Appendix A

HRA and CalEEMod Report

Technical Report

Health Risk Assessment
For California Environmental Quality Act (CEQA)

Project Name:

Sherwood South Subdivision
Tulare, CA

Prepared for:

4Creeks, Inc.
Visalia, CA

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Lead Agency:

City of Tulare

Date of Preparation:

September 2025

CORE
ENVIRONMENTAL
CONSULTING

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1 Executive Summary

This technical report has been prepared to summarize the background, methodology, and results of a Health Risk Assessment (HRA) for the Sherwood South Subdivision project (Project). The Project proposes development of a 59.3-acre residen&al (single and mul&-family) subdivision at the northeast corner of W Bardsley Avenue and Enterprise Street in Tulare, CA.

The Project is subject to the California Environmental Quality Act (CEQA), with City of Tulare (City) serving as the Lead Agency pursuant to the *CEQA Statute and Guidelines*[1] (CEQA Guidelines). An Ini&al Study is in progress and this HRA was completed to assess the poten&al significance of Toxic Air Contaminants (TAC) on nearby sensi&ve receptors.

The Project site is under the jurisdic&on of the San Joaquin Valley Air Pollu&on Control District (SJVAPCD), which oversees the assessment of health risk associated with Toxic Air Contaminant (TAC) emissions from new development in the San Joaquin Valley Air Basin (SJVAB). SJVAPCD lays out a basic framework for understanding and assessing health risk, under CEQA, in its *Guidance for Assessing and Mitigating Air Quality Impacts*[2] (GAMAQI). Projects that would either place a new source of TAC in the vicinity of exis&ng sensi&ve receptors, or would place new sensi&ve receptors in the vicinity of exis&ng sources of TAC, must be assessed to determine whether the resul&ng health risk to sensi&ve receptors would exceed SJVAPCD established thresholds of significance for carcinogenic, acute, and chronic risk.

This HRA was prepared in accordance with the guidelines outlined in the Office of Environmental Health Hazard Assessment (OEHHA) *Guidance Manual for Preparation of Health Risk Assessments*[3], SJVAPCD Policy *APR 1906 – Framework for Performing Health Risk Assessments*[4], and SJVAPCD *Guidance for Air Dispersion Modeling*[5].

Construc&on health risk, associated with diesel par&culate ma6er (DPM) emissions from construc&on vehicle and equipment use, was modeled using the USEPA *American Meteorological Society/EPA Regulatory model* (AERMOD) and CARB Hotspots Analysis and Repor&ng Program (HARP2) *Air Dispersion Modeling and Risk Tool*[6] (ADMRT).

ADer applica&on of **Mitigation Measure HRA-1** (Tier 4 Final Engine Controls for Off-road Construc&on Equipment), the calculated health risks for Project construc&on DPM are below the SJVAPCD thresholds of significance. Therefore, the Project would not expose sensi&ve receptors to substan&al pollutant concentra&ons, and related impacts would be ***less than significant with mitigation incorporated***.

In addi&on to the HRA, an Ambient Air Quality Analysis (AAQA) screening was performed. The Project would not result in maximum daily emissions of criteria pollutants over 100 pounds per day, during construc&on or opera&on, and would therefore not create a localized exceedance of Na&onal or California Ambient Air Quality Standards. Impacts would be ***less than significant***.

[1] (Associa&on of Environmental Professionals, 2025)
[2] (San Joaquin Valley Air Pollu&on Control District, 2015)
[3] (Office of Environmental Health Hazard Asssessment, 2015)
[4] (San Joaquin Valley Air Pollu&on Control District, 2020)
[5] (San Joaquin Valley Air Pollu&on Control District, 2022a)
[6] (California Air Resources Board, 2022a)

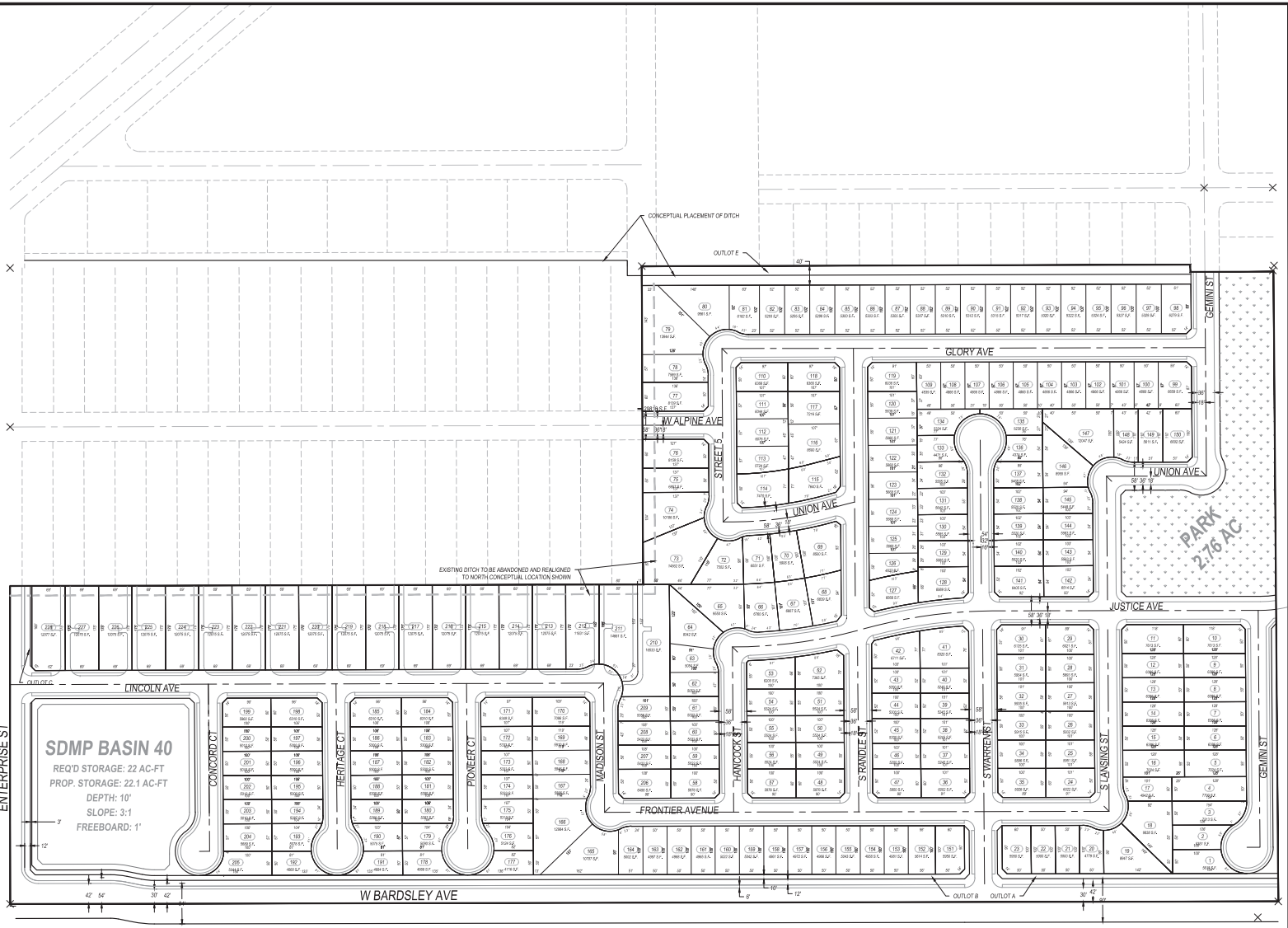
2 Project Description

The Project proposes development of a 59.3-acre residen&al (single and mul&-family) subdivision at the northeast corner of W Bardsley Avenue and Enterprise Street in Tulare, CA. It includes 209 single-family and 19 mul&-family residen&al units, along with a 2.8-acre park, a stormwater basin, and all associated site improvements.

The project is located on the southwestern edge of Tulare, within the city limits, and comprises assessors parcel numbers (APN) 168-090-010, 168-147-018, and 168-090-011. According to Google Earth satellite imagery, the site appears to have been previously used for row crops but is now covered with weeds and bare dirt. The site and adjacent areas are rela&vely flat, with eleva&on averaging approximately 80 meters above sea level. Residen&al developments are located to the north and east, and open or agricultural land surrounds the site to the west and south.

According to the default construc&on schedule predicted by the *California Emissions Estimator Model* (CalEEMod) analysis, construc&on is expected to last approximately 5 years, poten&ally star&ng as early as January 2026.

A Tenta&ve Subdivision Map is included below as Figure 1, with a vicinity map incorporated.



JUNE, 25, 2025

SHERWOOD SOUTH

TENTATIVE SUBDIVISION MAP

PREPARED FOR: SUMMIT HOME BUILDERS
481 W NOBLE AVE
FARMERSVILLE, CA 93223

PREPARED BY: 4CREEKS, INC.
324 S. SANTA FE ST., STE. A
VISALIA ,CA 93292

ACREAGE

59.30 AC

LEGEND

APN:	168-090-010, 168-147-018, 168-090-011
ZONING:	R-1-5
PROPOSED ZONING:	R-1-5, RM-2
GENERAL PLAN:	SINGLE FAMILY RESIDENTIAL
FLOOD ZONE:	ZONE X, PER FEMA FIRM 06107C1250E EFF. 06/16/2009
ELECTRICITY:	SOUTHERN CALIFORNIA EDISON
WATER:	CITY OF TULARE
TELEPHONE:	COMCAST
NATURAL GAS:	SOUTHERN CALIFORNIA GAS COMPANY
EXISTING USE:	EXIST. ORCHARD W/ EXIST. BASIN
PROPOSED USE:	SINGLE FAMILY RESIDENTIAL, R-1-5, MULTI FAMILY RM-2
PROPOSED MAINTENANCE:	CITY OF TULARE

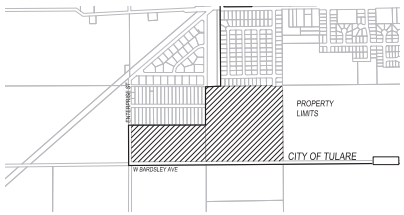
TYPICAL LOT SIZES:

5000 SF MIN. LOTS± (50' X 100' TYP.) (209 UNITS)
RM-2 (69' x 175' TYP.) (76 UNITS)(19 LOTS)

**OUTLOTS A-C AND PARK (2.76 AC) TO BE DEDICATED TO THE CITY OF TULARE*

UTILITIES:

WATER:	GEMINI ST., SONORA AVE & HAVEN ST - EXIST. 12"
SEWER:	GEMINI ST - EXIST. 10" ENTERPRISE ST - EXIST. 30"
STORM DRAIN:	SDMP RETENTION BASIN TO MAINTAIN ALL ON-SITE DRAINAGE
OVERHEAD POWER UNDERGROUNDING:	ENTERPRISE ST (2) BARDSLEY AVE (10)
TRASH	TO BE MOVED TO PUBLIC ST ON PICKUP DAY



VICINITY MAP

SCALE: 1" = 1000'

4CREEKS

\\Server\projects\Projects\2023\23354\ACAD\PLANNING\TENTATIVE SUBDIVISION MAP\23354_TSM_C7_E_18_25.dwg

3 Health Risk Assessment Setting

3.1 San Joaquin Valley Air Pollution Control District

The Project is located in the San Joaquin Valley Air Basin (SJVAB), which consists of eight coun&es: Fresno, Kern (western and central), Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare. Air pollu&on in the SJVAB can be a6ributed to both human-related (anthropogenic) and natural (biogenic) ac&vi&es that produce emissions.

Area and sta&onary sources within SJVAB are under the jurisdic&on of the San Joaquin Valley Air Pollu&on Control District (SJVAPCD). An overview of important air pollutants, and SJVPACD roles in controlling them, is provided in the SJVAPCD *Guidance for Assessing and Mitigating Air Quality Impacts*[7] (GAMAQI), along with in-depth discussions on the meteorology and geography that contribute to unhealthy levels of air pollu&on. This HRA focuses on Toxic Air Contaminants (TAC).

