds*. Available at: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf>.

<sup>5</sup> MND. Page 39.

<sup>6</sup> MND. Page 10.

percent of projected collected and resultant percent-uncollected landfill gas (a default percentage of 75 percent is recommended pursuant to South Coast AQMD Rule 1150.1<sup>7</sup>).

- c. The Lead Agency did not quantify nor assess the impacts of the projected fugitive and collected methane/greenhouse gas emissions, VOCs, and toxics because of the expected increase in landfill gas generation.
- d. While flare systems may be included<sup>8</sup>, the Lead Agency did not quantify criteria pollutant emissions due to collection, control, and combustion of landfill gas associated with the expected increase in landfill gas generation from additional flare systems or beneficial use opportunities.

Therefore, South Coast AQMD staff recommends that the Lead Agency revise the Proposed Project's operational air quality impacts analysis in the Final MND. If the Lead Agency finds that, after the revisions, the Proposed Project's operational air quality impacts would be significant, mitigation measures would be required (CEQA Guidelines Sections 15070 to 15075).

### **Mitigation Measures**

#### *Consistency with Modeling Assumption*

4. The Lead Agency modeled the Proposed Project's construction emissions based on an assumption that "all heavy equipment needed for the BLIP shall meet a minimum of U.S. EPA Tier 3/EU Stage III emission standards, or a more stringent standard if promulgated prior to approval of construction documents/specifications for each phase<sup>9</sup>." However, the use Tier 3 or better construction equipment was not include as a project design feature or mitigation measure. To be consistent with the modeling assumption, and to further reduce emissions associated with the Proposed Project's construction and operation, South Coast AQMD staff recommends that the Lead Agency require all off-road diesel-powered equipment with 50 horsepower or greater meet or exceed Tier 4 off-road engine emission standards, and include this requirement as an air quality project requirement or mitigation measure in the Final MND, rather than a mere modeling assumption in the CalEEMod modeling output files.

#### Tier 4 Off-Road Diesel-Powered Equipment and Enforceability

- a. Require the use of off-road diesel-powered equipment that meets or exceeds the California Air Resources Board (CARB) and U.S. EPA Tier 4 off-road emissions standards for equipment rated at 50 horsepower or greater during construction and operation. Such equipment should be outfitted with Best Available Control Technology (BACT) devices including, but not limited to, a CARB certified Level 3 Diesel Particulate Filters (DPF). Level 3 DPFs are capable of achieving at least an 85 percent reduction in particulate matter emissions. A list of CARB verified DPFs are available on the CARB website.
- b. To ensure that the use of Tier 4 construction equipment will be enforceable throughout the lifetime of the Proposed Project, the Lead Agency should include this requirement as a project requirement or mitigation measure for air quality in the Final MND. The Lead Agency should also include this requirement in applicable bid documents, and that successful contractor(s) must demonstrate the ability to supply compliant equipment prior to the commencement of any earth-moving activities. A copy of each unit's certified tier specification and CARB or South Coast

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<sup>7</sup> South coast AQMD. Rule 1150.1. Accessed at: <http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/rule-1150-1.pdf>.

<sup>8</sup> *Ibid.* Page 19.

<sup>9</sup> *Ibid.* Appendix A, Section 6, *Short-Term Construction Impacts*, Page 43.

AQMD operating permit (if applicable) should be available upon request at the time of mobilization of each applicable unit of equipment. The Lead Agency should require periodic reporting and provision of written documentation by contractors to ensure compliance, and conduct regular inspections to the maximum extent feasible to ensure compliance. If the Lead Agency finds that Tier 4 construction equipment is not feasible pursuant to CEQA Guidelines Section 15364, the Project representative or contractor should demonstrate through future study with written findings supported by substantial evidence that is reviewed and approved by the Lead Agency before using other technologies/strategies. Alternative applicable strategies may include, but would not be limited to, Tier 3 off-road diesel-powered equipment, reduction in the number and/or horsepower rating of off-road diesel-powered equipment, limiting the number of daily haul truck trips to and from the Proposed Project, and/or limiting the number of hours each off-road equipment unit operates per day, if applicable.

*Additional Recommended Mitigation Measures and Beneficial Uses of Landfill Gas*

5. CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized to minimize or eliminate any significant adverse impacts. To further reduce the Proposed Project's construction and operational air quality impacts, South Coast AQMD staff has compiled a list of recommended mitigation measures, including beneficial use opportunities of landfill gas instead of flaring as suggested resources and guidance to the Lead Agency that should be reviewed for incorporation in the Final MND. For more information on potential mitigation measures as guidance to the Lead Agency, please visit South Coast AQMD's CEQA Air Quality Handbook website<sup>10</sup>.
  - a. Require the use of zero-emission or near-zero emission heavy-duty haul trucks during construction, such as trucks with natural gas engines that meet CARB's adopted optional NOx emissions standard of 0.02 grams per brake horsepower-hour (g/bhp-hr). At a minimum, require that operators of heavy-duty haul trucks utilized during construction commit to using 2010 model year<sup>11</sup> or newer engines that meet CARB's 2010 engine emission standards of 0.01 g/bhp-hr for particulate matter (PM) and 0.20 g/bhp-hr of NOx emissions or newer, cleaner trucks. Include analyses to evaluate and identify sufficient power available for zero-emission trucks and supportive infrastructures in the Energy and Utilities and Service Systems Sections of the Final MND, where appropriate. Require the Proposed Project to maintain records of all trucks visiting the Proposed Project and make these records available to the Lead Agency upon request. The records will serve as evidence to prove that each truck visiting the Proposed Project meets the minimum 2010 model year engine emission standards. The Lead Agency should conduct regular inspections of the records to the maximum extent feasible and practicable to ensure compliance with this mitigation measure.
  - b. Maintain vehicle and equipment maintenance records for off-road diesel-powered equipment and on-road haul trucks visiting the Proposed Project. All engines must be maintained in compliance with the manufacturer's recommended maintenance schedule. A minimum of two years of maintenance records for each vehicle and off-road equipment unit should remain on-site for periodic inspection by the Lead Agency.

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<sup>10</sup> South Coast AQMD. Accessed at: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook>.

<sup>11</sup> The CARB adopted the statewide Truck and Bus Regulation in 2010. The Regulation requires diesel trucks and buses that operate in California to be upgraded to reduce emissions. Newer heavier trucks and buses must meet particulate matter filter requirements beginning January 1, 2012. Lighter and older heavier trucks must be replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent. More information on the CARB's Truck and Bus Regulations is available at: <https://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.html>.

- c. Enter into a contract that notifies all engine operators that vehicle idling time will be limited to no longer than five minutes or another time-frame as allowed by the California Code of Regulations, Title 13 section 2485 – CARB’s Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling. For any vehicle that is expected to idle longer than five minutes, the Lead Agency should require the vehicle’s operator to shut off the engine. To further ensure that drivers understand the vehicle idling requirement, post signs at the entrance of the landfill and throughout the site stating that idling longer than five minutes is not permitted.
- d. Encourage construction contractors to apply for South Coast AQMD “SOON” funds. The “SOON” program provides funds to applicable fleets for the purchase of commercially-available low-emission heavy-duty engines to achieve near-term reduction of NOx emissions from in-use off-road diesel vehicles. More information on this program can be found at South Coast AQMD’s website: <http://www.aqmd.gov/home/programs/business/business-detail?title=off-road-diesel-engines>.
- e. Since the Proposed Project would be implemented over a period of 50 years or more, the Lead Agency should take this opportunity to deploy strategies that will foster and facilitate the deployment of the lowest emission technologies possible. South Coast AQMD staff recommends that the Lead Agency develop periodic performance standards-based technology review at a programmatic level that is generally appropriate for a long-term project with off-road equipment used during operations. The deployment should include those technologies that are “capable of being accomplished in a successful manner within a reasonable period of time” (California Public Resources Code Section 21061.1), such as zero and near-zero emission technologies that are expected to be available in the life of the Proposed Project. As such, South Coast AQMD staff recommends that the Lead Agency incorporate the performance standards-based technology review or develop other comparable strategies or tools to periodically assess equipment availability, equipment fleet mixtures, and best available emissions control devices. The Lead Agency should also specify performance standards and an appropriate timeline (or schedule) for the technology assessment, such as every two to five years. South Coast AQMD staff encourages the Lead Agency to involve the public and interested agencies such as South Coast AQMD and CARB in developing an appropriate process and performance standards for the technology review.
- f. Consider and implement beneficial use opportunities of landfill gas instead of flaring including generation of electricity through micro-turbines, steam turbines, internal combustion engines (ICE), fuel cells, transportation fuel, and/or pipeline injection<sup>12</sup>.

#### **Responsible Agency, Permits, and Compliance with South Coast AQMD Rules**

6. Implementation of the Proposed Project requires permits from South Coast AQMD and will be required to comply with South Coast AQMD rules and regulations. South Coast AQMD is a Responsible Agency for the Proposed Project (CEQA Guidelines Section 15381). South Coast AQMD staff recommends that the Lead Agency initiate consultation with South Coast AQMD as required under CEQA Guidelines Section 15096(b). Mr. Robert Dalbeck, Assistant Air Quality Specialist, is the designated South Coast AQMD staff to attend meetings requested by the Lead Agency to discuss the scope and content of the MND (CEQA Guidelines Section 15096(c)).

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<sup>12</sup> South Coast AQMD. Rule 1118.1 – Control of Emissions from Non-Refinery Flares. Adopted January 4, 2019. Accessed at: <https://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2019/2019-jan4-023.pdf>.

7. It is important to note that the assumptions in the air quality analysis in the Final MND will be used as the basis for permit conditions and limits. If there is any information in the permitting process suggesting that the Proposed Project would result in significant adverse air quality impacts not analyzed in the Final MND or substantially more severe air quality impacts than those analyzed in the Final MND, the Lead Agency should commit to reevaluating the Proposed Project's air quality impacts through a CEQA process (CEQA Guidelines Section 15162). For more information on permits, please visit South Coast AQMD's webpage at: <http://www.aqmd.gov/home/permits>. Questions on permits can be directed to South Coast AQMD's Engineering and Permitting staff at (909) 396-3385.
8. The following equipment are subject to South Coast AQMD permitting requirements including, but not limited to, South Coast AQMD Regulation XIII – New Source Review<sup>13</sup>:
  - a. ASP's and associated air pollution control equipment, screens, grinders, and compost turners (not including engines used for propulsion of such equipment)
9. The Lead Agency should also include discussions in the Final MND to demonstrate compliance with the following South Coast AQMD rules:
  - b. ASP or Windrow composting and related operations are subject to South Coast AQMD General Administrative Requirements<sup>14</sup>, Rule 1133.1 – Chipping and Grinding Activities<sup>15</sup>, and Rule 1133.3 – Emission Reductions From Greenwaste Composting Operations<sup>16</sup>.
  - c. Modifications to and new installations of the landfill gas collection system, condensate/leachate collection system, and landfill gas control system are subject to South Coast AQMD permitting requirements including Regulation XIII – New Source Review<sup>17</sup>, Rule 1150.1 – Control Of Gaseous Emissions From Municipal Solid Waste Landfills<sup>18</sup>, and Rule 1118.1 – Control Of Emissions From Non-refinery Flares<sup>19</sup>.
  - d. Upon a revision of the solid waste permit for the increased landfill footprint, New Source Performance Standards (40 CFR Part 60 Subpart XXX – MSW Landfills that Commenced Construction, Reconstruction, or Modification After July 17, 2014) will become applicable.
  - e. The Lead Agency included a discussion of general compliance with South Coast AQMD Rule 403 – Fugitive Dust in the MND<sup>20</sup>. Since the Proposed Project is a large operation of approximately 396 acres of disposal footprint (50-acre sites or more of disturbed surface area; or daily earth-moving operations of 3,850 cubic yards or more on three days in any year) in the South Coast Air Basin, the Lead Agency is required to comply with Rule 403(e) – Additional Requirements for Large Operations<sup>21</sup>. Additional requirements may include, but are not limited to, Large Operation Notification (Form 403 N), appropriate signage, additional dust control

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<sup>13</sup> South Coast AQMD. Regulation XIII. Accessed at: <http://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/regulation-xiii>.

<sup>14</sup> South Coast AQMD. Rule 1133. Accessed at: <http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/rule-1133.pdf>.

<sup>15</sup> South Coast AQMD. Rule 1133.1. Accessed at: <http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/rule-1133-1.pdf>.

<sup>16</sup> South Coast AQMD. Rule 1133.3. Accessed at: <http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/rule-1133-3.pdf>.

<sup>17</sup> South coast AQMD. Regulation XIII. Accessed at: <http://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/regulation-xiii>.

<sup>18</sup> South coast AQMD. Rule 1150.1. Accessed at: <http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/rule-1150-1.pdf>.

<sup>19</sup> South Coast AQMD. Rule 1118.1. Accessed at: <http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/R1118-1.pdf>.

<sup>20</sup> MND. Pages 38, 44, and 45.

<sup>21</sup> South Coast AQMD. Rule 403. Last amended June 3, 2005. Accessed at: <http://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-403.pdf>.

measures, and employment of a dust control supervisor that has successfully completed the Dust Control in the South Coast Air Basin training class<sup>22</sup>. Therefore, South Coast AQMD recommends that the Lead Agency include a discussion to demonstrate specific compliance with South Coast AQMD Rule 403(e) in the Final MND. Compliance with South Coast Rule 403(e) will further reduce regional and localized emissions from particulate matters during construction.

- f. The Lead Agency stated that an Odor Impact Minimization Plan (OIMP) will be prepared for the Proposed Project<sup>23</sup>. Odor management methods include, but not limited to, utilizing the misting systems and odor neutralizers or other additives. Odor neutralizers<sup>24</sup> or other additives may contain VOCs and toxic compounds. If using these products are reasonably foreseeable odors management methods for the Proposed Project, and to facilitate a good-faith effort at full disclosure during the CEQA process (CEQA Guidelines Section 15003(i)), the Lead Agency should calculate emissions and include them in the Proposed Project's operational emissions in the Final MND. Questions on odor management methods or other South Coast AQMD rules and regulations can be directed to the South Coast AQMD's Engineering and Permitting staff at (909) 396-3385.

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<sup>22</sup> South Coast AQMD Compliance and Enforcement staff's contact information for Rule 403(e) Large Operations is (909) 396-2608 or by e-mail at [dustcontrol@aqmd.gov](mailto:dustcontrol@aqmd.gov).

<sup>23</sup> MND. Page 47.

<sup>24</sup> The odor neutralizing products used in the odor misting system should have no adverse environmental impacts. The formulations should be free of toxic compounds, VOC, and fragrance. Many products available in the market attempt to mask odors with fragrances, which can also result in odor complaints.