A Tradition of Stewardship
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**Planning, Building & Environmental Services**

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Napa, CA 94559
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Main: (707) 253-4417

**Brian D. Bordona**
Director

# MEMORANDUM

| | | | |
|---|---|---|---|
| To: | Planning Commission | From: | Sean Trippi, Supervising Planner |
| Date: | November 12, 2024 | Re: | Item 7A – E & P Technology Way Use Permit Applications P222-00307 & P22-00308 |

Please see the attached request for a 30-day continuance from Adams, Broadwell, Joseph, & Cardozo, letter dated November 14, 2024. Please note that the letter also states that not all documents referenced in the Mitigated Negative Declaration (MND) were publicly available, specifically the letter references the Cultural Resources Assessment.

However, all project documents are located on our website, and have been for the mandated amount of time, with the exception of the Cultural Resources Assessment which has been omitted due to the following statement on the cover of the report, prepared by FirstCarbon Solutions. "THIS REPORT CONTAINS SENSITIVE INFORMATION RELATING TO CULTURAL RESOURCES AND IS NOT INTENDED FOR PUBLIC DISTRIBUTION PURSUANT TO PUBLIC RESOURCES CODE, SECTION 21082.3(CX2). Additional authority for nondisclosure of the report includes Government Code section 7927.000 and *Clover Valley Foundation v. City of Rocklin* (2011) 197 Cal.App.4th 200.

We have also received the attached comment letter from Adams, Broadwell, Joseph, & Cardozo, dated November 19, 2024.

Also attached is a comment letter from the California Department of Fish and Wildlife (CDFW) recommending additional language regarding Burrowing Owls. Their letter has been added to the project conditions of approval 6.1 - Compliance with Other Departments Ages – Plan Review, Construction, and Preoccupancy Conditions as item "g", for both buildings.

We have also received a request for a continuance from Water Audit California (attached.)

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November 14, 2024

**Via Email and Overnight Mail**
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Planning, Building, & Environmental Services Department
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**Email:** Brian.bordona@countyofnapa.org

**Via Email Only**
Sean Trippi, Supervising Planner, Sean.trippi@countyofnapa.org

**Re: Request to Extend the Public Review and Comment Period for the Initial Study/Mitigated Negative Declaration for the E&P Technology Way - Buildings A & B (Use Permits #P22-00307 and #P22-00308) (SCH: 2024100855)**

Dear Director Bordona and Mr. Trippi:

On behalf of Napa-Solano Residents for Responsible Development ("Napa-Solano Residents"), we respectfully request that the County of Napa ("County") extend the public review and comment period for the Initial Study/Mitigated Negative Declaration (collectively, "MND")[1] prepared pursuant to the California Environmental Quality Act ("CEQA")[2] for the E&P Technology Way - Buildings A and B (Use Permits #P22-00307 and #P22-00308) (SCH: 2024100855) ("Project"), proposed by Michael Kelley ("Applicant"), **by at least thirty (30) days** due to the County's failure to provide timely access to the supporting documents for the MND.

The Project proposes to construct two separate buildings on three parcels comprising two sites: Building A is proposed on a 13.2-acre parcel on the north side of Technology Way and Morris Court (APN 057-250-030) and Building B is proposed

[1] Napa County, *Initial Study/Mitigated Negative Declaration for E&P Technology Way - Buildings A & B (Use Permits #P22-00307 and #P22-00308)* (October 2024), available at: https://ceqanet.opr.ca.gov/2024100855 (hereinafter "MND").
[2] Pub. Res. Code § 21000 *et seq.*; 14 C.C.R. §§ 15000, *et seq*.

on a 6.87-acre project site on the north side of Technology Way, opposite Gateway Road West (APN's 057-250-031, -032), which will be combined.[3] Building A is a 143,312 square foot ("SF") refrigerated wine production facility with an annual production capacity of 450,000 gallons.[4] Building B is a proposed 66,915 SF building for warehouse uses.[5]

On November 7, 2024, we submitted a letter to the County pursuant to CEQA requesting "***immediate access*** to any and all documents referenced or relied upon" in the MND ("MND reference document request").[6] CEQA requires that "all documents referenced in the draft environmental impact report or negative declaration" be available for review and "readily accessible" during the entire comment period.[7] On November 7, 2024, we also submitted a letter to the County pursuant to the California Public Records Act (Government Code §§ 7920.000, *et seq*.) ("PRA") as well as Article I, section 3(b) of the California Constitution[8] to request "*immediate access*[9] to any and all public records in the County's possession referring or related" to the Project ("PRA request").[10] The requests were sent separately to avoid confusion as to what documents and records were sought.

The County's NextRequest system sent an autoreply to acknowledge receipt of the PRA request on November 7, 2024 and sent an autoreply to acknowledge

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[3] Napa County, *Staff Report for the E&P Technology Way - Buildings A & B (Use Permits #P22-00307 and #P22-00308) Project* at p. 2 (November 8, 2024).
[4] MND at p. 1.
[5] *Id.* at p. 2.
[6] Letter to Request Immediate Access to Documents Referenced in the MND from Jeanne Grube, Adams Broadwell Joseph & Cardozo ("ABJC"), to Brian D. Bordona, Director of County of Napa Planning, Building, and Environmental Services Department, Neha Hoskins, Clerk of the Board of Supervisors, and Sean Trippi, Supervising Planner, (November 7, 2024) ("Exhibit A").
[7] Pub. Res. Code § 21092(b)(1) (stating that "all documents referenced in the draft environmental impact report or negative declaration" shall be made "available for review"); *see also* 14 C.C.R. § 15072(g)(4) (stating that all documents incorporated by reference in the MND . . . "shall be readily accessible to the public").
[8] Article I, section 3(b) provides that any statutory right to information shall be broadly construed to provide the greatest access to government information and further requires that any statute that limits the right of access to information shall be narrowly construed.
[9] Gov't Code § 7922.525(a).
[10] Letter to Request Immediate Access to Public Records from Jeanne Grube, ABJC, to Brian D. Bordona, Director of County of Napa Planning, Building, and Environmental Services Department, Neha Hoskins, Clerk of the Board of Supervisors, and Sean Trippi, Supervising Planner, (November 7, 2024) ("Exhibit B").

receipt of the MND reference document request on November 8.[11] On November 13, 2024, our office contacted the County via email to ask when records would be provided to each request.[12] The County responded that same day that a response would be provided on November 18, which is the day before the MND comment period deadline.[13] No responsive records have been produced by the County to either request as of the date of this letter.

During our review of the MND, we identified that the "First Carbon Solutions, Phase 1 Cultural Resources Assessment, dated January 20, 2023" ("Assessment") is referenced and relied upon in the MND, but has not been provided in response to our MND reference document request. This missing Assessment is critical to understanding the MND's analysis of the Project's significant impacts on cultural resources and proposed mitigation measure (CULT-1). The MND references several recommendations made by First Carbon Solutions in the Assessment to lessen the significant impacts on cultural resources and also refers to Appendix E of the Assessment, which purportedly contains the "Cultural Resources Regulations and Evaluation Criteria."[14] Yet none of this information and analysis has been provided for public review and comment during the comment period on the MND.

Without access to this assessment and its appendices during the public comment period on the MND, Napa-Solano Residents and other members of the public are deprived of having a meaningful opportunity to comment on the MND. The County's failure to make the underlying MND documents available during the entire comment period precludes Napa-Solano Residents and other members of the public from evaluating the accuracy of the County's impact analysis and the adequacy of the proposed mitigation. By failing to make all documents referenced in the MND "readily available" during the current comment period, the County is violating the clear procedural mandates of CEQA, to the detriment of Napa-Solano Residents and other members of the public who wish to meaningfully review and comment on the MND.

Accordingly, we request that:

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[11] Message from NextRequest to Jeanne Grube, ABJC re Request No. 24-924 (November 7, 2024); Message from NextRequest to Jeanne Grube, ABJC re Request No. 24-926 (November 8, 2024).
[12] Email from Jeanne Grube, ABJC, to Sean Trippi, Supervising Planner (November 13, 2024).
[13] Email from Marie E Willis, Senior Office Assistant, Planning, Building, & Environmental Services, to Jeanne Grube, ABJC (November 13, 2024).
[14] MND at p. 14.

1) the County immediately provide us with access to the missing document identified above and all documents referenced or relied upon in the MND, as requested in our November 7, 2024 MND reference document request; and

2) the County extend the public review and comment period on the MND for at least thirty (30) days from the date on which the County releases these documents for public review.

**Given the short time before the current comment deadline, please contact me as soon as possible with your response to this request, but no later than tomorrow, November 15, 2024.**

Please feel free to email with any questions at trengifo@adamsbroadwell.com. Thank you for your prompt attention and response to this matter.

Sincerely,

Tara C. Rengifo

Tara C. Rengifo

Attachments
TCR:acp

# EXHIBIT A

ADAMS BROADWELL JOSEPH & CARDOZO
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November 7, 2024

**Via Email and U.S. Mail**

Brian D. Bordona
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Neha Hoskins
Clerk of the Board of Supervisors
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clerkoftheboard@countyofnapa.org
Neha.hoskins@countyofnapa.org

**Via Email Only**

Sean Trippi, Supervising Planner
County of Napa
Sean.trippi@countyofnapa.org

**Re: Request for *Immediate Access* to Documents Referenced or Relied Upon in the Mitigated Negative Declaration (MND) (SCH: 2024100855) for the E&P Technology Way Buildings A and B (Use Permits #P22-00307 and #P22-00308)**

Dear Mr. Bordona, Ms, Hoskins, and Mr. Trippi:

We are writing on behalf of Napa-Solano Residents for Responsible Development ("Napa-Solano Residents") to request *immediate access to* a copy of any and all documents referenced or relied upon in the Mitigated Negative Declaration ("MND") (SCH:2024100855) for the E&P Technology Way Buildings A and B (Use Permits #P22-00307 and #P22-00308) Project ("Project"), proposed by Michael Kelley ("Applicant"). This excludes documents available on the County website here: https://www.pbes.cloud/index.php/s/ptc3SDW98WWmLnZ? (Building A) or https://www.pbes.cloud/index.php/s/4DJdazPtwt7P6wN (Building B).

The project proposes construction of a wine production facility (Building A) in a 143,312 SF-building with the necessary equipment for annual production of 450,000 gallons of wine. Building B proposes construction of an accompanying warehouse of 66,915 SF.

The project site is in the Napa Valley Business Park on the North side of Technology Way and Morris Court (APN 057-250-030 – Building A, and APN 057-250-031, -031 Building B).

Our request for all documents referenced or relied upon in the MND is made pursuant to the California Environmental Quality Act (CEQA"), which requires that all documents referenced, and incorporated by reference, in an environmental review document be made available to the public for the entire comment period.[1]

If the requested documents are in electronic format, please send them via a file hosting service such as Dropbox. If the electronic documents are 10 MB or less (or can be easily broken into chunks of 10 MB or less), please email them to jgrube@adamsbroadwell.com as attachments. Otherwise, please send the above requested items by U.S. Mail to our Sacramento Office as follows:

**U.S. Mail**
Jeanne K. Grube
Adams Broadwell Joseph & Cardozo
520 Capitol Mall, Suite 350
Sacramento, CA 95814

**Email**
jgrube@adamsbroadwell.com

Sincerely,

Jeanne K. Grube

Jeanne K. Grube
Paralegal

JKG:acp

[1] *See* Pub. Resources Code, § 21092, subd. (b)(1); 14 Cal. Code Reg. § 15072(g)(4) (stating that all documents incorporated by reference in the MND . . . "shall be readily accessible to the public"); *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 442, as modified (Apr. 18, 2007).

# EXHIBIT B

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November 7, 2024

**<u>Via Email and U.S. Mail</u>**

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Neha.hoskins@countyofnapa.org

**<u>Via Email Only</u>**

Sean Trippi, Supervising Planner
County of Napa
Sean.trippi@countyofnapa.org

**<u>Via Online Portal</u>**

https://countyofnapa.nextrequest.com/

**Re: <u>Request for *Immediate Access* to Public Records - E&P Technology Way Buildings A and B (Use Permits #P22-00307 and #P22-00308) (SCH: 2024100855), proposed by Michael Kelley</u>**

Dear Mr. Bordona, Ms, Hoskings, and Mr. Trippi:

We are writing on behalf of Napa-Solano Residents for Responsible Development ("Napa-Solano Residents") to request ***immediate access*** *to* any and all public records in the County of Napa's possession referring or related to the E&P Technology Way Building A and B (Use Permits #P22-00307 and #P22-00308) Project ("Project") proposed by Michael Kelley ("Applicant"). This request includes, but is not limited to, any and all file materials, applications, correspondence, resolutions, memos, notes, analysis, email messages, files, maps, charts, and any other documents related to the Project. This request excludes documents available on the County website here:

https://www.pbes.cloud/index.php/s/ptc3SDW98WWmLnZ? (Building A) or https://www.pbes.cloud/index.php/s/4DJdazPtwt7P6wN (Building B).

The project proposes construction of a wine production facility (Building A) in a 143,312 SF-building with the necessary equipment for annual production of 450,000 gallons of wine. Building B proposes construction of an accompanying warehouse of 66,915 SF.

The project site is in the Napa Valley Business Park on the North side of Technology Way and Morris Court (APN 057-250-030 – Building A, and APN 057-250-031, -031 Building B).

Napa-Solano Residents is an unincorporated association of individuals and labor organizations that may be adversely affected by the environmental and public health impacts associated with Project development. Napa-Solano Residents includes the International Brotherhood of Electrical Workers Local 180, Plumbers & Steamfitters Local 343, Sheet Metal Workers Local 104, Sprinkler Fitters Local 483, District Council of Ironworkers and their members and families; and other individuals that live and/or work in Napa County.

This request is made pursuant to the **California Public Records Act** (Government Code §§ 7920.000, *et seq*.). This request is also made pursuant to Article I, section 3(b) of the California Constitution, which provides a Constitutional right of access to information concerning the conduct of government. Article I, section 3(b) provides that any statutory right to information shall be broadly construed to provide the greatest access to government information and further requires that any statute that limits the right of access to information shall be narrowly construed.

We request *immediate access* to review the above documents pursuant to section 7922.525 of the Public Records Act, which requires public records to be "open to inspection at all times during the office hours of a state or local agency" and provides that "every person has a right to inspect any public record."[1] Therefore, the 10-day response period applicable to a "request for a copy of records" under Section 7922.535(a) does not apply to this request.

[1] Gov. Code §7922.525(a).

We request access to the above records in their original form, as maintained by the agency.[2] Pursuant to Government Code Section 7922.570, if the requested documents are in electronic format, please upload them to a file hosting program such as Dropbox, NextRequest or a similar program. Alternatively, if the electronic documents are 10 MB or less (or can be easily broken into sections of 10 MB or less), they may be emailed to me as attachments.

We will pay for any direct costs of duplication associated with filling this request up to $200. However, please contact me at (916) 444-6201 with a cost estimate before copying/scanning the materials.

Please use the following contact information for all correspondence:

**U.S. Mail**
Jeanne K. Grube
Adams Broadwell Joseph & Cardozo
520 Capitol Mall, Suite 350
Sacramento, CA 95815

**Email**
jgrube@adamsbroadwell.com

If you have any questions, please call me at (916) 444-6201 or email me at jgrube@adamsbroadwell.com. Thank you for your assistance with this matter.

Sincerely,

Jeanne K. Grube

Jeanne K. Grube
Paralegal

JKG:acp

[2] Gov. Code § 7922.570; *Sierra Club v. Super. Ct.* (2013) 57 Cal. 4th 157, 161-62.

State of California – Natural Resources Agency
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GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

November 15, 2024

Sean Trippi, Supervising Planner
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Subject: E&P Technology Way - Building A & B Use Permit #'s P22-00307-UP and P22-00308-UP (APN's: 057-250-030, -031, -032), Initial Study/Mitigated Negative Declaration, SCH No. 2024100855, Napa County

Dear Mr. Trippi:

The California Department of Fish and Wildlife (CDFW) received an Initial Study/Mitigated Negative Declaration (IS/MND) from Napa County (County) for the E&P Technology Way - Building A & B Use Permit #'s P22-00307-UP and P22-00308-UP (APN's: 057-250-030, -031, -032) (Project) pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines.

CDFW is submitting comments on the IS/MND to inform the County, as the Lead Agency, of potentially significant impacts to biological resources associated with the Project.

## CDFW ROLE

CDFW is a **Trustee Agency** with responsibility under CEQA pursuant to CEQA Guidelines section 15386 for commenting on projects that could impact fish, plant, and wildlife resources. CDFW is also considered a **Responsible Agency** if a project would require discretionary approval, such as permits issued under the California Endangered Species Act (CESA), the Lake and Streambed Alteration (LSA) Agreement, or other provisions of the Fish and Game Code that afford protection to the state's fish and wildlife trust resources.

## PROJECT DESCRIPTION SUMMARY

**Proponent:** Mike Kelly

**Objective:** The Project is limited to the development of a 143,312 square-foot wine production facility (Building A) and a 66,915 square-foot warehouse (Building B). The winery uses will include grape crushing, bulk wine processing and storage, stainless steel tank and barrel storage, bottling, and office space. In addition, approximately 13,000 square feet of covered outdoor work area will be located on the north side of the building. The Project also includes 129 parking spaces and 8 spaces for semi-trailers. Access will be provided by three new driveways: one on Technology Way and two on Morris Court.

Building B is limited to warehouse uses within the proposed 66,915 square-foot building. All vehicles will enter from a new access driveway on Technology Way that runs along the eastern property line. Trucks will be able to circulate around the building in a one-way loop, exiting at a second driveway on Technology Way on the west side of the building. The entrance driveway will be wide enough to accommodate two-way traffic.

**Location:** The Project is located on three parcels comprising two sites: Building A is proposed on a 13.2-acre parcel on the north side of Technology Way and Morris Court (APN 057-250-030), at approximately 38.22753°N and -122.26939°W; and Building B is proposed on a 6.87-acre site on the north side of Technology Way, opposite Gateway Road West (APN’s 057-250-031, -032, to be combined), at approximately 38.22677°N, -122.26638°W. A conservation easement runs along the north and northeast boundary of the Project site which includes a meandering path along the south side of Sheehy Creek.

## REGULATORY REQUIREMENT

### California Endangered Species Act

Please be advised that a CESA Incidental Take Permit (ITP) must be obtained if the Project has the potential to result in “take” of plants or animals listed or candidate species under CESA either during construction or over the life of the Project. **The Project has the potential to impact Swainson’s hawk (*Buteo swainsoni*), CESA listed as threatened species. Thank you for including mitigation measures for Swainson’s hawk. Please be advised that the California Natural Diversity Database (CNDDB) documents a nesting Swainson’s hawk record in year 2021 approximately 300 feet north of the Project site. Swainson’s hawks often utilize the same nests sites from year to year, therefore there is a high potential for nesting Swainson’s hawk to be impacted by the Project during nesting season, warranting an ITP. The Project also has the potential to impact burrowing owl (*Athene cunicularia*), a CESA candidate species, as further described below.** Issuance of an ITP is subject to CEQA documentation; the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the Project will impact CESA listed species, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required in order to obtain an ITP.

CEQA requires a Mandatory Finding of Significance if a project is likely to substantially restrict the range or reduce the population of a threatened or endangered species. (Pub.

Resources Code, §§ 21001, subd. (c) & 21083; CEQA Guidelines, §§ 15380, 15064, & 15065.). Impacts must be avoided or mitigated to less-than-significant levels unless the CEQA Lead Agency makes and supports Findings of Overriding Consideration (FOC). The CEQA Lead Agency's FOC does not eliminate the Project proponent's obligation to comply with CESA.

**Raptors and Other Nesting Birds**

CDFW has jurisdiction over actions that may result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections protecting birds, their eggs, and nests include sections 3503 (regarding unlawful take, possession or needless destruction of the nests or eggs of any bird), 3503.5 (regarding the take, possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird). Migratory birds are also protected under the federal Migratory Bird Treaty Act.

## COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist the County in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Based on the Project's avoidance of significant impacts on biological resources with implementation of mitigation measures, including those CDFW recommends below and included in **Attachment 1** Draft Mitigation Monitoring and Reporting Program, CDFW concludes that an MND is appropriate for the Project.

### I. Mitigation Measure and Related Impact Shortcoming

***MANDATORY FINDING OF SIGNIFICANCE. Does the Project have potential to substantially reduce the number or restrict the range of an endangered, rare, or threatened species?***

**COMMENT 1: Burrowing Owl**

**Issue:** Thank you for including in the IS/MND mitigation measures for burrowing owl (BUOW). However, the language in the IS/MND and the Biological Resources Analysis does not reflect the recent status change of BUOW to a CESA candidate species, and Mitigation Measure (MM) BIO-6 does not stipulate whether the Project would obtain a CESA ITP if take of BUOW may occur. Take of CESA candidate species is prohibited without a CESA take authorization from CDFW, typically an ITP. CNDDB documents a wintering BUOW record approximately 1,100 feet northeast of the Project site, within the area of potential Project disturbance.

**Recommended mitigation measure:** To reduce potential impacts to BUOW to less-than-significant and comply with CESA, CDFW recommends adding the following requirements to MM BIO-6.

> Mitigation Measure BIO-6 (Burrowing Owl Habitat Assessment and Surveys): If take of burrowing owl (BUOW) cannot be avoided, the Project shall consult with CDFW pursuant to CESA and obtain an ITP before Project activities commence. Take is likely to occur and the Project shall obtain an ITP if: 1) BUOW surveys of the Project site detect BUOW occupancy of burrows or burrow surrogates, or 2) there is sign of BUOW occupancy on the Project site within the past three years and habitat has not had any substantial change that would make it no longer suitable within the past three years. Occupancy means a site that is assumed occupied if at least one BUOW has been observed occupying a burrow or burrow surrogate within the last three years. Occupancy of suitable BUOW habitat may also be indicated by BUOW sign including its molted feathers, cast pellets, prey remains, eggshell fragments, or excrement at or near a burrow entrance or perch site. If BUOW, or their burrows or burrow surrogates, are detected within 500 meters (1,640 feet) of the Project site during BUOW surveys, but not on the Project site, the Project shall consult with CDFW to determine if avoidance is feasible, or an ITP is warranted and shall obtain an ITP if deemed necessary by CDFW.

## II. Editorial Comment

### COMMENT 2: California Endangered Species Act Incidental Take Permit

**Issue:** The IS/MND Page 2, Section 10 states: "The proposed project does not involve the "take" of listed endangered or threatened species, and thus does not require a "take permit" from the Department of Fish and Wildlife…" As discussed above, the Project has the potential to result in take of BUOW and Swainson's hawk. Furthermore, the IS/MND MM BIO-4 states: "If take of Swainson's hawk cannot be avoided, the Project shall consult with CDFW pursuant to CESA and obtain an ITP before Project activities may commence. Therefore, the Project may require a "take permit" (i.e., ITP) from CDFW.

**Recommendation:** CDFW recommends revising the above language on IS/MND Page 2, Section 10 to: "The proposed project has the potential to result in "take" of listed endangered or threatened species, or candidate species for listing, and thus may require a "take permit" from the Department of Fish and Wildlife, the U.S. Fish and Wildlife Service, or the National Marine Fisheries Service.

**ENVIRONMENTAL DATA**

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special-status species and natural communities detected during Project surveys to CNDDB. The CNDDB field survey form can be filled out and submitted online at the following link: https://wildlife.ca.gov/Data/CNDDB/Submitting-Data. The types of information reported to CNDDB can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals

**ENVIRONMENTAL DOCUMENT FILING FEES**

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of environmental document filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the environmental document filing fee is required in order for the underlying Project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.)

**CONCLUSION**

CDFW appreciates the opportunity to comment on the IS/MND to assist the County in identifying and mitigating Project impacts on biological resources.

Questions regarding this letter or further coordination should be directed to Nicholas Magnuson, Environmental Scientist, at (707) 815-4166 or Nicholas.Magnuson@wildlife.ca.gov, or Melanie Day, Senior Environmental Scientist (Supervisory), at (707) 210-4415 or Melanie.Day@wildlife.ca.gov.

Sincerely,

DocuSigned by:
*Erin Chappell*
B77E9A6211EF486...
Erin Chappell
Regional Manager
Bay Delta Region

Attachment 1: Draft Mitigation Monitoring and Reporting Program

ec: Office of Planning and Research, State Clearinghouse (SCH No. 2024100855)
Sean Kennings, LAK Associates, LLC - Sean@lakassociates.com

## ATTACHMENT

### Draft Mitigation Monitoring and Reporting Program (MMRP)

CDFW provides the following language to be incorporated into the MMRP for the Project.

| Biological Resources (BIO) | | | |
|---|---|---|---|
| **Mitigation Measure (MM)** | **Description** | **Timing** | **Responsible Party** |
| **MM BIO-6** | ***ADD THE BELOW LANGUAGE TO THE EXISTING MM BIO-6.***<br><br>Burrowing Owl Habitat Assessment and Surveys: If take of BUOW cannot be avoided, the Project shall consult with CDFW pursuant to CESA and obtain an ITP before Project activities commence. Take is likely to occur, and the Project shall obtain an ITP if: 1) BUOW surveys of the Project site detect BUOW occupancy of burrows or burrow surrogates, or 2) there is sign of BUOW occupancy on the Project site within the past three years and habitat has not had any substantial change that would make it no longer suitable within the past three years. Occupancy means a site that is assumed occupied if at least one BUOW has been observed occupying a burrow or burrow surrogate within the last three years. Occupancy of suitable BUOW habitat may also be indicated by BUOW sign including its molted feathers, cast pellets, prey remains, eggshell fragments, or excrement at or near a burrow entrance or perch site. If BUOW, or their burrows or burrow surrogates, are detected within 500 meters (1,640 feet) of the Project site during BUOW surveys, but not on the Project site, the Project shall consult with CDFW to determine if avoidance is feasible, or an ITP is warranted and shall obtain an ITP if deemed necessary by CDFW. | Prior to Ground Disturbance and During Project Construction | Project Applicant |
| **Editorial Comment** | CDFW recommends revising the language on IS/MND Page 2, Section 10 to: “The proposed project has the potential to result in “take” of listed endangered or threatened species, or candidate species for listing, and thus may require a “take permit” from the Department of Fish and Wildlife, the U.S. Fish and Wildlife Service, or the National Marine Fisheries Service. | Prior to Finalizing IS/MND | Lead Agency |

| | |
|---|---|
| **From:** | MeetingClerk |
| **To:** | Trippi, Sean; Hawkes, Trevor; Gallina, Charlene |
| **Cc:** | Parker, Michael; Quackenbush, Alexandria; Bordona, Brian |
| **Subject:** | FW: Water Audit California request for continuance for hearing on E&P TECHNOLOGY WA, currently scheduled for November 20 |
| **Date:** | Monday, November 18, 2024 4:53:18 PM |

Please see email below.

---

**From:** Valerie Stephan <vstephan@waterauditca.org>
**Sent:** Monday, November 18, 2024 4:04 PM
**To:** PlanningCommissionClerk <planningcommissionclerk@countyofnapa.org>; MeetingClerk <MeetingClerk@countyofnapa.org>
**Cc:** Water Audit California <legal@waterauditca.org>; Bordona, Brian <Brian.Bordona@countyofnapa.org>
**Subject:** Water Audit California request for continuance for hearing on E&P TECHNOLOGY WA, currently scheduled for November 20

[External Email - Use Caution]

See below from William McKinnon, Water Audit California:

Pursuant to our conversation with Brian Bordona, Water Audit California requests a continuance of the hearing on E&P TECHNOLOGY WA, currently scheduled for November 20th.

We request a continuance, to be scheduled at the Commission's convenience, to allow for time for discussions between Water Audit California and the Planning Department.

Thank you,


Valerie Stephan
Paralegal/Researcher

**WATER AUDIT CALIFORNIA** - *A California Public Benefit Corporation*
952 School Street #316, Napa, CA 94559 / phone: (707) 681-5111



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November 19, 2024

**Via Email and Overnight Mail**

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Vice Chair Heather Phillips
Commissioner Kara Brunzell
Commissioner Andrew Mazotti
Commissioner Megan Dameron
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Napa, CA 94559
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Sean Trippi, Supervising Planner
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**Re: Agenda Item #7: Comments on the Initial Study/Mitigated Negative Declaration for the E&P Technology Way - Buildings A & B (Use Permits #P22-00307 and #P22-00308) (SCH: 2024100855)**

Dear Chair Dave Whitmer, Vice Chair Heather Phillips, Commissioner Kara Brunzell, Commissioner Andrew Mazotti, Commissioner Megan Dameron, Director Bordona, Mr. Trippi, and Mr. Kennings:

On behalf of Napa-Solano Residents for Responsible Development ("Napa-Solano Residents"), we submit these comments on the Initial Study/Mitigated Negative Declaration (collectively, "MND")[1] prepared pursuant to the California Environmental Quality Act ("CEQA")[2] by Napa County ("County") for the E&P Technology Way - Buildings A and B (Use Permits #P22-00307 and #P22-00308) (SCH: 2024100855) ("Project"), proposed by Michael Kelley ("Applicant").

[1] Napa County, *Initial Study/Mitigated Negative Declaration for E&P Technology Way - Buildings A & B (Use Permits #P22-00307 and #P22-00308)* (October 2024), available at: https://ceqanet.opr.ca.gov/2024100855 (hereinafter "MND").
[2] Pub. Resources Code § 21000 *et seq.*; 14 C.C.R. §§ 15000, *et seq.*
7601-007j

The Project proposes to construct two separate buildings on three parcels comprising two sites: Building A is proposed on a 13.2-acre parcel on the north side of Technology Way and Morris Court (APN 057-250-030) and Building B is proposed on a 6.87-acre project site on the north side of Technology Way, opposite Gateway Road West (APN's 057-250-031 and -032, which will be combined).[3] Both sites are located in the Napa Valley Business Park Specific Plan ("NVBPSP") area within the IP:AC (Industrial Park: Airport Compatibility) Zoning District.[4]

Building A is a 143,312 square foot ("SF") refrigerated wine production facility with an annual production capacity of 450,000 gallons.[5] The winery uses will include grape crushing, bulk wine processing and storage, stainless steel tank and barrel storage, bottling, and office space.[6] An additional 13,000 SF of covered outdoor work area is also proposed for the north side of the building.[7] During non-harvest season, the facility will have 16 full-time and 7 part-time employees, which will increase during harvest to approximately 35 total employees.[8] Building A will have 129 parking spaces and eight (8) spaces for semi-trailers.[9]

Building B is a proposed 66,915 SF building for warehouse uses that the MND claims will be "consistent with allowable warehouse uses as outlined in Industrial Park zoning district (18.40.020) and the [NVBPSP]."[10] Building B will be utilized primarily for warehousing/distribution as well as office space.[11] The facility will be run by up to 30 employees but no user has been identified.[12] There will be no retail sales and no access for the general public.[13]

The Building A and Building B projects will be provided with water service from the City of American Canyon.[14] Napa Sanitation District will provide sewer.[15]

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[3] Napa County, *Staff Report for the E&P Technology Way - Buildings A & B (Use Permits #P22-00307 and #P22-00308) Project* at p. 2 (November 8, 2024).
[4] *Ibid.*
[5] MND at p. 1.
[6] *Ibid.*
[7] *Ibid.*
[8] *Ibid.*
[9] *Ibid.*
[10] *Id.* at p. 2.
[11] *Ibid.*
[12] *Ibid.*
[13] *Ibid.*
[14] *Ibid.*
[15] *Ibid.*

We reviewed the MND and its technical appendices with the assistance of Napa-Solano Residents' expert consultants, including air quality, public health, and greenhouse gas ("GHG") emissions expert James Clark, biological resources expert Dr. Shawn Smallwood, and transportation expert Daniel Smith. Mr. Clark's technical comments and curriculum vitae are attached hereto as Exhibit A.[16] Dr. Smallwood's technical comments and curriculum vitae are attached hereto as Exhibit B.[17] Mr. Smith's technical comments and curriculum vitae are attached hereto as Exhibit C.[18] These comment letters and all attachments thereto are incorporated by reference as if fully set forth herein.[19]

Based on our review of the MND, the MND fails as an informational document under CEQA and lacks substantial evidence to support its conclusions that the Project's significant impacts would be mitigated to less than significant levels, as asserted in the MND. The MND lacks an adequate project description and fails to adequately characterize the Project site's environmental setting. There is also substantial evidence to support a fair argument that the Project would have potentially significant environmental impacts on air quality, greenhouse gas ("GHG") emissions, biological resources, transportation, and agricultural lands. Napa-Solano Residents and their expert consultants have identified potentially significant impacts that the MND either mischaracterizes, underestimates, or fails to identify. Moreover, the mitigation measures described in the MND will not, in fact, reduce impacts to less-than-significant levels.

For the foregoing reasons and as explained in detail herein, the County must prepare an Environmental Impact Report ("EIR") for the Project before the County may consider Project approval.

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[16] Exhibit A, James Clark, *Comments on the Initial Study/Mitigated Negative Declaration for the E&P Technology Way - Buildings A & B (Use Permits #P22-00307 and #P22-00308) Project* (hereinafter "Clark Comments").
[17] Exhibit B, Dr. Smallwood, *Comments on the Initial Study/Mitigated Negative Declaration for the E&P Technology Way - Buildings A & B (Use Permits #P22-00307 and #P22-00308) Project* (hereinafter "Smallwood Comments").
[18] Exhibit C, Daniel Smith, *Comments on the Initial Study/Mitigated Negative Declaration for the E&P Technology Way - Buildings A & B (Use Permits #P22-00307 and #P22-00308) Project* (hereinafter "Smith Comments").
[19] Napa-Solano Residents reserves the right to supplement these comments, and to file further comments at any and all future proceedings and hearings related to the Project. Gov. Code § 65009(b); Pub. Res. Code § 21177(a); *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal.App.4th 1184, 1199-1203; *see also Galante Vineyards v. Monterey Water Dist*. (1997) 60 Cal.App.4th 1109, 1121.

## I. STATEMENT OF INTEREST

Napa-Solano Residents is an unincorporated association of individuals and labor organizations that may be adversely affected by the potential environmental impacts associated with Project development. Napa-Solano Residents includes members of the International Brotherhood of Electrical Workers Local 180, Plumbers & Steamfitters Local 343, Sheet Metal Workers Local 104, Sprinkler Fitters Local 483, the District Council of Ironworkers, and their members and their families, and other individuals that live and/or work in Napa County.

Napa-Solano Residents supports the development of sustainable residential, commercial, and industrial centers where properly analyzed and carefully planned to minimize impacts on public health and the environment. Developments like the Project should avoid adverse impacts to air quality, biological resources, transportation, and public health, and should take all feasible steps to ensure unavoidable impacts are mitigated to the maximum extent feasible. Only by maintaining the highest standards can development truly be sustainable.

The individual members of Napa-Solano Residents and the members of the affiliated labor organizations live, work, recreate and raise their families in and around Napa County. They would be directly affected by the Project's environmental and health and safety impacts. Individual members may also work constructing the Project itself. They would be the first in line to be exposed to any health and safety hazards which may be present on the Project site. They each have a personal interest in protecting the Project area from unnecessary, adverse environmental and public health impacts.

Napa-Solano Residents and its members also have an interest in enforcing environmental laws that encourage sustainable development and ensure a safe working environment for the members they represent. Environmentally detrimental projects can jeopardize future jobs by making it more difficult and more expensive for industry to expand in Napa County, and by making it less desirable for businesses to locate and people to live and recreate in the County, including the Project vicinity. Continued environmental degradation can, and has, caused construction moratoriums and other restrictions on growth that, in turn, reduces future employment opportunities.

Finally, Napa-Solano Residents is concerned with projects that can result in serious environmental harm without providing countervailing economic benefits. CEQA provides a balancing process whereby economic benefits, including the provision of jobs for highly trained workers, are weighed against significant impacts to the environment.[20] It is in this spirit we offer these comments.

## II. LEGAL BACKGROUND

CEQA requires that lead agencies analyze a project with potentially significant environmental impacts in an EIR.[21] The purpose of the EIR "is to inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made. Thus, the EIR 'protects not only the environment, but also informed self-government.'"[22] The EIR has been described "as an environmental 'alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return."[23]

CEQA's purpose and goals must be met through the preparation of an EIR, except in certain limited circumstances. CEQA contains a strong presumption in favor of requiring a lead agency to prepare an EIR. This presumption is reflected in the "fair argument" standard. Under that standard, a lead agency "shall" prepare an EIR whenever substantial evidence in the whole record before the agency supports a fair argument that a project may have a significant effect on the environment.[24]

In contrast, a mitigated negative declaration may be prepared only when, after preparing an initial study, a lead agency determines that a project may have a significant effect on the environment, but:

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[20] Pub. Res. Code § 21081 (a)(3); *Citizens for Sensible Development of Bishop Area v. County of Inyo* (1985) 172 Cal.App.3d 151, 171.
[21] *See* Pub. Res. Code § 21000; 14 C.C.R. § 15002.
[22] *Citizens of Goleta Valley v. Bd. of Supervisors* (1990) 52 Cal.3d 553, 564 [internal citations omitted].
[23] *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.
[24] Pub. Res. Code §§ 21080(d); 21082.2(d); 14 C.C.R. §§ 15002(k)(3), 15064(f)(1), (h)(1); *Laurel Heights Improvement Assn. v. Regents of the Univ. of Cal.* (1993) 6 Cal.4th 1112, 1123; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-151; *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1601-1602.

> (1) revisions in the project plans or proposals made by, or agreed to by, the applicant before the proposed negative declaration and initial study are released for public review ***would avoid the effects or mitigate the effects to a point where <u>clearly</u> no significant effect on the environment would occur***, and (2) there is ***no substantial evidence*** in light of the whole record before the public agency that the project, as revised, ***may*** have a significant effect on the environment.[25]

Courts have held that "[i]f no EIR has been prepared for a nonexempt project, but substantial evidence in the record supports a fair argument that the project may result in significant adverse impacts, the proper remedy is to order preparation of an EIR."[26] The fair argument standard creates a "'low threshold'" favoring environmental review through an EIR, rather than through issuance of a negative declaration.[27] An agency's decision not to require an EIR can be upheld only when there is no credible evidence to the contrary.[28]

"Substantial evidence" required to support a fair argument is defined as "enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached."[29]

According to the CEQA Guidelines, when determining whether an EIR is required, the lead agency is required to apply the principles set forth in Section 15064, subdivision (g):

> [I]n marginal cases where it is not clear whether there is substantial evidence that a project may have a significant effect on the environment, the lead agency shall be guided by the following principle: If there is disagreement

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[25] Pub. Res. Code § 21064.5 (emphasis added).
[26] *See, e.g., Communities for a Better Environment. v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 319-320.
[27] *Citizens Action to Serve All Students v. Thornley* (1990) 222 Cal.App.3d 748, 754 [internal citations omitted].
[28] *Sierra Club v. County of Sonoma* (1992) 6 Cal.App.4th 1307, 1318; *see also Friends of B Street v. City of Hayward* (1980) 106 Cal.App.3d 988, 1002 ("If there was substantial evidence that the proposed project might have a significant environmental impact, evidence to the contrary is not sufficient to support a decision to dispense with preparation of an EIR and adopt a negative declaration, because it could be 'fairly argued' that the project might have a significant environmental impact").
[29] 14 C.C.R. § 15384(a).

> among expert opinion supported by facts over the significance of an effect on the environment, the Lead Agency shall treat the effect as significant and shall prepare an EIR.[30]

With respect to this Project, the MND fails to satisfy the basic purposes of CEQA. The MND fails to adequately disclose, investigate, and analyze the Project's potentially significant impacts during construction and operation, and fails to provide substantial evidence to support its conclusions that impacts will be mitigated to a less than significant level.[31] Because substantial evidence shows that the Project may result in potentially significant impacts, a fair argument can be made that the Project may cause significant impacts requiring the preparation of an EIR.

## III. THE MND FAILS TO PROVIDE A COMPLETE PROJECT DESCRIPTION

CEQA requires that an Initial Study include a description of the project.[32] "An accurate and complete project description is necessary for an intelligent evaluation of the potential environmental impacts of the agency's action… Only through an accurate view of the project may affected outsiders and public decision-makers balance the proposal's benefit against its environmental cost, consider mitigation measures, assess the advantage of terminating the proposal … and weigh other alternatives in the balance."[33] Without a complete project description, the environmental analysis under CEQA is impermissibly limited, thus minimizing the project's impacts and undermining meaningful public review.[34]

The MND relies on an inadequate Project Description because it omits critical details about the Project's construction timeline and activities, the frequency and number of clients that will visit Building A during operations, and the construction and operation of new recycled water facilities. As a result of these deficiencies, the Project Description in the MND misleads the public by failing to describe the full scope of the Project and its impacts.

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[30] *Id.* at § 15064(g).
[31] Pub. Res. Code § 21064.5.
[32] 14 C.C.R. § 15063(d)(1).
[33] *County of Inyo,* 71 Cal.App.3d at 192-193.
[34] *See, e.g., Laurel Heights Improvement Assn. v. Regents of the Univ. of Cal.* (1988) 47 Cal.3d 376.

First, the MND's Project Description fails to provide information regarding the Project's construction timeline or identify the activities during construction. The Project Description must disclose the timeline for construction, the construction activities that will occur and equipment to be utilized during each construction phase, the start date for construction, and if construction will occur simultaneously for both buildings. The failure to provide this information in the Project Description affects the impacts analysis related to air quality, public health, GHG emissions, and biological resources, among others.

Construction activities require soil disturbing activities, heavy equipment, and numerous hauling truck trips that can significantly impact air quality and public health. An adequate description of the Project's construction period is critical to an informed analysis of the Project's impacts on air quality and public health during construction. Omitting this information in the Project Description also precludes any evaluation of construction-related air quality and GHG emissions. The lack of information concerning the Project's construction phase also severely affects the MND's biological resources impacts analysis. When and where construction activities may occur can directly impact the Project's effects on biological resources such as migratory birds. The County's own evidence acknowledges that avian species have the potential to nest on the Project site, yet the MND lacks any analysis about whether ground-disturbing activities could commence during the nesting season (February 1 through August 31).[35]

Second, the Project Description fails to provide details about the expected visitors to Building A during Project operations. The MND explains that clients will travel onsite to meet with distributors, restaurants, wine shop owners, and other wine buyers but no other information is provided about these visits.[36] Daniel Smith, Napa-Solano Residents' transportation expert, comments that details about the frequency of these visitor meetings and the estimated number of visitors must be disclosed in the Project Description to allow for an adequate analysis of the Project's VMT impacts.[37] The VMT analysis for the Project only evaluates full time and part time employees, even though the Napa County Winery Trip Generation Worksheet relied upon in the trip generation analysis has a line item for "maximum daily

[35] First Carbon Solutions, *Biological Resources Analysis* at p. 34 (January 30, 2024; updated February 21, 2024).
[36] MND at 2.
[37] Smith Comments at p. 2.

visitation."[38] The MND confirms visitor trips will occur as part of the Project yet improperly omits these trips from the VMT analysis.[39] Mr. Smith concludes that the Project Description as well as the transportation impact analysis is deficient in omitting this information.

Finally, since the Project site is within NapaSan's recycled water service area, the Project is required to install new facilities to utilize recycled water for landscape irrigation.[40] Yet the Project Description omits any discussion about the construction and operation of these new recycled water facilities, which are required for the Project.[41] As of 2023, the Project had requested service for approximately 3.2 acres of landscaping with a recycled water demand of approximately 5.4 acre-feet per year.[42] To be serviced by the existing NapaSan recycled water service area, the Project may need to construct new pipelines, install service connections, add metering devices, install on-site storage tanks, and retrofit the irrigation system to handle recycled water. The construction and operation of these Project components must be evaluated in the MND as part of the whole of the action. Construction of these facilities may worsen the impacts on air quality, noise, biological resources, and transportation. During operations, pumps or other parts of the facilities may require electricity, thereby increasing energy impacts. Thus, information regarding the facilities that must be installed for the Project to use recycled water from NapaSan for landscape irrigation must be disclosed in the Project Description and analyzed to determine the significance of environmental impacts.

A complete Project Description is necessary to ensure informed decision making and meaningful public review.[43] Approving a project without having identified and mitigated all of the project's significant environmental effects violates CEQA's requirements. An EIR must be prepared which fully discloses all components of the Project.

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[38] W-Trans, *Transportation Impact Study* at Appendix C (November 21, 2023); Smith Comments at p. 2.
[39] *Ibid.*
[40] Letter to the Napa County Planning, Building & Environmental Services from Gavin Glascott, Assistant Civil Engineer at NapaSan at p. 2 (February 1, 2023).
[41] *Ibid.*
[42] *Ibid.*
[43] *Dry Creek Citizens Coalition v. County of Tulare* (1999) 70 Cal.App.4th 20, 26.

## IV. THE MND FAILS TO ADEQUATELY DESCRIBE THE ENVIRONMENTAL SETTING FOR BIOLOGICAL RESOURCES

The MND fails to adequately describe the environmental setting against which the Project's impacts on biological resources are to be measured. This contravenes the fundamental purpose of the environmental review process, which is to determine whether there is a potentially substantial, adverse change compared to the existing setting. [44] CEQA requires that a lead agency include a description of the physical environmental conditions, or "baseline," in the vicinity of the project as they exist at the time environmental review commences.[45] As the courts have repeatedly held, the impacts of a project must be measured against the "real conditions on the ground."[46] The description of the environmental setting constitutes the "baseline" physical conditions against which the lead agency assesses the significance of a project's impacts.[47] An environmental setting is required "to give the public and decision makers the most accurate and understandable picture practically possible of the project's likely near-term and long-term impacts.[48]

To establish the Project's baseline for biological resources, a Biological Resources Analysis was prepared earlier this year that reviewed the California Natural Diversity Database ("CNDDB") polygons that overlap with the Project site and relied on a wildlife and botanical survey performed on December 8, 2022—nearly two years ago.[49] Based on the Biological Resource Analysis, the MND describes the Project site as having been impacted by disking and a lack of vegetation.[50]

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[44] 14 C.C.R. § 15063(d).
[45] 14 C.C.R. § 15125(a); *Communities for a Better Environment v. South Coast Air Quality Management Dist*. (2010) 48 Cal. 4th 310, 321.
[46] *Id.*; Save *Our Peninsula Com. v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 121-22; *City of Carmel-by-the-Sea v. Bd. of Supervisors of Monterey County* (1986) 183 Cal.App.3d 229, 246.
[47] 14 C.C.R. § 15125(a); *Communities for a Better Environment v. South Coast Air Quality Management Dist.*, 48 Cal. 4th at 321.
[48] 14 C.C.R. § 15125(a).
[49] MND at p. 10.
[50] *Ibid.* Notably, the NVBPSP describes the area as containing grassland that provide "principal habitat" for several birds and mammals as well as hunting and feeding ground for other wildlife. Napa County, *Napa Valley Business Park Specific Plan & EIR* at pp. 249-250 (Adopted July 29, 1986; amended thru October 22, 2013).

Dr. Smallwood recognizes that the characterization of the environmental setting, including the regional setting, is essential for proper CEQA analysis. These steps typically include (1) surveys of the site for biological resources, and (2) reviews of literature, databases, and local experts for documented occurrences of special-status species.[51] With regards to the Project's biological resources survey, Dr. Smallwood's comments provide substantial evidence that the survey is inadequate to establish the environmental setting for several reasons.[52] For example, Dr. Smallwood comments that the duration of the December 2022 biological resources survey is unknown, the proper California Department of Fish and Wildlife ("CDFW") guidelines were not implemented for rare plants, and surveys were not performed for bats and reptiles.[53]

Dr. Smallwood's comments also identify several issues with the Project's desktop review.[54] By way of example, the Biological Resources Analysis relied upon the CNDDB to identify documented occurrences of special-status species, but as Dr. Smallwood comments, the desktop review did not also involve a search of eBird or iNaturalist.[55] A more complete database review would have shown that some of the species omitted from consideration in the Biological Resources Analysis have actually been recorded on the Project site, according to Dr. Smallwood.[56] Moreover, of the 31 species identified in the MND as having a very low occurrence potential, Dr. Smallwood emphasizes that three of those species have been documented on the Project site and of the 13 species determined to have no potential to occur on the site, one of those species was documented on the site.[57]

Furthermore, based on his own survey efforts in the area and database reviews, Dr. Smallwood determines that there are around 125 special-status species known to occur within sufficient proximity to the Project site.[58] Of those 125 special-status species, Dr. Smallwood states that 8 species were recorded on or adjacent to the Project site, 46 species were documented within 1.5 miles of the site, 25 species were within 1.5-4 miles of the site, and 41 were identified within 4-30 miles of the

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[51] Smallwood Comments at p. 1.
[52] *Id.* at pp. 2, 11.
[53] *Id.* at p. 11.
[54] *Id.* at pp. 11-23.
[55] *Id.* at p. 11.
[56] *Id.* at p. 12.
[57] *Ibid.*
[58] *Id.* at p. 12.

site.[59] While the Project's survey effort only resulted in the detection of 13 taxa of vertebrate wildlife, Dr. Smallwood has detected 69 species of vertebrate wildlife—of which 13 species were special-status species—during visual-scan surveys at three locations within 700 m of the Project site.[60] Dr. Smallwood has also surveyed for biological resources at three locations around 2.7 miles south/southeast of the Project site where he, along with the other consulting firms, detected 44 species of vertebrate wildlife.[61]

For the foregoing reasons, Dr. Smallwood concludes that the MND and Biological Resources Analysis fail to accurately describe the Project's environmental setting for biological resources.[62] Dr. Smallwood's own desktop review and survey efforts demonstrate that the Project site supports multiple special-status species of wildlife that are not disclosed and analyzed in the MND.[63] These errors and omissions in the baseline for biological resources prevents the County from adequately assessing impacts to the existing environment at the Project site. The environmental setting and impacts analysis must be adequately disclosed and analyzed in an EIR.

## V. AN EIR IS REQUIRED BECAUSE THERE IS SUBSTANTIAL EVIDENCE SUPPORTING A FAIR ARGUMENT THAT THE PROJECT MAY HAVE SIGNIFICANT IMPACTS

An MND is improper, and an EIR must be prepared, whenever it can be fairly argued on the basis of substantial evidence that the project may have a significant environmental impact.[64] "[S]ignificant effect on the environment" is defined as "a substantial, or potentially substantial, adverse change in the environment."[65] An effect on the environment need not be "momentous" to meet the

[59] *Ibid.*
[60] *Id.* at p. 2.
[61] *Ibid.*
[62] *Id.* at p. 12.
[63] *Ibid.*
[64] Pub. Res. Code § 21151; 14 C.C.R. § 15064(f)(1); *Citizens for Responsible Equitable Envt'l Dev. v. City of Chula Vista* (2011) 197 Cal.App.4th 327, 330-31; *Communities for a Better Env't v. South Coast Air Quality Mgmt. Dist.* (2010) 48 Cal.4th 310, 319.
[65] Pub. Res. Code § 21068; 14 C.C.R. § 15382.