Toxic Air Contaminants (TAC), as defined by the California Health & Safety Code (CH&SC) §44321, are listed in Appendices AI and AII in AB 2588 Air Toxic "Hot Spots" and Assessment Act's Emissions Inventory Criteria and Guideline Regula&on document. Poten&al health impacts from TACs are generally categorized into two groups: carcinogenic (cancer causing) effects and non-carcinogenic (non-cancer-causing) effects.

The non-carcinogenic effects can be further divided into long-term (chronic) health effects such as birth defects, neurological damage, or gene&c damage; and short- term (acute) effects such as eye irrita&on, respiratory irrita&on, and nausea. The California TAC list iden&fies about 700 plus pollutants. Carcinogenic and/or non-carcinogenic toxicity criteria have been established for a subset of these pollutants by OEHHA, as required by CH&SC §44360. TACs used in determining the poten&al exposure to the public should not be confused with the 189 Hazardous Air Pollutants (HAP) listed in the Clean Air Act.

SJVAPCD oversees the assessment of health risk associated with TAC emissions from new development in the SJVAB. SJVAPCD lays out a basic framework for understanding and assessing health risk, under CEQA, in the GAMAQI.

The loca&on of a development project is a major factor in determining whether the project will result in localized air quality impacts. The poten&al for adverse air quality impacts increases as the distance between the source of emissions and receptors decreases. Receptors include sensi&ve receptors and worker receptors. Sensi&ve receptors refer to those segments of the popula&on most suscep&ble to poor air quality (i.e., children, the elderly, and those with pre-exis&ng serious health problems affected by air quality). Land uses where sensi&ve individuals are most likely to spend &me include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residen&al communi&es (these sensi&ve land uses may also be referred to as sensi&ve receptors). Worker receptors refer to employees and loca&ons where people work. Impacts on sensi&ve receptors are of par&cular concern, because they are the people most vulnerable to the effects of air pollu&on.

[7] (San Joaquin Valley Air Pollu&on Control District, 2015)

From a health risk perspec&ve there are two types of land use projects that have the poten&al to cause long-term public health risk impacts:

Type A Projects: Land use projects that will place new toxic sources in the vicinity of exis&ng receptors.

Type B Projects: Land use projects that will place new receptors in the vicinity of exis&ng toxics sources.

Projects of either type must be assessed to determine whether the resul&ng health risk to sensi&ve receptors would exceed SJVAPCD established thresholds of significance for carcinogenic, non-carcinogenic acute, and non-carcinogenic chronic risk.

The OEHHA *Risk Assessment Guidelines* are the standards for es&ma&ng health risks. OEHHA is responsible for developing and providing toxicological and medical informa&on relevant to decisions involving public health to state and local government agencies. Historically, state laws have required OEHHA to develop Risk Assessment Guidelines for es&ma&ng health risk associated with various sources of air pollu&on. Furthermore, the Children's Environmental Health Protec&on Act (SB 25, Escu&a, 1999) requires OEHHA to biennially review risk assessment methods for air toxics, and related informa&on, to ensure that they adequately protect infants and children.

The SJVAPCD risk management policy works in conjunc&on with the OEHHA *Risk Assessment Guidelines*. The SJVAPCD risk management policy further clarifies and provides guidance on the appropriate op&ons to use, such as a longer exposure period and more conserva&ve air dispersion modeling.

SJVAPCD staff members are considered leading statewide experts in the field of health risk assessment and have developed significant resources from guidance documents to database tools to assist other agencies, consultants, and regulated sources. Therefore, the SJVAPCD concludes that use of its risk management policy and the OEHHA *Risk Assessment Guidelines* is appropriate in determining significance within the environmental review process.

3.2 Diesel Particulate Matter[8]

As described in Sec&on 5 (HRA Methodology), the Project could be a substan&al source of Diesel Par&culate Ma6 er (DPM) during construc&on. DPM has been iden&fied as a toxic air contaminant by ARB based on its poten&al exposures and health concerns. OEHHA evaluated over 30 human epidemiological studies on the carcinogenic effects of diesel exhaust. These studies found that long-term occupa&onal exposures to diesel exhaust were associated with a 40 percent increase, on average, in the rela&ve risk of lung cancer. These epidemiological studies strongly suggest a causal rela&onship between occupa&onal diesel exhaust exposure and lung cancer.

A number of adverse long-term noncancer effects have been associated with exposure to diesel exhaust. Occupa&onal studies have shown that there may be a greater incidence of cough, phlegm and chronic bronchi&s among those exposed to diesel exhaust than among those not exposed. Reduc&ons in pulmonary func&on have also been reported following occupa&onal exposures in chronic studies.

[8] (California Air Pollu&on Control Officers Associa&on, 2024)

Adverse short-term health effects have also been associated with exposures to diesel exhaust. Occupa&onal exposures to DPM have been associated with significant cross-shiD decreases in lung func&on. Increased cough, labored breathing, chest &ghtness, and wheezing have been associated with exposure to diesel exhaust in bus garage workers. A significant increase in airway resistance and increases in eye and nasal irrita&on were observed in human volunteers following one-hour chamber exposure to diesel exhaust.

3.3 Ambient Air Quality

The SJVAPCD *GAMAQI* provides a framework for evalua&ng poten&al air quality impacts under CEQA. The GAMAQI includes in-depth discussions on geography, meteorology, pollutant sources, and other important factors that affect air quality within the SJVAB. It also describes the air pollutants required to be assessed under CEQA, along with the regulatory and environmental se2 ngs for each of those pollutants. This Technical Study provides a brief overview of ambient air quality analysis (AAQA) considera&ons; the reader is encouraged to refer to the *GAMAQI* for more background informa&on.

The United States Environmental Protec&on Agency (USEPA) established Na&onal Ambient Air Quality Standards (NAAQS) for six criteria pollutants including Ozone (O_3), Par&culate Ma6 er (PM), Carbon Monoxide (CO), Oxides of Nitrogen (NOx), Sulfur Oxides (Sox), and Lead. The California Air Resources Board (CARB) established California Ambient Air Quality Standards (CAAQS) for each of the criteria pollutants, along with addi&onal pollutants including hydrogen sulfide (H_2S), Sulfates (SO_4^{2-}), Visibility Reducing Par&cles, and Vinyl Chloride.

In addi&on to evalua&ng total Project emissions of criteria pollutants, SJVAPCD requires an evalua&on of the poten&al to cause localized exceedances of NAAQS or CAAQS. When assessing the significance of project-related impacts on ambient air quality, SJVPACD has concluded that the impacts may be significant when on-site emission increases from construc&on ac&vi&es or opera&onal ac&vi&es (either from permi6 ed equipment and ac&vi&es or non-permi6 ed equipment and ac&vi&es) exceed the 100 pounds per day (lb/day) screening level of any criteria pollutant aDer implementa&on of all enforceable mi&ga&on measures. Under such circumstances, SJVAPCD recommends that an Ambient Air Quality Analysis (AAQA) be performed. An AAQA uses air dispersion modeling to determine if emission increases from a project will cause or contribute to a viola&on of the AAQS.

4 Thresholds of Significance

4.1 HRA Thresholds

This HRA focuses on answering the following ques&on from the Air Quality sec&on of Appendix G in the *CEQA Guidelines*[9]:

3. Would the Project expose sensitive receptors to substantial pollutant concentrations?

The *CEQA Guidelines* state that, where available, the significance criteria established by the applicable air quality management district or air pollu&on control district may be relied upon to make a significance determina&on.

SJVAPCD has established the following thresholds of significance for risk exposure to TAC:

Table 1 SJVPACD Thresholds of Significance – Toxic Air Contaminants

CARCINOGENS	Maximally Exposed Individual risk equals or exceeds 20 in one million
NON CARCINOGENS	**Acute**: Hazard Index equals or exceeds 1 for the Maximally Exposed Individual
	Chronic: Hazard Index equals or exceeds 1 for the Maximally Exposed Individual
Source: (San Joaquin Valley Air Pollu&on Control District, 2015)	

Therefore, if the calculated risk exposure from Project TAC emissions is below the SJVAPCD thresholds of significance, it can be concluded that the Project would not expose sensi&ve receptors to substan&al pollutant concentra&ons and this impact would be considered less than significant under CEQA.

4.2 Ambient Air Quality Thresholds

The thresholds of significance for ambient air quality are based on the NAAQS and CAAQS. A project would be considered to have a significant impact if its emissions are predicted to cause or contribute to a viola&on of an ambient air quality standard by crea&ng a localized exceedance of any of the CAAQS or any of the NAAQS and if available the associated Significant Impact Level (SIL).

The SJVAPCD Rule 9510 (Indirect Source Review) applicability thresholds, which are far more conserva&ve than the criteria pollutant significance thresholds or the AAQA applicability threshold, can be used to screen out development projects subject to CEQA. Projects below ISR applicability thresholds (i.e., “small projects”) would be expected to not violate any air quality standards or contribute substan&ally to an exis&ng or projected air quality viola&on and will not exceed the thresholds of significance for ambient air quality. In this case, SJVAPCD concludes no emission calcula&on is needed and no ambient air quality analysis is required. For projects equal to or above the applicability

[9] (Associa&on of Environmental Professionals, 2025)

thresholds, the District recommends that emissions from the project be quan&fied to determine if an AAQA is needed.

If maximum daily onsite emissions of all criteria pollutants, during construc&on and opera&on, are below 100 pounds per day, then the Project would not cause a localized exceedance of NAAQS or CAAQS, no further AAQA is required, and the associated impact would be less than significant.

5 Methodology

5.1 HRA Methodology

The Project could result in toxic air contaminant (TAC) emissions during construc&on and, to a limited extent, during opera&on. The primary TAC emissions resul&ng from Project construc&on would include diesel par&culate ma6er (DPM), exhausted during the opera&on of on- and-off road diesel-fueled vehicles and equipment.

DPM is the par&culate component of diesel exhaust and has been iden&fied as a TAC by the California Air Resources Board (CARB) based on its poten&al exposures and health concerns. Epidemiological studies strongly suggest a rela&onship between occupa&onal diesel exhaust exposure and lung cancer. A number of adverse acute and chronic effects have also been associated with exposure to diesel exhaust.[10]

The Project would develop a residen&al subdivision. Opera&on would not include any substan&al sources of TAC.[11] Addi&onal health risk could occur from the use of household cleaners, commercial products, and other hazardous materials used by individual residents. However, these sources would be intermi6ent, localized to the point of ac&vity, and up to the discre&on of individual residents. Determining the use of such TAC sources would be highly specula&ve, and compliance with exis&ng federal, state, and local regula&ons, which are strictly enforced outside of CEQA, would ensure impacts from Project opera&on remain less than significant.

Because there are no other substan&al sources of TAC expected, during construc&on or opera&on, this HRA is focused on the health risk associated with construc&on DPM.

Construc&on health risk was evaluated in the following steps:

1. Es&mated DPM Emissions. Project air pollutant emissions were es&mated using the *California Emissions Estimator Model*[12] (CalEEMod) (Version 2022.1.1.29). SJVAPCD considers exhaust par&culate ma6er 10 microns and smaller (PM_{10}) to be a reasonable surrogate for DPM, and the maximum (worst year) annual construc&on emissions were used for subsequent modeling and calcula&on (described below). Project-specific informa&on was used where available; CalEEMod defaults were used for all other inputs. Wood stoves (hearths) were set to zero, consistent with SJVAPCD Rule 4905 (Wood Burning Fireplaces and Wood Burning Heaters). Ini&al calcula&ons indicated that, due to the proximity of sensi&ve receptors and exposure dura&on, construc&on DPM emissions could exceed the SJVAPCD threshold of significance for cancer risk. Thus, Mi&ga&on Measure HRA-1 (Tier 4 Final Engine Controls for Construc&on Off-Road Equipment) was applied to reduce impacts to a less-than-significant level. The CalEEMod results are a6ached as Appendix A.
2. Modeled air dispersion. The United States Environmental Protec&on Agency's (U.S. EPA) *American Meteorological Society/EPA Regulatory Model* (AERMOD) air dispersion model was

[10] (California Air Resources Board, 2024)
[11] As defined by the California Health & Safety Code (CH&SC) §44321 and listed in Appendices AI and AII in AB 2588 Air Toxic "Hot Spots" and Assessment Act's Emissions Inventory Criteria and Guideline Regula&on document. (San Joaquin Valley Air Pollu&on Control District, 2015)
[12] (California Air Pollu&on Control Officers Associa&on, 2022)

used to model the annual downwind air concentra&on at nearby receptors, based on a normalized emission rate of one gram per second. Meteorological data were obtained from SJVAPCD (Visalia met site), along with required modeling parameters. Terrain was incorporated using the built-in WebGIS tool. Sensi&ve receptors include nearby residences to the north and east with the closest being approximately 15 meters from the Project site perimeter. A total of 72 receptors were selected for a representa&ve analysis, within a modeling domain radius of 1 kilometer.

