



STONE BEETLAND (P21-042)

**SUSTAINABLE COMMUNITIES ENVIRONMENTAL
ASSESSMENT INITIAL STUDY**

COMMENTS AND RESPONSES & ERRATA

August 2023

Comments and Responses

The City prepared the Sustainable Communities Environmental Assessment Initial Study (SCEA IS) for the Stone Beetland Project (proposed project), and circulated the document for public review and comment from June 23, 2023 to July 24, 2023. Written comments were received as follows:

Letter #	Entity	Type of Entity	Author(s) of Comment Letter/e-mail	Date Received
1	Sacramento Metropolitan Air Quality Management District	Agency	Molly Wright, AICP Air Quality Planner / Analyst	July 24, 2023
2	Central Valley Regional Water Quality Control Board	Agency	Peter Minkel	July 24, 2023
3	Sacramento County Regional Sanitation District	Agency	Robb Armstrong	July 24, 2023

The comments are acknowledged by the City and have been considered as part of the project planning and its implementation. The comments received did not identify any new significant effect, increase in severity of an impact identified in the SCEA IS, or any significant new information. Thus, recirculation of the SCEA IS is not required.

The responses below include responses to each comment letter submitted regarding the proposed project. Where revisions to the SCEA IS text are required in response to a comment, new text is double underlined and deleted text is ~~struck through~~.

Response to Molly Wright, Sacramento Metropolitan Air Quality Management District, 7/24/2023:

The Sacramento Metropolitan Air Quality Management District (SMAQMD) comment letter included comments regarding reactive organic gas (ROG) emissions mitigation measures and construction greenhouse gas (GHG) emissions quantification and mitigation recommendations. The following provides a summary of comments and a response to each comment. All changes made to the SCEA IS due to the following information are presented in the SCEA IS Errata (see below).

ROG Emissions Mitigation Measures

The SMAQMD comments regarding the ROG emissions mitigation measures proposed in the SCEA IS relate to the enforceability of requiring zero ROG architectural coatings (Mitigation Measure AIR-2), and the use of emission reduction credits to offset ROG emissions exceeding the 65 pounds/day ROG threshold (Mitigation Measure AIR-3).

SMAQMD’s Draft Recommended Guidance for Land Use Emission Reductions Version 5.0¹ provides that ROG emissions exceeding the threshold may be offset by excess nitrogen oxide (NO_x) emissions reductions from the project due to the ozone non-attainment region being “NO_x limited” whereby emission reductions of NO_x benefit attainment efforts greater than ROG emission reductions.

The proposed project includes design features and greenhouse gas (GHG) mitigation (specifically Mitigation Measure V-1) that result in NO_x reductions that are not subject to comparison with the NO_x thresholds. The NO_x reductions are not currently reflected in the SCEA IS to mitigate project ROG emissions. In order to document the NO_x reductions in the SCEA IS and provide ROG credit for the proposed project design and GHG mitigation, a baseline version of the project using CalEEMod Version 2020.4.0, excluding all project design features, modifications to operational mobile source trip rates, and

¹ SMAQMD. *Draft Recommended Guidance for Land Use Emission Reductions Version 5.0*. January 2023.

GHG mitigation was modeled (Mitigation Measure V-1 requires the elimination of natural gas usage for 75 percent of the project to comply with SMAQMD’s GHG Best Management Practice-1).

The project’s baseline operational emissions of NO_x and ROG are included in Table 1.

Table 1	
Baseline Operational Emissions	
Pollutant by Season	lbs/day
Winter NO _x	47.12
Summer NO _x	41.59
Winter ROG	74.74
Summer ROG	84.36
<i>Source: CalEEMod, July 2023 (see Appendix A).</i>	

The project’s modeled operational emissions of NO_x and ROG including design features, operational mobile source trip rates, and GHG mitigation are included in Table 2.

Table 2	
Proposed Project Operational Emissions	
Pollutant by Season	lbs/day
Winter NO _x	33.90
Summer NO _x	29.49
Winter ROG	64.96
Summer ROG	72.34
<i>Source: CalEEMod, July 2023 (see Appendix A).</i>	

As shown in Table 2 the proposed project’s ROG emissions exceed SMAQMD’s 65 pounds/day ROG threshold by 7.34 pounds.

The design features, project specific operational mobile source trip rates, and implementation of GHG Mitigation Measure V-1 would reduce NO_x emissions by 13.22 pounds during the winter season and 12.1 pounds during the summer season. The NO_x emissions reductions of 13.22 pounds during the winter season and 12.1 pounds during the summer season are applied to the ROG emissions exceeding the ROG significance threshold, thereby reducing the ROG emissions estimate to 51.74 pounds during the winter season, and 60.18 pounds during the summer season, which is below the threshold of significance.

Remove ROG Emissions Mitigation Measures AIR-2 and AIR-3

The proposed project’s NO_x emissions reductions achieved by incorporating the design features, operational mobile source trip rates, and GHG Mitigation Measure V-1 adequately compensate for the 7.34 pounds of ROG exceeding the SMAQMD’s ROG threshold. Implementing the methodology of substituting the proposed project’s NO_x reductions for the emission reductions required to bring the proposed project’s ROG emissions below the 65 pounds/day ROG significance threshold would eliminate the need for project-specific Mitigation Measures AIR-2 and AIR-3 in the SCEA IS.

Construction GHG Emissions

Additional SMAQMD comments relate to the construction GHG emissions from the proposed project exceeding the GHG 1,100 metric tons of CO_{2e}/year (MTCO_{2e}/year) threshold of significance; not quantifying the emissions reductions associated with Mitigation Measure GHG-3 noted in the SCEA IS; and requesting Mitigation Measure GHG-3 be listed as a project-specific mitigation.

SMAQMD's Guide to Air Quality Assessment in Sacramento County² (CEQA guidance) recognizes in Chapter 6 that best management practices for reducing GHG emissions from construction activities "do not produce easily quantifiable GHG emission reductions." The mitigation measures incorporated from the MTP/SCS Program EIR are not able to be quantified using the CalEEMod model. Most importantly, Mitigation Measure GHG-3 specifies that the project implement "all feasible" on- and off-site mitigation measures.

As noted in the SMAQMD's comment letter and CEQA guidance Chapter 6, project construction GHG emissions may be mitigated using renewable diesel, and purchasing GHG offsets if emissions exceed the threshold after implementing on-site mitigation. To ensure GHG emissions from the project are mitigated to below SMAQMD's threshold of significance, project construction vehicles would be required to use renewable diesel fuel rather than conventional diesel fuel. Renewable diesel can reduce GHG emissions between 15 and 80 percent depending on the feedstock source.³ Construction emissions exceeding 1,100 MTCO_{2e}/year after on-site use of renewable diesel would be mitigated through the purchase of GHG offsets in coordination with the City of Sacramento and SMAQMD. To clarify, renewable diesel and GHG offsets are considered the most feasible construction GHG measures by the SMAQMD currently, and would be consistent with Mitigation Measure GHG-3.