CEQA test for significance; it is enough that the impacts are "not trivial."[66] Substantial evidence, for purposes of the fair argument standard, includes "fact, a reasonable assumption predicated upon fact, or **expert opinion** supported by fact."[67]

Moreover, the failure to provide information required by CEQA is a failure to proceed in the manner required by CEQA.[68] Challenges to an agency's failure to proceed in the manner required by CEQA, such as the failure to address a subject required to be covered in an MND or to disclose information about a project's environmental effects or alternatives, are subject to a less deferential standard than challenges to an agency's factual conclusions.[69] Even when the substantial evidence standard is applicable to agency decisions to certify an MND and approve a project, reviewing courts will not "'uncritically rely on every study or analysis presented by a project proponent in support of its position. A clearly inadequate or unsupported study is entitled to no judicial deference.'"[70]

### A. Substantial Evidence Supports a Fair Argument that the Project's Impacts on Air Quality are Potentially Significant

The MND lacks substantial evidence to support its conclusion that the Project would result in less-than-significant impacts on air quality.[71] The MND does not include any modeling of the Project's emissions during construction or operations as is typically done in CEQA documents to evaluate a project's air quality impacts; however, James Clark performed detailed emissions calculations using CalEEMod.[72] Based on his modeling, Mr. Clark identifies a potentially significant air quality impact during the construction phase of the Project.[73] Mr. Clark finds that the Project's emissions of reactive organic gases ("ROGs") during the architectural coating phase in summer months would exceed the Bay Area Air Quality Management District's ("BAAQMD") significance threshold unless

[66] *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 83.
[67] Pub. Res. Code § 21080(e)(1) (emphasis added).
[68] *Sierra Club v. State Bd. Of Forestry* (1994) 7 Cal.4th 1215, 1236.
[69] *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 435.
[70] *Berkeley Keep Jets Over the Bay Committee v. Board of Port Com'rs* (2001) 91 Cal.App.4th 1344, 1355 [internal citations omitted].
[71] MND at pp. 5-8.
[72] Clark Comments at p. 5.
[73] *Ibid.*

mitigation is imposed.[74] Mr. Clark recommends imposing a mitigation measure that requires the use of architectural coating products that have Volatile Organic Compound ("VOC") contents of less than 50 grams per liter to reduce the ROG emissions to 49.9 lbs. per day, which is under the BAAQMD threshold of significance.[75]

Notably, Mr. Clark's emission calculations do not include all of the Project' construction emissions due to missing details about the grading activities for the construction of the Project's bioretention basins, storm drain pipelines, wastewater and water system infrastructure improvements.[76] The Project's air quality impacts may be more severe and require additional mitigation measures upon a complete analysis of all of the Project's emissions.

**B. Substantial Evidence Supports a Fair Argument that the Project's Impacts on Greenhouse Gas Emissions are Potentially Significant**

The MND lacks substantial evidence to support its conclusion that the Project would not have a significant impact on GHG emissions based on a qualitative analysis of the Project's GHG emissions.[77] To support the less-than-significant determination, the MND relies on the Project's adherence to BAAQMD design standards, the California Building Code requirements, and the County's conditions of approval.[78] More specifically, the Planning Commission Staff Report for the Project explains that "[t]he applicant intends to implement the following GHG reduction methods for both buildings: generation of onsite renewable energy; habitat restoration/new vegetation; electric forklifts, build to CALGREEN Tier 1 standards; solar hot water heating; exceed Title 24 energy efficiency standards; energy conserving lighting; energy star/cool roofing; bicycle incentives; connection to recycled water; water efficient fixtures; low-impact development (LID); water efficient landscape; electric vehicle charging station installation; design to maximize

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[74] *Ibid.*
[75] *Ibid.*
[76] *Ibid.*
[77] MND at pp. 17-18.
[78] *Id.* at p. 18.

daylighting of interior spaces; and, limited grading. A condition of approval is included to require implementation of the checked Voluntary Best Management Practices Measures submitted with the project application."[79]

Mr. Clark reviewed the applications for Building A and Building B and found that minimal Voluntary Best Management Practices Measures had been selected by the Applicant.[80] These measures are limited to energy conserving lighting, installation of water efficient fixtures, water efficient landscape, planting of shade trees within 40 feet of the south side of the building elevation, and electric vehicle ("EV") charging, specifically, dedicated parking provided for future EV charging stations.[81] Only this limited set of measures will actually be implemented by the Applicant to reduce the Project's GHG emissions, and only these measures will be included as conditions of approval for the Project.[82] According to Mr. Clark, and contrary to statements in the Staff Report, "the Project will not involve the generation of onsite renewable energy; habitat restoration/new vegetation; electric forklifts, build to CALGREEN Tier 1 standards; solar hot water heating; exceed Title 24 energy efficiency standards; energy star/cool roofing; bicycle incentives; connection to recycled water; low-impact development (LID); design to maximize daylighting of interior spaces; and, limited grading to reduce impacts from GHG emissions."[83] There is no evidence that such measures will be required for Project operations.

Mr. Clark therefore concludes that "[t]o the extent that these additional GHG reduction strategies are necessary to reduce the Project's GHG emissions to less than significant levels but are not required by the Project's Conditions of Approval, the Project will have a significant and unmitigated impact on GHG emissions that must be evaluated in an EIR."[84]

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[79] Napa County, *Staff Report for the E&P Technology Way - Buildings A & B (Use Permits #P22-00307 and #P22-00308)* at p. 8 (November 20, 2024).
[80] Clark Comments at p. 3.
[81] *Ibid.*
[82] *Ibid.*
[83] *Id.* at pp. 3-4.
[84] *Ibid.*

### C. Substantial Evidence Supports a Fair Argument that the Project's Impacts on Biological Resources are Potentially Significant

The MND lacks substantial evidence to support its conclusion that with the adoption of mitigation measures, the Project would not result in impacts on biological resources.[85] The Biological Resources Analysis acknowledges that the Project would result in the loss of non-native grassland, and ruderal habitats, but fails to adequately assess the potentially significant impacts from this habitat loss, as supported by Dr. Smallwood's comments.[86] Dr. Smallwood explains that habitat loss can cause "the immediate numerical decline of wildlife."[87] Through his own study, Dr. Smallwood has measured and quantified the impacts of habitat loss from development projects on wildlife and found that development—even with mitigation measures—results in a 66% loss of species on the site and a 48% loss of species in the project area.[88]

Dr. Smallwood also comments that habitat loss can "result[] in the permanent loss of productive capacity."[89] He explains that "[h]abitat fragmentation multiplies the negative effects of habitat loss on the productive capacities of biological species by preventing recruitment to habitat patches that have become too isolated or too small [internal citations omitted]."[90] Dr. Smallwood estimates that the annual loss of birds from the Project could be over 1,000 birds, many of which are otherwise protected by the state and federal Migratory Bird Treaty Acts.[91] Dr. Smallwood therefore concludes that the Project may result in a significant impact on biological resources.[92]

Dr. Smallwood also comments that Project-generated traffic may significantly impact biological resources on and even beyond the Project footprint including, but not limited to, California tiger salamander, California red-legged frog, and American badger.[93] "Vehicle collisions have accounted for the deaths of many

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[85] MND at pp. 9-11.
[86] Smallwood Comments at p. 23.
[87] *Id.* at p. 24.
[88] *Id.* at pp. 23-24.
[89] *Id.* at p. 24.
[90] *Ibid.*
[91] *Id.* at p. 25.
[92] *Ibid.*
[93] *Ibid.*

thousands of amphibian, reptile, mammal, bird, and arthropod fauna, and the impacts have often been found to be significant at the population level [internal citations omitted]."[94] A study of traffic-caused wildlife mortality in Contra Costa County, California found 1,275 carcasses of 49 species of mammals, birds, amphibians, and reptiles over a 15 month period.[95] Based on Dr. Smallwood's estimates of traffic-related mortality from this Project, and the lack of any mitigation measures to reduce these impacts, Dr. Smallwood concludes that Project-generated traffic may cause significant impacts to biological resources that are not disclosed, analyzed, or mitigated in the MND.[96]

Dr. Smallwood also provides comments on several of the proposed mitigation measures for the Project's significant impacts on biological resources.[97] First, MM BIO-1 requires the installation of silt fencing along the conservation easement boundary to the riparian corridor.[98] Dr. Smallwood recommends that the silt fence be installed 300 feet from the southern edge of the top of bank of Sheehy Creek to lessen significant impacts to terrestrial wildlife along the riparian corridor.[99] His recommendation is based on a study which found that from the edge of an aquatic site, core terrestrial habitat can span from 159 to 209 m for amphibians and from 127 to 289 m for reptiles.[100]

Second, for MM BIO-2 requiring a preconstruction survey for rare plants, Dr. Smallwood explains that the cited CDFW rare plant survey guidelines are for a reconnaissance survey that should be utilized to support preparation of the CEQA environmental review document and not a preconstruction survey for rare plants.[101]

Third, MM BIO-3 would require implementation of a preconstruction survey for nesting birds and if nests are identified, buffers must be established around the nests from construction activities.[102] Dr. Smallwood comments that the mitigation measure will not reduce the potentially significant impacts from habitat loss that he details in his comments to less-than-significant levels and that the measure

[94] *Ibid.*
[95] *Id.* at p. 26.
[96] *Id.* at p. 27.
[97] *Id.* at pp. 27-28.
[98] MND at 11.
[99] Smallwood Comments at p. 27.
[100] *Ibid.*
[101] *Ibid.*
[102] MND at pp. 11-12.

requires additional objective criteria to be effective, particularly regarding the determination of the buffer area size for any given species.[103] Without such objective criteria, the measure's efficacy is questionable and it cannot be enforced.

Fourth, MM BIO-6 concerns burrowing owls and Dr. Smallwood explains that given the recent designation of burrowing owl as candidate for Threatened or Endangered status under the California Endangered Species Act ("CESA"), no take of burrowing owls is allowed and "detection surveys are needed during both the non-breeding and breeding periods, as well as a preconstruction take-avoidance survey."[104]

Finally, Dr. Smallwood identifies issues with the proposed mitigation measure to install exclusion fencing during the wet season in MM BIO-8.[105] He explains that unless a one-way passage is enabled, the proposed fencing could trap amphibians on the Project site. Additionally, Dr. Smallwood determines that MM BIO-8 "would not avoid substantial, highly significant impact[s] to amphibians such as to foothill yellow-legged frog. Compensatory mitigation would be warranted."[106]

For the foregoing reasons, Dr. Smallwood's comments provide substantial evidence supporting a fair argument that the Project's impacts on biological resources may be significant and unmitigated. An EIR must be prepared to evaluate the Project's potentially significant impacts on biological resources and all feasible mitigation measures.

### D. Substantial Evidence Supports a Fair Argument that the Project's Impacts on Transportation are Potentially Significant

The MND fails to provide substantial evidence to support its conclusion that the Project would not result in significant transportation impacts after the implementation of MM TRANS-1.[107]

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[103] Smallwood Comments at p. 28.
[104] *Ibid.*
[105] *Ibid.*
[106] *Ibid.*
[107] MND at pp. 25-28.

First, Mr. Smith demonstrates that the MND improperly segments the Project's VMT impacts by separately analyzing impacts of Building A and Building B.[108] This piecemealing of the environmental review of the Project violates CEQA.[109] A project under CEQA means the "whole of an action which has the potential for resulting in either a direct physical change in the environment, or reasonably foreseeable indirect physical change in the environment."[110] CEQA prohibits segmenting the review of the significant environmental impacts of a project.[111] CEQA mandates "that 'environmental considerations do not become submerged by chopping a large project into many little ones—each with a minimal potential impact on the environment—which cumulatively may have disastrous consequences.'"[112] Public agencies must construe the project broadly to capture the whole of the action and its environmental impacts.[113]

Before undertaking a project, the lead agency must assess the environmental impacts of all reasonably foreseeable phases of a project and a public agency may not segment a large project into two or more smaller projects in order to mask serious environmental consequences.[114] "The CEQA process is intended to be a careful examination, fully open to the public, of the environmental consequences of a given project, covering the entire project, from start to finish."[115]

Here, however, Mr. Smith explains that while the MND's air quality analysis is based on the Project's total weekday trip estimate of 218 trips, the transportation analysis piecemeals the daily trip estimates for Building A from Building B's trips and fails to consider the VMT impacts from the whole Project.[116] The MND utilizes the County's current Transportation Impact Study Guidelines' threshold of significance, which requires a project to prepare a Transportation Impact Study if it

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[108] Smith Comments at pp. 1-2.
[109] *Ibid.*
[110] 14 C.C.R. § 15378(a).
[111] *Laurel Heights Improvement Assn.,* 47 Cal. 3d at 396; *See also* Pub. Res. Code § 21002.1(d).
[112] *Id.*; *See also City of Santee v. County of San Diego* (1989) 214 Cal.App.3d 1438, 1452; *Citizens Assn. for Sensible Development of Bishop Area v. County of Inyo* (1985) 172 Cal.App.3d 151, 165.
[113] 14 C.C.R. § 15378.
[114] *See Citizens Assn. for Sensible Development of Bishop Area,* 172 Cal. App. 3d at 165–168.
[115] *Natural Resources Defense Council v. City of Los Angeles* (2002) 103 Cal.App.4th 268; *See also Whitman v. Board of Supervisors* (1979) 88 Cal.App.3d 402 (EIR for an exploratory oil well that failed to analyze the impacts associated with an proposed pipeline was inadequate and violated CEQA).
[116] Smith Comments at pp. 1-2; MND at p. 7-8, 26.

generates 110 or more net new daily vehicle trips.[117] Building A is estimated to generate an average of 71 daily trips during non-harvest months and 104 trips per day during harvest months.[118] Both estimates are under the threshold of significance.[119] Building B is anticipated to generate 114 trips per day, which exceeds the threshold and triggers the requirement for a Transportation Demand Management Plan as mitigation (MM TRANS-1).[120] Mr. Smith explains that the MND impermissibly segments the Project's VMT impacts by splitting up the Project rather than evaluating the total daily trips for both buildings, i.e., 218 trips.[121]

Mr. Smith concludes that the Project's 218 daily trips would exceed the threshold of significance.[122] Even with the mitigation for Building B, the MND estimates that the Project would result in a combined 202 VMT per day, which still exceeds the threshold of significance.[123] Therefore, the Project as a whole would cause a significant impact requiring mitigation measures to reduce these significant VMT impacts.[124] Given that there is a fair argument based on substantial evidence that the Project may have significant transportation impacts, an EIR must be prepared that fully evaluates these impacts as well as the necessary mitigation measures to lessen these impacts.

Second, Mr. Smith comments that the trip generation estimates for Building B are unsupported in the MND.[125] The MND estimates that Building B would require 44 parking spaces for the office uses and as stated in the Staff Report, there would be approximately 11,000 SF of office area in Building B.[126] Mr. Smith determines that Building B's office use "is not a small ancillary use to the warehouse," and would be over 16% of Building B's floor area.[127] As such, Mr. Smith states that the office uses in Building B must be analyzed based on the trip generation category for "Office" rather than "Warehouse."[128] Mr. Smith describes

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[117] MND at p. 26.
[118] *Ibid.*
[119] *Ibid.*
[120] *Ibid.*
[121] Smith Comments at p. 2.
[122] *Ibid.*
[123] MND at p. 27.
[124] Smith Comments at p. 2.
[125] *Id.* at pp. 3-4.
[126] MND at p. 27; *see also* Napa County, *Staff Report for the E&P Technology Way - Buildings A & B (Use Permits #P22-00307 and #P22-00308)* at p. 13 (November 20, 2024).
[127] Smith Comments at p. 3.
[128] *Ibid.*

the substantial disparity between trip generation rates for "Office" and trip generation rates for "Warehouse."[129] He estimates that Building B's office uses would generate around 6-8 times more traffic than the same square footage of warehouse.[130] Accordingly, Mr. Smith concludes that utilizing the correct trip generation categories for Building B's uses would result in potentially significant VMT impacts that are not disclosed or mitigated in the MND.[131]

Therefore, the MND fails to fully disclose, analyze, and mitigate the full scope of the Project's potentially significant impacts on transportation. The County must prepare an EIR to fully disclose, analyze, and mitigate the impacts of the entire Project.

### E. Substantial Evidence Supports a Fair Argument that the Project's Impacts on Agricultural Resources are Potentially Significant

The MND fails to analyze the impacts from the conversion of farmland to non-agricultural use, as required by CEQA. The MND explains that "[a]ccording to Napa County GIS the property is categorized as Farmland of Local Importance. … Undeveloped lands within the boundary of the NVBPSP are designated as Farmland of Local Importance because they include areas of soils that meet all the characteristics of Prime Farmland or of additional Farmland of Statewide Importance except for irrigation."[132] Farmland of Local Importance is "land of importance to the local economy, as defined by each county's local advisory committee and adopted by its Board of Supervisors. Farmland of Local Importance is either currently producing, or has the capability of production; but does not meet the criteria of Prime, Statewide or Unique Farmland. Authority to adopt or to recommend changes to the category of Farmland of Local Importance rests with the Board of Supervisors in each county."[133]

The MND nevertheless concludes that "[a]lthough the site, as well as other undeveloped land in the NVBPSP area, is classified as locally important, the site

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[129] *Ibid.*
[130] *Ibid.*
[131] *Ibid.*
[132] MND at p. 5; *see also* California Department of Conservation, *California Important Farmland Finder*, available at: https://maps.conservation.ca.gov/DLRP/CIFF/.
[133] *Farmland of Local Importance* (2018), available at:
https://www.conservation.ca.gov/dlrp/fmmp/Documents/Farmland_of_Local_Importance_2018.pdf.

has been designated for industrial/business park uses for over 35 years. … As development in the NVBPSP area continues, the surrounding developed parcels have been reclassified as Urban and Built-up Land. The project will not result in the conversion of existing farmland. As such, there are no significant impacts to prime farmland created by the project."[134] Despite the value of the site's agricultural lands, and to justify a less-than-significant determination, the MND relies on the fact that the conversion of the site's agricultural lands has been planned for and is therefore not significant. However, the EIR for the NVBPSP identified significant, unavoidable, and irreversible adverse impacts from the conversion of agricultural lands within the NVBPSP area because the "proposed industrial area could ultimately eliminate approximately 1,730 acres of what is presently defined as 'agricultural or open land.'"[135] Since this Project would convert Farmland of Local Importance to non-agricultural uses, CEQA mandates that the impacts of this conversion be adequately disclosed, analyzed, and mitigated.

## VI. CONCLUSION

For the reasons discussed above, the MND for the Project is wholly inadequate under CEQA. An EIR must be circulated to provide a legally adequate analysis of, and mitigation for, all of the Project's potentially significant impacts. Until an EIR is prepared and circulated, as described herein, the Project may not lawfully be approved.

Sincerely,

Tara C. Rengifo

Tara C. Rengifo

TCR:ljl

[134] MND at p. 5.
[135] Napa County, *Napa Valley Business Park Specific Plan & EIR* at p. 280 (Adopted July 29, 1986; amended thru October 22, 2013).

# EXHIBIT A

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November 13, 2024

Adams Broadwell Joseph & Cardozo
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**Attn:  Ms. Tara Rengifo**

**Subject:  Comment Letter on Initial Study/Mitigated Negative Declaration (IS/MND) For E&P Technology Way - Building A & B Use Permit #'sP22-00307-UP and P22-00308-UP (APN's: 057-250-030, -031, -032), Napa County, California.**

Dear Mrs. Rengifo:

At the request of Adams Broadwell Joseph & Cardozo (ABJC), Clark and Associates (Clark) has reviewed materials related to the above referenced project.

Clark's review of the materials in no way constitutes a validation of the conclusions or materials contained within the IS/MND.  If we do not comment on a specific item, this does not constitute acceptance of the item.

**Project Description:**

The IS/MND prepared by the County of Napa (the County) describes the Project as consisting of two separate buildings.  Building A is proposed as a 143,312 square foot (SF) building with an annual wine production capacity of 450,000 gallons. The winery uses will include grape crushing, bulk wine processing and storage, stainless steel tank and barrel storage, bottling, and office space. In addition, approximately 13,000 SF of covered outdoor work area will be located on the north side of the building.  The proposal also includes 129 parking spaces and eight (8) spaces for semi-trailers. Access will be provided by three (3) new driveways; one (1) on Technology and two (2) on Morris Court.

The winery building will provide for tank fermentation and storage for bulk wine in stainless steel tanks in a refrigerated building. The facility will be run by 16 full-time and 7 part time employees during non-harvest season. Seasonal help will increase during harvest to approximately 35 total employees. The building will be used during harvest for crushing up to 450,000 gallons of wine and tank fermentation of bulk wine and juice. Wine storage (tank and barrel) and bottling will take place on a year-round basis. Water demand and wastewater design will include demand for crush, bulk fermentation, storage, and bottling uses.

No retail sales or access for the general public is proposed. Individual clients will visit the site on occasion to hold meetings with members of the wine trade, such as their distributors, restaurants, wine shop owners and similar types of wine buyers. The only signage will be to identify the building as a winery facility.

The Building B project proposes to allow warehouse uses within the proposed 66,915 SF building. The floor area ratio (FAR) after full build out will be 22.4%, below the allowable 35%. All vehicles will enter from a new access driveway on Technology Way that runs along the eastern property line. Trucks will then off load or pick up at the rear of the building. Trucks will be able to circulate around the building in a one-way loop, exiting at a second driveway on Technology Way on the west side the building. The entrance driveway will be wide enough to accommodate two-way traffic.

Building B will be utilized primarily for warehousing/distribution with accessory office. The facility will be run by up to 30 employees. No user has yet been identified. There will be no retail sales and no access for the general public. The only signage will be to identify the building for the future tenant.

Both buildings include site-cast tilt-up concrete wall panels with a multi-color textured coating system and multiple score lines/reveals, storefront glazing systems, painted steel channel canopies, truck loading docks, grade level roll-up doors, and metal man-doors. Color choices include white, green, and grey painted stucco panels. The winery building also includes a covered outdoor work area for the crush pad in front of the loading docks.

The IS/MND does not provide sufficient information to justify the conclusion that the impacts are less than significant and no additional mitigation measures are required for the Project. The analysis presented does not include an air quality analysis compiled in CalEEMOD as is typically performed in CEQA analyses. The County must compile the emission estimates in a meaningful manner in an environmental impact report (EIR) for the Project.

**Specific Comments:**

1. **The IS/MND Makes Assertions Regarding Greenhouse Gas (GHG) Reductions That Are Not Supported In The Applications For Building A and B. The Project's Impacts from Greenhouse Gas Emissions May be Significant and Unmitigated**

The IS/MND did not quantify the Project's GHG emissions and instead performed a qualitative analysis of the Project's impacts from GHG emissions pursuant to BAAQMD thresholds. According to the MND, "BAAQMD recommends that a land use project must include specified minimum design elements to ensure that the project is contributing its 'fair share' toward achieving the state's key climate goal of carbon neutrality by 2045." The MND at page 18 concludes that "[i]f the proposed project adheres to these relevant design standards identified by BAAQMD, the requirements of the California Building Code, and the County's conditions of project approval, impacts are considered less than significant."

The Staff Report for the Project states on page 8 that: "The applicant intends to implement the following GHG reduction methods for both buildings: generation of onsite renewable energy; habitat restoration/new vegetation; electric forklifts, build to CALGREEN Tier 1 standards; solar hot water heating; exceed Title 24 energy efficiency standards; energy conserving lighting; energy star/cool roofing; bicycle incentives; connection to recycled water; water efficient fixtures; low-impact development (LID); water efficient landscape; electric vehicle charging station installation; design to maximize daylighting of interior spaces; and, limited grading. A condition of approval is included to require implementation of the checked Voluntary Best Management Practices Measures submitted with the project application."

A review of the applications submitted for each of the buildings shows that only BMP-9 (Energy conserving lighting), BMP-14 (installation of water efficient fixtures), BMP-16 (water efficient landscaping), BMP-20 (planting of shade trees within 40 feet of the south side of the building elevation), BMP-21 (electrical vehicle charging station(s)) are checked in the applications and only these measures will be required by the Project's Conditions of Approval. Contrary to the statement in the Staff Report, the Project will not involve the generation of onsite renewable energy; habitat restoration/new vegetation; electric forklifts, build to CALGREEN Tier 1 standards; solar hot water heating; exceed Title 24 energy efficiency standards; energy star/cool roofing; bicycle incentives; connection to recycled water; low-impact development (LID); design to maximize daylighting of interior spaces; and, limited grading to reduce impacts from GHG emissions.

I performed a quantitative analysis of the Project's GHG emissions using CalEEMOD. Using the default values within the CalEEMOD model I have calculated the following GHG emissions for the construction phase and the operational phase.

| Phase | MT CO2eq |
|---|---|
| Construction | 18.8 per annum (564/30 years) |
| Operational | |
| Mobile | 222 |
| Area | 3.08 |
| Energy | 415 |
| Water | 95.6 |
| Waste | 61.7 |
| Refrigeration | 632 |
| | |
| Total | 1,447.8 |

Based on my calculations, the incorporation of all of the mitigation measures identified in the Staff Report would reduce the Project's GHG mitigated emissions by 169 MT CO2eq per year or 12% of the total emissions. The results of the analysis are attached as an exhibit to this letter.

To the extent that these additional GHG reduction strategies are necessary to reduce the Project's GHG emissions to less than significant levels but are not required by the Project's Conditions of Approval, the Project will have a significant and unmitigated impact on GHG emissions that must be evaluated in an EIR.

2. **Using The Details Outlined In The IS/MND I Have Calculated The Emissions From The Project Using CalEEMOD. Without Mitigation Emissions Of Reactive Organic Gases (ROGs) Will Exceed The BA-AQMD Significance Thresholds.**

Using the details outlined in the IS/MND I have calculated the emissions from the construction phase and operational phase using CalEEMOD. The IS/MND on page 29 states that there will be grading for construction of the bioretention basins, storm drain pipelines, wastewater and water system infrastructure improvements. The amount of soil disturbance is not detailed in the IS/MND and the emissions from the additional improvements were not included in the CalEEMOD analysis since they could not be quantified. The results of the analysis are attached as an exhibit to this letter.

The results of the analysis show that during the construction phase of the Project (Table 2.1 of the output) emissions of Reactive Organic Gases (ROGs) will exceed the BA-AQMD significance threshold. The exceedances occur during the architectural coating phase of the Project and will reach levels of 111 lbs per day during summer months if no mitigation measure is in place. Requiring the use of architectural coating products that have VOC contents less than 50 grams per liter would reduce the ROG levels to 49.9 lbs per day, below the BA-AQMD significance threshold. The County must evaluate the impacts of the Project in an EIR

## Conclusion

The facts identified and referenced in this comment letter led me to reasonably conclude that the Project could result in significant impacts if allowed to proceed. An EIR should be prepared to address these substantial concerns.

Sincerely,

# Wine Warehouse Detailed Report

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4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

# 1. Basic Project Information

## 1.1. Basic Project Information

| Data Field | Value |
|---|---|
| Project Name | Wine Warehouse |
| Construction Start Date | 1/1/2025 |
| Operational Year | 2025 |
| Lead Agency | Napa County PBES |
| Land Use Scale | Project/site |
| Analysis Level for Defaults | County |
| Windspeed (m/s) | 3.60 |
| Precipitation (days) | 38.4 |
| Location | Morris Ct & Technology Way, California 94558, USA |
| County | Napa |
| City | Unincorporated |
| Air District | Bay Area AQMD |
| Air Basin | San Francisco Bay Area |
| TAZ | 801 |
| EDFZ | 2 |
| Electric Utility | Pacific Gas & Electric Company |
| Gas Utility | Pacific Gas & Electric |
| App Version | 2022.1.1.29 |

## 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 |
|---|---|---|---|---|---|---|---|---|
| Refrigerated Warehouse-No Rail | 143 | 1000sqft | 13.2 | 143,312 | — | — | — | Building A |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Unrefrigerated Warehouse-No Rail | 66.9 | 1000sqft | 6.87 | 66,915 | — | — | — | Building B |
| Parking Lot | 129 | Space | 1.16 | 0.00 | — | — | — | Parking Lot For Building A |
| Parking Lot | 82.0 | Space | 0.74 | 0.00 | — | — | — | — |

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

# 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. | 111 | 111 | 12.0 | 17.6 | 0.03 | 0.44 | 0.97 | 1.42 | 0.41 | 0.24 | 0.65 | — | 4,093 | 4,093 | 0.15 | 0.19 | 5.72 | 4,159 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 3.89 | 3.28 | 29.8 | 29.1 | 0.06 | 1.23 | 9.37 | 10.6 | 1.14 | 3.69 | 4.83 | — | 6,761 | 6,761 | 0.27 | 0.19 | 0.15 | 6,785 |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 6.63 | 6.54 | 11.7 | 14.3 | 0.03 | 0.46 | 2.13 | 2.59 | 0.42 | 0.76 | 1.18 | — | 3,369 | 3,369 | 0.13 | 0.11 | 1.40 | 3,408 |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 1.21 | 1.19 | 2.14 | 2.62 | < 0.005 | 0.08 | 0.39 | 0.47 | 0.08 | 0.14 | 0.22 | — | 558 | 558 | 0.02 | 0.02 | 0.23 | 564 |
| Exceeds (Daily Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Threshold | — | 54.0 | 54.0 | — | — | 82.0 | — | — | 54.0 | — | — | — | — | — | — | — | — | — |
| Unmit. | — | Yes | No | — | — | No | — | — | No | — | — | — | — | — | — | — | — | — |
| Exceeds (Average Daily) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Threshold | — | 54.0 | 54.0 | — | — | 82.0 | — | — | 54.0 | — | — | — | — | — | — | — | — | — |
| Unmit. | — | No | No | — | — | No | — | — | No | — | — | — | — | — | — | — | — | — |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 1.81 | 1.52 | 12.0 | 17.6 | 0.03 | 0.44 | 0.97 | 1.42 | 0.41 | 0.24 | 0.65 | — | 4,093 | 4,093 | 0.15 | 0.19 | 5.72 | 4,159 |
| 2026 | 111 | 111 | 11.3 | 17.3 | 0.03 | 0.39 | 0.97 | 1.36 | 0.36 | 0.24 | 0.60 | — | 4,063 | 4,063 | 0.15 | 0.19 | 5.34 | 4,128 |
| Daily - Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 3.89 | 3.28 | 29.8 | 29.1 | 0.06 | 1.23 | 9.37 | 10.6 | 1.14 | 3.69 | 4.83 | — | 6,761 | 6,761 | 0.27 | 0.19 | 0.15 | 6,785 |
| 2026 | 1.72 | 1.44 | 11.5 | 16.9 | 0.03 | 0.39 | 0.97 | 1.36 | 0.36 | 0.24 | 0.60 | — | 4,013 | 4,013 | 0.15 | 0.19 | 0.14 | 4,073 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 1.65 | 1.38 | 11.7 | 14.3 | 0.03 | 0.46 | 2.13 | 2.59 | 0.42 | 0.76 | 1.18 | — | 3,369 | 3,369 | 0.13 | 0.11 | 1.40 | 3,408 |
| 2026 | 6.63 | 6.54 | 3.64 | 5.37 | 0.01 | 0.13 | 0.28 | 0.41 | 0.12 | 0.07 | 0.19 | — | 1,229 | 1,229 | 0.05 | 0.05 | 0.67 | 1,247 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 0.30 | 0.25 | 2.14 | 2.62 | < 0.005 | 0.08 | 0.39 | 0.47 | 0.08 | 0.14 | 0.22 | — | 558 | 558 | 0.02 | 0.02 | 0.23 | 564 |
| 2026 | 1.21 | 1.19 | 0.66 | 0.98 | < 0.005 | 0.02 | 0.05 | 0.07 | 0.02 | 0.01 | 0.03 | — | 203 | 203 | 0.01 | 0.01 | 0.11 | 206 |

## 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. | 7.84 | 7.62 | 1.35 | 17.4 | 0.02 | 0.05 | 1.59 | 1.64 | 0.04 | 0.40 | 0.45 | 200 | 4,618 | 4,817 | 20.7 | 0.37 | 3,827 | 9,271 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 6.17 | 6.07 | 1.44 | 8.04 | 0.02 | 0.03 | 1.59 | 1.62 | 0.03 | 0.40 | 0.44 | 200 | 4,487 | 4,686 | 20.7 | 0.38 | 3,820 | 9,135 |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 6.67 | 6.53 | 1.07 | 10.0 | 0.01 | 0.04 | 1.11 | 1.14 | 0.03 | 0.28 | 0.31 | 200 | 3,991 | 4,191 | 20.7 | 0.34 | 3,822 | 8,632 |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 1.22 | 1.19 | 0.19 | 1.83 | < 0.005 | 0.01 | 0.20 | 0.21 | 0.01 | 0.05 | 0.06 | 33.1 | 661 | 694 | 3.42 | 0.06 | 633 | 1,429 |
| Exceeds (Daily Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Threshold | — | 54.0 | 54.0 | — | — | 82.0 | — | — | 54.0 | — | — | — | — | — | — | — | — | — |
| Unmit. | — | No | No | — | — | No | — | — | No | — | — | — | — | — | — | — | — | — |
| Exceeds (Average Daily) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Threshold | — | 54.0 | 54.0 | — | — | 82.0 | — | — | 54.0 | — | — | — | — | — | — | — | — | — |
| Unmit. | — | No | No | — | — | No | — | — | No | — | — | — | — | — | — | — | — | — |
| Exceeds (Annual) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Threshold | — | 10.0 | 10.0 | — | — | 15.0 | — | — | 10.0 | — | — | — | — | — | — | — | — | — |
| Unmit. | — | No | No | — | — | No | — | — | No | — | — | — | — | — | — | — | — | — |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 1.08 | 0.99 | 1.08 | 8.11 | 0.02 | 0.02 | 1.59 | 1.61 | 0.02 | 0.40 | 0.42 | — | 1,922 | 1,922 | 0.08 | 0.09 | 7.82 | 1,959 |
| Area | 6.74 | 6.61 | 0.08 | 9.14 | < 0.005 | 0.02 | — | 0.02 | 0.01 | — | 0.01 | — | 37.6 | 37.6 | < 0.005 | < 0.005 | — | 37.7 |
| Energy | 0.02 | 0.01 | 0.19 | 0.16 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 2,482 | 2,482 | 0.39 | 0.04 | — | 2,505 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 93.2 | 176 | 269 | 9.58 | 0.23 | — | 577 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 107 | 0.00 | 107 | 10.6 | 0.00 | — | 373 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Total | 7.84 | 7.62 | 1.35 | 17.4 | 0.02 | 0.05 | 1.59 | 1.64 | 0.04 | 0.40 | 0.45 | 200 | 4,618 | 4,817 | 20.7 | 0.37 | 3,827 | 9,271 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 1.04 | 0.95 | 1.25 | 7.88 | 0.02 | 0.02 | 1.59 | 1.61 | 0.02 | 0.40 | 0.42 | — | 1,828 | 1,828 | 0.09 | 0.10 | 0.20 | 1,861 |
| Area | 5.11 | 5.11 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Energy | 0.02 | 0.01 | 0.19 | 0.16 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 2,482 | 2,482 | 0.39 | 0.04 | — | 2,505 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 93.2 | 176 | 269 | 9.58 | 0.23 | — | 577 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 107 | 0.00 | 107 | 10.6 | 0.00 | — | 373 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Total | 6.17 | 6.07 | 1.44 | 8.04 | 0.02 | 0.03 | 1.59 | 1.62 | 0.03 | 0.40 | 0.44 | 200 | 4,487 | 4,686 | 20.7 | 0.38 | 3,820 | 9,135 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 0.73 | 0.67 | 0.84 | 5.37 | 0.01 | 0.01 | 1.11 | 1.12 | 0.01 | 0.28 | 0.29 | — | 1,314 | 1,314 | 0.06 | 0.07 | 2.41 | 1,339 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area | 5.91 | 5.85 | 0.04 | 4.51 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 18.5 | 18.5 | < 0.005 | < 0.005 | — | 18.6 |
| Energy | 0.02 | 0.01 | 0.19 | 0.16 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 2,482 | 2,482 | 0.39 | 0.04 | — | 2,505 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 93.2 | 176 | 269 | 9.58 | 0.23 | — | 577 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 107 | 0.00 | 107 | 10.6 | 0.00 | — | 373 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Total | 6.67 | 6.53 | 1.07 | 10.0 | 0.01 | 0.04 | 1.11 | 1.14 | 0.03 | 0.28 | 0.31 | 200 | 3,991 | 4,191 | 20.7 | 0.34 | 3,822 | 8,632 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 0.13 | 0.12 | 0.15 | 0.98 | < 0.005 | < 0.005 | 0.20 | 0.20 | < 0.005 | 0.05 | 0.05 | — | 218 | 218 | 0.01 | 0.01 | 0.40 | 222 |
| Area | 1.08 | 1.07 | 0.01 | 0.82 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 3.07 | 3.07 | < 0.005 | < 0.005 | — | 3.08 |
| Energy | < 0.005 | < 0.005 | 0.03 | 0.03 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 411 | 411 | 0.06 | 0.01 | — | 415 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 15.4 | 29.1 | 44.6 | 1.59 | 0.04 | — | 95.6 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 17.6 | 0.00 | 17.6 | 1.76 | 0.00 | — | 61.7 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 632 | 632 |
| Total | 1.22 | 1.19 | 0.19 | 1.83 | < 0.005 | 0.01 | 0.20 | 0.21 | 0.01 | 0.05 | 0.06 | 33.1 | 661 | 694 | 3.42 | 0.06 | 633 | 1,429 |

# 3. Construction Emissions Details

## 3.1. Grading (2025) - 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 3.80 | 3.20 | 29.7 | 28.3 | 0.06 | 1.23 | — | 1.23 | 1.14 | — | 1.14 | — | 6,599 | 6,599 | 0.27 | 0.05 | — | 6,622 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 0.66 | 0.55 | 5.12 | 4.89 | 0.01 | 0.21 | — | 0.21 | 0.20 | — | 0.20 | — | 1,139 | 1,139 | 0.05 | 0.01 | — | 1,143 |
| Dust From Material Movement | — | — | — | — | — | — | 1.59 | 1.59 | — | 0.63 | 0.63 | — | — | — | — | — | — | — |
| 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 | 0.12 | 0.10 | 0.93 | 0.89 | < 0.005 | 0.04 | — | 0.04 | 0.04 | — | 0.04 | — | 189 | 189 | 0.01 | < 0.005 | — | 189 |
| Dust From Material Movement | — | — | — | — | — | — | 0.29 | 0.29 | — | 0.12 | 0.12 | — | — | — | — | — | — | — |
| 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 | 0.09 | 0.08 | 0.08 | 0.84 | 0.00 | 0.00 | 0.17 | 0.17 | 0.00 | 0.04 | 0.04 | — | 162 | 162 | 0.01 | 0.01 | 0.02 | 164 |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 0.14 | 0.00 | 0.00 | 0.03 | 0.03 | 0.00 | 0.01 | 0.01 | — | 28.2 | 28.2 | < 0.005 | < 0.005 | 0.05 | 28.6 |
| 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 | 0.03 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 4.66 | 4.66 | < 0.005 | < 0.005 | 0.01 | 4.74 |
| 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. Building Construction (2025) - 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.35 | 1.13 | 10.4 | 13.0 | 0.02 | 0.43 | — | 0.43 | 0.40 | — | 0.40 | — | 2,398 | 2,398 | 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 | 1.35 | 1.13 | 10.4 | 13.0 | 0.02 | 0.43 | — | 0.43 | 0.40 | — | 0.40 | — | 2,398 | 2,398 | 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 | 0.73 | 0.61 | 5.68 | 7.09 | 0.01 | 0.23 | — | 0.23 | 0.22 | — | 0.22 | — | 1,304 | 1,304 | 0.05 | 0.01 | — | 1,309 |
| 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 | 0.13 | 0.11 | 1.04 | 1.29 | < 0.005 | 0.04 | — | 0.04 | 0.04 | — | 0.04 | — | 216 | 216 | 0.01 | < 0.005 | — | 217 |
| 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 | 0.39 | 0.36 | 0.25 | 4.08 | 0.00 | 0.00 | 0.73 | 0.73 | 0.00 | 0.17 | 0.17 | — | 766 | 766 | 0.02 | 0.03 | 3.25 | 779 |
| Vendor | 0.07 | 0.04 | 1.30 | 0.51 | 0.01 | 0.01 | 0.24 | 0.26 | 0.01 | 0.07 | 0.08 | — | 929 | 929 | 0.04 | 0.14 | 2.47 | 975 |
| 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 | 0.38 | 0.35 | 0.33 | 3.70 | 0.00 | 0.00 | 0.73 | 0.73 | 0.00 | 0.17 | 0.17 | — | 714 | 714 | 0.02 | 0.03 | 0.08 | 724 |
| Vendor | 0.07 | 0.03 | 1.38 | 0.53 | 0.01 | 0.01 | 0.24 | 0.26 | 0.01 | 0.07 | 0.08 | — | 930 | 930 | 0.04 | 0.14 | 0.06 | 973 |
| 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 | 0.20 | 0.19 | 0.16 | 1.93 | 0.00 | 0.00 | 0.39 | 0.39 | 0.00 | 0.09 | 0.09 | — | 392 | 392 | 0.01 | 0.02 | 0.76 | 398 |
| Vendor | 0.04 | 0.02 | 0.74 | 0.28 | < 0.005 | 0.01 | 0.13 | 0.14 | 0.01 | 0.04 | 0.04 | — | 506 | 506 | 0.02 | 0.08 | 0.58 | 530 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 0.04 | 0.03 | 0.03 | 0.35 | 0.00 | 0.00 | 0.07 | 0.07 | 0.00 | 0.02 | 0.02 | — | 64.9 | 64.9 | < 0.005 | < 0.005 | 0.13 | 65.9 |
| Vendor | 0.01 | < 0.005 | 0.13 | 0.05 | < 0.005 | < 0.005 | 0.02 | 0.02 | < 0.005 | 0.01 | 0.01 | — | 83.7 | 83.7 | < 0.005 | 0.01 | 0.10 | 87.7 |
| 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. 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.28 | 1.07 | 9.85 | 13.0 | 0.02 | 0.38 | — | 0.38 | 0.35 | — | 0.35 | — | 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 | 1.28 | 1.07 | 9.85 | 13.0 | 0.02 | 0.38 | — | 0.38 | 0.35 | — | 0.35 | — | 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 | 0.36 | 0.30 | 2.76 | 3.63 | 0.01 | 0.11 | — | 0.11 | 0.10 | — | 0.10 | — | 671 | 671 | 0.03 | 0.01 | — | 673 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 0.07 | 0.05 | 0.50 | 0.66 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 111 | 111 | < 0.005 | < 0.005 | — | 111 |
| 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 | 0.38 | 0.35 | 0.24 | 3.81 | 0.00 | 0.00 | 0.73 | 0.73 | 0.00 | 0.17 | 0.17 | — | 752 | 752 | 0.02 | 0.03 | 3.00 | 764 |
| Vendor | 0.07 | 0.03 | 1.24 | 0.49 | 0.01 | 0.01 | 0.24 | 0.26 | 0.01 | 0.07 | 0.08 | — | 914 | 914 | 0.04 | 0.14 | 2.35 | 959 |
| 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 | 0.37 | 0.33 | 0.30 | 3.45 | 0.00 | 0.00 | 0.73 | 0.73 | 0.00 | 0.17 | 0.17 | — | 701 | 701 | 0.02 | 0.03 | 0.08 | 711 |
| Vendor | 0.07 | 0.03 | 1.31 | 0.50 | 0.01 | 0.01 | 0.24 | 0.26 | 0.01 | 0.07 | 0.08 | — | 914 | 914 | 0.04 | 0.14 | 0.06 | 957 |
| 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 | 0.10 | 0.09 | 0.08 | 0.93 | 0.00 | 0.00 | 0.20 | 0.20 | 0.00 | 0.05 | 0.05 | — | 198 | 198 | 0.01 | 0.01 | 0.36 | 201 |
| Vendor | 0.02 | 0.01 | 0.36 | 0.14 | < 0.005 | < 0.005 | 0.07 | 0.07 | < 0.005 | 0.02 | 0.02 | — | 256 | 256 | 0.01 | 0.04 | 0.28 | 268 |
| 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 | 0.02 | 0.02 | 0.01 | 0.17 | 0.00 | 0.00 | 0.04 | 0.04 | 0.00 | 0.01 | 0.01 | — | 32.8 | 32.8 | < 0.005 | < 0.005 | 0.06 | 33.3 |
| Vendor | < 0.005 | < 0.005 | 0.07 | 0.03 | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | — | 42.4 | 42.4 | < 0.005 | 0.01 | 0.05 | 44.4 |
| 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. Paving (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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.91 | 0.76 | 7.12 | 9.94 | 0.01 | 0.32 | — | 0.32 | 0.29 | — | 0.29 | — | 1,511 | 1,511 | 0.06 | 0.01 | — | 1,516 |
| Paving | 0.25 | 0.25 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | 0.04 | 0.39 | 0.54 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 82.8 | 82.8 | < 0.005 | < 0.005 | — | 83.1 |
| Paving | 0.01 | 0.01 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | 0.10 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 13.7 | 13.7 | < 0.005 | < 0.005 | — | 13.8 |
| Paving | < 0.005 | < 0.005 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | 0.06 | 0.06 | 0.04 | 0.65 | 0.00 | 0.00 | 0.12 | 0.12 | 0.00 | 0.03 | 0.03 | — | 128 | 128 | < 0.005 | < 0.005 | 0.51 | 130 |
| 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 | < 0.005 | < 0.005 | < 0.005 | 0.03 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 6.59 | 6.59 | < 0.005 | < 0.005 | 0.01 | 6.69 |
| 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 | — | 1.09 | 1.09 | < 0.005 | < 0.005 | < 0.005 | 1.11 |
| 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 |

## 3.9. Architectural Coating (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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.15 | 0.12 | 0.86 | 1.13 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 134 | 134 | 0.01 | < 0.005 | — | 134 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Architectural | 111 | 111 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | 0.01 | 0.01 | 0.05 | 0.06 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 7.32 | 7.32 | < 0.005 | < 0.005 | — | 7.34 |
| Architectural Coatings | 6.07 | 6.07 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | 0.01 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 1.21 | 1.21 | < 0.005 | < 0.005 | — | 1.22 |
| Architectural Coatings | 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 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.08 | 0.07 | 0.05 | 0.76 | 0.00 | 0.00 | 0.15 | 0.15 | 0.00 | 0.03 | 0.03 | — | 150 | 150 | < 0.005 | 0.01 | 0.60 | 153 |
| 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 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | < 0.005 | < 0.005 | < 0.005 | 0.04 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 7.75 | 7.75 | < 0.005 | < 0.005 | 0.01 | 7.87 |
| 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 | — | 1.28 | 1.28 | < 0.005 | < 0.005 | < 0.005 | 1.30 |
| 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | 0.51 | 0.47 | 0.52 | 3.87 | 0.01 | 0.01 | 0.76 | 0.77 | 0.01 | 0.19 | 0.20 | — | 917 | 917 | 0.04 | 0.04 | 3.73 | 935 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Unrefrigerated Warehouse-No | 0.56 | 0.52 | 0.57 | 4.24 | 0.01 | 0.01 | 0.83 | 0.84 | 0.01 | 0.21 | 0.22 | — | 1,005 | 1,005 | 0.04 | 0.05 | 4.09 | 1,024 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 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 | 1.08 | 0.99 | 1.08 | 8.11 | 0.02 | 0.02 | 1.59 | 1.61 | 0.02 | 0.40 | 0.42 | — | 1,922 | 1,922 | 0.08 | 0.09 | 7.82 | 1,959 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | 0.50 | 0.45 | 0.60 | 3.76 | 0.01 | 0.01 | 0.76 | 0.77 | 0.01 | 0.19 | 0.20 | — | 872 | 872 | 0.04 | 0.05 | 0.10 | 888 |
| Unrefrigerated Warehouse-No Rail | 0.54 | 0.50 | 0.65 | 4.12 | 0.01 | 0.01 | 0.83 | 0.84 | 0.01 | 0.21 | 0.22 | — | 956 | 956 | 0.05 | 0.05 | 0.11 | 973 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 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 | 1.04 | 0.95 | 1.25 | 7.88 | 0.02 | 0.02 | 1.59 | 1.61 | 0.02 | 0.40 | 0.42 | — | 1,828 | 1,828 | 0.09 | 0.10 | 0.20 | 1,861 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | 0.06 | 0.06 | 0.07 | 0.47 | < 0.005 | < 0.005 | 0.10 | 0.10 | < 0.005 | 0.02 | 0.03 | — | 104 | 104 | < 0.005 | 0.01 | 0.19 | 106 |
| Unrefrigerated Warehouse-No Rail | 0.07 | 0.06 | 0.08 | 0.51 | < 0.005 | < 0.005 | 0.11 | 0.11 | < 0.005 | 0.03 | 0.03 | — | 114 | 114 | 0.01 | 0.01 | 0.21 | 116 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 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 | 0.13 | 0.12 | 0.15 | 0.98 | < 0.005 | < 0.005 | 0.20 | 0.20 | < 0.005 | 0.05 | 0.05 | — | 218 | 218 | 0.01 | 0.01 | 0.40 | 222 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | 1,843 | 1,843 | 0.30 | 0.04 | — | 1,861 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | 378 | 378 | 0.06 | 0.01 | — | 382 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | — | 40.5 | 40.5 | 0.01 | < 0.005 | — | 40.9 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 2,262 | 2,262 | 0.37 | 0.04 | — | 2,284 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | 1,843 | 1,843 | 0.30 | 0.04 | — | 1,861 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | 378 | 378 | 0.06 | 0.01 | — | 382 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | — | 40.5 | 40.5 | 0.01 | < 0.005 | — | 40.9 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 2,262 | 2,262 | 0.37 | 0.04 | — | 2,284 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | 305 | 305 | 0.05 | 0.01 | — | 308 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | 62.5 | 62.5 | 0.01 | < 0.005 | — | 63.2 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | — | 6.70 | 6.70 | < 0.005 | < 0.005 | — | 6.77 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 374 | 374 | 0.06 | 0.01 | — | 378 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | 0.01 | < 0.005 | 0.08 | 0.07 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 92.5 | 92.5 | 0.01 | < 0.005 | — | 92.7 |
| Unrefrigerated Warehouse-No Rail | 0.01 | 0.01 | 0.11 | 0.09 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 128 | 128 | 0.01 | < 0.005 | — | 129 |
| Parking Lot | 0.00 | 0.00 | 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 | 0.02 | 0.01 | 0.19 | 0.16 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 221 | 221 | 0.02 | < 0.005 | — | 221 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | 0.01 | < 0.005 | 0.08 | 0.07 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 92.5 | 92.5 | 0.01 | < 0.005 | — | 92.7 |
| Unrefrigerated Warehouse-No Rail | 0.01 | 0.01 | 0.11 | 0.09 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 128 | 128 | 0.01 | < 0.005 | — | 129 |
| Parking Lot | 0.00 | 0.00 | 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 | 0.02 | 0.01 | 0.19 | 0.16 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 221 | 221 | 0.02 | < 0.005 | — | 221 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 15.3 | 15.3 | < 0.005 | < 0.005 | — | 15.4 |
| Unrefrigerated Warehouse-No Rail | < 0.005 | < 0.005 | 0.02 | 0.02 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 21.3 | 21.3 | < 0.005 | < 0.005 | — | 21.3 |
| Parking Lot | 0.00 | 0.00 | 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 | < 0.005 | < 0.005 | 0.03 | 0.03 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 36.6 | 36.6 | < 0.005 | < 0.005 | — | 36.7 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | 4.51 | 4.51 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | 0.61 | 0.61 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | 1.63 | 1.50 | 0.08 | 9.14 | < 0.005 | 0.02 | — | 0.02 | 0.01 | — | 0.01 | — | 37.6 | 37.6 | < 0.005 | < 0.005 | — | 37.7 |
| Total | 6.74 | 6.61 | 0.08 | 9.14 | < 0.005 | 0.02 | — | 0.02 | 0.01 | — | 0.01 | — | 37.6 | 37.6 | < 0.005 | < 0.005 | — | 37.7 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | 4.51 | 4.51 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | 0.61 | 0.61 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | 5.11 | 5.11 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | 0.82 | 0.82 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | 0.11 | 0.11 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Landscape | 0.15 | 0.14 | 0.01 | 0.82 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 3.07 | 3.07 | < 0.005 | < 0.005 | — | 3.08 |
| Total | 1.08 | 1.07 | 0.01 | 0.82 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 3.07 | 3.07 | < 0.005 | < 0.005 | — | 3.08 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 63.5 | 120 | 183 | 6.53 | 0.16 | — | 394 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 29.7 | 56.0 | 85.7 | 3.05 | 0.07 | — | 184 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 93.2 | 176 | 269 | 9.58 | 0.23 | — | 577 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 63.5 | 120 | 183 | 6.53 | 0.16 | — | 394 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Unrefrigerated Wareho Rail | — | — | — | — | — | — | — | — | — | — | — | 29.7 | 56.0 | 85.7 | 3.05 | 0.07 | — | 184 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 93.2 | 176 | 269 | 9.58 | 0.23 | — | 577 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 10.5 | 19.9 | 30.4 | 1.08 | 0.03 | — | 65.2 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 4.91 | 9.27 | 14.2 | 0.50 | 0.01 | — | 30.4 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 15.4 | 29.1 | 44.6 | 1.59 | 0.04 | — | 95.6 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 72.6 | 0.00 | 72.6 | 7.26 | 0.00 | — | 254 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Unrefrig Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 33.9 | 0.00 | 33.9 | 3.39 | 0.00 | — | 119 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 107 | 0.00 | 107 | 10.6 | 0.00 | — | 373 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 72.6 | 0.00 | 72.6 | 7.26 | 0.00 | — | 254 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 33.9 | 0.00 | 33.9 | 3.39 | 0.00 | — | 119 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 107 | 0.00 | 107 | 10.6 | 0.00 | — | 373 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 12.0 | 0.00 | 12.0 | 1.20 | 0.00 | — | 42.1 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 5.61 | 0.00 | 5.61 | 0.56 | 0.00 | — | 19.6 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 17.6 | 0.00 | 17.6 | 1.76 | 0.00 | — | 61.7 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 632 | 632 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 632 | 632 |