3. Calculated Risk. Normalized downwind air concentra&ons for each receptor (modeled in the step above) were imported into the CARB Hotspots Analysis and Repor&ng Program (HARP2) *Air Dispersion Modeling and Risk Tool*[13] (ADMRT) and combined with the toxic emissions data (DPM emissions from the CalEEMod step described above) to es&mate the ground level concentra&ons of DPM at each receptor. Cancer risk and chronic hazard index (HI) were calculated in ADMRT using SJVAPCD-required exposure parameters and Project informa&on. OEHHA has not established a Reference Exposure Level (REL) for 8-hour chronic, or acute health risk from DPM. Thus, the 8-hour chronic and acute HI are not calculated for HRA where the only substan&al TAC is DPM, except in unusual situa&ons such as when a sensi&ve receptor is located directly above the emission release point (e.g., on a hillside or in a mul&story apartment building).[14]

Results of the AERMOD modeling and ADMRT calcula&ons are a6ached in Appendix B, along with a map of receptors. Modeling input and output files will be made available to reviewing agencies upon request.

5.2 AAQA Methodology

The Project is subject to ISR, based on the number of residen&al units exceeding the applicability threshold in SJVAPCD Rule 9510 (Indirect Source Review). Therefore, maximum daily emissions of criteria pollutants were calculated for construc&on and opera&on, as described in the HRA Methodology sec&on above. None of the emissions exceed the 100-pound-per-day screening threshold and thus no further AAQA is required. Emissions calcula&ons are a6ached as Appendix A and a summary of results is presented in the following sec&on.

The AAQA screening focused on the federal criteria pollutants. The addi&onal California criteria pollutants – hydrogen sulfide (H_2S), Sulfates (SO_4^{2-}), Visibility Reducing Par&cles, and Vinyl Chloride – were not included because the Project would not include any substan&al sources during construc&on or opera&on.

[13] (California Air Resources Board, 2022a)
[14] (California Air Resources Board, 2024)

6 Potential Impacts

6.1 HRA Results

The CalEEMod results (Appendix A) show that maximum annual construc&on emissions of PM_{10} exhaust would be 0.01 metric tons per year (MT/yr), or approximately 20 pounds per year (lb/yr). The exposure period for sensi&ve receptors would be the construc&on dura&on of approximately 5 years.

Results of the construc&on risk assessments are compared to SJVAPCD thresholds of significance in the table below. The highest risk exposure occurred at receptor 4, approximately 15 meters east of the Project site boundary.

Table 2 HRA Results Compared to SJVAPCD Thresholds of Significance

RISK	CARCINOGEN (risk in one million)	CHRONIC HAZARD INDEX
Construc&on	3.52	0.0015
Thresholds of Significance	20	1
Calculation based on mitigated emissions. Hazard indices are for Maximally Exposed Individuals. No HI was calculated for 8-hour Chronic or Acute risk because OEHHA has not established REL. (California Air Resources Board, 2024)		

As shown in the Table above, construc&on risk would be below the SJVAPCD Thresholds of Significance. Therefore, consistent with the *CEQA Guidelines*[15], the Project would not expose sensi&ve receptors to substan&al pollutant concentra&ons, and this impact would be considered ***less than significant with mitigation incorporated***.

6.2 AAQA Results

The CalEEMod results are a6ached as Appendix A and summarized in the table below, along with comparison to the SJVAPCD threshold of significance for AAQA screening. As shown in the table, none of the maximum daily criteria pollutant emissions from the Project would exceed the 100-pound-per-day screening threshold for construc&on or opera&on. Therefore, no further AAQA is required and the Project would not expose sensi&ve receptors to substan&al pollutant concentra&ons by resul&ng in a localized exceedance of NAAQS or CAAQS. The associated impact would be ***less than significant***. No mi&ga&on is required outside of compliance with exis&ng regula&ons.

The CalEEMod results show a maximum daily opera&onal emissions of Carbon Dioxide at exactly 100 lb/day. However, SJVAPCD Applica&on Review Policies (APR) 2030 (Project Ambient Air Quality Analysis Applicability Determina&on under CEQA)[16] requires the considera&on of onsite emissions, which include emissions produced onsite as well as mobile source emissions produced within ¼ mile of the project site. Mobile emissions account for the majority of criteria pollutant emissions, including carbon monoxide, with vehicle trip lengths averaging almost 9 miles, but maximum onsite travel distances only reaching

[15] (Associa&on of Environmental Professionals, 2025)
[16] (San Joaquin Valley Air Pollu&on Control District , 2018)

about one half (1/2) mile. Therefore, the onsite emissions of carbon dioxide would be well under one ninth (1/9) of the value shown in the CalEEMod results.

Table 3 Maximum Daily Criteria Pollutant Emissions Compared to AAQA Screening Threshold (lb/day)

CONSTRUCTION	CO	NOx	ROG	SOx	PM_{10}	$PM_{2.5}$
Construc&on Emissions (max daily, worst year, worst season)	36.2	4.56	42.1	0.06	19.9	10.2
Exceeds 100 lb/day?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**
OPERATION	**CO**	**NOx**	**ROG**	**SOx**	**PM_{10}**	**$PM_{2.5}$**
Opera&onal Emissions (max daily, worst season)	<100[1]	15.6	23	0.22	17.1	4.74
Exceeds 100 lb/day?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

CO = carbon monoxide
NOx = oxides of nitrogen
ROG = reactive organic gases
SOx = oxides of sulfur; sulfur dioxide (SO_2) is the primary constituent and essentially equivalent
PM10 = particulate matter with an aerodynamic diameter less than 10 microns
PM2.5 = particulate matter with an aerodynamic diameter less than 2.5 microns

[1]Onsite emissions would be the fraction of total travel distance occurring onsite (0.5 miles/8.8 miles)

6.3 Mitigation

Modeling the unmi&gated DPM emissions resulted in risk es&mates that could exceed the SJVAPCD threshold of significance for carcinogens. Implementa&on of the following **Mitigation Measure HRA-1** would reduce DPM emissions to a level that results in carcinogenic risk below the SJVAPCD threshold of significance.

> ***Mitigation Measure HRA-1:*** *Implement Tier 4 (Final) Engine Controls for all off-road, diesel-fueled equipment during construction*.

The mi&ga&on measure should be inserted into the construc&on specifica&ons included with bid documents, along with a requirement to submit regular reports to the Lead Agency. Contractor should be made responsible for implemen&ng the Tier 4 Engine controls and submi2 ng monthly reports to Lead Agency demonstra&ng that all applicable equipment had Tier 4 Engine Controls installed prior to and throughout opera&on on the Project site, including a list of applicable equipment and the specific controls mee&ng Tier 4 requirements. Contractor should also be required to submit a verifica&on, to the Lead Agency, prior to start of construc&on, confirming its understanding of the mi&ga&on measure and monitoring requirement. Lead Agency should review monthly reports and confirm implementa&on. Any implementa&on failure should be considered a breach of contract and should require the Contractor to halt construc&on un&l the mi&ga&on measure has been implemented and provide an appropriate remedy, with examples including paying for addi&onal analyses to determine the impacts resul&ng from the lack of implementa&on, and/or payment of off-site mi&ga&on fees to SJVAPCD to fund equivalent mi&ga&ons. Upon comple&on of construc&on, within sixty (60) days, Lead Agency should submit a verifica&on statement to SJVAPCD confirming that the mi&ga&on measure was implemented throughout construc&on for all applicable equipment.

The selected mi&ga&on measure would reduce construc&on DPM by approximately 83 percent, which is slightly in excess of the reduc&on needed to maintain less-than-significant health risk impacts. Other

op&ons may be available; however, it is expected that the burden to iden&fy and implement an appropriate suite of alterna&ve mi&ga&on measures would be greater than implemen&ng the selected measure. If alterna&ve measures are desired, an addi&onal analysis should be performed to ensure that DPM emissions are reduced to a level that will maintain less-than-significant cancer risk impacts.

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Appendix A. CalEEMod Results

Prepared by Core Environmental Consulting:

Jesse Madsen, Owner, Principal Scien&st
Clovis, CA

September 2025

Sherwood South Subdivision (HRA) (1st Run) v2 Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Sherwood South Subdivision (HRA) (1st Run) v2
Construction Start Date	1/1/2026
Operational Year	2028
Lead Agency	City of Tulare
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.90
Precipitation (days)	24.4
Location	36.19812267335111, -119.37943772501214
County	Tulare
City	Tulare
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2746
EDFZ	9
Electric Utility	Eastside Power Authority
Gas Utility	Southern California Gas
App Version	2022.1.1.30

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Single Family Housing	209	Dwelling Unit	26.4	376,200	748,980	0.00	706	—

Apartments Low Rise	76.0	Dwelling Unit	5.20	83,600	132,088	0.00	257	—
Other Asphalt Surfaces	22.1	Acre	22.1	0.00	0.00	0.00	—	—
City Park	5.52	Acre	5.52	0.00	240,251	240,251	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mit.	42.1	42.1	4.55	36.2	0.06	0.12	19.8	19.9	0.12	10.1	10.2	—	6,717	6,717	0.28	0.15	3.88	6,741
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mit.	0.99	0.98	4.56	36.0	0.06	0.12	9.31	9.44	0.12	3.68	3.80	—	6,703	6,703	0.28	0.15	0.11	6,728
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mit.	8.90	8.90	2.95	19.7	0.03	0.07	5.08	5.15	0.07	2.24	2.31	—	3,681	3,681	0.15	0.11	1.20	3,698
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mit.	1.62	1.62	0.54	3.60	0.01	0.01	0.93	0.94	0.01	0.41	0.42	—	609	609	0.03	0.02	0.20	612
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.74	0.74	4.55	36.2	0.06	0.12	19.8	19.9	0.12	10.1	10.2	—	6,717	6,717	0.28	0.06	0.42	6,741
2027	1.03	0.94	3.98	20.4	0.03	0.08	0.88	0.96	0.08	0.21	0.29	—	3,778	3,778	0.16	0.15	3.88	3,831
2028	0.97	0.91	3.91	20.0	0.03	0.08	0.88	0.96	0.08	0.21	0.29	—	3,748	3,748	0.15	0.14	3.47	3,798
2029	0.93	0.87	3.85	19.6	0.03	0.08	0.88	0.96	0.08	0.21	0.29	—	3,717	3,717	0.13	0.14	3.08	3,765
2030	0.88	0.83	3.79	19.2	0.03	0.08	0.88	0.96	0.08	0.21	0.29	—	3,686	3,686	0.13	0.14	2.73	3,733
2031	42.1	42.1	1.96	11.0	0.01	0.03	0.14	0.14	0.03	0.03	0.05	—	1,591	1,591	0.06	0.02	0.32	1,598
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.99	0.90	4.56	36.0	0.06	0.12	9.31	9.44	0.12	3.68	3.80	—	6,703	6,703	0.28	0.15	0.11	6,728
2027	0.94	0.87	4.12	19.3	0.03	0.08	0.88	0.96	0.08	0.21	0.29	—	3,693	3,693	0.14	0.15	0.10	3,741
2028	0.91	0.84	4.05	18.9	0.03	0.08	0.88	0.96	0.08	0.21	0.29	—	3,665	3,665	0.14	0.15	0.09	3,711
2029	0.85	0.80	3.96	18.6	0.03	0.08	0.88	0.96	0.08	0.21	0.29	—	3,635	3,635	0.14	0.15	0.08	3,682
2030	0.82	0.78	3.90	18.3	0.03	0.08	0.88	0.96	0.08	0.21	0.29	—	3,606	3,606	0.14	0.14	0.07	3,651
2031	0.98	0.98	3.84	18.1	0.03	0.08	0.88	0.96	0.08	0.21	0.29	—	3,577	3,577	0.13	0.14	0.06	3,621
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.47	0.46	2.95	19.7	0.03	0.07	5.08	5.15	0.07	2.24	2.31	—	3,681	3,681	0.15	0.04	0.30	3,698
2027	0.68	0.62	2.91	13.9	0.02	0.06	0.62	0.68	0.06	0.15	0.21	—	2,655	2,655	0.11	0.11	1.20	2,691
2028	0.66	0.61	2.85	13.6	0.02	0.06	0.62	0.68	0.06	0.15	0.21	—	2,642	2,642	0.10	0.10	1.07	2,676
2029	0.63	0.58	2.79	13.4	0.02	0.06	0.62	0.68	0.06	0.15	0.21	—	2,613	2,613	0.10	0.10	0.95	2,647
2030	0.59	0.56	2.75	13.2	0.02	0.06	0.62	0.68	0.06	0.15	0.21	—	2,592	2,592	0.10	0.10	0.84	2,624
2031	8.90	8.90	0.84	4.00	0.01	0.01	0.11	0.13	0.01	0.03	0.04	—	661	661	0.02	0.02	0.13	666
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.09	0.08	0.54	3.60	0.01	0.01	0.93	0.94	0.01	0.41	0.42	—	609	609	0.03	0.01	0.05	612
2027	0.12	0.11	0.53	2.53	< 0.005	0.01	0.11	0.12	0.01	0.03	0.04	—	440	440	0.02	0.02	0.20	445
2028	0.12	0.11	0.52	2.49	< 0.005	0.01	0.11	0.12	0.01	0.03	0.04	—	437	437	0.02	0.02	0.18	443