Because the proposed project "as mitigated incorporates all relevant and feasible mitigation measures, performance standards, or criteria set forth in both the MTP/SCS Program Environmental Impact Report (EIR)" as noted in the Findings on page 1 of the SCEA IS, it is not necessary to specifically include GHG-3 as separate project-specific mitigation in the SCEA IS. The Mitigation Monitoring and Reporting Program (MMRP) for the proposed project includes all applicable mitigation measures from the MTP/SCS, including GHG-3. The MMRP will be adopted by the City along with the SCEA IS should the project be approved.

Supplemental Information for Construction GHG Emissions

Consistent with MTP/SCS Mitigation Measure GHG-3, SMAQMD's GHG construction best management practices in Chapter 6 of its CEQA guidance and its July 24, 2023 comment letter note that using renewable diesel and purchasing GHG offsets may be considered feasible mitigation to reduce project construction emissions below the 1,100 MTCO_{2e}/year threshold of significance. Renewable diesel and purchase of offsets are considered the current feasible mitigation options to reduce GHG emissions from the proposed project.

Response to Peter Minkel, Central Valley Regional Water Quality Control Board, 7/2/2023:

The comment provides background information regarding applicable regulations and required permits. The comment does not address the adequacy of the SCEA IS, has been noted for the record, and will be forwarded to the decisionmakers as part of their consideration of the proposed project.

Response to Robb Armstrong, Sacramento County Regional Sanitation District, 7/24/2023:

The comment letter provides several requested minor revisions to the SCEA IS text to change all references to the Sacramento County Regional Sanitation District from "SCRSD" to "Regional San." In addition, the comment letter suggests several other minor revisions to the SCEA IS for clarification purposes, none of which affect the analysis or the conclusions included in the SCEA IS. All changes made to the SCEA IS text based on the suggested revisions are presented in the SCEA IS Errata (see below).

² SMAQMD. *Guide to Air Quality Assessment in Sacramento County, Chapter 6, Greenhouse Gases*. February 2021.

³ CARB. *Staff Report Multimedia Evaluation of Renewable Diesel*. November 2013.

With regard to nesting birds and raptors, page 60 of the SCEA IS states that several large unoccupied nests were observed in eucalyptus trees located immediately north of the project site. The comment letter notes that known Swainson's hawk nest sites are also located immediately to the south of the project site. As noted on page 60 of the SCEA IS, Swainson's hawk are known to occur within the project area. In addition, any impacts to Swainson's hawk are addressed through compliance with MTP/SCS EIR Mitigation Measures BIO-1a, BIO-1b, and BIO-1c, which are applicable to the proposed project and incorporated into the SCEA IS as a requirement of the project. Therefore, impacts to Swainson's Hawk were adequately addressed in the SCEA IS.

Finally, with regard to the Sewer Master Plan, which is included as Appendix K to the SCEA IS, the comment letter notes that the proposed project would not be allowed to use the Delta Shores' interim capacity within the 96-inch City Interceptor as stated in the Sewer Master Plan. While the Sewer Master Plan indicates the potential use of the Delta Shores' interim capacity within the 96-inch City Interceptor, such language is not included in the SCEA IS and the conclusions of the SCEA IS are not reliant upon such language. According to Carlson, Barbee & Gibson, who prepared the Sanitary Sewer Master Plan for the proposed project, the use of the Delta Shores' interim capacity within the 96-inch City Interceptor was considered only for a specific scenario under which the Delta Shore North Project was stalled and the proposed project would not require the relocation of the existing Sump 53 (which directs flows into the 96-inch City Interceptor). However, the aforementioned scenario is no longer relevant, as relocation of Sump 53 would be required as part of the initial phase of the proposed project, and the relocated Sump 53 would not direct flows into the City's 96-inch Interceptor. Overall, the analysis included in the SCEA IS remains adequate.

Stone Beetland SCEA IS Errata

This errata sheet presents, in ~~strike-through~~ and double-underline format, the revisions to the proposed SCEA IS. The revisions reflected in this errata sheet do not affect the adequacy of the previous environmental analysis contained in the proposed SCEA IS. Because the changes presented below would not result in any new significant impacts or increase in impact significance from what was identified in the proposed SCEA IS, recirculation of the SCEA IS is not required.

Revisions to the SCEA IS:

In response to the comment letters received on the SCEA IS, as discussed in detail above, the SCEA IS text is hereby revised as presented below.

Page 3 of the SCEA IS is hereby revised as follows:

Property Owners:	JP Land Holdings, LLC 508 Gibson Drive, Suite 260 Roseville, CA 95678 Assessor's Parcel Numbers (APNs): 053-0010-048, -049, and -076.
	Sacramento County Regional Sanitation District (SCRS <u>Regional San</u>) APNs: 119-0090-014 (portion), 119-0080-001 and 119-0080-029 (portion).

Page 13 of the SCEA IS is hereby revised as follows:

The project would connect to the City of Sacramento's sanitary sewer system through a new network of collection pipelines, laterals and manholes (see Figure 6). The sewer system would convey

wastewater from east to west, and would connect to the gravity 24-inch diameter pipeline planned in 24th Street. The 24-inch pipeline would convey the wastewater to the south, across Cosumnes River Boulevard, and into Sewer Sump 53. From Sewer Sump 53, ~~an 18-inch~~ 12-inch and 8-inch diameter force main pipelines would convey flows to the east, approximately 10,000 linear feet along the south side of Cosumnes River Boulevard, to connect to the existing ~~SCRSD Regional San Central Interceptor pipeline located in Franklin Boulevard and south of Cosumnes River Boulevard.~~ The off-site facilities would be constructed by the Delta Shores development and are part of the Delta Shores Finance Plan. The Delta Shores sanitary sewer system would provide capacity for the development of the Stone Beetland Project as presented in the Delta Shores Sewer Master Plan, dated July 23, 2014.

Figure 12 on page 24 of the SCEA IS is hereby revised as shown at the end of this document.

Page 28 of the SECA is hereby revised as follows:

The southeast corner of the project site is zoned Agricultural (A). In addition, the remainder of the project area has been historically used for agricultural production. However, the parcel is not currently used for agricultural purposes, and forestry resources do not exist on-site. Additionally, the portion of the project site that is zoned A would not be developed with structures, and would be maintained as parkland/open space, and used for stormwater retention. Therefore, the project would not have the potential to impact agricultural and forest resources.

Pages 41 through 43 of the SCEA IS are hereby revised as follows:

Operational Emissions

Operational emissions of criteria pollutants would be generated by the project from both mobile and stationary sources. Day-to-day activities such as future residents' vehicle trips to and from the project site would make up the majority of the mobile emissions. Emissions would also occur from area sources such as landscape maintenance equipment exhaust and consumer products (e.g., deodorants, cleaning products, spray paint, etc.).