## 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 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

## 4.8. 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 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

## 4.9. 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 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

## 4.10. 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 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

# 5. Activity Data

## 5.1. Construction Schedule

| Phase Name | Phase Type | Start Date | End Date | Days Per Week | Work Days per Phase | Phase Description |
|---|---|---|---|---|---|---|
| Grading | Grading | 1/1/2025 | 3/28/2025 | 5.00 | 63.0 | — |
| Building Construction | Building Construction | 3/29/2025 | 5/23/2026 | 5.00 | 300 | — |
| Paving | Paving | 5/24/2026 | 6/21/2026 | 5.00 | 20.0 | — |
| Architectural Coating | Architectural Coating | 6/22/2026 | 7/20/2026 | 5.00 | 20.0 | — |

## 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 |
|---|---|---|---|---|---|---|---|
| Grading | Graders | Diesel | Average | 1.00 | 8.00 | 148 | 0.41 |
| Grading | Rubber Tired Dozers | Diesel | Average | 1.00 | 8.00 | 367 | 0.40 |
| Grading | Tractors/Loaders/Backhoes | Diesel | Average | 2.00 | 8.00 | 84.0 | 0.37 |
| Grading | Excavators | Diesel | Average | 2.00 | 8.00 | 36.0 | 0.38 |
| Grading | Scrapers | Diesel | Average | 2.00 | 8.00 | 423 | 0.48 |
| Building Construction | Cranes | Diesel | Average | 1.00 | 7.00 | 367 | 0.29 |
| 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 | Tractors/Loaders/Backhoes | Diesel | Average | 3.00 | 7.00 | 84.0 | 0.37 |
| Building Construction | Welders | Diesel | Average | 1.00 | 8.00 | 46.0 | 0.45 |
| 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 |

## 5.3. Construction Vehicles

### 5.3.1. Unmitigated

| Phase Name | Trip Type | One-Way Trips per Day | Miles per Trip | Vehicle Mix |
|---|---|---|---|---|
| Grading | — | — | — | — |
| Grading | Worker | 20.0 | 11.7 | LDA,LDT1,LDT2 |
| Grading | Vendor | — | 8.40 | HHDT,MHDT |
| Grading | Hauling | 0.00 | 20.0 | HHDT |
| Grading | Onsite truck | — | — | HHDT |
| Building Construction | — | — | — | — |
| Building Construction | Worker | 88.3 | 11.7 | LDA,LDT1,LDT2 |
| Building Construction | Vendor | 34.5 | 8.40 | HHDT,MHDT |
| Building Construction | Hauling | 0.00 | 20.0 | HHDT |
| Building Construction | Onsite truck | — | — | HHDT |
| Paving | — | — | — | — |
| Paving | Worker | 15.0 | 11.7 | LDA,LDT1,LDT2 |
| Paving | Vendor | — | 8.40 | HHDT,MHDT |
| Paving | Hauling | 0.00 | 20.0 | HHDT |
| Paving | Onsite truck | — | — | HHDT |
| Architectural Coating | — | — | — | — |
| Architectural Coating | Worker | 17.7 | 11.7 | LDA,LDT1,LDT2 |
| Architectural Coating | Vendor | — | 8.40 | 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 | 0.00 | 0.00 | 315,341 | 105,114 | 4,963 |

## 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) |
|---|---|---|---|---|---|
| Grading | — | — | 189 | 0.00 | — |
| Paving | 0.00 | 0.00 | 0.00 | 0.00 | 1.90 |

### 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 |
|---|---|---|
| Refrigerated Warehouse-No Rail | 0.00 | 0% |
| Unrefrigerated Warehouse-No Rail | 0.00 | 0% |
| Parking Lot | 1.16 | 100% |
| Parking Lot | 0.74 | 100% |

## 5.8. Construction Electricity Consumption and Emissions Factors

### kWh per Year and Emission Factor (lb/MWh)

| Year | kWh per Year | CO2 | CH4 | N2O |
|---|---|---|---|---|
| 2025 | 0.00 | 204 | 0.03 | < 0.005 |
| 2026 | 0.00 | 204 | 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 |
|---|---|---|---|---|---|---|---|---|
| Refrigerated Warehouse-No Rail | 104 | 0.00 | 0.00 | 27,115 | 1,064 | 0.00 | 0.00 | 277,441 |
| Unrefrigerated Warehouse-No Rail | 114 | 0.00 | 0.00 | 29,720 | 1,166 | 0.00 | 0.00 | 304,104 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 5.10. Operational Area Sources

### 5.10.1. Hearths

#### 5.10.1.1. Unmitigated

### 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) |
|---|---|---|---|---|
| 0 | 0.00 | 315,341 | 105,114 | 4,963 |

### 5.10.3. Landscape Equipment

| 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) |
|---|---|---|---|---|---|
| Refrigerated Warehouse-No Rail | 3,298,193 | 204 | 0.0330 | 0.0040 | 288,569 |
| Unrefrigerated Warehouse-No Rail | 676,021 | 204 | 0.0330 | 0.0040 | 400,564 |
| Parking Lot | 44,302 | 204 | 0.0330 | 0.0040 | 0.00 |
| Parking Lot | 28,161 | 204 | 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) |
|---|---|---|
| Refrigerated Warehouse-No Rail | 33,140,900 | 0.00 |
| Unrefrigerated Warehouse-No Rail | 15,474,094 | 0.00 |
| Parking Lot | 0.00 | 0.00 |
| Parking Lot | 0.00 | 0.00 |

## 5.13. Operational Waste Generation

### 5.13.1. Unmitigated

| Land Use | Waste (ton/year) | Cogeneration (kWh/year) |
|---|---|---|
| Refrigerated Warehouse-No Rail | 135 | — |
| Unrefrigerated Warehouse-No Rail | 62.9 | — |
| Parking Lot | 0.00 | — |
| Parking Lot | 0.00 | — |

## 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 |
|---|---|---|---|---|---|---|---|
| Refrigerated Warehouse-No Rail | Cold storage | R-404A | 3,922 | 7.50 | 7.50 | 7.50 | 25.0 |

## 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 |
|---|---|---|---|---|---|---|

## 5.16. 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. Biomass Cover Type

#### 5.18.1.1. Unmitigated

| 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) |
| --- | --- | --- | --- |

# 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 | 11.8 | annual days of extreme heat |
| Extreme Precipitation | 5.65 | annual days with precipitation above 20 mm |
| Sea Level Rise | — | meters of inundation depth |
| Wildfire | 16.4 | 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 | N/A | N/A | N/A | N/A |
| Extreme Precipitation | 2 | 0 | 0 | N/A |
| Sea Level Rise | 1 | 0 | 0 | N/A |
| Wildfire | 1 | 0 | 0 | N/A |
| Flooding | N/A | N/A | N/A | N/A |
| Drought | N/A | N/A | N/A | 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 | N/A | N/A | N/A | N/A |
| Extreme Precipitation | 2 | 1 | 1 | 3 |
| Sea Level Rise | 1 | 1 | 1 | 2 |
| Wildfire | 1 | 1 | 1 | 2 |
| Flooding | N/A | N/A | N/A | N/A |
| Drought | N/A | N/A | N/A | N/A |
| 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 | 16.8 |
| AQ-PM | 35.7 |
| AQ-DPM | 23.4 |
| Drinking Water | 69.2 |
| Lead Risk Housing | 55.8 |
| Pesticides | 66.2 |
| Toxic Releases | 61.2 |
| Traffic | 83.3 |
| Effect Indicators | — |
| CleanUp Sites | 62.4 |
| Groundwater | 0.00 |
| Haz Waste Facilities/Generators | 82.7 |
| Impaired Water Bodies | 23.9 |
| Solid Waste | 83.9 |
| Sensitive Population | — |
| Asthma | 71.9 |

| | |
|---|---|
| Cardio-vascular | 67.0 |
| Low Birth Weights | 51.0 |
| Socioeconomic Factor Indicators | — |
| Education | 62.0 |
| Housing | 12.0 |
| Linguistic | 39.2 |
| Poverty | 33.8 |
| Unemployment | 36.4 |

## 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 | 80.85461311 |
| Employed | 75.23418452 |
| Median HI | 74.554087 |
| Education | — |
| Bachelor's or higher | 69.35711536 |
| High school enrollment | 100 |
| Preschool enrollment | 12.62671628 |
| Transportation | — |
| Auto Access | 83.51084306 |
| Active commuting | 27.38354934 |
| Social | — |
| 2-parent households | 62.7229565 |
| Voting | 57.75696138 |
| Neighborhood | — |
| Alcohol availability | 76.10676248 |

| | |
|---|---|
| Park access | 56.71756705 |
| Retail density | 24.22687027 |
| Supermarket access | 27.9481586 |
| Tree canopy | 22.44321827 |
| Housing | — |
| Homeownership | 87.02681894 |
| Housing habitability | 96.41986398 |
| Low-inc homeowner severe housing cost burden | 70.11420506 |
| Low-inc renter severe housing cost burden | 97.06146542 |
| Uncrowded housing | 60.05389452 |
| Health Outcomes | — |
| Insured adults | 79.19928141 |
| Arthritis | 0.0 |
| Asthma ER Admissions | 56.0 |
| 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 | 25.5 |
| Cognitively Disabled | 20.1 |
| Physically  Disabled | 17.3 |
| Heart Attack ER Admissions | 55.3 |
| 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 | 43.5 |
| Children | 32.5 |
| Elderly | 69.3 |
| English Speaking | 60.5 |
| Foreign-born | 72.3 |
| Outdoor Workers | 52.3 |
| Climate Change Adaptive Capacity | — |
| Impervious Surface Cover | 43.7 |
| Traffic Density | 45.1 |
| Traffic Access | 23.0 |
| Other Indices | — |
| Hardship | 34.8 |
| Other Decision Support | — |
| 2016 Voting | 51.4 |

## 7.3. Overall Health & Equity Scores

| Metric | Result for Project Census Tract |
|---|---|
| CalEnviroScreen 4.0 Score for Project Location (a) | 63.0 |
| Healthy Places Index Score for Project Location (b) | 73.0 |
| Project Located in a Designated Disadvantaged Community (Senate Bill 535) | No |

| | |
|---|---|
| Project Located in a Low-Income Community (Assembly Bill 1550) | No |
| 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 | Per project description of Building A and B |
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# Wine Warehouse Detailed Report

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# 1. Basic Project Information

## 1.1. Basic Project Information

| Data Field | Value |
|---|---|
| Project Name | Wine Warehouse |
| Construction Start Date | 1/1/2025 |
| Operational Year | 2025 |
| Lead Agency | Napa County PBES |
| Land Use Scale | Project/site |
| Analysis Level for Defaults | County |
| Windspeed (m/s) | 3.60 |
| Precipitation (days) | 38.4 |
| Location | Morris Ct & Technology Way, California 94558, USA |
| County | Napa |
| City | Unincorporated |
| Air District | Bay Area AQMD |
| Air Basin | San Francisco Bay Area |
| TAZ | 801 |
| EDFZ | 2 |
| Electric Utility | Pacific Gas & Electric Company |
| Gas Utility | Pacific Gas & Electric |
| App Version | 2022.1.1.29 |

## 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 |
|---|---|---|---|---|---|---|---|---|
| Refrigerated Warehouse-No Rail | 143 | 1000sqft | 13.2 | 143,312 | — | — | — | Building A |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Unrefrigerated Warehouse-No Rail | 66.9 | 1000sqft | 6.87 | 66,915 | — | — | — | Building B |
| Parking Lot | 129 | Space | 1.16 | 0.00 | — | — | — | Parking Lot For Building A |
| Parking Lot | 82.0 | Space | 0.74 | 0.00 | — | — | — | — |

## 1.3. User-Selected Emission Reduction Measures by Emissions Sector

| Sector | # | Measure Title |
|---|---|---|
| Construction | C-13 | Use Low-VOC Paints for Construction |

# 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. | 111 | 111 | 12.0 | 17.6 | 0.03 | 0.44 | 0.97 | 1.42 | 0.41 | 0.24 | 0.65 | — | 4,093 | 4,093 | 0.15 | 0.19 | 5.72 | 4,159 |
| Mit. | 50.1 | 50.1 | 12.0 | 17.6 | 0.03 | 0.44 | 0.97 | 1.42 | 0.41 | 0.24 | 0.65 | — | 4,093 | 4,093 | 0.15 | 0.19 | 5.72 | 4,159 |
| % Reduced | 55% | 55% | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 3.89 | 3.28 | 29.8 | 29.1 | 0.06 | 1.23 | 9.37 | 10.6 | 1.14 | 3.69 | 4.83 | — | 6,761 | 6,761 | 0.27 | 0.19 | 0.15 | 6,785 |
| Mit. | 3.89 | 3.28 | 29.8 | 29.1 | 0.06 | 1.23 | 9.37 | 10.6 | 1.14 | 3.69 | 4.83 | — | 6,761 | 6,761 | 0.27 | 0.19 | 0.15 | 6,785 |
| % Reduced | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 6.63 | 6.54 | 11.7 | 14.3 | 0.03 | 0.46 | 2.13 | 2.59 | 0.42 | 0.76 | 1.18 | — | 3,369 | 3,369 | 0.13 | 0.11 | 1.40 | 3,408 |
| Mit. | 3.29 | 3.20 | 11.7 | 14.3 | 0.03 | 0.46 | 2.13 | 2.59 | 0.42 | 0.76 | 1.18 | — | 3,369 | 3,369 | 0.13 | 0.11 | 1.40 | 3,408 |
| % Reduced | 50% | 51% | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 1.21 | 1.19 | 2.14 | 2.62 | < 0.005 | 0.08 | 0.39 | 0.47 | 0.08 | 0.14 | 0.22 | — | 558 | 558 | 0.02 | 0.02 | 0.23 | 564 |
| Mit. | 0.60 | 0.58 | 2.14 | 2.62 | < 0.005 | 0.08 | 0.39 | 0.47 | 0.08 | 0.14 | 0.22 | — | 558 | 558 | 0.02 | 0.02 | 0.23 | 564 |
| % Reduced | 50% | 51% | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Exceeds (Daily Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Threshold | — | 54.0 | 54.0 | — | — | 82.0 | — | — | 54.0 | — | — | — | — | — | — | — | — | — |
| Unmit. | — | Yes | No | — | — | No | — | — | No | — | — | — | — | — | — | — | — | — |
| Mit. | — | No | No | — | — | No | — | — | No | — | — | — | — | — | — | — | — | — |
| Exceeds (Average Daily) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Threshold | — | 54.0 | 54.0 | — | — | 82.0 | — | — | 54.0 | — | — | — | — | — | — | — | — | — |
| Unmit. | — | No | No | — | — | No | — | — | No | — | — | — | — | — | — | — | — | — |
| Mit. | — | No | No | — | — | No | — | — | No | — | — | — | — | — | — | — | — | — |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 1.81 | 1.52 | 12.0 | 17.6 | 0.03 | 0.44 | 0.97 | 1.42 | 0.41 | 0.24 | 0.65 | — | 4,093 | 4,093 | 0.15 | 0.19 | 5.72 | 4,159 |
| 2026 | 111 | 111 | 11.3 | 17.3 | 0.03 | 0.39 | 0.97 | 1.36 | 0.36 | 0.24 | 0.60 | — | 4,063 | 4,063 | 0.15 | 0.19 | 5.34 | 4,128 |
| Daily - Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 3.89 | 3.28 | 29.8 | 29.1 | 0.06 | 1.23 | 9.37 | 10.6 | 1.14 | 3.69 | 4.83 | — | 6,761 | 6,761 | 0.27 | 0.19 | 0.15 | 6,785 |
| 2026 | 1.72 | 1.44 | 11.5 | 16.9 | 0.03 | 0.39 | 0.97 | 1.36 | 0.36 | 0.24 | 0.60 | — | 4,013 | 4,013 | 0.15 | 0.19 | 0.14 | 4,073 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 1.65 | 1.38 | 11.7 | 14.3 | 0.03 | 0.46 | 2.13 | 2.59 | 0.42 | 0.76 | 1.18 | — | 3,369 | 3,369 | 0.13 | 0.11 | 1.40 | 3,408 |
| 2026 | 6.63 | 6.54 | 3.64 | 5.37 | 0.01 | 0.13 | 0.28 | 0.41 | 0.12 | 0.07 | 0.19 | — | 1,229 | 1,229 | 0.05 | 0.05 | 0.67 | 1,247 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 0.30 | 0.25 | 2.14 | 2.62 | < 0.005 | 0.08 | 0.39 | 0.47 | 0.08 | 0.14 | 0.22 | — | 558 | 558 | 0.02 | 0.02 | 0.23 | 564 |
| 2026 | 1.21 | 1.19 | 0.66 | 0.98 | < 0.005 | 0.02 | 0.05 | 0.07 | 0.02 | 0.01 | 0.03 | — | 203 | 203 | 0.01 | 0.01 | 0.11 | 206 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 1.81 | 1.52 | 12.0 | 17.6 | 0.03 | 0.44 | 0.97 | 1.42 | 0.41 | 0.24 | 0.65 | — | 4,093 | 4,093 | 0.15 | 0.19 | 5.72 | 4,159 |
| 2026 | 50.1 | 50.1 | 11.3 | 17.3 | 0.03 | 0.39 | 0.97 | 1.36 | 0.36 | 0.24 | 0.60 | — | 4,063 | 4,063 | 0.15 | 0.19 | 5.34 | 4,128 |
| Daily - Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 3.89 | 3.28 | 29.8 | 29.1 | 0.06 | 1.23 | 9.37 | 10.6 | 1.14 | 3.69 | 4.83 | — | 6,761 | 6,761 | 0.27 | 0.19 | 0.15 | 6,785 |
| 2026 | 1.72 | 1.44 | 11.5 | 16.9 | 0.03 | 0.39 | 0.97 | 1.36 | 0.36 | 0.24 | 0.60 | — | 4,013 | 4,013 | 0.15 | 0.19 | 0.14 | 4,073 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 1.65 | 1.38 | 11.7 | 14.3 | 0.03 | 0.46 | 2.13 | 2.59 | 0.42 | 0.76 | 1.18 | — | 3,369 | 3,369 | 0.13 | 0.11 | 1.40 | 3,408 |
| 2026 | 3.29 | 3.20 | 3.64 | 5.37 | 0.01 | 0.13 | 0.28 | 0.41 | 0.12 | 0.07 | 0.19 | — | 1,229 | 1,229 | 0.05 | 0.05 | 0.67 | 1,247 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 0.30 | 0.25 | 2.14 | 2.62 | < 0.005 | 0.08 | 0.39 | 0.47 | 0.08 | 0.14 | 0.22 | — | 558 | 558 | 0.02 | 0.02 | 0.23 | 564 |
| 2026 | 0.60 | 0.58 | 0.66 | 0.98 | < 0.005 | 0.02 | 0.05 | 0.07 | 0.02 | 0.01 | 0.03 | — | 203 | 203 | 0.01 | 0.01 | 0.11 | 206 |

## 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. | 7.84 | 7.62 | 1.35 | 17.4 | 0.02 | 0.05 | 1.59 | 1.64 | 0.04 | 0.40 | 0.45 | 200 | 4,618 | 4,817 | 20.7 | 0.37 | 3,827 | 9,271 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 6.17 | 6.07 | 1.44 | 8.04 | 0.02 | 0.03 | 1.59 | 1.62 | 0.03 | 0.40 | 0.44 | 200 | 4,487 | 4,686 | 20.7 | 0.38 | 3,820 | 9,135 |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 6.67 | 6.53 | 1.07 | 10.0 | 0.01 | 0.04 | 1.11 | 1.14 | 0.03 | 0.28 | 0.31 | 200 | 3,991 | 4,191 | 20.7 | 0.34 | 3,822 | 8,632 |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 1.22 | 1.19 | 0.19 | 1.83 | < 0.005 | 0.01 | 0.20 | 0.21 | 0.01 | 0.05 | 0.06 | 33.1 | 661 | 694 | 3.42 | 0.06 | 633 | 1,429 |
| Exceeds (Daily Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Threshold | — | 54.0 | 54.0 | — | — | 82.0 | — | — | 54.0 | — | — | — | — | — | — | — | — | — |
| Unmit. | — | No | No | — | — | No | — | — | No | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Exceeds (Average Daily) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Threshold | — | 54.0 | 54.0 | — | — | 82.0 | — | — | 54.0 | — | — | — | — | — | — | — | — | — |
| Unmit. | — | No | No | — | — | No | — | — | No | — | — | — | — | — | — | — | — | — |
| Exceeds (Annual) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Threshold | — | 10.0 | 10.0 | — | — | 15.0 | — | — | 10.0 | — | — | — | — | — | — | — | — | — |
| Unmit. | — | No | No | — | — | No | — | — | No | — | — | — | — | — | — | — | — | — |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 1.08 | 0.99 | 1.08 | 8.11 | 0.02 | 0.02 | 1.59 | 1.61 | 0.02 | 0.40 | 0.42 | — | 1,922 | 1,922 | 0.08 | 0.09 | 7.82 | 1,959 |
| Area | 6.74 | 6.61 | 0.08 | 9.14 | < 0.005 | 0.02 | — | 0.02 | 0.01 | — | 0.01 | — | 37.6 | 37.6 | < 0.005 | < 0.005 | — | 37.7 |
| Energy | 0.02 | 0.01 | 0.19 | 0.16 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 2,482 | 2,482 | 0.39 | 0.04 | — | 2,505 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 93.2 | 176 | 269 | 9.58 | 0.23 | — | 577 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 107 | 0.00 | 107 | 10.6 | 0.00 | — | 373 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Total | 7.84 | 7.62 | 1.35 | 17.4 | 0.02 | 0.05 | 1.59 | 1.64 | 0.04 | 0.40 | 0.45 | 200 | 4,618 | 4,817 | 20.7 | 0.37 | 3,827 | 9,271 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 1.04 | 0.95 | 1.25 | 7.88 | 0.02 | 0.02 | 1.59 | 1.61 | 0.02 | 0.40 | 0.42 | — | 1,828 | 1,828 | 0.09 | 0.10 | 0.20 | 1,861 |
| Area | 5.11 | 5.11 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Energy | 0.02 | 0.01 | 0.19 | 0.16 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 2,482 | 2,482 | 0.39 | 0.04 | — | 2,505 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water | — | — | — | — | — | — | — | — | — | — | — | 93.2 | 176 | 269 | 9.58 | 0.23 | — | 577 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 107 | 0.00 | 107 | 10.6 | 0.00 | — | 373 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Total | 6.17 | 6.07 | 1.44 | 8.04 | 0.02 | 0.03 | 1.59 | 1.62 | 0.03 | 0.40 | 0.44 | 200 | 4,487 | 4,686 | 20.7 | 0.38 | 3,820 | 9,135 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 0.73 | 0.67 | 0.84 | 5.37 | 0.01 | 0.01 | 1.11 | 1.12 | 0.01 | 0.28 | 0.29 | — | 1,314 | 1,314 | 0.06 | 0.07 | 2.41 | 1,339 |
| Area | 5.91 | 5.85 | 0.04 | 4.51 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 18.5 | 18.5 | < 0.005 | < 0.005 | — | 18.6 |
| Energy | 0.02 | 0.01 | 0.19 | 0.16 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 2,482 | 2,482 | 0.39 | 0.04 | — | 2,505 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 93.2 | 176 | 269 | 9.58 | 0.23 | — | 577 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 107 | 0.00 | 107 | 10.6 | 0.00 | — | 373 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Total | 6.67 | 6.53 | 1.07 | 10.0 | 0.01 | 0.04 | 1.11 | 1.14 | 0.03 | 0.28 | 0.31 | 200 | 3,991 | 4,191 | 20.7 | 0.34 | 3,822 | 8,632 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 0.13 | 0.12 | 0.15 | 0.98 | < 0.005 | < 0.005 | 0.20 | 0.20 | < 0.005 | 0.05 | 0.05 | — | 218 | 218 | 0.01 | 0.01 | 0.40 | 222 |
| Area | 1.08 | 1.07 | 0.01 | 0.82 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 3.07 | 3.07 | < 0.005 | < 0.005 | — | 3.08 |
| Energy | < 0.005 | < 0.005 | 0.03 | 0.03 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 411 | 411 | 0.06 | 0.01 | — | 415 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 15.4 | 29.1 | 44.6 | 1.59 | 0.04 | — | 95.6 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 17.6 | 0.00 | 17.6 | 1.76 | 0.00 | — | 61.7 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 632 | 632 |
| Total | 1.22 | 1.19 | 0.19 | 1.83 | < 0.005 | 0.01 | 0.20 | 0.21 | 0.01 | 0.05 | 0.06 | 33.1 | 661 | 694 | 3.42 | 0.06 | 633 | 1,429 |

## 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 | 1.08 | 0.99 | 1.08 | 8.11 | 0.02 | 0.02 | 1.59 | 1.61 | 0.02 | 0.40 | 0.42 | — | 1,922 | 1,922 | 0.08 | 0.09 | 7.82 | 1,959 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area | 6.74 | 6.61 | 0.08 | 9.14 | < 0.005 | 0.02 | — | 0.02 | 0.01 | — | 0.01 | — | 37.6 | 37.6 | < 0.005 | < 0.005 | — | 37.7 |
| Energy | 0.02 | 0.01 | 0.19 | 0.16 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 2,482 | 2,482 | 0.39 | 0.04 | — | 2,505 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 93.2 | 176 | 269 | 9.58 | 0.23 | — | 577 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 107 | 0.00 | 107 | 10.6 | 0.00 | — | 373 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Total | 7.84 | 7.62 | 1.35 | 17.4 | 0.02 | 0.05 | 1.59 | 1.64 | 0.04 | 0.40 | 0.45 | 200 | 4,618 | 4,817 | 20.7 | 0.37 | 3,827 | 9,271 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 1.04 | 0.95 | 1.25 | 7.88 | 0.02 | 0.02 | 1.59 | 1.61 | 0.02 | 0.40 | 0.42 | — | 1,828 | 1,828 | 0.09 | 0.10 | 0.20 | 1,861 |
| Area | 5.11 | 5.11 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Energy | 0.02 | 0.01 | 0.19 | 0.16 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 2,482 | 2,482 | 0.39 | 0.04 | — | 2,505 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 93.2 | 176 | 269 | 9.58 | 0.23 | — | 577 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 107 | 0.00 | 107 | 10.6 | 0.00 | — | 373 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Total | 6.17 | 6.07 | 1.44 | 8.04 | 0.02 | 0.03 | 1.59 | 1.62 | 0.03 | 0.40 | 0.44 | 200 | 4,487 | 4,686 | 20.7 | 0.38 | 3,820 | 9,135 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 0.73 | 0.67 | 0.84 | 5.37 | 0.01 | 0.01 | 1.11 | 1.12 | 0.01 | 0.28 | 0.29 | — | 1,314 | 1,314 | 0.06 | 0.07 | 2.41 | 1,339 |
| Area | 5.91 | 5.85 | 0.04 | 4.51 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 18.5 | 18.5 | < 0.005 | < 0.005 | — | 18.6 |
| Energy | 0.02 | 0.01 | 0.19 | 0.16 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 2,482 | 2,482 | 0.39 | 0.04 | — | 2,505 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 93.2 | 176 | 269 | 9.58 | 0.23 | — | 577 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 107 | 0.00 | 107 | 10.6 | 0.00 | — | 373 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Total | 6.67 | 6.53 | 1.07 | 10.0 | 0.01 | 0.04 | 1.11 | 1.14 | 0.03 | 0.28 | 0.31 | 200 | 3,991 | 4,191 | 20.7 | 0.34 | 3,822 | 8,632 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 0.13 | 0.12 | 0.15 | 0.98 | < 0.005 | < 0.005 | 0.20 | 0.20 | < 0.005 | 0.05 | 0.05 | — | 218 | 218 | 0.01 | 0.01 | 0.40 | 222 |
| Area | 1.08 | 1.07 | 0.01 | 0.82 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 3.07 | 3.07 | < 0.005 | < 0.005 | — | 3.08 |
| Energy | < 0.005 | < 0.005 | 0.03 | 0.03 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 411 | 411 | 0.06 | 0.01 | — | 415 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water | — | — | — | — | — | — | — | — | — | — | — | 15.4 | 29.1 | 44.6 | 1.59 | 0.04 | — | 95.6 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 17.6 | 0.00 | 17.6 | 1.76 | 0.00 | — | 61.7 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 632 | 632 |
| Total | 1.22 | 1.19 | 0.19 | 1.83 | < 0.005 | 0.01 | 0.20 | 0.21 | 0.01 | 0.05 | 0.06 | 33.1 | 661 | 694 | 3.42 | 0.06 | 633 | 1,429 |

# 3. Construction Emissions Details

## 3.1. Grading (2025) - 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 3.80 | 3.20 | 29.7 | 28.3 | 0.06 | 1.23 | — | 1.23 | 1.14 | — | 1.14 | — | 6,599 | 6,599 | 0.27 | 0.05 | — | 6,622 |
| 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 | 0.66 | 0.55 | 5.12 | 4.89 | 0.01 | 0.21 | — | 0.21 | 0.20 | — | 0.20 | — | 1,139 | 1,139 | 0.05 | 0.01 | — | 1,143 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dust From Material Movement | — | — | — | — | — | — | 1.59 | 1.59 | — | 0.63 | 0.63 | — | — | — | — | — | — | — |
| 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 | 0.12 | 0.10 | 0.93 | 0.89 | < 0.005 | 0.04 | — | 0.04 | 0.04 | — | 0.04 | — | 189 | 189 | 0.01 | < 0.005 | — | 189 |
| Dust From Material Movement | — | — | — | — | — | — | 0.29 | 0.29 | — | 0.12 | 0.12 | — | — | — | — | — | — | — |
| 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 | 0.09 | 0.08 | 0.08 | 0.84 | 0.00 | 0.00 | 0.17 | 0.17 | 0.00 | 0.04 | 0.04 | — | 162 | 162 | 0.01 | 0.01 | 0.02 | 164 |
| 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 | 0.14 | 0.00 | 0.00 | 0.03 | 0.03 | 0.00 | 0.01 | 0.01 | — | 28.2 | 28.2 | < 0.005 | < 0.005 | 0.05 | 28.6 |
| 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 | 0.03 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 4.66 | 4.66 | < 0.005 | < 0.005 | 0.01 | 4.74 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 |

## 3.2. Grading (2025) - 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 | 3.80 | 3.20 | 29.7 | 28.3 | 0.06 | 1.23 | — | 1.23 | 1.14 | — | 1.14 | — | 6,599 | 6,599 | 0.27 | 0.05 | — | 6,622 |
| 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 | 0.66 | 0.55 | 5.12 | 4.89 | 0.01 | 0.21 | — | 0.21 | 0.20 | — | 0.20 | — | 1,139 | 1,139 | 0.05 | 0.01 | — | 1,143 |
| Dust From Material Movement | — | — | — | — | — | — | 1.59 | 1.59 | — | 0.63 | 0.63 | — | — | — | — | — | — | — |
| 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 | 0.12 | 0.10 | 0.93 | 0.89 | < 0.005 | 0.04 | — | 0.04 | 0.04 | — | 0.04 | — | 189 | 189 | 0.01 | < 0.005 | — | 189 |
| Dust From Material Movement | — | — | — | — | — | — | 0.29 | 0.29 | — | 0.12 | 0.12 | — | — | — | — | — | — | — |
| 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 | 0.09 | 0.08 | 0.08 | 0.84 | 0.00 | 0.00 | 0.17 | 0.17 | 0.00 | 0.04 | 0.04 | — | 162 | 162 | 0.01 | 0.01 | 0.02 | 164 |
| 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 | 0.14 | 0.00 | 0.00 | 0.03 | 0.03 | 0.00 | 0.01 | 0.01 | — | 28.2 | 28.2 | < 0.005 | < 0.005 | 0.05 | 28.6 |
| 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 | 0.03 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 4.66 | 4.66 | < 0.005 | < 0.005 | 0.01 | 4.74 |
| 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. Building Construction (2025) - 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.35 | 1.13 | 10.4 | 13.0 | 0.02 | 0.43 | — | 0.43 | 0.40 | — | 0.40 | — | 2,398 | 2,398 | 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 | 1.35 | 1.13 | 10.4 | 13.0 | 0.02 | 0.43 | — | 0.43 | 0.40 | — | 0.40 | — | 2,398 | 2,398 | 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 | 0.73 | 0.61 | 5.68 | 7.09 | 0.01 | 0.23 | — | 0.23 | 0.22 | — | 0.22 | — | 1,304 | 1,304 | 0.05 | 0.01 | — | 1,309 |
| 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 | 0.13 | 0.11 | 1.04 | 1.29 | < 0.005 | 0.04 | — | 0.04 | 0.04 | — | 0.04 | — | 216 | 216 | 0.01 | < 0.005 | — | 217 |
| 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 | 0.39 | 0.36 | 0.25 | 4.08 | 0.00 | 0.00 | 0.73 | 0.73 | 0.00 | 0.17 | 0.17 | — | 766 | 766 | 0.02 | 0.03 | 3.25 | 779 |
| Vendor | 0.07 | 0.04 | 1.30 | 0.51 | 0.01 | 0.01 | 0.24 | 0.26 | 0.01 | 0.07 | 0.08 | — | 929 | 929 | 0.04 | 0.14 | 2.47 | 975 |
| 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 | 0.38 | 0.35 | 0.33 | 3.70 | 0.00 | 0.00 | 0.73 | 0.73 | 0.00 | 0.17 | 0.17 | — | 714 | 714 | 0.02 | 0.03 | 0.08 | 724 |
| Vendor | 0.07 | 0.03 | 1.38 | 0.53 | 0.01 | 0.01 | 0.24 | 0.26 | 0.01 | 0.07 | 0.08 | — | 930 | 930 | 0.04 | 0.14 | 0.06 | 973 |
| 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 | 0.20 | 0.19 | 0.16 | 1.93 | 0.00 | 0.00 | 0.39 | 0.39 | 0.00 | 0.09 | 0.09 | — | 392 | 392 | 0.01 | 0.02 | 0.76 | 398 |
| Vendor | 0.04 | 0.02 | 0.74 | 0.28 | < 0.005 | 0.01 | 0.13 | 0.14 | 0.01 | 0.04 | 0.04 | — | 506 | 506 | 0.02 | 0.08 | 0.58 | 530 |
| 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 | 0.04 | 0.03 | 0.03 | 0.35 | 0.00 | 0.00 | 0.07 | 0.07 | 0.00 | 0.02 | 0.02 | — | 64.9 | 64.9 | < 0.005 | < 0.005 | 0.13 | 65.9 |
| Vendor | 0.01 | < 0.005 | 0.13 | 0.05 | < 0.005 | < 0.005 | 0.02 | 0.02 | < 0.005 | 0.01 | 0.01 | — | 83.7 | 83.7 | < 0.005 | 0.01 | 0.10 | 87.7 |
| 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 |

## 3.4. Building Construction (2025) - 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 | 1.35 | 1.13 | 10.4 | 13.0 | 0.02 | 0.43 | — | 0.43 | 0.40 | — | 0.40 | — | 2,398 | 2,398 | 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 | 1.35 | 1.13 | 10.4 | 13.0 | 0.02 | 0.43 | — | 0.43 | 0.40 | — | 0.40 | — | 2,398 | 2,398 | 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 | 0.73 | 0.61 | 5.68 | 7.09 | 0.01 | 0.23 | — | 0.23 | 0.22 | — | 0.22 | — | 1,304 | 1,304 | 0.05 | 0.01 | — | 1,309 |
| 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 | 0.13 | 0.11 | 1.04 | 1.29 | < 0.005 | 0.04 | — | 0.04 | 0.04 | — | 0.04 | — | 216 | 216 | 0.01 | < 0.005 | — | 217 |
| 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 | 0.39 | 0.36 | 0.25 | 4.08 | 0.00 | 0.00 | 0.73 | 0.73 | 0.00 | 0.17 | 0.17 | — | 766 | 766 | 0.02 | 0.03 | 3.25 | 779 |
| Vendor | 0.07 | 0.04 | 1.30 | 0.51 | 0.01 | 0.01 | 0.24 | 0.26 | 0.01 | 0.07 | 0.08 | — | 929 | 929 | 0.04 | 0.14 | 2.47 | 975 |
| 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 | 0.38 | 0.35 | 0.33 | 3.70 | 0.00 | 0.00 | 0.73 | 0.73 | 0.00 | 0.17 | 0.17 | — | 714 | 714 | 0.02 | 0.03 | 0.08 | 724 |
| Vendor | 0.07 | 0.03 | 1.38 | 0.53 | 0.01 | 0.01 | 0.24 | 0.26 | 0.01 | 0.07 | 0.08 | — | 930 | 930 | 0.04 | 0.14 | 0.06 | 973 |
| 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 | 0.20 | 0.19 | 0.16 | 1.93 | 0.00 | 0.00 | 0.39 | 0.39 | 0.00 | 0.09 | 0.09 | — | 392 | 392 | 0.01 | 0.02 | 0.76 | 398 |
| Vendor | 0.04 | 0.02 | 0.74 | 0.28 | < 0.005 | 0.01 | 0.13 | 0.14 | 0.01 | 0.04 | 0.04 | — | 506 | 506 | 0.02 | 0.08 | 0.58 | 530 |
| 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 | 0.04 | 0.03 | 0.03 | 0.35 | 0.00 | 0.00 | 0.07 | 0.07 | 0.00 | 0.02 | 0.02 | — | 64.9 | 64.9 | < 0.005 | < 0.005 | 0.13 | 65.9 |
| Vendor | 0.01 | < 0.005 | 0.13 | 0.05 | < 0.005 | < 0.005 | 0.02 | 0.02 | < 0.005 | 0.01 | 0.01 | — | 83.7 | 83.7 | < 0.005 | 0.01 | 0.10 | 87.7 |
| 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. 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.28 | 1.07 | 9.85 | 13.0 | 0.02 | 0.38 | — | 0.38 | 0.35 | — | 0.35 | — | 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 | 1.28 | 1.07 | 9.85 | 13.0 | 0.02 | 0.38 | — | 0.38 | 0.35 | — | 0.35 | — | 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 | 0.36 | 0.30 | 2.76 | 3.63 | 0.01 | 0.11 | — | 0.11 | 0.10 | — | 0.10 | — | 671 | 671 | 0.03 | 0.01 | — | 673 |
| 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 | 0.07 | 0.05 | 0.50 | 0.66 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 111 | 111 | < 0.005 | < 0.005 | — | 111 |
| 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 | 0.38 | 0.35 | 0.24 | 3.81 | 0.00 | 0.00 | 0.73 | 0.73 | 0.00 | 0.17 | 0.17 | — | 752 | 752 | 0.02 | 0.03 | 3.00 | 764 |
| Vendor | 0.07 | 0.03 | 1.24 | 0.49 | 0.01 | 0.01 | 0.24 | 0.26 | 0.01 | 0.07 | 0.08 | — | 914 | 914 | 0.04 | 0.14 | 2.35 | 959 |
| 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 | 0.37 | 0.33 | 0.30 | 3.45 | 0.00 | 0.00 | 0.73 | 0.73 | 0.00 | 0.17 | 0.17 | — | 701 | 701 | 0.02 | 0.03 | 0.08 | 711 |
| Vendor | 0.07 | 0.03 | 1.31 | 0.50 | 0.01 | 0.01 | 0.24 | 0.26 | 0.01 | 0.07 | 0.08 | — | 914 | 914 | 0.04 | 0.14 | 0.06 | 957 |
| 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 | 0.10 | 0.09 | 0.08 | 0.93 | 0.00 | 0.00 | 0.20 | 0.20 | 0.00 | 0.05 | 0.05 | — | 198 | 198 | 0.01 | 0.01 | 0.36 | 201 |
| Vendor | 0.02 | 0.01 | 0.36 | 0.14 | < 0.005 | < 0.005 | 0.07 | 0.07 | < 0.005 | 0.02 | 0.02 | — | 256 | 256 | 0.01 | 0.04 | 0.28 | 268 |
| 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 | 0.02 | 0.02 | 0.01 | 0.17 | 0.00 | 0.00 | 0.04 | 0.04 | 0.00 | 0.01 | 0.01 | — | 32.8 | 32.8 | < 0.005 | < 0.005 | 0.06 | 33.3 |
| Vendor | < 0.005 | < 0.005 | 0.07 | 0.03 | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | — | 42.4 | 42.4 | < 0.005 | 0.01 | 0.05 | 44.4 |
| 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 |

## 3.6. 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.28 | 1.07 | 9.85 | 13.0 | 0.02 | 0.38 | — | 0.38 | 0.35 | — | 0.35 | — | 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 | 1.28 | 1.07 | 9.85 | 13.0 | 0.02 | 0.38 | — | 0.38 | 0.35 | — | 0.35 | — | 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 | 0.36 | 0.30 | 2.76 | 3.63 | 0.01 | 0.11 | — | 0.11 | 0.10 | — | 0.10 | — | 671 | 671 | 0.03 | 0.01 | — | 673 |
| 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 | 0.07 | 0.05 | 0.50 | 0.66 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 111 | 111 | < 0.005 | < 0.005 | — | 111 |
| 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 | 0.38 | 0.35 | 0.24 | 3.81 | 0.00 | 0.00 | 0.73 | 0.73 | 0.00 | 0.17 | 0.17 | — | 752 | 752 | 0.02 | 0.03 | 3.00 | 764 |
| Vendor | 0.07 | 0.03 | 1.24 | 0.49 | 0.01 | 0.01 | 0.24 | 0.26 | 0.01 | 0.07 | 0.08 | — | 914 | 914 | 0.04 | 0.14 | 2.35 | 959 |
| 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 | 0.37 | 0.33 | 0.30 | 3.45 | 0.00 | 0.00 | 0.73 | 0.73 | 0.00 | 0.17 | 0.17 | — | 701 | 701 | 0.02 | 0.03 | 0.08 | 711 |
| Vendor | 0.07 | 0.03 | 1.31 | 0.50 | 0.01 | 0.01 | 0.24 | 0.26 | 0.01 | 0.07 | 0.08 | — | 914 | 914 | 0.04 | 0.14 | 0.06 | 957 |
| 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 | 0.10 | 0.09 | 0.08 | 0.93 | 0.00 | 0.00 | 0.20 | 0.20 | 0.00 | 0.05 | 0.05 | — | 198 | 198 | 0.01 | 0.01 | 0.36 | 201 |
| Vendor | 0.02 | 0.01 | 0.36 | 0.14 | < 0.005 | < 0.005 | 0.07 | 0.07 | < 0.005 | 0.02 | 0.02 | — | 256 | 256 | 0.01 | 0.04 | 0.28 | 268 |
| 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 | 0.02 | 0.02 | 0.01 | 0.17 | 0.00 | 0.00 | 0.04 | 0.04 | 0.00 | 0.01 | 0.01 | — | 32.8 | 32.8 | < 0.005 | < 0.005 | 0.06 | 33.3 |
| Vendor | < 0.005 | < 0.005 | 0.07 | 0.03 | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | — | 42.4 | 42.4 | < 0.005 | 0.01 | 0.05 | 44.4 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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. Paving (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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.91 | 0.76 | 7.12 | 9.94 | 0.01 | 0.32 | — | 0.32 | 0.29 | — | 0.29 | — | 1,511 | 1,511 | 0.06 | 0.01 | — | 1,516 |
| Paving | 0.25 | 0.25 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | 0.04 | 0.39 | 0.54 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 82.8 | 82.8 | < 0.005 | < 0.005 | — | 83.1 |
| Paving | 0.01 | 0.01 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | 0.10 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 13.7 | 13.7 | < 0.005 | < 0.005 | — | 13.8 |
| Paving | < 0.005 | < 0.005 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 0.06 | 0.06 | 0.04 | 0.65 | 0.00 | 0.00 | 0.12 | 0.12 | 0.00 | 0.03 | 0.03 | — | 128 | 128 | < 0.005 | < 0.005 | 0.51 | 130 |
| 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 | < 0.005 | < 0.005 | < 0.005 | 0.03 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 6.59 | 6.59 | < 0.005 | < 0.005 | 0.01 | 6.69 |
| 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 | — | 1.09 | 1.09 | < 0.005 | < 0.005 | < 0.005 | 1.11 |
| 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 |

## 3.8. Paving (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 | 0.91 | 0.76 | 7.12 | 9.94 | 0.01 | 0.32 | — | 0.32 | 0.29 | — | 0.29 | — | 1,511 | 1,511 | 0.06 | 0.01 | — | 1,516 |
| Paving | 0.25 | 0.25 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | 0.04 | 0.39 | 0.54 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 82.8 | 82.8 | < 0.005 | < 0.005 | — | 83.1 |
| Paving | 0.01 | 0.01 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | 0.10 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 13.7 | 13.7 | < 0.005 | < 0.005 | — | 13.8 |
| Paving | < 0.005 | < 0.005 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | 0.06 | 0.06 | 0.04 | 0.65 | 0.00 | 0.00 | 0.12 | 0.12 | 0.00 | 0.03 | 0.03 | — | 128 | 128 | < 0.005 | < 0.005 | 0.51 | 130 |
| 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 | < 0.005 | < 0.005 | < 0.005 | 0.03 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 6.59 | 6.59 | < 0.005 | < 0.005 | 0.01 | 6.69 |
| 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 | — | 1.09 | 1.09 | < 0.005 | < 0.005 | < 0.005 | 1.11 |
| 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 |

## 3.9. Architectural Coating (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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.15 | 0.12 | 0.86 | 1.13 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 134 | 134 | 0.01 | < 0.005 | — | 134 |
| Architectural Coatings | 111 | 111 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | 0.01 | 0.01 | 0.05 | 0.06 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 7.32 | 7.32 | < 0.005 | < 0.005 | — | 7.34 |
| Architectural Coatings | 6.07 | 6.07 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | 0.01 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 1.21 | 1.21 | < 0.005 | < 0.005 | — | 1.22 |
| Architectural Coatings | 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 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.08 | 0.07 | 0.05 | 0.76 | 0.00 | 0.00 | 0.15 | 0.15 | 0.00 | 0.03 | 0.03 | — | 150 | 150 | < 0.005 | 0.01 | 0.60 | 153 |
| 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 | < 0.005 | < 0.005 | < 0.005 | 0.04 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 7.75 | 7.75 | < 0.005 | < 0.005 | 0.01 | 7.87 |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | — | 1.28 | 1.28 | < 0.005 | < 0.005 | < 0.005 | 1.30 |
| 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 |

## 3.10. Architectural Coating (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 | 0.15 | 0.12 | 0.86 | 1.13 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 134 | 134 | 0.01 | < 0.005 | — | 134 |
| Architectural Coatings | 49.9 | 49.9 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | 0.01 | 0.01 | 0.05 | 0.06 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 7.32 | 7.32 | < 0.005 | < 0.005 | — | 7.34 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Architectural | 2.73 | 2.73 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | 0.01 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 1.21 | 1.21 | < 0.005 | < 0.005 | — | 1.22 |
| Architectural Coatings | 0.50 | 0.50 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | 0.07 | 0.05 | 0.76 | 0.00 | 0.00 | 0.15 | 0.15 | 0.00 | 0.03 | 0.03 | — | 150 | 150 | < 0.005 | 0.01 | 0.60 | 153 |
| 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 | < 0.005 | < 0.005 | < 0.005 | 0.04 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 7.75 | 7.75 | < 0.005 | < 0.005 | 0.01 | 7.87 |
| 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 | — | 1.28 | 1.28 | < 0.005 | < 0.005 | < 0.005 | 1.30 |
| 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | 0.51 | 0.47 | 0.52 | 3.87 | 0.01 | 0.01 | 0.76 | 0.77 | 0.01 | 0.19 | 0.20 | — | 917 | 917 | 0.04 | 0.04 | 3.73 | 935 |
| Unrefrigerated Warehouse-No Rail | 0.56 | 0.52 | 0.57 | 4.24 | 0.01 | 0.01 | 0.83 | 0.84 | 0.01 | 0.21 | 0.22 | — | 1,005 | 1,005 | 0.04 | 0.05 | 4.09 | 1,024 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 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 | 1.08 | 0.99 | 1.08 | 8.11 | 0.02 | 0.02 | 1.59 | 1.61 | 0.02 | 0.40 | 0.42 | — | 1,922 | 1,922 | 0.08 | 0.09 | 7.82 | 1,959 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | 0.50 | 0.45 | 0.60 | 3.76 | 0.01 | 0.01 | 0.76 | 0.77 | 0.01 | 0.19 | 0.20 | — | 872 | 872 | 0.04 | 0.05 | 0.10 | 888 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Unrefrigerated Warehouse-No Rail | 0.54 | 0.50 | 0.65 | 4.12 | 0.01 | 0.01 | 0.83 | 0.84 | 0.01 | 0.21 | 0.22 | — | 956 | 956 | 0.05 | 0.05 | 0.11 | 973 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 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 | 1.04 | 0.95 | 1.25 | 7.88 | 0.02 | 0.02 | 1.59 | 1.61 | 0.02 | 0.40 | 0.42 | — | 1,828 | 1,828 | 0.09 | 0.10 | 0.20 | 1,861 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | 0.06 | 0.06 | 0.07 | 0.47 | < 0.005 | < 0.005 | 0.10 | 0.10 | < 0.005 | 0.02 | 0.03 | — | 104 | 104 | < 0.005 | 0.01 | 0.19 | 106 |
| Unrefrigerated Warehouse-No Rail | 0.07 | 0.06 | 0.08 | 0.51 | < 0.005 | < 0.005 | 0.11 | 0.11 | < 0.005 | 0.03 | 0.03 | — | 114 | 114 | 0.01 | 0.01 | 0.21 | 116 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 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 | 0.13 | 0.12 | 0.15 | 0.98 | < 0.005 | < 0.005 | 0.20 | 0.20 | < 0.005 | 0.05 | 0.05 | — | 218 | 218 | 0.01 | 0.01 | 0.40 | 222 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | 0.51 | 0.47 | 0.52 | 3.87 | 0.01 | 0.01 | 0.76 | 0.77 | 0.01 | 0.19 | 0.20 | — | 917 | 917 | 0.04 | 0.04 | 3.73 | 935 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Unrefrigerated | 0.56 | 0.52 | 0.57 | 4.24 | 0.01 | 0.01 | 0.83 | 0.84 | 0.01 | 0.21 | 0.22 | — | 1,005 | 1,005 | 0.04 | 0.05 | 4.09 | 1,024 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 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 | 1.08 | 0.99 | 1.08 | 8.11 | 0.02 | 0.02 | 1.59 | 1.61 | 0.02 | 0.40 | 0.42 | — | 1,922 | 1,922 | 0.08 | 0.09 | 7.82 | 1,959 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | 0.50 | 0.45 | 0.60 | 3.76 | 0.01 | 0.01 | 0.76 | 0.77 | 0.01 | 0.19 | 0.20 | — | 872 | 872 | 0.04 | 0.05 | 0.10 | 888 |
| Unrefrigerated Warehouse-No Rail | 0.54 | 0.50 | 0.65 | 4.12 | 0.01 | 0.01 | 0.83 | 0.84 | 0.01 | 0.21 | 0.22 | — | 956 | 956 | 0.05 | 0.05 | 0.11 | 973 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 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 | 1.04 | 0.95 | 1.25 | 7.88 | 0.02 | 0.02 | 1.59 | 1.61 | 0.02 | 0.40 | 0.42 | — | 1,828 | 1,828 | 0.09 | 0.10 | 0.20 | 1,861 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | 0.06 | 0.06 | 0.07 | 0.47 | < 0.005 | < 0.005 | 0.10 | 0.10 | < 0.005 | 0.02 | 0.03 | — | 104 | 104 | < 0.005 | 0.01 | 0.19 | 106 |
| Unrefrigerated Warehouse-No Rail | 0.07 | 0.06 | 0.08 | 0.51 | < 0.005 | < 0.005 | 0.11 | 0.11 | < 0.005 | 0.03 | 0.03 | — | 114 | 114 | 0.01 | 0.01 | 0.21 | 116 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 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 | 0.13 | 0.12 | 0.15 | 0.98 | < 0.005 | < 0.005 | 0.20 | 0.20 | < 0.005 | 0.05 | 0.05 | — | 218 | 218 | 0.01 | 0.01 | 0.40 | 222 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | 1,843 | 1,843 | 0.30 | 0.04 | — | 1,861 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | 378 | 378 | 0.06 | 0.01 | — | 382 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | — | 40.5 | 40.5 | 0.01 | < 0.005 | — | 40.9 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 2,262 | 2,262 | 0.37 | 0.04 | — | 2,284 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | 1,843 | 1,843 | 0.30 | 0.04 | — | 1,861 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | 378 | 378 | 0.06 | 0.01 | — | 382 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | — | 40.5 | 40.5 | 0.01 | < 0.005 | — | 40.9 |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 2,262 | 2,262 | 0.37 | 0.04 | — | 2,284 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | 305 | 305 | 0.05 | 0.01 | — | 308 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | 62.5 | 62.5 | 0.01 | < 0.005 | — | 63.2 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | — | 6.70 | 6.70 | < 0.005 | < 0.005 | — | 6.77 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 374 | 374 | 0.06 | 0.01 | — | 378 |

