Attachment A

Letter from Megan E. Macy on behalf
of Sierra Joint Community College District

Megan E. Macy
Attorney at Law

E-mail: mmacy@lozanosmith.com

January 6, 2022

By U.S. Mail & E-Mail: David.Mohlenbrok@rocklin.ca.us

David Mohlenbrok
Community Development Director
City of Rocklin
3970 Rocklin Road
Rocklin, CA 95677

Dear Mr. Mohlenbrok:

Our firm represents the Sierra Joint Community College District ("District") in matters related to real property. We have been requested by the District and the law firm of Remy Moose & Manley, representing Evergreen Sierra East, LLC, and Cresleigh Homes Corporation, which are joint Applicants for the proposed College Park mixed-use development project ("Project"), to provide information and analysis in order to help the City of Rocklin and the public to better understand why the District's participation in the Project is entirely within the law, notwithstanding contentions to the contrary made in comments on the Draft Environmental Impact Report for the Project.

Specifically, we address the recurring theme in certain comment letters that the District, as the current landowner of the two Project sites, violated the law by making the sites available for development. Specifically, we address the comments made by Save East Rocklin via the Law Office of Allan R. Frumkin, received October 21, 2021 ("Frumkin Letter") and the Montclair Circle Property Owners via Sierra Geotech DBE received on November 7, 2021 ("Sierra Geotech Letter"). In short, those letters indicate the District "does not have the authority nor established statutorial [sic] purpose to enter private urban development endeavors." (Frumkin Letter, pp. 14-15, 17-18; see also Sierra Geotech Letter, pp. 7, 36.) This claim is patently wrong for the reasons explained in this letter.

A. Background

The District acquired the site for the Sierra College main Rocklin campus in 1961. Construction began shortly thereafter, and, once the campus opened, enrollment steadily increased and the campus grew in response.[1] In 1968, the District acquired the approximately 35.8-acre property currently known as the South Village site. In or around 1975, the District purchased the

[1] See Sierra College, *Sierra College Timeline*, available at: https://www.sierracollege.edu/80/timeline.php#origins.

approximately 72.6-acre property currently known as the North Village site (referred collectively hereafter as "the Project sites").[2] These Project sites have always been maintained by the District "for development and revenue-generating purposes" or "potential future facility needs should development opportunities not arise."[3]

In 2014, the District began exploring options to develop the Project sites to generate revenue to support the District's infrastructure for the benefit of its students and programs. In 2015, the District initiated a process to identify a developer for a possible project and declared the Project Area (North Village and South Village) surplus property in 2016."[4] Following the declaration of the property as surplus, the District provided notice to potentially interested public agencies and third parties as required by the Government Code and Education Code. The District received no responses to these notices.

In November 2016, the District selected Evergreen Sierra East, LLC ("Evergreen") to partner with it in development efforts. This selection followed a competitive proposal process that included advertisements in the newspapers and direct mailings to over 25 interested parties. The District received 8 proposals and evaluated them to find a partner with the appropriate expertise in commercial and residential development to assist it in maximizing the value of the Property, including obtaining entitlements. Six qualified firms presented their proposals to a committee, which ultimately recommended approval of an agreement with Evergreen to the District's Governing Board.

The District and Evergreen created a public-private partnership to develop the Project through an agreement that provides for Evergreen Sierra Commercial, LLC to entitle, develop and improve portions of the Property for commercial development and Evergreen Sierra Residential, LLC to entitle, acquire and improve portions of the Property for residential development. The Residential LLC has engaged Cresleigh Homes and USA Properties to develop the market rate and senior affordable residential portions of the Property, respectfully. Under these agreements, the District is responsible for contributing the land and, in return, will receive revenue for the benefit of the District and its students.

B. The Mission of the College and Commitment to the Public Interest

The primary mission of any California community college is to "offer academic and vocational instruction to at the lower division level for both younger and older students." (Educ. Code, § 66010.4(a)(1).) "The mission of the public segments of higher education [including community colleges] shall also include a broad responsibility to the public interest, and independent segments of higher education are encouraged to assume a broad responsibility to the public interest. As part of this responsibility, the public and independent segments are encouraged to support programs of public services and involve faculty and students in these programs." (Educ.

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[2] DEIR, p. 13.
[3] *Facilities Master Plan: Sierra College Rocklin Campus* (Jun. 2014), available at: https://www.sierracollege.edu/files/resources/governance-planning/accreditation/2016/midterm-evidence/5F-Facilities-Master-Plan-2014.pdf, p. 25.
[4] (DEIR, p. ES-2.)

Code, § 66010.5.) Courts have interpreted this responsibility so broadly in the facilities context and have concluded that infrastructure development, including payment for mitigating environmental impacts on property *not owned* by the public entity, serves the public interest. (*City of Marina v. Board of Trustees of California State Univ.* (2006) 39 Cal.4th 341, 371, emphasis added.)

Applying these principles to the District's planning over the last several decades, and its actions specific to the Project, the District has approached asset management in a way that serves its primary mission to provide instruction to students and the public interest. For example, the District has promised its community, through bond measures and in its fiscal practices, that it will maximize available resources and implement a sound fiscal strategy to ensure that the public's funds are spent responsibly, efficiently and with the District's core mission of educating students in mind. These promises have been actualized in the management of Measure E, by obtaining State Funding, and through identifying opportunities to capitalize on real property assets that will not be needed in the foreseeable future for educational purposes. As a result of the District's proactive planning efforts in issuing local bonds to match the State contribution and completing designs, the District obtained State funding for a new gym, science building and applied technology facility. These projects accounted for 3 of the 17 State funded projects for community colleges State-wide over the last two years.

The College estimates $500 million will be available to support new construction over the next 10 years through the combination of the Measure E Bond Program, State Funding, *and sale of the Project sites*. The success of the District's facilities program is due in large part to the District's excellent fiscal management, including the District's AAA credit rating and ability to reduce interest cost from 3.8% to 1.96%, saving taxpayers an estimated $41 million over the life of Measure E. During this time, the District has also been committed in outreach to local firms to generate interest and opportunities for local businesses to participate in the construction of District facilities, so that tax payer dollars are reinvested into the local economy. Over the last two years, almost 70% of District's facilities spending has been within Placer County and adjoining counties. These are all examples of how the District has fulfilled its primary mission to educate students with the larger public interest in mind.

It is within this bigger picture that the District's participation in development of the Project fits. As a result of the public-private partnership with Evergreen, it is anticipated that significantly more revenue will be generated by the sale of the Project site because it will be entitled. As a result, the District will generate more revenue to build state of the art facilities – like its new science and applied technology projects – for the benefit of student instruction. Such endeavors are squarely related the District's mission and in the interest of the public as intended by Education Code section 66010, et seq.

C. The District Has the Statutory Authority to Manage, Hold and Convey Property

The District's participation in the Project also fits neatly within its statutory authority outlined in Education Code sections 70902 and 81360. As an overarching rule, the Governing Board is empowered to "initiate and carry on any program, activity, or may otherwise act in any manner

that is not in conflict with or inconsistent with, or preempted by, any law and that is not in conflict with the purposes for which community college districts are established." (Ed. Code, § 70902(a)(1).) Education Code section 70902, subdivision (b), mandates the Governing Board to do certain tasks, including several directly related to real property and facilities, as follows:

> (5) To the extent authorized by law, determine and *control the district's operational and capital outlay budgets*. The district governing board shall determine the need for elections for override tax levies and bond measures and request that those elections be called.
>
> (6) *Manage and control district property*. The governing board may contract for the procurement of goods and services as authorized by law.
> . . . [and]
>
> (13) *Hold and convey property* for the use and benefit of the district. The governing board may acquire by eminent domain any property necessary to carry out the powers or functions of the district.

(Emphasis added.)

The District is additionally authorized by Education Code section 81360 to dispose of surplus real property: "The governing board of a community college district may sell any real property belonging to the district or may lease for a term not exceeding 99 years, any real property, together with any personal property located thereon, belonging to the district which is not or will not be needed by the district for school classroom buildings at the time of delivery of title or possession . . ." Indeed, this authority to dispose of parcels that are no longer needed for educational purposes is so fundamental to the powers of community colleges, it predates the adoption of the School Code in 1929. (*Woodland Hills Homeowners Organization v. Los Angeles Community College Dist.* ("*Woodland Hills*") (1990) 218 Cal.App.3d 79, 90, citing to former School Code, § 6.170, derived from Pol. Code, § 16171/2, Stats. 1917, ch. 785.)

The Governing Board's actions in participating in the Project are consistent with this statutory scheme. The District's Governing Board developed an overarching capital outlay budget for its facilities. As addressed in the preceding section, this budget maximizes fiscally prudent investment principles, State Funding, and local resources (including property disposition through participation in the Project to generate revenue) to provide high quality facilities for student instruction. (Ed. Code, § 70902(b)(5).) The Governing Board is actively managing and controlling District property by participating in the Project to dispose of undeveloped property that is not currently being used, and has no foreseeable future use, for educational purposes. (Ed. Code, §§, 70902(b)(6) & 81360; *Woodland Hills* 218 Cal.App.3d at 85.) Ultimately, through the agreements, the Governing Board will exercise its authority to convey District property. (Ed. Code, § 70902(b)(13).) Notably, the statutes do not limit the manner by which the District may convey the Property. Rather, the District is required to exhaust certain procedural processes set forth in the Education Code before conveying the Property, as addressed in the Background section. In sum, the Governing Board is empowered to "initiate and carry on any program, activity, or may otherwise act in any manner that is not in conflict with or inconsistent with, or

preempted by, any law and that is not in conflict with the purposes for which community college districts are established." (Ed. Code, § 70902(a)(1).)

Conclusion

Thank you for your consideration of the matters addressed in this letter. Please do not hesitate to contact us with any follow up questions.

Sincerely,

LOZANO SMITH

MEGAN E. MACY

MEM/at

cc: William Duncan, Superintendent/President, Sierra Joint Community College District
Sheri Chapman (sheri.chapman@rocklin.ca.us)
Armeen Komeili (Armeen.Komeili@rocklin.ca.us)
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Attachment B

Agreement between Evergreen Sierra, LLC/Cresleigh Homes
and Flying Change Farms

CresleighHomes®

Evergreen Sierra, LLC, and
Cresleigh Homes

July 24, 2018

Via Email

Grace Kamphefner
5145 James Drive
Loomis, California 95650

Re: Letter Agreement Pertaining to Development of the Flying Change Farms Project and Sierra Villages Project

Dear Ms. Kamphefner:

Thank you for the substantial dialogue that has taken place over the past several months regarding your proposed development of the Flying Change Farms Equestrian Facility (Project or Flying Change). We very much appreciate your willingness to consider our input on and incorporation of certain changes into the design of the Project. We believe that both Flying Change and the Sierra Villages project proposed by Evergreen Sierra, LLC, (Evergreen Sierra) and Cresleigh Homes Corporation (Cresleigh) (or collectively Sierra Villages) will benefit by this letter agreement in which adjoining landowners can agree to specific components of their respective projects which enhance the compatibility between the two projects.

To that end, the respective parties agree to the following:

Flying Change Farms – 40± acres - James Drive, Loomis

1. Construct the project consistent with the site plan exhibit attached hereto and made a part hereof, and the Project Description and Mitigation Measures contained in the Initial Study/Mitigated Negative Declaration prepared for the project dated May 2018 and the Conditions of Approval contained in the project Staff Report dated July 24, 2018 (Staff Report).

2. All conditions of approval for the Project will run with the land and bind all successors and assigns of the parties signing this letter agreement.

CRESLEIGH HOMES CORPORATION
3001 Douglas Boulevard, #110, Roseville, CA 95661 Tel: (916) 781-6020 Fax: (916) 781-6080
433 California Street, 7th Floor, San Francisco, CA 94104 Tel: (415) 982-7777 Fax: (415) 982-7781

3. Flying Change will not oppose in any form (including without limitation, monetarily, publicly or privately), or assist any other party to oppose, the entitlement and/or development of the Sierra Villages project consistent with the commitments contained herein, including the attached residential boundary line exhibit attached hereto and made a part hereof (see Exhibit A).

4. Flying Change agrees to allow Evergreen Sierra and/or Cresleigh temporary access to Flying Change property for the purpose of constructing the masonry wall on the Evergreen Sierra and/or Cresleigh property referenced below, in the form of a temporary construction easement acceptable to both property owners, provided that such temporary construction easement does not interfere with normal on-site business operations of Flying Change.

Sierra Villages – 72± acres - Sierra College Blvd. and Rocklin Rd., Rocklin

1. Sierra Villages residential lots located along its east property line and adjoining Flying Change Farms arena facilities shall be a minimum of 100 feet in depth.

2. Rear yard fencing for residential lots along the east property line adjacent to the main outdoor arena and covered arena for a distance of approximately two hundred fifty (250) feet from the northern boundary line of Sierra Villages property extending southward shall be a masonry wall 7 feet in height, subject to approval by the City of Rocklin for the additional entitlement required to construct a wall over 6 feet in height (see Exhibit B).

3. Sales documents for residential lots located along the east property line shall disclose to the home buyer the existence of Flying Change.

4. All conditions of approval for the project shall run with the land and bind all successors and assigns of the parties signing this letter agreement.

5. Sierra Villages will not oppose in any form (including without limitation, monetarily, publicly or privately), or assist any other party to oppose, the Flying Change Farms project proposal as expressly set forth and conditioned in the Staff Report, including the project site plan set forth therein. Nothing herein releases Sierra Villages' rights with respect to conditions, issues or impacts which are not specifically set forth in the Staff Report, or Flying Change Farms' failure to comply with the Staff Report or other laws, rules and regulations. A true and correct copy of the Staff Report is attached hereto.

The undersigned both agree to fulfill their respective commitments listed and described above.

Flying Change Farms

By: _____

Its: Owner

Evergreen Sierra, LLC

By: _____
by: George Phillips

Its: Evergreen Sierra LLC

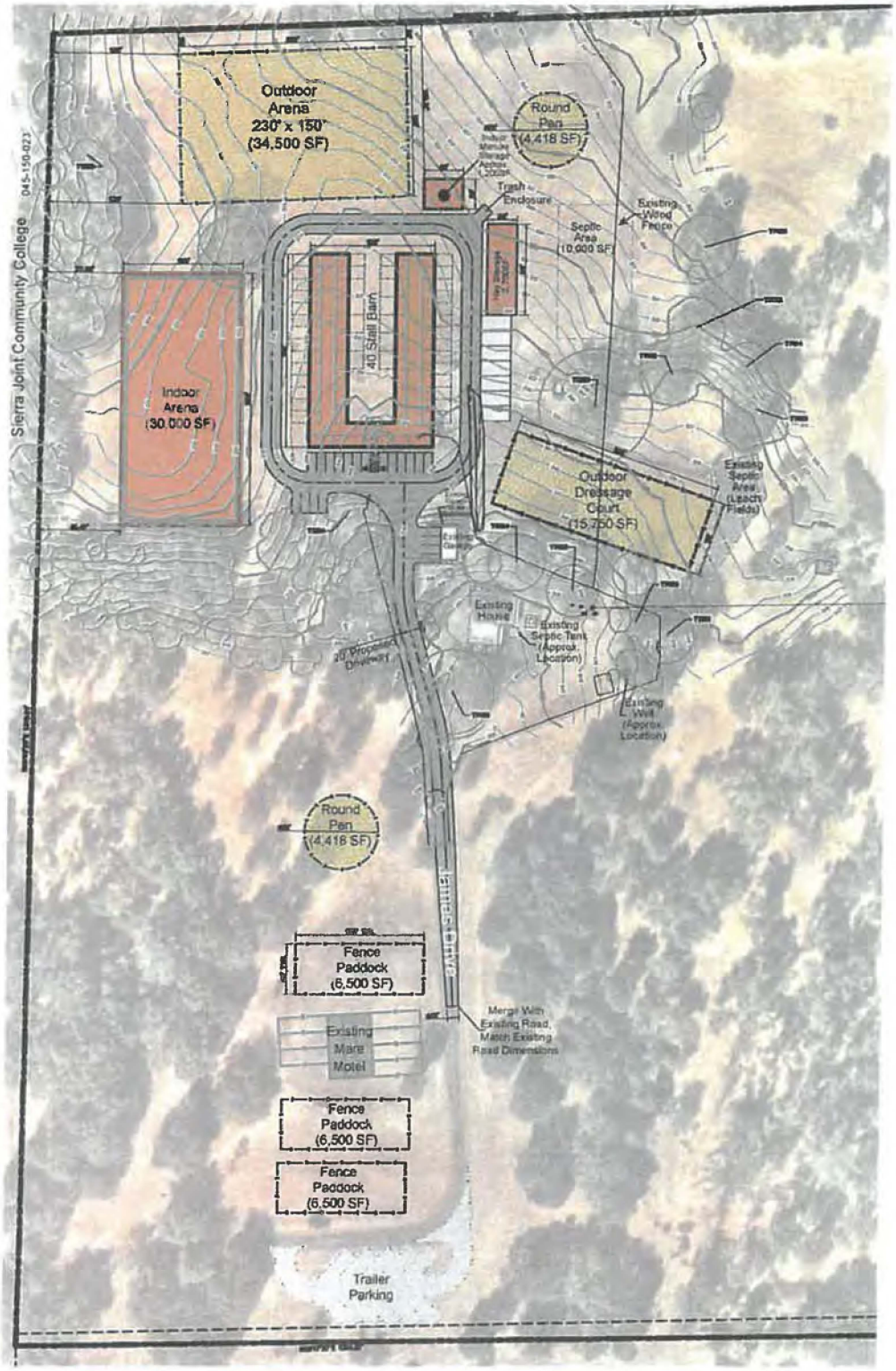
Cresleigh Homes Corporation

By: _____

Its: Senior Vice President

cc: Sean Rabe, Loomis Town Manager
Steve Rudolph, Rocklin City Manager
Marc Mondell, Rocklin Director of Community Development

EXHIBIT A - Flying Change Farms Site Plan



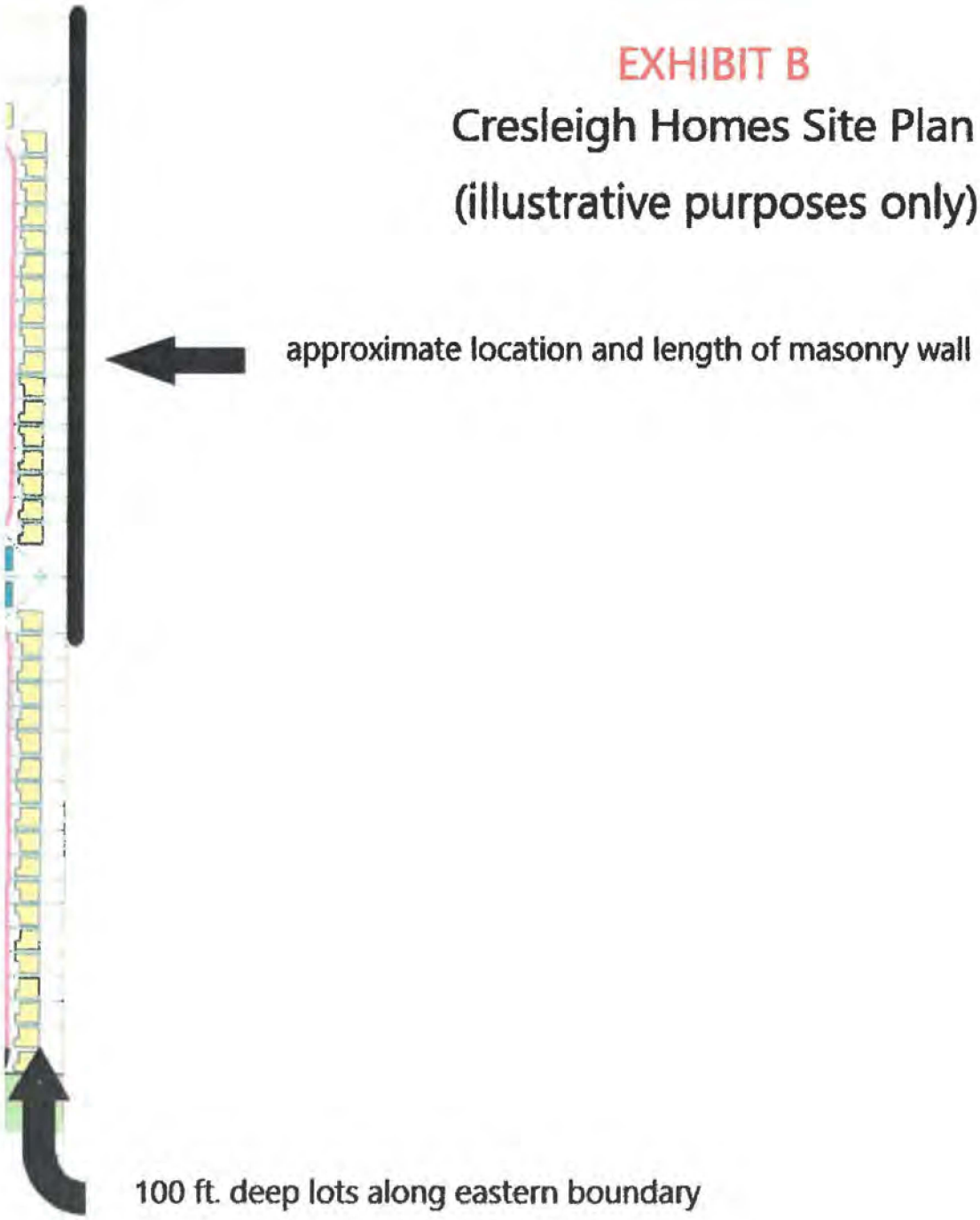
SOURCE: TSD Engineering, Inc., March 14, 2018.

Figure 2-4
Preliminary Site Plan

EXHIBIT B

Cresleigh Homes Site Plan

(illustrative purposes only)



Attachment C

Letter from Raney Planning & Management, Inc.,
on Air Quality/GHG Comments

RANEY PLANNING & MANAGEMENT, INC. 20 years

WWW.RANEYMANAGEMENT.COM

NORTHERN CALIFORNIA
1501 SPORTS DRIVE, SUITE A
SACRAMENTO, CA 95834
TEL: 916.372.6100 · FAX: 916.419.6108

January 10, 2022

James G. Moose
Remy Moose Manley, LLP
555 Capitol Mall, Suite 800
Sacramento, CA 95814

Subject: College Park Project Draft EIR – Technical Support for Responses to Comments

Dear Mr. Phillips:

Raney Planning & Management, Inc. (Raney) has been engaged by the College Park project team to provide technical support and assist the team in its submittal to the City of Rocklin (City) regarding comments received on the College Park Project Draft Environmental Impact Report (Draft EIR). Raney's focus has been on comments that pertain to air quality and greenhouse gas (GHG) analysis. The Draft EIR was released for public review from September 14 to November 8, 2021. Raney has prepared the following memo to provide responses to specific comments that were identified by the project applicant.

Responses to Technical Comments

The following discussion presents a summary of each comment of concern and an associated response, organized per the author of each comment letter. Each response is presented in blue text.

Save East Rocklin (via Law Office of Allan R. Frumkin, Inc.)

Section XII:

1. **Comment Summary:** The construction emissions were underestimated because the construction equipment hours were adjusted in the CalEEMod run (pp. 34-35).
    - **Response:** Construction emissions were not underestimated, based on the reasonable construction schedule provided by the applicant and the topography of the project sites and soil import/export expectations during construction. According to the CalEEMod results, the construction schedule was updated based on the schedule provided by the project applicant, which is a standard practice. The actual hours of equipment use were not adjusted by the consultant, and are auto-populated as part of CalEEMod based on schedule duration. Furthermore, the User-Entered Comments & Non-Default Data section in the model include a note that the site is generally flat, and mass soil import or export is not anticipated, all which are reasonable and responsible assumptions. Thus, the consultant who ran CalEEMod for the Draft EIR reasonably reduced the duration of site preparation and grading activities compared with the default assumptions, which anticipate sites on which grading is more challenging.

2. **Comment Summary:** Because some project details are unknown, the CEQA review is too speculative to withstand legal scrutiny (pg. 35).
    - **Response:** The project description includes land use summaries for each village, information regarding the proposed General Plan and zoning designations, the

actual development proposed by the project applicant, and allowable maximum buildouts for each village under the proposed land use designations and zoning, as well as graphics showing lotting patterns consistent with the tentative subdivision maps submitted by the applicant. The applicant is also seeking approvals for design review, improvement plans, grading plans, and drainage plans. This level of detail is sufficient for accurate air quality modeling, which is generally based on the proposed land uses and the surface area/acreage of the project site. CEQA analyses are often required to address projects that propose changes only to General Plan and zoning designations, and do not seek approvals of tentative subdivision maps, design review, or other very precise discretionary actions. Air quality analyses are still required for such projects, as landowners and other applicants have the right to request changes in General Plan and zoning designations without simultaneously applying for tentative subdivision maps, use permits, and other more site-specific approvals. Under such circumstances, air quality modelers must make reasonable assumptions about the likely densities and intensities of use that will ultimately be developed. Here, the CalEEMod user input the following information into the model: 342 single-family residential units; 848 multi-family residential units; 120,000 square feet of commercial uses; and 7.8 acres of park. The modeler also used trip generation assumptions provided by transportation consultant Fehr & Peers. (See Appendix B to Draft EIR, User Entered Comments & Non-Default Data.) The unit numbers used by the modeler are a combination of the maximum allowable development under the project's proposed new land use designation and zoning and the project as proposed by the applicant. While the model includes 848 multi-family residential units, the project being proposed by the applicant includes only 558 multi-family residential units. Thus, the modeling is conservative. The modeling, therefore, overstates project air emissions because it includes emissions for housing units that are not proposed and will not be built. The City presumably took this conservative approach out of an abundance of caution, which is a common strategy in CEQA documents, where there is a need ensure that impacts are not understated.

3. **Comment Summary:** The Draft EIR does not provide or discuss the methodologies used to estimate the emissions from the Project's construction and operations (pg. 35).
    - **Response:** This statement is inaccurate, as is readily apparent from a review of the Draft EIR. Refer to pages 3.3-22 to 3.3-23 of the Draft EIR for a detailed description of the methodology used to estimate air emissions. Project emissions were estimated using CalEEMod, consistent with the Placer County Air Pollution Control District's (PCAPCD's) CEQA Air Quality Handbook. Furthermore, project-specific features that were applied in the modeling are explicitly listed on page 3.3-25 of the Draft EIR.

4. **Comment Summary:** The specific project components have been entered in the CalEEMod software in a size and scope which did not reflect project plans total potential build out as allowed by the proposed general plan amendment as outlined in the project description section of the Draft EIR (pg. 35).
    - **Response:** This assertion is erroneous. The analysis within the Draft EIR evaluated the impacts associated with the currently proposed project as described in Section 2.4 of the Draft EIR. The project components/land uses applied in CalEEMod are identical to those identified on page 2.0-9, Project Description, Land Use Summary, of the Draft EIR.

5. **Comment Summary:** The CalEEMod auto-populated default values for a project of the scale and nature of the project was not used and no justification was provided to support the assumptions for the values chosen for the CalEEMod (pg. 35).
    - **Response:** All changes applied in CalEEMod are justified in the "User Entered Comments & Non-Default Data" section of the modeling results. Refer to Appendix B of the Draft EIR and the above response on this subject. As mentioned earlier in Response to Comment 2, the modeler input very specific information regarding the details of the project and anticipated VMT.

6. **Comment Summary:** No values were used in air quality modeling to represent traffic congestion on Interstate 80 nor Sierra College Boulevard as predicted by regional transportation models (pp. 35-36).
    - **Response:** This is not an option in CalEEMod. Furthermore, such traffic congestion is part of the environmental baseline conditions under CEQA. Nonetheless, the Draft EIR includes a discussion related to carbon monoxide hotspots on page 3.3-33, and concludes that a hot spot would not occur as a result of the proposed project. In addition, the proposed project would be sited outside of the CARB's recommended 500-foot buffer from I-80.

7. **Comment Summary:** Regional transportation models were not referenced nor cited as data used to establish value parameters in the CalEEMod (pg. 36).
    - **Response:** The portion of Appendix B of the Draft EIR showing "User Entered Comments & Non-Default Data" indicates that data regarding VMT was provided by Fehr and Peers. As is clear from Appendix I to the Draft EIR (see page 12), Fehr and Peers used the City of Rocklin's travel demand model to generate this VMT information. This model takes regional information into account. As the Draft EIR explains on page 3.13-14,

        > *"[w]hen this model was being developed in 2017, it was anticipated that it would ultimately be used for project-level VMT calculation purposes. Therefore, as part of its validation, it underwent a series of reasonableness checks such as whether it accurately matches the proportion of employed City residents who work outside the City, and whether average home-based trip lengths match data from the California Household Travel Survey. Because VMT is highly sensitive to land use placement, the model also underwent diagnostic tests to compare different VMT estimates per dwelling unit in different parts of the City. It was important that the model's VMT estimates were sensitive to geographic locations (e.g., VMT should be greater for a unit in Whitney Oaks versus central Rocklin). Case studies were used to test this performance attribute. The model passed each of these tests. The model development report is available at City offices."*

8. **Comment Summary:** While CalEEMod recommends default values for various parameters for construction and operational emissions, the Draft EIR's output files reveal that the usage hours for numerous off-road construction equipment were artificially changed and resulted in underrepresenting the realistic hours normally inputted. The Draft EIR provides no explanation for the modifications and therefore it is impossible to verify the inputs used and determine the accuracy of the air model (pg. 36).
    - **Response:** This is incorrect. The usage hours for off-road construction equipment were not changed. Refer to Appendix B of the Draft EIR, which shows all "User Entered Comments & Non-Default Data." No changes to usage hours are shown. See also Response to Comment 2 on this subject.

9. **Comment Summary:** The Draft EIR fails to input all operational emission values associated with proposed land uses, activities, demolishing of buildings within the Project area and infrastructure improvements for the Project (pg. 36).
    - **Response:** The project sites are currently largely vacant and, thus, demolition of multiple buildings within the project area would not be required as part of the proposed project (see Response to Comment 10, below, for more detail regarding demolition associated with the proposed project). With regard to the operational emission values, CalEEMod inherently applies default operational emissions factors for activities associated with each land use. Different emission factors are automatically applied for operational sources of emissions based on different variables, including: land uses; location; and air district rules and regulations. For example, CalEEMod assumes that residential land uses may include fireplaces, and that industrial land uses would not include fireplaces.

10. **Comment Summary:** The Draft EIR does not evaluate emissions associated with the scheduled demolition of Sierra College buildings immediately adjacent to the Project's North Village and South Village areas and associated construction of roadway improvements on Rocklin Road and Sierra College Boulevard (pg. 36).
    - **Response:** The demolition of off-site buildings is not part of the proposed project and, thus, is not required to be evaluated in the CEQA document. However, the project would include demolition of one existing single-family residence on the project site. The commenter is correct in that the Draft EIR does not directly address construction emissions from the demolition of the one single-family residence currently located on the North Village project site, as well as the off-site roadway improvements along Sierra College Boulevard and Rocklin Road. As noted in the Draft EIR, the roadway improvements would entail adding a travel lane to segments of each roadway along the project site.

      In order to ensure that construction emissions from demolition and off-site roadway improvements are accounted for, Raney has modeled construction of both activities using CalEEMod. The results of the modeling are presented in the table below.

Maximum Unmitigated Construction Emissions (lbs/day)

	ROG	NO_X	PM_{10}	$PM_{2.5}$	SO_X	CO
Maximum Construction[1]	70.5	38.9	11.4	3.8	0.1	51.5
Demolition[2]	0.76	7.16	1.48	0.52	0.02	7.89
Off-Site Roadway Improvement[3]	0.18	12.02	5.9	3.06	0.01	7.53
Total	**71.44**	**58.08**	**18.78**	**7.38**	**0.13**	**66.92**
Threshold of Significance	*≤ 82*	*≤ 82*	*≤ 82*	*N/A*	*N/A*	*N/A*
Exceeds Threshold?	**NO**	**NO**	**NO**	**N/A**	**N/A**	**N/A**

Sources:
1. ***College Park Draft EIR.***
2. ***CalEEMod. January 2022. (Attachment 1).***
3. ***CalEEMod. January 2022. (Attachment 2).***

The demolition square footage was estimated using aerial imagery, and the phase timing was left as default. Based on industry standards, the new lanes from the off-site roadway improvements were assumed to be 12 feet wide.