Operational air quality emissions were estimated using CalEEMod and are presented in Table 4. As shown in the table, the proposed project's maximum unmitigated operational emissions of criteria pollutants would be below the applicable thresholds of significance for NO_x, PM₁₀, and PM_{2.5}. However, emissions of ROG would exceed the threshold of significance and, as a result, impacts related to operational emissions would be potentially significant.

Pollutant	Project Emissions (lbs/day)	SMAQMD Threshold of Significance (lbs/day)
NO _x	33.90	65
ROG	72.34	65
PM ₁₀	53.49	80
PM _{2.5}	14.89	82
<i>Source: CalEEMod, May 2023 (see Appendix A).</i>		

~~According to the results of the air quality modeling, the majority of ROG emissions associated with project operations are attributable to vehicle emissions (31.19 lbs/day) and the use of consumer products (40.55 lbs/day).~~

SMAQMD's Draft Recommended Guidance for Land Use Emission Reductions Version 5.0⁴ provides that ROG emissions exceeding the threshold may be offset by excess nitrogen oxide (NO_x) emissions reductions from the project due to the ozone non-attainment region being "NO_x limited," whereby emission reductions of NO_x benefit attainment efforts greater than ROG emission reductions.

The proposed project includes design features and greenhouse gas (GHG) mitigation (specifically Mitigation Measure V-1 described in Section V, Greenhouse Gas Emissions, of this SCEA) that result in NO_x reductions that are not subject to comparison with the NO_x thresholds. As such, a baseline version of the project using CalEEMod Version 2020.4.0, excluding all project design features, modifications to operational mobile source trip rates, and GHG mitigation was modeled (Mitigation Measure V-1 requires the elimination of natural gas usage for 75 percent of the project to comply with SMAQMD's GHG Best Management Practice-1), and is included as Appendix A. In comparison to the baseline modeling, the project design features, project specific operational mobile source trip rates, and implementation of GHG Mitigation Measure V-1 would reduce NO_x emissions by 13.21 pounds during the winter season and 12.16 pounds during the summer season. Thus, by applying the NO_x emissions reductions of 13.22 pounds during the winter season and 12.1 pounds during the summer season to the ROG emissions exceeding the ROG significance threshold, ROG emissions would be reduced to 51.74 pounds during the winter season, and 60.18 pounds during the summer season, which is below the threshold of significance.

As described under Impact AIR-4A of the MTP/SCS EIR, regional buildout consistent with the MTP/SCS would result in a decline in total VMT per capita. Furthermore, as presented in Table 5-19 of the MTP/SCS EIR, buildout pursuant to the MTP/SCS would result in a net decrease in daily ROG emissions from 2016 to 2027 and 2035. Therefore, although individual projects may exceed the SMAQMD's project-level threshold of significance for ROG, the MTP/SCS EIR determined that implementation of the larger growth plan presented in the MTP/SCS would result in a less-than-significant impact related to violating any air quality standards or contributing to an existing air quality violation (i.e., the region's nonattainment status of ozone or PM) during operations.

Conclusion

Adopted SMAQMD rules and regulations, as well as the thresholds of significance, have been developed with the intent to ensure continued attainment of AAQS, or to work towards attainment of AAQS for which the area is currently designated nonattainment, consistent with applicable air quality plans. As future attainment of AAQS is a function of successful implementation of SMAQMD's planning efforts, according to the SMAQMD Guide, by exceeding the SMAQMD's project-level thresholds for construction or operational emissions, a project could contribute to the region's nonattainment status for ozone and PM emissions and could be considered to conflict with or obstruct implementation of the SMAQMD's air quality planning efforts.

As discussed, the project would result in construction emissions below all applicable SMAQMD thresholds of significance. In addition, project-specific Mitigation Measure AIR-1 would ensure that SMAQMD's BCECP are implemented during construction of the proposed project. In addition, operational emissions, based on modeling, would be below the SMAQMD's thresholds of significance for ROG, NO_x and PM. Nonetheless, without implementation of project-specific Mitigation Measures ~~AIR-12 and AIR-3~~, the proposed project ~~would~~ be considered to contribute to the region's nonattainment status for ozone or PM emissions and could conflict with or obstruct implementation of the SMAQMD's air quality planning efforts. Accordingly, the project could violate an air quality standard or contribute substantially to an existing or projected air quality violation, and impacts would be *less-than-significant with mitigation incorporated*.

⁴ SMAQMD. *Draft Recommended Guidance for Land Use Emission Reductions Version 5.0*. January 2023.

Pages 45 through 48 of the SCEA IS are hereby revised as follows:

PROJECT-SPECIFIC MITIGATION MEASURES

As discussed above, project-specific Mitigation Measure AIR-1 would ensure that SMAQMD’s BCECP are implemented during construction of the proposed project. ~~In addition, consistent with the intent of Mitigation Measure AIR 4, a project specific measure has been identified in Mitigation Measure AIR 2 to reduce operational ROG emissions generated by the proposed project to the maximum extent feasible. However, as shown in Table 5, the proposed project would still result in a small exceedance (1.84 lbs/day) of ROG emissions above the SMAQMD 65 lbs/day threshold. According to the SMAQMD’s Guide to Air Quality Assessment in Sacramento County, if a project’s long term emissions would remain above the applicable threshold of significance after implementation of all feasible on site mitigation measures, the lead agency may implement a SMAQMD approved off site mitigation strategy to further reduce long term air quality impacts to below the applicable threshold of significance.⁵ Each off site mitigation strategy must be developed in consultation with, and approved by, SMAQMD, and may only be implemented after all other feasible operational emission reduction measures have been implemented. Therefore, this SCEA requires implementation of project specific Mitigation Measure AIR 3, which would require payment of the equivalent amount of money equal to the project contribution of ROG which exceeds the SMAQMD’s threshold of significance.~~

Pollutant	Project Emissions (lbs/day)	SMAQMD Threshold of Significance (lbs/day)
NO _x	33.90	65
ROG	66.84	65
PM ₁₀	53.49	80
PM _{2.5}	14.89	82
<i>Source: CalEEMod, June 2023 (see Appendix A).</i>		
<i>[†] Reflects incorporation of Mitigation Measure AIR 2.</i>		

Implementation of project-specific Mitigation Measures AIR-1, ~~AIR 2,~~ and ~~AIR 3~~ would be required to ensure that the proposed project would not conflict with the SMAQMD’s adopted attainment plans or inhibit attainment of regional AAQS. Thus, implementation of the following project-specific mitigation measures would reduce the above potential impact to a *less-than-significant* level.