### 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | 1,843 | 1,843 | 0.30 | 0.04 | — | 1,861 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | 378 | 378 | 0.06 | 0.01 | — | 382 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | — | 40.5 | 40.5 | 0.01 | < 0.005 | — | 40.9 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 2,262 | 2,262 | 0.37 | 0.04 | — | 2,284 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | 1,843 | 1,843 | 0.30 | 0.04 | — | 1,861 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | 378 | 378 | 0.06 | 0.01 | — | 382 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | — | 40.5 | 40.5 | 0.01 | < 0.005 | — | 40.9 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 2,262 | 2,262 | 0.37 | 0.04 | — | 2,284 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | 305 | 305 | 0.05 | 0.01 | — | 308 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | 62.5 | 62.5 | 0.01 | < 0.005 | — | 63.2 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | — | 6.70 | 6.70 | < 0.005 | < 0.005 | — | 6.77 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 374 | 374 | 0.06 | 0.01 | — | 378 |

### 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | 0.01 | < 0.005 | 0.08 | 0.07 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 92.5 | 92.5 | 0.01 | < 0.005 | — | 92.7 |
| Unrefrigerated Warehouse-No Rail | 0.01 | 0.01 | 0.11 | 0.09 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 128 | 128 | 0.01 | < 0.005 | — | 129 |
| Parking Lot | 0.00 | 0.00 | 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 | 0.02 | 0.01 | 0.19 | 0.16 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 221 | 221 | 0.02 | < 0.005 | — | 221 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | 0.01 | < 0.005 | 0.08 | 0.07 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 92.5 | 92.5 | 0.01 | < 0.005 | — | 92.7 |
| Unrefrigerated Warehouse-No Rail | 0.01 | 0.01 | 0.11 | 0.09 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 128 | 128 | 0.01 | < 0.005 | — | 129 |
| Parking Lot | 0.00 | 0.00 | 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 | 0.02 | 0.01 | 0.19 | 0.16 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 221 | 221 | 0.02 | < 0.005 | — | 221 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 15.3 | 15.3 | < 0.005 | < 0.005 | — | 15.4 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Unrefrig Warehouse-No Rail | < 0.005 | < 0.005 | 0.02 | 0.02 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 21.3 | 21.3 | < 0.005 | < 0.005 | — | 21.3 |
| Parking Lot | 0.00 | 0.00 | 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 | < 0.005 | < 0.005 | 0.03 | 0.03 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 36.6 | 36.6 | < 0.005 | < 0.005 | — | 36.7 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | 0.01 | < 0.005 | 0.08 | 0.07 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 92.5 | 92.5 | 0.01 | < 0.005 | — | 92.7 |
| Unrefrigerated Warehouse-No Rail | 0.01 | 0.01 | 0.11 | 0.09 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 128 | 128 | 0.01 | < 0.005 | — | 129 |
| Parking Lot | 0.00 | 0.00 | 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 | 0.02 | 0.01 | 0.19 | 0.16 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 221 | 221 | 0.02 | < 0.005 | — | 221 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | 0.01 | < 0.005 | 0.08 | 0.07 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 92.5 | 92.5 | 0.01 | < 0.005 | — | 92.7 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Unrefrigerated | 0.01 | 0.01 | 0.11 | 0.09 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 128 | 128 | 0.01 | < 0.005 | — | 129 |
| Parking Lot | 0.00 | 0.00 | 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 | 0.02 | 0.01 | 0.19 | 0.16 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 221 | 221 | 0.02 | < 0.005 | — | 221 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 15.3 | 15.3 | < 0.005 | < 0.005 | — | 15.4 |
| Unrefrigerated Warehouse-No Rail | < 0.005 | < 0.005 | 0.02 | 0.02 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 21.3 | 21.3 | < 0.005 | < 0.005 | — | 21.3 |
| Parking Lot | 0.00 | 0.00 | 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 | < 0.005 | < 0.005 | 0.03 | 0.03 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 36.6 | 36.6 | < 0.005 | < 0.005 | — | 36.7 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | 4.51 | 4.51 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Architectural Coatings | 0.61 | 0.61 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | 1.63 | 1.50 | 0.08 | 9.14 | < 0.005 | 0.02 | — | 0.02 | 0.01 | — | 0.01 | — | 37.6 | 37.6 | < 0.005 | < 0.005 | — | 37.7 |
| Total | 6.74 | 6.61 | 0.08 | 9.14 | < 0.005 | 0.02 | — | 0.02 | 0.01 | — | 0.01 | — | 37.6 | 37.6 | < 0.005 | < 0.005 | — | 37.7 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | 4.51 | 4.51 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | 0.61 | 0.61 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | 5.11 | 5.11 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | 0.82 | 0.82 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | 0.11 | 0.11 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | 0.15 | 0.14 | 0.01 | 0.82 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 3.07 | 3.07 | < 0.005 | < 0.005 | — | 3.08 |
| Total | 1.08 | 1.07 | 0.01 | 0.82 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 3.07 | 3.07 | < 0.005 | < 0.005 | — | 3.08 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | 4.51 | 4.51 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | 0.61 | 0.61 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | 1.63 | 1.50 | 0.08 | 9.14 | < 0.005 | 0.02 | — | 0.02 | 0.01 | — | 0.01 | — | 37.6 | 37.6 | < 0.005 | < 0.005 | — | 37.7 |
| Total | 6.74 | 6.61 | 0.08 | 9.14 | < 0.005 | 0.02 | — | 0.02 | 0.01 | — | 0.01 | — | 37.6 | 37.6 | < 0.005 | < 0.005 | — | 37.7 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | 4.51 | 4.51 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | 0.61 | 0.61 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | 5.11 | 5.11 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | 0.82 | 0.82 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Architectural Coating | 0.11 | 0.11 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | 0.15 | 0.14 | 0.01 | 0.82 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 3.07 | 3.07 | < 0.005 | < 0.005 | — | 3.08 |
| Total | 1.08 | 1.07 | 0.01 | 0.82 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 3.07 | 3.07 | < 0.005 | < 0.005 | — | 3.08 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 63.5 | 120 | 183 | 6.53 | 0.16 | — | 394 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 29.7 | 56.0 | 85.7 | 3.05 | 0.07 | — | 184 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 93.2 | 176 | 269 | 9.58 | 0.23 | — | 577 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Refrigerated Wareho Rail | — | — | — | — | — | — | — | — | — | — | — | 63.5 | 120 | 183 | 6.53 | 0.16 | — | 394 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 29.7 | 56.0 | 85.7 | 3.05 | 0.07 | — | 184 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 93.2 | 176 | 269 | 9.58 | 0.23 | — | 577 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 10.5 | 19.9 | 30.4 | 1.08 | 0.03 | — | 65.2 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 4.91 | 9.27 | 14.2 | 0.50 | 0.01 | — | 30.4 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 15.4 | 29.1 | 44.6 | 1.59 | 0.04 | — | 95.6 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Refrigerated Wareho Rail | — | — | — | — | — | — | — | — | — | — | — | 63.5 | 120 | 183 | 6.53 | 0.16 | — | 394 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 29.7 | 56.0 | 85.7 | 3.05 | 0.07 | — | 184 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 93.2 | 176 | 269 | 9.58 | 0.23 | — | 577 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 63.5 | 120 | 183 | 6.53 | 0.16 | — | 394 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 29.7 | 56.0 | 85.7 | 3.05 | 0.07 | — | 184 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 93.2 | 176 | 269 | 9.58 | 0.23 | — | 577 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 10.5 | 19.9 | 30.4 | 1.08 | 0.03 | — | 65.2 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 4.91 | 9.27 | 14.2 | 0.50 | 0.01 | — | 30.4 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 15.4 | 29.1 | 44.6 | 1.59 | 0.04 | — | 95.6 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 72.6 | 0.00 | 72.6 | 7.26 | 0.00 | — | 254 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 33.9 | 0.00 | 33.9 | 3.39 | 0.00 | — | 119 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 107 | 0.00 | 107 | 10.6 | 0.00 | — | 373 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Refrigerated Wareho Rail | — | — | — | — | — | — | — | — | — | — | — | 72.6 | 0.00 | 72.6 | 7.26 | 0.00 | — | 254 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 33.9 | 0.00 | 33.9 | 3.39 | 0.00 | — | 119 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 107 | 0.00 | 107 | 10.6 | 0.00 | — | 373 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 12.0 | 0.00 | 12.0 | 1.20 | 0.00 | — | 42.1 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 5.61 | 0.00 | 5.61 | 0.56 | 0.00 | — | 19.6 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 17.6 | 0.00 | 17.6 | 1.76 | 0.00 | — | 61.7 |

### 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Refrigerated Wareho Rail | — | — | — | — | — | — | — | — | — | — | — | 72.6 | 0.00 | 72.6 | 7.26 | 0.00 | — | 254 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 33.9 | 0.00 | 33.9 | 3.39 | 0.00 | — | 119 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 107 | 0.00 | 107 | 10.6 | 0.00 | — | 373 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 72.6 | 0.00 | 72.6 | 7.26 | 0.00 | — | 254 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 33.9 | 0.00 | 33.9 | 3.39 | 0.00 | — | 119 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 107 | 0.00 | 107 | 10.6 | 0.00 | — | 373 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 12.0 | 0.00 | 12.0 | 1.20 | 0.00 | — | 42.1 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 5.61 | 0.00 | 5.61 | 0.56 | 0.00 | — | 19.6 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 17.6 | 0.00 | 17.6 | 1.76 | 0.00 | — | 61.7 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Refrigerated | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 632 | 632 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 632 | 632 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 632 | 632 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 632 | 632 |

## 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 |
|---|---|---|---|---|---|---|
| Grading | Grading | 1/1/2025 | 3/28/2025 | 5.00 | 63.0 | — |
| Building Construction | Building Construction | 3/29/2025 | 5/23/2026 | 5.00 | 300 | — |
| Paving | Paving | 5/24/2026 | 6/21/2026 | 5.00 | 20.0 | — |
| Architectural Coating | Architectural Coating | 6/22/2026 | 7/20/2026 | 5.00 | 20.0 | — |

## 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 |
|---|---|---|---|---|---|---|---|
| Grading | Graders | Diesel | Average | 1.00 | 8.00 | 148 | 0.41 |
| Grading | Rubber Tired Dozers | Diesel | Average | 1.00 | 8.00 | 367 | 0.40 |
| Grading | Tractors/Loaders/Backhoes | Diesel | Average | 2.00 | 8.00 | 84.0 | 0.37 |
| Grading | Excavators | Diesel | Average | 2.00 | 8.00 | 36.0 | 0.38 |
| Grading | Scrapers | Diesel | Average | 2.00 | 8.00 | 423 | 0.48 |
| Building Construction | Cranes | Diesel | Average | 1.00 | 7.00 | 367 | 0.29 |
| 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 | Tractors/Loaders/Backhoes | Diesel | Average | 3.00 | 7.00 | 84.0 | 0.37 |
| Building Construction | Welders | Diesel | Average | 1.00 | 8.00 | 46.0 | 0.45 |
| 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 |
|---|---|---|---|---|---|---|---|
| Grading | Graders | Diesel | Average | 1.00 | 8.00 | 148 | 0.41 |
| Grading | Rubber Tired Dozers | Diesel | Average | 1.00 | 8.00 | 367 | 0.40 |
| Grading | Tractors/Loaders/Backhoes | Diesel | Average | 2.00 | 8.00 | 84.0 | 0.37 |
| Grading | Excavators | Diesel | Average | 2.00 | 8.00 | 36.0 | 0.38 |
| Grading | Scrapers | Diesel | Average | 2.00 | 8.00 | 423 | 0.48 |
| Building Construction | Cranes | Diesel | Average | 1.00 | 7.00 | 367 | 0.29 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 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 | Tractors/Loaders/Backhoes | Diesel | Average | 3.00 | 7.00 | 84.0 | 0.37 |
| Building Construction | Welders | Diesel | Average | 1.00 | 8.00 | 46.0 | 0.45 |
| 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 |

## 5.3. Construction Vehicles

### 5.3.1. Unmitigated

| Phase Name | Trip Type | One-Way Trips per Day | Miles per Trip | Vehicle Mix |
|---|---|---|---|---|
| Grading | — | — | — | — |
| Grading | Worker | 20.0 | 11.7 | LDA,LDT1,LDT2 |
| Grading | Vendor | — | 8.40 | HHDT,MHDT |
| Grading | Hauling | 0.00 | 20.0 | HHDT |
| Grading | Onsite truck | — | — | HHDT |
| Building Construction | — | — | — | — |
| Building Construction | Worker | 88.3 | 11.7 | LDA,LDT1,LDT2 |
| Building Construction | Vendor | 34.5 | 8.40 | HHDT,MHDT |
| Building Construction | Hauling | 0.00 | 20.0 | HHDT |
| Building Construction | Onsite truck | — | — | HHDT |
| Paving | — | — | — | — |
| Paving | Worker | 15.0 | 11.7 | LDA,LDT1,LDT2 |
| Paving | Vendor | — | 8.40 | HHDT,MHDT |
| Paving | Hauling | 0.00 | 20.0 | HHDT |
| Paving | Onsite truck | — | — | HHDT |

| | | | | |
|---|---|---|---|---|
| Architectural Coating | — | — | — | — |
| Architectural Coating | Worker | 17.7 | 11.7 | LDA,LDT1,LDT2 |
| Architectural Coating | Vendor | — | 8.40 | 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 |
|---|---|---|---|---|
| Grading | — | — | — | — |
| Grading | Worker | 20.0 | 11.7 | LDA,LDT1,LDT2 |
| Grading | Vendor | — | 8.40 | HHDT,MHDT |
| Grading | Hauling | 0.00 | 20.0 | HHDT |
| Grading | Onsite truck | — | — | HHDT |
| Building Construction | — | — | — | — |
| Building Construction | Worker | 88.3 | 11.7 | LDA,LDT1,LDT2 |
| Building Construction | Vendor | 34.5 | 8.40 | HHDT,MHDT |
| Building Construction | Hauling | 0.00 | 20.0 | HHDT |
| Building Construction | Onsite truck | — | — | HHDT |
| Paving | — | — | — | — |
| Paving | Worker | 15.0 | 11.7 | LDA,LDT1,LDT2 |
| Paving | Vendor | — | 8.40 | HHDT,MHDT |
| Paving | Hauling | 0.00 | 20.0 | HHDT |
| Paving | Onsite truck | — | — | HHDT |
| Architectural Coating | — | — | — | — |
| Architectural Coating | Worker | 17.7 | 11.7 | LDA,LDT1,LDT2 |
| Architectural Coating | Vendor | — | 8.40 | 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 | 0.00 | 0.00 | 315,341 | 105,114 | 4,963 |

## 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) |
|---|---|---|---|---|---|
| Grading | — | — | 189 | 0.00 | — |
| Paving | 0.00 | 0.00 | 0.00 | 0.00 | 1.90 |

### 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 |
|---|---|---|
| Refrigerated Warehouse-No Rail | 0.00 | 0% |
| Unrefrigerated Warehouse-No Rail | 0.00 | 0% |
| Parking Lot | 1.16 | 100% |
| Parking Lot | 0.74 | 100% |

## 5.8. Construction Electricity Consumption and Emissions Factors

### kWh per Year and Emission Factor (lb/MWh)

| Year | kWh per Year | CO2 | CH4 | N2O |
|---|---|---|---|---|
| 2025 | 0.00 | 204 | 0.03 | < 0.005 |
| 2026 | 0.00 | 204 | 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 |
|---|---|---|---|---|---|---|---|---|
| Refrigerated Warehouse-No Rail | 104 | 0.00 | 0.00 | 27,115 | 1,064 | 0.00 | 0.00 | 277,441 |
| Unrefrigerated Warehouse-No Rail | 114 | 0.00 | 0.00 | 29,720 | 1,166 | 0.00 | 0.00 | 304,104 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

### 5.9.2. Mitigated

| Land Use Type | Trips/Weekday | Trips/Saturday | Trips/Sunday | Trips/Year | VMT/Weekday | VMT/Saturday | VMT/Sunday | VMT/Year |
|---|---|---|---|---|---|---|---|---|
| Refrigerated Warehouse-No Rail | 104 | 0.00 | 0.00 | 27,115 | 1,064 | 0.00 | 0.00 | 277,441 |
| Unrefrigerated Warehouse-No Rail | 114 | 0.00 | 0.00 | 29,720 | 1,166 | 0.00 | 0.00 | 304,104 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 5.10. Operational Area Sources

### 5.10.1. Hearths

#### 5.10.1.1. Unmitigated

### 5.10.1.2. Mitigated

### 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) |
|---|---|---|---|---|
| 0 | 0.00 | 315,341 | 105,114 | 4,963 |

### 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) |
|---|---|---|---|---|---|
| Refrigerated Warehouse-No Rail | 3,298,193 | 204 | 0.0330 | 0.0040 | 288,569 |
| Unrefrigerated Warehouse-No Rail | 676,021 | 204 | 0.0330 | 0.0040 | 400,564 |
| Parking Lot | 44,302 | 204 | 0.0330 | 0.0040 | 0.00 |
| Parking Lot | 28,161 | 204 | 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) |
|---|---|---|---|---|---|
| Refrigerated Warehouse-No Rail | 3,298,193 | 204 | 0.0330 | 0.0040 | 288,569 |
| Unrefrigerated Warehouse-No Rail | 676,021 | 204 | 0.0330 | 0.0040 | 400,564 |
| Parking Lot | 44,302 | 204 | 0.0330 | 0.0040 | 0.00 |
| Parking Lot | 28,161 | 204 | 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) |
|---|---|---|
| Refrigerated Warehouse-No Rail | 33,140,900 | 0.00 |
| Unrefrigerated Warehouse-No Rail | 15,474,094 | 0.00 |
| Parking Lot | 0.00 | 0.00 |
| Parking Lot | 0.00 | 0.00 |

### 5.12.2. Mitigated

| Land Use | Indoor Water (gal/year) | Outdoor Water (gal/year) |
|---|---|---|
| Refrigerated Warehouse-No Rail | 33,140,900 | 0.00 |
| Unrefrigerated Warehouse-No Rail | 15,474,094 | 0.00 |
| Parking Lot | 0.00 | 0.00 |
| Parking Lot | 0.00 | 0.00 |

## 5.13. Operational Waste Generation

### 5.13.1. Unmitigated

| Land Use | Waste (ton/year) | Cogeneration (kWh/year) |
|---|---|---|
| Refrigerated Warehouse-No Rail | 135 | — |
| Unrefrigerated Warehouse-No Rail | 62.9 | — |
| Parking Lot | 0.00 | — |
| Parking Lot | 0.00 | — |

### 5.13.2. Mitigated

| Land Use | Waste (ton/year) | Cogeneration (kWh/year) |
|---|---|---|
| Refrigerated Warehouse-No Rail | 135 | — |
| Unrefrigerated Warehouse-No Rail | 62.9 | — |
| Parking Lot | 0.00 | — |
| Parking Lot | 0.00 | — |

## 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 |
|---|---|---|---|---|---|---|---|
| Refrigerated Warehouse-No Rail | Cold storage | R-404A | 3,922 | 7.50 | 7.50 | 7.50 | 25.0 |

### 5.14.2. Mitigated

| Land Use Type | Equipment Type | Refrigerant | GWP | Quantity (kg) | Operations Leak Rate | Service Leak Rate | Times Serviced |
|---|---|---|---|---|---|---|---|
| Refrigerated Warehouse-No Rail | Cold storage | R-404A | 3,922 | 7.50 | 7.50 | 7.50 | 25.0 |

## 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 | 11.8 | annual days of extreme heat |
| Extreme Precipitation | 5.65 | annual days with precipitation above 20 mm |
| Sea Level Rise | — | meters of inundation depth |
| Wildfire | 16.4 | 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 | N/A | N/A | N/A | N/A |
| Extreme Precipitation | 2 | 0 | 0 | N/A |
| Sea Level Rise | 1 | 0 | 0 | N/A |
| Wildfire | 1 | 0 | 0 | N/A |
| Flooding | N/A | N/A | N/A | N/A |
| Drought | N/A | N/A | N/A | 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 | N/A | N/A | N/A | N/A |
| Extreme Precipitation | 2 | 1 | 1 | 3 |
| Sea Level Rise | 1 | 1 | 1 | 2 |

| | | | | |
|---|---|---|---|---|
| Wildfire | 1 | 1 | 1 | 2 |
| Flooding | N/A | N/A | N/A | N/A |
| Drought | N/A | N/A | N/A | N/A |
| 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 | 16.8 |
| AQ-PM | 35.7 |
| AQ-DPM | 23.4 |
| Drinking Water | 69.2 |
| Lead Risk Housing | 55.8 |
| Pesticides | 66.2 |
| Toxic Releases | 61.2 |
| Traffic | 83.3 |
| Effect Indicators | — |
| CleanUp Sites | 62.4 |
| Groundwater | 0.00 |

| | |
|---|---|
| Haz Waste Facilities/Generators | 82.7 |
| Impaired Water Bodies | 23.9 |
| Solid Waste | 83.9 |
| Sensitive Population | — |
| Asthma | 71.9 |
| Cardio-vascular | 67.0 |
| Low Birth Weights | 51.0 |
| Socioeconomic Factor Indicators | — |
| Education | 62.0 |
| Housing | 12.0 |
| Linguistic | 39.2 |
| Poverty | 33.8 |
| Unemployment | 36.4 |

## 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 | 80.85461311 |
| Employed | 75.23418452 |
| Median HI | 74.554087 |
| Education | — |
| Bachelor's or higher | 69.35711536 |
| High school enrollment | 100 |
| Preschool enrollment | 12.62671628 |
| Transportation | — |
| Auto Access | 83.51084306 |
| Active commuting | 27.38354934 |

| | |
|---|---|
| Social | — |
| 2-parent households | 62.7229565 |
| Voting | 57.75696138 |
| Neighborhood | — |
| Alcohol availability | 76.10676248 |
| Park access | 56.71756705 |
| Retail density | 24.22687027 |
| Supermarket access | 27.9481586 |
| Tree canopy | 22.44321827 |
| Housing | — |
| Homeownership | 87.02681894 |
| Housing habitability | 96.41986398 |
| Low-inc homeowner severe housing cost burden | 70.11420506 |
| Low-inc renter severe housing cost burden | 97.06146542 |
| Uncrowded housing | 60.05389452 |
| Health Outcomes | — |
| Insured adults | 79.19928141 |
| Arthritis | 0.0 |
| Asthma ER Admissions | 56.0 |
| 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 | 25.5 |
| Cognitively Disabled | 20.1 |
| Physically Disabled | 17.3 |

| | |
|---|---|
| Heart Attack ER Admissions | 55.3 |
| 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 | 43.5 |
| Children | 32.5 |
| Elderly | 69.3 |
| English Speaking | 60.5 |
| Foreign-born | 72.3 |
| Outdoor Workers | 52.3 |
| Climate Change Adaptive Capacity | — |
| Impervious Surface Cover | 43.7 |
| Traffic Density | 45.1 |
| Traffic Access | 23.0 |
| Other Indices | — |
| Hardship | 34.8 |
| Other Decision Support | — |
| 2016 Voting | 51.4 |

## 7.3. Overall Health & Equity Scores

| Metric | Result for Project Census Tract |
|---|---|
| CalEnviroScreen 4.0 Score for Project Location (a) | 63.0 |
| Healthy Places Index Score for Project Location (b) | 73.0 |
| Project Located in a Designated Disadvantaged Community (Senate Bill 535) | No |
| Project Located in a Low-Income Community (Assembly Bill 1550) | No |
| 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 | Per project description of Building A and B |
| Construction: Construction Phases | Per model |
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# Wine Warehouse Detailed Report

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# 1. Basic Project Information

## 1.1. Basic Project Information

| Data Field | Value |
|---|---|
| Project Name | Wine Warehouse |
| Construction Start Date | 1/1/2025 |
| Operational Year | 2025 |
| Lead Agency | Napa County PBES |
| Land Use Scale | Project/site |
| Analysis Level for Defaults | County |
| Windspeed (m/s) | 3.60 |
| Precipitation (days) | 38.4 |
| Location | Morris Ct & Technology Way, California 94558, USA |
| County | Napa |
| City | Unincorporated |
| Air District | Bay Area AQMD |
| Air Basin | San Francisco Bay Area |
| TAZ | 801 |
| EDFZ | 2 |
| Electric Utility | Pacific Gas & Electric Company |
| Gas Utility | Pacific Gas & Electric |
| App Version | 2022.1.1.29 |

## 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 |
|---|---|---|---|---|---|---|---|---|
| Refrigerated Warehouse-No Rail | 143 | 1000sqft | 13.2 | 143,312 | — | — | — | Building A |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Unrefrigerated Warehouse-No Rail | 66.9 | 1000sqft | 6.87 | 66,915 | — | — | — | Building B |
| Parking Lot | 129 | Space | 1.16 | 0.00 | — | — | — | Parking Lot For Building A |
| Parking Lot | 82.0 | Space | 0.74 | 0.00 | — | — | — | — |

## 1.3. User-Selected Emission Reduction Measures by Emissions Sector

| Sector | # | Measure Title |
|---|---|---|
| Construction | C-13 | Use Low-VOC Paints for Construction |
| Transportation | T-14* | Provide Electric Vehicle Charging Infrastructure |
| Energy | E-1 | Buildings Exceed 2019 Title 24 Building Envelope Energy Efficiency Standards |
| Energy | E-2 | Require Energy Efficient Appliances |
| Energy | E-10-A | Establish Onsite Renewable Energy Systems: Generic |
| Water | W-5 | Design Water-Efficient Landscapes |

* Qualitative or supporting measure. Emission reductions not included in the mitigated emissions results.

# 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. | 111 | 111 | 12.0 | 17.6 | 0.03 | 0.44 | 0.97 | 1.42 | 0.41 | 0.24 | 0.65 | — | 4,093 | 4,093 | 0.15 | 0.19 | 5.72 | 4,159 |
| Mit. | 50.1 | 50.1 | 12.0 | 17.6 | 0.03 | 0.44 | 0.97 | 1.42 | 0.41 | 0.24 | 0.65 | — | 4,093 | 4,093 | 0.15 | 0.19 | 5.72 | 4,159 |
| % Reduced | 55% | 55% | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 3.89 | 3.28 | 29.8 | 29.1 | 0.06 | 1.23 | 9.37 | 10.6 | 1.14 | 3.69 | 4.83 | — | 6,761 | 6,761 | 0.27 | 0.19 | 0.15 | 6,785 |
| Mit. | 3.89 | 3.28 | 29.8 | 29.1 | 0.06 | 1.23 | 9.37 | 10.6 | 1.14 | 3.69 | 4.83 | — | 6,761 | 6,761 | 0.27 | 0.19 | 0.15 | 6,785 |
| % Reduced | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 6.63 | 6.54 | 11.7 | 14.3 | 0.03 | 0.46 | 2.13 | 2.59 | 0.42 | 0.76 | 1.18 | — | 3,369 | 3,369 | 0.13 | 0.11 | 1.40 | 3,408 |
| Mit. | 3.29 | 3.20 | 11.7 | 14.3 | 0.03 | 0.46 | 2.13 | 2.59 | 0.42 | 0.76 | 1.18 | — | 3,369 | 3,369 | 0.13 | 0.11 | 1.40 | 3,408 |
| % Reduced | 50% | 51% | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 1.21 | 1.19 | 2.14 | 2.62 | < 0.005 | 0.08 | 0.39 | 0.47 | 0.08 | 0.14 | 0.22 | — | 558 | 558 | 0.02 | 0.02 | 0.23 | 564 |
| Mit. | 0.60 | 0.58 | 2.14 | 2.62 | < 0.005 | 0.08 | 0.39 | 0.47 | 0.08 | 0.14 | 0.22 | — | 558 | 558 | 0.02 | 0.02 | 0.23 | 564 |
| % Reduced | 50% | 51% | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Exceeds (Daily Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Threshold | — | 54.0 | 54.0 | — | — | 82.0 | — | — | 54.0 | — | — | — | — | — | — | — | — | — |
| Unmit. | — | Yes | No | — | — | No | — | — | No | — | — | — | — | — | — | — | — | — |
| Mit. | — | No | No | — | — | No | — | — | No | — | — | — | — | — | — | — | — | — |
| Exceeds (Average Daily) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Threshold | — | 54.0 | 54.0 | — | — | 82.0 | — | — | 54.0 | — | — | — | — | — | — | — | — | — |
| Unmit. | — | No | No | — | — | No | — | — | No | — | — | — | — | — | — | — | — | — |
| Mit. | — | No | No | — | — | No | — | — | No | — | — | — | — | — | — | — | — | — |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 1.81 | 1.52 | 12.0 | 17.6 | 0.03 | 0.44 | 0.97 | 1.42 | 0.41 | 0.24 | 0.65 | — | 4,093 | 4,093 | 0.15 | 0.19 | 5.72 | 4,159 |
| 2026 | 111 | 111 | 11.3 | 17.3 | 0.03 | 0.39 | 0.97 | 1.36 | 0.36 | 0.24 | 0.60 | — | 4,063 | 4,063 | 0.15 | 0.19 | 5.34 | 4,128 |
| Daily - Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 3.89 | 3.28 | 29.8 | 29.1 | 0.06 | 1.23 | 9.37 | 10.6 | 1.14 | 3.69 | 4.83 | — | 6,761 | 6,761 | 0.27 | 0.19 | 0.15 | 6,785 |
| 2026 | 1.72 | 1.44 | 11.5 | 16.9 | 0.03 | 0.39 | 0.97 | 1.36 | 0.36 | 0.24 | 0.60 | — | 4,013 | 4,013 | 0.15 | 0.19 | 0.14 | 4,073 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 1.65 | 1.38 | 11.7 | 14.3 | 0.03 | 0.46 | 2.13 | 2.59 | 0.42 | 0.76 | 1.18 | — | 3,369 | 3,369 | 0.13 | 0.11 | 1.40 | 3,408 |
| 2026 | 6.63 | 6.54 | 3.64 | 5.37 | 0.01 | 0.13 | 0.28 | 0.41 | 0.12 | 0.07 | 0.19 | — | 1,229 | 1,229 | 0.05 | 0.05 | 0.67 | 1,247 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 0.30 | 0.25 | 2.14 | 2.62 | < 0.005 | 0.08 | 0.39 | 0.47 | 0.08 | 0.14 | 0.22 | — | 558 | 558 | 0.02 | 0.02 | 0.23 | 564 |
| 2026 | 1.21 | 1.19 | 0.66 | 0.98 | < 0.005 | 0.02 | 0.05 | 0.07 | 0.02 | 0.01 | 0.03 | — | 203 | 203 | 0.01 | 0.01 | 0.11 | 206 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 1.81 | 1.52 | 12.0 | 17.6 | 0.03 | 0.44 | 0.97 | 1.42 | 0.41 | 0.24 | 0.65 | — | 4,093 | 4,093 | 0.15 | 0.19 | 5.72 | 4,159 |
| 2026 | 50.1 | 50.1 | 11.3 | 17.3 | 0.03 | 0.39 | 0.97 | 1.36 | 0.36 | 0.24 | 0.60 | — | 4,063 | 4,063 | 0.15 | 0.19 | 5.34 | 4,128 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily - Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 3.89 | 3.28 | 29.8 | 29.1 | 0.06 | 1.23 | 9.37 | 10.6 | 1.14 | 3.69 | 4.83 | — | 6,761 | 6,761 | 0.27 | 0.19 | 0.15 | 6,785 |
| 2026 | 1.72 | 1.44 | 11.5 | 16.9 | 0.03 | 0.39 | 0.97 | 1.36 | 0.36 | 0.24 | 0.60 | — | 4,013 | 4,013 | 0.15 | 0.19 | 0.14 | 4,073 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 1.65 | 1.38 | 11.7 | 14.3 | 0.03 | 0.46 | 2.13 | 2.59 | 0.42 | 0.76 | 1.18 | — | 3,369 | 3,369 | 0.13 | 0.11 | 1.40 | 3,408 |
| 2026 | 3.29 | 3.20 | 3.64 | 5.37 | 0.01 | 0.13 | 0.28 | 0.41 | 0.12 | 0.07 | 0.19 | — | 1,229 | 1,229 | 0.05 | 0.05 | 0.67 | 1,247 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 0.30 | 0.25 | 2.14 | 2.62 | < 0.005 | 0.08 | 0.39 | 0.47 | 0.08 | 0.14 | 0.22 | — | 558 | 558 | 0.02 | 0.02 | 0.23 | 564 |
| 2026 | 0.60 | 0.58 | 0.66 | 0.98 | < 0.005 | 0.02 | 0.05 | 0.07 | 0.02 | 0.01 | 0.03 | — | 203 | 203 | 0.01 | 0.01 | 0.11 | 206 |

## 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. | 7.84 | 7.62 | 1.35 | 17.4 | 0.02 | 0.05 | 1.59 | 1.64 | 0.04 | 0.40 | 0.45 | 200 | 4,618 | 4,817 | 20.7 | 0.37 | 3,827 | 9,271 |
| Mit. | 7.83 | 7.62 | 1.30 | 17.4 | 0.02 | 0.05 | 1.59 | 1.63 | 0.04 | 0.40 | 0.44 | 200 | 3,605 | 3,805 | 20.5 | 0.35 | 3,827 | 8,249 |
| % Reduced | < 0.5% | < 0.5% | 3% | < 0.5% | — | 7% | — | < 0.5% | 8% | — | 1% | — | 22% | 21% | 1% | 5% | — | 11% |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 6.17 | 6.07 | 1.44 | 8.04 | 0.02 | 0.03 | 1.59 | 1.62 | 0.03 | 0.40 | 0.44 | 200 | 4,487 | 4,686 | 20.7 | 0.38 | 3,820 | 9,135 |
| Mit. | 6.17 | 6.07 | 1.39 | 8.00 | 0.02 | 0.03 | 1.59 | 1.62 | 0.03 | 0.40 | 0.43 | 200 | 3,474 | 3,674 | 20.5 | 0.36 | 3,820 | 8,113 |
| % Reduced | < 0.5% | < 0.5% | 3% | < 0.5% | — | 10% | — | < 0.5% | 11% | — | 1% | — | 23% | 22% | 1% | 5% | — | 11% |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 6.67 | 6.53 | 1.07 | 10.0 | 0.01 | 0.04 | 1.11 | 1.14 | 0.03 | 0.28 | 0.31 | 200 | 3,991 | 4,191 | 20.7 | 0.34 | 3,822 | 8,632 |
| Mit. | 6.66 | 6.53 | 1.02 | 9.99 | 0.01 | 0.03 | 1.11 | 1.14 | 0.03 | 0.28 | 0.31 | 200 | 2,979 | 3,178 | 20.5 | 0.33 | 3,822 | 7,610 |
| % Reduced | < 0.5% | < 0.5% | 4% | < 0.5% | — | 9% | — | < 0.5% | 10% | — | 1% | — | 25% | 24% | 1% | 5% | — | 12% |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 1.22 | 1.19 | 0.19 | 1.83 | < 0.005 | 0.01 | 0.20 | 0.21 | 0.01 | 0.05 | 0.06 | 33.1 | 661 | 694 | 3.42 | 0.06 | 633 | 1,429 |
| Mit. | 1.22 | 1.19 | 0.19 | 1.82 | < 0.005 | 0.01 | 0.20 | 0.21 | 0.01 | 0.05 | 0.06 | 33.1 | 493 | 526 | 3.40 | 0.05 | 633 | 1,260 |
| % Reduced | < 0.5% | < 0.5% | 4% | < 0.5% | 2% | 9% | — | < 0.5% | 10% | — | 1% | — | 25% | 24% | 1% | 5% | — | 12% |
| Exceeds (Daily Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Threshold | — | 54.0 | 54.0 | — | — | 82.0 | — | — | 54.0 | — | — | — | — | — | — | — | — | — |
| Unmit. | — | No | No | — | — | No | — | — | No | — | — | — | — | — | — | — | — | — |
| Mit. | — | No | No | — | — | No | — | — | No | — | — | — | — | — | — | — | — | — |
| Exceeds (Average Daily) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Threshold | — | 54.0 | 54.0 | — | — | 82.0 | — | — | 54.0 | — | — | — | — | — | — | — | — | — |
| Unmit. | — | No | No | — | — | No | — | — | No | — | — | — | — | — | — | — | — | — |
| Mit. | — | No | No | — | — | No | — | — | No | — | — | — | — | — | — | — | — | — |
| Exceeds (Annual) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Threshold | — | 10.0 | 10.0 | — | — | 15.0 | — | — | 10.0 | — | — | — | — | — | — | — | — | — |
| Unmit. | — | No | No | — | — | No | — | — | No | — | — | — | — | — | — | — | — | — |
| Mit. | — | No | No | — | — | No | — | — | No | — | — | — | — | — | — | — | — | — |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 1.08 | 0.99 | 1.08 | 8.11 | 0.02 | 0.02 | 1.59 | 1.61 | 0.02 | 0.40 | 0.42 | — | 1,922 | 1,922 | 0.08 | 0.09 | 7.82 | 1,959 |
| Area | 6.74 | 6.61 | 0.08 | 9.14 | < 0.005 | 0.02 | — | 0.02 | 0.01 | — | 0.01 | — | 37.6 | 37.6 | < 0.005 | < 0.005 | — | 37.7 |
| Energy | 0.02 | 0.01 | 0.19 | 0.16 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 2,482 | 2,482 | 0.39 | 0.04 | — | 2,505 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 93.2 | 176 | 269 | 9.58 | 0.23 | — | 577 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 107 | 0.00 | 107 | 10.6 | 0.00 | — | 373 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Total | 7.84 | 7.62 | 1.35 | 17.4 | 0.02 | 0.05 | 1.59 | 1.64 | 0.04 | 0.40 | 0.45 | 200 | 4,618 | 4,817 | 20.7 | 0.37 | 3,827 | 9,271 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 1.04 | 0.95 | 1.25 | 7.88 | 0.02 | 0.02 | 1.59 | 1.61 | 0.02 | 0.40 | 0.42 | — | 1,828 | 1,828 | 0.09 | 0.10 | 0.20 | 1,861 |
| Area | 5.11 | 5.11 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Energy | 0.02 | 0.01 | 0.19 | 0.16 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 2,482 | 2,482 | 0.39 | 0.04 | — | 2,505 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 93.2 | 176 | 269 | 9.58 | 0.23 | — | 577 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 107 | 0.00 | 107 | 10.6 | 0.00 | — | 373 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Total | 6.17 | 6.07 | 1.44 | 8.04 | 0.02 | 0.03 | 1.59 | 1.62 | 0.03 | 0.40 | 0.44 | 200 | 4,487 | 4,686 | 20.7 | 0.38 | 3,820 | 9,135 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 0.73 | 0.67 | 0.84 | 5.37 | 0.01 | 0.01 | 1.11 | 1.12 | 0.01 | 0.28 | 0.29 | — | 1,314 | 1,314 | 0.06 | 0.07 | 2.41 | 1,339 |
| Area | 5.91 | 5.85 | 0.04 | 4.51 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 18.5 | 18.5 | < 0.005 | < 0.005 | — | 18.6 |
| Energy | 0.02 | 0.01 | 0.19 | 0.16 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 2,482 | 2,482 | 0.39 | 0.04 | — | 2,505 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 93.2 | 176 | 269 | 9.58 | 0.23 | — | 577 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 107 | 0.00 | 107 | 10.6 | 0.00 | — | 373 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Total | 6.67 | 6.53 | 1.07 | 10.0 | 0.01 | 0.04 | 1.11 | 1.14 | 0.03 | 0.28 | 0.31 | 200 | 3,991 | 4,191 | 20.7 | 0.34 | 3,822 | 8,632 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 0.13 | 0.12 | 0.15 | 0.98 | < 0.005 | < 0.005 | 0.20 | 0.20 | < 0.005 | 0.05 | 0.05 | — | 218 | 218 | 0.01 | 0.01 | 0.40 | 222 |
| Area | 1.08 | 1.07 | 0.01 | 0.82 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 3.07 | 3.07 | < 0.005 | < 0.005 | — | 3.08 |
| Energy | < 0.005 | < 0.005 | 0.03 | 0.03 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 411 | 411 | 0.06 | 0.01 | — | 415 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 15.4 | 29.1 | 44.6 | 1.59 | 0.04 | — | 95.6 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 17.6 | 0.00 | 17.6 | 1.76 | 0.00 | — | 61.7 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 632 | 632 |
| Total | 1.22 | 1.19 | 0.19 | 1.83 | < 0.005 | 0.01 | 0.20 | 0.21 | 0.01 | 0.05 | 0.06 | 33.1 | 661 | 694 | 3.42 | 0.06 | 633 | 1,429 |

## 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 | 1.08 | 0.99 | 1.08 | 8.11 | 0.02 | 0.02 | 1.59 | 1.61 | 0.02 | 0.40 | 0.42 | — | 1,922 | 1,922 | 0.08 | 0.09 | 7.82 | 1,959 |
| Area | 6.74 | 6.61 | 0.08 | 9.14 | < 0.005 | 0.02 | — | 0.02 | 0.01 | — | 0.01 | — | 37.6 | 37.6 | < 0.005 | < 0.005 | — | 37.7 |
| Energy | 0.02 | 0.01 | 0.14 | 0.12 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 1,470 | 1,470 | 0.23 | 0.03 | — | 1,483 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 93.2 | 176 | 269 | 9.58 | 0.23 | — | 577 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 107 | 0.00 | 107 | 10.6 | 0.00 | — | 373 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Total | 7.83 | 7.62 | 1.30 | 17.4 | 0.02 | 0.05 | 1.59 | 1.63 | 0.04 | 0.40 | 0.44 | 200 | 3,605 | 3,805 | 20.5 | 0.35 | 3,827 | 8,249 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 1.04 | 0.95 | 1.25 | 7.88 | 0.02 | 0.02 | 1.59 | 1.61 | 0.02 | 0.40 | 0.42 | — | 1,828 | 1,828 | 0.09 | 0.10 | 0.20 | 1,861 |
| Area | 5.11 | 5.11 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Energy | 0.02 | 0.01 | 0.14 | 0.12 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 1,470 | 1,470 | 0.23 | 0.03 | — | 1,483 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 93.2 | 176 | 269 | 9.58 | 0.23 | — | 577 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 107 | 0.00 | 107 | 10.6 | 0.00 | — | 373 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Total | 6.17 | 6.07 | 1.39 | 8.00 | 0.02 | 0.03 | 1.59 | 1.62 | 0.03 | 0.40 | 0.43 | 200 | 3,474 | 3,674 | 20.5 | 0.36 | 3,820 | 8,113 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 0.73 | 0.67 | 0.84 | 5.37 | 0.01 | 0.01 | 1.11 | 1.12 | 0.01 | 0.28 | 0.29 | — | 1,314 | 1,314 | 0.06 | 0.07 | 2.41 | 1,339 |
| Area | 5.91 | 5.85 | 0.04 | 4.51 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 18.5 | 18.5 | < 0.005 | < 0.005 | — | 18.6 |
| Energy | 0.02 | 0.01 | 0.14 | 0.12 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 1,470 | 1,470 | 0.23 | 0.03 | — | 1,483 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 93.2 | 176 | 269 | 9.58 | 0.23 | — | 577 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 107 | 0.00 | 107 | 10.6 | 0.00 | — | 373 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Total | 6.66 | 6.53 | 1.02 | 9.99 | 0.01 | 0.03 | 1.11 | 1.14 | 0.03 | 0.28 | 0.31 | 200 | 2,979 | 3,178 | 20.5 | 0.33 | 3,822 | 7,610 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 0.13 | 0.12 | 0.15 | 0.98 | < 0.005 | < 0.005 | 0.20 | 0.20 | < 0.005 | 0.05 | 0.05 | — | 218 | 218 | 0.01 | 0.01 | 0.40 | 222 |
| Area | 1.08 | 1.07 | 0.01 | 0.82 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 3.07 | 3.07 | < 0.005 | < 0.005 | — | 3.08 |
| Energy | < 0.005 | < 0.005 | 0.03 | 0.02 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 243 | 243 | 0.04 | < 0.005 | — | 246 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 15.4 | 29.1 | 44.6 | 1.59 | 0.04 | — | 95.6 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 17.6 | 0.00 | 17.6 | 1.76 | 0.00 | — | 61.7 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 632 | 632 |
| Total | 1.22 | 1.19 | 0.19 | 1.82 | < 0.005 | 0.01 | 0.20 | 0.21 | 0.01 | 0.05 | 0.06 | 33.1 | 493 | 526 | 3.40 | 0.05 | 633 | 1,260 |

# 3. Construction Emissions Details

## 3.1. Grading (2025) - 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 3.80 | 3.20 | 29.7 | 28.3 | 0.06 | 1.23 | — | 1.23 | 1.14 | — | 1.14 | — | 6,599 | 6,599 | 0.27 | 0.05 | — | 6,622 |
| 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 | 0.66 | 0.55 | 5.12 | 4.89 | 0.01 | 0.21 | — | 0.21 | 0.20 | — | 0.20 | — | 1,139 | 1,139 | 0.05 | 0.01 | — | 1,143 |
| Dust From Material Movement | — | — | — | — | — | — | 1.59 | 1.59 | — | 0.63 | 0.63 | — | — | — | — | — | — | — |
| 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 | 0.12 | 0.10 | 0.93 | 0.89 | < 0.005 | 0.04 | — | 0.04 | 0.04 | — | 0.04 | — | 189 | 189 | 0.01 | < 0.005 | — | 189 |
| Dust From Material Movement | — | — | — | — | — | — | 0.29 | 0.29 | — | 0.12 | 0.12 | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 0.09 | 0.08 | 0.08 | 0.84 | 0.00 | 0.00 | 0.17 | 0.17 | 0.00 | 0.04 | 0.04 | — | 162 | 162 | 0.01 | 0.01 | 0.02 | 164 |
| 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 | 0.14 | 0.00 | 0.00 | 0.03 | 0.03 | 0.00 | 0.01 | 0.01 | — | 28.2 | 28.2 | < 0.005 | < 0.005 | 0.05 | 28.6 |
| 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 | 0.03 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 4.66 | 4.66 | < 0.005 | < 0.005 | 0.01 | 4.74 |
| 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 |

## 3.2. Grading (2025) - 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipment | 3.80 | 3.20 | 29.7 | 28.3 | 0.06 | 1.23 | — | 1.23 | 1.14 | — | 1.14 | — | 6,599 | 6,599 | 0.27 | 0.05 | — | 6,622 |
| 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 | 0.66 | 0.55 | 5.12 | 4.89 | 0.01 | 0.21 | — | 0.21 | 0.20 | — | 0.20 | — | 1,139 | 1,139 | 0.05 | 0.01 | — | 1,143 |
| Dust From Material Movement | — | — | — | — | — | — | 1.59 | 1.59 | — | 0.63 | 0.63 | — | — | — | — | — | — | — |
| 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 | 0.12 | 0.10 | 0.93 | 0.89 | < 0.005 | 0.04 | — | 0.04 | 0.04 | — | 0.04 | — | 189 | 189 | 0.01 | < 0.005 | — | 189 |
| Dust From Material Movement | — | — | — | — | — | — | 0.29 | 0.29 | — | 0.12 | 0.12 | — | — | — | — | — | — | — |
| 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 | 0.09 | 0.08 | 0.08 | 0.84 | 0.00 | 0.00 | 0.17 | 0.17 | 0.00 | 0.04 | 0.04 | — | 162 | 162 | 0.01 | 0.01 | 0.02 | 164 |
| 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 | 0.14 | 0.00 | 0.00 | 0.03 | 0.03 | 0.00 | 0.01 | 0.01 | — | 28.2 | 28.2 | < 0.005 | < 0.005 | 0.05 | 28.6 |
| 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 | 0.03 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 4.66 | 4.66 | < 0.005 | < 0.005 | 0.01 | 4.74 |
| 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. Building Construction (2025) - 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.35 | 1.13 | 10.4 | 13.0 | 0.02 | 0.43 | — | 0.43 | 0.40 | — | 0.40 | — | 2,398 | 2,398 | 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 | 1.35 | 1.13 | 10.4 | 13.0 | 0.02 | 0.43 | — | 0.43 | 0.40 | — | 0.40 | — | 2,398 | 2,398 | 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 | 0.73 | 0.61 | 5.68 | 7.09 | 0.01 | 0.23 | — | 0.23 | 0.22 | — | 0.22 | — | 1,304 | 1,304 | 0.05 | 0.01 | — | 1,309 |
| 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 | 0.13 | 0.11 | 1.04 | 1.29 | < 0.005 | 0.04 | — | 0.04 | 0.04 | — | 0.04 | — | 216 | 216 | 0.01 | < 0.005 | — | 217 |
| 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 | 0.39 | 0.36 | 0.25 | 4.08 | 0.00 | 0.00 | 0.73 | 0.73 | 0.00 | 0.17 | 0.17 | — | 766 | 766 | 0.02 | 0.03 | 3.25 | 779 |
| Vendor | 0.07 | 0.04 | 1.30 | 0.51 | 0.01 | 0.01 | 0.24 | 0.26 | 0.01 | 0.07 | 0.08 | — | 929 | 929 | 0.04 | 0.14 | 2.47 | 975 |
| 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 | 0.38 | 0.35 | 0.33 | 3.70 | 0.00 | 0.00 | 0.73 | 0.73 | 0.00 | 0.17 | 0.17 | — | 714 | 714 | 0.02 | 0.03 | 0.08 | 724 |
| Vendor | 0.07 | 0.03 | 1.38 | 0.53 | 0.01 | 0.01 | 0.24 | 0.26 | 0.01 | 0.07 | 0.08 | — | 930 | 930 | 0.04 | 0.14 | 0.06 | 973 |
| 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 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Worker | 0.20 | 0.19 | 0.16 | 1.93 | 0.00 | 0.00 | 0.39 | 0.39 | 0.00 | 0.09 | 0.09 | — | 392 | 392 | 0.01 | 0.02 | 0.76 | 398 |
| Vendor | 0.04 | 0.02 | 0.74 | 0.28 | < 0.005 | 0.01 | 0.13 | 0.14 | 0.01 | 0.04 | 0.04 | — | 506 | 506 | 0.02 | 0.08 | 0.58 | 530 |
| 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 | 0.04 | 0.03 | 0.03 | 0.35 | 0.00 | 0.00 | 0.07 | 0.07 | 0.00 | 0.02 | 0.02 | — | 64.9 | 64.9 | < 0.005 | < 0.005 | 0.13 | 65.9 |
| Vendor | 0.01 | < 0.005 | 0.13 | 0.05 | < 0.005 | < 0.005 | 0.02 | 0.02 | < 0.005 | 0.01 | 0.01 | — | 83.7 | 83.7 | < 0.005 | 0.01 | 0.10 | 87.7 |
| 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 |