2029	0.11	0.11	0.51	2.44	< 0.005	0.01	0.11	0.12	0.01	0.03	0.04	—	433	433	0.02	0.02	0.16	438
2030	0.11	0.10	0.50	2.41	< 0.005	0.01	0.11	0.12	0.01	0.03	0.04	—	429	429	0.02	0.02	0.14	434
2031	1.62	1.62	0.15	0.73	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	109	109	< 0.005	< 0.005	0.02	110

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	11.1	10.4	9.56	82.2	0.19	0.16	16.6	16.7	0.15	4.21	4.36	—	19,538	19,538	0.74	0.92	61.1	19,892
Area	12.7	12.5	2.52	17.2	0.02	0.20	—	0.20	0.20	—	0.20	0.00	3,044	3,044	0.06	0.01	—	3,047
Energy	0.27	0.13	2.27	0.97	0.01	0.18	—	0.18	0.18	—	0.18	—	5,625	5,625	0.45	0.03	—	5,645
Water	—	—	—	—	—	—	—	—	—	—	—	23.2	129	152	2.39	0.06	—	229
Waste	—	—	—	—	—	—	—	—	—	—	—	144	0.00	144	14.4	0.00	—	504
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.29	3.29
Total	24.1	23.0	14.4	100	0.22	0.54	16.6	17.1	0.53	4.21	4.74	167	28,336	28,504	18.0	1.01	64.4	29,321
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	10.0	9.27	10.9	68.4	0.18	0.16	16.6	16.7	0.15	4.21	4.36	—	17,883	17,883	0.84	0.99	1.58	18,199
Area	11.2	11.1	2.36	1.01	0.02	0.19	—	0.19	0.19	—	0.19	0.00	3,000	3,000	0.06	0.01	—	3,004
Energy	0.27	0.13	2.27	0.97	0.01	0.18	—	0.18	0.18	—	0.18	—	5,625	5,625	0.45	0.03	—	5,645
Water	—	—	—	—	—	—	—	—	—	—	—	23.2	129	152	2.39	0.06	—	229
Waste	—	—	—	—	—	—	—	—	—	—	—	144	0.00	144	14.4	0.00	—	504

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.29	3.29
Total	21.5	20.5	15.6	70.4	0.20	0.53	16.6	17.1	0.53	4.21	4.73	167	26,638	26,805	18.1	1.08	4.88	27,585
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	9.72	9.00	9.85	66.6	0.17	0.15	15.6	15.7	0.14	3.96	4.10	—	17,536	17,536	0.75	0.91	25.2	17,851
Area	11.7	11.6	0.61	8.21	< 0.005	0.05	—	0.05	0.05	—	0.05	0.00	695	695	0.01	< 0.005	—	696
Energy	0.27	0.13	2.27	0.97	0.01	0.18	—	0.18	0.18	—	0.18	—	5,625	5,625	0.45	0.03	—	5,645
Water	—	—	—	—	—	—	—	—	—	—	—	23.2	129	152	2.39	0.06	—	229
Waste	—	—	—	—	—	—	—	—	—	—	—	144	0.00	144	14.4	0.00	—	504
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.29	3.29
Total	21.7	20.8	12.7	75.7	0.19	0.38	15.6	16.0	0.37	3.96	4.33	167	23,986	24,153	18.0	1.00	28.5	24,929
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.77	1.64	1.80	12.1	0.03	0.03	2.84	2.87	0.03	0.72	0.75	—	2,903	2,903	0.12	0.15	4.17	2,955
Area	2.14	2.12	0.11	1.50	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	115	115	< 0.005	< 0.005	—	115
Energy	0.05	0.02	0.41	0.18	< 0.005	0.03	—	0.03	0.03	—	0.03	—	931	931	0.08	< 0.005	—	935
Water	—	—	—	—	—	—	—	—	—	—	—	3.85	21.4	25.2	0.40	0.01	—	38.0
Waste	—	—	—	—	—	—	—	—	—	—	—	23.9	0.00	23.9	2.38	0.00	—	83.5
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.55	0.55
Total	3.96	3.79	2.32	13.8	0.03	0.07	2.84	2.91	0.07	0.72	0.79	27.7	3,971	3,999	2.98	0.17	4.72	4,127

3. Construction Emissions Details

3.1. Demolition (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

3.2. Demolition (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	0.36	4.51	18.2	0.03	0.06	—	0.06	0.06	—	0.06	—	3,427	3,427	0.14	0.03	—	3,438
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	0.36	4.51	18.2	0.03	0.06	—	0.06	0.06	—	0.06	—	3,427	3,427	0.14	0.03	—	3,438
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.07	0.86	3.49	0.01	0.01	—	0.01	0.01	—	0.01	—	657	657	0.03	0.01	—	659
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.16	0.64	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	109	109	< 0.005	< 0.005	—	109
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.04	0.66	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	88.6	88.6	0.01	< 0.005	0.32	90.2
Vendor	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	0.00

Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.52	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	78.4	78.4	0.01	< 0.005	0.01	79.7
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.6	15.6	< 0.005	< 0.005	0.03	15.9
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.58	2.58	< 0.005	< 0.005	< 0.005	2.63
Vendor	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	0.00
Hauling	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	0.00

3.3. Site Preparation (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

3.4. Site Preparation (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.50	2.59	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.05	0.05	0.28	3.10	0.01	0.01	—	0.01	0.01	—	0.01	—	581	581	0.02	< 0.005	—	583
Dust From Material Movement	—	—	—	—	—	—	2.15	2.15	—	1.11	1.11	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.57	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	96.1	96.1	< 0.005	< 0.005	—	96.5
Dust From Material Movement	—	—	—	—	—	—	0.39	0.39	—	0.20	0.20	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.09	0.05	0.77	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	103	103	0.01	< 0.005	0.37	105
Vendor	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	0.00
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.4	10.4	< 0.005	< 0.005	0.02	10.6
Vendor	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	0.00

Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.72	1.72	< 0.005	< 0.005	< 0.005	1.75
Vendor	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	0.00
Hauling	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	0.00

3.5. Grading (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

3.6. Grading (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	4.43	35.3	0.06	0.12	—	0.12	0.12	—	0.12	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	4.43	35.3	0.06	0.12	—	0.12	0.12	—	0.12	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.19	1.33	10.7	0.02	0.04	—	0.04	0.04	—	0.04	—	1,989	1,989	0.08	0.02	—	1,995

Dust From Material Movement	—	—	—	—	—	—	2.77	2.77	—	1.10	1.10	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.24	1.94	< 0.005	0.01	—	0.01	0.01	—	0.01	—	329	329	0.01	< 0.005	—	330
Dust From Material Movement	—	—	—	—	—	—	0.51	0.51	—	0.20	0.20	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.05	0.88	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	118	118	0.01	0.01	0.42	120
Vendor	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	0.00
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	0.69	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	105	105	0.01	0.01	0.01	106
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.21	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	32.7	32.7	< 0.005	< 0.005	0.05	33.3
Vendor	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	0.00

Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.41	5.41	< 0.005	< 0.005	0.01	5.51
Vendor	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	0.00
Hauling	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	0.00

3.7. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

3.8. Building Construction (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.82	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.30	1.57	< 0.005	0.01	—	0.01	0.01	—	0.01	—	253	253	0.01	< 0.005	—	254
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.29	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	41.9	41.9	< 0.005	< 0.005	—	42.1
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.61	0.55	0.45	4.48	0.00	0.00	0.71	0.71	0.00	0.17	0.17	—	679	679	0.06	0.03	0.07	691
Vendor	0.04	0.02	0.94	0.34	< 0.005	0.01	0.17	0.18	0.01	0.05	0.06	—	643	643	0.01	0.10	0.04	673
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.04	0.49	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	74.5	74.5	0.01	< 0.005	0.12	75.8
Vendor	< 0.005	< 0.005	0.10	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	67.9	67.9	< 0.005	0.01	0.07	71.1
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.3	12.3	< 0.005	< 0.005	0.02	12.5
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.2	11.2	< 0.005	< 0.005	0.01	11.8
Hauling	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	0.00

3.9. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

3.10. Building Construction (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.82	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.82	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.25	0.23	2.01	10.6	0.02	0.05	—	0.05	0.05	—	0.05	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.37	1.93	< 0.005	0.01	—	0.01	0.01	—	0.01	—	283	283	0.01	< 0.005	—	284
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.64	0.59	0.32	5.25	0.00	0.00	0.71	0.71	0.00	0.17	0.17	—	752	752	0.04	0.03	2.48	765
Vendor	0.04	0.02	0.84	0.31	< 0.005	0.01	0.17	0.18	0.01	0.05	0.06	—	629	629	0.01	0.10	1.40	660
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.55	0.51	0.40	4.11	0.00	0.00	0.71	0.71	0.00	0.17	0.17	—	666	666	0.03	0.03	0.06	676
Vendor	0.04	0.02	0.90	0.32	< 0.005	0.01	0.17	0.18	0.01	0.05	0.06	—	630	630	0.01	0.10	0.04	659
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.40	0.37	0.26	3.04	0.00	0.00	0.50	0.50	0.00	0.12	0.12	—	493	493	0.03	0.02	0.76	502
Vendor	0.03	0.02	0.63	0.23	< 0.005	0.01	0.12	0.13	0.01	0.03	0.04	—	450	450	0.01	0.07	0.43	471
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.05	0.55	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	81.6	81.6	0.01	< 0.005	0.13	83.1
Vendor	0.01	< 0.005	0.12	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	74.4	74.4	< 0.005	0.01	0.07	78.0

Hauling	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	0.00

3.11. Building Construction (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

3.12. Building Construction (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	0.24	2.02	10.6	0.02	0.05	—	0.05	0.05	—	0.05	—	1,717	1,717	0.07	0.01	—	1,723
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.37	1.94	< 0.005	0.01	—	0.01	0.01	—	0.01	—	284	284	0.01	< 0.005	—	285
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.59	0.56	0.29	4.84	0.00	0.00	0.71	0.71	0.00	0.17	0.17	—	737	737	0.04	0.03	2.23	749
Vendor	0.04	0.02	0.81	0.30	< 0.005	0.01	0.17	0.18	0.01	0.05	0.06	—	614	614	0.01	0.09	1.24	643
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.52	0.49	0.37	3.80	0.00	0.00	0.71	0.71	0.00	0.17	0.17	—	652	652	0.03	0.03	0.06	663
Vendor	0.04	0.02	0.87	0.31	< 0.005	0.01	0.17	0.18	0.01	0.05	0.06	—	615	615	0.01	0.09	0.03	642
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.36	0.23	2.81	0.00	0.00	0.50	0.50	0.00	0.12	0.12	—	485	485	0.02	0.02	0.69	493
Vendor	0.03	0.02	0.61	0.22	< 0.005	0.01	0.12	0.13	0.01	0.03	0.04	—	440	440	0.01	0.07	0.38	460
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.04	0.51	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	80.2	80.2	< 0.005	< 0.005	0.11	81.6
Vendor	< 0.005	< 0.005	0.11	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	72.8	72.8	< 0.005	0.01	0.06	76.2
Hauling	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	0.00