AIR-1: The following requirements shall be noted on project improvement plans, subject to review and approval by the City of Sacramento Community Development Department:

- *Control of fugitive dust is required by District Rule 403 and enforced by District staff.*
- *Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.*
- *Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.*

⁵ Sacramento Metropolitan Air Quality Management District. Guide to Air Quality Assessment in Sacramento County. December 2009 (Latest Revision April 2021).

- Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.
- Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).
- All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used. Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site.
- Provide current certificate(s) of compliance for CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation [California Code of Regulations, Title 13, sections 2449 and 2449.1]. For more information contact CARB at 877-593-6677, doors@arb.ca.gov, or www.arb.ca.gov/doors/compliancecert1.html.
- Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determine to be running in proper condition before it is operated.

~~AIR 2: The following requirement shall be noted on project improvement plans, subject to review and approval by the City of Sacramento Community Development Department:~~

- ~~Zero VOC emitting paints shall be used for all architectural coatings associated with the proposed project, including for residential and non-residential interior and exterior areas, and the on site parking areas.~~

~~AIR 3: Prior to issuance of the first certificate of occupancy, the project applicant shall pay a mitigation fee based on the equivalent amount of the project's contribution of ROG emissions that exceeds the applicable threshold of significance (i.e., 1.84 lbs/day for the proposed project) and the per ton cost effectiveness identified by the CARB's most current Carl Moyer Program Guidance. The project applicant may propose payment towards an alternate off site mitigation project within the same region through participation in an off site mitigation program, coordinated through SMAQMD. The off site mitigation project must result in an equivalent emission reduction as identified above and be subject to verification and approval by SMAQMD. The final details of the mitigation fee shall be determined in coordination with, and reviewed and approved by, the SMAQMD and City of Sacramento Community Development Department. Proof of payment shall be submitted to the City of Sacramento Community Development Department.~~

FINDINGS

Air pollutants are generated by nearly all developments and economic activity in the Sacramento region. Air pollution is regulated on the federal, state, and local level, and SMAQMD is the regional agency that oversees air pollution regulation, planning, and rulemaking. While air quality impacts usually result from regional trends, individual projects may contribute substantially to such regional trends. SMAQMD has established quantitative emissions screening levels, which allow for potential cumulative air quality impacts that may result from an individual project's emissions.

The project would not involve construction- or operational-related criteria pollutant emissions that would exceed applicable SMAQMD thresholds. The project would be required by SMAQMD to implement all relevant BMPs and BACTs, which would further reduce PM emissions. ~~The proposed~~

~~project would be required to implement project specific Mitigation Measures AIR-2 and AIR-3 to reduce operational criteria pollutant emissions to a less than significant level.~~ The project would not be considered a source of TACs, nor is the project located near a known source of TACs. Because the project may include restaurant uses, which could be considered to be sources of odors, MTP/SCS EIR Mitigation Measure AIR-3 has been required as part of the project. Overall, the application of ~~project specific Mitigation Measures AIR-2 and AIR-3, as well as~~ MTP/SCS EIR Mitigation Measure AIR-3 and project-specific Mitigation Measure AIR-1 would ensure that the project would not result in any significant environmental effects related to air quality.

Page 91 of the SCEA IS is hereby revised as follows:

- a,b. GHG emissions associated with the proposed project were quantified using CalEEMod, using the same project-specific information as discussed in the Air Quality section of this SCEA IS. Maximum annual GHG emissions from construction of the proposed project were modeled to be approximately 2,238.20 metric tons of CO₂ equivalent units per year (MTCO_{2e}/yr), and maximum annual operational emissions, excluding mobile-source emissions, were modeled to be 2,246.46 MTCO_{2e}/yr.

With regard to GHG emissions from construction of the proposed project, the proposed project would be required to implement MTP/SCS EIR Mitigation Measure GHG-3, as described above. Mitigation Measure GHG-3 specifies that the project implement all feasible on- and off-site mitigation measures. According to SMAQMD's Guide to Air Quality Assessment in Sacramento County⁶ (CEQA guidance), best management practices for reducing GHG emissions from construction activities do not produce easily quantifiable GHG emission reductions. As such, the measures included in MTP/SCS EIR Mitigation Measure GHG-3 are not able to be quantified using the CalEEMod model. Nonetheless, the SMAQMD CEQA Guidance has noted that project construction GHG emissions may be mitigated using renewable diesel, and purchasing GHG offsets if emissions exceed the threshold after implementing on-site mitigation. To ensure GHG emissions from the project are mitigated to below SMAQMD's threshold of significance, project construction vehicles would be required to use renewable diesel fuel rather than conventional diesel fuel. Renewable diesel can reduce GHG emissions between 15 and 80 percent depending on the feedstock source.⁷ Construction emissions exceeding 1,100 MTCO_{2e}/year after on-site use of renewable diesel would be mitigated through the purchase of GHG offsets in coordination with the City of Sacramento and SMAQMD. To clarify, renewable diesel and GHG offsets are considered the most feasible construction GHG measures by the SMAQMD currently, and would be consistent with Mitigation Measure GHG-3.

Page 106 of the SCEA IS is hereby revised as follows:

In addition to sewer service provided by the City of Sacramento Department of Utilities (DOU), the project would also be within the ~~SCRSD~~ Regional San Service Area. In order to ~~connect with the SCRSD wastewater conveyance and treatment system~~ be provided service by Regional San, developers must pay impact fees. In infill areas, single-family residential customers must pay ~~3,602~~ 3,283 dollars per dwelling unit.

Pages 154 and 155 of the SCEA IS are hereby revised as follows:

Wastewater collection and treatment services for the proposed project would be provided by the City of Sacramento DOU ~~and the SCRSD~~ Regional San. Wastewater generated from the project area is collected in the City's separated sewer system through a series of sewer pipes and flows into

⁶ SMAQMD. *Guide to Air Quality Assessment in Sacramento County, Chapter 6, Greenhouse Gases*. February 2021.

⁷ CARB. *Staff Report Multimedia Evaluation of Renewable Diesel*. November 2013.

the ~~SCRSD Regional San~~ interceptor system, where the sewage is conveyed to the ~~Sacramento Regional Wastewater Treatment Plant (SRWWTP) EchoWater Resource Recovery Facility (EchoWater Facility)~~ located near Elk Grove. Except for water diverted for recycled use, treated wastewater from the ~~SRWWTP EchoWater Facility~~ is discharged to the Sacramento River near the town of Freeport. The ~~SRWWTP EchoWater Facility~~ is currently permitted to discharge an average dry weather flow (ADWF) of 181 million gallons per day (MGD), and a daily peak wet weather flow of 392 MGD. The City's Department of Utilities is responsible for providing and maintaining the majority of the water, sewer collection, storm drainage, and flood control services for residents and businesses within City limits.