## 3.4. Building Construction (2025) - 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 | 1.35 | 1.13 | 10.4 | 13.0 | 0.02 | 0.43 | — | 0.43 | 0.40 | — | 0.40 | — | 2,398 | 2,398 | 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 | 1.35 | 1.13 | 10.4 | 13.0 | 0.02 | 0.43 | — | 0.43 | 0.40 | — | 0.40 | — | 2,398 | 2,398 | 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 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road | 0.73 | 0.61 | 5.68 | 7.09 | 0.01 | 0.23 | — | 0.23 | 0.22 | — | 0.22 | — | 1,304 | 1,304 | 0.05 | 0.01 | — | 1,309 |
| 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 | 0.13 | 0.11 | 1.04 | 1.29 | < 0.005 | 0.04 | — | 0.04 | 0.04 | — | 0.04 | — | 216 | 216 | 0.01 | < 0.005 | — | 217 |
| 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 | 0.39 | 0.36 | 0.25 | 4.08 | 0.00 | 0.00 | 0.73 | 0.73 | 0.00 | 0.17 | 0.17 | — | 766 | 766 | 0.02 | 0.03 | 3.25 | 779 |
| Vendor | 0.07 | 0.04 | 1.30 | 0.51 | 0.01 | 0.01 | 0.24 | 0.26 | 0.01 | 0.07 | 0.08 | — | 929 | 929 | 0.04 | 0.14 | 2.47 | 975 |
| 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 | 0.38 | 0.35 | 0.33 | 3.70 | 0.00 | 0.00 | 0.73 | 0.73 | 0.00 | 0.17 | 0.17 | — | 714 | 714 | 0.02 | 0.03 | 0.08 | 724 |
| Vendor | 0.07 | 0.03 | 1.38 | 0.53 | 0.01 | 0.01 | 0.24 | 0.26 | 0.01 | 0.07 | 0.08 | — | 930 | 930 | 0.04 | 0.14 | 0.06 | 973 |
| 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 | 0.20 | 0.19 | 0.16 | 1.93 | 0.00 | 0.00 | 0.39 | 0.39 | 0.00 | 0.09 | 0.09 | — | 392 | 392 | 0.01 | 0.02 | 0.76 | 398 |
| Vendor | 0.04 | 0.02 | 0.74 | 0.28 | < 0.005 | 0.01 | 0.13 | 0.14 | 0.01 | 0.04 | 0.04 | — | 506 | 506 | 0.02 | 0.08 | 0.58 | 530 |
| 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 | 0.04 | 0.03 | 0.03 | 0.35 | 0.00 | 0.00 | 0.07 | 0.07 | 0.00 | 0.02 | 0.02 | — | 64.9 | 64.9 | < 0.005 | < 0.005 | 0.13 | 65.9 |
| Vendor | 0.01 | < 0.005 | 0.13 | 0.05 | < 0.005 | < 0.005 | 0.02 | 0.02 | < 0.005 | 0.01 | 0.01 | — | 83.7 | 83.7 | < 0.005 | 0.01 | 0.10 | 87.7 |

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| 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. 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.28 | 1.07 | 9.85 | 13.0 | 0.02 | 0.38 | — | 0.38 | 0.35 | — | 0.35 | — | 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 | 1.28 | 1.07 | 9.85 | 13.0 | 0.02 | 0.38 | — | 0.38 | 0.35 | — | 0.35 | — | 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 | 0.36 | 0.30 | 2.76 | 3.63 | 0.01 | 0.11 | — | 0.11 | 0.10 | — | 0.10 | — | 671 | 671 | 0.03 | 0.01 | — | 673 |
| 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 Equipm | 0.07 | 0.05 | 0.50 | 0.66 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 111 | 111 | < 0.005 | < 0.005 | — | 111 |
| 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 | 0.38 | 0.35 | 0.24 | 3.81 | 0.00 | 0.00 | 0.73 | 0.73 | 0.00 | 0.17 | 0.17 | — | 752 | 752 | 0.02 | 0.03 | 3.00 | 764 |
| Vendor | 0.07 | 0.03 | 1.24 | 0.49 | 0.01 | 0.01 | 0.24 | 0.26 | 0.01 | 0.07 | 0.08 | — | 914 | 914 | 0.04 | 0.14 | 2.35 | 959 |
| 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 | 0.37 | 0.33 | 0.30 | 3.45 | 0.00 | 0.00 | 0.73 | 0.73 | 0.00 | 0.17 | 0.17 | — | 701 | 701 | 0.02 | 0.03 | 0.08 | 711 |
| Vendor | 0.07 | 0.03 | 1.31 | 0.50 | 0.01 | 0.01 | 0.24 | 0.26 | 0.01 | 0.07 | 0.08 | — | 914 | 914 | 0.04 | 0.14 | 0.06 | 957 |
| 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 | 0.10 | 0.09 | 0.08 | 0.93 | 0.00 | 0.00 | 0.20 | 0.20 | 0.00 | 0.05 | 0.05 | — | 198 | 198 | 0.01 | 0.01 | 0.36 | 201 |
| Vendor | 0.02 | 0.01 | 0.36 | 0.14 | < 0.005 | < 0.005 | 0.07 | 0.07 | < 0.005 | 0.02 | 0.02 | — | 256 | 256 | 0.01 | 0.04 | 0.28 | 268 |
| 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 | 0.02 | 0.02 | 0.01 | 0.17 | 0.00 | 0.00 | 0.04 | 0.04 | 0.00 | 0.01 | 0.01 | — | 32.8 | 32.8 | < 0.005 | < 0.005 | 0.06 | 33.3 |
| Vendor | < 0.005 | < 0.005 | 0.07 | 0.03 | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | — | 42.4 | 42.4 | < 0.005 | 0.01 | 0.05 | 44.4 |
| 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 |

## 3.6. 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.28 | 1.07 | 9.85 | 13.0 | 0.02 | 0.38 | — | 0.38 | 0.35 | — | 0.35 | — | 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 | 1.28 | 1.07 | 9.85 | 13.0 | 0.02 | 0.38 | — | 0.38 | 0.35 | — | 0.35 | — | 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 | 0.36 | 0.30 | 2.76 | 3.63 | 0.01 | 0.11 | — | 0.11 | 0.10 | — | 0.10 | — | 671 | 671 | 0.03 | 0.01 | — | 673 |
| 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 | 0.07 | 0.05 | 0.50 | 0.66 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 111 | 111 | < 0.005 | < 0.005 | — | 111 |
| 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 | 0.38 | 0.35 | 0.24 | 3.81 | 0.00 | 0.00 | 0.73 | 0.73 | 0.00 | 0.17 | 0.17 | — | 752 | 752 | 0.02 | 0.03 | 3.00 | 764 |
| Vendor | 0.07 | 0.03 | 1.24 | 0.49 | 0.01 | 0.01 | 0.24 | 0.26 | 0.01 | 0.07 | 0.08 | — | 914 | 914 | 0.04 | 0.14 | 2.35 | 959 |
| 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 | 0.37 | 0.33 | 0.30 | 3.45 | 0.00 | 0.00 | 0.73 | 0.73 | 0.00 | 0.17 | 0.17 | — | 701 | 701 | 0.02 | 0.03 | 0.08 | 711 |
| Vendor | 0.07 | 0.03 | 1.31 | 0.50 | 0.01 | 0.01 | 0.24 | 0.26 | 0.01 | 0.07 | 0.08 | — | 914 | 914 | 0.04 | 0.14 | 0.06 | 957 |
| 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 | 0.10 | 0.09 | 0.08 | 0.93 | 0.00 | 0.00 | 0.20 | 0.20 | 0.00 | 0.05 | 0.05 | — | 198 | 198 | 0.01 | 0.01 | 0.36 | 201 |
| Vendor | 0.02 | 0.01 | 0.36 | 0.14 | < 0.005 | < 0.005 | 0.07 | 0.07 | < 0.005 | 0.02 | 0.02 | — | 256 | 256 | 0.01 | 0.04 | 0.28 | 268 |
| 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 | 0.02 | 0.02 | 0.01 | 0.17 | 0.00 | 0.00 | 0.04 | 0.04 | 0.00 | 0.01 | 0.01 | — | 32.8 | 32.8 | < 0.005 | < 0.005 | 0.06 | 33.3 |
| Vendor | < 0.005 | < 0.005 | 0.07 | 0.03 | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | — | 42.4 | 42.4 | < 0.005 | 0.01 | 0.05 | 44.4 |
| 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. Paving (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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipm | 0.91 | 0.76 | 7.12 | 9.94 | 0.01 | 0.32 | — | 0.32 | 0.29 | — | 0.29 | — | 1,511 | 1,511 | 0.06 | 0.01 | — | 1,516 |
| Paving | 0.25 | 0.25 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | 0.04 | 0.39 | 0.54 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 82.8 | 82.8 | < 0.005 | < 0.005 | — | 83.1 |
| Paving | 0.01 | 0.01 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | 0.10 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 13.7 | 13.7 | < 0.005 | < 0.005 | — | 13.8 |
| Paving | < 0.005 | < 0.005 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | 0.06 | 0.06 | 0.04 | 0.65 | 0.00 | 0.00 | 0.12 | 0.12 | 0.00 | 0.03 | 0.03 | — | 128 | 128 | < 0.005 | < 0.005 | 0.51 | 130 |
| 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 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.03 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 6.59 | 6.59 | < 0.005 | < 0.005 | 0.01 | 6.69 |
| 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 | — | 1.09 | 1.09 | < 0.005 | < 0.005 | < 0.005 | 1.11 |
| 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 |

## 3.8. Paving (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 | 0.91 | 0.76 | 7.12 | 9.94 | 0.01 | 0.32 | — | 0.32 | 0.29 | — | 0.29 | — | 1,511 | 1,511 | 0.06 | 0.01 | — | 1,516 |
| Paving | 0.25 | 0.25 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | 0.04 | 0.39 | 0.54 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 82.8 | 82.8 | < 0.005 | < 0.005 | — | 83.1 |
| Paving | 0.01 | 0.01 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | 0.10 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 13.7 | 13.7 | < 0.005 | < 0.005 | — | 13.8 |
| Paving | < 0.005 | < 0.005 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | 0.06 | 0.06 | 0.04 | 0.65 | 0.00 | 0.00 | 0.12 | 0.12 | 0.00 | 0.03 | 0.03 | — | 128 | 128 | < 0.005 | < 0.005 | 0.51 | 130 |
| 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 | < 0.005 | < 0.005 | < 0.005 | 0.03 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 6.59 | 6.59 | < 0.005 | < 0.005 | 0.01 | 6.69 |
| 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 | — | 1.09 | 1.09 | < 0.005 | < 0.005 | < 0.005 | 1.11 |
| 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 |

## 3.9. Architectural Coating (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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.15 | 0.12 | 0.86 | 1.13 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 134 | 134 | 0.01 | < 0.005 | — | 134 |
| Architectural Coatings | 111 | 111 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | 0.01 | 0.01 | 0.05 | 0.06 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 7.32 | 7.32 | < 0.005 | < 0.005 | — | 7.34 |
| Architectural Coatings | 6.07 | 6.07 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | 0.01 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 1.21 | 1.21 | < 0.005 | < 0.005 | — | 1.22 |
| Architectural Coatings | 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 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.08 | 0.07 | 0.05 | 0.76 | 0.00 | 0.00 | 0.15 | 0.15 | 0.00 | 0.03 | 0.03 | — | 150 | 150 | < 0.005 | 0.01 | 0.60 | 153 |
| 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 | < 0.005 | < 0.005 | < 0.005 | 0.04 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 7.75 | 7.75 | < 0.005 | < 0.005 | 0.01 | 7.87 |
| 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 | — | 1.28 | 1.28 | < 0.005 | < 0.005 | < 0.005 | 1.30 |
| 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 |

## 3.10. Architectural Coating (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 | 0.15 | 0.12 | 0.86 | 1.13 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 134 | 134 | 0.01 | < 0.005 | — | 134 |
| Architectural Coatings | 49.9 | 49.9 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | 0.01 | 0.01 | 0.05 | 0.06 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 7.32 | 7.32 | < 0.005 | < 0.005 | — | 7.34 |
| Architectural Coatings | 2.73 | 2.73 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | 0.01 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 1.21 | 1.21 | < 0.005 | < 0.005 | — | 1.22 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Architectural Coating | 0.50 | 0.50 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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 | 0.07 | 0.05 | 0.76 | 0.00 | 0.00 | 0.15 | 0.15 | 0.00 | 0.03 | 0.03 | — | 150 | 150 | < 0.005 | 0.01 | 0.60 | 153 |
| 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 | < 0.005 | < 0.005 | < 0.005 | 0.04 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 7.75 | 7.75 | < 0.005 | < 0.005 | 0.01 | 7.87 |
| 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 | — | 1.28 | 1.28 | < 0.005 | < 0.005 | < 0.005 | 1.30 |
| 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | 0.51 | 0.47 | 0.52 | 3.87 | 0.01 | 0.01 | 0.76 | 0.77 | 0.01 | 0.19 | 0.20 | — | 917 | 917 | 0.04 | 0.04 | 3.73 | 935 |
| Unrefrigerated Warehouse-No Rail | 0.56 | 0.52 | 0.57 | 4.24 | 0.01 | 0.01 | 0.83 | 0.84 | 0.01 | 0.21 | 0.22 | — | 1,005 | 1,005 | 0.04 | 0.05 | 4.09 | 1,024 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 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 | 1.08 | 0.99 | 1.08 | 8.11 | 0.02 | 0.02 | 1.59 | 1.61 | 0.02 | 0.40 | 0.42 | — | 1,922 | 1,922 | 0.08 | 0.09 | 7.82 | 1,959 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | 0.50 | 0.45 | 0.60 | 3.76 | 0.01 | 0.01 | 0.76 | 0.77 | 0.01 | 0.19 | 0.20 | — | 872 | 872 | 0.04 | 0.05 | 0.10 | 888 |
| Unrefrigerated Warehouse-No Rail | 0.54 | 0.50 | 0.65 | 4.12 | 0.01 | 0.01 | 0.83 | 0.84 | 0.01 | 0.21 | 0.22 | — | 956 | 956 | 0.05 | 0.05 | 0.11 | 973 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 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 | 1.04 | 0.95 | 1.25 | 7.88 | 0.02 | 0.02 | 1.59 | 1.61 | 0.02 | 0.40 | 0.42 | — | 1,828 | 1,828 | 0.09 | 0.10 | 0.20 | 1,861 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Refrigerated Warehouse-No | 0.06 | 0.06 | 0.07 | 0.47 | < 0.005 | < 0.005 | 0.10 | 0.10 | < 0.005 | 0.02 | 0.03 | — | 104 | 104 | < 0.005 | 0.01 | 0.19 | 106 |
| Unrefrigerated Warehouse-No Rail | 0.07 | 0.06 | 0.08 | 0.51 | < 0.005 | < 0.005 | 0.11 | 0.11 | < 0.005 | 0.03 | 0.03 | — | 114 | 114 | 0.01 | 0.01 | 0.21 | 116 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 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 | 0.13 | 0.12 | 0.15 | 0.98 | < 0.005 | < 0.005 | 0.20 | 0.20 | < 0.005 | 0.05 | 0.05 | — | 218 | 218 | 0.01 | 0.01 | 0.40 | 222 |

### 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | 0.51 | 0.47 | 0.52 | 3.87 | 0.01 | 0.01 | 0.76 | 0.77 | 0.01 | 0.19 | 0.20 | — | 917 | 917 | 0.04 | 0.04 | 3.73 | 935 |
| Unrefrigerated Warehouse-No Rail | 0.56 | 0.52 | 0.57 | 4.24 | 0.01 | 0.01 | 0.83 | 0.84 | 0.01 | 0.21 | 0.22 | — | 1,005 | 1,005 | 0.04 | 0.05 | 4.09 | 1,024 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 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 | 1.08 | 0.99 | 1.08 | 8.11 | 0.02 | 0.02 | 1.59 | 1.61 | 0.02 | 0.40 | 0.42 | — | 1,922 | 1,922 | 0.08 | 0.09 | 7.82 | 1,959 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Refriger Warehouse-No Rail | 0.50 | 0.45 | 0.60 | 3.76 | 0.01 | 0.01 | 0.76 | 0.77 | 0.01 | 0.19 | 0.20 | — | 872 | 872 | 0.04 | 0.05 | 0.10 | 888 |
| Unrefrig erated Wareho use-No Rail | 0.54 | 0.50 | 0.65 | 4.12 | 0.01 | 0.01 | 0.83 | 0.84 | 0.01 | 0.21 | 0.22 | — | 956 | 956 | 0.05 | 0.05 | 0.11 | 973 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 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 | 1.04 | 0.95 | 1.25 | 7.88 | 0.02 | 0.02 | 1.59 | 1.61 | 0.02 | 0.40 | 0.42 | — | 1,828 | 1,828 | 0.09 | 0.10 | 0.20 | 1,861 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refriger ated Wareho use-No Rail | 0.06 | 0.06 | 0.07 | 0.47 | < 0.005 | < 0.005 | 0.10 | 0.10 | < 0.005 | 0.02 | 0.03 | — | 104 | 104 | < 0.005 | 0.01 | 0.19 | 106 |
| Unrefrig erated Wareho use-No Rail | 0.07 | 0.06 | 0.08 | 0.51 | < 0.005 | < 0.005 | 0.11 | 0.11 | < 0.005 | 0.03 | 0.03 | — | 114 | 114 | 0.01 | 0.01 | 0.21 | 116 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 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 | 0.13 | 0.12 | 0.15 | 0.98 | < 0.005 | < 0.005 | 0.20 | 0.20 | < 0.005 | 0.05 | 0.05 | — | 218 | 218 | 0.01 | 0.01 | 0.40 | 222 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | 1,843 | 1,843 | 0.30 | 0.04 | — | 1,861 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | 378 | 378 | 0.06 | 0.01 | — | 382 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | — | 40.5 | 40.5 | 0.01 | < 0.005 | — | 40.9 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 2,262 | 2,262 | 0.37 | 0.04 | — | 2,284 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | 1,843 | 1,843 | 0.30 | 0.04 | — | 1,861 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | 378 | 378 | 0.06 | 0.01 | — | 382 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | — | 40.5 | 40.5 | 0.01 | < 0.005 | — | 40.9 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 2,262 | 2,262 | 0.37 | 0.04 | — | 2,284 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | 305 | 305 | 0.05 | 0.01 | — | 308 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | 62.5 | 62.5 | 0.01 | < 0.005 | — | 63.2 |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | — | 6.70 | 6.70 | < 0.005 | < 0.005 | — | 6.77 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 374 | 374 | 0.06 | 0.01 | — | 378 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | 907 | 907 | 0.15 | 0.02 | — | 916 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | 353 | 353 | 0.06 | 0.01 | — | 356 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | — | 40.5 | 40.5 | 0.01 | < 0.005 | — | 40.9 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 1,301 | 1,301 | 0.21 | 0.03 | — | 1,313 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | 907 | 907 | 0.15 | 0.02 | — | 916 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | 353 | 353 | 0.06 | 0.01 | — | 356 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | — | 40.5 | 40.5 | 0.01 | < 0.005 | — | 40.9 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 1,301 | 1,301 | 0.21 | 0.03 | — | 1,313 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | 150 | 150 | 0.02 | < 0.005 | — | 152 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | 58.4 | 58.4 | 0.01 | < 0.005 | — | 59.0 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | — | 6.70 | 6.70 | < 0.005 | < 0.005 | — | 6.77 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 215 | 215 | 0.03 | < 0.005 | — | 217 |

### 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | 0.01 | < 0.005 | 0.08 | 0.07 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 92.5 | 92.5 | 0.01 | < 0.005 | — | 92.7 |
| Unrefrigerated Warehouse-No Rail | 0.01 | 0.01 | 0.11 | 0.09 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 128 | 128 | 0.01 | < 0.005 | — | 129 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Parking Lot | 0.00 | 0.00 | 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 | 0.02 | 0.01 | 0.19 | 0.16 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 221 | 221 | 0.02 | < 0.005 | — | 221 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | 0.01 | < 0.005 | 0.08 | 0.07 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 92.5 | 92.5 | 0.01 | < 0.005 | — | 92.7 |
| Unrefrigerated Warehouse-No Rail | 0.01 | 0.01 | 0.11 | 0.09 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 128 | 128 | 0.01 | < 0.005 | — | 129 |
| Parking Lot | 0.00 | 0.00 | 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 | 0.02 | 0.01 | 0.19 | 0.16 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 221 | 221 | 0.02 | < 0.005 | — | 221 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 15.3 | 15.3 | < 0.005 | < 0.005 | — | 15.4 |
| Unrefrigerated Warehouse-No Rail | < 0.005 | < 0.005 | 0.02 | 0.02 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 21.3 | 21.3 | < 0.005 | < 0.005 | — | 21.3 |
| Parking Lot | 0.00 | 0.00 | 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 | < 0.005 | < 0.005 | 0.03 | 0.03 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 36.6 | 36.6 | < 0.005 | < 0.005 | — | 36.7 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | 0.01 | < 0.005 | 0.07 | 0.06 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 89.1 | 89.1 | 0.01 | < 0.005 | — | 89.3 |
| Unrefrigerated Warehouse-No Rail | 0.01 | < 0.005 | 0.07 | 0.06 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 80.3 | 80.3 | 0.01 | < 0.005 | — | 80.5 |
| Parking Lot | 0.00 | 0.00 | 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 | 0.02 | 0.01 | 0.14 | 0.12 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 169 | 169 | 0.01 | < 0.005 | — | 170 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | 0.01 | < 0.005 | 0.07 | 0.06 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 89.1 | 89.1 | 0.01 | < 0.005 | — | 89.3 |
| Unrefrigerated Warehouse-No Rail | 0.01 | < 0.005 | 0.07 | 0.06 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 80.3 | 80.3 | 0.01 | < 0.005 | — | 80.5 |
| Parking Lot | 0.00 | 0.00 | 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 | 0.02 | 0.01 | 0.14 | 0.12 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 169 | 169 | 0.01 | < 0.005 | — | 170 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Refrigerated Warehouse-No | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 14.8 | 14.8 | < 0.005 | < 0.005 | — | 14.8 |
| Unrefrigerated Warehouse-No Rail | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 13.3 | 13.3 | < 0.005 | < 0.005 | — | 13.3 |
| Parking Lot | 0.00 | 0.00 | 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 | < 0.005 | < 0.005 | 0.03 | 0.02 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 28.0 | 28.0 | < 0.005 | < 0.005 | — | 28.1 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | 4.51 | 4.51 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | 0.61 | 0.61 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | 1.63 | 1.50 | 0.08 | 9.14 | < 0.005 | 0.02 | — | 0.02 | 0.01 | — | 0.01 | — | 37.6 | 37.6 | < 0.005 | < 0.005 | — | 37.7 |
| Total | 6.74 | 6.61 | 0.08 | 9.14 | < 0.005 | 0.02 | — | 0.02 | 0.01 | — | 0.01 | — | 37.6 | 37.6 | < 0.005 | < 0.005 | — | 37.7 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | 4.51 | 4.51 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | 0.61 | 0.61 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | 5.11 | 5.11 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | 0.82 | 0.82 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | 0.11 | 0.11 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | 0.15 | 0.14 | 0.01 | 0.82 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 3.07 | 3.07 | < 0.005 | < 0.005 | — | 3.08 |
| Total | 1.08 | 1.07 | 0.01 | 0.82 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 3.07 | 3.07 | < 0.005 | < 0.005 | — | 3.08 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Consumer Products | 4.51 | 4.51 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | 0.61 | 0.61 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | 1.63 | 1.50 | 0.08 | 9.14 | < 0.005 | 0.02 | — | 0.02 | 0.01 | — | 0.01 | — | 37.6 | 37.6 | < 0.005 | < 0.005 | — | 37.7 |
| Total | 6.74 | 6.61 | 0.08 | 9.14 | < 0.005 | 0.02 | — | 0.02 | 0.01 | — | 0.01 | — | 37.6 | 37.6 | < 0.005 | < 0.005 | — | 37.7 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | 4.51 | 4.51 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | 0.61 | 0.61 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | 5.11 | 5.11 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | 0.82 | 0.82 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | 0.11 | 0.11 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | 0.15 | 0.14 | 0.01 | 0.82 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 3.07 | 3.07 | < 0.005 | < 0.005 | — | 3.08 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | 1.08 | 1.07 | 0.01 | 0.82 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 3.07 | 3.07 | < 0.005 | < 0.005 | — | 3.08 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 63.5 | 120 | 183 | 6.53 | 0.16 | — | 394 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 29.7 | 56.0 | 85.7 | 3.05 | 0.07 | — | 184 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 93.2 | 176 | 269 | 9.58 | 0.23 | — | 577 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 63.5 | 120 | 183 | 6.53 | 0.16 | — | 394 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 29.7 | 56.0 | 85.7 | 3.05 | 0.07 | — | 184 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 93.2 | 176 | 269 | 9.58 | 0.23 | — | 577 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 10.5 | 19.9 | 30.4 | 1.08 | 0.03 | — | 65.2 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 4.91 | 9.27 | 14.2 | 0.50 | 0.01 | — | 30.4 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 15.4 | 29.1 | 44.6 | 1.59 | 0.04 | — | 95.6 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 63.5 | 120 | 183 | 6.53 | 0.16 | — | 394 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 29.7 | 56.0 | 85.7 | 3.05 | 0.07 | — | 184 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 93.2 | 176 | 269 | 9.58 | 0.23 | — | 577 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 63.5 | 120 | 183 | 6.53 | 0.16 | — | 394 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 29.7 | 56.0 | 85.7 | 3.05 | 0.07 | — | 184 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 93.2 | 176 | 269 | 9.58 | 0.23 | — | 577 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 10.5 | 19.9 | 30.4 | 1.08 | 0.03 | — | 65.2 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 4.91 | 9.27 | 14.2 | 0.50 | 0.01 | — | 30.4 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 15.4 | 29.1 | 44.6 | 1.59 | 0.04 | — | 95.6 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 72.6 | 0.00 | 72.6 | 7.26 | 0.00 | — | 254 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 33.9 | 0.00 | 33.9 | 3.39 | 0.00 | — | 119 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 107 | 0.00 | 107 | 10.6 | 0.00 | — | 373 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 72.6 | 0.00 | 72.6 | 7.26 | 0.00 | — | 254 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 33.9 | 0.00 | 33.9 | 3.39 | 0.00 | — | 119 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 107 | 0.00 | 107 | 10.6 | 0.00 | — | 373 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 12.0 | 0.00 | 12.0 | 1.20 | 0.00 | — | 42.1 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 5.61 | 0.00 | 5.61 | 0.56 | 0.00 | — | 19.6 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 17.6 | 0.00 | 17.6 | 1.76 | 0.00 | — | 61.7 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 72.6 | 0.00 | 72.6 | 7.26 | 0.00 | — | 254 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 33.9 | 0.00 | 33.9 | 3.39 | 0.00 | — | 119 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 107 | 0.00 | 107 | 10.6 | 0.00 | — | 373 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 72.6 | 0.00 | 72.6 | 7.26 | 0.00 | — | 254 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 33.9 | 0.00 | 33.9 | 3.39 | 0.00 | — | 119 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 107 | 0.00 | 107 | 10.6 | 0.00 | — | 373 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 12.0 | 0.00 | 12.0 | 1.20 | 0.00 | — | 42.1 |
| Unrefrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | 5.61 | 0.00 | 5.61 | 0.56 | 0.00 | — | 19.6 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 17.6 | 0.00 | 17.6 | 1.76 | 0.00 | — | 61.7 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 632 | 632 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 632 | 632 |

## 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) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Refrigerated | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3,819 | 3,819 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Refrigerated Warehouse-No Rail | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 632 | 632 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 632 | 632 |

## 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 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sequest | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 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)

| Vegetati | 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 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequest ered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Remove d | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequest ered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Remove d | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequest ered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Remove d | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| 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 |
|---|---|---|---|---|---|---|
| Grading | Grading | 1/1/2025 | 3/28/2025 | 5.00 | 63.0 | — |
| Building Construction | Building Construction | 3/29/2025 | 5/23/2026 | 5.00 | 300 | — |
| Paving | Paving | 5/24/2026 | 6/21/2026 | 5.00 | 20.0 | — |
| Architectural Coating | Architectural Coating | 6/22/2026 | 7/20/2026 | 5.00 | 20.0 | — |

## 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 |
|---|---|---|---|---|---|---|---|
| Grading | Graders | Diesel | Average | 1.00 | 8.00 | 148 | 0.41 |
| Grading | Rubber Tired Dozers | Diesel | Average | 1.00 | 8.00 | 367 | 0.40 |
| Grading | Tractors/Loaders/Backhoes | Diesel | Average | 2.00 | 8.00 | 84.0 | 0.37 |
| Grading | Excavators | Diesel | Average | 2.00 | 8.00 | 36.0 | 0.38 |
| Grading | Scrapers | Diesel | Average | 2.00 | 8.00 | 423 | 0.48 |
| Building Construction | Cranes | Diesel | Average | 1.00 | 7.00 | 367 | 0.29 |
| 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 | Tractors/Loaders/Backhoes | Diesel | Average | 3.00 | 7.00 | 84.0 | 0.37 |
| Building Construction | Welders | Diesel | Average | 1.00 | 8.00 | 46.0 | 0.45 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 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 |
|---|---|---|---|---|---|---|---|
| Grading | Graders | Diesel | Average | 1.00 | 8.00 | 148 | 0.41 |
| Grading | Rubber Tired Dozers | Diesel | Average | 1.00 | 8.00 | 367 | 0.40 |
| Grading | Tractors/Loaders/Backhoes | Diesel | Average | 2.00 | 8.00 | 84.0 | 0.37 |
| Grading | Excavators | Diesel | Average | 2.00 | 8.00 | 36.0 | 0.38 |
| Grading | Scrapers | Diesel | Average | 2.00 | 8.00 | 423 | 0.48 |
| Building Construction | Cranes | Diesel | Average | 1.00 | 7.00 | 367 | 0.29 |
| 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 | Tractors/Loaders/Backhoes | Diesel | Average | 3.00 | 7.00 | 84.0 | 0.37 |
| Building Construction | Welders | Diesel | Average | 1.00 | 8.00 | 46.0 | 0.45 |
| 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 |

## 5.3. Construction Vehicles

### 5.3.1. Unmitigated

| Phase Name | Trip Type | One-Way Trips per Day | Miles per Trip | Vehicle Mix |
|---|---|---|---|---|
| Grading | — | — | — | — |

| | | | | |
|---|---|---|---|---|
| Grading | Worker | 20.0 | 11.7 | LDA,LDT1,LDT2 |
| Grading | Vendor | — | 8.40 | HHDT,MHDT |
| Grading | Hauling | 0.00 | 20.0 | HHDT |
| Grading | Onsite truck | — | — | HHDT |
| Building Construction | — | — | — | — |
| Building Construction | Worker | 88.3 | 11.7 | LDA,LDT1,LDT2 |
| Building Construction | Vendor | 34.5 | 8.40 | HHDT,MHDT |
| Building Construction | Hauling | 0.00 | 20.0 | HHDT |
| Building Construction | Onsite truck | — | — | HHDT |
| Paving | — | — | — | — |
| Paving | Worker | 15.0 | 11.7 | LDA,LDT1,LDT2 |
| Paving | Vendor | — | 8.40 | HHDT,MHDT |
| Paving | Hauling | 0.00 | 20.0 | HHDT |
| Paving | Onsite truck | — | — | HHDT |
| Architectural Coating | — | — | — | — |
| Architectural Coating | Worker | 17.7 | 11.7 | LDA,LDT1,LDT2 |
| Architectural Coating | Vendor | — | 8.40 | 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 |
|---|---|---|---|---|
| Grading | — | — | — | — |
| Grading | Worker | 20.0 | 11.7 | LDA,LDT1,LDT2 |
| Grading | Vendor | — | 8.40 | HHDT,MHDT |
| Grading | Hauling | 0.00 | 20.0 | HHDT |
| Grading | Onsite truck | — | — | HHDT |
| Building Construction | — | — | — | — |

| | | | | |
|---|---|---|---|---|
| Building Construction | Worker | 88.3 | 11.7 | LDA,LDT1,LDT2 |
| Building Construction | Vendor | 34.5 | 8.40 | HHDT,MHDT |
| Building Construction | Hauling | 0.00 | 20.0 | HHDT |
| Building Construction | Onsite truck | — | — | HHDT |
| Paving | — | — | — | — |
| Paving | Worker | 15.0 | 11.7 | LDA,LDT1,LDT2 |
| Paving | Vendor | — | 8.40 | HHDT,MHDT |
| Paving | Hauling | 0.00 | 20.0 | HHDT |
| Paving | Onsite truck | — | — | HHDT |
| Architectural Coating | — | — | — | — |
| Architectural Coating | Worker | 17.7 | 11.7 | LDA,LDT1,LDT2 |
| Architectural Coating | Vendor | — | 8.40 | 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 | 0.00 | 0.00 | 315,341 | 105,114 | 4,963 |

## 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) |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Grading | — | — | 189 | 0.00 | — |
| Paving | 0.00 | 0.00 | 0.00 | 0.00 | 1.90 |

### 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 |
|---|---|---|
| Refrigerated Warehouse-No Rail | 0.00 | 0% |
| Unrefrigerated Warehouse-No Rail | 0.00 | 0% |
| Parking Lot | 1.16 | 100% |
| Parking Lot | 0.74 | 100% |

## 5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

| Year | kWh per Year | CO2 | CH4 | N2O |
|---|---|---|---|---|
| 2025 | 0.00 | 204 | 0.03 | < 0.005 |
| 2026 | 0.00 | 204 | 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 |
|---|---|---|---|---|---|---|---|---|
| Refrigerated Warehouse-No Rail | 104 | 0.00 | 0.00 | 27,115 | 1,064 | 0.00 | 0.00 | 277,441 |
| Unrefrigerated Warehouse-No Rail | 114 | 0.00 | 0.00 | 29,720 | 1,166 | 0.00 | 0.00 | 304,104 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

### 5.9.2. Mitigated

| Land Use Type | Trips/Weekday | Trips/Saturday | Trips/Sunday | Trips/Year | VMT/Weekday | VMT/Saturday | VMT/Sunday | VMT/Year |
|---|---|---|---|---|---|---|---|---|
| Refrigerated Warehouse-No Rail | 104 | 0.00 | 0.00 | 27,115 | 1,064 | 0.00 | 0.00 | 277,441 |
| Unrefrigerated Warehouse-No Rail | 114 | 0.00 | 0.00 | 29,720 | 1,166 | 0.00 | 0.00 | 304,104 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 5.10. Operational Area Sources

### 5.10.1. Hearths

### 5.10.1.1. Unmitigated

### 5.10.1.2. Mitigated

### 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) |
|---|---|---|---|---|
| 0 | 0.00 | 315,341 | 105,114 | 4,963 |

### 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) |
|---|---|---|---|---|---|
| Refrigerated Warehouse-No Rail | 3,298,193 | 204 | 0.0330 | 0.0040 | 288,569 |
| Unrefrigerated Warehouse-No Rail | 676,021 | 204 | 0.0330 | 0.0040 | 400,564 |
| Parking Lot | 44,302 | 204 | 0.0330 | 0.0040 | 0.00 |
| Parking Lot | 28,161 | 204 | 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) |
|---|---|---|---|---|---|
| Refrigerated Warehouse-No Rail | 1,623,703 | 204 | 0.0330 | 0.0040 | 278,014 |
| Unrefrigerated Warehouse-No Rail | 630,961 | 204 | 0.0330 | 0.0040 | 250,539 |
| Parking Lot | 44,302 | 204 | 0.0330 | 0.0040 | 0.00 |
| Parking Lot | 28,161 | 204 | 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) |
|---|---|---|

| | | |
|---|---|---|
| Refrigerated Warehouse-No Rail | 33,140,900 | 0.00 |
| Unrefrigerated Warehouse-No Rail | 15,474,094 | 0.00 |
| Parking Lot | 0.00 | 0.00 |
| Parking Lot | 0.00 | 0.00 |

### 5.12.2. Mitigated

| Land Use | Indoor Water (gal/year) | Outdoor Water (gal/year) |
|---|---|---|
| Refrigerated Warehouse-No Rail | 33,140,900 | 0.00 |
| Unrefrigerated Warehouse-No Rail | 15,474,094 | 0.00 |
| Parking Lot | 0.00 | 0.00 |
| Parking Lot | 0.00 | 0.00 |

## 5.13. Operational Waste Generation

### 5.13.1. Unmitigated

| Land Use | Waste (ton/year) | Cogeneration (kWh/year) |
|---|---|---|
| Refrigerated Warehouse-No Rail | 135 | — |
| Unrefrigerated Warehouse-No Rail | 62.9 | — |
| Parking Lot | 0.00 | — |
| Parking Lot | 0.00 | — |

### 5.13.2. Mitigated

| Land Use | Waste (ton/year) | Cogeneration (kWh/year) |
|---|---|---|
| Refrigerated Warehouse-No Rail | 135 | — |
| Unrefrigerated Warehouse-No Rail | 62.9 | — |
| Parking Lot | 0.00 | — |
| Parking Lot | 0.00 | — |

## 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 |
|---|---|---|---|---|---|---|---|
| Refrigerated Warehouse-No Rail | Cold storage | R-404A | 3,922 | 7.50 | 7.50 | 7.50 | 25.0 |

### 5.14.2. Mitigated

| Land Use Type | Equipment Type | Refrigerant | GWP | Quantity (kg) | Operations Leak Rate | Service Leak Rate | Times Serviced |
|---|---|---|---|---|---|---|---|
| Refrigerated Warehouse-No Rail | Cold storage | R-404A | 3,922 | 7.50 | 7.50 | 7.50 | 25.0 |

## 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 | 11.8 | annual days of extreme heat |
| Extreme Precipitation | 5.65 | annual days with precipitation above 20 mm |
| Sea Level Rise | — | meters of inundation depth |
| Wildfire | 16.4 | 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 | N/A | N/A | N/A | N/A |
| Extreme Precipitation | 2 | 0 | 0 | N/A |
| Sea Level Rise | 1 | 0 | 0 | N/A |
| Wildfire | 1 | 0 | 0 | N/A |
| Flooding | N/A | N/A | N/A | N/A |
| Drought | N/A | N/A | N/A | 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 | N/A | N/A | N/A | N/A |
| Extreme Precipitation | 2 | 1 | 1 | 3 |
| Sea Level Rise | 1 | 1 | 1 | 2 |
| Wildfire | 1 | 1 | 1 | 2 |
| Flooding | N/A | N/A | N/A | N/A |
| Drought | N/A | N/A | N/A | N/A |
| 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 | 16.8 |
| AQ-PM | 35.7 |
| AQ-DPM | 23.4 |
| Drinking Water | 69.2 |
| Lead Risk Housing | 55.8 |
| Pesticides | 66.2 |
| Toxic Releases | 61.2 |
| Traffic | 83.3 |
| Effect Indicators | — |
| CleanUp Sites | 62.4 |
| Groundwater | 0.00 |
| Haz Waste Facilities/Generators | 82.7 |
| Impaired Water Bodies | 23.9 |
| Solid Waste | 83.9 |
| Sensitive Population | — |
| Asthma | 71.9 |
| Cardio-vascular | 67.0 |
| Low Birth Weights | 51.0 |
| Socioeconomic Factor Indicators | — |
| Education | 62.0 |
| Housing | 12.0 |
| Linguistic | 39.2 |
| Poverty | 33.8 |
| Unemployment | 36.4 |

## 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 | 80.85461311 |
| Employed | 75.23418452 |
| Median HI | 74.554087 |
| Education | — |
| Bachelor's or higher | 69.35711536 |
| High school enrollment | 100 |
| Preschool enrollment | 12.62671628 |
| Transportation | — |
| Auto Access | 83.51084306 |
| Active commuting | 27.38354934 |
| Social | — |
| 2-parent households | 62.7229565 |
| Voting | 57.75696138 |
| Neighborhood | — |
| Alcohol availability | 76.10676248 |
| Park access | 56.71756705 |
| Retail density | 24.22687027 |
| Supermarket access | 27.9481586 |
| Tree canopy | 22.44321827 |
| Housing | — |
| Homeownership | 87.02681894 |
| Housing habitability | 96.41986398 |
| Low-inc homeowner severe housing cost burden | 70.11420506 |
| Low-inc renter severe housing cost burden | 97.06146542 |
| Uncrowded housing | 60.05389452 |
| Health Outcomes | — |

| | |
|---|---|
| Insured adults | 79.19928141 |
| Arthritis | 0.0 |
| Asthma ER Admissions | 56.0 |
| 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 | 25.5 |
| Cognitively Disabled | 20.1 |
| Physically  Disabled | 17.3 |
| Heart Attack ER Admissions | 55.3 |
| 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 | 43.5 |
| Children | 32.5 |
| Elderly | 69.3 |

| | |
|---|---|
| English Speaking | 60.5 |
| Foreign-born | 72.3 |
| Outdoor Workers | 52.3 |
| Climate Change Adaptive Capacity | — |
| Impervious Surface Cover | 43.7 |
| Traffic Density | 45.1 |
| Traffic Access | 23.0 |
| Other Indices | — |
| Hardship | 34.8 |
| Other Decision Support | — |
| 2016 Voting | 51.4 |

## 7.3. Overall Health & Equity Scores

| Metric | Result for Project Census Tract |
|---|---|
| CalEnviroScreen 4.0 Score for Project Location (a) | 63.0 |
| Healthy Places Index Score for Project Location (b) | 73.0 |
| Project Located in a Designated Disadvantaged Community (Senate Bill 535) | No |
| Project Located in a Low-Income Community (Assembly Bill 1550) | No |
| 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

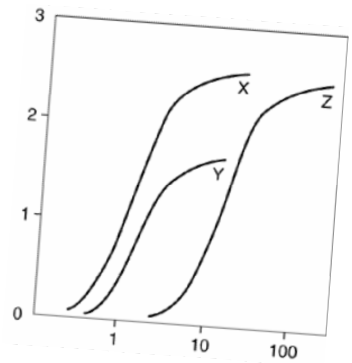
Health & Equity Evaluation Scorecard not completed.

## 7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

# 8. User Changes to Default Data

| Screen | Justification |
| --- | --- |
| Land Use | Per project description of Building A and B |
| Construction: Construction Phases | Per model |
| Operations: Vehicle Data | per IS/MND |

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# *James J. J. Clark, Ph.D.*

*Principal Toxicologist*

**Toxicology/Exposure Assessment Modeling**

**Risk Assessment/Analysis/Dispersion Modeling**

## Education:

Ph.D., Environmental Health Science, University of California, 1995
M.S., Environmental Health Science, University of California, 1993
B.S., Biophysical and Biochemical Sciences, University of Houston, 1987

## Professional Experience:

Dr. Clark is a well recognized toxicologist, air modeler, and health scientist.  He has 20 years of experience in researching the effects of environmental contaminants on human health including environmental fate and transport modeling (SCREEN3, AEROMOD, ISCST3, Johnson-Ettinger Vapor Intrusion Modeling); exposure assessment modeling (partitioning of contaminants in the environment as well as PBPK modeling); conducting and managing human health risk assessments for regulatory compliance and risk-based clean-up levels; and toxicological and medical literature research.

Significant projects performed by Dr. Clark include the following:

### LITIGATION SUPPORT

**Case:  James Harold Caygle, et al, v. Drummond Company, Inc.  Circuit Court for the Tenth Judicial Circuit, Jefferson County, Alabama.   Civil Action. CV-2009**

**Client:  Environmental Litgation Group, Birmingham, Alabama**

Dr. Clark performed an air quality assessment of emissions from a coke factory located in Tarrant, Alabama.  The assessment reviewed include a comprehensive review of air quality standards, measured concentrations of pollutants from factory, an inspection of the facility and detailed assessment of the impacts on the community. The results of the assessment and literature have been provided in a declaration to the court.

**Case Result: Settlement in favor of plaintiff.**

**Case: Rose Roper V. Nissan North America, et al. Superior Court of the State Of California for the County Of Los Angeles – Central Civil West. Civil Action. NC041739**

**Client: Rose, Klein, Marias, LLP, Long Beach, California**

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to multiple chemicals, including benzene, who later developed a respiratory distress. A review of the individual's medical and occupational history was performed to prepare an exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to respiratory irritants. The results of the assessment and literature have been provided in a declaration to the court.

**Case Result: Settlement in favor of plaintiff.**

**Case: O'Neil V. Sherwin Williams, et al. United States District Court Central District of California**

**Client: Rose, Klein, Marias, LLP, Long Beach, California**

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to petroleum distillates who later developed a bladder cancer. A review of the individual's medical and occupational history was performed to prepare a quantitative exposure assessment. The results of the assessment and literature have been provided in a declaration to the court.

**Case Result: Summary judgment for defendants.**

**Case: Moore V., Shell Oil Company, et al. Superior Court of the State Of California for the County Of Los Angeles**

**Client: Rose, Klein, Marias, LLP, Long Beach, California**

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to chemicals while benzene who later developed a leukogenic disease. A review of the individual's medical and occupational history was performed to prepare a quantitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to refined petroleum hydrocarbons. The results of the assessment and literature have been provided in a declaration to the court.

**Case Result: Settlement in favor of plaintiff.**

**Case: Raymond Saltonstall V. Fuller O'Brien, KILZ, and Zinsser, et al. United States District Court Central District of California**

**Client: Rose, Klein, Marias, LLP, Long Beach, California**

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to benzene who later developed a leukogenic disease. A review of the individual's medical and occupational history was performed to prepare a quantitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to refined petroleum hydrocarbons. The results of the assessment and literature have been provided in a declaration to the court.

**Case Result: Settlement in favor of plaintiff.**

**Case: Richard Boyer and Elizabeth Boyer, husband and wife, V. DESCO Corporation, et al. Circuit Court of Brooke County, West Virginia. Civil Action Number 04-C-7G.**

**Client: Frankovitch, Anetakis, Colantonio & Simon, Morgantown, West Virginia.**

Dr. Clark performed a toxicological assessment of a family exposed to chlorinated solvents released from the defendant's facility into local drinking water supplies. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to chlorinated solvents. The results of the assessment and literature have been provided in a declaration to the court.

**Case Result: Settlement in favor of plaintiff.**

**Case: JoAnne R. Cook, V. DESCO Corporation, et al. Circuit Court of Brooke County, West Virginia. Civil Action Number 04-C-9R**

**Client: Frankovitch, Anetakis, Colantonio & Simon, Morgantown, West Virginia.**

Dr. Clark performed a toxicological assessment of an individual exposed to chlorinated solvents released from the defendant's facility into local drinking water supplies. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to chlorinated solvents. The results of the assessment and literature have been provided in a declaration to the court.

**Case Result: Settlement in favor of plaintiff.**

**Case: Patrick Allen And Susan Allen, husband and wife, and Andrew Allen, a minor, V. DESCO Corporation, et al. Circuit Court of Brooke County, West Virginia. Civil Action Number 04-C-W**

**Client: Frankovitch, Anetakis, Colantonio & Simon, Morgantown, West Virginia.**

Dr. Clark performed a toxicological assessment of a family exposed to chlorinated solvents released from the defendant's facility into local drinking water supplies. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to chlorinated solvents. The results of the assessment and literature have been provided in a declaration to the court.

**Case Result: Settlement in favor of plaintiff.**

**Case: Michael Fahey, Susan Fahey V. Atlantic Richfield Company, et al. United States District Court Central District of California Civil Action Number CV-06 7109 JCL.**

**Client: Rose, Klein, Marias, LLP, Long Beach, California**

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to refined petroleum hydrocarbons who later developed a leukogenic disease. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to refined petroleum hydrocarbons. The results of the assessment and literature have been provided in a declaration to the court.

**Case Result: Settlement in favor of plaintiff.**

**Case: Constance Acevedo, et al., V. California Spray-Chemical Company, et al., Superior Court of the State Of California, County Of Santa Cruz. Case No. CV 146344**

Dr. Clark performed a comprehensive exposure assessment of community members exposed to toxic metals from a former lead arsenate manufacturing facility. The former manufacturing site had undergone a DTSC mandated removal action/remediation for the presence of the toxic metals at the site. Opinions were presented regarding the elevated levels of arsenic and lead (in attic dust and soils) found throughout the community and the potential for harm to the plaintiffs in question.

**Case Result: Settlement in favor of defendant.**

**Case: Michael Nawrocki V. The Coastal Corporation, Kurk Fuel Company, Pautler Oil Service, State of New York Supreme Court, County of Erie, Index Number I2001-11247**

**Client: Richard G. Berger Attorney At Law, Buffalo, New York**

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to refined petroleum hydrocarbons who later developed a leukogenic disease. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to refined petroleum hydrocarbons. The results of the assessment and literature have been provided in a declaration to the court.

**Case Result: Judgement in favor of defendant.**

## SELECTED AIR MODELING RESEARCH/PROJECTS

**Client – Confidential**

Dr. Clark performed a comprehensive evaluation of criteria pollutants, air toxins, and particulate matter emissions from a carbon black production facility to determine the impacts on the surrounding communities. The results of the dispersion model will be used to estimate acute and chronic exposure concentrations to multiple contaminants and will be incorporated into a comprehensive risk evaluation.

**Client – Confidential**

Dr. Clark performed a comprehensive evaluation of air toxins and particulate matter emissions from a railroad tie manufacturing facility to determine the impacts on the surrounding communities. The results of the dispersion model have been used to estimate acute and chronic exposure concentrations to multiple contaminants and have been incorporated into a comprehensive risk evaluation.

**Client – Los Angeles Alliance for a New Economy (LAANE), Los Angeles, California**

Dr. Clark is advising the LAANE on air quality issues related to current flight operations at the Los Angeles International Airport (LAX) operated by the Los Angeles World Airport (LAWA) Authority. He is working with the LAANE and LAX staff to develop a comprehensive strategy for meeting local community concerns over emissions from flight operations and to engage federal agencies on the issue of local impacts of community airports.

**Client – City of Santa Monica, Santa Monica, California**

Dr. Clark is advising the City of Santa Monica on air quality issues related to current flight operations at the facility. He is working with the City staff to develop a comprehensive strategy for meeting local community concerns over emissions from flight operations and to engage federal agencies on the issue of local impacts of community airports.

**Client: Omnitrans, San Bernardino, California**

Dr. Clark managed a public health survey of three communities near transit fueling facilities in San Bernardino and Montclair California in compliance with California Senate Bill 1927. The survey included an epidemiological survey of the effected communities, emission surveys of local businesses, dispersion modeling to determine potential emission concentrations within the communities, and a comprehensive risk assessment of each community. The results of the study were presented to the Governor as mandated by Senate Bill 1927.

**Client: Confidential, San Francisco, California**

Summarized cancer types associated with exposure to metals and smoking. Researched the specific types of cancers associated with exposure to metals and smoking. Provided causation analysis of the association between cancer types and exposure for use by non-public health professionals.

**Client: Confidential, Minneapolis, Minnesota**

Prepared human health risk assessment of workers exposed to VOCs from neighboring petroleum storage/transport facility. Reviewed the systems in place for distribution of petroleum hydrocarbons to identify chemicals of concern (COCs), prepared comprehensive toxicological summaries of COCs, and quantified potential risks from carcinogens and non-carcinogens to receptors at or adjacent to site. This evaluation was used in the support of litigation.