3.13. Building Construction (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

3.14. Building Construction (2029) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	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	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	0.23	2.01	10.6	0.02	0.05	—	0.05	0.05	—	0.05	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.37	1.93	< 0.005	0.01	—	0.01	0.01	—	0.01	—	283	283	0.01	< 0.005	—	284
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.55	0.52	0.26	4.46	0.00	0.00	0.71	0.71	0.00	0.17	0.17	—	722	722	0.02	0.03	2.00	734
Vendor	0.03	0.02	0.78	0.29	< 0.005	0.01	0.17	0.18	0.01	0.05	0.06	—	597	597	0.01	0.09	1.08	626
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.47	0.46	0.32	3.51	0.00	0.00	0.71	0.71	0.00	0.17	0.17	—	640	640	0.03	0.03	0.05	651
Vendor	0.03	0.02	0.83	0.31	< 0.005	0.01	0.17	0.18	0.01	0.05	0.06	—	598	598	0.01	0.09	0.03	626
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.36	0.33	0.21	2.58	0.00	0.00	0.50	0.50	0.00	0.12	0.12	—	474	474	0.02	0.02	0.62	482
Vendor	0.02	0.01	0.58	0.21	< 0.005	0.01	0.12	0.13	0.01	0.03	0.04	—	427	427	0.01	0.07	0.33	447
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.07	0.06	0.04	0.47	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	78.5	78.5	< 0.005	< 0.005	0.10	79.7
Vendor	< 0.005	< 0.005	0.11	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	70.7	70.7	< 0.005	0.01	0.05	74.0
Hauling	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	0.00

3.15. Building Construction (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

3.16. Building Construction (2030) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	0.23	2.01	10.6	0.02	0.05	—	0.05	0.05	—	0.05	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.37	1.93	< 0.005	0.01	—	0.01	0.01	—	0.01	—	283	283	0.01	< 0.005	—	284
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.50	0.49	0.23	4.13	0.00	0.00	0.71	0.71	0.00	0.17	0.17	—	709	709	0.02	0.03	1.79	721
Vendor	0.03	0.02	0.75	0.29	< 0.005	0.01	0.17	0.18	0.01	0.05	0.06	—	580	580	0.01	0.09	0.94	607
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.44	0.43	0.29	3.23	0.00	0.00	0.71	0.71	0.00	0.17	0.17	—	628	628	0.03	0.03	0.05	639
Vendor	0.03	0.02	0.80	0.30	< 0.005	0.01	0.17	0.18	0.01	0.05	0.06	—	581	581	0.01	0.09	0.02	607
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.32	0.31	0.19	2.39	0.00	0.00	0.50	0.50	0.00	0.12	0.12	—	465	465	0.02	0.02	0.55	473
Vendor	0.02	0.01	0.56	0.21	< 0.005	0.01	0.12	0.13	0.01	0.03	0.04	—	414	414	0.01	0.06	0.29	434
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.03	0.44	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	77.1	77.1	< 0.005	< 0.005	0.09	78.3
Vendor	< 0.005	< 0.005	0.10	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	68.6	68.6	< 0.005	0.01	0.05	71.8
Hauling	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	0.00

3.17. Building Construction (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

3.18. Building Construction (2031) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	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	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.22	1.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	188	188	0.01	< 0.005	—	188
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	31.1	31.1	< 0.005	< 0.005	—	31.2
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.41	0.38	0.27	2.98	0.00	0.00	0.71	0.71	0.00	0.17	0.17	—	618	618	0.02	0.03	0.04	628
Vendor	0.03	0.02	0.77	0.29	< 0.005	0.01	0.17	0.18	0.01	0.05	0.06	—	562	562	0.01	0.09	0.02	589
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.24	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	50.1	50.1	< 0.005	< 0.005	0.05	51.0
Vendor	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	44.0	44.0	< 0.005	0.01	0.03	46.0
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.30	8.30	< 0.005	< 0.005	0.01	8.44
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.28	7.28	< 0.005	< 0.005	< 0.005	7.62
Hauling	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	0.00

3.19. Paving (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

3.20. Paving (2031) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.16	0.16	1.93	10.6	0.01	0.03	—	0.03	0.03	—	0.03	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.77	0.77	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.16	1.93	10.6	0.01	0.03	—	0.03	0.03	—	0.03	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.77	0.77	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.40	2.18	< 0.005	0.01	—	0.01	0.01	—	0.01	—	310	310	0.01	< 0.005	—	311
Paving	0.16	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.40	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	51.4	51.4	< 0.005	< 0.005	—	51.6
Paving	0.03	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.02	0.44	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	80.5	80.5	< 0.005	< 0.005	0.18	81.7
Vendor	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	0.00
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.03	0.34	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	71.3	71.3	< 0.005	< 0.005	< 0.005	72.4
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.2	15.2	< 0.005	< 0.005	0.02	15.4
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.52	2.52	< 0.005	< 0.005	< 0.005	2.56
Vendor	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	0.00
Hauling	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	0.00

3.21. Architectural Coating (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

3.22. Architectural Coating (2031) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.65	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	41.9	41.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.13	0.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	27.4	27.4	< 0.005	< 0.005	—	27.5
Architectural Coatings	8.62	8.62	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.54	4.54	< 0.005	< 0.005	—	4.56
Architectural Coatings	1.57	1.57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.09	0.04	0.76	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	139	139	< 0.005	0.01	0.32	142
Vendor	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	0.00
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.13	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	26.3	26.3	< 0.005	< 0.005	0.03	26.7
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.36	4.36	< 0.005	< 0.005	< 0.005	4.43
Vendor	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	0.00
Hauling	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	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	8.46	7.90	7.25	62.3	0.15	0.12	12.6	12.7	0.11	3.19	3.30	—	14,809	14,809	0.56	0.70	46.3	15,077
Apartments Low Rise	2.63	2.45	2.25	19.3	0.05	0.04	3.89	3.93	0.04	0.99	1.03	—	4,595	4,595	0.17	0.22	14.4	4,678
Other Asphalt Surfaces	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	0.00
City Park	0.06	0.05	0.06	0.54	< 0.005	< 0.005	0.11	0.12	< 0.005	0.03	0.03	—	134	134	< 0.005	0.01	0.42	136
Total	11.1	10.4	9.56	82.2	0.19	0.16	16.6	16.7	0.15	4.21	4.36	—	19,538	19,538	0.74	0.92	61.1	19,892
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	7.63	7.04	8.30	51.9	0.13	0.12	12.6	12.7	0.11	3.19	3.30	—	13,555	13,555	0.64	0.75	1.20	13,795
Apartments Low Rise	2.37	2.18	2.57	16.1	0.04	0.04	3.89	3.93	0.04	0.99	1.03	—	4,206	4,206	0.20	0.23	0.37	4,280
Other Asphalt Surfaces	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	0.00
City Park	0.05	0.05	0.07	0.42	< 0.005	< 0.005	0.11	0.12	< 0.005	0.03	0.03	—	123	123	< 0.005	0.01	0.01	125
Total	10.0	9.27	10.9	68.4	0.18	0.16	16.6	16.7	0.15	4.21	4.36	—	17,883	17,883	0.84	0.99	1.58	18,199
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	1.38	1.28	1.40	9.43	0.02	0.02	2.20	2.23	0.02	0.56	0.58	—	2,252	2,252	0.10	0.12	3.24	2,293
Apartments Low Rise	0.39	0.36	0.40	2.68	0.01	0.01	0.63	0.63	0.01	0.16	0.17	—	640	640	0.03	0.03	0.92	652
Other Asphalt Surfaces	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	0.00
City Park	0.01	< 0.005	0.01	0.04	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	11.0	11.0	< 0.005	< 0.005	0.02	11.1
Total	1.77	1.64	1.80	12.1	0.03	0.03	2.84	2.87	0.03	0.72	0.75	—	2,903	2,903	0.12	0.15	4.17	2,955

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	2,306	2,306	0.17	0.02	—	2,316
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	435	435	0.03	< 0.005	—	437
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,741	2,741	0.20	0.02	—	2,753
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	2,306	2,306	0.17	0.02	—	2,316
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	435	435	0.03	< 0.005	—	437
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,741	2,741	0.20	0.02	—	2,753
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	382	382	0.03	< 0.005	—	384

Apartment Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	72.0	72.0	0.01	< 0.005	—	72.3
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	454	454	0.03	< 0.005	—	456

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	0.23	0.11	1.93	0.82	0.01	0.16	—	0.16	0.16	—	0.16	—	2,446	2,446	0.22	< 0.005	—	2,452
Apartments Low Rise	0.04	0.02	0.35	0.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	438	438	0.04	< 0.005	—	440
Other Asphalt Surfaces	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
City Park	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
Total	0.27	0.13	2.27	0.97	0.01	0.18	—	0.18	0.18	—	0.18	—	2,884	2,884	0.26	0.01	—	2,892
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.23	0.11	1.93	0.82	0.01	0.16	—	0.16	0.16	—	0.16	—	2,446	2,446	0.22	< 0.005	—	2,452
Apartments Low Rise	0.04	0.02	0.35	0.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	438	438	0.04	< 0.005	—	440
Other Asphalt Surfaces	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
City Park	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
Total	0.27	0.13	2.27	0.97	0.01	0.18	—	0.18	0.18	—	0.18	—	2,884	2,884	0.26	0.01	—	2,892
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.04	0.02	0.35	0.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	405	405	0.04	< 0.005	—	406
Apartments Low Rise	0.01	< 0.005	0.06	0.03	< 0.005	0.01	—	0.01	0.01	—	0.01	—	72.6	72.6	0.01	< 0.005	—	72.8
Other Asphalt Surfaces	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

City Park	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
Total	0.05	0.02	0.41	0.18	< 0.005	0.03	—	0.03	0.03	—	0.03	—	477	477	0.04	< 0.005	—	479

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.28	0.14	2.36	1.01	0.02	0.19	—	0.19	0.19	—	0.19	0.00	3,000	3,000	0.06	0.01	—	3,004
Consumer Products	10.1	10.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	0.86	0.86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.49	1.41	0.15	16.2	< 0.005	0.01	—	0.01	0.01	—	0.01	—	43.2	43.2	< 0.005	< 0.005	—	43.4
Total	12.7	12.5	2.52	17.2	0.02	0.20	—	0.20	0.20	—	0.20	0.00	3,044	3,044	0.06	0.01	—	3,047
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.28	0.14	2.36	1.01	0.02	0.19	—	0.19	0.19	—	0.19	0.00	3,000	3,000	0.06	0.01	—	3,004
Consumer Products	10.1	10.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.86	0.86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	11.2	11.1	2.36	1.01	0.02	0.19	—	0.19	0.19	—	0.19	0.00	3,000	3,000	0.06	0.01	—	3,004
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.01	0.01	0.10	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	112	112	< 0.005	< 0.005	—	112
Consumer Products	1.83	1.83	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.16	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.13	0.13	0.01	1.46	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.53	3.53	< 0.005	< 0.005	—	3.54
Total	2.14	2.12	0.11	1.50	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	115	115	< 0.005	< 0.005	—	115