Page 160 of the SCEA IS is hereby revised as follows:

The project would connect to the City of Sacramento's sanitary sewer system through a new network of collection pipelines, laterals and manholes. The sewer system would convey wastewater from east to west, and would connect to the gravity 24-inch diameter pipeline planned in 24th Street. The 24-inch pipeline would convey the wastewater to the south, across Cosumnes River Boulevard, and into Sewer Sump 53. From Sewer Sump 53, ~~an 18-inch~~ 12-inch and 8-inch diameter force main pipelines would convey flows to the east, approximately 10,000 linear feet along the south side of Cosumnes River Boulevard, to connect to the existing ~~SCRSD Regional San~~ Central Interceptor pipeline located ~~in~~ west of Franklin Boulevard and south of Cosumnes River Boulevard.

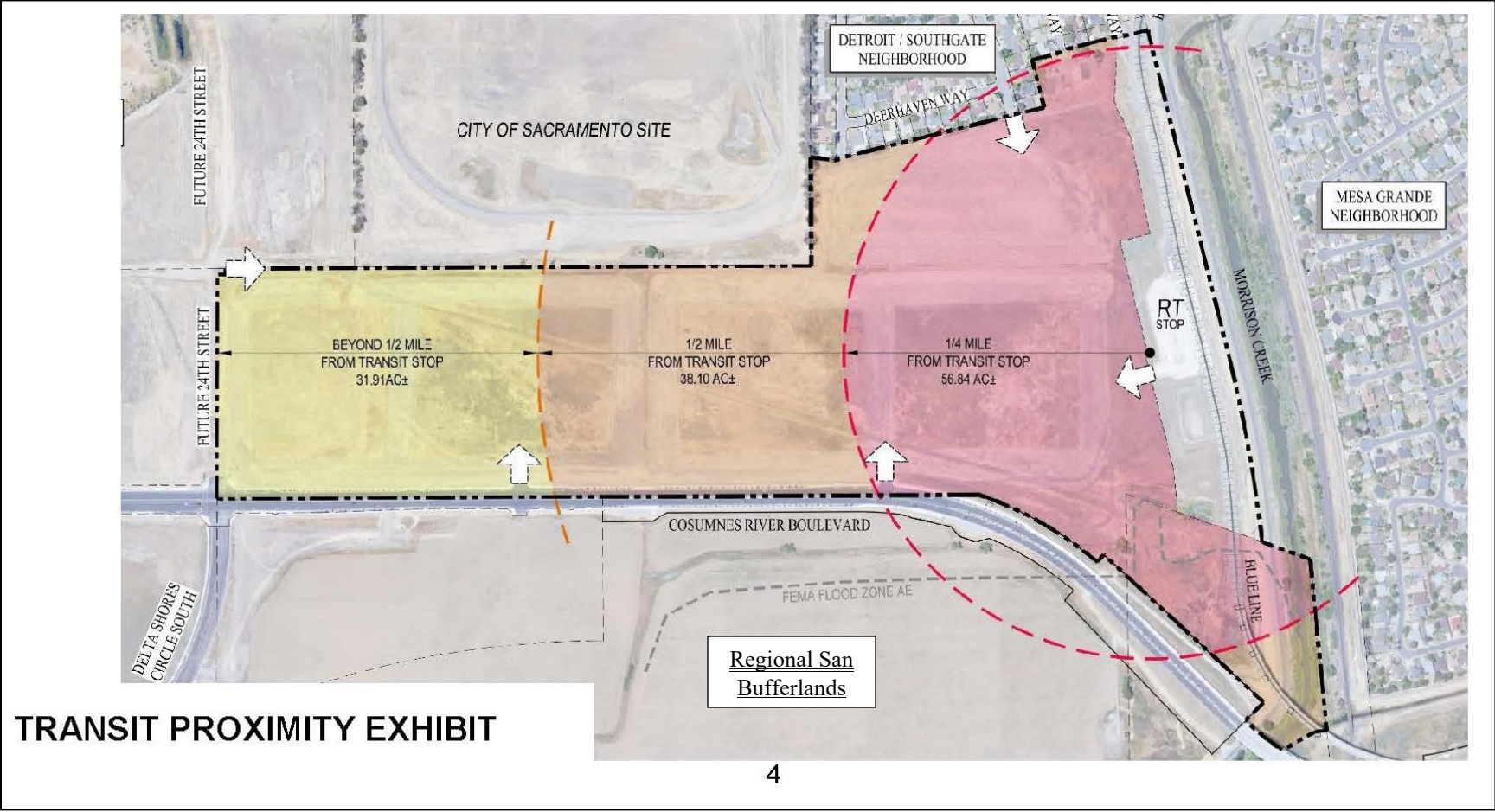
A Sanitary Sewer Master Plan was prepared for the proposed project (see Appendix K). As part of the Sanitary Sewer Master Plan, wastewater flows to be generated by the proposed project were estimated based on the criteria identified in the County of Sacramento Improvement Standards and Sacramento Area Sewer Design Standards. The sanitary sewer flows were estimated to be 672,709 gpd, or approximately 0.67 MGD.

The existing permitted capacity at the ~~SRWWTP EchoWater Facility~~ is 181 MGD. Per the ~~SRWWTP's EWRRF's~~ NPDES Permit (No. CA0077682), adopted in April of 2021, the ADWF is approximately 181 MGD. The Delta Shores sanitary sewer system has been planned to provide capacity for the development of the Stone Beetland Project as presented in the Delta Shores Sewer Master Plan, dated July 23, 2014. The approved Delta Shores Sewer Master Plan had assumed a design flow from the Stone Beetland property of 0.76 MGD, which exceeds the current estimated flows of 0.67 MGD. Accordingly, the downstream wastewater conveyance systems that have been planned and or constructed to date, as well as the ~~SRWWTP EchoWater Facility~~, have adequate capacity to accommodate flows associated with the proposed project.

In addition, the following staff-initiated revisions are hereby applied to MTP/SCS EIR Mitigation Measure USS-3 presented on page 158 of the SCEA IS for clarification purposes, in order to remove a number of measures referenced in Mitigation Measure USS-3 that are not applicable to the proposed project.

*MM USS-3: ~~Implement Mitigation Measure AES-8 through AES-12~~
~~Implement Mitigation Measure AG-8~~
~~Implement Mitigation Measure AIR-6~~
~~Implement Mitigation Measures BIO-1a through BIO-67~~
~~Implement Mitigation Measures CR-1 through CR-6~~
~~Implement Mitigation Measure GHG-3~~
~~Implement Mitigation Measure NOI-3~~
~~Implement Mitigation Measure TRN-3~~*

Figure 12
Proximity to SacRT Morrison Creek Station (Revised)



Appendix A

CalEEMod Modeling Reports Baseline Project

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Stone Beetland Project - Mitigation Documentation

Sacramento Metropolitan AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	17.70	Acre	17.70	771,012.00	0
City Park	8.80	Acre	8.80	383,328.00	0
Apartments Low Rise	711.00	Dwelling Unit	18.00	711,000.00	1898
Single Family Housing	448.00	Dwelling Unit	55.90	806,400.00	1196
Strip Mall	93.00	1000sqft	6.20	93,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2026
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Baseline project with no design or mitigation measures to compare to SCEA modeling/emissions.