**Client – United Kingdom Environmental Agency**

Dr. Clark is part of team that performed comprehensive evaluation of soil vapor intrusion of VOCs from former landfill adjacent residences for the United Kingdom's Environment

Agency. The evaluation included collection of liquid and soil vapor samples at site, modeling of vapor migration using the Johnson Ettinger Vapor Intrusion model, and calculation of site-specific health based vapor thresholds for chlorinated solvents, aromatic hydrocarbons, and semi-volatile organic compounds. The evaluation also included a detailed evaluation of the use, chemical characteristics, fate and transport, and toxicology of chemicals of concern (COC). The results of the evaluation have been used as a briefing tool for public health professionals.

## EMERGING/PERSISTENT CONTAMINANT RESEARCH/PROJECTS

**Client: Ameren Services, St. Louis, Missouri**

Managed the preparation of a comprehensive human health risk assessment of workers and residents at or near an NPL site in Missouri. The former operations at the Property included the servicing and repair of electrical transformers, which resulted in soils and groundwater beneath the Property and adjacent land becoming impacted with PCB and chlorinated solvent compounds. The results were submitted to U.S. EPA for evaluation and will be used in the final ROD.

**Client: City of Santa Clarita, Santa Clarita, California**

Dr. Clark is managing the oversight of the characterization, remediation and development activities of a former 1,000 acre munitions manufacturing facility for the City of Santa Clarita. The site is impacted with a number of contaminants including perchlorate, unexploded ordinance, and volatile organic compounds (VOCs). The site is currently under a number of regulatory consent orders, including an Immanent and Substantial Endangerment Order. Dr. Clark is assisting the impacted municipality with the development of remediation strategies, interaction with the responsible parties and stakeholders, as well as interfacing with the regulatory agency responsible for oversight of the site cleanup.

**Client: Confidential, Los Angeles, California**

Prepared comprehensive evaluation of perchlorate in environment. Dr. Clark evaluated the production, use, chemical characteristics, fate and transport, toxicology, and remediation of perchlorate. Perchlorates form the basis of solid rocket fuels and have recently been detected in water supplies in the United States. The results of this research were presented to the USEPA, National GroundWater, and ultimately published in a recent book entitled *Perchlorate in the Environment*.

**Client – Confidential, Los Angeles, California**

Dr. Clark is performing a comprehensive review of the potential for pharmaceuticals and their by-products to impact groundwater and surface water supplies. This evaluation will include a review if available data on the history of pharmaceutical production in the United States; the chemical characteristics of various pharmaceuticals; environmental fate and transport; uptake by xenobiotics; the potential effects of pharmaceuticals on water treatment systems; and the potential threat to public health. The results of the evaluation may be used as a briefing tool for non-public health professionals.

## PUBLIC HEALTH/TOXICOLOGY

**Client: Brayton Purcell, Novato, California**

Dr. Clark performed a toxicological assessment of residents exposed to methyl-tertiary butyl ether (MTBE) from leaking underground storage tanks (LUSTs) adjacent to the subject property. The symptomology of residents and guests of the subject property were evaluated against the known outcomes in published literature to exposure to MTBE. The study found that residents had been exposed to MTBE in their drinking water; that concentrations of MTBE detected at the site were above regulatory guidelines; and, that the symptoms and outcomes expressed by residents and guests were consistent with symptoms and outcomes documented in published literature.

**Client: Confidential, San Francisco, California**

Identified and analyzed fifty years of epidemiological literature on workplace exposures to heavy metals. This research resulted in a summary of the types of cancer and non-cancer diseases associated with occupational exposure to chromium as well as the mortality and morbidity rates.

**Client: Confidential, San Francisco, California**

Summarized major public health research in United States. Identified major public health research efforts within United States over last twenty years. Results were used as a briefing tool for non-public health professionals.

**Client: Confidential, San Francisco, California**

Quantified the potential multi-pathway dose received by humans from a pesticide applied indoors. Part of team that developed exposure model and evaluated exposure concentrations in a comprehensive report on the plausible range of doses received by a specific person. This evaluation was used in the support of litigation.

**Client: Covanta Energy, Westwood, California**

Evaluated health risk from metals in biosolids applied as soil amendment on agricultural lands. The biosolids were created at a forest waste cogeneration facility using 96% whole tree wood chips and 4 percent green waste. Mass loading calculations were used to estimate Cr(VI) concentrations in agricultural soils based on a maximum loading rate of 40 tons of biomass per acre of agricultural soil. The results of the study were used by the Regulatory agency to determine that the application of biosolids did not constitute a health risk to workers applying the biosolids or to residences near the agricultural lands.

**Client – United Kingdom Environmental Agency**

Oversaw a comprehensive toxicological evaluation of methyl-*tertiary* butyl ether (M*t*BE) for the United Kingdom's Environment Agency. The evaluation included available data on the production, use, chemical characteristics, fate and transport, toxicology, and remediation of M*t*BE. The results of the evaluation have been used as a briefing tool for public health professionals.

**Client – Confidential, Los Angeles, California**

Prepared comprehensive evaluation of *tertiary* butyl alcohol (TBA) in municipal drinking water system. TBA is the primary breakdown product of M*t*BE, and is suspected to be the primary cause of M*t*BE toxicity. This evaluation will include available information on the production, use, chemical characteristics, fate and transport in the environment, absorption, distribution, routes of detoxification, metabolites, carcinogenic potential, and remediation of TBA. The results of the evaluation were used as a briefing tool for non-public health professionals.

**Client – Confidential, Los Angeles, California**

Prepared comprehensive evaluation of methyl *tertiary* butyl ether (MTBE) in municipal drinking water system. MTBE is a chemical added to gasoline to increase the octane rating and to meet Federally mandated emission criteria. The evaluation included available data on the production, use, chemical characteristics, fate and transport, toxicology, and remediation of MTBE. The results of the evaluation have been were used as a briefing tool for non-public health professionals.

**Client – Ministry of Environment, Lands & Parks, British Columbia**

Dr. Clark assisted in the development of water quality guidelines for methyl tertiary-butyl ether (MTBE) to protect water uses in British Columbia (BC). The water uses to be considered includes freshwater and marine life, wildlife, industrial, and agricultural (e.g., irrigation and livestock watering) water uses. Guidelines from other jurisdictions for the protection of drinking water, recreation and aesthetics were to be identified.

**Client: Confidential, Los Angeles, California**

Prepared physiologically based pharmacokinetic (PBPK) assessment of lead risk of receptors at middle school built over former industrial facility. This evaluation is being used to determine cleanup goals and will be basis for regulatory closure of site.

**Client: Kaiser Venture Incorporated, Fontana, California**

Prepared PBPK assessment of lead risk of receptors at a 1,100-acre former steel mill. This evaluation was used as the basis for granting closure of the site by lead regulatory agency.

**RISK ASSESSMENTS/REMEDIAL INVESTIGATIONS**

**Client: Confidential, Atlanta, Georgia**

Researched potential exposure and health risks to community members potentially exposed to creosote, polycyclic aromatic hydrocarbons, pentachlorophenol, and dioxin compounds used at a former wood treatment facility. Prepared a comprehensive toxicological summary of the chemicals of concern, including the chemical characteristics, absorption, distribution, and carcinogenic potential. Prepared risk characterization of the carcinogenic and non-carcinogenic chemicals based on the exposure assessment to quantify the potential risk to members of the surrounding community. This evaluation was used to help settle class-action tort.

**Client: Confidential, Escondido, California**

Prepared comprehensive Preliminary Endangerment Assessment (PEA) of dense non-aqueous liquid phase hydrocarbon (chlorinated solvents) contamination at a former printed circuit board manufacturing facility. This evaluation was used for litigation support and may be used as the basis for reaching closure of the site with the lead regulatory agency.

**Client: Confidential, San Francisco, California**

Summarized epidemiological evidence for connective tissue and autoimmune diseases for product liability litigation. Identified epidemiological research efforts on the health effects of medical prostheses. This research was used in a meta-analysis of the health effects and as a briefing tool for non-public health professionals.

**Client: Confidential, Bogotá, Columbia**

Prepared comprehensive evaluation of the potential health risks associated with the redevelopment of a 13.7 hectares plastic manufacturing facility in Bogotá, Colombia The risk assessment was used as the basis for the remedial goals and closure of the site.

**Client: Confidential, Los Angeles, California**

Prepared comprehensive human health risk assessment of students, staff, and residents potentially exposed to heavy metals (principally cadmium) and VOCs from soil and soil vapor at 12-acre former crude oilfield and municipal landfill. The site is currently used as a middle school housing approximately 3,000 children. The evaluation determined that the site was safe for the current and future uses and was used as the basis for regulatory closure of site.

**Client: Confidential, Los Angeles, California**

Managed remedial investigation (RI) of heavy metals and volatile organic chemicals (VOCs) for a 15-acre former manufacturing facility. The RI investigation of the site included over 800 different sampling locations and the collection of soil, soil gas, and groundwater samples. The site is currently used as a year round school housing approximately 3,000 children. The Remedial Investigation was performed in a manner that did not interrupt school activities and met the time restrictions placed on the project by the overseeing regulatory agency. The RI Report identified the off-site source of metals that impacted groundwater beneath the site and the sources of VOCs in soil gas and groundwater. The RI included a numerical model of vapor intrusion into the buildings at the site from the vadose zone to determine exposure concentrations and an air dispersion model of VOCs from the proposed soil vapor treatment system. The Feasibility Study for the Site is currently being drafted and may be used as the basis for granting closure of the site by DTSC.

**Client: Confidential, Los Angeles, California**

Prepared comprehensive human health risk assessment of students, staff, and residents potentially exposed to heavy metals (principally lead), VOCs, SVOCs, and PCBs from soil, soil vapor, and groundwater at 15-acre former manufacturing facility. The site is currently used as a year round school housing approximately 3,000 children. The evaluation determined that the site was safe for the current and future uses and will be basis for regulatory closure of site.

**Client: Confidential, Los Angeles, California**

Prepared comprehensive evaluation of VOC vapor intrusion into classrooms of middle school that was former 15-acre industrial facility. Using the Johnson-Ettinger Vapor Intrusion model, the evaluation determined acceptable soil gas concentrations at the site that did not pose health threat to students, staff, and residents. This evaluation is being used to determine cleanup goals and will be basis for regulatory closure of site.

Client –Dominguez Energy, Carson, California

Prepared comprehensive evaluation of the potential health risks associated with the redevelopment of 6-acre portion of a 500-acre oil and natural gas production facility in Carson, California. The risk assessment was used as the basis for closure of the site.

**Kaiser Ventures Incorporated, Fontana, California**

Prepared health risk assessment of semi-volatile organic chemicals and metals for a fifty-year old wastewater treatment facility used at a 1,100-acre former steel mill. This evaluation was used as the basis for granting closure of the site by lead regulatory agency.

ANR Freight - Los Angeles, California

Prepared a comprehensive Preliminary Endangerment Assessment (PEA) of petroleum hydrocarbon and metal contamination of a former freight depot. This evaluation was as the basis for reaching closure of the site with lead regulatory agency.

**Kaiser Ventures Incorporated, Fontana, California**

Prepared comprehensive health risk assessment of semi-volatile organic chemicals and metals for 23-acre parcel of a 1,100-acre former steel mill. The health risk assessment was used to determine clean up goals and as the basis for granting closure of the site by lead regulatory agency. Air dispersion modeling using ISCST3 was performed to determine downwind exposure point concentrations at sensitive receptors within a 1 kilometer radius of the site. The results of the health risk assessment were presented at a public meeting sponsored by the Department of Toxic Substances Control (DTSC) in the community potentially affected by the site.

**Unocal Corporation - Los Angeles, California**

Prepared comprehensive assessment of petroleum hydrocarbons and metals for a former petroleum service station located next to sensitive population center (elementary school). The assessment used a probabilistic approach to estimate risks to the community and was used as the basis for granting closure of the site by lead regulatory agency.

**Client: Confidential, Los Angeles, California**

Managed oversight of remedial investigation most contaminated heavy metal site in California. Lead concentrations in soil excess of 68,000,000 parts per billion (ppb) have been measured at the site. This State Superfund Site was a former hard chrome plating operation that operated for approximately 40-years.

**Client: Confidential, San Francisco, California**

Coordinator of regional monitoring program to determine background concentrations of metals in air. Acted as liaison with SCAQMD and CARB to perform co-location sampling and comparison of accepted regulatory method with ASTM methodology.

**Client: Confidential, San Francisco, California**

Analyzed historical air monitoring data for South Coast Air Basin in Southern California and potential health risks related to ambient concentrations of carcinogenic metals and volatile organic compounds. Identified and reviewed the available literature and calculated risks from toxins in South Coast Air Basin.

**IT Corporation, North Carolina**

Prepared comprehensive evaluation of potential exposure of workers to air-borne VOCs at hazardous waste storage facility under SUPERFUND cleanup decree. Assessment used in developing health based clean-up levels.

**<u>Professional Associations</u>**

American Public Health Association (APHA)
Association for Environmental Health and Sciences (AEHS)
American Chemical Society (ACS)
California Redevelopment Association (CRA)
International Society of Environmental Forensics (ISEF)
Society of Environmental Toxicology and Chemistry (SETAC)

**<u>Publications and Presentations:</u>**

**Books and Book Chapters**

Sullivan, P., **J.J. J. Clark,** F.J. Agardy, and P.E. Rosenfeld. (2007). *Synthetic Toxins In The Food, Water and Air of American Cities*. Elsevier, Inc. Burlington, MA.

Sullivan, P. and **J.J. J. Clark**. 2006. *Choosing Safer Foods, A Guide To Minimizing Synthetic Chemicals In Your Diet*. Elsevier, Inc. Burlington, MA.

Sullivan, P., Agardy, F.J., and **J.J.J. Clark**. 2005. *The Environmental Science of Drinking Water*. Elsevier, Inc. Burlington, MA.

Sullivan, P.J., Agardy, F.J., **Clark, J.J.J.** 2002. *America's Threatened Drinking Water: Hazards and Solutions*. Trafford Publishing, Victoria B.C.

**Clark, J.J.J.** 2001. "TBA: Chemical Properties, Production & Use, Fate and Transport, Toxicology, Detection in Groundwater, and Regulatory Standards" in *Oxygenates in the Environment.* Art Diaz, Ed.. Oxford University Press: New York.

**Clark, J.J.J.** 2000. "Toxicology of Perchlorate" in *Perchlorate in the Environment.* Edward Urbansky, Ed. Kluwer/Plenum: New York.

**Clark, J.J.J.** 1995. Probabilistic Forecasting of Volatile Organic Compound Concentrations At The Soil Surface From Contaminated Groundwater. UMI.

Baker, J.; **Clark, J.J.J.**; Stanford, J.T. 1994. Ex Situ Remediation of Diesel Contaminated Railroad Sand by Soil Washing. Principles and Practices for Diesel Contaminated Soils, Volume III. P.T. Kostecki, E.J. Calabrese, and C.P.L. Barkan, eds. Amherst Scientific Publishers, Amherst, MA. pp 89-96.

**Journal and Proceeding Articles**

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008) A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equialency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. Organohalogen Compounds, Volume 70 (2008) page 002254.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008) Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. Organohalogen Compounds, Volume 70 (2008) page 000527

Hensley A.R., Scott, A., Rosenfeld P.E., **Clark, J.J.J.** (2007). "Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility." *Environmental Research.* 105:194-199.

Rosenfeld, P.E., **Clark, J. J.,** Hensley, A.R., and Suffet, I.H. 2007. "The Use Of An Odor Wheel Classification For The Evaluation of Human Health Risk Criteria For Compost Facilities" Water Science & Technology. 55(5): 345-357.

Hensley A.R., Scott, A., Rosenfeld P.E., **Clark, J.J.J.** 2006. "Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility." The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006, August 21 – 25, 2006. Radisson SAS Scandinavia Hotel in Oslo Norway.

Rosenfeld, P.E., **Clark, J. J.** and Suffet, I.H. 2005. "The Value Of An Odor Quality Classification Scheme For Compost Facility Evaluations" The U.S. Composting Council's 13th Annual Conference January 23 - 26, 2005, Crowne Plaza Riverwalk, San Antonio, TX.

Rosenfeld, P.E., **Clark, J. J.** and Suffet, I.H. 2004. "The Value Of An Odor Quality Classification Scheme For Urban Odor" WEFTEC 2004. 77th Annual Technical Exhibition & Conference October 2 - 6, 2004, Ernest N. Morial Convention Center, New Orleans, Louisiana.

**Clark, J.J.J**. 2003. "Manufacturing, Use, Regulation, and Occurrence of a Known Endocrine Disrupting Chemical (EDC), 2,4-Dichlorophnoxyacetic Acid (2,4-D) in California Drinking Water Supplies." National Groundwater Association Southwest Focus Conference: Water Supply and Emerging Contaminants. Minneapolis, MN. March 20, 2003.

Rosenfeld, P. and **J.J.J. Clark**. 2003. "Understanding Historical Use, Chemical Properties, Toxicity, and Regulatory Guidance" National Groundwater Association Southwest Focus Conference: Water Supply and Emerging Contaminants. Phoenix, AZ. February 21, 2003.

**Clark, J.J.J.**, Brown A. 1999. Perchlorate Contamination: Fate in the Environment and Treatment Options. In Situ and On-Site Bioremediation, Fifth International Symposium. San Diego, CA, April, 1999.

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# EXHIBIT B

Shawn Smallwood, PhD
3108 Finch Street
Davis, CA 95616

Tara Rengifo
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080

15 November 2024

RE: E&P Technology Way - Building A & B

Dear Ms. Rengifo,

I write to comment on potentially significant impacts to biological resources from the proposed E&P Technology Way - Building A & B, which I understand would add one 143,312 sf warehouse and a 13,000 sf outbuilding, and another 66,915 sf warehouse for a total 223,227 sf, along with 211 total parking spaces and spaces for eight semi-trailers located on Technology Way in the Napa Valley Business Park Specific Plan area, County of Napa, California. I comment on the characterization of the existing environmental setting and on the analyses of impacts to biological resources in FirstCarbon Solutions (2024) and the County's Initial Study/Mitigated Negative Declaration (IS/MND).

My qualifications for preparing expert comments are the following. I hold a Ph.D. degree in Ecology from University of California at Davis, where I also worked as a post-graduate researcher in the Department of Agronomy and Range Sciences. My research has been on animal density and distribution, habitat selection, wildlife interactions with the anthrosphere, and conservation of rare and endangered species. I authored many papers on these and other topics. I served as Chair of the Conservation Affairs Committee for The Wildlife Society – Western Section. I am a member of The Wildlife Society and Raptor Research Foundation, and I've lectured part-time at California State University, Sacramento. I was Associate Editor of wildlife biology's premier scientific journal, The Journal of Wildlife Management, as well as of Biological Conservation, and I was on the Editorial Board of Environmental Management. I have performed wildlife surveys in California for thirty-seven years. My CV is attached.

## EXISTING ENVIRONMENTAL SETTING

The first step in analysis of potential project impacts to biological resources is to accurately characterize the existing environmental setting, including the wildlife community, key ecological relationships, and known and ongoing threats to special-status species. A reasonably accurate characterization of the environmental setting can provide the baseline against which to analyze potential project impacts. For this reason, characterization of the environmental setting, including its regional setting, is one of the CEQA's essential analytical steps. Methods to achieve this first step typically include (1) surveys of the site for biological resources, and (2) reviews of literature, databases and local experts for documented occurrences of special-status species. In the case of the proposed project, this first step remains incomplete and misleading.

**Environmental Setting informed by Field Surveys**

To the CEQA's primary objective to disclose potential environmental impacts of a proposed project, the analysis should be informed of which biological species are known to occur at the proposed project site, which special-status species are likely to occur, as well as the limitations of the survey effort directed to the site. Analysts need this information to characterize the environmental setting as a basis for opining on, or predicting, potential project impacts to biological resources.

The IS/MND (p. 10) reports that "The Biological Resources Analysis was prepared by FCS in January 2024 (updated February 2024) to determine if any biological resources were *potentially present*..." (emphasis added) But this reporting is misleading. FirstCarbon Solutions (2024) had a biologist survey the project site on 8 December 2022 to record "the location and identity of all plant and animal species *encountered*." (emphasis added) FirstCarbon Solutions' statement of objectives differs from the objective claimed in the IS/MND. A reconnaissance survey cannot achieve the objective claimed in the IS/MND.

The reconnaissance survey began at 11:00 hours, but FirstCarbon Solutions (2024) did not report how long the survey lasted. Without knowing how long the survey lasted, the survey result cannot be fully interpreted. Survey duration imparts a large influence over which species are detected and how many species are detected.

The 11:00 start time would have had the effect of limiting the number of species detected. I have found that a late morning start time detects 34% fewer species than an early morning start time (Figure 1).

FirstCarbon Solutions (2024) detected 13 taxa of vertebrate wildlife, four (31%) of which the biologist was unable to identify to species. For comparison, I have detected 69 species of vertebrate wildlife in only 8.56 hours of visual-scan surveys at three locations within 700 m of the project site (Tables 1 and 2). Thirteen of these species were special-status species. At a cluster of three other project sites that I surveyed 4,345 m (2.7 miles) south-southeast of the project site, I or one or more of three consulting firms detected 44 species of vertebrate wildlife, including nine special-status species (Table 3). Inclusive of the findings from these surveys, I am aware of 113 species of vertebrate wildlife, including 22 special-status species within only 2.7 miles of the project site. Again, FirstCarbon Solutions (2024) detected only 13 taxa of vertebrate wildlife, or only 11% of the number of species known to the local project area by professional biologists. FirstCarbon Solutions' (2024) reconnaissance survey effort was grossly deficient, and its results ill-suited for characterizing the existing environmental setting.

FirstCarbon Solutions (2024) failed to implement the CDFW (2018) survey guidelines for rare plants. FirstCarbon Solutions (2024) should have disclosed that the guidelines were available and should have been implemented.

*__Figure 1.__ Numbers of vertebrate wildlife species detected in visual-scan surveys as proportions of the maximum number detected among 5 surveys per project site, and as a function of start time during the day. The red symbols represent the Greentree project site in Vacaville, and the blue symbols represent the Kassis site in Rancho Cordova, spring and summer 2022.*

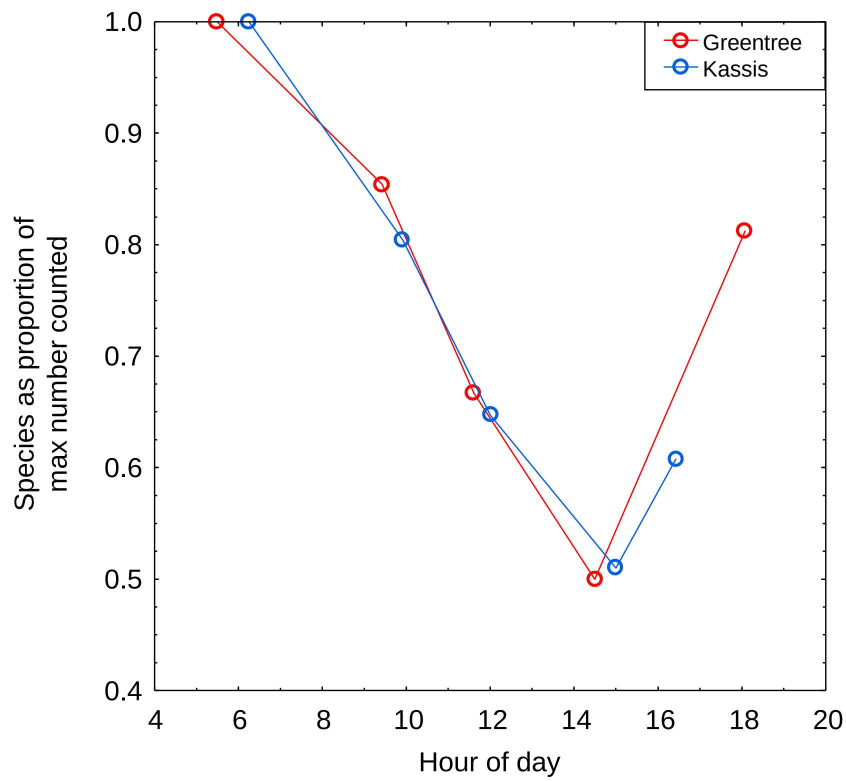


*__Table 1.__ Species of wildlife I observed during 3.9 hours of survey at a site 1,380 m north-northeast of the project site on 9 May 2024, and during 3.08 hours at a site 1,100 m north of the project site on 15 July 2018 and 16 July.*

| Common name | *Species name* | Status[1] | Notes |
|---|---|---|---|
| Western fence lizard | *Sceloporus occidentalis* | | |
| Canada goose | *Branta canadensis* | | Pair nesting |
| Mallard | *Anas platyrhynchos* | | Flew to land at wastewater ponds |
| California quail | *Callipepla californica* | | |
| Rock pigeon | *Columba livia* | Non-native | |
| Band-tailed pigeon | *Patagioenas fasciata* | | Flock flew over |
| Eurasian collared-dove | *Streptopelia decaocto* | Non-native | |
| Mourning dove | *Zenaida macroura* | | |
| White-throated swift | *Aeronautes saxatalis* | | |
| Anna's hummingbird | *Calypte anna* | | |
| American coot | *Fulica americana* | | |
| Wild turkey | *Meleagris gallopavo* | Re-introduced | |
| Killdeer | *Charadrius vociferus* | | |
| Greater yellowlegs | *Tringa melanoleuca* | | |
| Bonaparte's gull | *Chroicocephalus philadelphia* | | |
| California gull | *Larus californicus* | BCC, TWL | |

| **Common name** | ***Species name*** | **Status**[1] | **Notes** |
|---|---|---|---|
| Herring gull | *Larus argentatus* | | |
| Forster's tern | *Sterna forstreri* | | |
| Great egret | *Ardea alba* | | Flyover |
| Double-crested cormorant | *Nannopterum auritum* | TWL | |
| Turkey vulture | *Cathartes aura* | BOP | |
| White-tailed kite | *Elanus leucurus* | CFP, BOP | |
| Northern harrier | *Circus cyaneus* | BCC, SSC3, BOP | Harassed turkey vulture, likely to defend nest |
| Cooper's hawk | *Accipiter cooperii* | TWL, BOP | Chased nesting RTHA |
| Red-tailed hawk | *Buteo jamaicensis* | BOP | Nest with at least 2 chicks |
| Swainson's hawk | *Buteo swainsoni* | CT, BOP | |
| Belted kingfisher | *Ceryle alcyon* | | |
| American kestrel | *Falco sparverius* | BOP | |
| Western kingbird | *Tyrannus verticalis* | | Nest in Eucalyptus |
| Black phoebe | *Sayornis nigricans* | | |
| Say's phoebe | *Sayornis saya* | | |
| California scrub-jay | *Aphelocoma californica* | | Nesting |
| American crow | *Corvus brachyrhynchos* | | |
| Common raven | *Corvus corax* | | |
| Tree swallow | *Tachycineta bicolor* | | Nesting |
| Northern rough-winged swallow | *Stelgidopteryx serripennis* | | |
| Barn swallow | *Hirundo rustica* | | |
| Cliff swallow | *Petrochelidon pyrrhonota* | | |
| Oak titmouse | *Baeolophus inornatus* | BCC | |
| Bushtit | *Psaltriparus minimus* | | |
| Northern mockingbird | *Mimus polyglottos* | | |
| European starling | *Sturnus vulgaris* | Non-native | |
| Western bluebird | *Sialia mexicana* | | |
| Hermit thrush | *Catharus guttatus* | | |
| American robin | *Turdus migratorius* | | |
| Spotted towhee | *Pipilo maculatus* | | |
| Purple finch | *Haemorhous purpureus* | | |
| House finch | *Haemorphous mexicanus* | | |
| Lesser goldfinch | *Spinus psaltria* | | Collecting nest material |
| American goldfinch | *Spinus tristis* | | |
| Samuel's song sparrow | *Melospiza melodia samuelis* | SSC3 | |
| California towhee | *Melozone crissalis* | | |
| Bullock's oriole | *Icterus bullockii* | | |
| Red-winged blackbird | *Agelaius phoeniceus* | | Nesting |

| Common name | *Species name* | Status[1] | Notes |
|---|---|---|---|
| Brown-headed cowbird | *Molothrus ater* | | |
| Brewer's blackbird | *Euphagus cyanocephalus* | | |
| Great-tailed grackle | *Quiscalus mexicanus* | | Fledglings |
| Western tanager | *Piranga ludoviciana* | | |
| Black-headed grosbeak | *Pheucticus melanocephalus* | | |
| Black-tailed jackrabbit | *Lepus californicus* | | |
| Botta's pocket gopher | *Thomomys bottae* | | |
| California vole | *Microtus californicus* | | |
| Columbian black-tailed deer | *Odocoileus hemionus ssp. columbianus* | | |

[1] Listed as FT or FE = federal threatened or endangered, CT or CE = California threatened or endangered, CFP = California Fully Protected (CFG Code 3511), SSC = California Species of Special Concern, BCC = U.S. Fish and Wildlife Service Bird of Conservation Concern, TWL = Taxa to Watch List (Shuford and Gardali 2008), and BOP = Birds of Prey (California Fish and Game Code 3503.5).

***Table 2.*** *Species of wildlife I observed during an evening visit* from 17:15 to 18:50 hours *on 21 April 2018 at the site of the proposed Napa Airport Corporate Center, 2,200 m south of the project site. Blue-highlighted species are those I did not detect in survey results listed in Table 1.*

| Species | *Scientific name* | Status[1] |
|---|---|---|
| Great blue heron | *Ardea herodias* | |
| Great egret | *Casmerodius albus* | |
| Canada goose | *Branta canadensis* | |
| Mallard | *Anas platyrhynchos* | |
| Gadwall | *Anas strepera* | |
| Killdeer | *Charadrius vociferus* | |
| Greater yellowlegs | *Tringa melanoleuca* | |
| Turkey vulture | *Cathartes aura* | BOP |
| Cooper's hawk | *Accipiter cooperi* | BOP, TWL |
| Red-tailed hawk | *Buteo jamaicensis* | BOP |
| Red-shouldered hawk | *Buteo lineatus* | BOP |
| White-tailed kite | *Elanus leucurus* | CFP, TWL |
| American kestrel | *Falco sparverius* | BOP |
| Mourning dove | *Zenaida macroura* | |
| Rock pigeon | *Columba livea* | Non-native |
| Eurasian collared-dove | *Streptopelia decaocto* | Non-native |
| Black phoebe | *Sayornis nigricans* | |
| Barn swallow | *Hirundo rustica* | |
| Northern rough-winged swallow | *Stelgidopteryx serripennis* | |
| Cliff swallow | *Hirundo pyrrhonota* | |
| Common raven | *Corvus corax* | |
| American crow | *Corvus brachyrhynchos* | |

| **Species** | ***Scientific name*** | **Status**[1] |
|---|---|---|
| American robin | *Turdus migratorius* | |
| Northern mockingbird | *Mimus polyglottos* | |
| European starling | *Sturnus vulgaris* | Non-native |
| White-crowned sparrow | *Zonotrichia leucophrys* | |
| Western meadowlark | *Sturnella neglecta* | |
| Red-winged blackbird | *Agelaius phoeniceus* | |
| Brewer's blackbird | *Euphagus cyanocephalus* | |
| Brown-headed cowbird | *Molothrus ater* | |
| American goldfinch | *Carduelis tristis* | |
| House finch | *Carpodacus mexicanus* | |
| Pocket gopher | *Thomomys bottae* | |
| Black-tailed jackrabbit | *Lepus californicus* | |
| Coyote | *Canis latrans* | |
| Western fence lizard | *Sceloporus occidentalis* | |

[1] Listed as BOP = California Department of Fish and Wildlife Code 3503.5 (Birds of prey), TWL = Taxa to Watch List (Shuford and Gardali 2008).

***Table 3.*** *Species of wildlife I observed during visits on 23 January 2019 and 5 January 2021 at the site of the proposed SDG Commerce 217 Warehouse*, during an *offsite visit during my 2021 survey that includes a walk along Napa River and Bay Trails just south and west of the project site, during surveys conducted by myself (KSS), Monk & Associates (M&A), Pinecrest Research Corp, (PRC), and FirstCarbon Solutions (FCS). These surveys were completed only 4,345 m south-southeast of the E & P Technology Way project site. Blue-highlighted species are those I did not detect in survey results listed in Tables 1 and 2.*

| **Species** | ***Scientific name*** | **Status[1]** | **KSS 2019** | **KSS 2021** | **KSS offsite 2019, 2021** | **M&A 2006-2019** | **PRC 2023** | **FCS 2023** |
|---|---|---|---|---|---|---|---|---|
| Sierran treefrog | *Pseudacris sierra* | | X | | X | X | | |
| Western fence lizard | *Sceloporus occidentalis* | | | | | X | | |
| Canada goose | *Branta canadensis* | | X | | | X | X | X |
| Northern shoveler | *Anas clypeata* | | | | X | | | |
| Mallard | *Anas platyrhynchos* | | X | | | | X | X |
| California quail | *Callipepla californica* | | X | | | X | | |
| Wild turkey | *Meleagris gallopavo* | Non-native | | | | X | X | |
| Pied-billed grebe | *Podilymbus podiceps* | | | | X | | | |
| Ring-necked pheasant | *Phasianus colchicus* | Non-native | | | | X | | |
| Mourning dove | *Zenaida macroura* | | X | | X | X | X | X |
| Eurasian collared-dove | *Streptopelia decaocto* | Non-native | X | | | X | | |
| Black-chinned hummingbird | *Archilochus alexandri* | | X | | | | | |
| Anna's hummingbird | *Calypte anna* | | X | X | X | X | X | X |
| Allen's hummingbird | *Selasphorus sasin* | BCC | | | | | X | |
| Virginia rail | *Rallus limicola* | | | | | X | | |
| American coot | *Fulica americana* | | | | X | | X | X |
| Black-necked stilt | *Himantopus mexicanus* | | | | X | | | |
| American avocet | *Recurvirostra americanus* | | | | X | | | |
| Killdeer | *Charadrius vociferus* | | | | | | X | |
| Long-billed dowitcher | *Limnodromus scolopaceus* | | | | X | | | |
| Least sandpiper | *Caladris minutilla* | | | | X | | | |
| Ring-billed gull | *Larus delawarensis* | | X | | X | | | |

| **Species** | ***Scientific name*** | **Status[1]** | **KSS 2019** | **KSS 2021** | **KSS offsite 2019, 2021** | **M&A 2006-2019** | **PRC 2023** | **FCS 2023** |
|---|---|---|---|---|---|---|---|---|
| California gull | *Larus californicus* | BCC, TWL | | | | | X | X |
| Herring gull | *Larus argentatus* | | X | | X | | | |
| American white pelican | *Pelacanus erythrorhynchos* | SSC1, BCC | | | | | X | X |
| Great blue heron | *Ardea herodias* | | | | | X | X | X |
| Turkey vulture | *Cathartes aura* | BOP | | | X | X | X | X |
| Osprey | *Pandion haliaetus* | TWL, BOP | | | | X | X | |
| White-tailed kite | *Elanus leucurus* | CFP, BOP | | | | X | X | X |
| Northern harrier | *Circus cyaneus* | BCC, SSC3, BOP | X | | X | | | |
| Cooper's hawk | *Accipiter cooperii* | WL, BOP | X | | | | | |
| Bald eagle | *Haliaeetus leucocephalus* | CE, BGEPA, BOP | X | | | | | |
| Red-shouldered hawk | *Buteo lineatus* | BOP | | | X | X | X | X |
| Red-tailed hawk | *Buteo jamaicensis* | BOP | X | X | X | X | X | |
| Barn owl | *Tyto alba* | BOP | | | | X | | |
| Great horned owl | *Bubo virginianus* | BOP | X | | | | | |
| Belted kingfisher | *Ceryle alcyon* | | | | | X | | |
| Nuttall's woodpecker | *Picoides nuttallii* | BCC | X | | X | X | X | X |
| Northern flicker | *Colaptes auratus* | | X | X | X | X | X | X |
| American kestrel | *Falco sparverius* | BOP | X | | X | X | | |
| Peregrine falcon | *Falco peregrinus* | BOP | | | X | | X | |
| Black phoebe | *Sayornis nigricans* | | X | | X | X | X | X |
| Say's phoebe | *Sayornis saya* | | X | | X | X | | |
| California scrub-jay | *Aphelocoma californica* | | X | | | X | X | X |
| American crow | *Corvus brachyrhynchos* | | X | X | | X | X | X |
| Common raven | *Corvus corax* | | X | | X | X | X | X |
| Hutton's vireo | *Vireo huttoni* | | X | | | | | |
| Chestnut-backed chickadee | *Poecile rufescens* | | | | | X | X | X |
| Tree swallow | *Tachycineta bicolor* | | | | | X | X | X |

| Species | *Scientific name* | Status[1] | KSS 2019 | KSS 2021 | KSS offsite 2019, 2021 | M&A 2006-2019 | PRC 2023 | FCS 2023 |
|---|---|---|---|---|---|---|---|---|
| Northern rough-winged swallow | *Stelgidopteryx serripennis* | | X | | | | | |
| Violet-green swallow | *Tachycineta thalassina* | | | | | | X | |
| Barn swallow | *Hirundo rustica* | | X | | | X | | |
| Cliff swallow | *Petrochelidon pyrrhonota* | | | | | X | X | X |
| Bushtit | *Psatriparus minimus* | | X | X | | X | | |
| Wrentit | *Chamaea fasciata* | BCC | | | | X | | |
| Ruby-crowned kinglet | *Regulus calendula* | | | | | X | X | X |
| Cedar waxwing | *Bombycilla cedrorum* | | | | | | X | X |
| Brown creeper | *Certhia americana* | | | | | X | X | |
| Rock wren | *Salpinctes obsoletus* | | | | | | X | X |
| Bewick's wren | *Thryomanes bewickii* | | | | | X | X | X |
| House wren | *Troglodytes aedon* | | X | | | | X | X |
| Marsh wren | *Cistothorus palustris* | | | | X | X | | |
| Northern mockingbird | *Mimus polyglottos* | | X | | X | X | X | |
| European starling | *Sturnus vulgaris* | Non-native | X | X | X | X | X | X |
| Western bluebird | *Sialia mexicana* | | X | | | X | X | X |
| Hermit thrush | *Catharus guttatus* | | | | | | X | X |
| American robin | *Turdus migratorius* | | | | | X | X | X |
| House sparrow | *Passer domesticus* | Non-native | | | | X | X | |
| American pipit | *Anthus rubescens* | | | | | | X | |
| House finch | *Carpodacus mexicanus* | | X | | X | X | X | X |
| Purple finch | *Haemorhous purpureus* | | | | | | X | X |
| Lesser goldfinch | *Carduelis psaltria* | | | | X | X | X | X |
| American goldfinch | *Carduelis tristis* | | X | | | | X | X |
| Fox sparrow | *Passerella iliaca* | | | | X | | X | X |
| Dark-eyed junco | *Junco hyemalis* | | X | X | X | X | X | X |
| White-crowned sparrow | *Zonotrichia leucophrys* | | X | | X | X | X | X |
| Golden-crowned sparrow | *Zonotrichia atricapilla* | | X | | X | | X | X |

| **Species** | ***Scientific name*** | **Status**[1] | **KSS 2019** | **KSS 2021** | **KSS offsite 2019, 2021** | **M&A 2006-2019** | **PRC 2023** | **FCS 2023** |
|---|---|---|---|---|---|---|---|---|
| Savannah sparrow | *Passerculus sandwichensis* | | | | | X | | |
| Song sparrow | *Melospiza melodia* | | | | X | X | X | X |
| Lincoln's sparrow | *Melospiza lincolnii* | | | | X | | | |
| California towhee | *Pipilo crissalis* | | X | | X | | X | X |
| Spotted towhee | *Pipilo maculatus* | | | | | X | | |
| Western meadowlark | *Sturnella neglecta* | | X | | | | | |
| Bullock's oriole | *Icterus bullockii* | BCC | | | | X | | |
| Red-winged blackbird | *Agelaius phoeniceus* | | X | | X | X | X | X |
| Brown-headed cowbird | *Molothrus ater* | | | | X | X | X | X |
| Brewer's blackbird | *Euphagus cyanocephalus* | | X | | X | X | X | |
| Yellow-rumped warbler | *Setophaga coronata* | | X | X | X | X | X | X |
| Black-tailed jackrabbit | *Lepus californicus* | | | | | X | X | X |
| Botta's pocket gopher | *Thomomys bottae* | | | | X | | | |
| Western gray squirrel | *Sciurus griseus* | | | | | X | | |
| California ground squirrel | *Otospermophilus beecheyi* | | | | X | X | | |
| Raccoon | *Procyon lotor* | | | X | | | | |
| Coyote | *Canis latrans* | | | | | X | | |
| House cat | *Felis catus* | | | | | X | X | X |
| Mule deer | *Odocoileus hemionus* | | | | | | X | X |
| Columbian black-tailed deer | *Odocoileus hemionus ssp. columbianus* | | | | | X | | |
| California vole | *Microtus californicus* | | | | | | X | X |

[1] Listed as FT or FE = federal threatened or endangered, CT or CE = California threatened or endangered, CFP = California Fully Protected (CFG Code 3511), SSC = California Species of Special Concern, BCC = U.S. Fish and Wildlife Service Bird of Conservation Concern, TWL = Taxa to Watch List (Shuford and Gardali 2008), and BOP = Birds of Prey (California Fish and Game Code 3503.5).

No surveys were performed for bats, nor were any live-trapping surveys performed for small mammals. With a single survey completed in December, no survey effort was made for reptiles.

FirstCarbon Solutions (2024) is also inconsistent with its analysis. It reports on the one hand, "…the Sheehy Creek riparian corridor … provide[s] high quality habitat for a variety of plant and animal species commonly associated with wetland and riparian habitats in the County." And on the other hand, it reports "The project area does not contain significant natural biological communities or habitat for special-status species due to the history of disking and lack of vegetation present currently … Therefore, impacts to sensitive upland terrestrial biological communities in the footprint of the proposed development would not be anticipated." The Sheehy Creek riparian corridor is the foundation of a natural biological community (Ohmart 1994, Ballard et al. 2004, Andy 2020), and such communities do not function at anywhere close to full potential in isolation from neighboring uplands such as occur on the project site (Lee and Rotenberry 2015).

## Environmental Setting informed by Desktop Review

The purpose of literature and database review and of consulting with local experts is to inform the field survey, and to augment interpretation of its outcome. Analysts need this information to identify which species are known to have occurred at or near the project site, and to identify which other special-status species could conceivably occur at the site due to geographic range overlap and migration flight paths.

FirstCarbon Solutions (2024) does not report having reviewed eBird (https://eBird.org) or iNaturalist (https://www.inaturalist.org) for documented occurrence records at or near the project site. Instead, FirstCarbon Solutions (2024) queried the California Natural Diversity Data Base (CNDDB) for documented occurrences of special-status species, but it did so within an unreported distance from the project site. I could not determine whether the query was to the project site, to the USGS Quad inclusive of the site, or within one or more Quads surrounding the Quad inclusive of the site. It is impossible to fully interpret the results of the CNDDB query without knowing the locations on and around the project site that were reviewed on the database.

Moreover, by relying on the CNDDB query, FirstCarbon Solutions (2024) screens out many special-status species from further consideration in the characterization of the wildlife community as part of the existing environmental setting (see the differences in species analyzed by myself and FirstCArbon Solutions in Table 4). The CNDDB is not designed to support absence determinations or to screen out species from characterization of a site's wildlife community. As noted by the CNDDB, "*The CNDDB is a positive sighting database. It does not predict where something may be found. We map occurrences only where we have documentation that the species was found at the site. There are many areas of the state where no surveys have been conducted and therefore there is nothing on the map. That does not mean that there are no special status species present.*" FirstCarbon Solutions (2024) misuses the CNDDB.

The CNDDB relies entirely on volunteer reporting from biologists who were allowed access to whatever properties they report from. Many properties have never been surveyed by biologists. Many properties have been surveyed, but the survey outcomes never reported to the CNDDB. Many properties have been surveyed multiple times, but not all survey outcomes reported to the CNDDB. Furthermore, the CNDDB is interested only in the findings of special-status species, which means that species more recently assigned special status will have been reported many fewer times to the CNDDB than were species assigned special status since the inception of the CNDDB. The lack of many CNDDB records for species recently assigned special status had nothing to do with whether the species' geographic ranges overlapped the project site, but rather more to do with the brief time for records to have accumulated since the species were assigned special status. And because negative findings are not reported to the CNDDB, the CNDDB cannot provide the basis for estimating occurrence likelihoods, either.

In my assessment based on database reviews and site visits, 125 special-status species of wildlife are known to occur near enough to the site to warrant analysis of occurrence potential (Table 4). Of these species, eight were recorded on or just next to the project site, and another 46 (37%) species have been documented within 1.5 miles of the site ('Very close'), another 25 (20%) within 1.5 and 4 miles ('Nearby'), and another 41 (33%) within 4 to 30 miles ('In region'). Nearly two-thirds (63%) of the species in Table 4 below have been reportedly seen within 4 miles of the project site. The site therefore supports multiple special-status species of wildlife, and it carries the potential for supporting many more special-status species of wildlife based on proximity of recorded occurrences. The site is far richer in special-status species than is characterized in FirstCarbon Solutions (2024).

FirstCarbon Solutions (2024) analyzes only 51 (41%) of the special-status species in Table 4 for occurrence potential, having omitted from its analysis 74 (59%) of the special-status species in Table 4. Of the species omitted from FirstCarbon Solutions's (2024) analysis, four have been recorded on the project site, 32 have been recorded within 1.5 miles of the site, 18 have been recorded between 1.5 and 4 miles of the site, and 20 have been recorded between 4 and 30 miles of the site. Of the 51 species analyzed for occurrence likelihood by FirstCarbon Solutions (2024), FirstCarbon Solutions (2024) determines only eight to have potential to occur, and six of these determined to have low potential. Of the seven special-status species determined to have low potential, three have been recorded within 1.5 miles of the project site. Of the 31 special-status species determined to have very low occurrence potential, three have been documented on the project site, eight have been recorded within 1.5 miles of the site, and three have been recorded between 1.5 and 4 miles of the site. Of the 13 special-status species FirstCarbon Solutions (2024) determines to have no potential for occurrence, one has been documented on the project site, two within 1.5 miles, and three between 1.5 and 4 miles from the site. On the whole, FirstCarbon Solutions (2024) analyses of occurrence likelihoods are inaccurate and fail to serve as a baseline for performing impacts analysis.