As presented above, even with the addition of emissions from demolition and off-site roadway improvements, construction emissions would not exceed the applicable threshold of significance for each criteria pollutant, and the conclusion presented in the Draft EIR remains accurate.

11. **Comment Summary:** The Project's CalEEMod output files reveal that none of these land uses were incorporated and, instead, an input value of "zero square feet of 'User Defined Industrial'" was included in the model without any justification (pg. 36).
    - **Response:** This is incorrect. Refer to Table 1.1, Land Usage, on page 1 of Appendix B of the Draft EIR. In addition, refer to Response to Comment 2.

12. **Comment Summary:** The Draft EIR fails to identify sensitive receptors which will be impacted by the proposed Project (pg. 37).
    - **Response:** Refer to page 3.3-10 of the Draft EIR, which states that, "The closest sensitive receptors to the Plan Area include existing residences located south, west, and east of the Project sites."

13. **Comment Summary:** The density of development in the Project site is very high, which will bring additional sensitive receptors in addition to the above identified existing sensitive receptors. Various potential emissions associated with the proposed Project would be considered to pose a potential risk to these receptors should they occur in high enough concentrations (pg. 37).
    - **Response:** The analysis presented in the Draft EIR addresses the impacts of the proposed project as a whole on the existing environment. As the California Supreme Court determined in prominent decision issued in 2015, the impact of one component of the project on the future inhabitants of another component of the project is not a CEQA issue. (See *California Building Industry Assn. v. Bay Area Air Quality Management Dist.* (2015) 62 Cal.4th 369.) Additionally, the proposed project would not include the implementation of any major stationary sources that warrant a thorough operational health risk assessment. The primary emissions associated with the project will be from motor vehicles, for which engines have been getting progressively cleaner over the last few decades.

14. **Comment Summary:** Concerns related to the number of allowed restaurants and associated cooking exhausts. Claims that restaurants are a significant stationary source of emissions. Nuisance odors and smoke from restaurants are not addressed in Draft EIR. Concerns related to restaurants burning wood, and such wood resulting in particulate matter (PM) emissions (pp. 36-38).
    - **Response:** While it is true that restaurants are an allowed use in the Commercial areas of the project, and restaurants are not assumed to occur in the "General Office Building" land use that was applied in CalEEMod, we do not agree that restaurants are considered a significant stationary source of emissions.

      Commercial kitchens are required to utilize fume hoods and filtration systems and adequately remove odors and smoke. Commercial kitchen facilities with charbroiling systems typically have an exhaust hood that captures emissions from the cooking surface, as well as scrubbers for washing the cooking vapors and

trapping particles. Commercial kitchen hood exhausts generally consist of particulate filtration for smoke and mist, gas filtration for gases/odors, and a blower to move the air into the hood, through the air cleaning equipment, and then outdoors. Any future restaurant uses would include a low proximity compensating hood system that is intended to insulate heat, prevent condensation, capture and contain cooking vapors, and introduce make-up air into the indoor kitchen space. The hood directs grease laden vapors toward the exhaust filters. Grease filters and a grease trough come standard with the hood. Accordingly, the hood system would ensure that any odors or pollutants associated with smoke and exhaust from the cooking surface would be captured and filtered, allowing only filtered air to be released into the atmosphere. Compliance with such requirements is ensured by Chapter 5, Exhaust systems, of the California Mechanical Code.

Furthermore, PCAPCD's Rule 205, Nuisance would allow neighbors who believe that bistro-related odors or emissions are occurring at unreasonable levels to seek intervention by the PCAPCD. Rule 205 is complaint-based, where the PCAPCD is required to investigate a complaint, as well as determine and ensure a solution for the source of the complaint, which could include operational modifications. Thus, although not anticipated, if odor or air quality complaints are made upon development of the proposed project, the PCAPCD would be required (per the PCAPCD Rule 205) to ensure that such complaints are addressed.

15. **Comment Summary:** Draft EIR does not adequately address toxic air contaminant (TAC) emissions from the proposed project (pg. 38).
    - **Response:** Construction-related TACs are discussed on page 3.3-35 of the Draft EIR, which notes that construction associated with the proposed project would generate emissions of diesel particulate matter (DPM). As a result, the Draft EIR includes Mitigation Measure 3.3-3 to ensure that such emissions do not result in significant adverse health impacts. Under the State's air toxics program, local air districts regulate air toxic emissions by adopting ARB air toxic control measures, or more stringent district-specific requirements, and by requiring individual facilities to perform a health risk assessment if emissions at the source exceed district-specific health risk thresholds (https://www.arb.ca.gov/ch/handbook.pdf). Based on the Draft EIR and the supplemental analysis presented in Response to Comment 10, none of the construction thresholds of significance would be exceeded.

      Nonetheless, given the project site's proximity to existing sensitive receptors, a construction health risk assessment has been prepared to further support the conclusion that TAC emissions associated with construction would not be considered significant.

      The PCAPCD maintains thresholds of significance for the review of local community risk and hazard impacts. The thresholds are designed to assess the impact of new sources of TACs on existing sensitive receptors. Based on the PCAPCD thresholds, the proposed project would result in a significant impact related to TACs if, due to the exposure of sensitive receptors to TACs related to construction activities, nearby sensitive receptors would experience an increased

cancer risk of greater than or equal to 10 in one million people, or experience a chronic or acute hazard index of greater than or equal to 1.0.[1]

DPM is considered a subset of $PM_{2.5}$. Therefore, to analyze potential health risks to nearby residents that could result from construction activities associated with the proposed project, the estimated $PM_{2.5}$ emissions from exhaust during construction was conservatively assumed to represent all DPM emitted on-site. The maximum value of $PM_{2.5}$ was calculated based on the CalEEMod results included as Appendix B to the Draft EIR, as well as the additional construction modeling conducted as part of this analysis to account for emissions associated with demolition and off-site roadway improvements. The estimated $PM_{2.5}$ exhaust emissions were then used to calculate the concentration of DPM at the maximally exposed sensitive receptor near the project site. DPM concentrations resulting from project implementation were estimated using the American Meteorological Society/Environmental Protection Agency (AMS/EPA) Regulatory Model (AERMOD). The associated cancer risk and non-cancer hazard index were calculated using the CARB's Hotspot Analysis Reporting Program Version 2 (HARP 2) Risk Assessment Standalone Tool (RAST), which calculates the cancer and non-cancer health impacts using the risk assessment guidelines of the 2015 Office of Environmental Health Hazard Assessment (OEHHA) Guidance Manual for Preparation of Health Risk Assessments.[2] The modeling was performed in accordance with the USEPA's User's Guide for the AERMOD[3] and the 2015 OEHHA Guidance Manual.

Based on the foregoing methodology, the results of the HRA are presented below:

Maximum Unmitigated Cancer Risk and Hazard Index from Construction DPM

	Cancer Risk (per million persons)	Acute Hazard Index	Chronic Hazard Index
At Maximally Exposed Receptor	4.78	0.00	0.004
Thresholds of Significance	*10.00*	*1.00*	*1.00*
Exceeds Threshold?	**NO**	**NO**	**NO**

Sources: AERMOD and HARP 2 RAST, January 2022. (Attachment 3).

As presented in the table above, the cancer risk, acute hazard index, and chronic hazard index associated with construction of the proposed project, including demolition of the on-site residence and the off-site roadway improvements, would be below all applicable thresholds of significance. Therefore, the proposed project

1 Placer County Air Pollution Control District. *CEQA Air Quality Handbook*, *Appendix G. Preparing a Health Risk Assessment for Land Use Projects*. November 21, 2017.

2 Office of Environmental Health Hazard Assessment. *Air Toxics Hot Spots Program Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments* [pg. 8-18]. February 2015.

3 U.S. Environmental Protection Agency. *User's Guide for the AMS/EPA Regulatory Model (AERMOD)*. December 2016.

would not have the potential to expose sensitive receptors to substantial pollutant concentrations, and the conclusion presented in the Draft EIR remains accurate.

16. **Comment Summary:** Concerns related to the production of a pollution hot spot associated with a planned bypass route between Highway 50 and I-80 (pp. 38-39).
    - **Response:** This concern relates to impacts of the existing environment on the project, which is not a CEQA issue.

17. **Comment Summary:** Concerns related to demolition emissions associated with future demolition of the proposed project upon building decommissioning (pg. 39).
    - **Response:** The proposed project does not include demolition of the proposed buildings. The project proposes to build permanent structures such as homes that will remain in place for the indefinite future. It would be pure speculation to try to predict exactly when, many decades from now, particular structures could be demolished.

Section XIII:

18. **Comment Summary:** The Draft EIR fails to include a health risk assessment (HRA) to disclose the increased cancer risk that will be caused by exposure to TACs, such as DPM, from project construction and operation, as well as proximity to major transportation corridors in the project area (pp. 39-40).
    - **Response:** The proposed project does not include any land uses that would result in substantial TAC emissions during operations. In addition, the project site being located in proximity to major transportation corridors relates to impacts of the environment on the project and, thus, is not a CEQA issue. Therefore, an HRA for project operations is not required. However, as discussed previously, a construction HRA has been prepared as part of this analysis out of an abundance of caution. Refer to Response to Comment 15.

19. **Comment Summary:** The Draft EIR's omission of a quantified HRA is inconsistent with recent guidance published by the Office of Environmental Health Hazard Assessment (OEHHA), which recommends that all short-term projects lasting at least two months be evaluated for cancer risks to nearby sensitive receptors (pg. 41).
    - **Response:** It is unclear which guidance document the commenter is referring to. The 2015 *Air Toxics Hot Spots Project Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments* prepared by OEHHA includes the following language:

> *"Due to the uncertainty in assessing cancer risk from very short-term exposures, we do not recommend assessing cancer risk for projects lasting less than two months at the MEIR. We recommend that exposure from projects longer than 2 months but less than 6 months be assumed to last 6 months (e.g., a 2-month project would be evaluated as if it lasted 6 months)."*

The excerpt above provides guidance for HRAs in which the exposure period ranges from two to six months, and does not dictate that short-term projects lasting at least two months need to be evaluated for cancer risk to sensitive receptors. Furthermore, based on the modeling conducted for the proposed project, the construction period would occur over approximately 18 months and, thus, would exceed the two- to six-month range referenced above. Therefore, the quoted OEHHA guidance is not applicable to the proposed project. As described in further

detail in Response to Comment 15, because construction-related emissions would not exceed any criteria pollutant thresholds of significance, preparation of an HRA is not required; however, out of an abundance of caution, one has been prepared. Refer to Response to Comment 15.

Section XVIII:

20. **Comment Summary:** The Draft EIR improperly applies PCAPCD's GHG threshold to determine that GHG impacts are less than significant. An agency must consider "whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project." (CEQA Guidelines Section 15064.4(b)(2)) Particularly for GHG emissions analysis, while the lead agency has discretion to choose a modeling system and methodology, the selection of the methodology and its application must be supported by substantial evidence. (CEQA Guidelines Section 15064.4(c)) In adopting the PCAPCD CEQA Guidelines, staff anticipated the applicable projects to be large industrial projects or modifications to existing industrial projects that do not require conditional use permits from a land-use agencies within the County. Also, according to the Federal Register, the 10,000 tpy GHG threshold was a figure adopted to determine applicability of a facility to the GHG reporting regulation. The adopted 10,000 tpy threshold is therefore not determinative of the significance of the impacts of a source's GHG emissions. Rather the threshold was intended to determine whether a stationary source would be subject (or applicable) to the GHG reporting requirements (pp. 52-54).
    - **Response:** The 10,000 $MTCO_2e$/yr threshold of significance applies to the project, but is not the only applicable threshold, as the Draft EIR makes clear. The 10,000 $MTCO_2e$/yr threshold has been adopted by the PCAPCD, which is the air district that has jurisdiction over the project site and, therefore, is the applicable threshold of significance for CEQA review. The substantial evidence that is used to support such thresholds of significance can be found in the PCACPD's California Environmental Quality Act Thresholds of Significance Justification Report (available at: https://www.placer.ca.gov/DocumentCenter/View/2061/Threshold-Justification-Report-PDF) This threshold does, as the commenter states, apply to industrial projects containing stationary sources of GHG emissions. Pursuant to the PCAPCD's CEQA Handbook, however, the adopted 10,000 $MTCO_2e$/yr threshold also applies to all other land use projects, including commercial and residential development. But the 10,000 $MTCO_2e$/yr threshold is not the only applicable threshold for these other land use projects. Operational emissions for land use projects are also subject to a de minimis threshold and, if it is exceeded, efficiency thresholds, depending on the land use type. The following excerpt from page 24 of the PCAPCD CEQA Handbook explains the intended use of the District's GHG thresholds:

> *"The District's Bright-line GHG Threshold of 10,000 MT CO_2e/yr is applied to land use projects' construction phase and stationary source projects' construction and operational phases. In general, GHG emissions from a project (either the construction or operational phase) that exceed 10,000 MT CO_2e/yr would be deemed to have a cumulatively considerable contribution to global climate change.*
>
> *The Efficiency Matrix and De Minimis Level are only applied to a land use project's operational phase. For a land use project, it can be considered as less than cumulatively considerable and be excluded from future GHG impact analysis if its operational phase GHG emissions are equal to or less than 1,100 MT CO_2e/yr. A land use project with GHG operational emissions between 1,100 MT and 10,000 MT CO_2e/yr can still be found less than cumulatively considerable when the results*

of the project's related efficiency analysis meets one of conditions in the efficiency matrix for that applicable land use setting and land use type."

The City of Rocklin, as the CEQA lead agency and with guidance from the PCAPCD, has elected to use the PCAPCD's adopted threshold of significance for this analysis for the Draft EIR, which is appropriate pursuant to guidance in CEQA Guidelines Sections 15064(b)(2) and 15064.7(a). The Draft EIR (on page 3.7-27) correctly described the multi-step process recommended by PCAPCD as follows:

"The PCAPCD has established a layered approach to determining whether a project would be considered to have a cumulatively considerable contribution to climate change.[1] Specifically, the PCAPCD has determined the following thresholds:

- *A bright-line threshold of 10,000 MT CO_2e per year for the construction and operational phases of land use development projects as well as the stationary source projects;*
- *A 'De Minimis' GHG threshold of 1,100 MT CO_2e per year for the operational phase of a project.*
- *An efficiency matrix for residential and non-residential projects (for the operational phase of land use development projects when emissions exceed the De Minimis Level, but which are below the bright-line threshold of 10,000 MT CO_2e. The efficiency levels for residential projects are: 4.5 MT CO_2e per capita for urban projects, and 5.5 MT CO_2e per capita for rural projects. The efficiency levels for non-residential projects are: 26.5 MT CO_2e per capita for urban projects, and 27.3 MT CO_2e per capita for rural projects."*

The Draft EIR then described, on pages 3.7-31 and 3.7-32, how it applied these thresholds:

"With the implementation of mitigation (i.e. Mitigation 3.7-1), Project-related GHG emissions would be reduced to below 10,000 MT CO_2e/year. As a result, the PCAPCD advises that the proposed Project's GHG emissions should be compared to the PCAPCD's efficiency matrix for impact significance determination. The efficiency level for residential projects is 4.5 MT CO_2e per capita for urban projects. The proposed Project is anticipated to support a population of 2,520 new residents (see Section 3.12: Population and Housing, for further detail). Since mitigated operational GHG emissions (after implementation of Mitigation Measure 3.7-1) would reduce GHG emissions to below 10,000 MT CO_2e/year, 10,000 MT CO_2e/year divided by the new population of 2,520 residents would result in an efficiency ratio of 3.97, which would meet the 4.5 MT CO_2e per capita condition for urban residential projects.

Therefore, with implementation of Mitigation Measure 3.7-1, the Project's GHG emissions would be reduced below the PCAPCD's threshold for GHG emissions. Therefore, with implementation of Mitigation Measure 3.7-1, Project GHG impacts would have a less than significant impact."

21. **Comment Summary:** The Draft EIR must analyze the significance of impacts specific to the proposed project's land use as a high-density residential and commercial urban development (pg. 53).
    - **Response:** Consistent with the commenter's suggestion, the Draft EIR analyzes GHG impacts in comparison to the PCAPCD's efficiency matrix using the value

recommended for residential development in urban areas (4.5 $MTCO_2e$ per capita) (refer to pages 3.7-27 and 3.7-31 through 3.7-32 of the Draft EIR). The efficiency threshold for non-residential projects in urban areas is substantially larger and, thus, the analysis presented in the Draft EIR is conservative.

Montclair Circle Property Owners (via Sierra Geotech DBE, Inc.)

Section 3.3 (pp. 16-20): Refer to Responses to Comments 1 through 19, above.

Section 3.7 (pp. 25-26): Refer to Responses to Comments 20 and 21, above.

Town of Loomis

Chapter 3 Item 2:

22. **Comment Summary:** In reference to Impact 3.3-1, the Draft EIR should reference Chapter 5 to determine which alternative could be selected to reduce the impact rather than listing the standard PCAPCD mitigation measures and stating the impact is significant and unavoidable (pg. 4).
    - **Response:** Mitigation Measure 3.3-1 and 3.3-2, which are required to address Impact 3.3-1, are not PCAPCD's standard measures. Rather, Mitigation Measure 3.3-1 requires implementation of project features that would reduce operational emissions of ROG, and Mitigation Measure 3.3-2 requires implementation of an off-site program to regionally reduce ROG emissions. As noted on page 3.3-27 of the Draft EIR, implementation of the mitigation measures could reduce ROG emissions to a less-than-significant level, but the success of each measure cannot be ensured at this time and, thus, the impact remains significant and unavoidable. CEQA documents may conclude that impacts are significant and unavoidable, and the lead agency can still approve the project and adopt a Statement of Overriding Considerations to override any significant and unavoidable impacts. Although, as shown in Table 5.0-9 and on page 5.0-51, the Reduced Footprint Alternative would have lower air pollutant emissions than the proposed project, the impact is considered significant and unavoidable with respect to the proposed project. CEQA specifically requires that an EIR identify "[a]ny significant effect on the environment that cannot be avoided if *the project* is implemented." (Public Resources Code section 21000(b)(2)(A).) This statutory language focuses on the impacts of a proposed project, not those of the alternatives addressed in an EIR. This probably why the City called the air quality effects of the project significant and unavoidable. This statement should not be understood to apply to, or even address, the effects associated with project alternatives.

Chapter 3 Item 5:

23. **Comment Summary:** Mitigation Measure 3.7-1 does not document specifics to ensure that GHG emissions will be reduced (pg. 4).
    - **Response:** Mitigation Measure 3.7-1 includes a menu of options that can be applied in order to reduce GHG emissions to a less-than-significant level. The project applicant has the flexibility to select options that are most applicable to the proposed project, and combine such options in a way that achieves the required GHG reduction. For example, the project applicant may elect to install 85 Electric Vehicle charging stations, which would result in an annual GHG reduction of 613.89 $MTCO_2e$/yr, and to achieve the remaining GHG reduction requirement through the purchase of carbon offsets. This flexibility is beneficial as it allows for changes as technology changes and improves and does not commit a developer

to any one outdated and less effective measure. The technologies and approaches by which reductions in GHG emissions can be achieved are constantly evolving.

24. **Comment Summary:** The analysis of Impact 3.7-1 incorrectly applies the mitigated total emissions (10,000 $MTCO_2e$/yr) to the efficiency matrix. When the unmitigated total is applied (11,764 $MTCO_2e$/yr), the project would exceed the efficiency matrix standard (pg. 4).
    - **Response:** The commenter is correct in that the unmitigated GHG emissions would result in an exceedance of the applicable efficiency threshold. However, with the required implementation of Mitigation Measure 3.7-1, which would ensure that GHG emissions are reduced to 10,000 $MTCO_2e$/yr or less, the proposed project would meet the 4.5 $MTCO_2e$/capita/yr efficiency standard and the associated impact would be reduced to a less-than-significant level, as stated on page 3.7-32 of the Draft EIR.

25. **Comment Summary:** Carbon credits shall not be relied upon to ensure mitigation of GHG impacts (pg. 4).
    - **Response:** As noted on page 3.7-32 of the Draft EIR, State CEQA Guidelines Section 15126.4(C)(3) states that measures to mitigate the significant effects of GHG emissions may include "off-site measures, including offsets that are not otherwise required." Therefore, the purchase of carbon credits may be relied upon to ensure mitigation. Indeed, offsets is a common element of GHG mitigation being used throughout California.

If you have any questions regarding the contents of this document, please do not hesitate to contact me at (916) 372-6100, or via email at rods@raneymanagement.com.

Best Regards,

Rod Stinson

Vice President

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RANEY PLANNING & MANAGEMENT, INC. 20 years

Attachments:

1. CalEEMod Results: Construction Emissions from Demolition
2. CalEEMod Results: Construction Emissions from Off-Site Roadway Improvements
3. AERMOD and HARP Results: Construction Health Risk Assessment

Attachment 1.

CalEEMod Results: Construction Emissions from Demolition

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College Park - Demolition

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1.00	Space	0.01	1.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	74
Climate Zone	2			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - The purpose of this model is to determine emissions from demolition of an existing sturcture, emissions from a proposed land use were not considered for this analysis.

Construction Phase -

Demolition -

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	400.00	1.00

2.0 Emissions Summary

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2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	3.7700e-003	0.0357	0.0393	8.0000e-005	5.6300e-003	1.7200e-003	7.3500e-003	9.4000e-004	1.6500e-003	2.5900e-003	0.0000	6.8902	6.8902	9.7000e-004	2.2000e-004	6.9813
Maximum	**3.7700e-003**	**0.0357**	**0.0393**	**8.0000e-005**	**5.6300e-003**	**1.7200e-003**	**7.3500e-003**	**9.4000e-004**	**1.6500e-003**	**2.5900e-003**	**0.0000**	**6.8902**	**6.8902**	**9.7000e-004**	**2.2000e-004**	**6.9813**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	3.7700e-003	0.0357	0.0393	8.0000e-005	5.6300e-003	1.7200e-003	7.3500e-003	9.4000e-004	1.6500e-003	2.5900e-003	0.0000	6.8902	6.8902	9.7000e-004	2.2000e-004	6.9812
Maximum	**3.7700e-003**	**0.0357**	**0.0393**	**8.0000e-005**	**5.6300e-003**	**1.7200e-003**	**7.3500e-003**	**9.4000e-004**	**1.6500e-003**	**2.5900e-003**	**0.0000**	**6.8902**	**6.8902**	**9.7000e-004**	**2.2000e-004**	**6.9812**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	5-2-2022	8-1-2022	0.0337	0.0337
		Highest	0.0337	0.0337

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	3.0000e-005
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.0000**	**5.0000e-005**

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	3.0000e-005
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.0000**	**5.0000e-005**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	5/2/2022	5/13/2022	5	10	

Acres of Grading (Site Preparation Phase): 0

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Acres of Grading (Grading Phase): 0

Acres of Paving: 0.01

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	45.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.8600e-003	0.0000	4.8600e-003	7.4000e-004	0.0000	7.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5500e-003	0.0321	0.0374	6.0000e-005		1.6900e-003	1.6900e-003		1.6100e-003	1.6100e-003	0.0000	5.2068	5.2068	9.6000e-004	0.0000	5.2308
Total	**3.5500e-003**	**0.0321**	**0.0374**	**6.0000e-005**	**4.8600e-003**	**1.6900e-003**	**6.5500e-003**	**7.4000e-004**	**1.6100e-003**	**2.3500e-003**	**0.0000**	**5.2068**	**5.2068**	**9.6000e-004**	**0.0000**	**5.2308**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.0000e-005	3.5800e-003	7.3000e-004	1.0000e-005	3.8000e-004	3.0000e-005	4.1000e-004	1.0000e-004	3.0000e-005	1.4000e-004	0.0000	1.3651	1.3651	0.0000	2.1000e-004	1.4291
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	1.0000e-004	1.2200e-003	0.0000	3.9000e-004	0.0000	3.9000e-004	1.0000e-004	0.0000	1.1000e-004	0.0000	0.3183	0.3183	1.0000e-005	1.0000e-005	0.3213
Total	**2.3000e-004**	**3.6800e-003**	**1.9500e-003**	**1.0000e-005**	**7.7000e-004**	**3.0000e-005**	**8.0000e-004**	**2.0000e-004**	**3.0000e-005**	**2.5000e-004**	**0.0000**	**1.6834**	**1.6834**	**1.0000e-005**	**2.2000e-004**	**1.7504**

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

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.8600e-003	0.0000	4.8600e-003	7.4000e-004	0.0000	7.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5500e-003	0.0321	0.0374	6.0000e-005		1.6900e-003	1.6900e-003		1.6100e-003	1.6100e-003	0.0000	5.2068	5.2068	9.6000e-004	0.0000	5.2308
Total	**3.5500e-003**	**0.0321**	**0.0374**	**6.0000e-005**	**4.8600e-003**	**1.6900e-003**	**6.5500e-003**	**7.4000e-004**	**1.6100e-003**	**2.3500e-003**	**0.0000**	**5.2068**	**5.2068**	**9.6000e-004**	**0.0000**	**5.2308**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.0000e-005	3.5800e-003	7.3000e-004	1.0000e-005	3.8000e-004	3.0000e-005	4.1000e-004	1.0000e-004	3.0000e-005	1.4000e-004	0.0000	1.3651	1.3651	0.0000	2.1000e-004	1.4291
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	1.0000e-004	1.2200e-003	0.0000	3.9000e-004	0.0000	3.9000e-004	1.0000e-004	0.0000	1.1000e-004	0.0000	0.3183	0.3183	1.0000e-005	1.0000e-005	0.3213
Total	**2.3000e-004**	**3.6800e-003**	**1.9500e-003**	**1.0000e-005**	**7.7000e-004**	**3.0000e-005**	**8.0000e-004**	**2.0000e-004**	**3.0000e-005**	**2.5000e-004**	**0.0000**	**1.6834**	**1.6834**	**1.0000e-005**	**2.2000e-004**	**1.7504**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.463296	0.061073	0.209857	0.155594	0.036099	0.008566	0.013676	0.011873	0.000564	0.000399	0.032288	0.000990	0.005727

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	3.0000e-005
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	3.0000e-005
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	0.35	3.0000e-005	0.0000	0.0000	3.0000e-005
Total		**3.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	0.35	3.0000e-005	0.0000	0.0000	3.0000e-005
Total		**3.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

6.0 Area Detail

6.1 Mitigation Measures Area

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**2.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

College Park - Demolition

Placer-Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1.00	Space	0.01	1.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	74
Climate Zone	2			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - The purpose of this model is to determine emissions from demolition of an existing sturcture, emissions from a proposed land use were not considered for this analysis.

Construction Phase -

Demolition -

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	400.00	1.00

2.0 Emissions Summary

College Park - Demolition - Placer-Sacramento County, Summer

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

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	0.7589	7.1112	7.8878	0.0156	1.1326	0.3446	1.4772	0.1905	0.3293	0.5198	0.0000	1,524.9553	1,524.9553	0.2148	0.0492	1,544.9706
Maximum	**0.7589**	**7.1112**	**7.8878**	**0.0156**	**1.1326**	**0.3446**	**1.4772**	**0.1905**	**0.3293**	**0.5198**	**0.0000**	**1,524.9553**	**1,524.9553**	**0.2148**	**0.0492**	**1,544.9706**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	0.7589	7.1112	7.8878	0.0156	1.1326	0.3446	1.4772	0.1905	0.3293	0.5198	0.0000	1,524.9553	1,524.9553	0.2148	0.0492	1,544.9706
Maximum	**0.7589**	**7.1112**	**7.8878**	**0.0156**	**1.1326**	**0.3446**	**1.4772**	**0.1905**	**0.3293**	**0.5198**	**0.0000**	**1,524.9553**	**1,524.9553**	**0.2148**	**0.0492**	**1,544.9706**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

College Park - Demolition - Placer-Sacramento County, Summer

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

College Park - Demolition - Placer-Sacramento County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	5/2/2022	5/13/2022	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.01

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	45.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

College Park - Demolition - Placer-Sacramento County, Summer

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

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.9716	0.0000	0.9716	0.1471	0.0000	0.1471			0.0000			0.0000
Off-Road	0.7094	6.4138	7.4693	0.0120		0.3375	0.3375		0.3225	0.3225		1,147.9025	1,147.9025	0.2119		1,153.2001
Total	**0.7094**	**6.4138**	**7.4693**	**0.0120**	**0.9716**	**0.3375**	**1.3092**	**0.1471**	**0.3225**	**0.4697**		**1,147.9025**	**1,147.9025**	**0.2119**		**1,153.2001**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0179	0.6801	0.1441	2.8400e-003	0.0788	6.6600e-003	0.0855	0.0216	6.3700e-003	0.0280		300.8511	300.8511	8.3000e-004	0.0473	314.9613
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0316	0.0173	0.2744	7.5000e-004	0.0822	4.2000e-004	0.0826	0.0218	3.8000e-004	0.0222		76.2017	76.2017	2.0300e-003	1.8700e-003	76.8092
Total	**0.0495**	**0.6974**	**0.4184**	**3.5900e-003**	**0.1609**	**7.0800e-003**	**0.1680**	**0.0434**	**6.7500e-003**	**0.0502**		**377.0528**	**377.0528**	**2.8600e-003**	**0.0492**	**391.7706**

College Park - Demolition - Placer-Sacramento County, Summer

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

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.9716	0.0000	0.9716	0.1471	0.0000	0.1471			0.0000			0.0000
Off-Road	0.7094	6.4138	7.4693	0.0120		0.3375	0.3375		0.3225	0.3225	0.0000	1,147.9025	1,147.9025	0.2119		1,153.2001
Total	**0.7094**	**6.4138**	**7.4693**	**0.0120**	**0.9716**	**0.3375**	**1.3092**	**0.1471**	**0.3225**	**0.4697**	**0.0000**	**1,147.9025**	**1,147.9025**	**0.2119**		**1,153.2001**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0179	0.6801	0.1441	2.8400e-003	0.0788	6.6600e-003	0.0855	0.0216	6.3700e-003	0.0280		300.8511	300.8511	8.3000e-004	0.0473	314.9613
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0316	0.0173	0.2744	7.5000e-004	0.0822	4.2000e-004	0.0826	0.0218	3.8000e-004	0.0222		76.2017	76.2017	2.0300e-003	1.8700e-003	76.8092
Total	**0.0495**	**0.6974**	**0.4184**	**3.5900e-003**	**0.1609**	**7.0800e-003**	**0.1680**	**0.0434**	**6.7500e-003**	**0.0502**		**377.0528**	**377.0528**	**2.8600e-003**	**0.0492**	**391.7706**

College Park - Demolition - Placer-Sacramento County, Summer

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.463296	0.061073	0.209857	0.155594	0.036099	0.008566	0.013676	0.011873	0.000564	0.000399	0.032288	0.000990	0.005727

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

College Park - Demolition - Placer-Sacramento County, Summer

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

College Park - Demolition - Placer-Sacramento County, Summer

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

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

College Park - Demolition - Placer-Sacramento County, Summer

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

College Park - Demolition - Placer-Sacramento County, Summer

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

College Park - Demolition - Placer-Sacramento County, Winter

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

College Park - Demolition

Placer-Sacramento County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1.00	Space	0.01	1.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	74
Climate Zone	2			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - The purpose of this model is to determine emissions from demolition of an existing sturcture, emissions from a proposed land use were not considered for this analysis.