Construction Phase - matches original modeling

Grading -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	220.00	720.00
tblConstructionPhase	NumDays	3,100.00	720.00

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstructionPhase	NumDays	310.00	80.00
tblConstructionPhase	NumDays	220.00	60.00
tblConstructionPhase	NumDays	120.00	20.00
tblConstructionPhase	PhaseEndDate	7/11/2039	9/25/2026
tblConstructionPhase	PhaseEndDate	11/2/2037	9/11/2026
tblConstructionPhase	PhaseEndDate	12/15/2025	9/15/2023
tblConstructionPhase	PhaseEndDate	9/6/2038	12/8/2023
tblConstructionPhase	PhaseEndDate	10/7/2024	5/26/2023
tblConstructionPhase	PhaseStartDate	9/7/2038	12/23/2023
tblConstructionPhase	PhaseStartDate	12/16/2025	12/9/2023
tblConstructionPhase	PhaseStartDate	10/8/2024	5/27/2023
tblConstructionPhase	PhaseStartDate	11/3/2037	9/16/2023
tblConstructionPhase	PhaseStartDate	4/23/2024	5/1/2023
tblLandUse	LotAcreage	44.44	18.00
tblLandUse	LotAcreage	145.45	55.90
tblLandUse	LotAcreage	2.13	6.20

2.0 Emissions Summary

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Year	lb/day										lb/day						
2023	34.8779	34.5480															20,083.11 89
2024	34.4300	31.6054															19,689.03 44
2025	34.0261	30.0447															19,304.43 00
2026	33.7709	29.5758															18,934.18 48
Maximum	34.8779	34.5480															20,083.11 89

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	43.1223	1.1005														176.3218
Energy	0.5728	4.9028														6,285.7175
Mobile	40.6605	35.5830														65,899.4641
Total	84.3556	41.5862														72,361.5035

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	43.1223	1.1005														176.3218
Energy	0.5728	4.9028														6,285.7175
Mobile	40.6605	35.5830														65,899.4641
Total	84.3556	41.5862														72,361.5035

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/1/2023	5/26/2023	5	20	
2	Grading	Grading	5/27/2023	9/15/2023	5	80	
3	Building Construction	Building Construction	12/9/2023	9/11/2026	5	720	
4	Paving	Paving	9/16/2023	12/8/2023	5	60	
5	Architectural Coating	Architectural Coating	12/23/2023	9/25/2026	5	720	

Acres of Grading (Site Preparation Phase): 30

Acres of Grading (Grading Phase): 240

Acres of Paving: 17.7

Residential Indoor: 3,072,735; Residential Outdoor: 1,024,245; Non-Residential Indoor: 139,500; Non-Residential Outdoor: 46,500; Striped Parking Area: 46,261 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1,188.00	328.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	238.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	1.5728	14.3849															2,570.406 1
Total	1.5728	14.3849															2,570.406 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000															0.0000
Vendor	0.4389	15.1877															7,000.783 5
Worker	4.0032	1.9234															8,522.659 0
Total	4.4420	17.1111															15,523.44 25

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	1.5728	14.3849															2,570.406 1
Total	1.5728	14.3849															2,570.406 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000															0.0000
Vendor	0.4389	15.1877															7,000.783 5
Worker	4.0032	1.9234															8,522.659 0
Total	4.4420	17.1111															15,523.44 25

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	1.4716	13.4438															2,570.8077
Total	1.4716	13.4438															2,570.8077

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000															0.0000
Vendor	0.4198	14.8861															6,868.0860
Worker	3.7392	1.7135															8,304.5836
Total	4.1590	16.5996															15,172.6696

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	1.4716	13.4438															2,570.8077
Total	1.4716	13.4438															2,570.8077

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000															0.0000
Vendor	0.4198	14.8861															6,868.0860
Worker	3.7392	1.7135															8,304.5836
Total	4.1590	16.5996															15,172.6696

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	1.3674	12.4697															2,571.498 1
Total	1.3674	12.4697															2,571.498 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000															0.0000
Vendor	0.4047	14.5831															6,729.351 1
Worker	3.5104	1.5382															8,099.185 0
Total	3.9151	16.1213															14,828.53 61

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697														2,571.498 1
Total	1.3674	12.4697														2,571.498 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000														0.0000
Vendor	0.4047	14.5831														6,729.351 1
Worker	3.5104	1.5382														8,099.185 0
Total	3.9151	16.1213														14,828.53 61

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	1.3674	12.4697															2,571.498 1
Total	1.3674	12.4697															2,571.498 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000															0.0000
Vendor	0.3906	14.2864															6,594.204 2
Worker	3.3095	1.3948															7,903.324 7
Total	3.7001	15.6812															14,497.52 89

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2026

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697														2,571.498 1
Total	1.3674	12.4697														2,571.498 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000														0.0000
Vendor	0.3906	14.2864														6,594.204 2
Worker	3.3095	1.3948														7,903.324 7
Total	3.7001	15.6812														14,497.52 89

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Archit. Coating	27.8695																0.0000
Off-Road	0.1917	1.3030															281.8690
Total	28.0612	1.3030															281.8690

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000															0.0000
Vendor	0.0000	0.0000															0.0000
Worker	0.8020	0.3853															1,707.4014
Total	0.8020	0.3853															1,707.4014

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Archit. Coating	27.8695																0.0000
Off-Road	0.1917	1.3030															281.8690
Total	28.0612	1.3030															281.8690

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000															0.0000
Vendor	0.0000	0.0000															0.0000
Worker	0.8020	0.3853															1,707.4014
Total	0.8020	0.3853															1,707.4014

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Archit. Coating	27.8695																0.0000
Off-Road	0.1808	1.2188															281.8443
Total	28.0503	1.2188															281.8443

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000															0.0000
Vendor	0.0000	0.0000															0.0000
Worker	0.7491	0.3433															1,663.7129
Total	0.7491	0.3433															1,663.7129

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Archit. Coating	27.8695																0.0000
Off-Road	0.1808	1.2188															281.8443
Total	28.0503	1.2188															281.8443

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000															0.0000
Vendor	0.0000	0.0000															0.0000
Worker	0.7491	0.3433															1,663.7129
Total	0.7491	0.3433															1,663.7129