***Table 4.*** *Occurrence likelihoods of special-status bird species at or near the proposed project site, according to eBird/iNaturalist records ([https://eBird.org](https://eBird.org), [https://www.inaturalist.org](https://www.inaturalist.org)) and on-site survey findings, where "Very close" indicates within 1.5 miles of the site, "nearby" indicates within 1.5 and 4 miles, and "in region" indicates within 4 and 30 miles, and "in range" means the species' geographic range overlaps the site.*

| **Common name** | ***Species name*** | **Status**[1] | **IS/MND occurrence potential** | **Data base records, Site visits** |
|---|---|---|---|---|
| Conservancy fairy shrimp | *Branchinecta conservatio* | FE | | In region |
| Vernal pool fairy shrimp | *Branchinecta lynchi* | FT | None | In region |
| California freshwater shrimp | *Syncaris pacifica* | FE, CE | None | In region |
| Monarch | *Danaus plexippus* | FC | Very low | Nearby |
| Marin Elfin butterfly | *Callophrys mossii marinensis* | SSC | Very low | In region |
| Obscure bumble bee | *Bombus caliginosus* | SSC | Low | In region |
| Crotch's bumble bee | *Bombus crotchii* | CCE | Medium | Nearby |
| Western bumble bee | *Bombus occidentalis* | CCE | Low | In range |
| California tiger salamander | *Ambystoma californiense* | FT, CT, WL | Very low | In region |
| California giant salamander | *Dicamptodon ensatus* | SSC | Very low | In region |
| Red-bellied newt | *Taricha rivularis* | SSC | None | In region |
| Foothill yellow-legged frog | *Rana boylii* | CT, SSC | Low | In region |
| California red-legged frog | *Rana draytonii* | FT, SSC | Low | In region |
| Western pond turtle | *Emys marmorata* | SSC | None | Nearby |
| Brant | *Branta bernicla* | SSC2 | | Nearby |
| Cackling goose (Aleutian) | *Branta hutchinsii leucopareia* | WL | | Very close |
| Redhead | *Aythya americana* | SSC2 | | Very close |
| Harlequin duck | *Histrionicus histrionicus* | SSC2 | | In region |
| Barrow's goldeneye | *Bucephala islandica* | SSC | | Very close |
| Western grebe | *Aechmophorus occidentalis* | BCC | | Very close |
| Clark's grebe | *Aechmophorus clarkii* | BCC | | Very close |
| Western yellow-billed cuckoo | *Coccyzus americanus occidentalis* | FT, CE | Very low | In region |
| Black swift | *Cypseloides niger* | SSC3, BCC | None | Nearby |
| Vaux's swift | *Chaetura vauxi* | SSC2 | | Very close |
| Calliope hummingbird | *Selasphorus calliope* | BCC | | Nearby |
| Rufous hummingbird | *Selasphorus rufus* | BCC | | Very close |

| **Common name** | ***Species name*** | **Status**[1] | **IS/MND occurrence potential** | **Data base records, Site visits** |
|---|---|---|---|---|
| Allen's hummingbird | *Selasphorus sasin* | BCC | | Very close |
| Ridgway's rail (San Francisco Bay) | *Rallus obsoletus obsoletus* | FE, CE, CFP | None | Nearby |
| Yellow rail | *Coturnicops noveboracensis* | BCC, SSC | None | In region |
| Black oystercatcher | *Haematopus bachmani* | BCC | | In region |
| Mountain plover | *Charadrius montanus* | SSC2, BCC | | In region |
| Snowy plover | *Charadrius nivosus* | BCC | | Nearby |
| Western snowy plover | *Charadrius nivosus nivosus* | FT, SSC | None | In region |
| Long-billed curlew | *Numenius americanus* | WL | | Very close |
| Marbled godwit | *Limosa fedoa* | BCC | | Very close |
| Black turnstone | *Arenaria melanocephala* | BCC | | Nearby |
| Red knot (Pacific) | *Calidris canutus* | BCC | | Nearby |
| Pectoral sandpiper | *Calidris melanotos* | BCC | | Nearby |
| Short-billed dowitcher | *Limnodromus griseus* | BCC | | Very close |
| Wandering tattler | *Tringa incana* | BCC | | Nearby |
| Lesser yellowlegs | *Tringa flavipes* | BCC | | Very close |
| Willet | *Tringa semipalmata* | BCC | | Very close |
| Laughing gull | *Leucophaeus atricilla* | WL | | In region |
| Heermann's gull | *Larus heermanni* | BCC | | In region |
| Western gull | *Larus occidentalis* | BCC | | Very close |
| California gull | *Larus californicus* | BCC, TWL | | Very close |
| California least tern | *Sternula antillarum browni* | FE, CE, CFP | | Nearby |
| Black tern | *Chlidonias niger* | SSC2, BCC | | Nearby |
| Elegant tern | *Thalasseus elegans* | BCC, WL | | Nearby |
| Black skimmer | *Rynchops niger* | BCC, SSC3 | | In region |
| Common loon | *Gavia immer* | SSC | | Nearby |
| Brandt's cormorant | *Urile penicillatus* | BCC | | In region |
| Double-crested cormorant | *Phalacrocorax auritus* | WL | | Very close |
| American white pelican | *Pelacanus erythrorhynchos* | SSC1 | | Very close |

| **Common name** | ***Species name*** | **Status[1]** | **IS/MND occurrence potential** | **Data base records, Site visits** |
|---|---|---|---|---|
| California brown pelican | *Pelecanus occidentalis californicus* | FP | | Nearby |
| Least bittern | *Ixobrychus exilis* | SSC2 | | In region |
| White-faced ibis | *Plegadis chihi* | WL | | Very close |
| Turkey vulture | *Cathartes aura* | BOP | | On site |
| Osprey | *Pandion haliaetus* | WL, BOP | Very low | Very close |
| White-tailed kite | *Elanus luecurus* | CFP, BOP | Very low | On site |
| Golden eagle | *Aquila chrysaetos* | BGEPA, CFP, BOP, WL | Low | Very close |
| Northern harrier | *Circus cyaneus* | BCC, SSC3, BOP | Low | Very close |
| Sharp-shinned hawk | *Accipiter striatus* | WL, BOP | Very low | On site |
| Cooper's hawk | *Accipiter cooperii* | WL, BOP | None | On site |
| Bald eagle | *Haliaeetus leucocephalus* | CE, BGEPA, BOP | Very low | Very close |
| Red-shouldered hawk | *Buteo lineatus* | BOP | | Very close |
| Swainson's hawk | *Buteo swainsoni* | CT, BOP | Very low | On site |
| Red-tailed hawk | *Buteo jamaicensis* | BOP | | On site |
| Ferruginous hawk | *Buteo regalis* | WL, BOP | Low | Very close |
| Rough-legged hawk | *Buteo lagopus* | BOP | | Very close |
| American barn owl | *Tyto furcata* | BOP | | Very close |
| Western screech-owl | *Megascops kennicotti* | BOP | | Nearby |
| Great horned owl | *Bubo virginianus* | BOP | | Very close |
| Burrowing owl | *Athene cunicularia* | BCC, SSC2, BOP, CCE | Very low | Very close - CNDDB |
| Long-eared owl | *Asio otus* | BCC, SSC3, BOP | | In region |
| Short-eared owl | *Asia flammeus* | BCC, SSC3, BOP | | In region |
| Northern saw-whet owl | *Aegolius acadicus* | BOP | | Nearby |
| Northern pygmy-owl | *Glaucidium gnoma* | BOP | | Nearby |
| Lewis's woodpecker | *Melanerpes lewis* | BCC | | Very close |
| Nuttall's woodpecker | *Picoides nuttallii* | BCC | | Very close |
| American kestrel | *Falco sparverius* | BOP | | On site |
| Merlin | *Falco columbarius* | WL, BOP | | Very close |

| Common name | *Species name* | Status[1] | IS/MND occurrence potential | Data base records, Site visits |
|---|---|---|---|---|
| Peregrine falcon | *Falco peregrinus* | BOP | Very low | Very close |
| Prairie falcon | *Falco mexicanus* | WL, BOP | Very low | Very close |
| Olive-sided flycatcher | *Contopus cooperi* | BCC, SSC2 | | Nearby |
| Willow flycatcher | *Empidonax trailii* | CE | | Very close |
| Vermilion flycatcher | *Pyrocephalus rubinus* | SSC2 | | In region |
| Loggerhead shrike | *Lanius ludovicianus* | SSC2 | | On site |
| Yellow-billed magpie | *Pica nuttalli* | BCC | | In region |
| Oak titmouse | *Baeolophus inornatus* | BCC | | Very close |
| California horned lark | *Eremophila alpestris actia* | WL | None | Very close |
| Bank swallow | *Riparia riparia* | CT | None | Very close |
| Purple martin | *Progne subis* | SSC2 | Very low | Very close |
| Wrentit | *Chamaea fasciata* | BCC | | Very close |
| California thrasher | *Toxostoma redivivum* | BCC | | Very close |
| Cassin's finch | *Haemorhous cassinii* | BCC | | In region |
| Lawrence's goldfinch | *Spinus lawrencei* | BCC | | Very close |
| Grasshopper sparrow | *Ammodramus savannarum* | SSC2 | Very low | Nearby |
| Samuel's song sparrow | *Melospiza melodia samuelis* | BCC, SSC | Very low | Very close |
| Black-chinned sparrow | *Spizella atrogularis* | BCC | | In region |
| Bell's sparrow | *Amphispiza b. belli* | WL | | Nearby |
| Yellow-breasted chat | *Icteria virens* | SSC3 | Very low | Nearby |
| Yellow-headed blackbird | *Xanthocephalus xanthocephalus* | SSC3 | | Very close |
| Bullock's oriole | *Icterus bullockii* | BCC | | Very close |
| Tricolored blackbird | *Agelaius tricolor* | CT, BCC, SSC1 | Very low | Very close |
| Lucy's warbler | *Leiothlypis luciae* | SSC3 | | In region |
| Virginia's warbler | *Leiothlypis virginiae* | WL, BCC | | In region |
| San Francisco common yellowthroat | *Geothlypis trichas sinuosa* | SSC3, BCC | Very low | In range |
| Yellow warbler | *Setophaga petechia* | SSC2 | Very low | Very close |
| Summer tanager | *Piranga rubra* | SSC1 | | Nearby |
| Little brown bat | *Myotis lucifugus* | WBWG: M | | In region |

| **Common name** | ***Species name*** | **Status[1]** | **IS/MND occurrence potential** | **Data base records, Site visits** |
|---|---|---|---|---|
| Yuma myotis | *Myotis yumanensis* | WBWG: LM | Very low | In region |
| Long-eared myotis | *Myotis evotis* | WBWG: M | Very low | In region |
| Fringed myotis | *Myotis thysanodes* | WBWG: H | Very low | In range |
| Long-legged myotis | *Myotis volans* | WBWG: H | Very low | In range |
| Canyon bat | *Parastrellus hesperus* | WBWG: M | | In region |
| Silver-haired bat | *Lasionycteris noctivagans* | WBWG: M | Very low | In region |
| Hoary bat | *Lasiurus cinereus* | WBWG: M | Very low | In region |
| Western red bat | *Lasiurus blossevillii* | SSC, WBWG: H | Very low | In region |
| Townsend's big-eared bat | *Corynorhinus townsendii* | SSC, WBWG: H | Very low | In region |
| Pallid bat | *Antrozous pallidus* | SSC, WBWG: H | Very low | In region |
| Big free-tailed bat | *Nyctinomops macrotis* | SSC, WBWG: MH | Very low | In range |
| Salt-marsh harvest mouse | *Reithrodontomys raviventris* | FE, CE, FP | None | In region |
| American badger | *Taxidea taxus* | SSC | None | In region |
| Mountain lion | *Puma concolor* | SA | | In region |

[1] Listed as FT or FE = federal threatened or endangered, FC = federal candidate for listing, BCC = U.S. Fish and Wildlife Service Bird of Conservation Concern, CT or CE = California threatened or endangered, CCT or CCE = Candidate California threatened or endangered, CFP = California Fully Protected (California Fish and Game Code 3511), SSC = California Species of Special Concern (not threatened with extinction, but rare, very restricted in range, declining throughout range, peripheral portion of species' range, associated with habitat that is declining in extent), SSC1, SSC2 and SSC3 = California Bird Species of Special Concern priorities 1, 2 and 3, respectively (Shuford and Gardali 2008), WL = Taxa to Watch List (Shuford and Gardali 2008), and BOP = Birds of Prey (CFG Code 3503.5), and WBWG = Western Bat Working Group with priority rankings, of low (L), moderate (M), and high (H).

The occurrence likelihood analyses of FirstCarbon Solutions (2024) include too many errors and omissions:

- Western yellow-billed cuckoo is not only Endangered under CESA, but also Threatened under FESA;
- Bald eagle is not a California Species of Special Concern, but is listed as Endangered under CESA and protected by the Bald and Golden Eagle Protection Act and by California's Birds of Prey Code;
- Golden eagle is not a California Species of Special Concern, but is also California Fully Protected, protected by the Bald and Golden Eagle Protection Act and by California's Birds of Prey Code, and is on California's Watch List;
- Northern harrier is not listed as Threatened under FESA and CESA;
- Ferruginous hawk is not a California Species of Special Concern, but is protected by California's Birds of Prey Code, and is on California's Watch List;
- Burrowing owl is no longer just a California Species of Special Concern, but is now a Candidate for listing as Threatened or Endangered under CESA;
- Peregrine falcon is not a California Species of Special Concern, but is protected by California's Birds of Prey Code;
- Prairie falcon is not a California Species of Special Concern, but is protected by California's Birds of Prey Code and is on California's Watch List;
- The horned larks that occur in the Napa area are not the subspecies referred to as California horned lark, and the subspecies that is referred to as California horned lark is not a California Species of Special Concern;
- Bank swallow is not listed as Endangered in either the FESA or CESA, but rather as Threatened under CESA;
- Purple martin is not listed as Endangered in either the FESA or CESA, but rather as a California Species of Special Concern priority level 2;
- Tricolored blackbird is not only a California Species of Special Concern, but is also listed as Threatened under CESA and a USFWS Bird of Conservation Concern;
- Long-eared myotis is not a California Species of Special Concern, but is designated by the Western Bat Working Group as moderate conservation concern;

- Fringed myotis is not a California Species of Special Concern, but is designated by the Western Bat Working Group as high conservation concern;
- Long-legged myotis is not a California Species of Special Concern, but is designated by the Western Bat Working Group as high conservation concern;
- Silver-haired bat is not a California Species of Special Concern, but is designated by the Western Bat Working Group as moderate conservation concern;
- Hoary bat is not a California Species of Special Concern, but it is designated by the Western Bat Working Group as moderate conservation concern.

FirstCarbon Solutions (2024) also does not give valid reasons for why each of the special-status species it analyses should be determined to have no potential or low potential for occurrence. A frequent explanation is that the project site provides foraging habitat but no nesting habitat; however, this explanation introduces a contrived bifurcation of habitat that lacks scientific foundation. No animals can successfully breed without finding sufficient forage during the breeding and non-breeding seasons, and that also goes for winter migrants such as ferruginous hawk and merlin.

Another frequent explanation is that the project site fails to provide some habitat feature that FirstCarbon Solutions (2024) claims the species must have in order to survive. FirstCarbon Solutions (2024) describes the habitat of each species to be unrealistically narrow, and in so doing fails to cite sources in support of its habitat descriptions. For example, FirstCarbon Solutions (2024) explains that American badgers required “Open grassland habitats with plenty of prey,” and then claims that no suitable habitat occurs in the project area. It is unclear what “plenty of prey” means, or from where how this notion came about, but I have found American badgers in many environments such as grasslands, savannas, oak woodlands, conifer forests, chaparral, and on agricultural landscapes. FirstCarbon Solutions (2024) points out that the nearest record is two miles from the project site, insinuating that two miles is too far from the site to consider the occurrence of badgers as likely. Two miles is a trivial distance to American badgers, as it is about a fifth the distance foraging badger can cover in a night.

In another example, the occurrence likelihood of bald eagle is reportedly very low because “No suitable nesting or foraging habitat exists in the project area,” as according to FirstCarbon Solutions (2024: App. B), the species “Nests in forests, forages over lakes and streams.” I observed bald eagles at a research site for nearly 10 years. Bald eagles are not limited to forests for nesting, nor do they only forage over lakes and streams. In fact, they hunt ground squirrels and other mammals and birds on annual grasslands and other environments. I observed a bald eagle only 2.7 miles from the project site (Photos 1 and 2). A bald eagle only 2.7 miles from the project site is essentially at the project site. Bald eagles fly 2.7 miles in about five minutes.

The same determination based on the same reasoning is applied to peregrine falcon in FirstCarbon Solutions (2024). But again, I saw a peregrine falcon only 2.7 miles from the project site. The determination of very low likelihood of occurrence is inaccurate.

***Photos 1 and 2.*** *A juvenile bald eagle flew along the eucalyptus trees only 2.7 miles south-southeast of the project site on 23 January 2019. On 5 January 2021, Bay Trail visitors informed me that two bald eagles had been living in the area that winter.*


In another example, FirstCarbon solutions (2024: App. B) determines pond turtle to have no occurrence potential on the project site. This determination is inaccurate. Pond turtles occur in streams, and they nest on adjacent upland environments.

There are many other examples of occurrence likelihood determinations that are inaccurate and poorly founded, but I want to focus on two more examples – the burrowing owl and Swainson's hawk. FirstCarbon solutions (2024: App. B) determines the occurrence likelihood of burrowing owl to be very low. No reason for this determination is provided other than the insinuation that the disturbed nature of the site would discourage burrowing owls. However, burrowing owls are well known to occur on disturbed soils (e.g., Smallwood and Morrison 2018). Furthermore, an occurrence record exists only 0.15 miles (240 m) from the project site. An occurrence record this close is essentially on the project site, because burrowing owls typically forage out to 400 m from their burrows. Regardless of whether one considers the occurrence record on site, even the determination of a very low occurrence likelihood -- which I dispute – warrants the implementation of the CDFW (2012) survey protocol.

There are three types of surveys recommended and described in the CDFW's (2012) survey and mitigation guidelines: (1) Habitat assessment, (2) Detection surveys, and (3) Preconstruction survey. The habitat assessment is intended to evaluate the likelihood that the site supports burrowing owls, and to decide whether detection surveys should be performed. The detection surveys, otherwise described as either breeding-season or non-breeding-season surveys, are intended to detect whether the site truly supports burrowing owls, and if so where and how many. The preconstruction survey, otherwise known as a take-avoidance survey, is intended to determine whether burrowing owls immigrated to the site since completion of the detection survey, or returned to the site since passive or active relocations were performed as mitigation. The three types of survey carry distinct but inter-related purposes, and they are to be completed in chronological order.

The first two types of survey support impacts analysis, whereas the third type of survey is a mitigation measure. Burrowing owls can be determined absent based on evidence derived from the habitat assessment or evidence derived from the detection survey, but only if the surveys achieved the minimum standards of CDFW (2012). Whereas an absence determination naturally follows from the negative findings of properly performed detection surveys, the following three questions drawn from CDFW (2012) must be answered negatively to determine absence based on the habitat assessment, which thus far is the only type of survey completed for burrowing owls at the project site:

A) Are there occurrence records nearby the project site?
B) Is the site's vegetation cover and height typical of where burrowing owls are found?
C) Are there fossorial mammals present which typically construct burrows useable by burrowing owls, or are there surrogate cavities that can serve as nest sites?

If the answers to these questions are compellingly negative, then detection surveys are not necessary, but they could be implemented to make certain the site is absent of burrowing owls. If the answers to these questions are affirmative or not compellingly negative, then it should be assumed that burrowing owl habitat exists on the site until detection surveys prove otherwise.

The answer to question A is affirmative, as an occurrence record is located only 0.15 miles from the project site, which is essentially on the site. The answer to question B is affirmative, as the vegetation height on the project site is intentionally kept low for "weed abatement," pretty much just the way burrowing owls like it. The answer to question C is unknown, as the reconnaissance survey of 8 December 2022 was grossly deficient and it was performed at a time of year when ground squirrels are least abundant and least active. I have seen ground squirrels near the project site, thereby indicating a higher likelihood of burrowing owl presence. With two of the three answers solidly affirmative, and answer to the third likely affirmative, burrowing owl habitat needs to be assumed on the site, followed by detection surveys consistent with CDFW (2012). Considering that a listing petition has been submitted to the California Fish and Game Commission in response to an ongoing rapid decline of burrowing owls across California (Miller 2024), and considering that CDFW (2024) endorsed consideration of the listing petition and the Commission voted unanimously to protect western burrowing owls throughout California as a "candidate" species under CESA on October 10, 2024, it is my opinion that the proposed project would result in potentially significant adverse impacts to burrowing owls unless breeding-season detection surveys are implemented to the standards of CDFW (2012).

Lastly in terms of examples, FirstCarbon Solutions (2024: App. B) determines the occurrence likelihood of Swainson's hawk to be very low. Having researched Swainson's hawks over many years (Smallwood 1995), it is my opinion that FirstCarbon Solutions' habitat description is inaccurate. Swainson's hawks forage over many more vegetation covers that grassland (Smallwood 1995). Moreover, Swainson's hawks forage over disturbed ground, especially while the ground is undergoing disturbance (Smallwood 1995). FirstCarbon Solutions' is also at odds with its reporting that the nearest Swainson's hawk occurrence record is a mere 0.25 miles from the project site. In flight time, 0.25 miles is a matter of seconds before the Swainson's hawk is over the project site.

At p. 9, the IS/MND attempts to defend the County's failure to implement the Swainson's hawk detection survey protocol as unnecessary: "This recovery success and expansion of SWHA range has been well-documented in other environmental documents from projects in the region, which have not been required to provide SWHA mitigation for foraging habitat." However, I have read some of the other environmental documents from projects in the region, and the analysis in these documents lack a quantitative basis for the claim that Swainson's hawks have been expanding in the project area. In fact, with all the new warehouses and other structures that have been recently added to the landscape, the notion that Swainson's hawks have expanded in the area is hard to believe; Swainson's hawks do not find forage on rooftops and blacktops.

The IS/MND (p. 9) attempts another approach to downplay the County's failure to implement the appropriate survey and mitigation guidelines, "While Swainson's hawk's nests are protected, foraging habitat mitigation has generally not been required in the business park area." However, this excuse is only an admission that the County has so far failed to comply with the CEQA by not implementing the CDFW (2000) survey and mitigation guidelines.

Finally, the IS/MND (p 9) attempts to downplay potential impacts to Swainson's hawks by claiming that the loss of 23.66 acres of foraging habitat would take only 0.16% of potential foraging habitat. I have to assume that the 0.16% figure would apply to an average Swainson's hawk home range, as otherwise it makes no sense. If this is so, then the 0.16% of foraging habitat that is lost is the 0.16% that makes the difference between persistence and extirpation, then the 0.16% would be of critical importance. The IS/MND goes on to speculate wildly that there exists plenty of habitat of better quality located elsewhere. The Swainson's hawks at issue are those that occur at the project site, and not somewhere else. The IS/MND's speculations do not qualify as a serious analysis of potential impacts.

## POTENTIALLY SIGNIFICANT BIOLOGICAL IMPACTS

An impacts analysis should consider whether and how a proposed project would affect members of a species, larger demographic units of the species, the whole of a species, and ecological communities. The accuracy of this analysis depends on an accurate characterization of the existing environmental setting. In the case of the proposed project, the existing environmental setting has not been accurately characterized, and several important types of potential project impacts have been inadequately analyzed. These types of impacts include habitat loss and wildlife-automobile collision mortality, discussed below.

## HABITAT LOSS

FirstCarbon Solutions (2024) found that the proposed project will result in the loss of non-native, grassland and ruderal habitats, but the MND (p. 10) explains that the project site is previously disturbed, located within an existing industrial/business park, and there is "No evidence of wildlife corridors, raptor nests, wildlife dens, burrows or other unique or sensitive biological habitats or resources are located on site." The MND (p. 10) therefore concludes that there would not be significant impacts to wildlife or other sensitive habitat.

The proposed project would result in potentially significant adverse biological impacts. Noriko Smallwood and I measured the impacts of habitat loss to wildlife caused by mitigated development projects, such as by industrial warehouses. We revisited 80 sites of proposed projects that we had originally surveyed in support of comments on CEQA review documents (Smallwood and Smallwood 2023). We revisited the sites to repeat the survey methods at the same time of year, the same start time in the day, and the same methods and survey duration to measure the effects of mitigated development on wildlife. We structured the experiment in a before-after, control-impact experimental design, as some of the sites had been developed since our initial survey and some had remained undeveloped. We found that mitigated development resulted in a 66% loss of species on site, and 48% loss of species in the project area. Counts of vertebrate animals declined 90%. "Development impacts measured by the mean number of species detected per survey were greatest for amphibians (-100%), followed by mammals (-86%), grassland birds (-75%), raptors (-53%), special-status species (-49%), all birds as a group (-48%), non-native birds (-44%), and synanthropic birds (-28%). Our results indicated that urban development substantially reduced vertebrate species richness and numerical abundance, even after richness and abundance had likely already been depleted by the cumulative effects of loss, fragmentation, and degradation of habitat in the urbanizing environment," and despite the mitigation measures per existing policies and regulations. We also specifically tested for the effects of projects to wildlife in neighboring habitats, and we found significant decreases in species richness and overall abundance in those areas as well.

Habitat loss not only results in the immediate numerical decline of wildlife, but it also results in permanent loss of productive capacity. Habitat fragmentation multiplies the negative effects of habitat loss on the productive capacities of biological species by preventing recruitment to habitat patches that have become too isolated or too small (Smallwood 2015). In the case of birds, two methods exist for estimating the loss of productive capacity that would be caused by the project. One method would involve surveys to count the number of bird nests and chicks produced. The alternative method would be to infer productive capacity from estimates of total nest density elsewhere.

Several studies have estimated total avian nest density at locations that had likewise been highly fragmented. Two study sites in grassland/wetland/woodland complexes within agricultural matrices had total bird nesting densities of 32.8 and 35.8 nests per acre (Young 1948, Yahner 1982) for an average 34.3 nests per acre. To acquire a total nest density closer to conditions in California, I surveyed various patches of vegetation cover in northern California throughout the breeding seasons of 2023 and 2024. I surveyed a 1.32-acre patch of riparian forest in Rancho Cordova where I estimated 28.79 nests/acre, a 2.95-acre patch of grassland/wetland adjacent to riparian forest east of Davis, where I estimated 5.08 nests/acre in 2024, and a 9.42-acre patch of annually disked grassland adjacent to riparian forest in Rancho Cordova, where I estimated 5.47 nests/acre. Applying 28.79 nests/acre to the 6.13 acres of riparian, and the mean 5.275 between my grassland estimates to the 14.2 acres of the project site covered by periodically disked grassland would predict an annual average 251 nest sites on the project site. Assuming 1.39 broods per nest site, which is the average among 322 North American bird species I asked Noriko Smallwood to review, then I predict the project would cost California 349 nest attempts/year.

The loss of 251 nest sites and 349 nest attempts per year would qualify as significant impacts that have not been analyzed in the IS/MND. But the impacts would not end with the immediate loss of nest sites. The reproductive capacity of the site would be lost. The average number of fledglings per nest in Young's (1948) study was 2.9. Assuming Young's (1948) study site typifies bird productivity, the project would prevent the production of 41 fledglings per year. Assuming an average bird generation time of 5 years, the lost capacity of both breeders and annual fledgling production can be estimated from an equation in Smallwood (2022): {(nests/year × chicks/nest × number of years) + (2 adults/nest × nests/year) × (number of years ÷ years/generation)} ÷ (number of years) = 1,113 birds per year denied to California.

Most if not all the estimated 1,113 birds that annually could be lost to the project are protected by the federal Migratory Bird Treaty Act and by California's Migratory Bird Protection Act, both of which most strongly protect breeding migratory birds. It is my opinion that the proposed project would result in potentially significant adverse biological impacts.

**TRAFFIC IMPACTS TO WILDLIFE**

Project-generated traffic would endanger wildlife that must, for various reasons, cross roads used by the project's traffic to get to and from the project site (Photos 3–5), including along roads far from the project footprint. Vehicle collisions have accounted for the deaths of many thousands of amphibian, reptile, mammal, bird, and arthropod fauna, and the impacts have often been found to be significant at the population level (Forman et al. 2003). Across North America traffic impacts have taken devastating tolls on wildlife (Forman et al. 2003). In Canada, 3,562 birds were estimated killed per 100 km of road per year (Bishop and Brogan 2013), and the US estimate of avian mortality on roads is 2,200 to 8,405 deaths per 100 km per year, or 89 million to 340 million total per year (Loss et al. 2014). Local impacts can be more intense than nationally.

***Photo 3.*** *A Gambel's quail dashes across a road* on *3 April 2021. Such road crossings are usually successful, but too often prove fatal to the animal. Photo by Noriko Smallwood.*

***Photo 4.*** *Mourning dove killed by vehicle on a California road. Photo by Noriko Smallwood, 21 June 2020.*

***Photo 5.*** *Raccoon killed on Road 31 just east of Highway 505 in Solano County. Photo taken on 10 November 2018.*

The nearest study of traffic-caused wildlife mortality was performed along a 2.5-mile stretch of Vasco Road in Contra Costa County, California. Fatality searches in this study found 1,275 carcasses of 49 species of mammals, birds, amphibians and reptiles over 15 months of searches (Mendelsohn et al. 2009). This fatality number needs to be adjusted for the proportion of fatalities that were not found due to scavenger removal and searcher error. This adjustment is typically made by placing carcasses for searchers to find (or not find) during their routine periodic fatality searches. This step was not taken at Vasco Road (Mendelsohn et al. 2009), but it was taken as part of another study next to Vasco Road (Brown et al. 2016). Brown et al.'s (2016) adjustment factors for carcass persistence resembled those of Santos et al. (2011). Also applying searcher detection rates from Brown et al. (2016), the adjusted total number of fatalities was estimated at 9,462 animals killed by traffic on the road. This fatality number projected over 1.25 years and 2.5 miles of road translates to 3,028 wild animals per mile per year. In terms comparable to the national estimates, the estimates from the Mendelsohn et al. (2009) study would translate to 188,191 animals killed per 100 km of road per year, or 22 times that of Loss et al.'s (2014) upper bound estimate and 53 times the Canadian estimate. An analysis is needed of whether increased traffic generated by the project site would similarly result in local impacts on wildlife.

Special-status species that could suffer project-generated, traffic-collision mortality in the areas surrounding the project site include California tiger salamander, California red-legged frog, American badger, among many others listed in Table 4.

For wildlife vulnerable to front-end collisions and crushing under tires, road mortality can be predicted from the study of Mendelsohn et al. (2009) as a basis. My analysis of the Mendelsohn et al. (2009) data resulted in an estimated 3,028 animals killed per mile along a county road in Contra Costa County. The estimated numbers of fatalities were 1.75% birds, 26.4% mammals (many mice and pocket mice, but also ground squirrels, desert cottontails, striped skunks, American badgers, raccoons, and others), 67.4% amphibians (large numbers of California tiger salamanders and California red-legged frogs, but also Sierran treefrogs, western toads, arboreal salamanders, slender salamanders and others), and 4.4% reptiles (many western fence lizards, but also skinks, alligator lizards, and snakes of various species). VMT is useful for predicting wildlife mortality because I was able to quantify miles traveled along the studied reach of Vasco Road during the time period of the Mendelsohn et al. (2009) study, hence enabling a rate of fatalities per VMT that can be projected to other sites, assuming similar collision fatality rates.

**Predicting project-generated traffic impacts to wildlife**

The IS/MND predicts 1,227 daily VMT for the winery and 1,345 daily VMT for the warehouse, which projected to a year predicts 938,780 annual VMT. During the Mendelsohn et al. (2009) study, 19,500 cars traveled Vasco Road daily, so the vehicle miles that contributed to my estimate of non-volant fatalities was 19,500 cars and trucks × 2.5 miles × 365 days/year × 1.25 years = 22,242,187.5 vehicle miles per 9,462 wildlife fatalities, or 2,351 vehicle miles per fatality. This rate divided into the predicted annual VMT would predict 399 vertebrate wildlife fatalities per year.

Based on my analysis, the project-generated traffic may cause substantial, significant impacts to wildlife. The IS/MND does not analyze this potential impact, nor does it propose to mitigate it. Mitigation measures to improve wildlife safety along roads are available and are feasible, and they need exploration for their suitability with the proposed project. Given the predicted level of project-generated, traffic-caused mortality, and the lack of any proposed mitigation, it is my opinion that the proposed project would result in potentially significant adverse biological impacts.

## MITIGATION

**Mitigation Measure BIO-1:** *Install silt fencing along the Conservation Easement boundary to the riparian corridor.*

Should the project go forward, the silt fencing would need to be placed farther from the riparian corridor than the depicted in the IS/MND. According to Semlitsch and Bodie (2003), "Core terrestrial habitat [from aquatic habitat] ranged from 159 to 290 m for amphibians and from 127 to 289 m for reptiles from the edge of the aquatic site." To avoid direct impacts to terrestrial wildlife along the riparian corridor, I recommend the silt fence be placed 300 feet from the southern edge of the top of bank of Sheehy Creek.

**Mitigation Measure BIO-2:** *Implement CDFW (2018) as a preconstruction survey for rare plants.*

This measure misrepresents CDFW (2018) as a preconstruction survey rather than as a reconnaissance survey. The CDFW (2018) rare plant survey guidelines are intended to support the preparation of the CEQA review document. Implementation of CDFW (2018) would not qualify as a legitimate mitigation measure, as it was never intended to serve as a mitigation measure.

**Mitigation Measure BIO-3:** *Implement preconstruction survey for nesting birds, and if nests are found, a biologist shall establish buffers to construction activities.*

If the project goes forward, preconstruction surveys for nesting birds should be performed. However, the survey would not detect all of the available nests, nor would it prevent the loss of productive capacity I predict above under Habitat Loss.

Furthermore, the language of this mitigation allows a single individual to make a subjective decision, outside the public's view, to determine the buffer area for any given species. This measure lacks objective criteria, and is unenforceable.

**Mitigation Measure BIO-6:** *Implement CDFW (2012) habitat assessment and surveys for wintering burrowing owls.*

This measure makes little sense, and as written would not be consistent with CDFW (2012). A habitat assessment has already been completed, and the findings already warrant detection surveys. The detection surveys that are needed are breeding-season surveys consistent with CDFW's (2012) protocol. These surveys are intended to be completed prior to the issuance of the CEQA review document, not afterwards. The habitat assessment and detection surveys are not intended to be mitigation measures, as clearly stated in CDFW (2012).

The burrowing owl has been designated a Candidate for listing as Threatened or Endangered under CESA. No take of burrowing owls is allowed. Detection surveys are needed during both the non-breeding and breeding periods, as well as a preconstruction take-avoidance survey.

**Mitigation Measure BIO-8:** *Install exclusion fencing during the wet season.*

Should the project go forward, exclusion fencing should be installed and monitored for integrity over the winter months, but passage would need to be accommodated from the project site toward Sheehy Creek, and prevented from Sheehy Creek toward the project site. Unless this one-way passage is enabled, the amphibians the fencing is installed to protect would instead trap the amphibians on the project site. Even if the fencing would prevent some amphibians from being crushed by heavy machinery, it would not avoid the loss of habitat along with the productive capacity of that habitat. The measure would not avoid a substantial, highly significant impact to amphibians such as to foothill yellow-legged frog. Compensatory mitigation would be warranted.

Thank you for your attention,

Shawn Smallwood

Shawn Smallwood, Ph.D.

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# Kenneth Shawn Smallwood
# Curriculum Vitae

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Born May 3, 1963 in
Sacramento, California.
Married, father of two.

## Ecologist

**Expertise**

- Finding solutions to controversial problems related to wildlife interactions with human industry, infrastructure, and activities;
- Wildlife monitoring and field study using GPS, thermal imaging, behavior surveys;
- Using systems analysis and experimental design principles to identify meaningful ecological patterns that inform management decisions.

**Education**

Ph.D. Ecology, University of California, Davis. September 1990.
M.S. Ecology, University of California, Davis. June 1987.
B.S. Anthropology, University of California, Davis. June 1985.
Corcoran High School, Corcoran, California. June 1981.

**Experience**

- 480 professional publications, including:
- 83 peer reviewed publications
- 24 in non-reviewed proceedings
- 371 reports, declarations, posters and book reviews
- 8 in mass media outlets
- 87 public presentations of research results

Editing for scientific journals: Guest Editor, *Wildlife Society Bulletin*, 2012-2013, of invited papers representing international views on the impacts of wind energy on wildlife and how to mitigate the impacts. Associate Editor, *Journal of Wildlife Management*, March 2004 to 30 June 2007. Editorial Board Member, *Environmental Management*, 10/1999 to 8/2004. Associate Editor, *Biological Conservation*, 9/1994 to 9/1995.

Member, Alameda County Scientific Review Committee (SRC), August 2006 to April 2011. The five-member committee investigated causes of bird and bat collisions in the Altamont Pass Wind Resource Area, and recommended mitigation and monitoring measures. The SRC reviewed the science underlying the Alameda County Avian Protection Program, and advised the County on how to reduce wildlife fatalities.

Consulting Ecologist, 2004-2007, California Energy Commission (CEC). Provided consulting services as needed to the CEC on renewable energy impacts, monitoring and research, and produced several reports. Also collaborated with Lawrence-Livermore National Lab on research to understand and reduce wind turbine impacts on wildlife.

Consulting Ecologist, 1999-2013, U.S. Navy. Performed endangered species surveys, hazardous waste site monitoring, and habitat restoration for the endangered San Joaquin kangaroo rat, California tiger salamander, California red-legged frog, California clapper rail, western burrowing owl, salt marsh harvest mouse, and other species at Naval Air Station Lemoore; Naval Weapons Station, Seal Beach, Detachment Concord; Naval Security Group Activity, Skaggs Island; National Radio Transmitter Facility, Dixon; and, Naval Outlying Landing Field Imperial Beach.

Part-time Lecturer, 1998-2005, California State University, Sacramento. Instructed Mammalogy, Behavioral Ecology, and Ornithology Lab, Contemporary Environmental Issues, Natural Resources Conservation.

Senior Ecologist, 1999-2005, BioResource Consultants. Designed and implemented research and monitoring studies related to avian fatalities at wind turbines, avian electrocutions on electric distribution poles across California, and avian fatalities at transmission lines.

Chairman, Conservation Affairs Committee, The Wildlife Society--Western Section, 1999-2001. Prepared position statements and led efforts directed toward conservation issues, including travel to Washington, D.C. to lobby Congress for more wildlife conservation funding.

Systems Ecologist, 1995-2000, Institute for Sustainable Development. Headed ISD's program on integrated resources management. Developed indicators of ecological integrity for large areas, using remotely sensed data, local community involvement and GIS.

Associate, 1997-1998, Department of Agronomy and Range Science, University of California, Davis. Worked with Shu Geng and Mingua Zhang on several studies related to wildlife interactions with agriculture and patterns of fertilizer and pesticide residues in groundwater across a large landscape.

Lead Scientist, 1996-1999, National Endangered Species Network. Informed academic scientists and environmental activists about emerging issues regarding the Endangered Species Act and other environmental laws. Testified at public hearings on endangered species issues.

Ecologist, 1997-1998, Western Foundation of Vertebrate Zoology. Conducted field research to determine the impact of past mercury mining on the status of California red-legged frogs in Santa Clara County, California.

Senior Systems Ecologist, 1994-1995, EIP Associates, Sacramento, California. Provided consulting services in environmental planning, and quantitative assessment of land units for their conservation and restoration opportunities basedon ecological resource requirements of 29 special-status species. Developed ecological indicators for prioritizing areas within Yolo County to receive mitigation funds for habitat easements and restoration.

Post-Graduate Researcher, 1990-1994, Department of Agronomy and Range Science, *U.C. Davis*. Under Dr. Shu Geng's mentorship, studied landscape and management effects on temporal and spatial patterns of abundance among pocket gophers and species of Falconiformes and Carnivora in the Sacramento Valley. Managed and analyzed a data base of energy use in California agriculture. Assisted with landscape (GIS) study of groundwater contamination across Tulare County, California.

Work experience in graduate school: Co-taught Conservation Biology with Dr. Christine Schonewald, 1991 & 1993, UC Davis Graduate Group in Ecology; Reader for Dr. Richard Coss's course on Psychobiology in 1990, UC Davis Department of Psychology; Research Assistant to Dr. Walter E. Howard, 1988-1990, UC Davis Department of Wildlife and Fisheries Biology, testing durable baits for pocket gopher management in forest clearcuts; Research Assistant to Dr. Terrell P. Salmon, 1987-1988, UC Wildlife Extension, Department of Wildlife and Fisheries Biology, developing empirical models of mammal and bird invasions in North America, and a rating system for priority research and control of exotic species based on economic, environmental and human health hazards in California. Student Assistant to Dr. E. Lee Fitzhugh, 1985-1987, UC Cooperative Extension, Department of Wildlife and Fisheries Biology, developing and implementing statewide mountain lion track count for long-term monitoring.

Fulbright Research Fellow, Indonesia, 1988. Tested use of new sampling methods for numerical monitoring of Sumatran tiger and six other species of endemic felids, and evaluated methods used by other researchers.

**Projects**

<u>Repowering wind energy projects</u> through careful siting of new wind turbines using map-based collision hazard models to minimize impacts to volant wildlife. Funded by wind companies (principally NextEra Renewable Energy, Inc.), California Energy Commission and East Bay Regional Park District, I have collaborated with a GIS analyst and managed a crew of five field biologists performing golden eagle behavior surveys and nocturnal surveys on bats and owls. The goal is to quantify flight patterns for development of predictive models to more carefully site new wind turbines in repowering projects. Focused behavior surveys began May 2012 and continue. Collision hazard models have been prepared for seven wind projects, three of which were built. Planning for additional repowering projects is underway.

<u>Test avian safety of new mixer-ejector wind turbine (MEWT)</u>. Designed and implemented a before-after, control-impact experimental design to test the avian safety of a new, shrouded wind turbine developed by Ogin Inc. (formerly known as FloDesign Wind Turbine Corporation). Supported by a \$718,000 grant from the California Energy Commission's Public Interest Energy Research program and a 20% match share contribution from Ogin, I managed a crew of seven field biologists who performed periodic fatality searches and behavior surveys, carcass detection trials, nocturnal behavior surveys using a thermal camera, and spatial analyses with the collaboration of a GIS

analyst. Field work began 1 April 2012 and ended 30 March 2015 without Ogin installing its MEWTs, but we still achieved multiple important scientific advances.

Reduce avian mortality due to wind turbines at Altamont Pass. Studied wildlife impacts caused by 5,400 wind turbines at the world's most notorious wind resource area. Studied how impacts are perceived by monitoring and how they are affected by terrain, wind patterns, food resources, range management practices, wind turbine operations, seasonal patterns, population cycles, infrastructure management such as electric distribution, animal behavior and social interactions.

Reduce avian mortality on electric distribution poles. Directed research toward reducing bird electrocutions on electric distribution poles, 2000-2007. Oversaw 5 founds of fatality searches at 10,000 poles from Orange County to Glenn County, California, and produced two large reports.

Cook *et al*. v. Rockwell International *et al*., No. 90-K-181 (D. Colorado). Provided expert testimony on the role of burrowing animals in affecting the fate of buried and surface-deposited radioactive and hazardous chemical wastes at the Rocky Flats Plant, Colorado. Provided expert reports based on four site visits and an extensive document review of burrowing animals. Conducted transect surveys for evidence of burrowing animals and other wildlife on and around waste facilities. Discovered substantial intrusion of waste structures by burrowing animals. I testified in federal court in November 2005, and my clients were subsequently awarded a $553,000,000 judgment by a jury. After appeals the award was increased to two billion dollars.

Hanford Nuclear Reservation Litigation. Provided expert testimony on the role of burrowing animals in affecting the fate of buried radioactive wastes at the Hanford Nuclear Reservation, Washington. Provided three expert reports based on three site visits and extensive document review. Predicted and verified a certain population density of pocket gophers on buried waste structures, as well as incidence of radionuclide contamination in body tissue. Conducted transect surveys for evidence of burrowing animals and other wildlife on and around waste facilities. Discovered substantial intrusion of waste structures by burrowing animals.

Expert testimony and declarations on proposed residential and commercial developments, gas-fired power plants, wind, solar and geothermal projects, water transfers and water transfer delivery systems, endangered species recovery plans, Habitat Conservation Plans and Natural Communities Conservation Programs. Testified before multiple government agencies, Tribunals, Boards of Supervisors and City Councils, and participated with press conferences and depositions. Prepared expert witness reports and court declarations, which are summarized under Reports (below).

Protocol-level surveys for special-status species. Used California Department of Fish and Wildlife and US Fish and Wildlife Service protocols to search for California red-legged frog, California tiger salamander, arroyo southwestern toad, blunt-nosed leopard lizard, western pond turtle, giant kangaroo rat, San Joaquin kangaroo rat, San Joaquin kit fox, western burrowing owl, Swainson's hawk, Valley elderberry longhorn beetle and other special-status species.

Conservation of San Joaquin kangaroo rat. Performed research to identify factors responsible for the decline of this endangered species at Lemoore Naval Air Station, 2000-2013, and implemented habitat enhancements designed to reverse the trend and expand the population.

Impact of West Nile Virus on yellow-billed magpies. Funded by Sacramento-Yolo Mosquito and Vector Control District, 2005-2008, compared survey results pre- and post-West Nile Virus epidemic for multiple bird species in the Sacramento Valley, particularly on yellow-billed magpie and American crow due to susceptibility to WNV.

Workshops on HCPs. Assisted Dr. Michael Morrison with organizing and conducting a 2-day workshop on Habitat Conservation Plans, sponsored by Southern California Edison, and another 1-day workshop sponsored by PG&E. These Workshops were attended by academics, attorneys, and consultants with HCP experience. We guest-edited a Proceedings published in Environmental Management.

Mapping of biological resources along Highways 101, 46 and 41. Used GPS and GIS to delineate vegetation complexes and locations of special-status species along 26 miles of highway in San Luis Obispo County, 14 miles of highway and roadway in Monterey County, and in a large area north of Fresno, including within reclaimed gravel mining pits.

GPS mapping and monitoring at restoration sites and at Caltrans mitigation sites. Monitored the success of elderberry shrubs at one location, the success of willows at another location, and the response of wildlife to the succession of vegetation at both sites. Also used GPS to monitor the response of fossorial animals to yellow star-thistle eradication and natural grassland restoration efforts at Bear Valley in Colusa County and at the decommissioned Mather Air Force Base in Sacramento County.

Mercury effects on Red-legged Frog. Assisted Dr. Michael Morrison and US Fish and Wildlife Service in assessing the possible impacts of historical mercury mining on the federally listed California red-legged frog in Santa Clara County. Also measured habitat variables in streams.

Opposition to proposed No Surprises rule. Wrote a white paper and summary letter explaining scientific grounds for opposing the incidental take permit (ITP) rules providing ITP applicants and holders with general assurances they will be free of compliance with the Endangered Species Act once they adhere to the terms of a “properly functioning HCP.” Submitted 188 signatures of scientists and environmental professionals concerned about No Surprises rule US Fish and Wildlife Service, National Marine Fisheries Service, all US Senators.

Natomas Basin Habitat Conservation Plan alternative. Designed narrow channel marsh to increase the likelihood of survival and recovery in the wild of giant garter snake, Swainson’s hawk and Valley Elderberry Longhorn Beetle. The design included replication and interspersion of treatments for experimental testing of critical habitat elements. I provided a report to Northern Territories, Inc.

Assessments of agricultural production system and environmental technology transfer to China. Twice visited China and interviewed scientists, industrialists, agriculturalists, and the Directors of the Chinese Environmental Protection Agency and the Department of Agriculture to assess the need and possible pathways for environmental clean-up technologies and trade opportunities between the US and China.

Yolo County Habitat Conservation Plan. Conducted landscape ecology study of Yolo County to spatially prioritize allocation of mitigation efforts to improve ecosystem functionality within the

County from the perspective of 29 special-status species of wildlife and plants. Used a hierarchically structured indicators approach to apply principles of landscape and ecosystem ecology, conservation biology, and local values in rating land units. Derived GIS maps to help guide the conservation area design, and then developed implementation strategies.

Mountain lion track count. Developed and conducted a carnivore monitoring program throughout California since 1985. Species counted include mountain lion, bobcat, black bear, coyote, red and gray fox, raccoon, striped skunk, badger, and black-tailed deer. Vegetation and land use are also monitored. Track survey transect was established on dusty, dirt roads within randomly selected quadrats.

Sumatran tiger and other felids. Upon award of Fulbright Research Fellowship, I designed and initiated track counts for seven species of wild cats in Sumatra, including Sumatran tiger, fishing cat, and golden cat. Spent four months on Sumatra and Java in 1988, and learned Bahasa Indonesia, the official Indonesian language.

Wildlife in agriculture. Beginning as post-graduate research, I studied pocket gophers and other wildlife in 40 alfalfa fields throughout the Sacramento Valley, and I surveyed for wildlife along a 200 mile road transect since 1989 with a hiatus of 1996-2004. The data are analyzed using GIS and methods from landscape ecology, and the results published and presented orally to farming groups in California and elsewhere. I also conducted the first study of wildlife in cover crops used on vineyards and orchards.

Agricultural energy use and Tulare County groundwater study. Developed and analyzed a data base of energy use in California agriculture, and collaborated on a landscape (GIS) study of groundwater contamination across Tulare County, California.

Pocket gopher damage in forest clear-cuts. Developed gopher sampling methods and tested various poison baits and baiting regimes in the largest-ever field study of pocket gopher management in forest plantations, involving 68 research plots in 55 clear-cuts among 6 National Forests in northern California.

Risk assessment of exotic species in North America. Developed empirical models of mammal and bird species invasions in North America, as well as a rating system for assigning priority research and control to exotic species in California, based on economic, environmental, and human health hazards.

**Peer Reviewed Publications**

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**Non-Peer Reviewed Publications**

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Smallwood, K. S., Michael L. Morrison and Carl G. Thelander 2002. Study plan to test the effectiveness of aerial markers at reducing avian mortality due to collisions with transmission lines: A report to Pacific Gas & Electric Company. 10 pp.

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Magney, D., and K.S. Smallwood. 2001. Maranatha High School CEQA critique. Comment letter submitted to Tamara & Efren Compeán, 16 pp.

Smallwood, K.S. 2001. Preliminary Comments on the Proposed Blythe Energy Project. Submitted to California Energy Commission on March 15 on behalf of Californians for Renewable Energy (CaRE). 14 pp.

Smallwood, K. S. and D. Mangey. 2001. Comments on the Newhall Ranch November 2000 Administrative Draft EIR. Prepared for Ventura County Counsel regarding the Newhall Ranch Specific Plan EIR. 68 pp.

Magney, D. and K. S. Smallwood. 2000. Newhall Ranch Notice of Preparation Submittal. Prepared for Ventura County Counsel regarding our recommended scope of work for the Newhall Ranch Specific Plan EIR. 17 pp.

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Fitzhugh, E.L. and K.S. Smallwood. 1987. Methods Manual – A statewide mountain lion population index technique. California Department of Fish and Game, Sacramento.

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Smallwood, K.S. and W. A. Erickson (written under supervision of W.E. Howard, R.E. Marsh, and R.J. Laacke). 1990. Environmental exposure and fate of multi-kill strychnine gopher baits. Final Report to USDA Forest Service –NAPIAP, Cooperative Agreement PSW-89-0010CA.