Construction Phase -

Demolition -

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	400.00	1.00

2.0 Emissions Summary

College Park - Demolition - Placer-Sacramento County, Winter

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

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	0.7559	7.1638	7.8665	0.0155	1.1326	0.3446	1.4772	0.1905	0.3293	0.5198	0.0000	1,517.6596	1,517.6596	0.2151	0.0495	1,537.7829
Maximum	**0.7559**	**7.1638**	**7.8665**	**0.0155**	**1.1326**	**0.3446**	**1.4772**	**0.1905**	**0.3293**	**0.5198**	**0.0000**	**1,517.6596**	**1,517.6596**	**0.2151**	**0.0495**	**1,537.7829**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	0.7559	7.1638	7.8665	0.0155	1.1326	0.3446	1.4772	0.1905	0.3293	0.5198	0.0000	1,517.6596	1,517.6596	0.2151	0.0495	1,537.7829
Maximum	**0.7559**	**7.1638**	**7.8665**	**0.0155**	**1.1326**	**0.3446**	**1.4772**	**0.1905**	**0.3293**	**0.5198**	**0.0000**	**1,517.6596**	**1,517.6596**	**0.2151**	**0.0495**	**1,537.7829**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

College Park - Demolition - Placer-Sacramento County, Winter

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

College Park - Demolition - Placer-Sacramento County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	5/2/2022	5/13/2022	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.01

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	45.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

College Park - Demolition - Placer-Sacramento County, Winter

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

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.9716	0.0000	0.9716	0.1471	0.0000	0.1471			0.0000			0.0000
Off-Road	0.7094	6.4138	7.4693	0.0120		0.3375	0.3375		0.3225	0.3225		1,147.9025	1,147.9025	0.2119		1,153.2001
Total	**0.7094**	**6.4138**	**7.4693**	**0.0120**	**0.9716**	**0.3375**	**1.3092**	**0.1471**	**0.3225**	**0.4697**		**1,147.9025**	**1,147.9025**	**0.2119**		**1,153.2001**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0171	0.7284	0.1477	2.8400e-003	0.0788	6.6700e-003	0.0855	0.0216	6.3800e-003	0.0280		301.0977	301.0977	8.0000e-004	0.0473	315.2189
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0293	0.0215	0.2494	6.7000e-004	0.0822	4.2000e-004	0.0826	0.0218	3.8000e-004	0.0222		68.6594	68.6594	2.3800e-003	2.1600e-003	69.3639
Total	**0.0465**	**0.7499**	**0.3971**	**3.5100e-003**	**0.1609**	**7.0900e-003**	**0.1680**	**0.0434**	**6.7600e-003**	**0.0502**		**369.7571**	**369.7571**	**3.1800e-003**	**0.0495**	**384.5828**

College Park - Demolition - Placer-Sacramento County, Winter

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

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.9716	0.0000	0.9716	0.1471	0.0000	0.1471			0.0000			0.0000
Off-Road	0.7094	6.4138	7.4693	0.0120		0.3375	0.3375		0.3225	0.3225	0.0000	1,147.9025	1,147.9025	0.2119		1,153.2001
Total	**0.7094**	**6.4138**	**7.4693**	**0.0120**	**0.9716**	**0.3375**	**1.3092**	**0.1471**	**0.3225**	**0.4697**	**0.0000**	**1,147.9025**	**1,147.9025**	**0.2119**		**1,153.2001**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0171	0.7284	0.1477	2.8400e-003	0.0788	6.6700e-003	0.0855	0.0216	6.3800e-003	0.0280		301.0977	301.0977	8.0000e-004	0.0473	315.2189
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0293	0.0215	0.2494	6.7000e-004	0.0822	4.2000e-004	0.0826	0.0218	3.8000e-004	0.0222		68.6594	68.6594	2.3800e-003	2.1600e-003	69.3639
Total	**0.0465**	**0.7499**	**0.3971**	**3.5100e-003**	**0.1609**	**7.0900e-003**	**0.1680**	**0.0434**	**6.7600e-003**	**0.0502**		**369.7571**	**369.7571**	**3.1800e-003**	**0.0495**	**384.5828**

College Park - Demolition - Placer-Sacramento County, Winter

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.463296	0.061073	0.209857	0.155594	0.036099	0.008566	0.013676	0.011873	0.000564	0.000399	0.032288	0.000990	0.005727

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

College Park - Demolition - Placer-Sacramento County, Winter

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

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

College Park - Demolition - Placer-Sacramento County, Winter

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

College Park - Demolition - Placer-Sacramento County, Winter

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

College Park - Demolition

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

Placer-Sacramento County, Mitigation Report

Construction Mitigation Summary

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

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Concrete/Industrial Saws	Diesel	No Change	0	1	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	1	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	2	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Concrete/Industrial Saws	1.79000E-003	1.40100E-002	1.83200E-002	3.00000E-005	7.50000E-004	7.50000E-004	0.00000E+000	2.68828E+000	2.68828E+000	1.50000E-004	0.00000E+000	2.69195E+000
Rubber Tired Dozers	5.20000E-004	5.50000E-003	2.24000E-003	1.00000E-005	2.60000E-004	2.40000E-004	0.00000E+000	4.68920E-001	4.68920E-001	1.50000E-004	0.00000E+000	4.72710E-001
Tractors/Loaders/Backhoes	1.24000E-003	1.25700E-002	1.67800E-002	2.00000E-005	6.80000E-004	6.20000E-004	0.00000E+000	2.04960E+000	2.04960E+000	6.60000E-004	0.00000E+000	2.06617E+000

College Park - Demolition

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

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Concrete/Industrial Saws	1.79000E-003	1.40100E-002	1.83200E-002	3.00000E-005	7.50000E-004	7.50000E-004	0.00000E+000	2.68828E+000	2.68828E+000	1.50000E-004	0.00000E+000	2.69194E+000
Rubber Tired Dozers	5.20000E-004	5.50000E-003	2.24000E-003	1.00000E-005	2.60000E-004	2.40000E-004	0.00000E+000	4.68920E-001	4.68920E-001	1.50000E-004	0.00000E+000	4.72710E-001
Tractors/Loaders/Backhoes	1.24000E-003	1.25700E-002	1.67800E-002	2.00000E-005	6.80000E-004	6.20000E-004	0.00000E+000	2.04959E+000	2.04959E+000	6.60000E-004	0.00000E+000	2.06616E+000

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Percent Reduction											
Concrete/Industrial Saws	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	3.71478E-006
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Tractors/Loaders/Backhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	4.87900E-006	4.87900E-006	0.00000E+000	0.00000E+000	4.83987E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction		PM2.5 Reduction			
No	Replace Ground Cover of Area Disturbed	PM10 Reduction		PM2.5 Reduction			
No	Water Exposed Area	PM10 Reduction		PM2.5 Reduction		Frequency (per day)	

College Park - Demolition

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

No	Unpaved Road Mitigation	Moisture Content %		Vehicle Speed (mph)	0.00		
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Demolition	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Demolition	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

College Park - Demolition

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

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value 3
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.00	0.15		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			
No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			

College Park - Demolition

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

	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			
No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	100.00
No	Use Low VOC Paint (Residential Exterior)	100.00

College Park - Demolition

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

No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	100.00
No	Use Low VOC Paint (Parking)	100.00
No	% Electric Lawnmower	
No	% Electric Leafblower	
No	% Electric Chainsaw	

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24		
No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy		

College Park - Demolition

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

No	Use Reclaimed Water		
No	Use Grey Water		
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction		
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape		

Solid Waste Mitigation

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

Attachment 2.

CalEEMod Results: Construction Emissions from Off-Site Roadway Improvements

College Park - Road Widening - Placer-Sacramento County, Annual

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

College Park - Road Widening

Placer-Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	24.00	1000sqft	0.55	24,000.00	0
Other Asphalt Surfaces	15.60	1000sqft	0.36	15,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	74
Climate Zone	2			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase -

Table Name	Column Name	Default Value	New Value

2.0 Emissions Summary

College Park - Road Widening - Placer-Sacramento County, Annual

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	4.3400e-003	0.0304	0.0269	5.0000e-005	6.0100e-003	1.3900e-003	7.4000e-003	2.7100e-003	1.2900e-003	4.0000e-003	0.0000	4.3682	4.3682	1.2300e-003	1.0000e-005	4.4021
Maximum	**4.3400e-003**	**0.0304**	**0.0269**	**5.0000e-005**	**6.0100e-003**	**1.3900e-003**	**7.4000e-003**	**2.7100e-003**	**1.2900e-003**	**4.0000e-003**	**0.0000**	**4.3682**	**4.3682**	**1.2300e-003**	**1.0000e-005**	**4.4021**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	4.3400e-003	0.0304	0.0269	5.0000e-005	6.0100e-003	1.3900e-003	7.4000e-003	2.7100e-003	1.2900e-003	4.0000e-003	0.0000	4.3682	4.3682	1.2300e-003	1.0000e-005	4.4021
Maximum	**4.3400e-003**	**0.0304**	**0.0269**	**5.0000e-005**	**6.0100e-003**	**1.3900e-003**	**7.4000e-003**	**2.7100e-003**	**1.2900e-003**	**4.0000e-003**	**0.0000**	**4.3682**	**4.3682**	**1.2300e-003**	**1.0000e-005**	**4.4021**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

College Park - Road Widening - Placer-Sacramento County, Annual

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	5-2-2022	8-1-2022	0.0299	0.0299
		Highest	0.0299	0.0299

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.1400e-003	0.0000	3.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.1000e-004	7.1000e-004	0.0000	0.0000	7.5000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.1400e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**7.1000e-004**	**7.1000e-004**	**0.0000**	**0.0000**	**7.5000e-004**

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.1400e-003	0.0000	3.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.1000e-004	7.1000e-004	0.0000	0.0000	7.5000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.1400e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**7.1000e-004**	**7.1000e-004**	**0.0000**	**0.0000**	**7.5000e-004**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/2/2022	5/2/2022	5	1	
2	Grading	Grading	5/3/2022	5/4/2022	5	2	
3	Paving	Paving	5/5/2022	5/11/2022	5	5	

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

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0.91

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Grading	Graders	1	6.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-004	3.4700e-003	1.9800e-003	0.0000		1.3000e-004	1.3000e-004		1.2000e-004	1.2000e-004	0.0000	0.4275	0.4275	1.4000e-004	0.0000	0.4310
Total	**2.9000e-004**	**3.4700e-003**	**1.9800e-003**	**0.0000**	**2.7000e-004**	**1.3000e-004**	**4.0000e-004**	**3.0000e-005**	**1.2000e-004**	**1.5000e-004**	**0.0000**	**0.4275**	**0.4275**	**1.4000e-004**	**0.0000**	**0.4310**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	0.0000	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0159	0.0159	0.0000	0.0000	0.0161
Total	**1.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0159**	**0.0159**	**0.0000**	**0.0000**	**0.0161**

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3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-004	3.4700e-003	1.9800e-003	0.0000		1.3000e-004	1.3000e-004		1.2000e-004	1.2000e-004	0.0000	0.4275	0.4275	1.4000e-004	0.0000	0.4310
Total	**2.9000e-004**	**3.4700e-003**	**1.9800e-003**	**0.0000**	**2.7000e-004**	**1.3000e-004**	**4.0000e-004**	**3.0000e-005**	**1.2000e-004**	**1.5000e-004**	**0.0000**	**0.4275**	**0.4275**	**1.4000e-004**	**0.0000**	**0.4310**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	0.0000	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0159	0.0159	0.0000	0.0000	0.0161
Total	**1.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0159**	**0.0159**	**0.0000**	**0.0000**	**0.0161**

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

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.3100e-003	0.0000	5.3100e-003	2.5700e-003	0.0000	2.5700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0800e-003	0.0120	5.9400e-003	1.0000e-005		5.2000e-004	5.2000e-004		4.8000e-004	4.8000e-004	0.0000	1.2381	1.2381	4.0000e-004	0.0000	1.2482
Total	**1.0800e-003**	**0.0120**	**5.9400e-003**	**1.0000e-005**	**5.3100e-003**	**5.2000e-004**	**5.8300e-003**	**2.5700e-003**	**4.8000e-004**	**3.0500e-003**	**0.0000**	**1.2381**	**1.2381**	**4.0000e-004**	**0.0000**	**1.2482**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	2.0000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0509	0.0509	0.0000	0.0000	0.0514
Total	**2.0000e-005**	**2.0000e-005**	**2.0000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0509**	**0.0509**	**0.0000**	**0.0000**	**0.0514**

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

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.3100e-003	0.0000	5.3100e-003	2.5700e-003	0.0000	2.5700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0800e-003	0.0120	5.9400e-003	1.0000e-005		5.2000e-004	5.2000e-004		4.8000e-004	4.8000e-004	0.0000	1.2381	1.2381	4.0000e-004	0.0000	1.2482
Total	**1.0800e-003**	**0.0120**	**5.9400e-003**	**1.0000e-005**	**5.3100e-003**	**5.2000e-004**	**5.8300e-003**	**2.5700e-003**	**4.8000e-004**	**3.0500e-003**	**0.0000**	**1.2381**	**1.2381**	**4.0000e-004**	**0.0000**	**1.2482**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	2.0000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0509	0.0509	0.0000	0.0000	0.0514
Total	**2.0000e-005**	**2.0000e-005**	**2.0000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0509**	**0.0509**	**0.0000**	**0.0000**	**0.0514**

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

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.6200e-003	0.0148	0.0176	3.0000e-005		7.4000e-004	7.4000e-004		6.9000e-004	6.9000e-004	0.0000	2.3492	2.3492	6.8000e-004	0.0000	2.3663
Paving	1.1900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8100e-003**	**0.0148**	**0.0176**	**3.0000e-005**		**7.4000e-004**	**7.4000e-004**		**6.9000e-004**	**6.9000e-004**	**0.0000**	**2.3492**	**2.3492**	**6.8000e-004**	**0.0000**	**2.3663**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	9.0000e-005	1.1000e-003	0.0000	3.5000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.2865	0.2865	1.0000e-005	1.0000e-005	0.2892
Total	**1.3000e-004**	**9.0000e-005**	**1.1000e-003**	**0.0000**	**3.5000e-004**	**0.0000**	**3.6000e-004**	**9.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.2865**	**0.2865**	**1.0000e-005**	**1.0000e-005**	**0.2892**

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

3.4 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.6200e-003	0.0148	0.0176	3.0000e-005		7.4000e-004	7.4000e-004		6.9000e-004	6.9000e-004	0.0000	2.3492	2.3492	6.8000e-004	0.0000	2.3663
Paving	1.1900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8100e-003**	**0.0148**	**0.0176**	**3.0000e-005**		**7.4000e-004**	**7.4000e-004**		**6.9000e-004**	**6.9000e-004**	**0.0000**	**2.3492**	**2.3492**	**6.8000e-004**	**0.0000**	**2.3663**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	9.0000e-005	1.1000e-003	0.0000	3.5000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.2865	0.2865	1.0000e-005	1.0000e-005	0.2892
Total	**1.3000e-004**	**9.0000e-005**	**1.1000e-003**	**0.0000**	**3.5000e-004**	**0.0000**	**3.6000e-004**	**9.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.2865**	**0.2865**	**1.0000e-005**	**1.0000e-005**	**0.2892**

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

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

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.463296	0.061073	0.209857	0.155594	0.036099	0.008566	0.013676	0.011873	0.000564	0.000399	0.032288	0.000990	0.005727

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

College Park - Road Widening - Placer-Sacramento County, Annual

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

College Park - Road Widening - Placer-Sacramento County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.1400e-003	0.0000	3.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.1000e-004	7.1000e-004	0.0000	0.0000	7.5000e-004
Unmitigated	3.1400e-003	0.0000	3.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.1000e-004	7.1000e-004	0.0000	0.0000	7.5000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	5.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.5600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-005	0.0000	3.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.1000e-004	7.1000e-004	0.0000	0.0000	7.5000e-004
Total	**3.1400e-003**	**0.0000**	**3.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**7.1000e-004**	**7.1000e-004**	**0.0000**	**0.0000**	**7.5000e-004**

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	5.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.5600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-005	0.0000	3.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.1000e-004	7.1000e-004	0.0000	0.0000	7.5000e-004
Total	**3.1400e-003**	**0.0000**	**3.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**7.1000e-004**	**7.1000e-004**	**0.0000**	**0.0000**	**7.5000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

College Park - Road Widening - Placer-Sacramento County, Summer

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

College Park - Road Widening

Placer-Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	24.00	1000sqft	0.55	24,000.00	0
Other Asphalt Surfaces	15.60	1000sqft	0.36	15,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	74
Climate Zone	2			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase -

Table Name	Column Name	Default Value	New Value

2.0 Emissions Summary

College Park - Road Widening - Placer-Sacramento County, Summer

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

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	1.1806	12.0184	7.5286	0.0147	5.3777	0.5176	5.8953	2.5860	0.4762	3.0622	0.0000	1,425.7812	1,425.7812	0.4430	3.3600e-003	1,437.3024
Maximum	**1.1806**	**12.0184**	**7.5286**	**0.0147**	**5.3777**	**0.5176**	**5.8953**	**2.5860**	**0.4762**	**3.0622**	**0.0000**	**1,425.7812**	**1,425.7812**	**0.4430**	**3.3600e-003**	**1,437.3024**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	1.1806	12.0184	7.5286	0.0147	5.3777	0.5176	5.8953	2.5860	0.4762	3.0622	0.0000	1,425.7812	1,425.7812	0.4430	3.3600e-003	1,437.3024
Maximum	**1.1806**	**12.0184**	**7.5286**	**0.0147**	**5.3777**	**0.5176**	**5.8953**	**2.5860**	**0.4762**	**3.0622**	**0.0000**	**1,425.7812**	**1,425.7812**	**0.4430**	**3.3600e-003**	**1,437.3024**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

College Park - Road Widening - Placer-Sacramento County, Summer

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0174	4.0000e-005	4.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.6700e-003	8.6700e-003	2.0000e-005		9.2300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0174**	**4.0000e-005**	**4.0400e-003**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**1.0000e-005**		**8.6700e-003**	**8.6700e-003**	**2.0000e-005**	**0.0000**	**9.2300e-003**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0174	4.0000e-005	4.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.6700e-003	8.6700e-003	2.0000e-005		9.2300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0174**	**4.0000e-005**	**4.0400e-003**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**1.0000e-005**		**8.6700e-003**	**8.6700e-003**	**2.0000e-005**	**0.0000**	**9.2300e-003**

College Park - Road Widening - Placer-Sacramento County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/2/2022	5/2/2022	5	1	
2	Grading	Grading	5/3/2022	5/4/2022	5	2	
3	Paving	Paving	5/5/2022	5/11/2022	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0.91

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Grading	Graders	1	6.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

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

Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.5797	6.9332	3.9597	9.7300e-003		0.2573	0.2573		0.2367	0.2367		942.5179	942.5179	0.3048		950.1386
Total	**0.5797**	**6.9332**	**3.9597**	**9.7300e-003**	**0.5303**	**0.2573**	**0.7876**	**0.0573**	**0.2367**	**0.2940**		**942.5179**	**942.5179**	**0.3048**		**950.1386**

College Park - Road Widening - Placer-Sacramento County, Summer

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

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0158	8.6300e-003	0.1372	3.7000e-004	0.0411	2.1000e-004	0.0413	0.0109	1.9000e-004	0.0111		38.1009	38.1009	1.0100e-003	9.3000e-004	38.4046
Total	**0.0158**	**8.6300e-003**	**0.1372**	**3.7000e-004**	**0.0411**	**2.1000e-004**	**0.0413**	**0.0109**	**1.9000e-004**	**0.0111**		**38.1009**	**38.1009**	**1.0100e-003**	**9.3000e-004**	**38.4046**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.5797	6.9332	3.9597	9.7300e-003		0.2573	0.2573		0.2367	0.2367	0.0000	942.5179	942.5179	0.3048		950.1386
Total	**0.5797**	**6.9332**	**3.9597**	**9.7300e-003**	**0.5303**	**0.2573**	**0.7876**	**0.0573**	**0.2367**	**0.2940**	**0.0000**	**942.5179**	**942.5179**	**0.3048**		**950.1386**

College Park - Road Widening - Placer-Sacramento County, Summer

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

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0158	8.6300e-003	0.1372	3.7000e-004	0.0411	2.1000e-004	0.0413	0.0109	1.9000e-004	0.0111		38.1009	38.1009	1.0100e-003	9.3000e-004	38.4046
Total	**0.0158**	**8.6300e-003**	**0.1372**	**3.7000e-004**	**0.0411**	**2.1000e-004**	**0.0413**	**0.0109**	**1.9000e-004**	**0.0111**		**38.1009**	**38.1009**	**1.0100e-003**	**9.3000e-004**	**38.4046**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.3119	0.0000	5.3119	2.5686	0.0000	2.5686			0.0000			0.0000
Off-Road	1.0832	12.0046	5.9360	0.0141		0.5173	0.5173		0.4759	0.4759		1,364.8198	1,364.8198	0.4414		1,375.8551
Total	**1.0832**	**12.0046**	**5.9360**	**0.0141**	**5.3119**	**0.5173**	**5.8292**	**2.5686**	**0.4759**	**3.0445**		**1,364.8198**	**1,364.8198**	**0.4414**		**1,375.8551**

College Park - Road Widening - Placer-Sacramento County, Summer

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

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0253	0.0138	0.2195	6.0000e-004	0.0657	3.3000e-004	0.0661	0.0174	3.1000e-004	0.0177		60.9614	60.9614	1.6200e-003	1.4900e-003	61.4474
Total	**0.0253**	**0.0138**	**0.2195**	**6.0000e-004**	**0.0657**	**3.3000e-004**	**0.0661**	**0.0174**	**3.1000e-004**	**0.0177**		**60.9614**	**60.9614**	**1.6200e-003**	**1.4900e-003**	**61.4474**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.3119	0.0000	5.3119	2.5686	0.0000	2.5686			0.0000			0.0000
Off-Road	1.0832	12.0046	5.9360	0.0141		0.5173	0.5173		0.4759	0.4759	0.0000	1,364.8198	1,364.8198	0.4414		1,375.8551
Total	**1.0832**	**12.0046**	**5.9360**	**0.0141**	**5.3119**	**0.5173**	**5.8292**	**2.5686**	**0.4759**	**3.0445**	**0.0000**	**1,364.8198**	**1,364.8198**	**0.4414**		**1,375.8551**

College Park - Road Widening - Placer-Sacramento County, Summer

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

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0253	0.0138	0.2195	6.0000e-004	0.0657	3.3000e-004	0.0661	0.0174	3.1000e-004	0.0177		60.9614	60.9614	1.6200e-003	1.4900e-003	61.4474
Total	**0.0253**	**0.0138**	**0.2195**	**6.0000e-004**	**0.0657**	**3.3000e-004**	**0.0661**	**0.0174**	**3.1000e-004**	**0.0177**		**60.9614**	**60.9614**	**1.6200e-003**	**1.4900e-003**	**61.4474**

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6469	5.9174	7.0348	0.0113		0.2961	0.2961		0.2758	0.2758		1,035.8246	1,035.8246	0.3017		1,043.3677
Paving	0.4768					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1238**	**5.9174**	**7.0348**	**0.0113**		**0.2961**	**0.2961**		**0.2758**	**0.2758**		**1,035.8246**	**1,035.8246**	**0.3017**		**1,043.3677**

College Park - Road Widening - Placer-Sacramento County, Summer

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

3.4 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0568	0.0311	0.4938	1.3500e-003	0.1479	7.5000e-004	0.1486	0.0392	6.9000e-004	0.0399		137.1631	137.1631	3.6500e-003	3.3600e-003	138.2566
Total	**0.0568**	**0.0311**	**0.4938**	**1.3500e-003**	**0.1479**	**7.5000e-004**	**0.1486**	**0.0392**	**6.9000e-004**	**0.0399**		**137.1631**	**137.1631**	**3.6500e-003**	**3.3600e-003**	**138.2566**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6469	5.9174	7.0348	0.0113		0.2961	0.2961		0.2758	0.2758	0.0000	1,035.8246	1,035.8246	0.3017		1,043.3677
Paving	0.4768					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1238**	**5.9174**	**7.0348**	**0.0113**		**0.2961**	**0.2961**		**0.2758**	**0.2758**	**0.0000**	**1,035.8246**	**1,035.8246**	**0.3017**		**1,043.3677**

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

3.4 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0568	0.0311	0.4938	1.3500e-003	0.1479	7.5000e-004	0.1486	0.0392	6.9000e-004	0.0399		137.1631	137.1631	3.6500e-003	3.3600e-003	138.2566
Total	**0.0568**	**0.0311**	**0.4938**	**1.3500e-003**	**0.1479**	**7.5000e-004**	**0.1486**	**0.0392**	**6.9000e-004**	**0.0399**		**137.1631**	**137.1631**	**3.6500e-003**	**3.3600e-003**	**138.2566**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

College Park - Road Widening - Placer-Sacramento County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.463296	0.061073	0.209857	0.155594	0.036099	0.008566	0.013676	0.011873	0.000564	0.000399	0.032288	0.000990	0.005727

5.0 Energy Detail

College Park - Road Widening - Placer-Sacramento County, Summer

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

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0174	4.0000e-005	4.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.6700e-003	8.6700e-003	2.0000e-005		9.2300e-003
Unmitigated	0.0174	4.0000e-005	4.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.6700e-003	8.6700e-003	2.0000e-005		9.2300e-003

College Park - Road Widening - Placer-Sacramento County, Summer

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

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.0200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0140					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.7000e-004	4.0000e-005	4.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.6700e-003	8.6700e-003	2.0000e-005		9.2300e-003
Total	**0.0174**	**4.0000e-005**	**4.0400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**8.6700e-003**	**8.6700e-003**	**2.0000e-005**		**9.2300e-003**

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.0200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0140					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.7000e-004	4.0000e-005	4.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.6700e-003	8.6700e-003	2.0000e-005		9.2300e-003
Total	**0.0174**	**4.0000e-005**	**4.0400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**8.6700e-003**	**8.6700e-003**	**2.0000e-005**		**9.2300e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

College Park - Road Widening - Placer-Sacramento County, Winter

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

College Park - Road Widening

Placer-Sacramento County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	24.00	1000sqft	0.55	24,000.00	0
Other Asphalt Surfaces	15.60	1000sqft	0.36	15,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	74
Climate Zone	2			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase -

Table Name	Column Name	Default Value	New Value

2.0 Emissions Summary

College Park - Road Widening - Placer-Sacramento County, Winter

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

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	1.1766	12.0219	7.4837	0.0146	5.3777	0.5176	5.8953	2.5860	0.4762	3.0622	0.0000	1,419.7473	1,419.7473	0.4433	3.9000e-003	1,431.3461
Maximum	**1.1766**	**12.0219**	**7.4837**	**0.0146**	**5.3777**	**0.5176**	**5.8953**	**2.5860**	**0.4762**	**3.0622**	**0.0000**	**1,419.7473**	**1,419.7473**	**0.4433**	**3.9000e-003**	**1,431.3461**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	1.1766	12.0219	7.4837	0.0146	5.3777	0.5176	5.8953	2.5860	0.4762	3.0622	0.0000	1,419.7473	1,419.7473	0.4433	3.9000e-003	1,431.3461
Maximum	**1.1766**	**12.0219**	**7.4837**	**0.0146**	**5.3777**	**0.5176**	**5.8953**	**2.5860**	**0.4762**	**3.0622**	**0.0000**	**1,419.7473**	**1,419.7473**	**0.4433**	**3.9000e-003**	**1,431.3461**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

College Park - Road Widening - Placer-Sacramento County, Winter

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0174	4.0000e-005	4.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.6700e-003	8.6700e-003	2.0000e-005		9.2300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0174**	**4.0000e-005**	**4.0400e-003**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**1.0000e-005**		**8.6700e-003**	**8.6700e-003**	**2.0000e-005**	**0.0000**	**9.2300e-003**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0174	4.0000e-005	4.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.6700e-003	8.6700e-003	2.0000e-005		9.2300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0174**	**4.0000e-005**	**4.0400e-003**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**1.0000e-005**		**8.6700e-003**	**8.6700e-003**	**2.0000e-005**	**0.0000**	**9.2300e-003**

College Park - Road Widening - Placer-Sacramento County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/2/2022	5/2/2022	5	1	
2	Grading	Grading	5/3/2022	5/4/2022	5	2	
3	Paving	Paving	5/5/2022	5/11/2022	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0.91

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Grading	Graders	1	6.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

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

Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.5797	6.9332	3.9597	9.7300e-003		0.2573	0.2573		0.2367	0.2367		942.5179	942.5179	0.3048		950.1386
Total	**0.5797**	**6.9332**	**3.9597**	**9.7300e-003**	**0.5303**	**0.2573**	**0.7876**	**0.0573**	**0.2367**	**0.2940**		**942.5179**	**942.5179**	**0.3048**		**950.1386**

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

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0147	0.0108	0.1247	3.4000e-004	0.0411	2.1000e-004	0.0413	0.0109	1.9000e-004	0.0111		34.3297	34.3297	1.1900e-003	1.0800e-003	34.6819
Total	**0.0147**	**0.0108**	**0.1247**	**3.4000e-004**	**0.0411**	**2.1000e-004**	**0.0413**	**0.0109**	**1.9000e-004**	**0.0111**		**34.3297**	**34.3297**	**1.1900e-003**	**1.0800e-003**	**34.6819**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.5797	6.9332	3.9597	9.7300e-003		0.2573	0.2573		0.2367	0.2367	0.0000	942.5179	942.5179	0.3048		950.1386
Total	**0.5797**	**6.9332**	**3.9597**	**9.7300e-003**	**0.5303**	**0.2573**	**0.7876**	**0.0573**	**0.2367**	**0.2940**	**0.0000**	**942.5179**	**942.5179**	**0.3048**		**950.1386**

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

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0147	0.0108	0.1247	3.4000e-004	0.0411	2.1000e-004	0.0413	0.0109	1.9000e-004	0.0111		34.3297	34.3297	1.1900e-003	1.0800e-003	34.6819
Total	**0.0147**	**0.0108**	**0.1247**	**3.4000e-004**	**0.0411**	**2.1000e-004**	**0.0413**	**0.0109**	**1.9000e-004**	**0.0111**		**34.3297**	**34.3297**	**1.1900e-003**	**1.0800e-003**	**34.6819**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.3119	0.0000	5.3119	2.5686	0.0000	2.5686			0.0000			0.0000
Off-Road	1.0832	12.0046	5.9360	0.0141		0.5173	0.5173		0.4759	0.4759		1,364.8198	1,364.8198	0.4414		1,375.8551
Total	**1.0832**	**12.0046**	**5.9360**	**0.0141**	**5.3119**	**0.5173**	**5.8292**	**2.5686**	**0.4759**	**3.0445**		**1,364.8198**	**1,364.8198**	**0.4414**		**1,375.8551**

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

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0235	0.0172	0.1995	5.4000e-004	0.0657	3.3000e-004	0.0661	0.0174	3.1000e-004	0.0177		54.9275	54.9275	1.9000e-003	1.7300e-003	55.4911
Total	**0.0235**	**0.0172**	**0.1995**	**5.4000e-004**	**0.0657**	**3.3000e-004**	**0.0661**	**0.0174**	**3.1000e-004**	**0.0177**		**54.9275**	**54.9275**	**1.9000e-003**	**1.7300e-003**	**55.4911**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.3119	0.0000	5.3119	2.5686	0.0000	2.5686			0.0000			0.0000
Off-Road	1.0832	12.0046	5.9360	0.0141		0.5173	0.5173		0.4759	0.4759	0.0000	1,364.8198	1,364.8198	0.4414		1,375.8551
Total	**1.0832**	**12.0046**	**5.9360**	**0.0141**	**5.3119**	**0.5173**	**5.8292**	**2.5686**	**0.4759**	**3.0445**	**0.0000**	**1,364.8198**	**1,364.8198**	**0.4414**		**1,375.8551**

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

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0235	0.0172	0.1995	5.4000e-004	0.0657	3.3000e-004	0.0661	0.0174	3.1000e-004	0.0177		54.9275	54.9275	1.9000e-003	1.7300e-003	55.4911
Total	**0.0235**	**0.0172**	**0.1995**	**5.4000e-004**	**0.0657**	**3.3000e-004**	**0.0661**	**0.0174**	**3.1000e-004**	**0.0177**		**54.9275**	**54.9275**	**1.9000e-003**	**1.7300e-003**	**55.4911**

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6469	5.9174	7.0348	0.0113		0.2961	0.2961		0.2758	0.2758		1,035.8246	1,035.8246	0.3017		1,043.3677
Paving	0.4768					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1238**	**5.9174**	**7.0348**	**0.0113**		**0.2961**	**0.2961**		**0.2758**	**0.2758**		**1,035.8246**	**1,035.8246**	**0.3017**		**1,043.3677**