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Archit. Coating	27.8695																0.0000
Off-Road	0.1709	1.1455															281.8319
Total	28.0404	1.1455															281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000															0.0000
Vendor	0.0000	0.0000															0.0000
Worker	0.7033	0.3082															1,622.5640
Total	0.7033	0.3082															1,622.5640

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Archit. Coating	27.8695																0.0000
Off-Road	0.1709	1.1455															281.8319
Total	28.0404	1.1455															281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000															0.0000
Vendor	0.0000	0.0000															0.0000
Worker	0.7033	0.3082															1,622.5640
Total	0.7033	0.3082															1,622.5640

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Archit. Coating	27.8695																0.0000
Off-Road	0.1709	1.1455															281.8319
Total	28.0404	1.1455															281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000															0.0000
Vendor	0.0000	0.0000															0.0000
Worker	0.6630	0.2794															1,583.3260
Total	0.6630	0.2794															1,583.3260

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2026

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Archit. Coating	27.8695																0.0000
Off-Road	0.1709	1.1455															281.8319
Total	28.0404	1.1455															281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000															0.0000
Vendor	0.0000	0.0000															0.0000
Worker	0.6630	0.2794															1,583.3260
Total	0.6630	0.2794															1,583.3260

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Mitigated	40.6605	35.5830															65,899.46 41
Unmitigated	40.6605	35.5830															65,899.46 41

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	5,204.52	5,787.54	4465.08	13,298,024	13,298,024
City Park	6.86	17.25	19.27	18,671	18,671
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	4,229.12	4,273.92	3830.40	10,722,640	10,722,640
Strip Mall	4,121.76	3,909.72	1899.99	4,640,913	4,640,913
Total	13,562.26	13,988.43	10,214.74	28,680,249	28,680,249

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3
City Park	10.00	5.00	6.50	33.00	48.00	19.00	66	28	6

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0
Single Family Housing	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3
Strip Mall	10.00	5.00	6.50	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071
City Park	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071
Other Asphalt Surfaces	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071
Single Family Housing	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071
Strip Mall	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
NaturalGas Mitigated	0.5728	4.9028															6,285.7175
NaturalGas Unmitigated	0.5728	4.9028															6,285.7175

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	lb/day										lb/day						
Apartments Low Rise	22706	0.2449	2.0925															2,687.1647
City Park	0	0.0000	0.0000															0.0000
Other Asphalt Surfaces	0	0.0000	0.0000															0.0000
Single Family Housing	29038.8	0.3132	2.6761															3,436.6261
Strip Mall	1368.25	0.0148	0.1341															161.9268
Total		0.5728	4.9028															6,285.7175

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	lb/day										lb/day						
Apartments Low Rise	22.706	0.2449	2.0925															2,687.1647
City Park	0	0.0000	0.0000															0.0000
Other Asphalt Surfaces	0	0.0000	0.0000															0.0000
Single Family Housing	29.0388	0.3132	2.6761															3,436.6261
Strip Mall	1.36825	0.0148	0.1341															161.9268
Total		0.5728	4.9028															6,285.7175

6.0 Area Detail

6.1 Mitigation Measures Area

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	lb/day										lb/day						
Architectural Coating	5.4975																0.0000
Consumer Products	34.7554																0.0000
Hearth	0.0000	0.0000															0.0000
Landscaping	2.8693	1.1005															176.3218
Total	43.1223	1.1005															176.3218

7.0 Water Detail

7.1 Mitigation Measures Water

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Stone Beetland Project - Mitigation Documentation

Sacramento Metropolitan AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	17.70	Acre	17.70	771,012.00	0
City Park	8.80	Acre	8.80	383,328.00	0
Apartments Low Rise	711.00	Dwelling Unit	18.00	711,000.00	1898
Single Family Housing	448.00	Dwelling Unit	55.90	806,400.00	1196
Strip Mall	93.00	1000sqft	6.20	93,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2026
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Baseline project with no design or mitigation measures to compare to SCEA modeling/emissions.

Construction Phase - matches original modeling

Grading -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	220.00	720.00
tblConstructionPhase	NumDays	3,100.00	720.00

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstructionPhase	NumDays	310.00	80.00
tblConstructionPhase	NumDays	220.00	60.00
tblConstructionPhase	NumDays	120.00	20.00
tblConstructionPhase	PhaseEndDate	7/11/2039	9/25/2026
tblConstructionPhase	PhaseEndDate	11/2/2037	9/11/2026
tblConstructionPhase	PhaseEndDate	12/15/2025	9/15/2023
tblConstructionPhase	PhaseEndDate	9/6/2038	12/8/2023
tblConstructionPhase	PhaseEndDate	10/7/2024	5/26/2023
tblConstructionPhase	PhaseStartDate	9/7/2038	12/23/2023
tblConstructionPhase	PhaseStartDate	12/16/2025	12/9/2023
tblConstructionPhase	PhaseStartDate	10/8/2024	5/27/2023
tblConstructionPhase	PhaseStartDate	11/3/2037	9/16/2023
tblConstructionPhase	PhaseStartDate	4/23/2024	5/1/2023
tblLandUse	LotAcreage	44.44	18.00
tblLandUse	LotAcreage	145.45	55.90
tblLandUse	LotAcreage	2.13	6.20

2.0 Emissions Summary

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Year	lb/day										lb/day						
2023	34.3138	34.8439															18,979.44 30
2024	33.9102	33.1885															18,616.36 39
2025	33.5420	31.5609															18,260.69 98
2026	33.3200	31.0342															17,917.62 99
Maximum	34.3138	34.8439															18,979.44 30

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	43.1223	1.1005														176.3218
Energy	0.5728	4.9028														6,285.7175
Mobile	31.0496	41.1135														60,475.4609
Total	74.7447	47.1167														66,937.5002

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	43.1223	1.1005														176.3218
Energy	0.5728	4.9028														6,285.7175
Mobile	31.0496	41.1135														60,475.4609
Total	74.7447	47.1167														66,937.5002

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/1/2023	5/26/2023	5	20	
2	Grading	Grading	5/27/2023	9/15/2023	5	80	
3	Building Construction	Building Construction	12/9/2023	9/11/2026	5	720	
4	Paving	Paving	9/16/2023	12/8/2023	5	60	
5	Architectural Coating	Architectural Coating	12/23/2023	9/25/2026	5	720	

Acres of Grading (Site Preparation Phase): 30

Acres of Grading (Grading Phase): 240

Acres of Paving: 17.7

Residential Indoor: 3,072,735; Residential Outdoor: 1,024,245; Non-Residential Indoor: 139,500; Non-Residential Outdoor: 46,500; Striped Parking Area: 46,261 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1,188.00	328.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	238.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	1.5728	14.3849															2,570.406 1
Total	1.5728	14.3849															2,570.406 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000															0.0000
Vendor	0.4243	16.3233															7,006.271 1
Worker	3.5454	2.3599															7,598.615 3
Total	3.9696	18.6832															14,604.88 64