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**Comments on Environmental Documents**

I was retained or commissioned to comment on environmental planning and review documents, including:

- The Villages of Lakeview EIR (2017; 28 pp);
- Notes on Proposed Study Options for Trail Impacts on Northern Spotted Owl (2017; 4 pp);
- San Gorgonio Crossings EIR (2017; 22 pp);
- Replies to responses on Jupiter Project IS and MND (2017; 12 pp);
- MacArthur Transit Village Project Modified 2016 CEQA Analysis (2017; 12 pp);
- Central SoMa Plan DEIR (2017; 14 pp);
- Colony Commerce Center Specific Plan DEIR (2016; 16 pp);
- Fairway Trails Improvements MND (2016; 13 pp);
- Review of Avian-Solar Science Plan (2016; 28 pp);
- Replies to responses on Initial Study for Pyramid Asphalt (2016; 5 pp);
- Initial Study for Pyramid Asphalt (2016; 4 pp);
- Agua Mansa Distribution Warehouse Project Initial Study (2016; 14 pp);
- Santa Anita Warehouse IS and MND (2016; 12 pp);
- CapRock Distribution Center III DEIR (2016: 12 pp);
- Orange Show Logistics Center Initial Study and MND (2016; 9 pp);
- City of Palmdale Oasis Medical Village Project IS and MND (2016; 7 pp);
- Comments on proposed rule for incidental eagle take (2016, 49 pp);
- Grapevine Specific and Community Plan FEIR (2016; 25 pp);
- Grapevine Specific and Community Plan DEIR (2016; 15 pp);
- Clinton County Zoning Ordinance for Wind Turbine siting (2016);
- Hallmark at Shenandoah Warehouse Project Initial Study (2016; 6 pp);
- Tri-City Industrial Complex Initial Study (2016; 5 pp);
- Hidden Canyon Industrial Park Plot Plan 16-PP-02 (2016; 12 pp);
- Kimball Business Park DEIR (2016; 10 pp);
- Jupiter Project IS and MND (2016; 9 pp);
- Revised Draft Giant Garter Snake Recovery Plan of 2015 (2016, 18 pp);
- Palo Verde Mesa Solar Project Draft Environmental Impact Report (2016; 27 pp);

- Reply Witness Statement on Fairview Wind Project, Ontario, Canada (2016; 14 pp);
- Fairview Wind Project, Ontario, Canada (2016; 41 pp);
- Supplementary Reply Witness Statement Amherst Island Wind Farm, Ontario (2015, 38 pp);
- Witness Statement on Amherst Island Wind Farm, Ontario (2015, 31 pp);
- Second Reply Witness Statement on White Pines Wind Farm, Ontario (2015, 6 pp);
- Reply Witness Statement on White Pines Wind Farm, Ontario (2015, 10 pp);
- Witness Statement on White Pines Wind Farm, Ontario (2015, 9 pp);
- Proposed Section 24 Specific Plan Agua Caliente Band of Cahuilla Indians DEIS (2015, 9 pp);
- Replies to comments 24 Specific Plan Agua Caliente Band of Cahuilla Indians FEIS (2015, 6 pp);
- Willow Springs Solar Photovoltaic Project DEIR (2015; 28 pp);
- Sierra Lakes Commerce Center Project DEIR (2015, 9 pp);
- Columbia Business Center MND (2015; 8 pp);
- West Valley Logistics Center Specific Plan DEIR (2015, 10 pp);
- World Logistic Center Specific Plan FEIR (2015, 12 pp);
- Bay Delta Conservation Plan EIR/EIS (2014, 21 pp);
- Addison Wind Energy Project DEIR (2014, 32 pp);
- Response to Comments on the Addison Wind Energy Project DEIR (2014, 15 pp);
- Addison and Rising Tree Wind Energy Project FEIR (2014, 12 pp);
- Alta East Wind Energy Project FEIS (2013, 23 pp);
- Blythe Solar Power Project Staff Assessment, California Energy Commission (2013, 16 pp);
- Clearwater and Yakima Solar Projects DEIR (2013, 9 pp);
- Cuyama Solar Project DEIR (2014, 19 pp);
- Draft Desert Renewable Energy Conservation Plan (DRECP) EIR/EIS (2015, 49 pp);
- Kingbird Solar Photovoltaic Project EIR (2013, 19 pp);
- Lucerne Valley Solar Project Initial Study & Mitigated Negative Declaration (2013, 12 pp);
- Palen Solar Electric Generating System Final Staff Assessment of California Energy Commission, (2014, 20 pp);
- Rebuttal testimony on Palen Solar Energy Generating System (2014, 9 pp);
- Rising Tree Wind Energy Project DEIR (2014, 32 pp);
- Response to Comments on the Rising Tree Wind Energy Project DEIR (2014, 15 pp);
- Soitec Solar Development Project Draft PEIR (2014, 18 pp);
- Comment on the Biological Opinion (08ESMF-00-2012-F-0387) of Oakland Zoo expansion on Alameda whipsnake and California red-legged frog (2014; 3 pp);
- West Antelope Solar Energy Project Initial Study and Negative Declaration (2013, 18 pp);
- Willow Springs Solar Photovoltaic Project DEIR (2015, 28 pp);
- Alameda Creek Bridge Replacement Project DEIR (2015, 10 pp);
- Declaration on Tule Wind project FEIR/FEIS (2013; 24 pp);
- Sunlight Partners LANDPRO Solar Project Mitigated Negative Declaration (2013; 11 pp);
- Declaration in opposition to BLM fracking (2013; 5 pp);
- Rosamond Solar Project Addendum EIR (2013; 13 pp);
- Pioneer Green Solar Project EIR (2013; 13 pp);
- Reply to Staff Responses to Comments on Soccer Center Solar Project Mitigated Negative

Declaration (2013; 6 pp);

- Soccer Center Solar Project Mitigated Negative Declaration (2013; 10 pp);
- Plainview Solar Works Mitigated Negative Declaration (2013; 10 pp);
- Reply to the County Staff's Responses on comments to Imperial Valley Solar Company 2 Project (2013; 10 pp);
- Imperial Valley Solar Company 2 Project (2013; 13 pp);
- FRV Orion Solar Project DEIR (PP12232) (2013; 9 pp);
- Casa Diablo IV Geothermal Development Project (3013; 6 pp);
- Reply to Staff Responses to Comments on Casa Diablo IV Geothermal Development Project (2013; 8 pp);
- FEIS prepared for Alta East Wind Project (2013; 23 pp);
- Metropolitan Air Park DEIR, City of San Diego (2013; );
- Davidon Homes Tentative Subdivision Map and Rezoning Project DEIR (2013; 9 pp);
- Analysis of Biological Assessment of Oakland Zoo Expansion Impacts on Alameda Whipsnake (2013; 10 pp);
- Declaration on Campo Verde Solar project FEIR (2013; 11pp);
- Neg Dec comments on Davis Sewer Trunk Rehabilitation (2013; 8 pp);
- Declaration on North Steens Transmission Line FEIS (2012; 62 pp);
- City of Lancaster Revised Initial Study for Conditional Use Permits 12-08 and 12-09, Summer Solar and Springtime Solar Projects (2012; 8 pp);
- J&J Ranch, 24 Adobe Lane Environmental Review (2012; 14 pp);
- Reply to the County Staff's Responses on comments to Hudson Ranch Power II Geothermal Project and the Simbol Calipatria Plant II (2012; 8 pp);
- Hudson Ranch Power II Geothermal Project and the Simbol Calipatria Plant II (2012; 9 pp);
- Desert Harvest Solar Project EIS (2012; 15 pp);
- Solar Gen 2 Array Project DEIR (2012; 16 pp);
- Ocotillo Sol Project EIS (2012; 4 pp);
- Beacon Photovoltaic Project DEIR (2012; 5 pp);
- Declaration on Initial Study and Proposed Negative Declaration for the Butte Water District 2012 Water Transfer Program (2012; 11 pp);
- Mount Signal and Calexico Solar Farm Projects DEIR (2011; 16 pp);
- City of Elk Grove Sphere of Influence EIR (2011; 28 pp);
- Comment on Sutter Landing Park Solar Photovoltaic Project MND (2011; 9 pp);
- Statement of Shawn Smallwood, Ph.D. Regarding Proposed Rabik/Gudath Project, 22611 Coleman Valley Road, Bodega Bay (CPN 10-0002) (2011; 4 pp);
- Declaration of K. Shawn Smallwood on Biological Impacts of the Ivanpah Solar Electric Generating System (ISEGS) (2011; 9 pp);
- Comments on Draft Eagle Conservation Plan Guidance (2011; 13 pp);
- Comments on Draft EIR/EA for Niles Canyon Safety Improvement Project (2011; 16 pp);
- Declaration of K. Shawn Smallwood, Ph.D., on Biological Impacts of the Route 84 Safety Improvement Project (2011; 7 pp);
- Rebuttal Testimony of Witness #22, K. Shawn Smallwood, Ph.D, on Behalf of Intervenors Friends of The Columbia Gorge & Save Our Scenic Area (2010; 6 pp);
- Prefiled Direct Testimony of Witness #22, K. Shawn Smallwood, Ph.D, on Behalf of

Intervenors Friends of the Columbia Gorge & Save Our Scenic Area. Comments on Whistling Ridge Wind Energy Power Project DEIS, Skamania County, Washington (2010; 41 pp);

- Evaluation of Klickitat County's Decisions on the Windy Flats West Wind Energy Project (2010; 17 pp);
- St. John's Church Project Draft Environmental Impact Report (2010; 14 pp.);
- Initial Study/Mitigated Negative Declaration for Results Radio Zone File #2009-001 (2010; 20 pp);
- Rio del Oro Specific Plan Project Final Environmental Impact Report (2010;12 pp);
- Answers to Questions on 33% RPS Implementation Analysis Preliminary Results Report (2009: 9 pp);
- SEPA Determination of Non-significance regarding zoning adjustments for Skamania County, Washington. Second Declaration to Friends of the Columbia Gorge, Inc. and Save Our Scenic Area (Dec 2008; 17 pp);
- Comments on Draft 1A Summary Report to CAISO (2008; 10 pp);
- County of Placer's Categorical Exemption of Hilton Manor Project (2009; 9 pp);
- Protest of CARE to Amendment to the Power Purchase and Sale Agreement for Procurement of Eligible Renewable Energy Resources Between Hatchet Ridge Wind LLC and PG&E (2009; 3 pp);
- Tehachapi Renewable Transmission Project EIR/EIS (2009; 142 pp);
- Delta Shores Project EIR, south Sacramento (2009; 11 pp + addendum 2 pp);
- Declaration of Shawn Smallwood in Support of Care's Petition to Modify D.07-09-040 (2008; 3 pp);
- The Public Utility Commission's Implementation Analysis December 16 Workshop for the Governor's Executive Order S-14-08 to implement a 33% Renewable Portfolio Standard by 2020 (2008; 9 pp);
- The Public Utility Commission's Implementation Analysis Draft Work Plan for the Governor's Executive Order S-14-08 to implement a 33% Renewable Portfolio Standard by 2020 (2008; 11 pp);
- Draft 1A Summary Report to California Independent System Operator for Planning Reserve Margins (PRM) Study (2008; 7 pp.);
- SEPA Determination of Non-significance regarding zoning adjustments for Skamania County, Washington. Declaration to Friends of the Columbia Gorge, Inc. and Save Our Scenic Area (Sep 2008; 16 pp);
- California Energy Commission's Preliminary Staff Assessment of the Colusa Generating Station (2007; 24 pp);
- Rio del Oro Specific Plan Project Recirculated Draft Environmental Impact Report (2008: 66 pp);
- Replies to Response to Comments Re: Regional University Specific Plan Environmental Impact Report (2008; 20 pp);
- Regional University Specific Plan Environmental Impact Report (2008: 33 pp.);
- Clark Precast, LLC's "Sugarland" project, Negative Declaration (2008: 15 pp.);
- Cape Wind Project Draft Environmental Impact Statement (2008; 157 pp.);
- Yuba Highlands Specific Plan (or Area Plan) Environmental Impact Report (2006; 37 pp.);
- Replies to responses to comments on Mitigated Negative Declaration of the proposed

Mining Permit (MIN 04-01) and Modification of Use Permit 96-02 at North Table Mountain (2006; 5 pp);

- Mitigated Negative Declaration of the proposed Mining Permit (MIN 04-01) and Modification of Use Permit 96-02 at North Table Mountain (2006; 15 pp);
- Windy Point Wind Farm Environmental Review and EIS (2006; 14 pp and 36 Powerpoint slides in reply to responses to comments);
- Shiloh I Wind Power Project EIR (2005; 18 pp);
- Buena Vista Wind Energy Project Notice of Preparation of EIR (2004; 15 pp);
- Negative Declaration of the proposed Callahan Estates Subdivision (2004; 11 pp);
- Negative Declaration of the proposed Winters Highlands Subdivision (2004; 9 pp);
- Negative Declaration of the proposed Winters Highlands Subdivision (2004; 13 pp);
- Negative Declaration of the proposed Creekside Highlands Project, Tract 7270 (2004; 21 pp);
- On the petition California Fish and Game Commission to list the Burrowing Owl as threatened or endangered (2003; 10 pp);
- Conditional Use Permit renewals from Alameda County for wind turbine operations in the Altamont Pass Wind Resource Area (2003; 41 pp);
- UC Davis Long Range Development Plan of 2003, particularly with regard to the Neighborhood Master Plan (2003; 23 pp);
- Anderson Marketplace Draft Environmental Impact Report (2003: 18 pp + 3 plates of photos);
- Negative Declaration of the proposed expansion of Temple B'nai Tikyah (2003: 6 pp);
- Antonio Mountain Ranch Specific Plan Public Draft EIR (2002: 23 pp);
- Response to testimony of experts at the East Altamont Energy Center evidentiary hearing on biological resources (2002: 9 pp);
- Revised Draft Environmental Impact Report, The Promenade (2002: 7 pp);
- Recirculated Initial Study for Calpine's proposed Pajaro Valley Energy Center (2002: 3 pp);
- UC Merced -- Declaration of Dr. Shawn Smallwood in support of petitioner's application for temporary restraining order and preliminary injunction (2002: 5 pp);
- Replies to response to comments in Final Environmental Impact Report, Atwood Ranch Unit III Subdivision (2003: 22 pp);
- Draft Environmental Impact Report, Atwood Ranch Unit III Subdivision (2002: 19 pp + 8 photos on 4 plates);
- California Energy Commission Staff Report on GWF Tracy Peaker Project (2002: 17 pp + 3 photos; follow-up report of 3 pp);
- Initial Study and Negative Declaration, Silver Bend Apartments, Placer County (2002: 13 pp);
- UC Merced Long-range Development Plan DEIR and UC Merced Community Plan DEIR (2001: 26 pp);
- Initial Study, Colusa County Power Plant (2001: 6 pp);
- Comments on Proposed Dog Park at Catlin Park, Folsom, California (2001: 5 pp + 4 photos);
- Pacific Lumber Co. (Headwaters) Habitat Conservation Plan and Environmental Impact Report (1998: 28 pp);
- Final Environmental Impact Report/Statement for Issuance of Take authorization for listed

species within the MSCP planning area in San Diego County, California (Fed. Reg. 62 (60): 14938, San Diego Multi-Species Conservation Program) (1997: 10 pp);

- Permit (PRT-823773) Amendment for the Natomas Basin Habitat Conservation Plan, Sacramento, CA (Fed. Reg. 63 (101): 29020-29021) (1998);
- Draft Recovery Plan for the Giant Garter Snake (*Thamnophis gigas*). (Fed. Reg. 64(176): 49497-49498) (1999: 8 pp);
- Review of the Draft Recovery Plan for the Arroyo Southwestern Toad (*Bufo microscaphus californicus*) (1998);
- Ballona West Bluffs Project Environmental Impact Report (1999: oral presentation);
- California Board of Forestry's proposed amended Forest Practices Rules (1999);
- Negative Declaration for the Sunset Skyranch Airport Use Permit (1999);
- Calpine and Bechtel Corporations' Biological Resources Implementation and Monitoring Program (BRMIMP) for the Metcalf Energy Center (2000: 10 pp);
- California Energy Commission's Final Staff Assessment of the proposed Metcalf Energy Center (2000);
- US Fish and Wildlife Service Section 7 consultation with the California Energy Commission regarding Calpine and Bechtel Corporations' Metcalf Energy Center (2000: 4 pp);
- California Energy Commission's Preliminary Staff Assessment of the proposed Metcalf Energy Center (2000: 11 pp);
- Site-specific management plans for the Natomas Basin Conservancy's mitigation lands, prepared by Wildlands, Inc. (2000: 7 pp);
- Affidavit of K. Shawn Smallwood in Spirit of the Sage Council, et al. (Plaintiffs) vs. Bruce Babbitt, Secretary, U.S. Department of the Interior, et al. (Defendants), Injuries caused by the No Surprises policy and final rule which codifies that policy (1999: 9 pp).

**Comments on other Environmental Review Documents:**

- Proposed Regulation for California Fish and Game Code Section 3503.5 (2015: 12 pp);
- Statement of Overriding Considerations related to extending Altamont Winds, Inc.'s Conditional Use Permit PLN2014-00028 (2015; 8 pp);
- Draft Program Level EIR for Covell Village (2005; 19 pp);
- Bureau of Land Management Wind Energy Programmatic EIS Scoping document (2003: 7 pp.);
- NEPA Environmental Analysis for Biosafety Level 4 National Biocontainment Laboratory (NBL) at UC Davis (2003: 7 pp);
- Notice of Preparation of UC Merced Community and Area Plan EIR, on behalf of The Wildlife Society—Western Section (2001: 8 pp.);
- Preliminary Draft Yolo County Habitat Conservation Plan (2001; 2 letters totaling 35 pp.);
- Merced County General Plan Revision, notice of Negative Declaration (2001: 2 pp.);
- Notice of Preparation of Campus Parkway EIR/EIS (2001: 7 pp.);
- Draft Recovery Plan for the bighorn sheep in the Peninsular Range (*Ovis candensis*) (2000);
- Draft Recovery Plan for the California Red-legged Frog (*Rana aurora draytonii*), on behalf of The Wildlife Society—Western Section (2000: 10 pp.);
- Sierra Nevada Forest Plan Amendment Draft Environmental Impact Statement, on behalf of The Wildlife Society—Western Section (2000: 7 pp.);

- State Water Project Supplemental Water Purchase Program, Draft Program EIR (1997);
- Davis General Plan Update EIR (2000);
- Turn of the Century EIR (1999: 10 pp);
- Proposed termination of Critical Habitat Designation under the Endangered Species Act (Fed. Reg. 64(113): 31871-31874) (1999);
- NOA Draft Addendum to the Final Handbook for Habitat Conservation Planning and Incidental Take Permitting Process, termed the HCP 5-Point Policy Plan (Fed. Reg. 64(45): 11485 - 11490) (1999; 2 pp + attachments);
- Covell Center Project EIR and EIR Supplement (1997).

**Position Statements** I prepared the following position statements for the Western Section of The Wildlife Society, and one for nearly 200 scientists:

- Recommended that the California Department of Fish and Game prioritize the extermination of the introduced southern water snake in northern California. The Wildlife Society--Western Section (2001);
- Recommended that The Wildlife Society—Western Section appoint or recommend members of the independent scientific review panel for the UC Merced environmental review process (2001);
- Opposed the siting of the University of California's 10th campus on a sensitive vernal pool/grassland complex east of Merced. The Wildlife Society--Western Section (2000);
- Opposed the legalization of ferret ownership in California. The Wildlife Society--Western Section (2000);
- Opposed the Proposed "No Surprises," "Safe Harbor," and "Candidate Conservation Agreement" rules, including permit-shield protection provisions (Fed. Reg. Vol. 62, No. 103, pp. 29091-29098 and No. 113, pp. 32189-32194). This statement was signed by 188 scientists and went to the responsible federal agencies, as well as to the U.S. Senate and House of Representatives.

**Posters at Professional Meetings**

Leyvas, E. and K. S. Smallwood. 2015. Rehabilitating injured animals to offset and rectify wind project impacts. Conference on Wind Energy and Wildlife Impacts, Berlin, Germany, 9-12 March 2015.

Smallwood, K. S., J. Mount, S. Standish, E. Leyvas, D. Bell, E. Walther, B. Karas. 2015. Integrated detection trials to improve the accuracy of fatality rate estimates at wind projects. Conference on Wind Energy and Wildlife Impacts, Berlin, Germany, 9-12 March 2015.

Smallwood, K. S. and C. G. Thelander. 2005. Lessons learned from five years of avian mortality research in the Altamont Pass WRA. AWEA conference, Denver, May 2005.

Neher, L., L. Wilder, J. Woo, L. Spiegel, D. Yen-Nakafugi, and K.S. Smallwood. 2005. Bird's eye view on California wind. AWEA conference, Denver, May 2005.

Smallwood, K. S., C. G. Thelander and L. Spiegel. 2003. Toward a predictive model of avian fatalities in the Altamont Pass Wind Resource Area. Windpower 2003 Conference and Convention, Austin, Texas.

Smallwood, K.S. and Eva Butler. 2002. Pocket Gopher Response to Yellow Star-thistle Eradication as part of Grassland Restoration at Decommissioned Mather Air Force Base, Sacramento County, California. White Mountain Research Station Open House, Barcroft Station.

Smallwood, K.S. and Michael L. Morrison. 2002. Fresno kangaroo rat (*Dipodomys nitratoides*) Conservation Research at Resources Management Area 5, Lemoore Naval Air Station. White Mountain Research Station Open House, Barcroft Station.

Smallwood, K.S. and E.L. Fitzhugh. 1989. Differentiating mountain lion and dog tracks. Third Mountain Lion Workshop, Prescott, AZ.

Smith, T. R. and K. S. Smallwood. 2000. Effects of study area size, location, season, and allometry on reported *Sorex* shrew densities. Annual Meeting of the Western Section of The Wildlife Society.

**Presentations at Professional Meetings and Seminars**

Repowering the Altamont Pass. Altamont Symposium, The Wildlife Society – Western Section, 5 February 2017.

Developing methods to reduce bird mortality in the Altamont Pass Wind Resource Area, 1999-2007. Altamont Symposium, The Wildlife Society – Western Section, 5 February 2017.

Conservation and recovery of burrowing owls in Santa Clara Valley. Santa Clara Valley Habitat Agency, Newark, California, 3 February 2017.

Mitigation of Raptor Fatalities in the Altamont Pass Wind Resource Area. Raptor Research Foundation Meeting, Sacramento, California, 6 November 2015.

From burrows to behavior: Research and management for burrowing owls in a diverse landscape. California Burrowing Owl Consortium meeting, 24 October 2015, San Jose, California.

The Challenges of repowering. Keynote presentation at Conference on Wind Energy and Wildlife Impacts, Berlin, Germany, 10 March 2015.

Research Highlights Altamont Pass 2011-2015. Scientific Review Committee, Oakland, California, 8 July 2015.

Siting wind turbines to minimize raptor collisions: Altamont Pass Wind Resource Area. US Fish and Wildlife Service Golden Eagle Working Group, Sacramento, California, 8 January 2015.

Evaluation of nest boxes as a burrowing owl conservation strategy. Sacramento Chapter of the Western Section, The Wildlife Society. Sacramento, California, 26 August 2013.

Predicting collision hazard zones to guide repowering of the Altamont Pass. Conference on wind power and environmental impacts. Stockholm, Sweden, 5-7 February 2013.

Impacts of Wind Turbines on Wildlife. California Council for Wildlife Rehabilitators, Yosemite, California, 12 November 2012.

Impacts of Wind Turbines on Birds and Bats. Madrone Audubon Society, Santa Rosa, California, 20 February 2012.

Comparing Wind Turbine Impacts across North America. California Energy Commission Staff Workshop: Reducing the Impacts of Energy Infrastructure on Wildlife, 20 July 2011.

Siting Repowered Wind Turbines to Minimize Raptor Collisions. California Energy Commission Staff Workshop: Reducing the Impacts of Energy Infrastructure on Wildlife, 20 July 2011.

Siting Repowered Wind Turbines to Minimize Raptor Collisions. Alameda County Scientific Review Committee meeting, 17 February 2011

Comparing Wind Turbine Impacts across North America. Conference on Wind energy and Wildlife impacts, Trondheim, Norway, 3 May 2011.

Update on Wildlife Impacts in the Altamont Pass Wind Resource Area. Raptor Symposium, The Wildlife Society—Western Section, Riverside, California, February 2011.

Siting Repowered Wind Turbines to Minimize Raptor Collisions. Raptor Symposium, The Wildlife Society - Western Section, Riverside, California, February 2011.

Wildlife mortality caused by wind turbine collisions. Ecological Society of America, Pittsburgh, Pennsylvania, 6 August 2010.

Map-based repowering and reorganization of a wind farm to minimize burrowing owl fatalities. California burrowing Owl Consortium Meeting, Livermore, California, 6 February 2010.

Environmental barriers to wind power. Getting Real About Renewables: Economic and Environmental Barriers to Biofuels and Wind Energy. A symposium sponsored by the Environmental & Energy Law & Policy Journal, University of Houston Law Center, Houston, 23 February 2007.

Lessons learned about bird collisions with wind turbines in the Altamont Pass and other US wind farms. Meeting with Japan Ministry of the Environment and Japan Ministry of the Economy, Wild Bird Society of Japan, and other NGOs Tokyo, Japan, 9 November 2006.

Lessons learned about bird collisions with wind turbines in the Altamont Pass and other US wind farms. Symposium on bird collisions with wind turbines. Wild Bird Society of Japan, Tokyo, Japan, 4 November 2006.

Responses of Fresno kangaroo rats to habitat improvements in an adaptive management framework. California Society for Ecological Restoration (SERCAL) 13th Annual Conference, UC Santa

Barbara, 27 October 2006.

Fatality associations as the basis for predictive models of fatalities in the Altamont Pass Wind Resource Area. EEI/APLIC/PIER Workshop, 2006 Biologist Task Force and Avian Interaction with Electric Facilities Meeting, Pleasanton, California, 28 April 2006.

Burrowing owl burrows and wind turbine collisions in the Altamont Pass Wind Resource Area. The Wildlife Society - Western Section Annual Meeting, Sacramento, California, February 8, 2006.

Mitigation at wind farms. Workshop: Understanding and resolving bird and bat impacts. American Wind Energy Association and Audubon Society. Los Angeles, CA. January 10 and 11, 2006.

Incorporating data from the California Wildlife Habitat Relationships (CWHR) system into an impact assessment tool for birds near wind farms. Shawn Smallwood, Kevin Hunting, Marcus Yee, Linda Spiegel, Monica Parisi. Workshop: Understanding and resolving bird and bat impacts. American Wind Energy Association and Audubon Society. Los Angeles, CA. January 10 and 11, 2006.

Toward indicating threats to birds by California’s new wind farms. California Energy Commission, Sacramento, May 26, 2005.

Avian collisions in the Altamont Pass. California Energy Commission, Sacramento, May 26, 2005.

Ecological solutions for avian collisions with wind turbines in the Altamont Pass Wind Resource Area. EPRI Environmental Sector Council, Monterey, California, February 17, 2005.

Ecological solutions for avian collisions with wind turbines in the Altamont Pass Wind Resource Area. The Wildlife Society—Western Section Annual Meeting, Sacramento, California, January 19, 2005.

Associations between avian fatalities and attributes of electric distribution poles in California. The Wildlife Society - Western Section Annual Meeting, Sacramento, California, January 19, 2005.

Minimizing avian mortality in the Altamont Pass Wind Resources Area. UC Davis Wind Energy Collaborative Forum, Palm Springs, California, December 14, 2004.

Selecting electric distribution poles for priority retrofitting to reduce raptor mortality. Raptor Research Foundation Meeting, Bakersfield, California, November 10, 2004.

Responses of Fresno kangaroo rats to habitat improvements in an adaptive management framework. Annual Meeting of the Society for Ecological Restoration, South Lake Tahoe, California, October 16, 2004.

Lessons learned from five years of avian mortality research at the Altamont Pass Wind Resources Area in California. The Wildlife Society Annual Meeting, Calgary, Canada, September 2004.

The ecology and impacts of power generation at Altamont Pass. Sacramento Petroleum Association, Sacramento, California, August 18, 2004.

Burrowing owl mortality in the Altamont Pass Wind Resource Area. California Burrowing Owl Consortium meeting, Hayward, California, February 7, 2004.

Burrowing owl mortality in the Altamont Pass Wind Resource Area. California Burrowing Owl Symposium, Sacramento, November 2, 2003.

Raptor Mortality at the Altamont Pass Wind Resource Area. National Wind Coordinating Committee, Washington, D.C., November 17, 2003.

Raptor Behavior at the Altamont Pass Wind Resource Area. Annual Meeting of the Raptor Research Foundation, Anchorage, Alaska, September, 2003.

Raptor Mortality at the Altamont Pass Wind Resource Area. Annual Meeting of the Raptor Research Foundation, Anchorage, Alaska, September, 2003.

California mountain lions. Ecological & Environmental Issues Seminar, Department of Biology, California State University, Sacramento, November, 2000.

Intra- and inter-turbine string comparison of fatalities to animal burrow densities at Altamont Pass. National Wind Coordinating Committee, Carmel, California, May, 2000.

Using a Geographic Positioning System (GPS) to map wildlife and habitat. Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

Suggested standards for science applied to conservation issues. Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

The indicators framework applied to ecological restoration in Yolo County, California. Society for Ecological Restoration, September 25, 1999.

Ecological restoration in the context of animal social units and their habitat areas. Society for Ecological Restoration, September 24, 1999.

Relating Indicators of Ecological Health and Integrity to Assess Risks to Sustainable Agriculture and Native Biota. International Conference on Ecosystem Health, August 16, 1999.

A crosswalk from the Endangered Species Act to the HCP Handbook and real HCPs. Southern California Edison, Co. and California Energy Commission, March 4-5, 1999.

Mountain lion track counts in California: Implications for Management. Ecological & Environmental Issues Seminar, Department of Biological Sciences, California State University, Sacramento, November 4, 1998.

“No Surprises” -- Lack of science in the HCP process. California Native Plant Society Annual Conservation Conference, The Presidio, San Francisco, September 7, 1997.

In Your Interest. A half hour weekly show aired on Channel 10 Television, Sacramento. In this episode, I served on a panel of experts discussing problems with the implementation of the Endangered Species Act. Aired August 31, 1997.

Spatial scaling of pocket gopher (*Geomyidae*) density. Southwestern Association of Naturalists 44th Meeting, Fayetteville, Arkansas, April 10, 1997.

Estimating prairie dog and pocket gopher burrow volume. Southwestern Association of Naturalists 44th Meeting, Fayetteville, Arkansas, April 10, 1997.

Ten years of mountain lion track survey. Fifth Mountain Lion Workshop, San Diego, February 27, 1996.

Study and interpretive design effects on mountain lion density estimates. Fifth Mountain Lion Workshop, San Diego, February 27, 1996.

Small animal control. Session moderator and speaker at the California Farm Conference, Sacramento, California, Feb. 28, 1995.

Small animal control. Ecological Farming Conference, Asylomar, California, Jan. 28, 1995.

Habitat associations of the Swainson's Hawk in the Sacramento Valley's agricultural landscape. 1994 Raptor Research Foundation Meeting, Flagstaff, Arizona.

Alfalfa as wildlife habitat. Seed Industry Conference, Woodland, California, May 4, 1994.

Habitats and vertebrate pests: impacts and management. Managing Farmland to Bring Back Game Birds and Wildlife to the Central Valley. Yolo County Resource Conservation District, U.C. Davis, February 19, 1994.

Management of gophers and alfalfa as wildlife habitat. Orland Alfalfa Production Meeting and Sacramento Valley Alfalfa Production Meeting, February 1 and 2, 1994.

Patterns of wildlife movement in a farming landscape. Wildlife and Fisheries Biology Seminar Series: Recent Advances in Wildlife, Fish, and Conservation Biology, U.C. Davis, Dec. 6, 1993.

Alfalfa as wildlife habitat. California Alfalfa Symposium, Fresno, California, Dec. 9, 1993.

Management of pocket gophers in Sacramento Valley alfalfa. California Alfalfa Symposium, Fresno, California, Dec. 8, 1993.

Association analysis of raptors in a farming landscape. Plenary speaker at Raptor Research Foundation Meeting, Charlotte, North Carolina, Nov. 6, 1993.

Landscape strategies for biological control and IPM. Plenary speaker, International Conference on Integrated Resource Management and Sustainable Agriculture, Beijing, China, Sept. 11, 1993.

Landscape Ecology Study of Pocket Gophers in Alfalfa. Alfalfa Field Day, U.C. Davis, July 1993.

Patterns of wildlife movement in a farming landscape. Spatial Data Analysis Colloquium, U.C. Davis, August 6, 1993.

Sound stewardship of wildlife. Veterinary Medicine Seminar: Ethics of Animal Use, U.C. Davis. May 1993.

Landscape ecology study of pocket gophers in alfalfa. Five County Grower's Meeting, Tracy, California. February 1993.

Turbulence and the community organizers: The role of invading species in ordering a turbulent system, and the factors for invasion success. Ecology Graduate Student Association Colloquium, U.C. Davis. May 1990.

Evaluation of exotic vertebrate pests. Fourteenth Vertebrate Pest Conference, Sacramento, California. March 1990.

Analytical methods for predicting success of mammal introductions to North America. The Western Section of the Wildlife Society, Hilo, Hawaii. February 1988.

A state-wide mountain lion track survey. Sacramento County Dept Parks and Recreation. April 1986.

The mountain lion in California. Davis Chapter of the Audubon Society. October 1985.

Ecology Graduate Student Seminars, U.C. Davis, 1985-1990: Social behavior of the mountain lion; Mountain lion control; Political status of the mountain lion in California.

**Other forms of Participation at Professional Meetings**

- Scientific Committee, Conference on Wind energy and Wildlife impacts, Berlin, Germany, March 2015.
- Scientific Committee, Conference on Wind energy and Wildlife impacts, Stockholm, Sweden, February 2013.
- Workshop co-presenter at Birds & Wind Energy Specialist Group (BAWESG) Information sharing week, Bird specialist studies for proposed wind energy facilities in South Africa, Endangered Wildlife Trust, Darling, South Africa, 3-7 October 2011.
- Scientific Committee, Conference on Wind energy and Wildlife impacts, Trondheim, Norway, 2-5 May 2011.
- Chair of Animal Damage Management Session, The Wildlife Society, Annual Meeting, Reno, Nevada, September 26, 2001.

- Chair of Technical Session: Human communities and ecosystem health: Comparing perspectives and making connection. Managing for Ecosystem Health, International Congress on Ecosystem Health, Sacramento, CA August 15-20, 1999.

- Student Awards Committee, Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

- Student Mentor, Annual Meeting of the Western Section of The Wildlife Society, Riverside, CA, January, 2000.

**Printed Mass Media**

Smallwood, K.S., D. Mooney, and M. McGuinness. 2003. We must stop the UCD biolab now. Op-Ed to the Davis Enterprise.

Smallwood, K.S. 2002. Spring Lake threatens Davis. Op-Ed to the Davis Enterprise.

Smallwood, K.S. Summer, 2001. Mitigation of habitation. The Flatlander, Davis, California.

Entrikan, R.K. and K.S. Smallwood. 2000. Measure O: Flawed law would lock in new taxes. Op-Ed to the Davis Enterprise.

Smallwood, K.S. 2000. Davis delegation lobbies Congress for Wildlife conservation. Op-Ed to the Davis Enterprise.

Smallwood, K.S. 1998. Davis Visions. The Flatlander, Davis, California.

Smallwood, K.S. 1997. Last grab for Yolo's land and water. The Flatlander, Davis, California.

Smallwood, K.S. 1997. The Yolo County HCP. Op-Ed to the Davis Enterprise.

**Radio/Television**

PBS News Hour,

FOX News, Energy in America: Dead Birds Unintended Consequence of Wind Power Development, August 2011.

KXJZ Capital Public Radio -- Insight (Host Jeffrey Callison). Mountain lion attacks (with guest Professor Richard Coss). 23 April 2009;

KXJZ Capital Public Radio -- Insight (Host Jeffrey Callison). Wind farm Rio Vista Renewable Power. 4 September 2008;

KQED QUEST Episode #111. Bird collisions with wind turbines. 2007;

KDVS Speaking in Tongues (host Ron Glick), Yolo County HCP: 1 hour. December 27, 2001;

KDVS Speaking in Tongues (host Ron Glick), Yolo County HCP: 1 hour. May 3, 2001;

KDVS Speaking in Tongues (host Ron Glick), Yolo County HCP: 1 hour. February 8, 2001;

KDVS Speaking in Tongues (host Ron Glick & Shawn Smallwood), California Energy Crisis: 1 hour. Jan. 25, 2001;

KDVS Speaking in Tongues (host Ron Glick), Headwaters Forest HCP: 1 hour. 1998;

Davis Cable Channel (host Gerald Heffernon), Burrowing owls in Davis: half hour. June, 2000;

Davis Cable Channel (hosted by Davis League of Women Voters), Measure O debate: 1 hour. October, 2000;

KXTV 10, In Your Interest, The Endangered Species Act: half hour. 1997.

**Reviews of Journal Papers** (Scientific journals for whom I've provided peer review)

| **Journal** | **Journal** |
|---|---|
| American Naturalist | Journal of Animal Ecology |
| Journal of Wildlife Management | Western North American Naturalist |
| Auk | Journal of Raptor Research |
| Biological Conservation | National Renewable Energy Lab reports |
| Canadian Journal of Zoology | Oikos |
| Ecosystem Health | The Prairie Naturalist |
| Environmental Conservation | Restoration Ecology |
| Environmental Management | Southwestern Naturalist |
| Functional Ecology | The Wildlife Society--Western Section Trans. |
| Journal of Zoology (London) | Proc. Int. Congress on Managing for Ecosystem Health |
| Journal of Applied Ecology | Transactions in GIS |
| Ecology | Tropical Ecology |
| Wildlife Society Bulletin | Peer J |
| Biological Control | The Condor |

**Committees**

- Scientific Review Committee, Alameda County, Altamont Pass Wind Resource Area
- Ph.D. Thesis Committee, Steve Anderson, University of California, Davis
- MS Thesis Committee, Marcus Yee, California State University, Sacramento

**Other Professional Activities or Products**

Testified in Federal Court in Denver during 2005 over the fate of radio-nuclides in the soil at Rocky Flats Plant after exposure to burrowing animals. My clients won a judgment of $553,000,000. I have also testified in many other cases of litigation under CEQA, NEPA, the Warren-Alquist Act, and other environmental laws. My clients won most of the cases for which I testified.

Testified before Environmental Review Tribunals in Ontario, Canada regarding proposed White Pines, Amherst Island, and Fairview Wind Energy projects.

Testified in Skamania County Hearing in 2009 on the potential impacts of zoning the County for development of wind farms and hazardous waste facilities.

Testified in deposition in 2007 in the case of O'Dell et al. vs. FPL Energy in Houston, Texas.

Testified in Klickitat County Hearing in 2006 on the potential impacts of the Windy Point Wind Farm.

**Memberships in Professional Societies**

The Wildlife Society
Raptor Research Foundation

**Honors and Awards**

Fulbright Research Fellowship to Indonesia, 1987
J.G. Boswell Full Academic Scholarship, 1981 college of choice
Certificate of Appreciation, The Wildlife Society—Western Section, 2000, 2001
Northern California Athletic Association Most Valuable Cross Country Runner, 1984
American Legion Award, Corcoran High School, 1981, and John Muir Junior High, 1977
CIF Section Champion, Cross Country in 1978
CIF Section Champion, Track & Field 2 mile run in 1981
National Junior Record, 20 kilometer run, 1982
National Age Group Record, 1500 meter run, 1978

**Community Activities**

District 64 Little League Umpire, 2003-2007
Dixon Little League Umpire, 2006-07
Davis Little League Chief Umpire and Board member, 2004-2005
Davis Little League Safety Officer, 2004-2005
Davis Little League Certified Umpire, 2002-2004
Davis Little League Scorekeeper, 2002
Davis Visioning Group member
Petitioner for Writ of Mandate under the California Environmental Quality Act against City of Woodland decision to approve the Spring Lake Specific Plan, 2002
Served on campaign committees for City Council candidates

**Representative Clients/Funders**

Law Offices of Stephan C. Volker
Blum Collins, LLP
Eric K. Gillespie Professional Corporation
Law Offices of Berger & Montague
Lozeau | Drury LLP
Law Offices of Roy Haber
Law Offices of Edward MacDonald
Law Office of John Gabrielli
Law Office of Bill Kopper
Law Office of Donald B. Mooney
Law Office of Veneruso & Moncharsh
Law Office of Steven Thompson
Law Office of Brian Gaffney
California Wildlife Federation
Defenders of Wildlife
Sierra Club
National Endangered Species Network
Spirit of the Sage Council
The Humane Society
Hagens Berman LLP
Environmental Protection Information Center
Goldberg, Kamin & Garvin, Attorneys at Law
Californians for Renewable Energy (CARE)
Seatuck Environmental Association
Friends of the Columbia Gorge, Inc.
Save Our Scenic Area
Alliance to Protect Nantucket Sound
Friends of the Swainson’s Hawk
Alameda Creek Alliance
Center for Biological Diversity
California Native Plant Society
Endangered Wildlife Trust
and BirdLife South Africa
AquAlliance
Oregon Natural Desert Association
Save Our Sound
G3 Energy and Pattern Energy
Emerald Farms
Pacific Gas & Electric Co.
Southern California Edison Co.
Georgia-Pacific Timber Co.
Northern Territories Inc.
David Magney Environmental Consulting
Wildlife History Foundation
NextEra Energy Resources, LLC
Ogin, Inc.
EDF Renewables
National Renewable Energy Lab
Altamont Winds LLC
Salka Energy
Comstocks Business (magazine)
BioResource Consultants
Tierra Data
Black and Veatch
Terry Preston, Wildlife Ecology Research Center
EcoStat, Inc.
US Navy
US Department of Agriculture
US Forest Service
US Fish & Wildlife Service
US Department of Justice
California Energy Commission
California Office of the Attorney General
California Department of Fish & Wildlife
California Department of Transportation
California Department of Forestry
California Department of Food & Agriculture
Ventura County Counsel
County of Yolo
Tahoe Regional Planning Agency
Sustainable Agriculture Research & Education Program
Sacramento-Yolo Mosquito and Vector Control District
East Bay Regional Park District
County of Alameda
Don & LaNelle Silverstien
Seventh Day Adventist Church
Escuela de la Raza Unida
Susan Pelican and Howard Beeman
Residents Against Inconsistent Development, Inc.
Bob Sarvey
Mike Boyd
Hillcroft Neighborhood Fund
Joint Labor Management Committee, Retail Food Industry
Lisa Rocca
Kevin Jackson
Dawn Stover and Jay Letto
Nancy Havassy
Catherine Portman (for Brenda Cedarblade)
Ventus Environmental Solutions, Inc.
Panorama Environmental, Inc.
Adams Broadwell Professional Corporation

**Representative special-status species experience**

| Common name | Species name | Description |
|---|---|---|
| **Field experience** | | |
| California red-legged frog | *Rana aurora draytonii* | Protocol searches; Many detections |
| Foothill yellow-legged frog | *Rana boylii* | Presence surveys; Many detections |
| Western spadefoot | *Spea hammondii* | Presence surveys; Few detections |
| California tiger salamander | *Ambystoma californiense* | Protocol searches; Many detections |
| Coast range newt | *Taricha torosa torosa* | Searches and multiple detections |
| Blunt-nosed leopard lizard | *Gambelia sila* | Detected in San Luis Obispo County |
| California horned lizard | *Phrynosoma coronatum frontale* | Searches; Many detections |
| Western pond turtle | *Clemmys marmorata* | Searches; Many detections |
| San Joaquin kit fox | *Vulpes macrotis mutica* | Protocol searches; detections |
| Sumatran tiger | *Panthera tigris* | Track surveys in Sumatra |
| Mountain lion | *Puma concolor californicus* | Research and publications |
| Point Arena mountain beaver | *Aplodontia rufa nigra* | Remote camera operation |
| Giant kangaroo rat | *Dipodomys ingens* | Detected in Cholame Valley |
| San Joaquin kangaroo rat | *Dipodomys nitratoides* | Monitoring & habitat restoration |
| Monterey dusky-footed woodrat | *Neotoma fuscipes luciana* | Non-target captures and mapping of dens |
| Salt marsh harvest mouse | *Reithrodontomys raviventris* | Habitat assessment, monitoring |
| Salinas harvest mouse | *Reithrodontomys megalotus distichlus* | Captures; habitat assessment |
| Bats | | Thermal imaging surveys |
| California clapper rail | *Rallus longirostris* | Surveys and detections |
| Golden eagle | *Aquila chrysaetos* | Numerical & behavioral surveys |
| Swainson's hawk | *Buteo swainsoni* | Numerical & behavioral surveys |
| Northern harrier | *Circus cyaeneus* | Numerical & behavioral surveys |
| White-tailed kite | *Elanus leucurus* | Numerical & behavioral surveys |
| Loggerhead shrike | *Lanius ludovicianus* | Large area surveys |
| Least Bell's vireo | *Vireo bellii pusillus* | Detected in Monterey County |
| Willow flycatcher | *Empidonax traillii extimus* | Research at Sierra Nevada breeding sites |
| Burrowing owl | *Athene cunicularia hypugia* | Numerical & behavioral surveys |
| Valley elderberry longhorn beetle | *Desmocerus californicus dimorphus* | Monitored success of relocation and habitat restoration |
| **Analytical** | | |
| Arroyo southwestern toad | *Bufo microscaphus californicus* | Research and report. |
| Giant garter snake | *Thamnophis gigas* | Research and publication |
| Northern goshawk | *Accipiter gentilis* | Research and publication |
| Northern spotted owl | *Strix occidentalis* | Research and reports |
| Alameda whipsnake | *Masticophis lateralis euryxanthus* | Expert testimony |

# EXHIBIT C

November 12, 2024

Ms. Tara Rengifo
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080-7037

**Subject:** E & P Technology **Way – Building A & B** ISMND

P24006

Dear Ms. Rengifo:

Per your request, I reviewed the Draft Initial Study Mitigated Negative Declaration (the "ISMND") for the E & P Technology Way – Building A & B Project (the "Project") in the County of Napa (the "County"). My review is with respect to transportation and circulation considerations.

My qualifications to perform this review include registration as a Civil and Traffic Engineer in California, over 50 years professional consulting practice in these fields and both preparation and review of the traffic and transportation components of numerous environmental documents prepared under the California Environmental Quality Act ("CEQA"). My professional resume is attached hereto.

My comments follow.

**The Transportation Section of the ISMND Evaluates the VMT of the Two Components of the Project Independently of One Another. This Is a Project Segmentation or Piecemealing That Is Improper Under CEQA.**

The ISMND at pages 1 and 2 identifies the proposed development as a single project comprised of 2 components, a winery ("Building A") and a warehouse ("Building B"). Moreover, the air quality and public health analysis in the MND at pages 7-8 estimates "the project is anticipated to generate 218 total weekday trips. However, the Transportation Section, at page 26, does not consider the VMT of the Project as a whole as required by CEQA. Instead, it independently evaluates the winery in Building A as having an average of 71 daily trips during non-harvest months and 104 trips per day during harvest months. Based on the trip calculations for Building A alone, the MND states no further VMT analysis is required under the OPR guidance "that, absent substantial evidence otherwise, the addition of 110 or fewer daily trips could be presumed to have a less than significant VMT impact."

The MND at page 27 determines that the Building B warehouse would generate 114 trips per day, which would exceed the 110 trip threshold, and requires the implementation of a Transportation Demand Management Plan (MM TRANS-1). Segmenting the transportation analysis for Building A from Building B is clear piecemealing and violates CEQA. Building A and Building B, i.e., the Project as a whole, would have an estimated 218 daily trips, which is well more than the 110 daily trip maximum for presumption of a less than significant VMT impact. The Project's impact on VMT must be analyzed for the whole of the action and since the Project as a whole would exceed the threshold, there would be a significant and unavoidable impact on VMT. Mitigation measure(s) are necessary to reduce these significant impacts on VMT for the Project to less than significant levels.

**Omissions in the Project Description**

The Project Description lacks information about the number and frequency of clients that will visit Building A. The ISMND states at page 2 that no retail sales or access for the general public is proposed. However, the ISMND does state at page 2 that "Individual clients will visit the site on occasion to hold meetings with members of the wine trade, such as their distributors, restaurants, wine shop owners and similar types of wine buyers."

The ISMND provides no information about how frequently such gatherings would occur and the numbers of attendees. Due to these omissions in the Project Description, the transportation analysis provides no information about the traffic and VMT associated with such meetings. The Project's Transportation Impact Study at page 7 explains that the anticipated trip generation for Building A was estimated using the Napa County Winery Trip Generation Worksheet. Appendix C to the study includes this worksheet, which puts zero as the maximum daily visitation during the harvest and non-harvest seasons. Only full-time and part-time employees are considered in the trip generation analysis for Building A even though the MND acknowledges that there will be client meetings at the facility during operations. The Project Description must be revised to include information about how frequently such gatherings would occur and the numbers of attendees and the Project's VMT analysis must be revised accordingly.

**The Trip Generation Estimates for Building B are Unsupported**

For Building B (the warehouse), where a staff of 30 employees is indicated, 82 parking spaces are to be provided. The staff report at page 7 states that 38 of the 82 to be provided are “for the warehouse” and 44 are “for the office”. An estimated 11,000 square feet of office space 9the square footage that would typically be needed to support 44 office workers) in Building B is over 16 percent of the building’s floor area and thus the office component is not a small ancillary use to the warehouse.

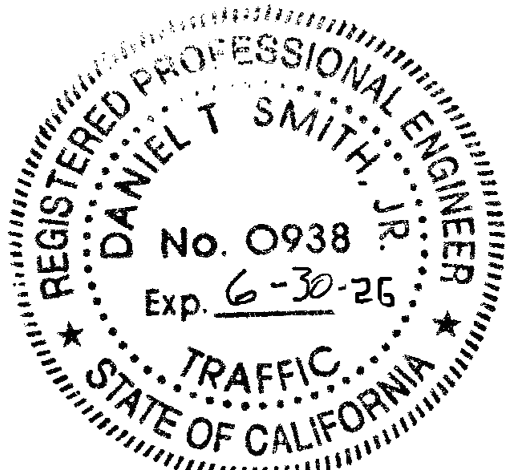
The office uses in Building B should have been analyzed using *Trip Generation, 11th Edition* Land Use Category 710 “Office” instead of Land Use Category 150 “Warehouse”. That authoritative reference source indicates office use generates 10.84 trips per thousand square feet daily, 1.52 trips per thousand in the AM peak hour and 1.44 trips per thousand in the PM peak hour whereas warehouse use generates only 1.71 trips per thousand square feet daily, 0.19 per thousand in the AM peak and 0.18 trips per thousand in the PM peak, In other words, depending on the time period under consideration, office use generates between 6 and 8 times more traffic than the same square footage of warehouse. Had the analysis considered an office component, both the trip totals and the VMT generation of Building B would be significantly increased. These impacts are undisclosed and unmitigated in the MND.

**Conclusion**

Given the above, the ISMND’s transportation section is inadequate and an EIR must be prepared.

Sincerely,

Smith Engineering & Management
A California Corporation




Daniel T. Smith Jr., P.E.
President

TRAFFIC • TRANSPORTATION • MANAGEMENT
5311 Lowry Road, Union City, CA 94587 tel: 510.489.9477 fax: 510.489.9478

SMITH ENGINEERING & MANAGEMENT

**DANIEL T. SMITH, Jr.**
**President**

**EDUCATION**

Bachelor of Science, Engineering and Applied Science, Yale University, 1967
Master of Science, Transportation Planning, University of California, Berkeley, 1968

**PROFESSIONAL REGISTRATION**

California No. 21913 (Civil) Nevada No. 7969 (Civil) Washington No. 29337 (Civil)
California No. 938 (Traffic) Arizona No. 22131 (Civil)

**PROFESSIONAL EXPERIENCE**

Smith Engineering & Management, 1993 to present. President.
DKS Associates, 1979 to 1993. Founder, Vice President, Principal Transportation Engineer.
De Leuw, Cather & Company, 1968 to 1979. Senior Transportation Planner.
Personal specialties and project experience include:

**Litigation Consulting**. Provides consultation, investigations and expert witness testimony in highway design, transit design and traffic engineering matters including condemnations involving transportation access issues; traffic accidents involving highway design or traffic engineering factors; land use and development matters involving access and transportation impacts; parking and other traffic and transportation matters.

**Urban Corridor Studies/Alternatives Analysis**. Principal-in-charge for State Route (SR) 102 Feasibility Study, a 35-mile freeway alignment study north of Sacramento. Consultant on I-280 Interstate Transfer Concept Program, San Francisco, an AA/EIS for completion of I-280, demolition of Embarcadero freeway, substitute light rail and commuter rail projects. Principal-in-charge, SR 238 corridor freeway/expressway design/environmental study, Hayward (Calif.) Project manager, Sacramento Northeast Area multi-modal transportation corridor study. Transportation planner for I-80N West Terminal Study, and Harbor Drive Traffic Study, Portland, Oregon. Project manager for design of surface segment of Woodward Corridor LRT, Detroit, Michigan. Directed staff on I-80 National Strategic Corridor Study (Sacramento-San Francisco), US 101-Sonoma freeway operations study, SR 92 freeway operations study, I-880 freeway operations study, SR 152 alignment studies, Sacramento RTD light rail systems study, Tasman Corridor LRT AA/EIS, Fremont-Warm Springs BART extension plan/EIR, SRs 70/99 freeway alternatives study, and Richmond Parkway (SR 93) design study.

**Area Transportation Plans**. Principal-in charge for transportation element of City of Los Angeles General Plan Framework, shaping nations largest city two decades into 21'st century. Project manager for the transportation element of 300-acre Mission Bay development in downtown San Francisco. Mission Bay involves 7 million gsf office/commercial space, 8,500 dwelling units, and community facilities. Transportation features include relocation of commuter rail station; extension of MUNI-Metro LRT; a multi-modal terminal for LRT, commuter rail and local bus; removal of a quarter mile elevated freeway; replacement by new ramps and a boulevard; an internal roadway network overcoming constraints imposed by an internal tidal basin; freeway structures and rail facilities; and concept plans for 20,000 structured parking spaces. Principal-in-charge for circulation plan to accommodate 9 million gsf of office/commercial growth in downtown Bellevue (Wash.). Principal-in-charge for 64 acre, 2 million gsf multi-use complex for FMC adjacent to San Jose International Airport. Project manager for transportation element of Sacramento Capitol Area Plan for the state governmental complex, and for Downtown Sacramento Redevelopment Plan. Project manager for Napa (Calif.) General Plan Circulation Element and Downtown Riverfront Redevelopment Plan, on parking program for downtown Walnut Creek, on downtown transportation plan for San Mateo and redevelopment plan for downtown Mountain View (Calif.), for traffic circulation and safety plans for California cities of Davis, Pleasant Hill and Hayward, and for Salem, Oregon.



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**Transportation Centers**. Project manager for Daly City Intermodal Study which developed a $7 million surface bus terminal, traffic access, parking and pedestrian circulation improvements at the Daly City BART station plus development of functional plans for a new BART station at Colma. Project manager for design of multi-modal terminal (commuter rail, light rail, bus) at Mission Bay, San Francisco. In Santa Clarita Long Range Transit Development Program, responsible for plan to relocate system's existing timed-transfer hub and development of three satellite transfer hubs. Performed airport ground transportation system evaluations for San Francisco International, Oakland International, Sea-Tac International, Oakland International, Los Angeles International, and San Diego Lindberg.

**Campus Transportation**. Campus transportation planning assignments for UC Davis, UC Berkeley, UC Santa Cruz and UC San Francisco Medical Center campuses; San Francisco State University; University of San Francisco; and the University of Alaska and others. Also developed master plans for institutional campuses including medical centers, headquarters complexes and research & development facilities.

**Special Event Facilities**. Evaluations and design studies for football/baseball stadiums, indoor sports arenas, horse and motor racing facilities, theme parks, fairgrounds and convention centers, ski complexes and destination resorts throughout western United States.

**Parking.** Parking programs and facilities for large area plans and individual sites including downtowns, special event facilities, university and institutional campuses and other large site developments; numerous parking feasibility and operations studies for parking structures and surface facilities; also, resident preferential parking .

**Transportation System Management & Traffic Restraint**. Project manager on FHWA program to develop techniques and guidelines for neighborhood street traffic limitation. Project manager for Berkeley, (Calif.), Neighborhood Traffic Study, pioneered application of traffic restraint techniques in the U.S. Developed residential traffic plans for Menlo Park, Santa Monica, Santa Cruz, Mill Valley, Oakland, Palo Alto, Piedmont, San Mateo County, Pasadena, Santa Ana and others. Participated in development of photo/radar speed enforcement device and experimented with speed humps. Co-author of Institute of Transportation Engineers reference publication on neighborhood traffic control.

**Bicycle Facilities**. Project manager to develop an FHWA manual for bicycle facility design and planning, on bikeway plans for Del Mar, (Calif.), the UC Davis and the City of Davis. Consultant to bikeway plans for Eugene, Oregon, Washington, D.C., Buffalo, New York, and Skokie, Illinois. Consultant to U.S. Bureau of Reclamation for development of hydraulically efficient, bicycle safe drainage inlets. Consultant on FHWA research on effective retrofits of undercrossing and overcrossing structures for bicyclists, pedestrians, and handicapped.

**MEMBERSHIPS**

Institute of Transportation Engineers Transportation Research Board

**PUBLICATIONS AND AWARDS**

*Residential Street Design and Traffic Control*, with W. Homburger *et al*. Prentice Hall, 1989.

Co-recipient, Progressive Architecture Citation, *Mission Bay Master Plan*, with I.M. Pei WRT Associated, 1984.

*Residential Traffic Management, State of the Art Report,* U.S. Department of Transportation, 1979.

*Improving The Residential Street Environment*, with Donald Appleyard et al., U.S. Department of Transportation, 1979.

*Strategic Concepts in Residential Neighborhood Traffic Control*, International Symposium on Traffic Control Systems, Berkeley, California, 1979.

*Planning and Design of Bicycle Facilities: Pitfalls and New Directions*, Transportation Research Board, Research Record 570, 1976.

Co-recipient, Progressive Architecture Award, *Livable Urban Streets, San Francisco Bay Area and London*, with Donald Appleyard, 1979.



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