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	17.0	83.2	100	1.75	0.04	—	157
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	6.20	22.8	29.0	0.64	0.02	—	49.5
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	23.2	23.2	< 0.005	< 0.005	—	23.3
Total	—	—	—	—	—	—	—	—	—	—	—	23.2	129	152	2.39	0.06	—	229
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	17.0	83.2	100	1.75	0.04	—	157
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	6.20	22.8	29.0	0.64	0.02	—	49.5
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	23.2	23.2	< 0.005	< 0.005	—	23.3
Total	—	—	—	—	—	—	—	—	—	—	—	23.2	129	152	2.39	0.06	—	229
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	2.82	13.8	16.6	0.29	0.01	—	25.9
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	1.03	3.78	4.80	0.11	< 0.005	—	8.20
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	3.83	3.83	< 0.005	< 0.005	—	3.85
Total	—	—	—	—	—	—	—	—	—	—	—	3.85	21.4	25.2	0.40	0.01	—	38.0

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	114	0.00	114	11.4	0.00	—	397
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	30.3	0.00	30.3	3.03	0.00	—	106
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.26	0.00	0.26	0.03	0.00	—	0.90
Total	—	—	—	—	—	—	—	—	—	—	—	144	0.00	144	14.4	0.00	—	504

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	114	0.00	114	11.4	0.00	—	397
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	30.3	0.00	30.3	3.03	0.00	—	106
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.26	0.00	0.26	0.03	0.00	—	0.90
Total	—	—	—	—	—	—	—	—	—	—	—	144	0.00	144	14.4	0.00	—	504
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	18.8	0.00	18.8	1.88	0.00	—	65.8
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	5.02	0.00	5.02	0.50	0.00	—	17.6
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.04	0.00	0.04	< 0.005	0.00	—	0.15
Total	—	—	—	—	—	—	—	—	—	—	—	23.9	0.00	23.9	2.38	0.00	—	83.5

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.69	2.69
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.60	0.60
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.29	3.29
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.69	2.69

Apartments	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.60	0.60
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.29	3.29
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.45	0.45
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10	0.10
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.55	0.55

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/1/2026	4/9/2026	5.00	70.0	—
Site Preparation	Site Preparation	4/10/2026	6/5/2026	5.00	40.0	—
Grading	Grading	6/6/2026	11/7/2026	5.00	110	—
Building Construction	Building Construction	11/8/2026	2/9/2031	5.00	1,110	—
Paving	Paving	2/10/2031	5/26/2031	5.00	75.0	—
Architectural Coating	Architectural Coating	5/27/2031	9/9/2031	5.00	75.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20

Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Final	2.00	8.00	367	0.40
Demolition	Excavators	Diesel	Tier 4 Final	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.00	8.00	33.0	0.73
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Tier 4 Final	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Tier 4 Final	1.00	8.00	46.0	0.45

Building Construction	Tractors/Loaders/Back	Diesel	Tier 4 Final	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Tier 4 Final	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	7.70	LDA,LDT1,LDT2
Demolition	Vendor	—	6.80	HHDT,MHDT
Demolition	Hauling	0.00	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	7.70	LDA,LDT1,LDT2
Site Preparation	Vendor	—	6.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	7.70	LDA,LDT1,LDT2
Grading	Vendor	—	6.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	130	7.70	LDA,LDT1,LDT2
Building Construction	Vendor	30.5	6.80	HHDT,MHDT

Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	7.70	LDA,LDT1,LDT2
Paving	Vendor	—	6.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	26.0	7.70	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	6.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	7.70	LDA,LDT1,LDT2
Demolition	Vendor	—	6.80	HHDT,MHDT
Demolition	Hauling	0.00	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	7.70	LDA,LDT1,LDT2
Site Preparation	Vendor	—	6.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	7.70	LDA,LDT1,LDT2
Grading	Vendor	—	6.80	HHDT,MHDT

Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	130	7.70	LDA,LDT1,LDT2
Building Construction	Vendor	30.5	6.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	7.70	LDA,LDT1,LDT2
Paving	Vendor	—	6.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	26.0	7.70	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	6.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	931,095	310,365	0.00	0.00	57,761

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	—	—
Site Preparation	—	—	60.0	0.00	—
Grading	—	—	330	0.00	—
Paving	0.00	0.00	0.00	0.00	24.4

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Single Family Housing	2.30	0%
Apartments Low Rise	—	0%
Other Asphalt Surfaces	22.1	100%
City Park	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	453	0.03	< 0.005
2027	0.00	453	0.03	< 0.005
2028	0.00	453	0.03	< 0.005
2029	0.00	453	0.03	< 0.005
2030	0.00	453	0.03	< 0.005
2031	0.00	453	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Single Family Housing	1,973	1,994	1,787	711,521	17,482	17,667	15,834	6,304,718
Apartments Low Rise	556	619	477	202,185	4,929	5,482	4,229	1,791,541
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
City Park	4.31	10.8	12.1	2,317	57.5	144	161	30,935

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Single Family Housing	1,973	1,994	1,787	711,521	17,482	17,667	15,834	6,304,718
Apartments Low Rise	556	619	477	202,185	4,929	5,482	4,229	1,791,541
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
City Park	4.31	10.8	12.1	2,317	57.5	144	161	30,935

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0

Gas Fireplaces	105
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	105
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	38
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	38
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	105
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	105
Conventional Wood Stoves	0

Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	38
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	38
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
931095	310,365	0.00	0.00	57,761

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00

Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Single Family Housing	1,857,270	453	0.0330	0.0040	7,630,799
Apartments Low Rise	350,355	453	0.0330	0.0040	1,368,008
Other Asphalt Surfaces	0.00	453	0.0330	0.0040	0.00
City Park	0.00	453	0.0330	0.0040	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Single Family Housing	1,857,270	453	0.0330	0.0040	7,630,799
Apartments Low Rise	350,355	453	0.0330	0.0040	1,368,008
Other Asphalt Surfaces	0.00	453	0.0330	0.0040	0.00
City Park	0.00	453	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	8,895,594	13,211,343
Apartments Low Rise	3,234,761	2,329,915
Other Asphalt Surfaces	0.00	0.00
City Park	0.00	7,705,117

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	8,895,594	13,211,343
Apartments Low Rise	3,234,761	2,329,915
Other Asphalt Surfaces	0.00	0.00
City Park	0.00	7,705,117

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	211	—
Apartments Low Rise	56.2	—
Other Asphalt Surfaces	0.00	—
City Park	0.47	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	211	—
Apartments Low Rise	56.2	—
Other Asphalt Surfaces	0.00	—
City Park	0.47	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit

Temperature and Extreme Heat	33.4	annual days of extreme heat
Extreme Precipitation	0.60	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	5	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	0	0	0	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	5	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	1	1	1	2
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	88.7
AQ-PM	97.9
AQ-DPM	22.7
Drinking Water	79.0
Lead Risk Housing	45.6
Pesticides	80.2
Toxic Releases	36.4

Traffic	4.76
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	30.9
Haz Waste Facilities/Generators	80.5
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	79.6
Cardio-vascular	93.1
Low Birth Weights	62.9
Socioeconomic Factor Indicators	—
Education	91.6
Housing	55.1
Linguistic	94.8
Poverty	84.9
Unemployment	63.4

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	12.83202874
Employed	20.45425382
Median HI	18.70909791
Education	—
Bachelor's or higher	2.746054151
High school enrollment	100

Preschool enrollment	44.86077249
Transportation	—
Auto Access	45.25856538
Active commuting	12.97318106
Social	—
2-parent households	42.39702297
Voting	12.19042731
Neighborhood	—
Alcohol availability	60.19504684
Park access	52.12370076
Retail density	9.072244322
Supermarket access	26.20300269
Tree canopy	4.812010779
Housing	—
Homeownership	45.46387784
Housing habitability	43.2567689
Low-inc homeowner severe housing cost burden	45.7590145
Low-inc renter severe housing cost burden	38.6629026
Uncrowded housing	24.97112794
Health Outcomes	—
Insured adults	24.03438984
Arthritis	0.0
Asthma ER Admissions	16.0
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0

Diagnosed Diabetes	0.0
Life Expectancy at Birth	1.8
Cognitively Disabled	85.7
Physically Disabled	76.0
Heart Attack ER Admissions	13.0
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	14.1
Elderly	80.7
English Speaking	22.0
Foreign-born	57.2
Outdoor Workers	24.6
Climate Change Adaptive Capacity	—
Impervious Surface Cover	80.7
Traffic Density	10.6
Traffic Access	0.0
Other Indices	—

Hardship	86.9
Other Decision Support	—
2016 Voting	17.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	82.0
Healthy Places Index Score for Project Location (b)	16.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	From Tentative Subdivision Map 6/25/25. Left population default. City park includes park and stormwater basin.
Operations: Hearths	No wood stoves

Appendix B. AERMOD and HARP2 ADMRT Results

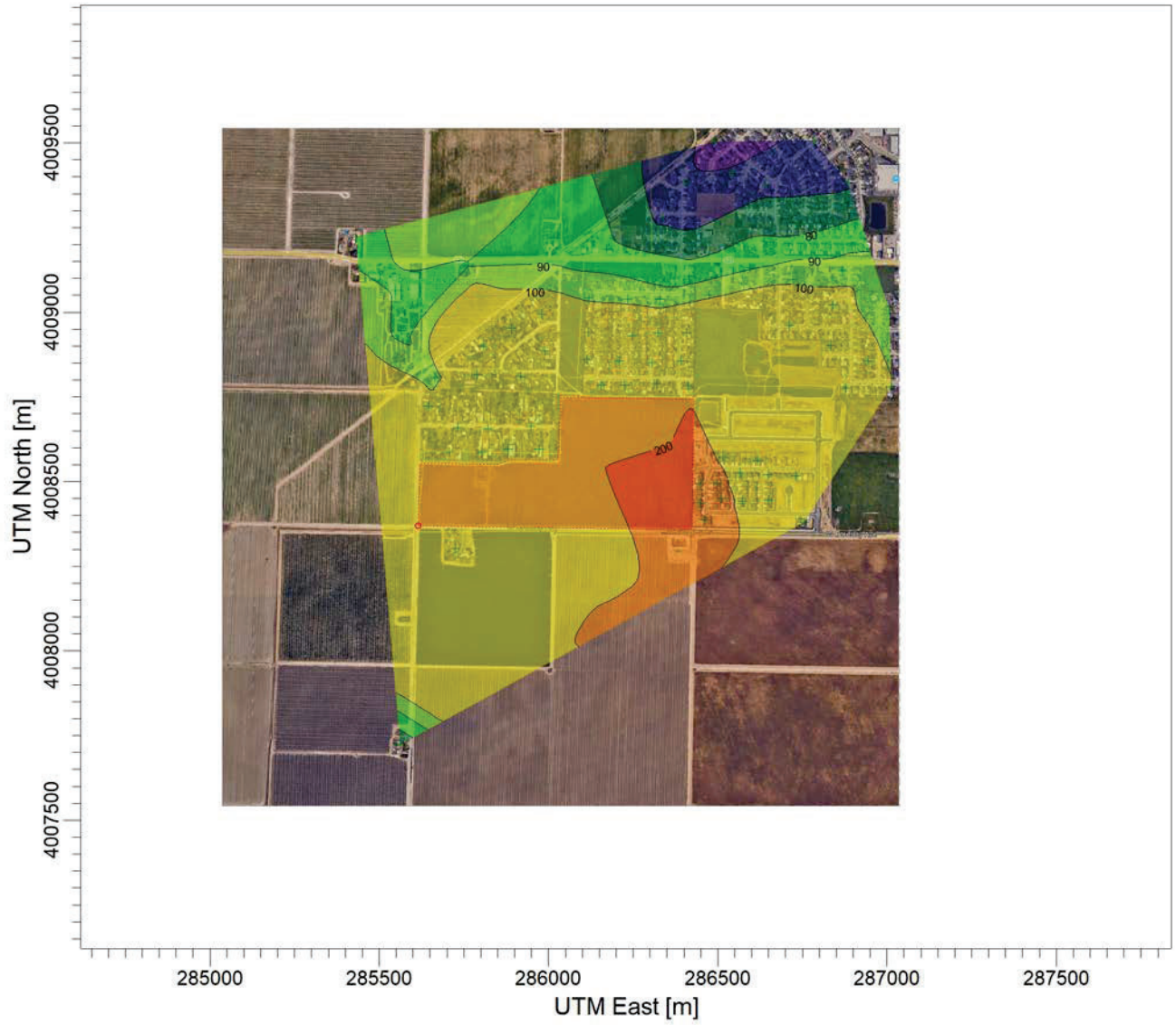
Prepared by Core Environmental Consulting:

Jesse Madsen, Owner, Principal Scien&st
Clovis, CA

September 2025

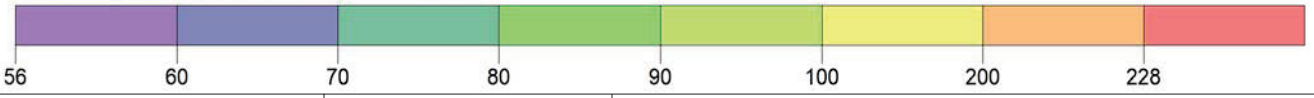
PROJECT TITLE:

C:\Lakes\AERMOD View\24014 - Sherwood HRA\24014 - Sherwood HRA.isc



PLOT FILE OF HIGH 1ST HIGH 1-HR VALUES FOR SOURCE GROUP: PAREA1 ug/m^3

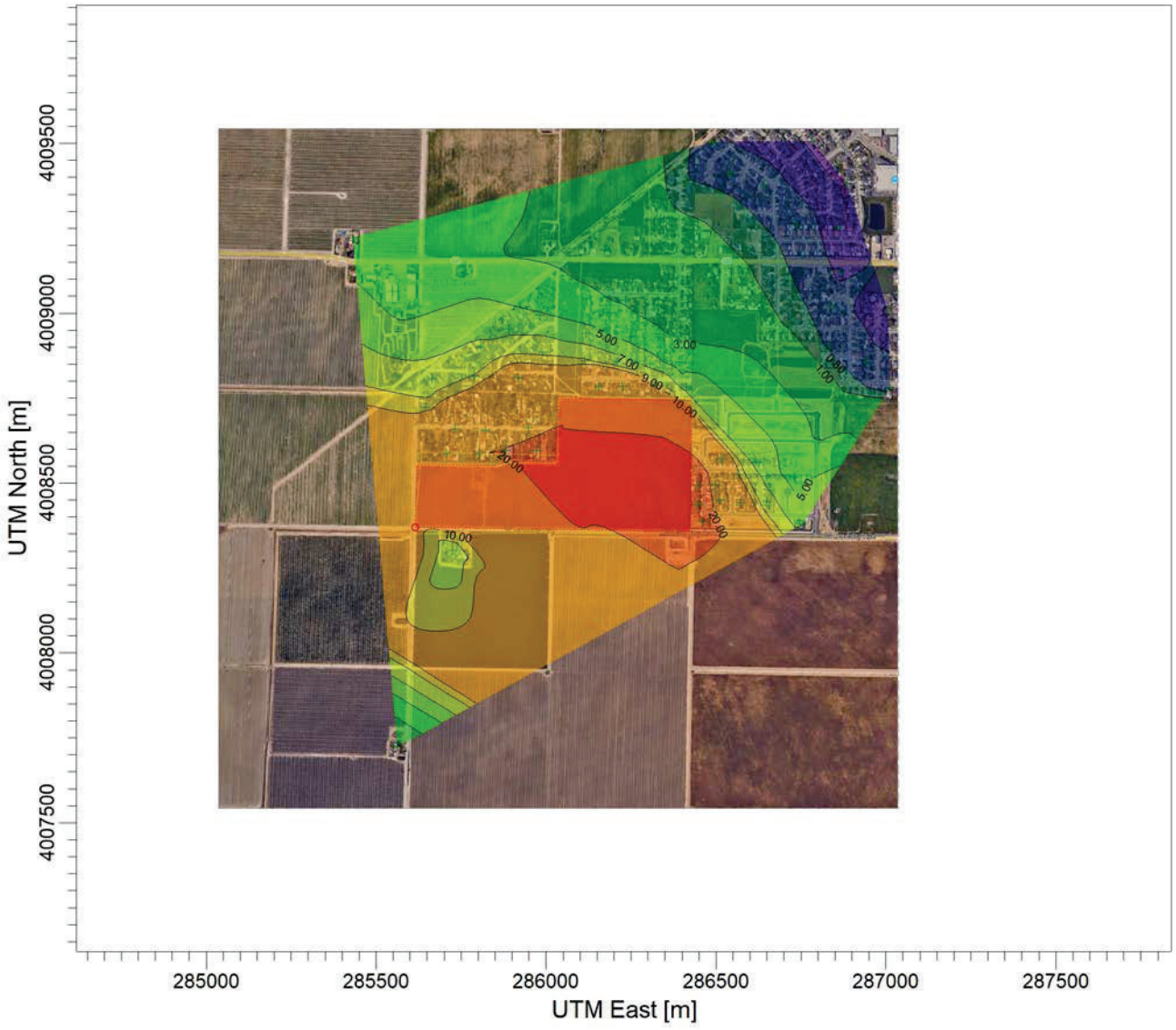
Max: 228 [ug/m^3] at (286449.02, 4008436.50)



COMMENTS:	SOURCES: **1**	COMPANY NAME:	
	RECEPTORS: **73**	MODELER:	
	OUTPUT TYPE: **Concentration**	SCALE: 1:20,265 0 0.5 km	
	MAX: **228 ug/m^3**	DATE: **9/18/2025**	PROJECT NO.:

PROJECT TITLE:

C:\Lakes\AERMOD View\24014 - Sherwood HRA\24014 - Sherwood HRA.isc

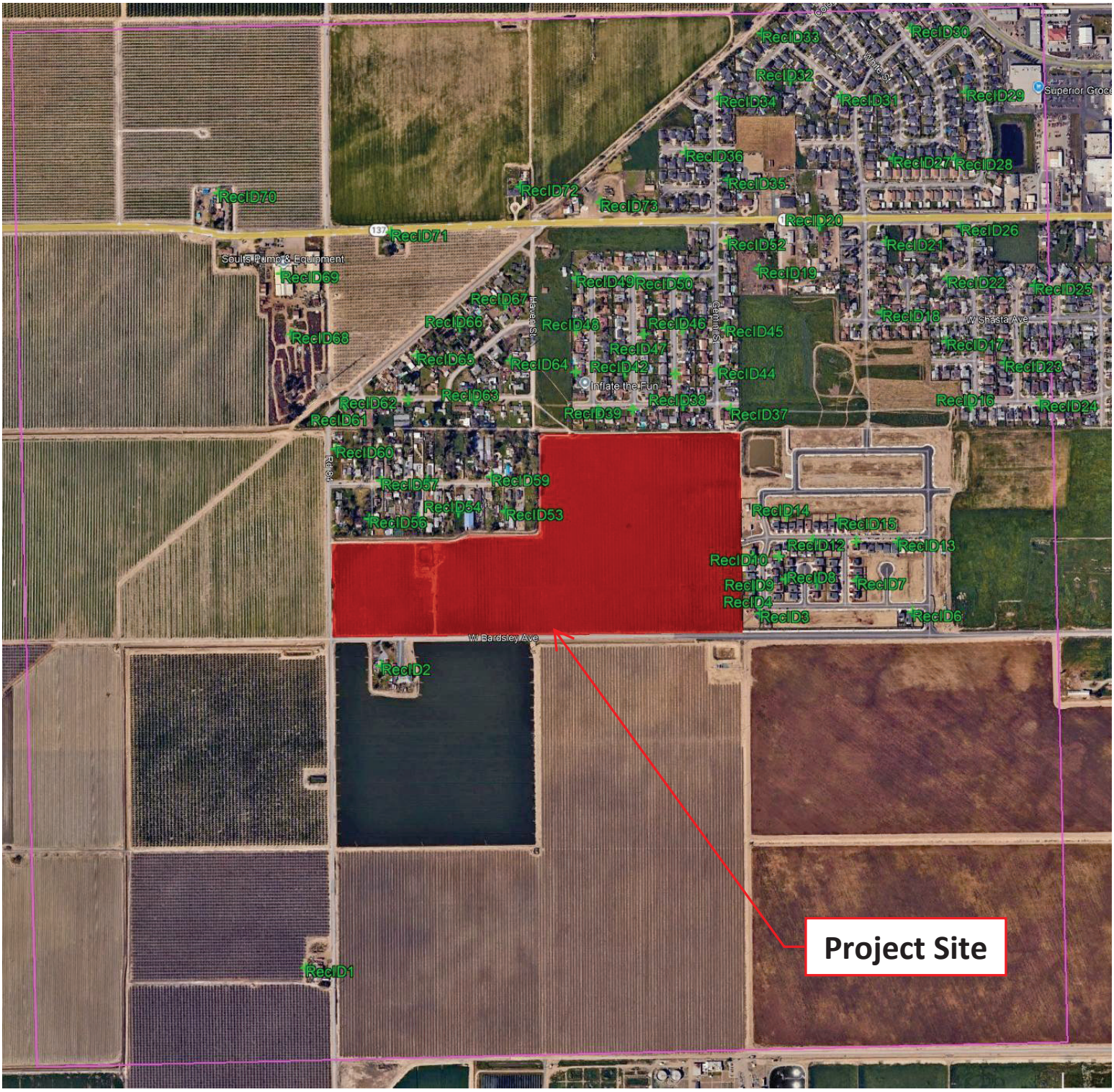


PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 4 YEARS FOR SOURCE GROUP: PAREA1 ug/m^3

Max: 26.66 [ug/m^3] at (286449.02, 4008436.50)

0.45 0.50 0.60 0.80 1.00 3.00 5.00 7.00 9.00 10.00 20.00 26.66

COMMENTS:	SOURCES: **1**	COMPANY NAME:	
	RECEPTORS: **73**	MODELER:	
	OUTPUT TYPE: **Concentration**	SCALE: 1:20,265 0 0.5 km	
	MAX: **26.66 ug/m^3**	DATE: **9/18/2025**	PROJECT NO.:



CORE ENVIRONMENTAL CONSULTING Core Environmental Consulting Clovis, CA 93612 (559) 202-3941	PROJECT NAME **Sherwood Subdivision**	DATE **9/18/25**	SCALE **NOT TO SCALE**	**RECEPTOR MAP**
	PROJECT NUMBER **24014**	DRAWN BY **JM**	LAT/LONG **36.198063, -119.379768**	

**HARP - Air Dispersion Modeling and Risk Tool v22118

**9/18/2025

**Exported Risk Results

REC	RISK_SUM	SCENARIO	INHAL_RISK
1	5.95E-08	5YrCancerDerived_Inh	5.95E-08
2	1.07E-06	5YrCancerDerived_Inh	1.07E-06
3	3.24E-06	5YrCancerDerived_Inh	3.24E-06
4	3.52E-06	5YrCancerDerived_Inh	3.52E-06
5	3.39E-06	5YrCancerDerived_Inh	3.39E-06
6	7.62E-07	5YrCancerDerived_Inh	7.62E-07
7	1.04E-06	5YrCancerDerived_Inh	1.04E-06
8	1.58E-06	5YrCancerDerived_Inh	1.58E-06
9	2.25E-06	5YrCancerDerived_Inh	2.25E-06
10	2.28E-06	5YrCancerDerived_Inh	2.28E-06
11	1.32E-06	5YrCancerDerived_Inh	1.32E-06
12	8.15E-07	5YrCancerDerived_Inh	8.15E-07
13	5.56E-07	5YrCancerDerived_Inh	5.56E-07
14	1.64E-06	5YrCancerDerived_Inh	1.64E-06
15	8.28E-07	5YrCancerDerived_Inh	8.28E-07
16	1.20E-07	5YrCancerDerived_Inh	1.20E-07
17	1.02E-07	5YrCancerDerived_Inh	1.02E-07
18	1.28E-07	5YrCancerDerived_Inh	1.28E-07
19	2.01E-07	5YrCancerDerived_Inh	2.01E-07
20	1.34E-07	5YrCancerDerived_Inh	1.34E-07
21	1.07E-07	5YrCancerDerived_Inh	1.07E-07
22	8.64E-08	5YrCancerDerived_Inh	8.64E-08
23	8.70E-08	5YrCancerDerived_Inh	8.70E-08
24	9.23E-08	5YrCancerDerived_Inh	9.23E-08
25	6.39E-08	5YrCancerDerived_Inh	6.39E-08
26	7.52E-08	5YrCancerDerived_Inh	7.52E-08
27	8.81E-08	5YrCancerDerived_Inh	8.81E-08
28	7.12E-08	5YrCancerDerived_Inh	7.12E-08
29	6.29E-08	5YrCancerDerived_Inh	6.29E-08
30	6.38E-08	5YrCancerDerived_Inh	6.38E-08
31	8.62E-08	5YrCancerDerived_Inh	8.62E-08
32	9.09E-08	5YrCancerDerived_Inh	9.09E-08
33	8.24E-08	5YrCancerDerived_Inh	8.24E-08
34	1.10E-07	5YrCancerDerived_Inh	1.10E-07
35	1.48E-07	5YrCancerDerived_Inh	1.48E-07
36	1.47E-07	5YrCancerDerived_Inh	1.47E-07
37	8.00E-07	5YrCancerDerived_Inh	8.00E-07
38	1.31E-06	5YrCancerDerived_Inh	1.31E-06
39	1.92E-06	5YrCancerDerived_Inh	1.92E-06
40	2.15E-06	5YrCancerDerived_Inh	2.15E-06

41	1.22E-06	5YrCancerDerived_Inh	1.22E-06
42	1.04E-06	5YrCancerDerived_Inh	1.04E-06
43	7.86E-07	5YrCancerDerived_Inh	7.86E-07
44	5.19E-07	5YrCancerDerived_Inh	5.19E-07
45	3.35E-07	5YrCancerDerived_Inh	3.35E-07
46	4.39E-07	5YrCancerDerived_Inh	4.39E-07
47	5.79E-07	5YrCancerDerived_Inh	5.79E-07
48	7.37E-07	5YrCancerDerived_Inh	7.37E-07
49	4.50E-07	5YrCancerDerived_Inh	4.50E-07
50	3.57E-07	5YrCancerDerived_Inh	3.57E-07
51	2.88E-07	5YrCancerDerived_Inh	2.88E-07
52	1.96E-07	5YrCancerDerived_Inh	1.96E-07
53	2.98E-06	5YrCancerDerived_Inh	2.98E-06
54	2.70E-06	5YrCancerDerived_Inh	2.70E-06
55	2.61E-06	5YrCancerDerived_Inh	2.61E-06
56	2.41E-06	5YrCancerDerived_Inh	2.41E-06
57	1.71E-06	5YrCancerDerived_Inh	1.71E-06
58	1.92E-06	5YrCancerDerived_Inh	1.92E-06
59	2.37E-06	5YrCancerDerived_Inh	2.37E-06
60	1.25E-06	5YrCancerDerived_Inh	1.25E-06
61	1.04E-06	5YrCancerDerived_Inh	1.04E-06
62	1.20E-06	5YrCancerDerived_Inh	1.20E-06
63	1.54E-06	5YrCancerDerived_Inh	1.54E-06
64	1.15E-06	5YrCancerDerived_Inh	1.15E-06
65	9.78E-07	5YrCancerDerived_Inh	9.78E-07
66	8.46E-07	5YrCancerDerived_Inh	8.46E-07
67	6.79E-07	5YrCancerDerived_Inh	6.79E-07
68	7.04E-07	5YrCancerDerived_Inh	7.04E-07
69	5.42E-07	5YrCancerDerived_Inh	5.42E-07
70	3.71E-07	5YrCancerDerived_Inh	3.71E-07
71	4.56E-07	5YrCancerDerived_Inh	4.56E-07
72	2.78E-07	5YrCancerDerived_Inh	2.78E-07

**HARP - Air Dispersion Modeling and Risk Tool v22118

**9/18/2025

**Exported Risk Results

REC	SCENARIO	RESP	MAXHI
1	NonCancerChronicDerived_Inh	2.60E-05	2.60E-05
2	NonCancerChronicDerived_Inh	0.00046434	0.00046434
3	NonCancerChronicDerived_Inh	0.0014124	0.0014124
4	NonCancerChronicDerived_Inh	0.0015339	0.0015339
5	NonCancerChronicDerived_Inh	0.0014782	0.0014782
6	NonCancerChronicDerived_Inh	0.00033213	0.00033213
7	NonCancerChronicDerived_Inh	0.00045526	0.00045526
8	NonCancerChronicDerived_Inh	0.00068973	0.00068973
9	NonCancerChronicDerived_Inh	0.00098009	0.00098009
10	NonCancerChronicDerived_Inh	0.00099208	0.00099208
11	NonCancerChronicDerived_Inh	0.00057718	0.00057718
12	NonCancerChronicDerived_Inh	0.00035519	0.00035519
13	NonCancerChronicDerived_Inh	0.00024244	0.00024244
14	NonCancerChronicDerived_Inh	0.00071429	0.00071429
15	NonCancerChronicDerived_Inh	0.00036072	0.00036072
16	NonCancerChronicDerived_Inh	5.23E-05	5.23E-05
17	NonCancerChronicDerived_Inh	4.43E-05	4.43E-05
18	NonCancerChronicDerived_Inh	5.57E-05	5.57E-05
19	NonCancerChronicDerived_Inh	8.77E-05	8.77E-05
20	NonCancerChronicDerived_Inh	5.85E-05	5.85E-05
21	NonCancerChronicDerived_Inh	4.66E-05	4.66E-05
22	NonCancerChronicDerived_Inh	3.77E-05	3.77E-05
23	NonCancerChronicDerived_Inh	3.79E-05	3.79E-05
24	NonCancerChronicDerived_Inh	4.02E-05	4.02E-05
25	NonCancerChronicDerived_Inh	2.78E-05	2.78E-05
26	NonCancerChronicDerived_Inh	3.28E-05	3.28E-05
27	NonCancerChronicDerived_Inh	3.84E-05	3.84E-05
28	NonCancerChronicDerived_Inh	3.10E-05	3.10E-05
29	NonCancerChronicDerived_Inh	2.74E-05	2.74E-05
30	NonCancerChronicDerived_Inh	2.78E-05	2.78E-05
31	NonCancerChronicDerived_Inh	3.76E-05	3.76E-05
32	NonCancerChronicDerived_Inh	3.96E-05	3.96E-05
33	NonCancerChronicDerived_Inh	3.59E-05	3.59E-05
34	NonCancerChronicDerived_Inh	4.78E-05	4.78E-05
35	NonCancerChronicDerived_Inh	6.44E-05	6.44E-05
36	NonCancerChronicDerived_Inh	6.39E-05	6.39E-05
37	NonCancerChronicDerived_Inh	0.00034872	0.00034872
38	NonCancerChronicDerived_Inh	0.00057285	0.00057285
39	NonCancerChronicDerived_Inh	0.00083717	0.00083717
40	NonCancerChronicDerived_Inh	0.00093548	0.00093548

41	NonCancerChronicDerived_Inh	0.00053367	0.00053367
42	NonCancerChronicDerived_Inh	0.00045425	0.00045425
43	NonCancerChronicDerived_Inh	0.00034258	0.00034258
44	NonCancerChronicDerived_Inh	0.00022635	0.00022635
45	NonCancerChronicDerived_Inh	0.0001459	0.0001459
46	NonCancerChronicDerived_Inh	0.00019118	0.00019118
47	NonCancerChronicDerived_Inh	0.00025247	0.00025247
48	NonCancerChronicDerived_Inh	0.00032124	0.00032124
49	NonCancerChronicDerived_Inh	0.00019603	0.00019603
50	NonCancerChronicDerived_Inh	0.00015571	0.00015571
51	NonCancerChronicDerived_Inh	0.00012551	0.00012551
52	NonCancerChronicDerived_Inh	8.56E-05	8.56E-05
53	NonCancerChronicDerived_Inh	0.0012978	0.0012978
54	NonCancerChronicDerived_Inh	0.0011776	0.0011776
55	NonCancerChronicDerived_Inh	0.0011364	0.0011364
56	NonCancerChronicDerived_Inh	0.0010499	0.0010499
57	NonCancerChronicDerived_Inh	0.00074472	0.00074472
58	NonCancerChronicDerived_Inh	0.0008364	0.0008364
59	NonCancerChronicDerived_Inh	0.0010351	0.0010351
60	NonCancerChronicDerived_Inh	0.00054339	0.00054339
61	NonCancerChronicDerived_Inh	0.00045132	0.00045132
62	NonCancerChronicDerived_Inh	0.00052208	0.00052208
63	NonCancerChronicDerived_Inh	0.00067132	0.00067132
64	NonCancerChronicDerived_Inh	0.00050061	0.00050061
65	NonCancerChronicDerived_Inh	0.00042615	0.00042615
66	NonCancerChronicDerived_Inh	0.00036854	0.00036854
67	NonCancerChronicDerived_Inh	0.00029606	0.00029606
68	NonCancerChronicDerived_Inh	0.00030664	0.00030664
69	NonCancerChronicDerived_Inh	0.00023644	0.00023644
70	NonCancerChronicDerived_Inh	0.0001618	0.0001618
71	NonCancerChronicDerived_Inh	0.00019856	0.00019856
72	NonCancerChronicDerived_Inh	0.00012124	0.00012124

HARP2 - HRACalc (dated 22118) 9/18/2025 8:31:44 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: All
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 5

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 2
2<9 Years Bin: 3
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 0

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: False
Dermal: False
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home
3rd Trimester to 16 years: OFF
16 years to 70 years: OFF

****
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to: C:\HARP2\Projects\24014 - Sherwood HRA\hra\PAREA1CancerRisk.csv
Cancer risk total by receptor saved to: C:\HARP2\Projects\24014 - Sherwood HRA\hra\PAREA1CancerRiskSumByRec.csv
Calculating chronic risk
Chronic risk breakdown by pollutant and receptor saved to: C:\HARP2\Projects\24014 - Sherwood HRA\hra\PAREA1NCChronicRisk.csv
Chronic risk total by receptor saved to: C:\HARP2\Projects\24014 - Sherwood HRA\hra\PAREA1NCChronicRiskSumByRec.csv
Calculating acute risk
Acute risk breakdown by pollutant and receptor saved to: C:\HARP2\Projects\24014 - Sherwood HRA\hra\PAREA1NCAcuteRisk.csv
Acute risk total by receptor saved to: C:\HARP2\Projects\24014 - Sherwood HRA\hra\PAREA1NCAcuteRiskSumByRec.csv
HRA ran successfully

HARP Project Summary Report 9/18/2025 8:55:38 PM

PROJECT INFORMATION
HARP Version: 22118
Project Name: 24014 - SHERWOOD HRA
Project Output Directory: C:\HARP2\Projects\24014 - Sherwood HRA
HARP Database: NA

FACILITY INFORMATION
Origin
X (m):0
Y (m):0
Zone:1
No. of Sources:0
No. of Buildings:0

EMISSION INVENTORY
No. of Pollutants:1
No. of Background Pollutants:0

Emissions

ScrID	StkID	ProID	PolID	PolAbbrev	Multi	Annual Ems (lbs/yr)	MaxHr Ems (lbs/hr)	MWAF
PAREA1	0	0	9901	DieselExhPM	1	20	0	1

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH22013
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
9901	DieselExhPM	1.1					5

AIR DISPERSION MODELING INFORMATION
Versions used in HARP. All executables were obtained from USEPA's Support Center for Regulatory Atmospheric Modeling website (http://www.epa.gov/scram001/)
AERMOD: 18081
AERMAP: 18081
BPIPPRM: 04274
AERPLOT: 13329

METEOROLOGICAL INFORMATION
Version:
Surface File:
Profile File:
Surface Station:
Upper Station:
On-Site Station:

LIST OF AIR DISPERSION FILES
AERMOD Input File:
AERMOD Output File:
AERMOD Error File:
Plotfile list
_____

LIST OF RISK ASSESSMENT FILES
Health risk analysis files (\hra\)
_____
PAREA1CancerRisk.csv
PAREA1CancerRiskSumByRec.csv
PAREA1GLCList.csv
PAREA1HRAInput.hra
PAREA1NCAcuteRisk.csv
PAREA1NCAcuteRiskSumByRec.csv
PAREA1NCChronicRisk.csv
PAREA1NCChronicRiskSumByRec.csv
PAREA1Output.txt
PAREA1PathwayRec.csv
PAREA1PolDB.csv

Spatial averaging files (\sa\)
_____