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	1.5728	14.3849															2,570.406 1
Total	1.5728	14.3849															2,570.406 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000															0.0000
Vendor	0.4243	16.3233															7,006.271 1
Worker	3.5454	2.3599															7,598.615 3
Total	3.9696	18.6832															14,604.88 64

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	1.4716	13.4438															2,570.8077
Total	1.4716	13.4438															2,570.8077

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000															0.0000
Vendor	0.4052	16.0039															6,874.2918
Worker	3.3184	2.1011															7,405.7722
Total	3.7236	18.1050															14,280.0640

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	1.4716	13.4438															2,570.8077
Total	1.4716	13.4438															2,570.8077

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000															0.0000
Vendor	0.4052	16.0039															6,874.2918
Worker	3.3184	2.1011															7,405.7722
Total	3.7236	18.1050															14,280.0640

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697														2,571.498 1
Total	1.3674	12.4697														2,571.498 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000														0.0000
Vendor	0.3900	15.6828														6,736.154 2
Worker	3.1194	1.8852														7,223.986 1
Total	3.5094	17.5681														13,960.14 03

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	1.3674	12.4697															2,571.498 1
Total	1.3674	12.4697															2,571.498 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000															0.0000
Vendor	0.3900	15.6828															6,736.154 2
Worker	3.1194	1.8852															7,223.986 1
Total	3.5094	17.5681															13,960.14 03

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697														2,571.498 1
Total	1.3674	12.4697														2,571.498 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000														0.0000
Vendor	0.3756	15.3681														6,601.546 4
Worker	2.9464	1.7087														7,050.316 4
Total	3.3219	17.0768														13,651.86 28

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2026

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	1.3674	12.4697															2,571.498 1
Total	1.3674	12.4697															2,571.498 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000															0.0000
Vendor	0.3756	15.3681															6,601.546 4
Worker	2.9464	1.7087															7,050.316 4
Total	3.3219	17.0768															13,651.86 28

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Archit. Coating	27.8695																0.0000
Off-Road	0.1917	1.3030															281.8690
Total	28.0612	1.3030															281.8690

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000															0.0000
Vendor	0.0000	0.0000															0.0000
Worker	0.7103	0.4728															1,522.2815
Total	0.7103	0.4728															1,522.2815

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Archit. Coating	27.8695																0.0000
Off-Road	0.1917	1.3030															281.8690
Total	28.0612	1.3030															281.8690

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000															0.0000
Vendor	0.0000	0.0000															0.0000
Worker	0.7103	0.4728															1,522.2815
Total	0.7103	0.4728															1,522.2815

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Archit. Coating	27.8695																0.0000
Off-Road	0.1808	1.2188															281.8443
Total	28.0503	1.2188															281.8443

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000															0.0000
Vendor	0.0000	0.0000															0.0000
Worker	0.6648	0.4209															1,483.6480
Total	0.6648	0.4209															1,483.6480

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Archit. Coating	27.8695																0.0000
Off-Road	0.1808	1.2188															281.8443
Total	28.0503	1.2188															281.8443

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000															0.0000
Vendor	0.0000	0.0000															0.0000
Worker	0.6648	0.4209															1,483.6480
Total	0.6648	0.4209															1,483.6480

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Archit. Coating	27.8695																0.0000
Off-Road	0.1709	1.1455															281.8319
Total	28.0404	1.1455															281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000															0.0000
Vendor	0.0000	0.0000															0.0000
Worker	0.6249	0.3777															1,447.2296
Total	0.6249	0.3777															1,447.2296

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	27.8695															0.0000
Off-Road	0.1709	1.1455														281.8319
Total	28.0404	1.1455														281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000														0.0000
Vendor	0.0000	0.0000														0.0000
Worker	0.6249	0.3777														1,447.2296
Total	0.6249	0.3777														1,447.2296

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	27.8695															0.0000
Off-Road	0.1709	1.1455														281.8319
Total	28.0404	1.1455														281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000														0.0000
Vendor	0.0000	0.0000														0.0000
Worker	0.5903	0.3423														1,412.4371
Total	0.5903	0.3423														1,412.4371

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2026

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	27.8695															0.0000
Off-Road	0.1709	1.1455														281.8319
Total	28.0404	1.1455														281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000														0.0000
Vendor	0.0000	0.0000														0.0000
Worker	0.5903	0.3423														1,412.4371
Total	0.5903	0.3423														1,412.4371

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Mitigated	31.0496	41.1135															60,475.46 09
Unmitigated	31.0496	41.1135															60,475.46 09

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	5,204.52	5,787.54	4465.08	13,298,024	13,298,024
City Park	6.86	17.25	19.27	18,671	18,671
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	4,229.12	4,273.92	3830.40	10,722,640	10,722,640
Strip Mall	4,121.76	3,909.72	1899.99	4,640,913	4,640,913
Total	13,562.26	13,988.43	10,214.74	28,680,249	28,680,249

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3
City Park	10.00	5.00	6.50	33.00	48.00	19.00	66	28	6

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0
Single Family Housing	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3
Strip Mall	10.00	5.00	6.50	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071
City Park	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071
Other Asphalt Surfaces	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071
Single Family Housing	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071
Strip Mall	0.550065	0.056538	0.183073	0.126916	0.023794	0.005777	0.013314	0.009484	0.000878	0.000597	0.025554	0.000937	0.003071

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
NaturalGas Mitigated	0.5728	4.9028															6,285.7175
NaturalGas Unmitigated	0.5728	4.9028															6,285.7175

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	22706	0.2449	2.0925														2,687.1647
City Park	0	0.0000	0.0000														0.0000
Other Asphalt Surfaces	0	0.0000	0.0000														0.0000
Single Family Housing	29038.8	0.3132	2.6761														3,436.6261
Strip Mall	1368.25	0.0148	0.1341														161.9268
Total		0.5728	4.9028														6,285.7175

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	lb/day										lb/day						
Apartments Low Rise	22.706	0.2449	2.0925															2,687.1647
City Park	0	0.0000	0.0000															0.0000
Other Asphalt Surfaces	0	0.0000	0.0000															0.0000
Single Family Housing	29.0388	0.3132	2.6761															3,436.6261
Strip Mall	1.36825	0.0148	0.1341															161.9268
Total		0.5728	4.9028															6,285.7175

6.0 Area Detail

6.1 Mitigation Measures Area

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	lb/day										lb/day						
Architectural Coating	5.4975																0.0000
Consumer Products	34.7554																0.0000
Hearth	0.0000	0.0000															0.0000
Landscaping	2.8693	1.1005															176.3218
Total	43.1223	1.1005															176.3218

7.0 Water Detail

7.1 Mitigation Measures Water

Stone Beetland Project - Mitigation Documentation - Sacramento Metropolitan AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation