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

3.4 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0528	0.0388	0.4489	1.2100e-003	0.1479	7.5000e-004	0.1486	0.0392	6.9000e-004	0.0399		123.5870	123.5870	4.2800e-003	3.9000e-003	124.8549
Total	**0.0528**	**0.0388**	**0.4489**	**1.2100e-003**	**0.1479**	**7.5000e-004**	**0.1486**	**0.0392**	**6.9000e-004**	**0.0399**		**123.5870**	**123.5870**	**4.2800e-003**	**3.9000e-003**	**124.8549**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6469	5.9174	7.0348	0.0113		0.2961	0.2961		0.2758	0.2758	0.0000	1,035.8246	1,035.8246	0.3017		1,043.3677
Paving	0.4768					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1238**	**5.9174**	**7.0348**	**0.0113**		**0.2961**	**0.2961**		**0.2758**	**0.2758**	**0.0000**	**1,035.8246**	**1,035.8246**	**0.3017**		**1,043.3677**

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

3.4 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0528	0.0388	0.4489	1.2100e-003	0.1479	7.5000e-004	0.1486	0.0392	6.9000e-004	0.0399		123.5870	123.5870	4.2800e-003	3.9000e-003	124.8549
Total	**0.0528**	**0.0388**	**0.4489**	**1.2100e-003**	**0.1479**	**7.5000e-004**	**0.1486**	**0.0392**	**6.9000e-004**	**0.0399**		**123.5870**	**123.5870**	**4.2800e-003**	**3.9000e-003**	**124.8549**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

College Park - Road Widening - Placer-Sacramento County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.463296	0.061073	0.209857	0.155594	0.036099	0.008566	0.013676	0.011873	0.000564	0.000399	0.032288	0.000990	0.005727

5.0 Energy Detail

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

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0174	4.0000e-005	4.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.6700e-003	8.6700e-003	2.0000e-005		9.2300e-003
Unmitigated	0.0174	4.0000e-005	4.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.6700e-003	8.6700e-003	2.0000e-005		9.2300e-003

College Park - Road Widening - Placer-Sacramento County, Winter

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

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.0200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0140					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.7000e-004	4.0000e-005	4.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.6700e-003	8.6700e-003	2.0000e-005		9.2300e-003
Total	**0.0174**	**4.0000e-005**	**4.0400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**8.6700e-003**	**8.6700e-003**	**2.0000e-005**		**9.2300e-003**

College Park - Road Widening - Placer-Sacramento County, Winter

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.0200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0140					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.7000e-004	4.0000e-005	4.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.6700e-003	8.6700e-003	2.0000e-005		9.2300e-003
Total	**0.0174**	**4.0000e-005**	**4.0400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**8.6700e-003**	**8.6700e-003**	**2.0000e-005**		**9.2300e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

College Park - Road Widening

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

Placer-Sacramento County, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Cement and Mortar Mixers	Diesel	No Change	0	4	No Change	0.00
Graders	Diesel	No Change	0	2	No Change	0.00
Pavers	Diesel	No Change	0	1	No Change	0.00
Rollers	Diesel	No Change	0	1	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	1	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	3	No Change	0.00

College Park - Road Widening

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

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Cement and Mortar Mixers	4.40000E-004	2.76000E-003	2.31000E-003	1.00000E-005	1.10000E-004	1.10000E-004	0.00000E+000	3.43710E-001	3.43710E-001	4.00000E-005	0.00000E+000	3.44600E-001
Graders	5.20000E-004	6.57000E-003	2.15000E-003	1.00000E-005	2.10000E-004	1.90000E-004	0.00000E+000	7.27200E-001	7.27200E-001	2.40000E-004	0.00000E+000	7.33080E-001
Pavers	4.50000E-004	4.59000E-003	6.31000E-003	1.00000E-005	2.20000E-004	2.00000E-004	0.00000E+000	9.03440E-001	9.03440E-001	2.90000E-004	0.00000E+000	9.10750E-001
Rollers	3.60000E-004	3.78000E-003	4.07000E-003	1.00000E-005	2.20000E-004	2.00000E-004	0.00000E+000	5.04260E-001	5.04260E-001	1.60000E-004	0.00000E+000	5.08340E-001
Rubber Tired Dozers	6.30000E-004	6.60000E-003	2.69000E-003	1.00000E-005	3.10000E-004	2.90000E-004	0.00000E+000	5.62710E-001	5.62710E-001	1.80000E-004	0.00000E+000	5.67260E-001
Tractors/Loaders/ Backhoes	5.90000E-004	5.97000E-003	7.97000E-003	1.00000E-005	3.20000E-004	3.00000E-004	0.00000E+000	9.73560E-001	9.73560E-001	3.10000E-004	0.00000E+000	9.81430E-001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Cement and Mortar Mixers	4.40000E-004	2.76000E-003	2.31000E-003	1.00000E-005	1.10000E-004	1.10000E-004	0.00000E+000	3.43710E-001	3.43710E-001	4.00000E-005	0.00000E+000	3.44600E-001
Graders	5.20000E-004	6.57000E-003	2.15000E-003	1.00000E-005	2.10000E-004	1.90000E-004	0.00000E+000	7.27200E-001	7.27200E-001	2.40000E-004	0.00000E+000	7.33080E-001
Pavers	4.50000E-004	4.59000E-003	6.31000E-003	1.00000E-005	2.20000E-004	2.00000E-004	0.00000E+000	9.03440E-001	9.03440E-001	2.90000E-004	0.00000E+000	9.10750E-001
Rollers	3.60000E-004	3.78000E-003	4.07000E-003	1.00000E-005	2.20000E-004	2.00000E-004	0.00000E+000	5.04260E-001	5.04260E-001	1.60000E-004	0.00000E+000	5.08340E-001
Rubber Tired Dozers	6.30000E-004	6.60000E-003	2.69000E-003	1.00000E-005	3.10000E-004	2.90000E-004	0.00000E+000	5.62700E-001	5.62700E-001	1.80000E-004	0.00000E+000	5.67250E-001
Tractors/Loaders/Backhoes	5.90000E-004	5.97000E-003	7.97000E-003	1.00000E-005	3.20000E-004	3.00000E-004	0.00000E+000	9.73560E-001	9.73560E-001	3.10000E-004	0.00000E+000	9.81430E-001

College Park - Road Widening

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

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Cement and Mortar Mixers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.77711E-005	1.77711E-005	0.00000E+000	0.00000E+000	1.76286E-005
Tractors/Loaders/Backhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction		PM2.5 Reduction			
No	Replace Ground Cover of Area Disturbed	PM10 Reduction		PM2.5 Reduction			
No	Water Exposed Area	PM10 Reduction		PM2.5 Reduction		Frequency (per day)	
No	Unpaved Road Mitigation	Moisture Content %		Vehicle Speed (mph)	0.00		
No	Clean Paved Road	% PM Reduction	0.00				

College Park - Road Widening

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

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Grading	Fugitive Dust	0.01	0.00	0.01	0.00	0.00	0.00
Grading	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

College Park - Road Widening

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

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value 3
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.00	0.15		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			
No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			

College Park - Road Widening

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

	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			
No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	100.00
No	Use Low VOC Paint (Residential Exterior)	100.00

College Park - Road Widening

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

No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	100.00
No	Use Low VOC Paint (Parking)	100.00
No	% Electric Lawnmower	
No	% Electric Leafblower	
No	% Electric Chainsaw	

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24		
No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy		

College Park - Road Widening

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

No	Use Reclaimed Water		
No	Use Grey Water		
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction		
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape		

Solid Waste Mitigation

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

Attachment 3.

AERMOD and HARP Results: Construction Health Risk Assessment

BREEZE AERMOD Model Results

Max. Annual (4 YEARS) Results of Pollutant: PM25 (ug/m**3)

Group ID	High	Avg. Conc.	UTM		Elev.	Hill Ht.	Flag Ht.	Rec. Type	Grid ID
			East (m)	North (m)	(m)	(m)	(m)		
ALL	1ST	0.01837	656256.90	4294985.90	0.00	0.00	1.80	DC	
	2ND	0.01827	656256.90	4294980.90	0.00	0.00	1.80	DC	
	3RD	0.01816	656256.90	4294975.90	0.00	0.00	1.80	DC	
	4TH	0.01815	655289.10	4294420.90	0.00	0.00	1.80	DC	
	5TH	0.01812	655239.10	4294420.90	0.00	0.00	1.80	DC	
	6TH	0.01811	655294.10	4294420.90	0.00	0.00	1.80	DC	
	7TH	0.01808	655299.10	4294420.90	0.00	0.00	1.80	DC	
	8TH	0.01808	655234.10	4294420.90	0.00	0.00	1.80	DC	
	9TH	0.01806	656037.00	4294823.40	0.00	0.00	1.80	DC	
	10TH	0.01805	656256.90	4294970.90	0.00	0.00	1.80	DC	

Highest Results of Pollutant: PM25

Avg. Per.	Grp ID	High	Type	Val	Units	Date	UTM		Elev.	Hill Ht.	Flag Ht.	Rec. Type	Grid ID
						YYMMDDHH	East (m)	North (m)	(m)	(m)	(m)		
1-HR	ALL	1ST	Avg. Conc.	1.11259	ug/m**3	16010809	656002.00	4294823.40	0.00	0.00	1.80	DC	
24-HR	ALL	1ST	Avg. Conc.	0.15958	ug/m**3	15120224	656152.90	4294814.30	0.00	0.00	1.80	DC	

Summary of Total Messages

#	Message Type
0	Fatal Error Message(s)
6	Warning Message(s)
996	Informational Message(s)
43680	Hours Were Processed
452	Calm Hours Identified
544	Missing Hours Identified (1.25 Percent)

Error & Warning Messages

Msg. Type	Pathway	Ref. #	Description
WARNING	CO	W276	Special proc for 1h-NO2/SO2 24hPM25 NAAQS disabled PM25 H1H

WARNING	CO	W363	Multiyr 24h/Ann PM25 processing not applicable for PM25 H1H
WARNING	ME	W186	THRESH_1MIN 1-min ASOS wind speed threshold used 0.50

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AERMOD Model Options

Model Options

Pathway	Keyword	Description	Value
CO	TITLEONE	Project title 1	College Park Project - Construction HRA for Technical Memo
CO	TITLETWO	Project title 2	
CO	MODELOPT	Model options	DFAULT,CONC,NODRYDPLT,NOWETDPLT
CO	AVERTIME	Averaging times	1,24,ANNUAL
CO	URBANOPT	Urban options	
CO	POLLUTID	Pollutant ID	PM25 H1H
CO	HALFLIFE	Half life	
CO	DCAYCOEF	Decay coefficient	
CO	FLAGPOLE	Flagpole receptor heights	1.8
CO	RUNORNOT	Run or Not	RUN
CO	EVENTFIL	Event file	F
CO	SAVEFILE	Save file	F
CO	INITFILE	Initialization file	
CO	MULTYEAR	Multiple year option	N/A
CO	DEBUGOPT	Debug options	N/A
CO	ERRORFIL	Error file	F
SO	ELEVUNIT	Elevation units	METERS
SO	EMISUNIT	Emission units	N/A
RE	ELEVUNIT	Elevation units	METERS
ME	SURFFILE	Surface met file	C:\Users\bshea\Desktop\METEOR~1\SACINT~1.SFC
ME	PROFFILE	Profile met file	C:\Users\bshea\Desktop\METEOR~1\SACINT~1.PFL
ME	SURFDATA	Surf met data info.	93225 2014
ME	UAIRDATA	U-Air met data info.	23230 2014
ME	SITEDATA	On-site met data info.	
ME	PROFBASE	Elev. above MSL	8.23
ME	STARTEND	Start-end met dates	
ME	WDROTATE	Wind dir. rot. adjust.	
ME	WINDCATS	Wind speed cat. max.	
ME	SCIMBYHR	SCIM sample params	
EV	DAYTABLE	Print summary opt.	N/A
OU	EVENTOUT	Output info. level	N/A

OU	DAYTABLE	Print summary opt.

Source Parameter Tables

All Sources

Source ID / Pollutant ID	Source Type	Description	UTM		Elev.	Emiss. Rate	Emiss. Units	Release Height
			East (m)	North (m)	(m)			(m)
KUYSR001	VOLUME		655071.5	4294481.5	0	5.57361E-05	(g/s)	5
KUYSR002	VOLUME		655135.1	4294481.5	0	0.000055736097804	(g/s)	5
KUYSR003	VOLUME		655198.7	4294481.5	0	0.000055736097804	(g/s)	5
KUYSR004	VOLUME		655262.4	4294481.5	0	0.000055736097804	(g/s)	5
KUYSR005	VOLUME		655326	4294481.5	0	0.000055736097804	(g/s)	5
KUYSR006	VOLUME		655389.6	4294481.5	0	0.000055736097804	(g/s)	5
KUYSR007	VOLUME		655071.5	4294545.1	0	0.000055736097804	(g/s)	5
KUYSR008	VOLUME		655135.1	4294545.1	0	0.000055736097804	(g/s)	5
KUYSR009	VOLUME		655198.7	4294545.1	0	0.000055736097804	(g/s)	5
KUYSR00A	VOLUME		655262.4	4294545.1	0	0.000055736097804	(g/s)	5
KUYSR00B	VOLUME		655326	4294545.1	0	0.000055736097804	(g/s)	5
KUYSR00C	VOLUME		655389.6	4294545.1	0	0.000055736097804	(g/s)	5
KUYSR00D	VOLUME		655071.5	4294608.7	0	0.000055736097804	(g/s)	5
KUYSR00E	VOLUME		655135.1	4294608.7	0	0.000055736097804	(g/s)	5
KUYSR00F	VOLUME		655198.7	4294608.7	0	0.000055736097804	(g/s)	5
KUYSR00G	VOLUME		655262.4	4294608.7	0	0.000055736097804	(g/s)	5
KUYSR00H	VOLUME		655326	4294608.7	0	0.000055736097804	(g/s)	5
KUYSR00I	VOLUME		655389.6	4294608.7	0	0.000055736097804	(g/s)	5
KUYSR00J	VOLUME		655071.5	4294672.4	0	0.000055736097804	(g/s)	5
KUYSR00K	VOLUME		655135.1	4294672.4	0	0.000055736097804	(g/s)	5
KUYSR00L	VOLUME		655198.7	4294672.4	0	0.000055736097804	(g/s)	5
KUYSR00M	VOLUME		655262.4	4294672.4	0	0.000055736097804	(g/s)	5
KUYSR00N	VOLUME		655326	4294672.4	0	0.000055736097804	(g/s)	5
KUYSR00O	VOLUME		655389.6	4294672.4	0	0.000055736097804	(g/s)	5
KUYSR00P	VOLUME		655071.5	4294736	0	0.000055736097804	(g/s)	5
KUYSR00Q	VOLUME		655135.1	4294736	0	0.000055736097804	(g/s)	5
KUYSR00R	VOLUME		655198.7	4294736	0	0.000055736097804	(g/s)	5
KUYSR00S	VOLUME		655326	4294736	0	0.000055736097804	(g/s)	5
KUYSR00T	VOLUME		655071.5	4294799.6	0	0.000055736097804	(g/s)	5
KUYSR00U	VOLUME		655135.1	4294799.6	0	0.000055736097804	(g/s)	5
KUYSR00V	VOLUME		655198.7	4294799.6	0	0.000055736097804	(g/s)	5
KUYSR00W	VOLUME		655326	4294799.6	0	5.57361E-05	(g/s)	5
KUYSR00Y	VOLUME		655874.2	4294897	0	0.000055736097804	(g/s)	5
KUYSR00Z	VOLUME		655937.8	4294897	0	0.000055736097804	(g/s)	5

KUYSR010	VOLUME		656001.4	4294897	0	0.000055736097804	(g/s)	5
KUYSR011	VOLUME		656065.1	4294897	0	0.000055736097804	(g/s)	5
KUYSR012	VOLUME		656128.7	4294897	0	0.000055736097804	(g/s)	5
KUYSR013	VOLUME		656192.3	4294897	0	0.000055736097804	(g/s)	5
KUYSR014	VOLUME		655874.2	4294960.6	0	0.000055736097804	(g/s)	5
KUYSR015	VOLUME		655937.8	4294960.6	0	0.000055736097804	(g/s)	5
KUYSR016	VOLUME		656001.4	4294960.6	0	0.000055736097804	(g/s)	5
KUYSR017	VOLUME		656065.1	4294960.6	0	0.000055736097804	(g/s)	5
KUYSR018	VOLUME		656128.7	4294960.6	0	0.000055736097804	(g/s)	5
KUYSR019	VOLUME		656192.3	4294960.6	0	0.000055736097804	(g/s)	5
KUYSR01A	VOLUME		655874.2	4295024.2	0	0.000055736097804	(g/s)	5
KUYSR01B	VOLUME		655937.8	4295024.2	0	0.000055736097804	(g/s)	5
KUYSR01C	VOLUME		656001.4	4295024.2	0	0.000055736097804	(g/s)	5
KUYSR01D	VOLUME		656065.1	4295024.2	0	0.000055736097804	(g/s)	5
KUYSR01E	VOLUME		656128.7	4295024.2	0	0.000055736097804	(g/s)	5
KUYSR01F	VOLUME		656192.3	4295024.2	0	0.000055736097804	(g/s)	5
KUYSR01G	VOLUME		655874.2	4295087.9	0	0.000055736097804	(g/s)	5
KUYSR01H	VOLUME		655937.8	4295087.9	0	0.000055736097804	(g/s)	5
KUYSR01I	VOLUME		656001.4	4295087.9	0	0.000055736097804	(g/s)	5
KUYSR01J	VOLUME		656065.1	4295087.9	0	0.000055736097804	(g/s)	5
KUYSR01K	VOLUME		656128.7	4295087.9	0	0.000055736097804	(g/s)	5
KUYSR01L	VOLUME		656192.3	4295087.9	0	0.000055736097804	(g/s)	5
KUYSR01M	VOLUME		655874.2	4295151.5	0	0.000055736097804	(g/s)	5
KUYSR01N	VOLUME		655937.8	4295151.5	0	0.000055736097804	(g/s)	5
KUYSR01O	VOLUME		656001.4	4295151.5	0	0.000055736097804	(g/s)	5
KUYSR01P	VOLUME		656065.1	4295151.5	0	0.000055736097804	(g/s)	5
KUYSR01Q	VOLUME		656128.7	4295151.5	0	0.000055736097804	(g/s)	5
KUYSR01R	VOLUME		656192.3	4295151.5	0	0.000055736097804	(g/s)	5
KUYSR01S	VOLUME		655874.2	4295215.1	0	0.000055736097804	(g/s)	5
KUYSR01T	VOLUME		655937.8	4295215.1	0	0.000055736097804	(g/s)	5
KUYSR01U	VOLUME		656001.4	4295215.1	0	0.000055736097804	(g/s)	5
KUYSR01V	VOLUME		656065.1	4295215.1	0	0.000055736097804	(g/s)	5
KUYSR01W	VOLUME		656128.7	4295215.1	0	0.000055736097804	(g/s)	5
KUYSR01X	VOLUME		656192.3	4295215.1	0	0.000055736097804	(g/s)	5
KUYSR01Y	VOLUME		655874.2	4295278.7	0	0.000055736097804	(g/s)	5
KUYSR01Z	VOLUME		655937.8	4295278.7	0	0.000055736097804	(g/s)	5
KUYSR020	VOLUME		656001.4	4295278.7	0	0.000055736097804	(g/s)	5
KUYSR021	VOLUME		656065.1	4295278.7	0	0.000055736097804	(g/s)	5
KUYSR022	VOLUME		656128.7	4295278.7	0	0.000055736097804	(g/s)	5
KUYSR023	VOLUME		656192.3	4295278.7	0	0.000055736097804	(g/s)	5
KUYSR024	VOLUME		655874.2	4295342.3	0	0.000055736097804	(g/s)	5
KUYSR025	VOLUME		655937.8	4295342.3	0	0.000055736097804	(g/s)	5
KUYSR026	VOLUME		656001.4	4295342.3	0	0.000055736097804	(g/s)	5
KUYSR027	VOLUME		656065.1	4295342.3	0	0.000055736097804	(g/s)	5
KUYSR028	VOLUME		656128.7	4295342.3	0	0.000055736097804	(g/s)	5
KUYSR029	VOLUME		656192.3	4295342.3	0	0.000055736097804	(g/s)	5

KUYSR02A	VOLUME		655874.2	4295405.9	0	0.000055736097804	(g/s)	5
KUYSR02B	VOLUME		655937.8	4295405.9	0	0.000055736097804	(g/s)	5
KUYSR02C	VOLUME		656001.4	4295405.9	0	0.000055736097804	(g/s)	5
KUYSR02D	VOLUME		656065.1	4295405.9	0	0.000055736097804	(g/s)	5
KUYSR02E	VOLUME		656128.7	4295405.9	0	0.000055736097804	(g/s)	5
KUYSR02F	VOLUME		656192.3	4295405.9	0	0.000055736097804	(g/s)	5
KUYSR02G	VOLUME		655874.2	4295469.6	0	0.000055736097804	(g/s)	5
KUYSR02H	VOLUME		655937.8	4295469.6	0	0.000055736097804	(g/s)	5
KUYSR02I	VOLUME		656001.4	4295469.6	0	0.000055736097804	(g/s)	5
KUYSR02J	VOLUME		656065.1	4295469.6	0	0.000055736097804	(g/s)	5
KUYSR02K	VOLUME		656128.7	4295469.6	0	0.000055736097804	(g/s)	5
KUYSR02L	VOLUME		656192.3	4295469.6	0	0.000055736097804	(g/s)	5
KUYSR02M	VOLUME		655874.2	4295533.2	0	0.000055736097804	(g/s)	5
KUYSR02N	VOLUME		655937.8	4295533.2	0	0.000055736097804	(g/s)	5
KUYSR02O	VOLUME		656001.4	4295533.2	0	0.000055736097804	(g/s)	5
KUYSR02P	VOLUME		656065.1	4295533.2	0	0.000055736097804	(g/s)	5
KUYSR02Q	VOLUME		656128.7	4295533.2	0	0.000055736097804	(g/s)	5
KUYSR02R	VOLUME		656192.3	4295533.2	0	0.000055736097804	(g/s)	5
KUYSR02S	VOLUME		655937.8	4295596.8	0	0.000055736097804	(g/s)	5
KUYSR02T	VOLUME		656001.4	4295596.8	0	0.000055736097804	(g/s)	5
KUYSR02U	VOLUME		656065.1	4295596.8	0	0.000055736097804	(g/s)	5
KUYSR02V	VOLUME		656128.7	4295596.8	0	0.000055736097804	(g/s)	5
KUYSR02W	VOLUME		656192.3	4295596.8	0	0.000055736097804	(g/s)	5

Volume Sources

Source ID / Pollutant ID	Description	UTM		Elev.	Emiss. Rate	Release Height	Init. Lat. Dim.	Init. Vert. Dim.
		East (m)	North (m)	(m)	(g/s)	(m)	(m)	(m)
KUYSR001		655071.5	4294481.5	0	5.57361E-05	5	29.59	1
KUYSR002		655135.1	4294481.5	0	0.000055736097804	5	29.59	1
KUYSR003		655198.7	4294481.5	0	0.000055736097804	5	29.59	1
KUYSR004		655262.4	4294481.5	0	0.000055736097804	5	29.59	1
KUYSR005		655326	4294481.5	0	0.000055736097804	5	29.59	1
KUYSR006		655389.6	4294481.5	0	0.000055736097804	5	29.59	1
KUYSR007		655071.5	4294545.1	0	0.000055736097804	5	29.59	1
KUYSR008		655135.1	4294545.1	0	0.000055736097804	5	29.59	1
KUYSR009		655198.7	4294545.1	0	0.000055736097804	5	29.59	1
KUYSR00A		655262.4	4294545.1	0	0.000055736097804	5	29.59	1
KUYSR00B		655326	4294545.1	0	0.000055736097804	5	29.59	1
KUYSR00C		655389.6	4294545.1	0	0.000055736097804	5	29.59	1
KUYSR00D		655071.5	4294608.7	0	0.000055736097804	5	29.59	1
KUYSR00E		655135.1	4294608.7	0	0.000055736097804	5	29.59	1
KUYSR00F		655198.7	4294608.7	0	0.000055736097804	5	29.59	1
KUYSR00G		655262.4	4294608.7	0	0.000055736097804	5	29.59	1
KUYSR00H		655326	4294608.7	0	0.000055736097804	5	29.59	1

KUYSR00I		655389.6	4294608.7	0	0.000055736097804	5	29.59	1
KUYSR00J		655071.5	4294672.4	0	0.000055736097804	5	29.59	1
KUYSR00K		655135.1	4294672.4	0	0.000055736097804	5	29.59	1
KUYSR00L		655198.7	4294672.4	0	0.000055736097804	5	29.59	1
KUYSR00M		655262.4	4294672.4	0	0.000055736097804	5	29.59	1
KUYSR00N		655326	4294672.4	0	0.000055736097804	5	29.59	1
KUYSR00O		655389.6	4294672.4	0	0.000055736097804	5	29.59	1
KUYSR00P		655071.5	4294736	0	0.000055736097804	5	29.59	1
KUYSR00Q		655135.1	4294736	0	0.000055736097804	5	29.59	1
KUYSR00R		655198.7	4294736	0	0.000055736097804	5	29.59	1
KUYSR00S		655326	4294736	0	0.000055736097804	5	29.59	1
KUYSR00T		655071.5	4294799.6	0	0.000055736097804	5	29.59	1
KUYSR00U		655135.1	4294799.6	0	0.000055736097804	5	29.59	1
KUYSR00V		655198.7	4294799.6	0	0.000055736097804	5	29.59	1
KUYSR00W		655326	4294799.6	0	5.57361E-05	5	29.59	1
KUYSR00Y		655874.2	4294897	0	0.000055736097804	5	29.59	1
KUYSR00Z		655937.8	4294897	0	0.000055736097804	5	29.59	1
KUYSR010		656001.4	4294897	0	0.000055736097804	5	29.59	1
KUYSR011		656065.1	4294897	0	0.000055736097804	5	29.59	1
KUYSR012		656128.7	4294897	0	0.000055736097804	5	29.59	1
KUYSR013		656192.3	4294897	0	0.000055736097804	5	29.59	1
KUYSR014		655874.2	4294960.6	0	0.000055736097804	5	29.59	1
KUYSR015		655937.8	4294960.6	0	0.000055736097804	5	29.59	1
KUYSR016		656001.4	4294960.6	0	0.000055736097804	5	29.59	1
KUYSR017		656065.1	4294960.6	0	0.000055736097804	5	29.59	1
KUYSR018		656128.7	4294960.6	0	0.000055736097804	5	29.59	1
KUYSR019		656192.3	4294960.6	0	0.000055736097804	5	29.59	1
KUYSR01A		655874.2	4295024.2	0	0.000055736097804	5	29.59	1
KUYSR01B		655937.8	4295024.2	0	0.000055736097804	5	29.59	1
KUYSR01C		656001.4	4295024.2	0	0.000055736097804	5	29.59	1
KUYSR01D		656065.1	4295024.2	0	0.000055736097804	5	29.59	1
KUYSR01E		656128.7	4295024.2	0	0.000055736097804	5	29.59	1
KUYSR01F		656192.3	4295024.2	0	0.000055736097804	5	29.59	1
KUYSR01G		655874.2	4295087.9	0	0.000055736097804	5	29.59	1
KUYSR01H		655937.8	4295087.9	0	0.000055736097804	5	29.59	1
KUYSR01I		656001.4	4295087.9	0	0.000055736097804	5	29.59	1
KUYSR01J		656065.1	4295087.9	0	0.000055736097804	5	29.59	1
KUYSR01K		656128.7	4295087.9	0	0.000055736097804	5	29.59	1
KUYSR01L		656192.3	4295087.9	0	0.000055736097804	5	29.59	1
KUYSR01M		655874.2	4295151.5	0	0.000055736097804	5	29.59	1
KUYSR01N		655937.8	4295151.5	0	0.000055736097804	5	29.59	1
KUYSR01O		656001.4	4295151.5	0	0.000055736097804	5	29.59	1
KUYSR01P		656065.1	4295151.5	0	0.000055736097804	5	29.59	1
KUYSR01Q		656128.7	4295151.5	0	0.000055736097804	5	29.59	1
KUYSR01R		656192.3	4295151.5	0	0.000055736097804	5	29.59	1

KUYSR01S		655874.2	4295215.1	0	0.000055736097804	5	29.59	1
KUYSR01T		655937.8	4295215.1	0	0.000055736097804	5	29.59	1
KUYSR01U		656001.4	4295215.1	0	0.000055736097804	5	29.59	1
KUYSR01V		656065.1	4295215.1	0	0.000055736097804	5	29.59	1
KUYSR01W		656128.7	4295215.1	0	0.000055736097804	5	29.59	1
KUYSR01X		656192.3	4295215.1	0	0.000055736097804	5	29.59	1
KUYSR01Y		655874.2	4295278.7	0	0.000055736097804	5	29.59	1
KUYSR01Z		655937.8	4295278.7	0	0.000055736097804	5	29.59	1
KUYSR020		656001.4	4295278.7	0	0.000055736097804	5	29.59	1
KUYSR021		656065.1	4295278.7	0	0.000055736097804	5	29.59	1
KUYSR022		656128.7	4295278.7	0	0.000055736097804	5	29.59	1
KUYSR023		656192.3	4295278.7	0	0.000055736097804	5	29.59	1
KUYSR024		655874.2	4295342.3	0	0.000055736097804	5	29.59	1
KUYSR025		655937.8	4295342.3	0	0.000055736097804	5	29.59	1
KUYSR026		656001.4	4295342.3	0	0.000055736097804	5	29.59	1
KUYSR027		656065.1	4295342.3	0	0.000055736097804	5	29.59	1
KUYSR028		656128.7	4295342.3	0	0.000055736097804	5	29.59	1
KUYSR029		656192.3	4295342.3	0	0.000055736097804	5	29.59	1
KUYSR02A		655874.2	4295405.9	0	0.000055736097804	5	29.59	1
KUYSR02B		655937.8	4295405.9	0	0.000055736097804	5	29.59	1
KUYSR02C		656001.4	4295405.9	0	0.000055736097804	5	29.59	1
KUYSR02D		656065.1	4295405.9	0	0.000055736097804	5	29.59	1
KUYSR02E		656128.7	4295405.9	0	0.000055736097804	5	29.59	1
KUYSR02F		656192.3	4295405.9	0	0.000055736097804	5	29.59	1
KUYSR02G		655874.2	4295469.6	0	0.000055736097804	5	29.59	1
KUYSR02H		655937.8	4295469.6	0	0.000055736097804	5	29.59	1
KUYSR02I		656001.4	4295469.6	0	0.000055736097804	5	29.59	1
KUYSR02J		656065.1	4295469.6	0	0.000055736097804	5	29.59	1
KUYSR02K		656128.7	4295469.6	0	0.000055736097804	5	29.59	1
KUYSR02L		656192.3	4295469.6	0	0.000055736097804	5	29.59	1
KUYSR02M		655874.2	4295533.2	0	0.000055736097804	5	29.59	1
KUYSR02N		655937.8	4295533.2	0	0.000055736097804	5	29.59	1
KUYSR02O		656001.4	4295533.2	0	0.000055736097804	5	29.59	1
KUYSR02P		656065.1	4295533.2	0	0.000055736097804	5	29.59	1
KUYSR02Q		656128.7	4295533.2	0	0.000055736097804	5	29.59	1
KUYSR02R		656192.3	4295533.2	0	0.000055736097804	5	29.59	1
KUYSR02S		655937.8	4295596.8	0	0.000055736097804	5	29.59	1
KUYSR02T		656001.4	4295596.8	0	0.000055736097804	5	29.59	1
KUYSR02U		656065.1	4295596.8	0	0.000055736097804	5	29.59	1
KUYSR02V		656128.7	4295596.8	0	0.000055736097804	5	29.59	1
KUYSR02W		656192.3	4295596.8	0	0.000055736097804	5	29.59	1

*HARP - HRACalc v19044 1/6/2022 2:43:27 PM - Cancer Risk - Input File: C:\Users\bshea\Desktop\HARP\College Park_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBREV	CONC	RISK_SUM	SCENARIO	DETAILS	INH_RISK
1			9901	DieselExhPM	0.01837	4.78E-06	1.5YrCancerHighEnd_Inh_FAH16to70	*	4.78E-06

SOIL_RISK	DERMAL_RISK	MMILK_RISK	WATER_RISK	FISH_RISK	CROP_RISK	BEEF_RISK	DAIRY_RISK	PIG_RISK	CHICKEN_RISK	EGG_RISK
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1ST_DRIVER	2ND_DRIVER	PASTURE_CONC	FISH_CONC	WATER_CONC
NA	NA	0.00E+00	0.00E+00	0.00E+00

*HARP - HRACalc v19044 1/6/2022 2:43:27 PM - Chronic Risk - Input File: C:\Users\bshea\Desktop\HARP\College Park_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBREV	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY
	1		9901	DieselExhPM	0.01837	NonCancerChronicHighEnd_Inh	0.00E+00	0.00E+00	0.00E+00	0.00E+00

GILV	REPRO/DEVEL	RESP	SKIN	EYE	BONE/TEETH	ENDO	BLOOD	ODOR	GENERAL	DETAILS	INH_CONC
0.00E+00	0.00E+00	3.67E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	*	1.84E-02

SOIL_DOSE	DERMAL_DOSE	MMILK_DOSE	WATER_DOSE	FISH_DOSE	CROP_DOSE	BEEF_DOSE	DAIRY_DOSE	PIG_DOSE	CHICKEN_DOSE
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

EGG_DOSE	1ST_DRIVER	2ND_DRIVER	3RD_DRIVER	PASTURE_CONC	FISH_CONC	WATER_CONC
0.00E+00	INHALATION	NA	NA	0.00E+00	0.00E+00	0.00E+00

*HARP - HRACalc v19044 1/6/2022 2:43:27 PM - Acute Risk - Input File: C:\Users\bshea\Desktop\HARP\College Park_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBREV	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV
1			9901	DieselExhPM	1.11259	NonCancerAcute	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

REPRO/DEVEL	RESP	SKIN	EYE	BONE/TEETH	ENDO	BLOOD	ODOR	GENERAL
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Attachment D

Letter from Madrone Ecological Consulting
on Biological Resources Comments

MADRONE ECOLOGICAL CONSULTING

8421 Auburn Blvd., Suite 248
Citrus Heights, CA 95610
www.madroneeco.com
(916) 822-3230

7 January 2022

Jim Moose
Remy Moose Manley, LLP
555 Capitol Mall, Suite 800
Sacramento, CA 95814

Subject: Response to Comments on College Park Draft Environmental Impact Report

Dear Mr. Moose:

At your request, we have prepared responses to some of the comments received by the City of Rocklin (City) on the Draft Environmental Impact Report for College Park. The below comments are those that you requested we respond to, and the responses were prepared by myself (Sarah VonderOhe) and Senior Biologist Daria Snider. Our resumes are provided in **Attachment A** for your reference. Below, the letter is listed in bold, the comment from the letter is in plain text, and our responses are in italics.

Denise Gaddis: 5 November 2021
Defend Granite Bay List Item 4 (p. 1)
City of Rocklin Riparian Policy (P. 11 of Gaddis comment letter):
Ms. Gaddis highlighted the following text: "the City may designate an easement greater than 50 feet for perennial streams when it is determined such a buffer is necessary to adequately protect drainage and habitat areas," and stated her opinion that "I certainly believe that this unique wildlife area requires a larger setback in order to protect this extraordinary area."

Similarly, the Defend Granite Bay Letter stated:
It appears that the natural diverse habitat along a riparian habitat and existing wildlife corridor in the College Park South proposal is being evaluated as a singular unit. The current 50 ft. setback required under city ordinances can be fairly argued to be inadequate. Have cumulative impacts to Aguilar Tributary Creek and Secret Ravine Creek been considered beyond the project boundaries?

Madrone Response
As detailed in the Biological Resources Assessment (BRA) (included within the Draft EIR as Appendix C), the boundaries of the riparian corridor as defined by the City's Riparian Policy were finalized following a field review of the boundaries with City staff. In quite a few locations, the boundaries of the riparian corridor are indeed much greater than 50 feet from the top of bank of the stream (greater than 100 feet north of the entire eastern portion of the creek). Furthermore, an additional setback has been incorporated into the project design in many locations, increasing the "riparian corridor" beyond what was required by the City policy. The minimum width of the east-west riparian avoidance corridor is 165 feet, and the width is over 250 feet in most areas.

There are some areas along the southern edge of the Secret Ravine tributary where "impacts" are shown outside of the riparian woodland, but within 50 feet of the creek. As shown on the exhibit provided as Attachment B to this letter, these areas are associated with an existing sewer line and trail, which are considered to be acceptable in the setback areas under Open Space, Conservation and Recreation Element Action 11 (OCRA-11) and will ensure long-term access to the line for maintenance. The exhibit more clearly demonstrates where project elements will be located in relation to the approved riparian setback. No structures/lots will be built within 50 feet of the creek.

Save East Rocklin: 8 November 2021

The DEIR fails to adequately disclose, analyze, and mitigate the Project's impacts on wildlife corridors. The DEIR's analysis of Project impacts on wildlife movement is inadequate because it fails to disclose the existence of an important wildlife corridor on the site. The DEIR asserts that there are no wildlife corridors on or adjacent to the Project site. DEIR at 3.4-41. This is incorrect. As the DEIR acknowledges, a tributary of Secret Ravine Creek runs from east to west through the southern parcel of the Project site (referred to in the DEIR as the "South Village" site and in the biological resources appendix as the "Western Study Area"). Id. at 3.4-40. This creek is bordered on both sides by a riparian wetland in the surrounding floodplain. Id. The creek and riparian habitat on the South Village site is an important east-west wildlife corridor, as it directly connects Secret Ravine Creek to the west of the Project site with several smaller tributaries and wetlands to the east of the site. See DEIR Appendix C at 45, 47 (Figures 1, 3). Secret Ravine Creek in turn flows into Miners Ravine and Dry Creek to the south. DEIR at 3.9-3, 3.9-4. It is well known that intact and connected riparian areas provide important places for wildlife movement. See, e.g., U.S. Department of Agriculture, Natural Resources Conservation Service, Corridor Benefits, available at https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs144p2_014927.pdf (Page 4-3 "Riparian corridors are also important travel lanes for many species. They may be important for dispersal as well as movement within species home ranges.")

Unsurprisingly, many species have been observed using the wildlife corridor on the site, including black-tailed deer, gray and red fox, beaver, river otter, mink, bobcat, coyote, great blue heron, red-shouldered hawk, black-tailed jackrabbit, desert cottontail, and striped skunk. See Wildlife photographs taken by Laurie Rindell from South Village site, available at https://rocklinwetlands.org/photo-gallery-monte-verde-park-wetlands/; Save East Rocklin's photo gallery of wildlife observed on South Village site; available at https://drive.google.com/drive/folders/0B1lebQtuPdbNejBibURKUHlQdnM?resourcekey=0-1xBH-MLaSWlACRM2oe6yQ; Comment letter from Denise Gaddis to David Mohlenbrok re: College Park DEIR (November 5, 2021) at 8, attached as Exhibit A; DEIR Appendix C, Attachment C (list of wildlife species observed by Project consultants). The Project site also provides suitable habitat for special-status wildlife species that are likely to utilize the corridor, including the Swainson's hawk (documented on site and listed as Threatened in California), California black rail, white-tailed kite (documented on site and listed as a Fully Protected species), northern harrier, tricolored blackbird, loggerhead shrike, hoary bat, silver-haired bat, pallid bat, western red bat, and western pond turtle. DEIR at 3.4-12, 3.4-13, 3.4-31, 3.4-33, 3.4- 36. The larger trees within the North and South Village Study Areas provide suitable raptor nesting habitat. DEIR at 3.4-33. Save East Rocklin has documented nesting raptors on the South Village site, including nesting white-tailed kites. See Save East Rocklin's photo gallery of wildlife observed on South Village site, supra. Despite ample evidence that the site contains a well-used wildlife corridor, the DEIR denies the wildlife corridor's existence. DEIR at 3.4-41.

Omission of essential information about baseline environmental conditions, including wildlife habitat, prevents informed analysis of project impacts and is legal error. See San Joaquin Raptor/Wildlife Rescue

Center v. County of Stanislaus (1994) 27 Cal.App.4th 713, 722-29; County of Amador v. El Dorado County Water Agency (1999) 76 Cal.App.4th 931, 952-56. Here, the DEIR's failure to disclose the existing wildlife corridor on the South Village site prevents meaningful analysis of the Project's impacts and makes the DEIR legally deficient.

The DEIR also lacks evidence for its conclusion that the Project's impacts on wildlife movement would be less than significant. DEIR at 3.4-41 (Impact 3.4-9). The DEIR cannot support this conclusion when it fails to adequately disclose the existence of the wildlife corridor onsite. The DEIR's inadequate description of baseline conditions precludes the existence of substantial evidence to support its conclusions about the significance of Project impacts. See San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus, 27 Cal.App.4th at 729.

Moreover, even if the DEIR's baseline description were accurate, which it is not, the document fails to adequately analyze Project impacts on the wildlife corridor. The DEIR asserts that "[t]o the degree that the creek and riparian area currently serve as a wildlife migration corridor, it is expected that the Project's preservation of the creek and riparian area will also preserve the ability for wildlife to use that corridor for movement." DEIR at 3.4-41. However, as discussed below, the Project would infringe on this riparian corridor, surrounding the creek with high-density commercial and residential development without providing adequate setbacks. See DEIR at 2.0-35 (Fig. 2.0-10); DEIR at 3.4-61 (Figure 3.4-5b). Project development will shrink and fragment the wildlife corridor, inhibiting wildlife movement. However, the DEIR does not analyze these wildlife movement impacts, and does not identify any mitigation measures. DEIR at 3.4-41. It suggests that other measures described elsewhere in the biological resources section would mitigate wildlife movement impacts, but does not clarify which measures it is referring to or explain how they would mitigate these impacts. Id. The EIR must be revised to adequately disclose, analyze, and mitigate these impacts.

<u>Madrone Response</u>
A number of the commenter's assertions are unsubstantiated and extremely unlikely. The attorney who wrote the comments, Sara Clark, appears to have relied on her client, Denise Gaddis, regarding the species that have been cited in the area in question. For example, Ms. Gaddis noted that she documented Sierra Nevada red fox on-site. This is a species that is listed as threatened by the state of California and is currently proposed for federal listing. As stated by CDFW, "The historic distribution of the Sierra Nevada Red Fox in California included much of the Sierra Nevada, the southern Cascades near Lassen Peak and Mount Shasta, and the Klamath Mountains near Mt. Eddy and the eastern Trinity Alps. In recent decades, the Sierra Nevada Red Fox has been detected in the Lassen Peak region and in the central Sierra Nevada near Sonora Pass and Yosemite National Park." The City of Rocklin is well outside of even the historic distribution of this species. If this animal is a red fox, it is almost certainly the Sacramento Valley red fox, a common species. One of the "images" in the photos provided to support the wildlife assertions states that a kit fox was observed in "09/2019". Again, the City of Rocklin is not within the range of any kit fox species, and this was likely a mis-identified grey fox. Ms. Gaddis is not a trained wildlife biologist, and as such, her assertions of presence of certain species cannot be relied upon.

The commenter's statements to the effect that a number of the special-status species are likely to "utilize the corridor" are inaccurate or misleading. Northern harrier nest and forage in grasslands and open marshy areas – this species is unlikely to use the riparian corridor at all. This species is most likely to be found in the grasslands in the North Village. The other bird species listed certainly may utilize the riparian corridor; however, it is misleading to include them in a discussion about movement corridors, as they certainly don't

need a habitat corridor for movement; they can easily fly over urban areas to access different habitat patches, and a number of them have been documented nesting in urban areas.

The riparian corridor that borders the east-west oriented drainage on-site (the tributary to Secret Ravine) could be used as a wildlife movement corridor for common species as asserted by the commenter. The two north-south oriented riparian areas would not be considered "movement corridors" as both of those areas originate in urban areas, and as such there would not be any natural habitat that wildlife is moving from.

Importantly, the Project's riparian avoidance area along the tributary to Secret Ravine preserves a similar or wider riparian corridor than is present in many areas upstream and downstream of the site. Downstream of the site, near Aguilar Road, the preserved riparian corridor is roughly 100 feet wide, and upstream of the site, south of Cobble Creek circle, the corridor narrows to roughly 110 feet wide. The corridor is between 180 and 300 feet in most areas, which is consistent with what is proposed within this Project site. The minimum width of the east-west riparian avoidance corridor is 165 feet, and the width is over 250 feet in most areas. The corridor is over 300 feet wide in many areas, and the maximum width is 390 feet. If this corridor is indeed serving as a movement corridor for wildlife, then that wildlife must by definition be moving between the habitat patches within the riparian habitat corridors on either side of the Project site. As the existing habitat corridors are similar to, and in many cases narrower than the proposed corridor, implementation of the Proposed project will not have a significant impact on movement of wildlife through the riparian corridor along the tributary to Secret Ravine within the Project site.

Town of Loomis Comments
Biological 3.4-4: Mitigation for Swainson's hawk is not adequate to reduce impacts to a less than significant level. The existing North Village nest site should be avoided by expanding the open area zone within the North Village. North Village development plans should be modified to provide open space around the nest location and maintain the nest site for future activity.

Madrone Response
The commenter is referring to nesting activities identified in a Fremont's cottonwood tree in the Northern Village site in 2019. (See Draft EIR, p. 3.4-33.) Nesting was not observed in this same tree during occasional visits to investigate nesting status in 2020 and 2021. Regardless, although the tree is shown within the impact area on the impact exhibit (Draft EIR, page 3.4-59, Figure 3.4-5a), the tree itself will be preserved. The area that includes and surrounds the tree would become a proposed park; as such, the tree where nesting was observed in 2019 will be preserved, and a substantial amount of surrounding area will remain open parklands that may be used for foraging. Furthermore, only one nesting attempt has ever been documented in this tree, and there are numerous additional suitable nest trees that will be preserved by this Project, both on-site and off-site.

Frumkin Letter, p. 46
Sierra Geotech Letter, p. 23
Gaddis Letter, p. 1, p. 13
Frumkin and Sierra Geotech:
According to the DEIR and biological technical appendix no documentation of nesting birds were provided in the biological assessment provided. The current baseline conditions, then, are that there are no nesting birds on-site, due to the lack of documentation of nesting data. The lack of documented nesting sites are misleading and misrepresent the value of the Project site to nesting birds. Most bird species construct well concealed or camouflaged nests. As a result, finding bird nests generally requires observations of bird

behaviors (e.g., territorial defense behavior, food deliveries) that are only evident during the breeding season. Whereas MEC's special-status plant surveys were conducted during the avian breeding season, the survey report provides no evidence that the biologists searched for bird nests. It is impossible that a 100 plus acre site does not support any nesting birds. The environmental setting analysis regarding nesting birds is not supported by substantial evidence. An amended DEIR must be prepared which adequately analyzes and addresses Project impacts to nesting birds.

Gaddis:
The DEIR "fails to document over 60 wildlife species that are well-known to habitat [sic] the College Park South location along the tributary creek."

"Madrone's report states they observed 33 bird species yet failed to document 37 other bird species."

"Madrone's so-called mitigation measures are wholly inadequate. For example suggesting that their biologist do a "pre-construction bird nesting survey" is absurd as they weren't even able to identify 60 wildlife species on the site after 18 separate surveys."

Madrone Response
As detailed in the Biological Resources Assessment (BRA) (included within the Draft EIR as Appendix C), the biological resources surveys conducted for this Project were reconnaissance-level in nature (with the exception of protocol-level surveys for certain relatively static biological resources), and were conducted to identify habitat for special-status species. While some bird species show nest fidelity, most nest in a new location each year; as such, a protocol-level nest survey is not informative as to where nests will be when construction occurs. What is informative is identifying nesting habitat, which shows where birds are most likely to nest. This is documented in Section 5.4 of the BRA. Neither the BRA nor the DEIR conclude that no birds are nesting within the Project site; they identify which birds are most likely to nest in which habitats on-site. Furthermore, both the BRA and the DEIR discuss a Swainson's hawk nest within the North Village site (BRA, p.28 and DEIR p. 3.4-33). Additionally, Mitigation Measure 3.4-4 requires that protocol-level nesting bird surveys (for both special-status and common birds protected by the Migratory Bird Treaty Act) be conducted prior to construction during the nesting season (DEIR, pp. 3.4-34 to 3.4-45). If active bird nests are found, construction activities will cease within specified no disturbance zones (DEIR, p. 3.4-34), and there is a provision for increased buffers if birds show signs of disturbance (DEIR, p. 3.4-35). This exact type of mitigation was upheld by the court in Save Panoche Valley v. San Benito County *(2013) 217 Cal.App.4th 503, 523-526, and is appropriate here to ensure nesting birds are adequately documented prior to construction and any impacts are mitigated to a less-than-significant level.*

In regards to Ms. Gaddis' comments, as noted throughout this response letter, the BRA surveys were reconnaissance-level in nature, and were conducted to identify habitat for special-status species. This is standard methodology for a survey to identify potential impacts that require analysis under CEQA. We did not conduct intensive surveys for specific special-status wildlife species, but rather assumed that they could be present and analyzed impacts based on the assumption of their presence. Ms. Gaddis notes that 60 wildlife species have been documented on-site, and on page 7 of her letter, refers the reader to a google folder (https://drive.google.com/drive/folders/0B1lebQtuPdbNejBibURKUHlQdnM?resourcekey=0--1xBHMLaSWlACRM2oe6yQ), with documentation of some of the wildlife species. Page 8 contains the comprehensive list. After comparing the wildlife list contained in the BRA against Ms. Gaddis' "list", we determined that she failed to document a number of relatively common wildlife species that Madrone observed only during reconnaissance-level surveys, including American crow, American kestrel, oak titmouse, pygmy nuthatch, tree swallow, and

Bewick's wren, among others. She has documented a number of both special-status and common wildlife species in this document, including a number of species that have been introduced to the area (Eastern fox squirrel, American bullfrog, red-eared slider, European starling and ring-necked pheasant). A number of bird species were documented as occurring on-site, even if they were just flying. An urban housing development is not generally considered "habitat" for bird species that fly over them; likewise, birds simply flying over the College Park Project site do not indicate that the Project site is habitat for them. Bird species reported as only flying over the site include bald eagle, osprey, and red-tailed hawk. There is no information regarding the Sandhill crane documentation, but given the habitat on-site, we would suspect that the bird was documented flying over the site during migration. As noted previously in this letter, the observations of Sierra Nevada red fox and kit fox are well outside of their known ranges and are almost certainly misidentified common fox species. Quite a few species were documented by Ms. Gaddis as "sighting" or "sighting in area" with or without a date; for the purposes of this response, we are assuming that these were in fact documented within the Project site, and not in other nearby areas that are not part of this analysis. The song sparrow documented by both Madrone and Ms. Gaddis on the Project site is not a special-status species. Although the "Modesto" population, and several sub-species of song sparrow are considered special status, the Project site is outside of the range of all of these. Of the remaining species that she documented, the following are special-status and must be analyzed under CEQA: western pond turtle, Swainson's hawk, white-tailed kite, tricolored blackbird, yellow warbler and monarch butterfly.

*Monarch butterfly had not been proposed as a candidate species under the federal Endangered Species Act when the BRA was originally drafted. However, we do not believe that suitable habitat for monarchs is present within the Study Area regardless. During the special-status plant survey, all plant species on-site were identified to at least genus level. No milkweed (*Asclepias *species) plants were documented during this survey. As stated in the U.S. Fish and Wildlife Service's* Monarch (*Danaus plexippus*) Species Status Assessment Report, version 2.1, September 2020, *monarch butterflies require a diversity of blooming nectar resources with milkweed (for both oviposition and larval feeding) embedded within this diverse nectaring habitat during breeding and migration (spring through fall). As no milkweed plants are present, monarchs could occur on-site occasionally, but the Project area does not contain suitable habitat for them.*

*The yellow warbler (*Setophaga petechia*) is not listed and protected pursuant to either the California or federal Endangered Species Acts; but it is a CDFW species of special concern. The yellow warbler is largely extirpated as a breeder in the Sacramento Valley, but it is a common migrant during the fall and winter months (Shuford and Gardali 2008). Yellow warblers generally occupy riparian vegetation in close proximity to streams. Preferred habitat in northern California is dominated by willows (Salix spp.), cottonwoods (Populus spp.), and Oregon ash (Fraxinus latifolia) (Shuford and Gardali 2008). Although the Study Area is generally considered outside of this species' current breeding range, it has been documented within the vicinity of the Study Area on the Sierra College campus just north of the Study Area (eBird 2021). Suitable winter foraging habitat for the species is located in the riparian woodland in the South Village. With the implementation of Mitigation Measure 3.4-4, effects to yellow warbler and other protected nesting birds will be less than significant.*

Frumkin Letter, p. 44
Sierra Geotech Letter, p. 22.
The DEIR's analysis "is flawed" in regards to the tri-colored blackbird.
First, the DEIR's conclusion is based on the erroneous observation that the nearest Tricolored blackbird-occupied habitat is near Wellington Way just north of East Roseville Parkway 3.6 miles away. However, observation of the Tricolored blackbird has been made by many El Don neighborhood residents within the South Village development site and the existing colony of just 3 miles away indicate a high probability of

this area being used by the Tricolor blackbird. Second, the Project's South Village development site is deep within the dispersal area of the Tricolor blackbird as evidenced by observations of Tricolor blackbird as far as 45 miles west of the site. Third, the habitat on the Project's South Village site appears to be as good or better for Tricolor blackbirds than those locations where the Tricolor blackbird colony has been spotted north of East Roseville Parkway.

Finally, the DEIR evidences no point count bird surveys conducted for the Project's South Village development site. No avian point count surveys were provided nor conducted on the Project's South Village development site. Avian point count surveys for adjacent urban development projects did not cover the Project's South Village development site. In light of the above flaws, the DEIR failed to accurately and completely describe the existing setting for Tricolored blackbirds.

Madrone Response

In response to the first component of this comment, Section 5.4.1 of the Biological Resources Assessment (BRA) (included within the Draft EIR as Appendix C), details the occurrence data noted in this comment, but does not present this location as the nearest tricolored blackbird occupied habitat, but rather as the "nearest documented nesting colony". Tricolored blackbirds may very well have been documented foraging in other closer locations (including on the Project site), but the CNDDB only tracks nesting locations of special-status birds. The BRA notes that the cattails, tules, and blackberry brambles in the south village site provide suitable nesting habitat for tricolored blackbirds.

In response to the second component of this comment, we concur that the Project site is within the range of the tricolored blackbird and the species has the potential to occur on-site. This has been acknowledged and analyzed in the DEIR.

In response to the third component of this comment, as noted in the BRA, the Wellington Way location has not been used in more than 20 years. When nesting was last documented in this location, the habitat was much different, and there was substantial grassland present to the north. This location is now considered a "permanently unsuitable" nesting location by the Tricolored Blackbird Portal. As a result, comparisons of habitat to this location are not informative.

In response to the final component of this comment, avian point count surveys are not necessary to document what special-status bird species have the potential to occur within the Project site, analyze potential impacts to those species, and detail mitigation for those impacts. If the analysis relied solely on point-count surveys, certain species that may occur only infrequently could be omitted, and not analyzed in the CEQA document. Furthermore, in our analysis, we not only searched for documented occurrences of species in the CNDDB (which tracks nesting locations), but also eBird and iNaturalist, which are citizen-science projects that document all records of birds.

We feel that the existing setting for tricolored blackbirds is accurately reported.

Frumkin Letter, p. 44
Sierra Geotech Letter, p. 22
Gaddis Letter, pp. 3-5

The DEIR's description of the existing environmental setting as it concerns Western Pond Turtle is inadequate on two counts: 1) the DEIR improperly assumes that failure to detect the species during reconnaissance-level surveys is evidence of Western Pond Turtles absence, and 2) the DEIR is internally

inconsistent as to whether Western Pond Turtles exist on the site. Western Pond Turtles have been observed by El Don residents on the South Village site and nesting areas upland from the creek have been observed.

The DEIR's reconnaissance-level surveys fail to provide a basis for assuming the turtle's absence because Western Pond Turtles during brumation, they will burrow into the mud above or below the water and remain inactive until it gets warm again and are difficult to detect except when they are above water. The turtles may simply not have been active during the reconnaissance-level surveys though they are present on the Project's South Village development site. The DEIR fails to establish a complete and accurate existing environmental setting as it relates to Western Pond Turtles.

Madrone Response
The last paragraph of Page 3.4-31 states "The main perennial creek running through the South Village Study Area represents suitable habitat for western pond turtle, and the adjacent riparian wetlands and riparian woodlands provide suitable nesting habitat." The only location in the DEIR where there is a conclusion that western pond turtle is absent is in reference to the North Village site, which does not contain any habitat that could support the species. This conclusion is not based on the lack of observations during a reconnaissance-level survey, but rather based on the lack of the habitat that the species requires.

CA Wildlife Foundation Letter, p. 4.
"The DEIR should analyze whether and to what extent the project would have downstream impacts on [Central Valley Steelhead]" in Secret Ravine Creek.

Madrone Response
Because the project footprint does not touch on Secret Ravine Creek, which is protected by riparian buffers, the potential impacts on Central Valley steelhead would be as a result of changes to water quality by the addition of visible and dissolved pollutants, including pesticides and fine sediment (sand) to the watershed and changes in hydrology. Potential impacts to water quality were addressed in the DEIR, Section 3.9.

The current project design incorporates measures that would include both volume-based best management practices (BMPs) (i.e., bioretention, infiltration features, pervious pavement, etc.) and flow-based BMPs (i.e., vegetated swales, stormwater planter, etc.), which will provide biofiltration of storm water from the Project Site and will maintain flows to Secret Ravine at 90% of pre-project conditions (a reduction in post-project from pre-project conditions). These BMPs will include a network of drainage pipes in the North Village site that flow into two water quality/detention basins which will drain overland into Secret Ravine; an underground detention vault which will gravity discharge to existing drainage systems under Sierra College Blvd.; and an underground detention vault or water quality detention basins (design not yet finalized) that will gravity discharge to existing drainage systems under Rocklin Road. Storm water in the South Village would be piped into four water quality/detention basins which will gravity discharge into the tributary to Secret Ravine. With the incorporation of the mitigation measures as described in Section 3.9, effects to Central Valley steelhead downstream of the project would be less than significant with mitigation.

Frumkin Letter, p. 45
Sierra Geotech Letter, pp. 22-23
The DEIR's analysis regarding the lack of special status species on the proposed Project site is not supported by substantial evidence. The DEIR identified the following special-status plant species that were likely to be present on the proposed Project site: big-scale balsamroot, dwarf downingia, Bogg's Lake hedge hyssop, Ahart's dwarf rush, and Sanford's arrowhead. The DEIR technical appendix for Biology stated that special-

status focused plant surveys were conducted in 2017 and 2020, however, the focused studies are not provided in the technical appendix.

Madrone Ecological Consulting (MEC) conducted focused surveys for special-status plants in the Project area and had negative results and concluded special status plant species are known to be absent. There are several errors in the DEIR's determination. First, the statement that the surveys were conducted during the peak blooming periods is not supported by evidence because, contrary to the CDFW Protocols, MEC's biologist/botanist did not visit reference sites to verify that special-status plants known to occur in the region were identifiable at the time of the surveys. The failure to visit reference sites is a critical error because M EC's surveys were conducted during a drought year, and many of the special-status species that have potential to occur at the Project site may not be evident and identifiable during drought years.

Second, it appears MEC made no effort to relocate the special status plant populations that had been detected in the Project area during surveys conducted for the Sierra Joint Community College campus projects. Nevertheless, the CDFW Protocols state: "the failure to locate a known special status plant occurrence during one field season does not constitute evidence that the plant occurrence no longer exists t a location, particularly if adverse conditions are present." (California Department of Fish and Wildlife. 2018. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities) Because MEC's surveys were limited to one field season during two separate years of drought three years apart, the City must assume big-scale balsamroot, dwarf downingia, Bogg's Lake hedge hyssop, Ahart's dwarf rush, and Sanford's arrowhead continue to occupy the Project site.

Third, the DEIR fails to provide evidence that the botanical field surveyors had the qualifications needed to identify sensitive botanical resources in the Project area.

Fourth, it appears the botanical surveys were limited to the Project's North Village development area, and did not encompass areas that would be impacted by road widenings, new utility easements, abandonment of existing utility easements, and the South Village development area. The survey area should have included the entire Project area, even offsite elements, like the extension and oversizing of sewer and water lines, or upgrades of PG&E electrical services infrastructure which have linear features of improvements which stretch beyond the North and South Villages of development and were not included in special status species surveys.

Madrone Response

Reference populations were visited for all special-status plants that have nearby populations, and surveys were conducted approximately one week after the spring target species (which have a very brief bloom window) were observed in bloom. Those without nearby populations were viewed at the UC Davis Center for Plant Diversity (herbarium), and the survey was conducted when they would be identifiable. Big-scale balsamroot is a relatively conspicuous perennial that would have been identifiable at least to genus even if not in bloom due to the large, conspicuous dissected grey leaves. Ahart's dwarf rush is a small annual rush, and the survey was conducted when similar small annual rushes were identifiable. The reference population table is included as Attachment B of the special-status plant survey report. Reference population checks serve two functions: they ensure that surveys are conducted at a time of year when the target species are in bloom (especially for early spring species, which can have a very short bloom period), and they document whether climatic conditions were appropriate for the target species to germinate, grow, and bloom that year (this is especially important for annual species). The reference population table documents that of the species for which

reference populations could be found, climatic conditions allowed these species to develop properly during the survey year.

We are not aware of any special-status plants that have previously been documented within either the North Village or South Village sites. The commenter was not specific about what project the surveys he refers to were conducted for. If the commenter is referring to the Sierra College Rocklin Campus Facilities Master Plan Draft EIR*, which was published in 2018, no portion of the Study Area was within that Project area, and no special-status plants were found within that area. Neither the CNDDB or CalFlora's data (which includes all herbarium records in California) report any occurrences of special-status plants on or near the Project sites. The results of our surveys are consistent with this lack of data in the CNDDB and CalFlora tools.*

The surveys were conducted almost exclusively by Madrone botanist Daria Snider, who has been conducting botanical inventories for over a decade. She has observed all of the target plant species in the field during prior surveys, with the exception of big-scale balsamroot, which has not been documented in the region since 1958. Her qualifications are provided as Attachment A of the rare plant survey report.

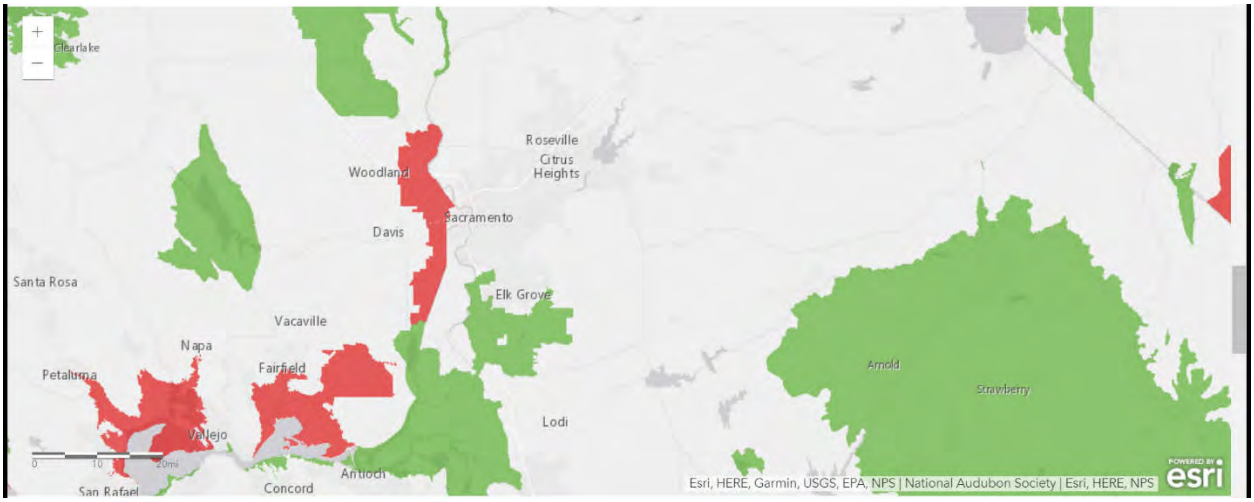
The Study Area for the special-status plant surveys is consistent with the area analyzed in the DEIR, and covers both the proposed development and any associated off-site infrastructure and improvements.

We would recommend that the special-status plant survey report be included as an attachment to the FEIR. That report documents a number of items of concern to Mr. Frumkin, including reference populations that were visited, the surveying botanists' qualifications, the Study Area for the surveys, and a comprehensive plant list of all plants documented within the Study Area.

Frumkin, p. 24
The entire Project area is located within "Important Migrant and Wintering Bird Concentration Areas of Western Placer County," (Important Migrant and Wintering Bird Concentration Areas of Western Placer County, Placer County Planning Department, Jones and Stokes, May, 2003). Important Migrant and Wintering Bird Concentration Areas are officially designated places of international significance for conservation of birds and biodiversity. The Project area is also located within the Sierra Nevada Foothills Important Bird Area (IBA) (See Bird Life International. 2021. Important Bird Areas: Sierra Nevada Foothills, California (online). Available at: https://www.birdlife.orglworldwidelprogramme-additionalinfolimportant-bird-and-biodiversity-areas-ibas. (Accessed October 11, 2021).

Madrone Response:
Upon review of the "Important Migrant and Wintering Bird Concentration Areas of Western Placer County" document that Mr. Frumkin references, we determined that the Project site was located within the Study Area for this document, but none of the "Important Concentration Areas" identified in the document occur within the Project site. It should be noted that all of western Placer County west of Meadow Vista (including all of the urban areas in downtown Auburn, Lincoln, Rocklin, and Roseville) is within the Study Area for this document.

We visited the Bird Life International link provided on 14 December 2021, and did not find the "Sierra Nevada Foothills" on the list of Important Bird Areas (IBAs), and the Audubon Society map of IBAs does not show anything in the vicinity of the Project site (https://www.audubon.org/important-bird-areas). The Audubon Society map of the region is below for your reference. The green areas are IBAs of State priority, and the red are IBAs of Global priority.



If you have any questions or require additional information, please contact me at (916) 822-3230, or at svonderohe@madroneeco.com.

Sincerely,

Sarah VonderOhe
Principal

Attachments

Attachment A

Resumes for Sarah VonderOhe and Daria Snider

Sarah VonderOhe

Ms. VonderOhe has more than 20 years of experience in environmental consulting. As a senior biologist and principal, she manages challenging multidisciplinary projects. Ms. VonderOhe has a working knowledge of environmental policies and regulations (state and federal), specifically, the California Environmental Quality Act, Sections 401 and 404 of the Clean Water Act, section 1600 of the California Fish and Game Code, and the state and federal Endangered Species Acts. Ms. VonderOhe has conducted numerous wetland delineations, special status plant and animal surveys, and environmental constraints analyses. Ms. VonderOhe has led the natural resource permitting for a variety of projects from public infrastructure to large specific plans.

Ms. VonderOhe also specializes in developing restoration and mitigation plans throughout California's Central Valley and Sierra Nevada foothills, with an emphasis on vernal pool grasslands. Additionally, she develops large scale management plans for open space and wetland preserve systems.

POSITION
Principal (2014-2021)

PRIOR WORK EXPERIENCE
Natural Resources Department Manager, ECORP Consulting, Inc. (1999-2014)

AREAS OF EXPERTISE
- Complex Regulatory Permitting
- Mitigation Planning

EDUCATION
B.S., *Biological Sciences*, University of California, Davis, 1999

RELEVANT TRAINING
- CRAM, Vernal Pools
- Grassland Restoration
- Oak Regeneration
- Planned Grazing

SELECTED PROJECT EXPERIENCE

Hawver and Gwin Mine Roads Storm Repair Project, Calaveras County (2019)
Ms. VonderOhe led the environmental permitting for this project located in the foothills of Calaveras County. The project consists of the repair and rehabilitation of a low water crossing of the Calaveras River, two culvert repairs at washout locations, and multiple slope failure repairs with Hilfiker panels. Ms. VonderOhe obtained the 401 water quality certification, 1602 streambed alteration agreement, and worked with the project engineers to ensure compliance with the applicable U.S. Army Corps of Engineers nationwide permits. Madrone's work encompassed the biological resources inventories including the aquatic resources delineation, assessment of special-status species habitats present, and protocol-level special-status plant survey. The project is currently out to bid.

City of Roseville On-Call Environmental Services (2017-current).
Madrone has supported the City of Roseville with on-call environmental services since 2017. Services provided have included pre-construction bird surveys for a major sewer line, location of the ordinary high-water mark for the installation of a stream gauge, and worker environmental awareness training for an electrical substation.

Brady at Vineyard, Placer County (2017-2019).
The Brady at Vineyard project is a housing development located in Placer County near the City of Roseville. Ms. VonderOhe oversaw the development of the Biological Resources Assessment used to support the Environmental Impact Report prepared by the county and is currently working with the project proponent to obtain the environmental permits.

Sierra Vista Specific Plan, Placer County (2014-ongoing). Ms. VonderOhe was the natural resource permit lead on this overall specific plan area for the last 4 years, overseeing the final natural resource/regulatory permitting effort for 5 of the 7 properties within the 2,064-acre plan area. Ms. VonderOhe has continued to lead a

team of biologists through project implementation ensuring that pre-construction and during construction permit conditions are met. This includes agency notifications, pre-construction species surveys and monitoring, monitoring of mitigation implementation, post-construction reporting and agency sign-off.

Placer Valley Event Center (@theGrounds), Placer County (2017-2019).
Madrone conducted multiple studies for the renovation of the Placer County Fairgrounds including, a dry-season vernal pool branchiopod survey, special-status plant survey, aquatic resources delineation, Valley elderberry longhorn beetle habitat survey, and a preconstruction bird survey. Ms. VonderOhe managed the biological resources tasks for the project including the surveys, preparation of the Biological Resources Assessment to support the Environmental Impact Report. The U.S. Army Corps of Engineers determined that the wetlands on site were not waters of the U.S. Ms. VonderOhe obtained a WDR from the Central Valley Water Quality Control Board, and an operation of law letter from the California Department of Fish and Wildlife to allow the project to move forward.

SMUD UARP Roadway Improvement Areas, El Dorado County (2018).
Ms. VonderOhe was the regulatory permitting lead for this roadway improvement project that resulted in the removal and replacement of more than 20 culverts and installation of 6.4 miles of paved roadway. She is overseeing a team of biologists who have completed the project's aquatic resources delineation, riparian vegetation assessment, special status plant survey, and foothill yellow-legged frog clearance survey. The first phase of construction was completed on time after successful negotiation of the streambed alteration agreement and assessment of each culvert against the requirements of SMUD's Regional General Permit.

700 Crocker Drive, Vacaville (2017-current)
Madrone prepared the Biological Resources Assessment (BRA) for the Mitigated Negative Declaration for this industrial project located in Vacaville. Ms. VonderOhe oversaw the preparation of the BRA as well as responded to comments on the environmental document relating to biological resources. She is now in the process of obtaining the state and federal regulatory permits.

Aspen VIII and IX, Sacramento County (2014-2017).
Ms. VonderOhe worked for Teichert Materials on this fast-tracked project needed for regional infrastructure and development. Ms. VonderOhe was asked to join the project team in 2014 to take over the natural resource/regulatory permitting tasks. This aggregate mining project was urgently needed to address regional demand. The permitting effort was successful, and the permits were issued such that there was no lapse in production for Teichert's customers. Permitting involved permits/agreements: Clean Water Act, Section 404; Clean Water Act, Section 401; Federal Endangered Species Act; Streambed Alteration Agreement. Ms. VonderOhe also oversaw compliance tasks associated with mitigation requirements including the purchase of compensatory mitigation and off-site mitigation easements.

California High-speed Train – Statewide (2013-2017).
Ms. VonderOhe joined the Regional Consultant team in 2013 to assist with mitigation/permitting strategy for permitting phase one (PP1) and overall mitigation strategy associated with the Merced to Fresno Section of the High-speed Train project. She was one of the primary authors of the multi-agency Permittee Responsible

Mitigation Plan and was responsible for responding to agency comments and completing the final document. Ms. VonderOhe was responsible for overseeing the production of the figures and GIS analyses associated with the mitigation for PP1, coordination with the owner and representative of the selected mitigation property, and support for the various other documents associated with the environmental clearance of the mitigation site and the Merced to Fresno Section (e.g., USACE permit, State Water Board certification). As a part of the Rail Delivery Partner she was involved program-wide. Her responsibilities focused on supporting the issuance of regulatory permits by working closely with Authority staff and consultants, participating in or leading agency negotiations, reviewing documents drafted by Regional Consultants, and participating in regulatory permitting/resource mitigation planning and problem-solving meetings.

Placer Parkway, Placer County (2015-2017). Placer Parkway is planned as a high-speed, limited access roadway, designed to Caltrans' standards. The ultimate Placer Parkway connection between SR 70/99 and SR 65 is envisioned to reduce anticipated pressure the local/regional transportation system and to advance economic development goals in southern Sutter and western Placer Counties. As part of the team working on the Placer Parkway Phase 1 Improvements project, Ms. VonderOhe prepared the Clean Water Act, Section 404, Individual Permit application and the information to support the 404(b)(1) alternatives analysis.

Aspen III South/Granite Vineyard I, Sacramento County, California (2004-2009).
Ms. VonderOhe led the development and approval of a restoration/mitigation plan for the Aspen III South/Granite Vineyard 1 projects. The design allowed for the realignment of Morrison Creek through the project site. Roughly 2,500 linear feet of creek was designed by her team. Negotiations for approval included state and federal agencies as well as local approvals.

I-80 Eastbound HOV Project from East of Greenville Road to Hacienda Drive, Alameda County (2005-2007). Ms. VonderOhe assisted the project team in negotiations with the California Regional Water Quality Control Board (RWQCB), San Francisco Bay Region, regarding project mitigation, including researching on and off-site mitigation options. She coordinated with the California Department of Fish and Wildlife (CDFW) to provide information to CDFW staff regarding impacts and mitigation to further the issuance of the Streambed Alteration Agreement. Additionally, she provided input on the selected on-site wetland mitigation option to increase the likelihood of success.

Lake Putt, Placer County, California (2012).
Ms. VonderOhe oversaw the environmental studies to support permitting of a temporary aggregate crushing facility near Lake Putt in Emigrant Gap, California. These studies included a wetland delineation, arborist survey, vegetation community mapping, canopy mapping, and special-status species assessment. In addition, Ms. VonderOhe oversaw the development of mitigation measures for inclusion in the project's CEQA document.

Open Space Management Plan Preparation, City of Roseville Open Space Preserve Overarching Management Plan, City of Roseville, Placer County (City of Roseville, 2007-2011): Ms. VonderOhe was the primary author of this comprehensive management plan for the City of Roseville's open space preserves. Since the 1990's, the City of Roseville has managed each of its open space preserves according to

individual operations and management plans. While this approach was adequate when only a few open space preserves existed, the number of preserves has steadily increased over the last decade. As natural resource agency requirements and management requirements have changed, the individual management plan requirements have changed, leading to different requirements for different preserves. Ms. VonderOhe drafted a plan designed to provide a City-wide approach to open space management, maintenance, and monitoring along with specific goals for each. The new plan allows the City to consolidate existing Open Space Preserve monitoring and reporting requirements to allow for more comprehensive data gathering and preparation of a single annual monitoring report. It also eliminates the need for additional management plans when new open space is dedicated through the development process or habitat conservation efforts. In addition, the USFWS has issued a biological opinion for the plan that will allow the City to conduct necessary open space management and maintenance tasks that might adversely affect federally listed species (threatened or endangered) protected by the USFWS.

Open Space Management Plan Preparation, Clover Creek Preserve Conservation Areas, City of Redding, Shasta County (City of Redding 2000-2011): Ms. VonderOhe was part of the project team assisting the City of Redding through the regulatory permit process for their Clover Creek Preserve restoration and flood control project. Ms. VonderOhe developed the operations and management plan for the conservation areas as required by the USACE. Habitats to be preserved and created included oak woodland, seasonal wetlands, freshwater marsh, and vernal pools with documented occurrences of special status species. Ms. VonderOhe drafted the initial management guidelines and worked with City and agency staff to determine allowed and prohibited activities within the Conservation Areas. Preparation of this plan involved developing informative maps and graphics, negotiating final terms of the plan and the conservation easement with the USACE, and estimating annual costs to carry out monitoring required by the plan.

Mitigation Assistance, California High-speed Train – Merced to Fresno Section (ICF for CA High Speed Rail Authority, 2013-2014): Ms. VonderOhe joined the Regional Consultant team in 2013 to assist with mitigation/permitting strategy for permitting phase one (PP1) and overall mitigation strategy associated with the Merced to Fresno Section of the High-Speed Train project. She was one of the primary authors of the multi-agency Permittee Responsible Mitigation Plan and was responsible for responding to agency comments and completing the final document. Ms. VonderOhe was responsible for overseeing the production of the figures and GIS analyses associated with the mitigation for PP1, coordination with the owner and representative of the selected mitigation property, and support for the various other documents associated with the environmental clearance of the mitigation site and the Merced to Fresno Section (e.g., USACE permit, State Water Board certification).

Project Manager, Rio del Oro – Vernal Pool Enhancement and Restoration, City of Rancho Cordova, Sacramento County (Elliott Homes 2002-2011): Significant portions of the 3,893±-acre Rio del Oro specific plan were mined for gold starting in the early 1900s and the remainder was used primarily for agriculture. Ms. VonderOhe led the team that assessed the site's vernal pool grassland for enhancement, restoration, and creation potential. With her team, she conducted fieldwork, assessed historic photos, and used LIDAR-derived topographic data to develop the vernal pool mitigation plan. The LIDAR-derived topographic data was also used to determine if the

limits of the proposed preserve boundary are sufficient to maintain the hydrologic function of the existing and restored wetlands.

Daria Snider

Ms. Snider has more than 17 years of experience in environmental consulting and specializes in wetland delineations, rare plant surveys/other floristic inventories, and wildlife surveys. Her botanical experience includes general vegetation surveys, aerial and field vegetation mapping, rare plant surveys, Certified Arborist tree inventories, CRAM Assessments, floristic monitoring, and invasive species identification and mapping. Her wildlife survey experience includes San Joaquin kit fox, desert kit fox, valley elderberry longhorn beetle, California tiger salamander, vernal pool branchiopod, burrowing owl, Swainson's hawk, and raptor nest surveys. She authors complicated biological resources assessments summarizing the results of these surveys and anticipated resource impacts for a variety of project types.

POSITION

Senior Biologist

AREAS OF EXPERTISE

- Wetland Delineations
- Rare Plant Surveys
- Wildlife Surveys
- Regulatory Permitting

EDUCATION

B.S., *Animal Science*, University of California, Davis, 2001

PERMITS

- ISA Certified Arborist (#WE-8666A)
- CDFW Rare, Threatened, and Endangered Plant Voucher Collecting Permit (#09050)
- USFWS Section 10(a)(1)A permit TE-89994B-0 for vernal pool branchiopods
- Certified CRAM Practitioner
- Yolo HCP Qualified Biologist

SELECTED PROJECT EXPERIENCE

Summerfield at Twin Cities, City of Galt (2019-ongoing)
Ms. Snider conducted the protocol-level wetland delineation and special-status plant survey for this proposed residential development, and is currently preparing the South Sacramento Habitat Conservation Plan (SSHCP) Application for this project.

Joiner Nicholas, City of Lincoln (2015-ongoing)
Ms. Snider is the lead biologist on this project, and in that role, has conducted a protocol-level wetland delineation on portions of this site, special-status plant surveys throughout the site, a U.S. Army Corps of Engineers (USACE) jurisdictional analysis based on the 2020 Navigable Waters Protection Rule (NWPR), and a request for an Approved Jurisdictional Determination (AJD) based on the jurisdictional analysis. Ms. Snider also surveyed an off-site property being proposed as land-in-lieu of fee under the Placer County Conservation Programs Placer County Habitat Conservation Plan and Natural Community Conservation Plan (PCCP) and prepared a Land-In-Lieu of Fee Proposal Package for review by the Placer Conservation Agency (PCA). Ms. Snider mapped the PCCP land covers, identified the Stream System boundary and all of the County Aquatic Resources Program (CARP) buffers that were applicable to this project, and calculated the PCCP fees that would apply to the proposed impact plan. Ms. Snider is assisting in preparation of the PCCP application.

Creekview Ranch, Placer County and City of Roseville, (2019-ongoing)
Ms. Snider is the lead biologist on this project, and in that role, is conducting a protocol-level wetland delineation on portions of this site, special-status plant surveys throughout the site, a USACE jurisdictional analysis based on the NWPR, and a request for an AJD based on the jurisdictional analysis. Ms. Snider mapped the PCCP land covers, identified the Stream System boundary and all of the County Aquatic Resources Program (CARP) buffers that were applicable to this project, and calculated the PCCP fees that would apply to the proposed impact plan. Ms. Snider is assisting in preparation of the PCCP application. Ms. Snider has also been working with the Project proponent to identify trail and sewer alignments with the fewest biological constraints and consequently lowest PCCP fees.

West Davis Active Adult/Bretton Woods Project, City of Davis (2018-ongoing)
Ms. Snider is the biological resources lead for this 156-acre proposed development. In this role, she conducted the protocol-level wetland delineation, special-status plant survey, elderberry survey, and Yolo Habitat Conservation Plan (Yolo HCP) land cover mapping. Ms. Snider prepared the Planning Level Survey Report as required by the Yolo HCP, assisted in preparing the Yolo HCP Application Package, and conducted the GIS impact analysis (including identification of Yolo HCP fee buffers for the varying impact types) for the various project components. Ms. Snider has also assisted in the preparation of all of the regulatory permit applications necessary for this project (Clean Water Act Sections 404 and 401, and California Department of Fish and Wildlife Lake and Streambed Alteration Agreement).

Yarbrough Specific Plan, City of West Sacramento (2019-ongoing)
Ms. Snider is the biological resources lead for this roughly 700 acre specific plan. In this role, she oversaw the protocol-level wetland delineation and elderberry survey, and worked with the USACE on analyzing the USACE jurisdiction for the various ditches on the property, which ultimately resulted in a combination Preliminary Jurisdictional Determination (PJD) and AJD. Ms. Snider conducted the Yolo HCP land cover mapping, has been conducting the GIS impact analysis (including identification of Yolo HCP fee buffers for the varying impact types) for the various iterations of project designs, and is preparing the Yolo HCP Application Package for the Project.

Florin Vineyards, Sacramento County (2021-ongoing)
Ms. Snider is conducting the protocol-level wetland delineation for portions of this site, special-status plant survey throughout the site, and is currently preparing the SSHCP Application for this project.

The Farm at Alamo Creek, Solano County (2016-ongoing).
Ms. Snider is the lead biologist for this 214-acre mixed use development project. In that role, she has conducted the aquatic resources delineation, prepared the Biological Resources Assessment to support preparation of the EIR for the project, conducted the protocol-level plant surveys, protocol-level Valley Elderberry Longhorn Beetle habitat surveys, mapped riparian habitat, and prepared the Nationwide Permit 29 application and the Streambed Alteration Agreement Notification. In addition, she prepared responses to comments on the biological resources section of the Draft EIR, and coordinated additional surveys on the site, including protocol-level burrowing owl and Swainson's hawk surveys.

Folsom South of 50 Specific Plan Waterline Alignments (Owner's Group, 2011-2012). During the planning phase of the 3,500 - acre proposed mixed-use Folsom South of 50 Specific Plan, the Owner's Group developed several potential off-site waterline alignments. Ms. Snider conducted a biological constraints analysis for all 17 miles of potential alignments, including vegetation community mapping, a preliminary wetland assessment, special-status species assessment, elderberry surveys, and native tree mapping.

SMUD UARP Roadway Improvement Areas, El Dorado County (2018-2019). Ms. Snider was the biological resources lead for this roadway improvement project that involved the removal and replacement of more than 20 culverts and upgrades to 6.4 miles of existing dirt roads. She led a team of biologists to prepare an aquatic resources delineation and map vegetation communities along the 6.4-mile long Study Area. In addition, Ms. Snider prepared U.S. Forest Service compliant wildlife and plant Biological Evaluations and the Riparian Conservation Objectives report, and conducted the special status plant survey and invasive plant mapping.

California High-Speed Train – Statewide. California High Speed Rail Authority (2013-2017). Ms. Snider joined the Regional Consultant team in 2013 to provide general biological resources support for permitting phase one (PP1) of the Merced to Fresno Section of the High-speed Train Project (Project). She was one of the primary authors of the Biological Assessment Addendum for the Lazy K Ranch mitigation components of PP1, provided extensive technical support in revising and finalizing the Lazy K Ranch Long Term Management Plan, assisted in drafting the multi-agency Permittee Responsible Mitigation Plan, and drafted several technical memoranda to support agency

consultation for PP1. Subsequently, as a part of the Rail Delivery Partner, she prepared the initial special-status plant and wildlife impact and mitigation estimates for the San Jose to Merced Section of the Project, compiled available resource information on potential mitigation properties for the Fresno to Bakersfield Section, and led field surveys on the unsurveyed 1,840-acre Blasingame Ranch, which was considered as a mitigation property. These field surveys included special-status plant surveys, assessment-level vernal pool branchiopod surveys, and surveys for other special-status wildlife species.

Attachment B

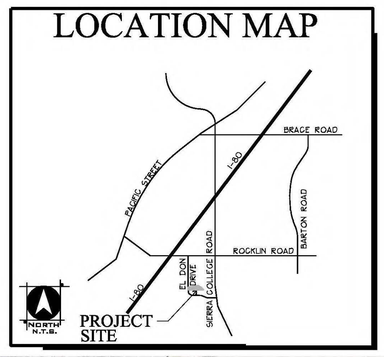
Riparian Area Exhibit
for College Park Site C

RIPARIAN AREA EXHIBIT

COLLEGE PARK
SITE C

CITY OF ROCKLIN, CALIFORNIA

DECEMBER 2021



ROCKLIN ROAD

EL DON DRIVE

SITE C2(W)

CITY APPROVED RIPRARIAN LINE

DB WQ

SITE C2(E)

CITY APPROVED RIPRARIAN LINE

EXISTING PARK

CITY APPROVED RIPRARIAN LINE

CREEK

DB WQ

SITE C1

DB WQ

CORONA CIRCLE

PROJECT BOUNDARY

EXISTING STONEBROOK ESTATES

NOTE DB WQ

FINAL DETENTION BASIN/LID AND WATER QUALITY TREATMENT SHALL BE CALCULATED AND SIZED BASED UPON THE FINAL LAND USE PLAN.

LEGEND

RIPARIAN BUFFER

40' 20' 0 40'

SCALE: 1" = 40'

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
3301 C St, Bldg. 100-B Tel 916.341.7760
Sacramento, CA 95816 Fax 916.341.7767

J:\3000-s\3258_East Sierra\3256 East Sierra Site C\Civil\Exhibits\C-EXH-EAST_SIERRA_RiparianArea_36x48.dwg 12/20/2021 11:08 AM Mike Ronco

Attachment E

Letter from Wood Rodgers on
Hydrology and Water Quality

WOOD RODGERS

January 11, 2022

Jim Moose
Remy Moose Manley, LLP
555 Capitol Mall, Suite 800
Sacramento, CA 95814

Re: College Park Draft EIR Response to Comments ~ Section I, Hydrology and Water Quality
City of Rocklin

Dear Jim,

Set out below is a description of the regulatory framework required to complete the drainage studies for College Park. Preliminary drainage designs for the project have been completed and submitted to the City for review for College Park North Site A and College Park South Sites C1 and C2East. College Park sites B and C2West will be subject to review and approval by the City of Rocklin prior to development.

As required, the on-site drainage systems were designed to meet the requirements of the Placer County Stormwater Management Manual (SWMM) for flood control. Also utilized were the City of Rocklin Post-Construction Manual Design Guidance for Stormwater Treatment (RPCM) and the West Placer Storm Water Quality Design Manual (WPSWQM), necessary to determine proposed stormwater quality treatment measures. On-site drainage systems for sites B and C2West will be designed to meet these same standards and requirements.

Placer County drainage requirements to be met by this drainage system include the following:

- All new development shall be planned and designed so that no damages occur to structures or improvements during the 100-year event and no inundation of private property occurs during the 10-year event (SWMM – Section VI. B. 2.)
- 10-year flows shall be conveyed within the gutter, roadside ditches or swales, or underground within street areas (SWMM – Section VI. – C. 1.).
- Maximum stormwater elevation is 4" above the top of curb and the storm and water flow cannot exceed 3 ft/sec during the 100-year event for continuous grade profiles (SWMM – Table 6-1).
- Stormwater is a minimum of one foot below building pads during the 100-year event at sag points. Ponding does not extend more than 120 feet from inlet (2 std. residential lot frontages) along any street segment (SWMM – Table 6-1).
- The design HGL should be at least 6 inches below the gutter grade at the inlet to allow the inlet to function properly. The inlet should not be counted as accepting (additional) flow if there is a possibility the hydraulic grade will be above this level (SWMM – Section VI. – D. 2. b. (4)).
- The objective flow shall be taken as the estimated pre-development peak flow rate less 10 % of the difference between the estimated pre-development and post-development peak flow rates from the

site for all standard design storms ranging in frequency from the 2-year and up to and including 100-year. In no case, however, shall the objective flow be greater than 90 percent of the estimated pre-development flow (SWMM – Section VII. – D. 1. a. and Figure 7-1).

In short, the proposed developments will decrease the existing drainage flows (discharge), currently experienced within the undeveloped areas by a minimum of 10%. Coupled with the recent drainage culvert improvements on El Don, specific at College Park South, the neighborhoods served by this drainage corridor will see an overall decrease in drainage conveyance and newly installed drainage culverts. The recently installed drainage pipes under El Don, just south of Monte Verde Park, replaced the deteriorated corrugated metal pipes (CMP) which failed during the October rain event.

A question was raised by a commenter to the DEIR regarding the discharge points of the College Park North Site A basins that shed North toward Secret Ravine. The concern expressed was the potential modification to the hydrology of that site. As required, the proposed basins (2) collect, detain and release drainage flows at 90% of the pre-development flows. The proposed basins are strategically located in an area whereas the piped drainage discharge locations will occur in the existing natural drainage course locations. Historic drainage patterns will be maintained by this strategy with the reduced flow requirements. The maintaining historic drainage is an obligation of neighboring property owner.

City of Rocklin and West Placer Storm Water Quality Design water quality requirements to be met by this drainage system include the following:

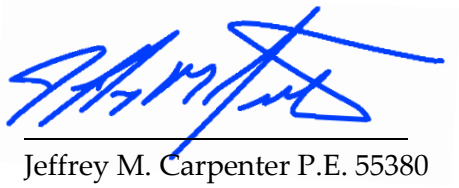
The proposed drainage conveyance system includes on-site detention facilities. These detention facilities will also act as a bioretention basin for stormwater quality treatment.

The detention facilities will treat an equivalent amount of runoff volume through bioretention at depths greater than recommended in the City's Post-Construction Manual. The methods follow current WPSWQM guidelines.

A portion of the southern shed of College Park North, will utilize an underground vaulted detention basin rather than an above-ground structure. Storm water quality treatment will be achieved through a treatment vault structure, outfitted with filtration comparable to bioretention facilities located adjacent the flood detention facility.

If you have any questions, please do not hesitate to call.

Sincerely,
Wood Rodgers, Inc.



Jeffrey M. Carpenter P.E. 55380
Principal

Attachment F

Draft Initial Study and Notice of Intent to Adopt a Mitigated Negative Declaration
for the Flying Change Farms Project (May 2018)

Draft Initial Study
and
Notice of Intent to Adopt a Mitigated Negative Declaration

for the

Flying Change Farms Project

Prepared for:

Town of Loomis

Prepared by:

Adrienne L. Graham, AICP

May 2018

NOTICE OF INTENT
TO ADOPT A MITIGATED NEGATIVE DECLARATION FOR THE

FLYING CHANGE FARMS PROJECT

Date: June 1, 2018

To: Interested Persons

Subject: Notice of Intent to Adopt a Mitigated Negative Declaration for the Flying Change Farms Project

Lead Agency: Town of Loomis
Planning Department
3665 Taylor Road
Loomis, CA 95650
Phone: (916) 652-1840
RKing@loomis.ca.gov

Contact: Robert King, Town Planner

Project Applicant: Flying Change Farms

Project Location: 5145 James Drive, Town of Loomis

Project Summary: The proposed project would construct and operate a private equestrian center on approximately 11 acres. The project would include a 40-stall barn, a covered riding arena, two outdoor arenas, and associated facilities. A maximum of 55 horses would be boarded at any one time. Up to two clients are expected to trailer in on 3 to 4 days a week. The facility will not host horse shows or similar events. The site has a single residence, which would be the on-site manager's quarters. Two additional employees would live off site.

IS/MND: The Town of Loomis is the Lead Agency pursuant to the California Environmental Quality Act (CEQA) for the proposed Flying Change Farms project (Proposed Project). The Town intends to adopt a Mitigated Negative Declaration for the Proposed Project.

Comment Period: The proposed IS/MND is available for public review from 9:00 a.m. to 5:00 p.m., Monday through Friday, at the offices of the Town of Loomis (address listed above) and online at the Loomis website at:

http://loomis.ca.gov/home

The public comment period on the IS/MND closes at 5pm on Monday, July 2, 2018. Written comments may be submitted to Robert King, Town Planner at the above address. Emailed comments should be submitted to "RKing@loomis.ca.gov " and should include the phrase "Flying Changes Farm IS/MND" in the subject line.

Draft Initial Study
and
Notice of Intent to Adopt a Mitigated Negative Declaration

for the

Flying Change Farms Project

Prepared for:

Town of Loomis

Prepared by:

Adrienne L. Graham, AICP

May 2018

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1. BACKGROUND AND INTRODUCTION

Project Title:	Flying Change Farms
Lead Agency Name and Address:	Town of Loomis Planning Department 3665 Taylor Road Loomis, CA 95650
Contact Person and Phone Number:	Robert King, Town Planner Phone: (916) 652-1840
Project Location:	5145 James Drive Town of Loomis
Project Sponsor's Name and Address:	Flying Change Farms 5145 James Drive Loomis, CA 95650
General Plan Designation:	Residential Estate (2.3-acre minimum)
Zoning:	RE—Residential Estate
Description of the Project:	See Chapter 2
Other Public Agencies Whose Approval may be Required:	Placer County Air Pollution Control District Central Valley Regional Water Quality Control Board South Placer Fire District
Tribal Consultation:	United Auburn Indian Community (ongoing)

INTRODUCTION

This Initial Study was prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Sections 1500 *et seq*.) to evaluate the effects of the Flying Change Farms project (Proposed Project), which would construct and operate a private equestrian center in the Town of Loomis, on the environment.

CEQA requires that the lead agency analyze impacts of a proposed project on the environment. Such impacts are analyzed in this Draft Initial Study. Recently, the Supreme Court ruled that a lead agency needs to analyze the effects of the environment on a project's residents or users only where the project itself might worsen existing environmental hazards in a manner that could have an adverse effect [*California Building Industry Association v. Bay Area Quality Management District* (Section 213477, December 17, 2015)]. For example, a project located within an area with potential seismic activity that could expose project occupants to risks associated with earthquakes would not require analysis in a CEQA document as long as the project did not exacerbate the frequency, duration or strength of potential seismic events.

Although the Town no longer needs to analyze such impacts due to the Court's ruling, information regarding site constraints and other factors that could affect the safety and stability of project development are provided for the reader's information (see, for example, Item 6, Geology and Soils).

2. PROJECT DESCRIPTION

PROJECT LOCATION

The project site is located on 40 acres within the Town of Loomis in Placer County (see Figure 2-1, Regional Location), north of Rocklin Road (see Figure 2-2, Project Location). The project site is bounded by Sierra College property to the west, a church and residential development to the south, vacant land to the east and the north. The area immediately west and north of the project site is located in the City of Rocklin. The Proposed Project would generally occur within the northwest quadrant of the project site.

The Assessor's Parcel Number (APN) for the project site is 045-150-003. The 40-acre project site is designated in the Town of Loomis General Plan as Residential Estate with a 2.3-acre minimum per dwelling unit. The zoning is RE-Residential Estate.

The project site would be accessed from James Drive via Rocklin Road.

The project site is in General Plan Land Use Policy Area 3, which applies to the area designated Residential Estate northwest of Rocklin Road and Barton Road. Subdivisions that are not adjacent to Rocklin Road or Barton Road, such as the project site, may provide minimum 2.3-acre lots. Agricultural uses, such as equestrian facilities, are also allowed within this designation. The General Plan states that, "To the extent feasible, building sites should be set back from Rocklin Road and Barton Road to retain native vegetation and terrain features, and to preserve the present appearance as a rural road corridor."[1] The Proposed Project would comply with this requirement by placing all structures in the northwest portion of the project site, so that it would not be in proximity to Rocklin Road or existing development. Further, the Proposed Project would retain the majority of the project site in existing, undisturbed condition.

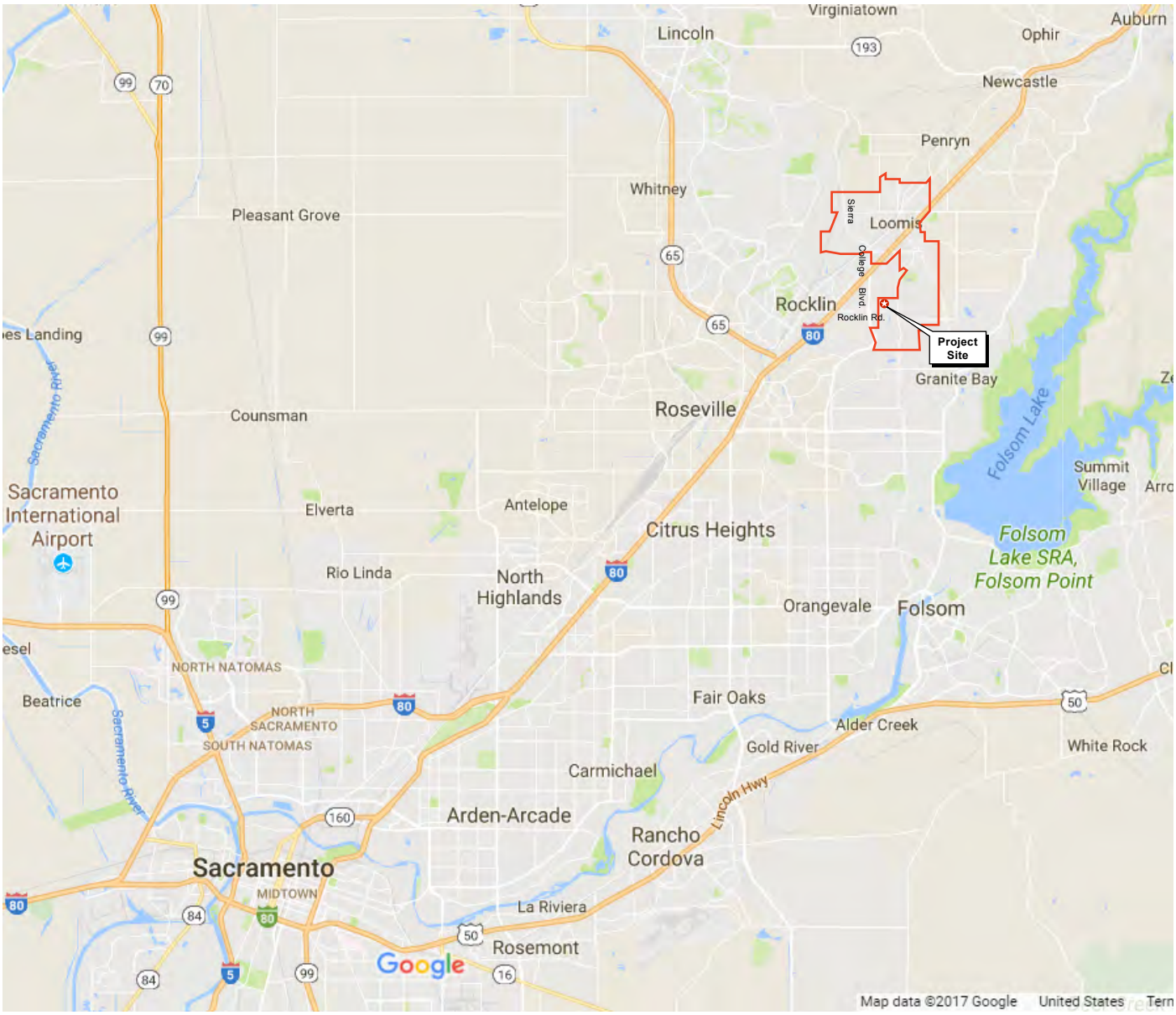
EXISTING ENVIRONMENT

The project site is currently grazing land with one residence and associated out buildings. The residence would remain if the Proposed Project were approved. There is also an 8-stall "mare motel" (barn for mares and foals) on the site.

The project site consists of gently rolling topography, with elevations ranging from 340 to 380 feet. Most of the site is composed of grasslands and oak woodland, and is used for grazing. A seasonal pond is located along the northern border of the project site. This pond drains to a larger pond north of the project site in the City of Rocklin. In addition to the pond, there are seeps and wetland swales located on the project site.

Existing access to the site is from James Drive, an 18-foot wide gravel road, via Rocklin Road. Currently no other public streets abut the project site or provide access. The easement for James Drive is 33-feet wide from Rocklin Road to the entrance of the project site. There is an additional 17-foot easement along James Drive adjacent to the two parcels immediately north of Rocklin Road.[2]

1 Town of Loomis, *Town of Loomis General Plan*, July 2001, page 41.
2 Atteberry and Associates, *Parcel Map No. 72448*, June 1977, Recorder's Certificate, November 17, 1977.



Project Location

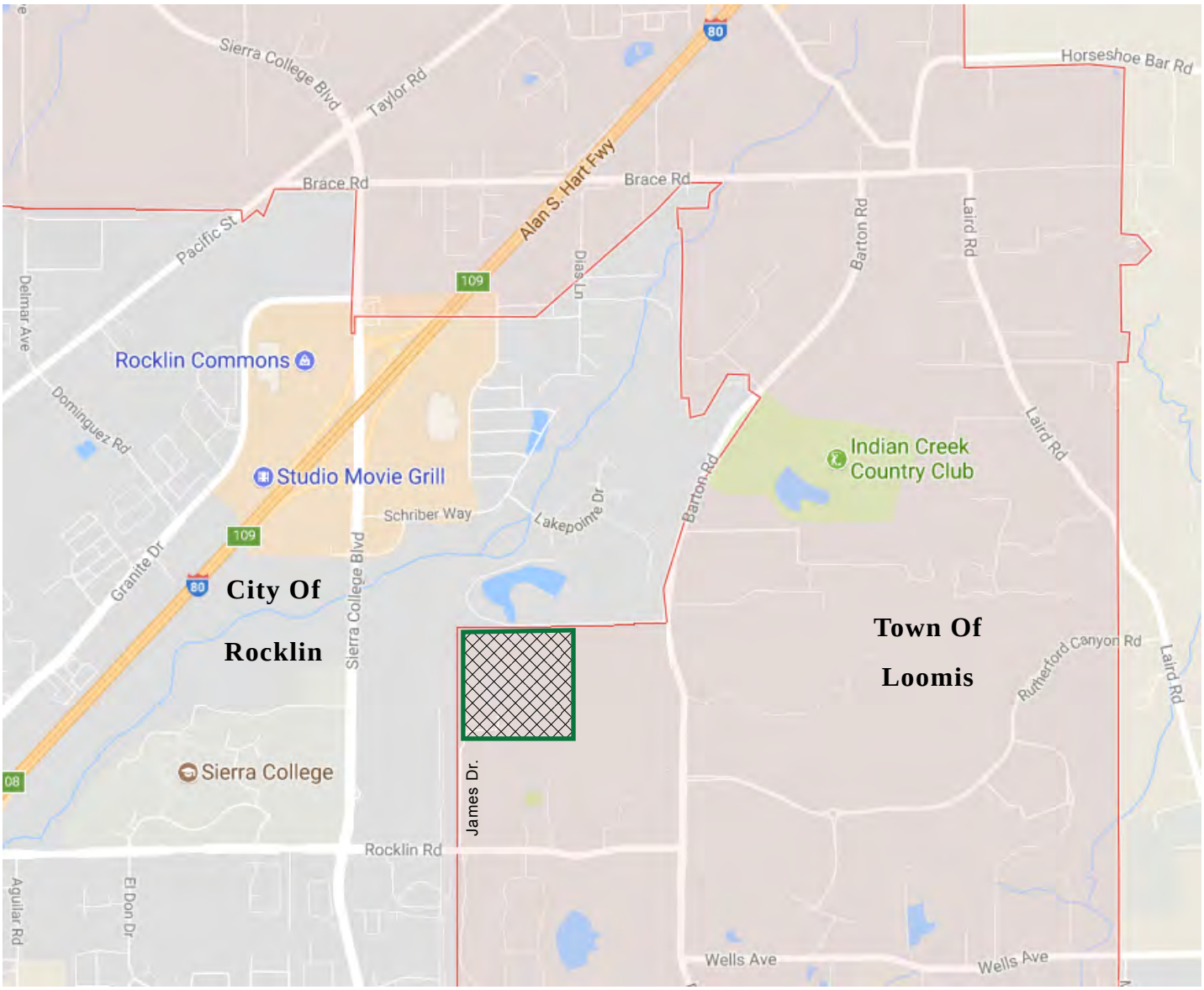
Town of Loomis Boundaries

N No Scale

SOURCE: Google Earth, A.L. Graham & Associates, 2017.

Figure 2-1

Regional Location



Project Boundary

Town of Loomis

N No Scale

SOURCE: Google Earth, A.L. Graham & Associates, 2018.

Figure 2-2

Project Location

At present, the project site is surrounded primarily by grasslands and oak woodlands. Sierra College property is located to the west. This portion of the college is undeveloped grassland. Rural residences and a church are located to the south, between the project site and Rocklin Road, and to the east. The land to the north of the project site is located in the City of Rocklin. A band of trees and other vegetation abuts the northern project boundary. A large pond is also located immediately north of the project site.

Although the project site is surrounded by undeveloped open spaces and rural residences at present, higher-density development is present south and southwest of the project site, south of Rocklin Road in the City of Rocklin. Residential estates are located to the south of Rocklin Road, on parcels ranging in size from 40,000 square feet to 4.6 acres in size. Smaller lot residential subdivisions are located farther west, south of Rocklin Road in the City of Rocklin. To the west, along Barton Road, are more rural residences.

The area surrounding the project site would develop over time. Sierra College has partnered with a development company on an application to develop the parcel west of the project site with a 107-acre Planned Development in the City of Rocklin. The "North Village" of this project would be located immediately west of the project site, and would include residential and mixed uses (e.g., residential, institutional, medical, retail, office) along the project site's western boundary. The northern most edge of the North Village would be designated used for parks and/or open space.[3]

The area south of the eastern portion of the project site is approved for the Poppy Ridge 1 project. The site is zoned Residential Estate, and is planned to develop seven lots on 20 acres. The area to the east is also designated Residential Estate, which allows for residential development on lots of at least 2.3 acres. The partially-developed Croftwood project is located to the north, in the City of Rocklin. The Croftwood Unit 1 project plans for 156 single-family homes with minimum 10,000 square foot residential lots.[4] The pond immediately north of the project site is within designated open space, so it is planned to remain in place.

Public services to the project site are provided by several districts and departments, including the South Placer Fire District, the Placer County Sheriff's Department, Loomis Union School District, and Placer Union High School District. Although only groundwater wells are used at present, the project site is also in the Placer County Water Agency service area.

At present, the project site relies on groundwater wells for water supply and a septic system for wastewater disposal. There are no drainage facilities located on site. There are natural swales that collect and convey runoff. A portion of the project site drains to the pond to the north in the City of Rocklin.

PROJECT CHARACTERISTICS

New Facilities

The Proposed Project would construct and operate a commercial equestrian center catering to dressage and hunter/jumper riders. Facilities would be concentrated on approximately 11 acres in the northwestern portion of the project site (see Figure 2-3).

3 Sierra Villages Preliminary Project Description and Application Packet, received January 9, 2017, accessed at https://www.rocklin.ca.us/post/sierra-villages, October 13, 2017.

4 City of Rocklin, *Development Activity Report*, April 2013, page 270.

Project Site

Primary Areas of Disturbance/Construction

N No Scale

SOURCE: Google Earth, A.L. Graham & Associates, 2018.

Figure 2-3
Characteristics Of Project Site And Surrounding Area

The following facilities would be constructed in this area (see Figure 2-4):

- 40-stall barn,
- 250-foot x 120-foot covered riding arena,
- 230-foot x 150-foot outdoor arena,
- 210-foot x 75-foot outdoor arena (dressage court),
- 30-foot x 90-foot building for storage of hay, bedding and fodder system,
- 30-foot x 40-foot manure storage,
- 2 75-foot diameter round pens,
- 3 130-foot x 50-foot paddocks, and
- Associated facilities (e.g., parking, trash enclosures).

The barn would be U-shaped. Each leg of the barn would have a central aisle with stalls on either side. In addition to 40 stalls, the barn would have feed rooms, wash racks, grooming bays, tack rooms, a rest room, an office, and a lounge. The barn would be approximately 15 feet tall at its highest point.

The covered arena would be free spanning, with concrete pier footings and pitched, metal roofing. The sides would be open. The arena would be 20 to 23 feet at its highest point.

The covered arena would use footing that does not require watering and is dust free. The footing for outdoor arenas would also be dust free, and require little watering. A tractor would be used to daily "drag" (i.e., fluff and level) the arena.

Lighting would be suspended from the covered arena roof, and would not be visible from outside of the arena, unless one were looking directly at the opening at either end. Outdoor arenas would be fenced but not covered, and would not have artificial lighting. Security lighting would be provided for ingress/egress and at trailer parking area.

Construction Activities

Project construction would require grading to level the building sites and create pads. Concrete work would be undertaken for barn and arena footings. Standard techniques would be used to construct the barn. The driveway and parking areas would be paved.

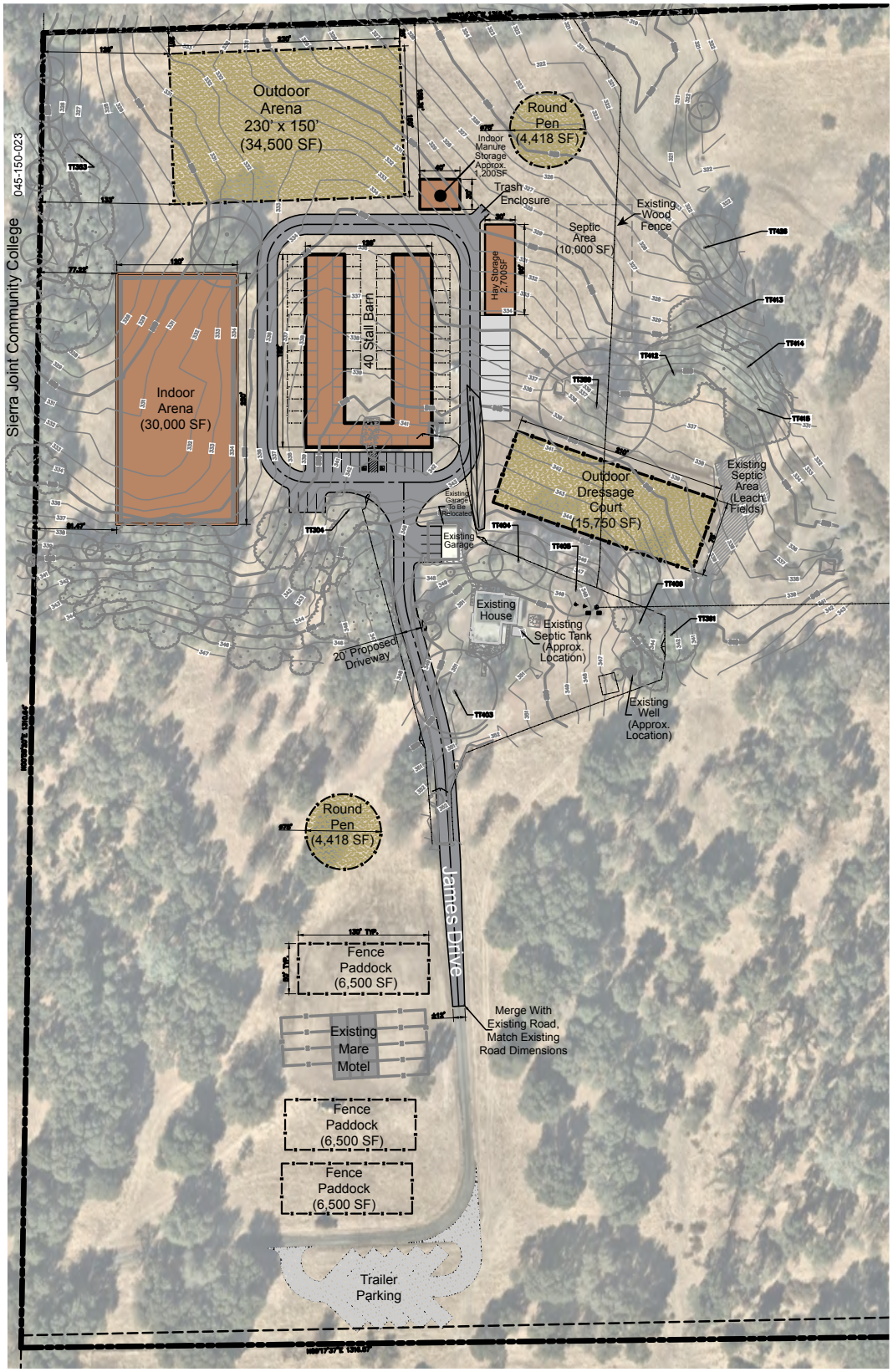
An estimated 5.3 acres would be graded, including 0.1 acres offsite (the intersection improvements). Approximately 11,500 cubic yards of soil are expected to be disturbed and distributed on site. The site would be balanced, so that no native soil would be exported or imported. The off-site improvements, discussed below, would require approximately 2,250 cubic yards of cut. These materials would be used on site.

Footing for the arenas would be imported.

Approximately 1.75 acres of new impervious surface would be created onsite. An additional 0.09 acres of impervious surface would be created at the offsite intersection of James Drive with Rocklin Road.

Operation

At its inception, Flying Change Farms would have enough space to board 48 horses. Eventual expansion would not exceed a total of 55 horses on site. These horses would be predominantly



N

0 20 40 60 80

Scale In Feet

SOURCE: TSD Engineering, Inc., March 14, 2018.

Figure 2-4
Preliminary Site Plan

high-end performance horses, competing in dressage and hunter/jumper disciplines. The average boarder would visit their horse(s) 4-6 times per week. Two trainers would be on site daily to train horses and give lessons. All the boarded horses would be in a full or partial training program. There would be 40 stalls in the proposed main barn, and 8 more stalls available in the existing "mare motel" (while this facility is existing, it is not occupied). There would also be the possibility of boarding additional horses in pasture. A maximum of 55 horses would be boarded at any one time.

One to two clients are expected to trailer in 3 to 4 days per week for lessons, primarily from the surrounding area, such as Auburn, Newcastle, Penryn, Loomis, Granite Bay and Orangevale.

The facility would not host horse shows or similar events.

The site has a single residence, which would be the on-site manager's quarters. Two additional employees would live off site.

Operating hours would be 7am to 8:30 pm, seven days per week.

The barn would be equipped with an Automatic Fly Control System that provides a timed release of fly repellent throughout the day. The applicant anticipates installing a "Shoo-Fly Automatic Insect Control System" or comparable system, which control flies and other pests, including mosquitoes, wasps, hornets, fleas, roaches, waterbugs, silverfish, crickets, scorpions, millipedes, and gnats. The barn aisle would also have large ceiling fans to repel flies from entering the barn.

Covered trash bins would be set on concrete pads located in the corner along the circular drive around the barn, between the hay shed and the manure garage. These bins would be emptied by a commercial service on a weekly basis.

Hay and Feed

Horses would be fed hay three times a day, typically between 6:00 AM and 8:00 AM, at noon, and between 4:00 PM and 6:00 PM. Feeding would be done with a quad and small trailer driven down the aisles or by hand cart. Feed would be delivered to the facility by an outside commercial carrier with a semi-truck and trailer every 4 to 6 months.

In addition to purchased hay, the Proposed Project would include a fodder system, where grass would be grown hydroponically in trays in a climate-controlled container. This system would reduce the amount of traditional hay fed to the horses.

The hay, fodder system container, and stall bedding would all be located in a metal building. The building would be located on a concrete slab situated along the circular drive around the main barn for easy delivery access (see Figure 2-4.) The building would be 16-feet tall at its peak. In addition to housing hay, bedding and the fodder system, the building would store a tractor and other equipment used for management of the facility.

Manure Management

Manure and soiled bedding would be removed from stalls and common areas once or twice each day and placed in a bin in the "manure garage", a 30-foot x 40-foot metal structure with two roll-up doors. The manure garage would be located near the hay building and garbage bins (see Figure 2-4). The structure would be 14-feet tall at its peak. The doors would be closed at night.

The manure bin would be emptied and hauled offsite by a manure removal service.

Infrastructure

Vehicle Access and Parking

As stated above, the project site would be accessed from Rocklin Road via James Drive. James Drive is not a Town-maintained road. The existing driveway would be paved within the project site. The project applicant proposes to work with neighbors to overlay the existing road with new asphalt. In addition, the road would be widened to 20 feet for a minimum of 50 feet from Rocklin Road, where the driveway would taper to 12 feet, widening again to 20 feet when it enters the project site (see Figure 2-5).

The 20-foot-wide paved drive would make a circular loop around the barn (see Figure 2-4), providing access for horse trailer parking, manure removal bins, trash, hay deliveries and overall traffic flow. The total length of the driveway would be approximately 400 feet.

At the intersection of James Drive and Rocklin Road, additional pavement would be provided on either side of James Drive. This area would be approximately 15 feet wide at James Drive, tapering for 150 feet until it meets Rocklin Road (see Figure 2-5).

Access to the facility would be through an electronic gate with an entrance code.

A decomposed granite path would connect the paved drive to the indoor arena. A secondary decomposed granite trailer parking lot would be provided near the main entrance drive.

The main vehicle parking area would be asphalt and incorporated in the loop around the barn. It would be located at the short end of the barn, which is the main entrance for pedestrians. There would be 21 spaces (9-foot x 20-foot), including two accessible spaces.

There would also be 7 trailer parking stalls (12-foot x 40-foot) located off the main barn loop. A secondary trailer parking lot, near the entrance to the facility, would provide another 10 parking stalls.

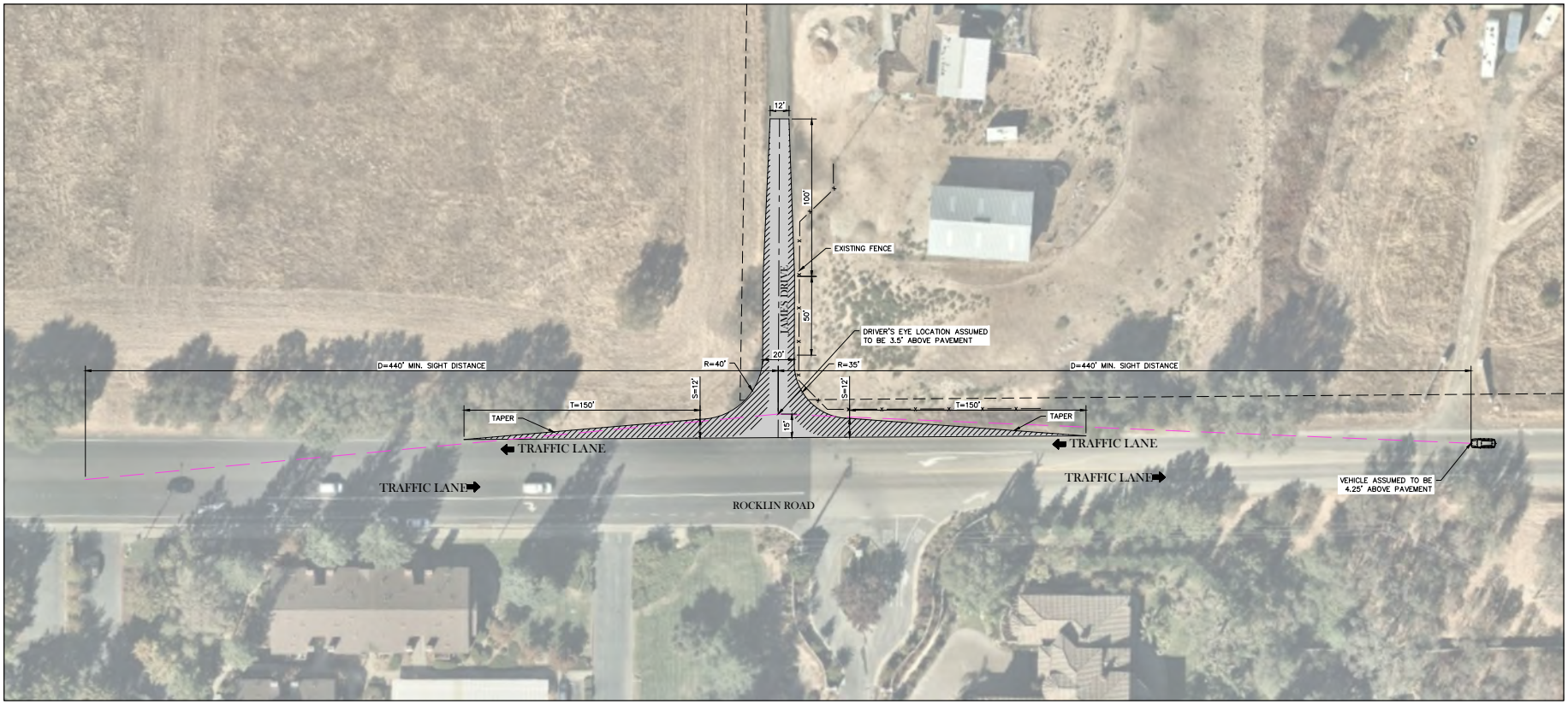
Water and Wastewater

Potable water would be provided by Placer County Water Agency (PCWA). A water line would be extended from the project site to the existing PCWA line in Rocklin Road. The water line would follow the alignment of James Drive. The only disturbance within a public road would occur where the line connects to the existing PCWA line.

The existing septic system would be retained for the house. A new leach field would be used to dispose of wastewater from the new restroom (see Figure 2-4). The septic system would meet Placer County Environmental Health Department standards.

Drainage

Stormwater would be collected from roof drains in trenches, which would drain to an approximately 2,370 square foot bio-retention area. The bio-retention area would provide water quality treatment and hydromodification. No underground drainage system would be installed. The project site would continue to discharge stormwater to Secret Ravine.



N

0 15 30 45 60

Scale In Feet

SOURCE: TSD Engineering, Inc., March 7, 2018.

Figure 2-5
Access Improvements

The Preliminary Drainage and Stormwater Quality Report identifies a number of measures that would be used to protect stormwater quality, including[5]:

- A 125-foot setback and buffer from the nearest creek;
- Permeable pavement in the parking area; and
- The following best management practices (BMPs):
    - To prevent accidental spills or leaks, materials would be stored indoors away from storm drains or sensitive areas.
    - For parking/storage areas and maintenance, trash receptacles would be provided, "No Litter" signs posted and surface sweeping shall be conducted regularly.
    - Indoor and structural pest control: Federal, State and local laws and regulations for the use, storage and disposal of pesticides shall be followed.
    - Landscape/outdoor pesticide use: Federal, State and local laws and regulations for the use, storage and disposal of pesticides shall be followed.
    - Outdoor storage of equipment or materials: Limit exposure to rainfall whenever possible
    - Building and grounds maintenance: Encourage proper lawn management and landscaping.

Public Services

The Loomis Fire Protection District recently consolidated with the South Placer Fire District, which now serves the project site. The South Placer Fire District provides both fire prevention and suppression and emergency medical services. The station closest to the project site is Station 20 at 5840 Horseshoe Bar Road in downtown Loomis (approximately 3.4 miles from the project site). The next closest stations are Stations 16 and 19 in Granite Bay, each of which is approximately 3.8 miles from the project site.

Law enforcement services are provided by the Placer County Sherriff's Department. Loomis, including the project site, is served by the South Placer Substation, located at 6140 Horseshoe Bar Road.

Offsite Improvements

As discussed above, the intersection of James Drive with Rocklin Road would be improved as part of the project. James Drive would be widened to 20 feet within approximately 100 feet of Rocklin Road. As shown in Figure 2-5, tapers would be provided east and west of James Drive, which would provide an area for vehicles that are entering or existing to accelerate or decelerate. Construction of the widening and tapers would disturb approximately 4,000 square feet, and create approximately 4,000 square feet of pavement. Minimum sight distance would be 440 feet in each direction.

A pipeline would be installed along the James Drive alignment from the project site to Rocklin Road. The pipeline would connect to a PCWA water main in Rocklin Road. A trench would be

5 Casey Feickert, PE, TSD Engineering, Inc., *Preliminary Drainage & Stormwater Quality Report*, March 13, 2018, page 2.

excavated for the pipeline, and then covered. The area to be disturbed would be minimal, and there would be no increase in impervious surface.

PROJECT REVIEW AND APPROVAL

Lead Agency

In conformance with Sections 15050 and 15367 of the CEQA Guidelines, the Town of Loomis is the 'lead agency' for the Proposed Project, which is defined as the "public agency which has the principal responsibility for carrying out or disapproving a project."

CEQA Actions

Prior to approving the Proposed Project, the Town must undertake CEQA review including:

- **Adoption of the Mitigated Negative Declaration** - pursuant to CEQA and the CEQA Guidelines; and

- **Mitigation Monitoring** – Adoption of a Mitigation Monitoring and Reporting Program to reflect the measures required to mitigate significant impacts, if any, of the project.

The Mitigated Negative Declaration and Initial Study are intended to provide the CEQA documentation for approval of the Proposed Project.

Town Approvals

The following additional actions would be taken by the Town in order to approve the Proposed Project:

- **Conditional Use Permit** to allow development of the Proposed Project.

No General Plan Amendment or rezoning would be required, because the proposed uses are consistent with the existing General Plan designation and zoning.

Prior to construction, the following approvals would be required:

- Improvement plans,
- Staff review of design, as conditioned by the permit,
- Building permits, and
- Encroachment permit for any improvements on Rocklin Road.

Other Agency Actions

The IS/MND prepared for the Proposed Project would be used by Responsible Agencies and Trustee Agencies that may have some approval authority of the Proposed Project. The project applicant would obtain all permits, as required by law. The following agencies, which may be considered Responsible Agencies, have discretionary authority over approval of certain project elements, or alternatively, may serve in a ministerial capacity:

- **U.S. Fish and Wildlife Service**: Section 7 or Section 10 Consultation if any federally-listed plant or wildlife species could be adversely affected by the Proposed Project.

- **US Army Corps of Engineers:** 404 permit if any waters of the US would be filled.
- **Regional Water Quality Control Board:** Section 401 certification if a federal 404 permit is issued, and/or National Pollutant Discharge Elimination Permit (NPDES) if discharge to surface waters would be necessary.
- **State Water Quality Control Board: State General Construction Activity Storm Water Permit** if grading would exceed one acre.
- **Placer County Air Pollution Control District** for compliance with various rules.
- **Placer County Environmental Health Division** for new and/or expanded septic system.
- **Placer County Water Agency** will-serve letter for provision of potable water.

3. ENVIRONMENTAL CHECKLIST

INTRODUCTION

The following Checklist contains the environmental checklist form presented in Appendix G of the CEQA Guidelines. The checklist form is used to describe the impacts of the Proposed Project. For this checklist, the following designations are used:

Potentially Significant Impact: An impact that could be significant, and for which no mitigation has been identified. If any potentially significant impacts are identified and no mitigation is available to reduce the impact to a less-than-significant level, an Environmental Impact Report (EIR) must be prepared.

Less-than-Significant Impact with Mitigation Incorporated: Impacts that would be reduced to a less-than-significant level by feasible mitigation measures identified in this Environmental Checklist.

Less-than-Significant Impact: Any impact that would not be considered significant under CEQA relative to existing standards.

No Impact: The project would not have any impact.

Issues		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than Significant Impact	No Impact
1.	**AESTHETICS.** *Would the project:*				
	a. Have a substantial adverse effect on a scenic vista?	☐	☐	☐	■
	b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	☐	☐	☐	■
	c. Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	■	☐
	d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	■	☐

Discussion

a., b. The project site is not part of a designated scenic view shed, and is not visible from a designated scenic highway. There are no State scenic highways in or near the project site[1]. Therefore, ***no impact*** would occur.

c. The Proposed Project would alter the visual character of the project site, but the changes would be in character with a rural landscape.

The project site is a rural agricultural parcel, with one home and out buildings on 40 acres. The Proposed Project would occupy approximately 11 acres in the northwest quadrant of the project site. The portion of the project site is relatively flat, with oak woodland around the perimeter (see Figure 3-1).

At present, the project site is surrounded by undeveloped land. Views of the site are obscured by topography and oak woodlands. The only views of the project site are from several homes along Barton Road, which are located at slightly higher elevations.

The areas to the immediate east and south are unoccupied. There are several homes and a church located along the southern portion of James Drive and Rocklin Road. Views of the project site from these areas are blocked by topography and trees. A residential development is planned to the southeast (the Poppy Ridge 1 development)

1 Caltrans, California Scenic Highway Mapping System, Placer County, http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm , accessed January 2, 2018.

Figure 3-1: View Looking North from Proposed Parking Area, Toward Proposed Main Barn and Outdoor Jump Arena Sites.

and to the south, on 20 acres adjacent to the project site. Some residents of Poppy Ridge 1 will likely have partial views of the project site. The northern border of the site is heavily vegetated, which limits views to and from the site. The area to the northeast is planned for development, however.

The Croftwood residential subdivision borders the project site to the north, in the City of Rocklin (see Figure 2-3 in Chapter 2). This project would develop single-family homes to the northeast and northwest of the project site. Immediately north of the project site is designated open space, including a large pond that receives water from the pond on the project site. Once developed, some Croftwood residences would have partial views of the project site.

Sierra College owns the land immediately west of the project site, and has partnered with a development company on an application to develop the parcel west of the project site with a 107-acre Planned Development in the City of Rocklin. The "North Village" of this project would be located immediately west of the project site, and would include residential and mixed uses (e.g., residential, institutional, medical, retail, office) along the project's western boundary. The northern most edge of the North Village would be designated for parks and/or open space.[2]

2 Sierra Villages Preliminary Project Description and Application Packet, received January 9, 2017, accessed at

Most of the project facilities would be located in the northwest corner of the project site, including the indoor arena and barn (see Figure 2-4 in Chapter 2). The indoor arena would be approximately 23-feet tall and the main barn would be approximately 15-feet tall, which is consistent with the height limit of 35 feet based on the project site zoning. As shown in Figure 2-3, a fairly dense line of trees is located on the western and northern boundaries of the project site. No trees are proposed to be removed from the project site, but it is not known at this time if the trees on the Sierra College property would be removed. These trees, if they are retained, would block most views of the indoor arena and barn from the Sierra College future residences. However, the roofs of the barn and arena may be visible through the tree canopy and/or from upper stories of adjacent homes.

Most of the Croftwood development would be separated from the project site by a roadway, vegetation along the property line, and open space on that site. Three Croftwood lots do abut the northeastern edge of the project site. If the vegetation along the property line were removed, the three Croftwood lots might be able to see the indoor arena and/or stables, but the views would be intermittent due to onsite vegetation, topography and distance.

The indoor arena and barn would likely not be visible from the south and east due to the tree canopy and distance. At most, the roofs may be visible in the distance through the tree canopy.

Other facilities, such as the outdoor arena, dressage arena, round pens, and paddocks, would be at grade with fencing up to 4-feet tall. The existing mare motel would also include a shelter structure approximately 16-feet tall. Views of these low-level facilities would be largely obscured from surrounding areas by trees and, from the west, by the indoor arena and barn.

Building designs would be subject to review by the Planning Commission, and must be generally consistent with the rural character of the project site and vicinity.

The widening of the southern portion of James Drive and the associated intersection improvements would not substantially alter the visual character of the road. It would be paved, rather than gravel, but would still be flat, with intermittent traffic. No visual elements (e.g., light poles) would be constructed, except perhaps a stop sign. This would be in keeping with the visual character of a rural roadway. The pipeline would be buried, and would therefore not be visible.

In summary, the project site is a rural agricultural parcel, with one home and out buildings on 40 acres. The Proposed Project would add equestrian facilities, which are consistent with a rural, agricultural setting. Future residents of adjacent development might be able to see portions of the project facilities, particularly the indoor arena and barn, but these views would be largely blocked by trees and topography, and would be in keeping with the rural visual character of project site and surrounding area, including much of the Town of Loomis. For these reasons, the impact on visual character would be ***less than significant***.

https://www.rocklin.ca.us/post/sierra-villages, October 13, 2017.

d. Glare is caused by light reflections from pavement, vehicles, and building materials, such as reflective glass, polished surfaces, or metallic architectural features. During daylight hours, the amount of glare depends on the intensity and direction of sunlight. The Proposed Project would not have any large, reflective surfaces, so it would not generate substantial glare.

The Proposed Project would introduce new sources of artificial lighting into the project site. The indoor arena will be lit with lights suspended from the arena roof. These lights would not be visible from outside of the arena, but lighting would be visible to someone looking directly at the open ends of the arena. The indoor arena would be over 75 feet from the western property line and over 200 feet from the northern property line. In both cases, trees on the property would obscure views of the arena interior. Therefore, arena lighting would not spill over onto adjacent properties or be a disturbance for future nearby residences. The outdoor arenas would be fenced but not covered, and will not have artificial lighting. Consistent with the Town's Municipal Code, the larger outdoor arena would be 25 feet from the northern property line and over 130 feet from the western property line (the minimum required setback is 25 feet). Security lighting will be provided for ingress/egress and at the trailer parking area. The barn itself would be separated from the property to the west by the indoor arena, and from the northern boundary by the outdoor arena.

No lighting would be installed along James Drive or at the intersection with Rocklin Road.

Because of the distance of those project elements that would have lighting from the property lines, security lighting in these areas is unlikely to "spill over" onto adjacent properties and/or disturb adjacent future residences. Furthermore, the Loomis Municipal Code regulates outdoor lighting (Section 13.30.080). Lighting fixtures are limited to a maximum height of 20 feet or the height of the nearest building. The indoor arena would be 23-feet tall, so that would be the tallest possible outdoor light fixture. The Code also requires that lighting be shielded or recessed so that the light source is not visible from offsite, and that fixtures be directed downward and away from adjoining properties. The Proposed Project must comply with the Town's Municipal Code, including these measures, which would further ensure that lighting would not be obtrusive at nearby properties. Therefore, this impact would be ***less than significant***.

Issues		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than Significant Impact	No Impact
2.	**AGRICULTURE AND FORESTRY RESOURCES:** Would the project:				
a.	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program in the California Resources Agency, to non-agricultural use?	☐	☐	☐	■
b.	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	■
c.	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	■
d.	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	■
e.	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	■

Discussion

a. The project site is designated Grazing Land on the Placer County Important Farmland Map.[3] Therefore, there would be no loss of Important Farmland (Prime Farmland, Unique Farmland, or Farmland of Statewide Importance), and ***no impact*** would occur.

b. The project site is not under a Williamson Act contract. There are no Williamson Act contracts or land zoned for agricultural use adjacent to or near the project site.[4] Therefore, ***no impact*** would occur.

3 California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program, *Placer County Important Farmland 2016*, November 2017.

4 California Department of Conservation, Division of Land Resource Protection, Conservation Program Support, *California Williamson Act Contract Land*, 2017.

c., d. The project site does not contain any forest, so there would be ***no impact*** on forest lands.

e. The Proposed Project site is currently used as a rural residence and for seasonal cattle grazing. As stated above, the Department of Conservation does not classify the site as Important Farmland, and the site is not intensively farmed. The Proposed Project would shift the use of the project site from seasonal cattle grazing to an equestrian facility. There are no ongoing agricultural operations surrounding the project site at present, but such activities could occur in the future. An equestrian facility would be compatible with most agricultural uses, particularly livestock grazing, so the Proposed Project would not create conflicts with future agricultural activities, if any, or impede the viability of agricultural operations as the result of nuisance complaints. Therefore, the Proposed Project would not contribute to the conversion of surrounding agricultural land to non-agricultural uses. For these reasons, ***no impact*** would occur.

Issues		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than Significant Impact	No Impact
3.	**AIR QUALITY** *Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations:* *Would the project:*				
a.	Conflict with or obstruct implementation of the applicable air quality plan?	☐	■	☐	☐
b.	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	■	☐	☐
c.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	■	☐	☐
d.	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	■	☐
e.	Create objectionable odors affecting a substantial number of people?	☐	■	☐	☐

Discussion

Air quality is monitored, evaluated and regulated by federal, State, regional, and local regulatory agencies and jurisdictions, including the United States Environmental Protection Agency (USEPA), the California Air Resources Board (CARB), and the Placer County Air Pollution Control District (PCAPCD). The EPA, CARB and the PCAPCD develop rules and/or regulations to attain the goals or directives imposed by legislation. Both State and regional regulations may be more, but not less, stringent than federal regulations

Air Pollutants of Concern

Air quality in the project vicinity is influenced by vehicle emissions on Interstate 80 and other regional roadways, agricultural activities, landscaping and building maintenance equipment, and stationary sources, such as residential woodstoves. Air pollutants from south Placer County, Sacramento and the Bay Area are also transported to west Placer County, influencing the air quality.

To protect human health and the environment, the USEPA has set "primary" and "secondary" maximum ambient limits for each of the criteria pollutants. Primary standards were set to protect human health, particularly sensitive receptors such as children, the elderly, and individuals suffering from chronic lung conditions such as asthma and emphysema. Secondary standards were set to protect the natural environment and prevent damage to animals, crops, vegetation, and buildings. Ozone (O_3) and nitrogen dioxide (NO_2) are considered regional pollutants because they (and their precursors) affect air quality on a regional scale. Pollutants such as carbon monoxide (CO), sulfur dioxide (SO_2), and lead (Pb) are considered local pollutants that tend to accumulate in the air locally. Particulate matter (PM) is both a local and regional pollutant.[5]

The primary pollutants of concern in Placer County are O_3 [including oxides of nitrogen (NO_X) and reactive organic gases (ROG)], CO, and PM. Principal characteristics surrounding these pollutants are discussed below. Toxic Air Contaminants (TACs) also are discussed, although no air quality standards exist for these pollutants.

Ozone

Ozone, or smog, is photochemical oxidant that is formed when ROG and NO_X (both by-products of the internal combustion engine) react with sunlight. Ozone poses a health threat to those who already suffer from respiratory diseases as well as to healthy people. Ozone is a respiratory irritant that can cause severe ear, nose, and throat irritation and increased susceptibility to respiratory infections. Additionally, ozone has been tied to crop damage, typically in the form of stunted growth and premature death. Ozone also can act as a corrosive, resulting in property damage such as the degradation of rubber products, and is also an oxidant that causes extensive damage to plants through leaf discoloration and cell damage.[6]

Reactive Organic Gases

ROG are compounds made up primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Other sources of ROG are emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. Adverse effects on human health are not caused directly by ROG but rather by reactions of ROG that form secondary pollutants such as ozone.[7]

Nitrogen Oxides

Nitrogen oxides are a family of highly reactive gases that are a primary precursor to the formation of ground-level ozone, and react in the atmosphere to form acid rain. The two major forms of NO_X are nitric oxide (NO) and nitrogen oxide (NO_2). NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO_2 is a reddish-brown gas formed by the combination of NO and oxygen. NO_X acts as an acute respiratory irritant and increases susceptibility to respiratory pathogens.[8]

5 United States Environmental Protection Agency, *Criteria Air Pollutants,* accessed at https://www.epa.gov/criteria-air-pollutants, August 9, 2016.
6 Center for Disease Control (CDC), *Air Pollutants,* November 24, 2014. Accessed at http://www.cdc.gov/air/pollutants.htm, August 9, 2016.
7 Center for Disease Control (CDC), *Air Pollutants,* November 24, 2014. Accessed at http://www.cdc.gov/air/pollutants.htm, August 9, 2016.
8 Center for Disease Control (CDC), *Air Pollutants,* November 24, 2014. Accessed at http://www.cdc.gov/air/pollutants.htm, August 9, 2016.

Carbon Monoxide

Carbon monoxide is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. In the Sacramento Valley, high CO levels are of greatest concern during the winter, when periods of light winds combine with the formation of ground-level temperature inversions from evening through early morning. These conditions trap pollutants near the ground, reducing the dispersion of vehicle emissions. Moreover, motor vehicles exhibit increased CO emission rates at low air temperatures. The primary adverse health effect associated with CO is interference with normal oxygen transfer to the blood, which can result in tissue oxygen deprivation.[9]

Particulate Matter

Particulate matter consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates now are recognized: inhalable course particles of 10 microns or smaller (PM_{10}), and inhalable fine particles of 2.5 microns or less ($PM_{2.5}$). Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. However, wind on arid landscapes also contributes substantially to local particulate loading. Both PM_{10} and $PM_{2.5}$ can adversely affect the human respiratory system, especially in people who are naturally sensitive or susceptible to breathing problems.[10]

Toxic Air Contaminants

In addition to the criteria air pollutants, another group of airborne substances, called toxic air contaminants (TACs), are known to be highly hazardous to health, even in small quantities. TACs are airborne substances capable of causing short-term (acute) and/or long-term (chronic or carcinogenic) adverse human health effects (i.e., injury or illness). TACs can be emitted from a variety of common sources, including gasoline stations, automobiles, dry cleaners, industrial operations, and painting operations. There are almost 200 compounds that have been designated as TACs in California. The ten TACs posing the greatest known health risk in California, based primarily on ambient air quality data, are acetaldehyde, benzene, 1,3-butadiene, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, perchloroethylene, and diesel particulate matter.[11, 12]

Regional Air Quality Conditions

Air pollutant concentrations are monitored at sites throughout the state. The closest station to the project site is in Roseville. If a pollutant concentration is lower than the State or federal standard, the area is classified as being in attainment for that pollutant. If a pollutant violates the standard, the area is considered a nonattainment area. If data are insufficient to determine whether a pollutant is violating the standard, the area is designated unclassified. As shown in Table 3-1, the greater Sacramento area, including western Placer County, is designated as a non-attainment area for State ozone and PM_{10} standards. The U.S. EPA has designated the Sacramento area, including western Placer County, as being a severe non-attainment area for

9 Center for Disease Control (CDC), *Air Pollutants,* November 24, 2014. Accessed at http://www.cdc.gov/air/pollutants.htm, August 9, 2016.
10 Center for Disease Control (CDC), *Air Pollutants,* November 24, 2014. Accessed at http://www.cdc.gov/air/pollutants.htm, August 9, 2016.
11 California Air Resources Board, *ARB Almanac 2009*, Chapter 5.
12 California Air Resources Board, *Reducing Toxic Air Pollutants in California's Communities,* n.d.

TABLE 3-1
Regional Attainment Status

	Attainment Status	
Pollutant	**California Standards**	**Federal Standards**
Ozone	Nonattainment	Extreme Nonattainment
CO	Unclassified	Unclassified/Attainment
NO_x	Attainment	Unclassified/Attainment
SO_x	Attainment	Unclassified/Attainment
PM_{10}	Nonattainment	Unclassified
$PM_{2.5}$	Unclassified	Nonattainment
Lead	Attainment	Unclassified/Attainment

SOURCE: Town of Loomis, Environmental Impact Report for the Village at Loomis, July 2017, Table 4.8-3.

ozone and a nonattainment area for $PM_{2.5}$. The PCAPCD is in attainment for the state and federal CO standards.[13]

Local Air Quality Conditions

Local emission sources in the project vicinity include area sources, such as space and water heating, landscape maintenance equipment from lawn mowers and leaf blowers, consumer products, and mobile sources, primarily automobile traffic. Motor vehicles are the dominant source of pollutants in the project vicinity.

Traffic-congested roadways and intersections have the potential to generate localized levels of CO. Areas where ambient concentrations exceed the federal or state CO standards are called CO hotspots. The PCAPCD considers CO a localized problem requiring additional analysis when a project is likely to subject sensitive receptors to elevated CO concentrations. As discussed under Item 16, Transportation/Traffic, there are no intersections at present in the project vicinity that are congested enough (LOS E or F) to generate high levels of CO.

Existing Project Site Emissions

Because the existing project site has only one home, and no intensive agricultural operations (e.g., orchard, dairy), it generates a negligible amount of emissions.

Sensitive Land Uses

Land uses such as schools, children's daycare centers, hospitals, and convalescent homes are considered to be more sensitive to poor air quality than the general public because the population groups associated with these uses have increased susceptibility to respiratory distress. In addition, residential uses are considered more sensitive to air quality conditions than commercial and industrial uses because people generally spend longer periods of time at their residences, resulting in greater exposure to ambient air quality conditions. Recreational land uses are considered moderately sensitive to air pollution. Exercise places a high demand on respiratory functions, which can be impaired by air pollution, even though exposure periods

13 Town of Loomis, *Environmental Impact Report for the Village at Loomis*, July 2017, pages 4.8-6 and 4.8-7.

during exercise are generally short. In addition, noticeable air pollution can detract from the enjoyment of recreation.[14] Sensitive receptors in the project vicinity include the existing residences and the State preschool located southeast of the project site at 5400 Barton Road.

Air Pollutant Emissions Thresholds

The PCAPCD has established thresholds to determine whether a project would have a significant impact on air quality and/or contribute considerably to cumulative air quality degradation. The significance thresholds for project-specific and cumulative conditions are shown in Table 3-2.

TABLE 3-2
PCAPCD Significance Thresholds for Criteria Pollutants
(lbs/day)

Construction Phase Project-Level			Operational Phase Project-Level			Operational Phase Cumulative-Level		
ROG	NO_x	PM_{10}	ROG	NO_x	PM_{10}	ROG	NO_x	PM_{10}
82	82	82	55	55	82	55	55	82

Source: PCAPCD, *CEQA Handbook*, August 2017, page 21.

In addition, the PCAPCD has identified the size of a project that would be expected to generate 55 lbs/day of NO_x emissions. Projects that are smaller than those in Table 3-3 would not be expected to exceed the NO_x standard.

TABLE 3-3
Corresponding Size of a Project for 55 lbs/day of NO_x Emissions

Residential (# of units)			Commercial/Industrial (sf)		
Single Family	Condo	Apartment	General Commercial	General Office	General Industrial
617	868	911	249,099	648,661	894,262

PCAPCD, *CEQA Handbook*, August 2017, page 21.

a.-c. Construction

Construction activities associated with the Proposed Project would generate particulate matter from grading and earthmoving activities. NO_x and ROGs would be generated from diesel fumes associated with the operation of construction equipment. Because of the project's small size, these emissions levels would not be expected to exceed PCAPCD standards. For example, the Proposed Project would disturb a total of approximately 5.3 acres. An air quality study for a project in nearby Rocklin that would grade approximately 7 acres of land and construct a total of 64 homes would generate a

14 California Air Resources Board, *Air Quality and Land Use Handbook: A Community Health Perspective*, April 2005.

maximum of 39.39 lbs/day of ROG, 81.48 lbs/day of NO_x and 24.73 lbs/day of PM_{10}[15]. A recent project in the Town of Loomis on a 10-acre parcel to be developed with 22 homes was estimated to generate construction emissions of 54.71 lbs/day of ROG, 52.35 lbs/day of NO_x and 21.09 lbs/day of PM_{10} during construction.[16] All of these levels would be below the PCAPCD thresholds. The Proposed Project would generate substantially less ROG, NO_x and PM_{10} emissions due to the smaller area to be graded and because the only structures to be built would be the barn, the covered arena, the manure garage and the fodder building.

Although project construction emissions would not exceed PCAPCD thresholds, construction dust and diesel emissions could annoy neighbors for short periods of time, which could be a significant impact. The Proposed Project would be required to implement the following measures, which would protect neighbors by minimizing dust generation and reduce construction emissions. With this mitigation, construction activities would have a ***less-than-significant impact*** on air quality.

Mitigation Measures

1. *Prior to issuance of a grading permit, the contractor shall submit a dust control plan to the Town and the PCAPCD for review and approval. The plan shall insure that adequate dust controls are implemented during all phases of construction through the use of the following or equally effective measures. These measures shall be included as a standard note on all grading and improvement plans:*

   - *Construction equipment exhaust emissions shall not exceed PCAPCD Rule 202 Visible Emission limitations.*
   - *The prime contractor shall submit to the Air District a comprehensive inventory (i.e. make, model, year, emission rating) of all the heavy-duty off-road equipment (50 horsepower or greater) that will be used an aggregate of 40 or more hours for the construction project. The inventory shall demonstrate that the off-road vehicles to be used during excavation, construction, and grading activities, including owned, leased, and subcontractor vehicles, will achieve a project-wide fleet average 20 percent NOx reduction and 45 percent particulate matter reduction compared to the most recent CARB average and shall include enforcement measures to ensure that the reductions are achieved. The PCAPCD shall be contacted for average fleet emission data. The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs. At least 48 hours prior to the use of subject heavy-duty off-road equipment, the project representative shall provide the District with the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreperson.*
   - *An enforcement plan shall be established to weekly evaluate project-related on-and-off-road heavy-duty vehicle engine emission opacities, using standards as defined in California Code of Regulations, Title 13, Sections*

15 City of Rocklin, *Initial Study and Environmental Checklist, Quarry Row Subdivision,* March 9, 2017, page 17.
16 Town of Loomis, *Initial Study/Mitigated Negative Declaration for The Grove*, December 22, 2016, page 24.

2180-2194. An Environmental Coordinator, CARB-certified to perform Visible Emissions Evaluations (VEE), shall routinely evaluate project related off-road and heavy-duty on-road equipment emissions for compliance with this requirement. Operators of vehicles and equipment found to exceed opacity limits will be notified and the equipment must be repaired within 72 hours.

- *No open burning of removed vegetation shall be conducted during infrastructure improvements. Vegetative material shall be chipped or delivered to waste to energy facilities.*
- *During construction the contractor shall use existing power sources (e.g., power poles) or clean fuel (e.g., gasoline, biodiesel, natural gas) generators rather than temporary diesel power generators to the extent feasible.*
- *Diesel-power equipment shall not be allowed to idle within 1,000 feet of any sensitive receptors.*
- *Diesel-power equipment shall not be allowed to idle for more than 5 minutes at any time.*
- *Earth moving construction equipment shall be cleaned with water once per day.*
- *An operational water truck shall be onsite at all times. Water to control dust shall be applied as needed to prevent dust impacts offsite for active and inactive construction areas. Pursuant to District Rule 228, Section 304, streets shall be wet broomed or washed of any silt carried over to adjacent public thoroughfares during construction activities.*
- *Earth-moving contractors shall not operate pre-1996 heavy-duty diesel equipment on forecast Spare the Air Days.*
- *To the extent feasible, construction activities shall use existing power sources (e.g., power poles) or clean fuel generators rather than temporary diesel power generators.*
- *Traffic speeds on all unpaved surfaces shall be limited to a maximum speed of 15 miles per hour or less.*
- *Construction activity management techniques shall be employed, such as extending the construction period outside the ozone season of May through October; reducing the number of pieces of equipment used simultaneously; increasing the distance between emission sources; reducing or changing the hours of construction; and scheduling activity during off-peak hours.*
- *Contractors shall use low VOC architectural coatings per PCAPCD Rule 218.*

Operational Emissions

The primary operational emissions associated with new development projects include CO, PM_{10}, and ozone precursors (ROG, NO_x) emitted as vehicle exhaust. Most development projects also generate “area source” emissions. Area sources individually emit small quantities of air pollutants that cumulatively can represent significant quantities of emissions. Natural gas combustion resulting from water and space heating and gasoline combustion from landscape maintenance equipment are examples of area source emissions.

The Proposed Project would generate motor vehicle trips that would increase

operational air emissions. As discussed in Item 16, Transportation/Traffic, below, the Proposed Project would generate approximately 139 vehicle trips per day. This is equivalent to the number of trips that would be associated with approximately 14 single family homes, well below the 617 homes identified in Table 3-3. Emissions related to other aspects of a home, such as electricity use, would similarly be lower than a small residential project, because most activity would occur during the day, when lighting is not required, and there would be only one bathroom and minimal landscaping. For these reasons, project-specific and cumulative impacts on ROG, NO_x and PM_{10} emissions would be ***less than significant.***

d. **CO Hotspots**

Localized areas where ambient concentrations of CO exceed State and/or federal standards are termed CO hotspots. Emissions of CO are produced in greatest quantities from motor vehicle combustion and are usually concentrated at or near ground level, because they do not readily disperse into the atmosphere, particularly under cool, stable (i.e., low or no wind) atmospheric conditions. Carbon monoxide decreased dramatically in California with the introduction of the catalytic converter in 1975. No violations of CO standards have been recorded at the monitoring station nearest the project site for over 5 years and all of Placer County is currently designated as a CO attainment area.[17]

CO emissions are concentrated at congested intersections. Intersections that operate at level of service (LOS) D or better would not be expected to experience high concentrations of CO. As discussed in Item 16, Transportation/Traffic, the Proposed Project would generate no more than 139 trips per day. These trips would be dispersed throughout the Town, the City of Rocklin and Placer County. The intersections closest to the project site (and therefore most affected by project traffic) would operate at LOS D or better under both existing conditions and with the addition of both the Proposed Project and other approved or pending projects (See Item 16a). Under cumulative conditions, study area intersections would operate at LOS E or F. Only one of these intersections, Sierra College Boulevard/Rocklin Road, carries a substantial amount of traffic (2,950 vehicles in the a.m. peak hour and 3,419 in the p.m. peak hour). Even with these volumes, this intersection would not be expected to exceed CO standards in the future.[18] By comparison, the intersection of Pleasant Grove Boulevard/Roseville Parkway, with a volume of 6,986 vehicles per hour, was modeled for an EIR analysis in 2016, and was estimated to have CO concentrations of 13.3 ppm for 1 hour and 6.6 ppm for 8 hours, well below the State and federal standards.[19] The intersection of Sierra College Boulevard/Rocklin Road would likely have lower CO levels due to the lower traffic volumes. In addition, the Proposed Project would contribute only 6 vehicles in the a.m. peak and 16 vehicles in the p.m., or less than 0.33% of vehicles to this intersection, which would not substantially increase CO levels. For these reasons, this impact would be ***less than significant***.

e. Perception of odors varies from person to person. The impact of an odor is also dependent upon wind direction and the intensity of the odor.

17 Town of Loomis, *Environmental Impact Report for the Village at Loomis*, July 2017, page 4.8-8.

18 The federal standards are 25 ppm for 1-hour and 9 ppm for 8 hours. The State standards are 20 ppm for 1-hour and 9 ppm for 8-hours under State standards

19 City of Roseville, *Amoruso Ranch Specific Plan Final EIR,* May 2016, page 4.4-32.

During construction, exhaust from equipment could produce discernible odors typical of most construction sites. Such odors could be a temporary nuisance to adjacent uses, but would be intermittent and would not affect a substantial number of people. Additionally, odors dissipate with distance. Therefore these emissions would be minimal.

The Proposed Project would be the source of odors associated with animal waste, specifically horse manure. There are no sensitive receptors close enough to the project site at present to be affected by such odors, with the possible exception of the existing home. However, under the Proposed Project, the home would be occupied by project staff, who would not be considered a sensitive receptor for this analysis. There is a pending proposal to develop residential uses immediately west of the project site, within the City of Rocklin. The site plan for that project is not available at this time, but homes could abut the project boundary. The area to the north and northwest of the project boundaries is also zoned for development, with the exception of the pond and its immediate environs. These future development areas could contain populations that would be sensitive to odors.

The Loomis Municipal Code requires that horses kept within the Residential Estate zone be kept 25 feet from the side and rear property lines and 50 feet from residences (Code Section 13.42.060). Under the Proposed Project, the main barn, where the largest number of horses would spend most of their time, would be over 200 feet from the side and rear property lines. Horses would not be housed in the indoor or outdoor arena, but one or more horses could occupy the arenas throughout the day. The outdoor arena would be located 25 feet from the rear property line, and over 130 feet from the side property line. The indoor arena would be located over 75 feet from the side property line and over 250 feet from the rear property line. The only home within 50 feet of any of the project facilities is the existing house within the project site, which would be located over 100 feet from the main barn. Based on the distances of the project facilities from the property line and existing house, the Proposed Project is consistent with the Code's standards for keeping horses on the project site.

As discussed in Chapter 2, manure and soiled bedding would be removed from stalls and common areas once or twice a day, and stored in a covered bin within a "manure garage". Therefore, there would not be an accumulation of manure within the stalls to generate substantial odors. The most likely source of odors would be the manure disposal bin, because of the amount and concentration of manure and soiled bedding that would be stored there. Keeping the bin closed would capture most of the odor. The distance between the manure garage and surrounding properties would also minimize the likelihood that odor from manure would be discernable offsite. As shown in Figure 2-4 in Chapter 2, the manure bins would be located approximately 158 feet from the property line to the north and over 300 feet from the property line to the west. The bin would be emptied by a commercial hauler, and the waste disposed of offsite. These provisions should ensure that unpleasant odors do not reach the property line. Mitigation Measure 2 provides additional safeguards, and would reduce the impact to a ***less-than-significant level*** by minimizing the potential for odors to become a nuisance at nearby properties. In addition, this measure would ensure that flies, which would be attracted by odors, would be kept to a minimum.

Mitigation Measure

2. (a) *The project applicant shall maintain adequate facilities (e.g., covered bins within an enclosure, such as a shed or barn with roof and doors) to contain all manure*

and associated waste removed from stalls and paddocks.

(b) *Manure disposal bins shall be located a minimum of 120 feet from the northern property line and 300 feet from the western property line.*

(c) *Manure and waste pick up shall be scheduled often enough to empty bins before they reach full capacity, and a minimum of once per week.*

(d) *The automated fly spray system shall be maintained, and if it fails during fly season (generally May through October), the system shall be repaired or replaced within one week*.

Issues		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than Significant Impact	No Impact
4.	**BIOLOGICAL RESOURCES.** *Would the project:*				
	a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	■	☐	☐
	b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	■	☐	☐
	c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	■	☐	☐
	d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	☐	☐	■	☐
	e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	■	☐	☐
	f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	■

Discussion

Biological resources on the project site were characterized in a Wetlands Delineation[20] and a Biological Assessment[21], prepared in 2004. These studies were conducted for 60 acres, including the 40-acre project site. The findings for the project site are summarized here, based on these studies, which are available from the Town of Loomis.

A California Diversity Data Base (CNDDB) search reported 18 special-status species and 14 special-status wildlife species known to occur in the region surrounding the project site. The U.S. Fish and Wildlife Service (USFWS) provided a list of wildlife that could occur in the area. Of the 32 identified species, Northfork Associates found that three special-status plant species and six special-status animal species could occur on the project site. These species are shown in Table 3-4.

A field assessment was conducted on April 16, 2004. The wetland delineation and additional vegetation surveys were conducted on April 30, 2004. A wildlife survey was conducted on May 14, 2004. The project site has not been altered since the biological resource studies were conducted in 2004. Further, review of a recent biological resource evaluation for a nearby project (the Village at Loomis) indicates that the special-status species and sensitive habitats with potential to occur on the project site have not changed since 2004.[22]

Habitat on the 40-acre project site is composed of approximately 17.2 acres of annual grassland, 24 acres of oak woodland, and 0.18 acres of seasonal pond. The oak woodland is dominated by blue and interior live oaks. The understory of the oak woodland is composed primarily of grasslands, lacking woody vegetation. The annual grassland is dominated by non-native grasses.

The project site provides habitat for several special-status species. Two of the plant species, Sanford's arrowhead and Big-scale balsam-root, are California Native Plant Society (CNPS)-ranked 1.B2, rare or endangered in California and elsewhere. These plants were not observed in 2004 even though the survey was conducted during the appropriate time for identification. Members of the *clarkia* genus were observed, but it could not be determined at the time of the survey whether these plants were the listed Brandegee's clarkia. At the time of the 2004 study, the Brandegee's clarkia was ranked CNPS 3. Since that time, it has been re-ranked 4.2, and so it is no longer of concern.[23]

An elderberry shrub is located near the western border of the project site. Elderberry shrubs can provide habitat for the Valley elderberry longhorn beetle, which is a Federal threatened species. This shrub did not appear to have any exit holes for VELB during the 2004 survey. Although they were not observed during field surveys, both California red-legged frog and Northwestern pond turtle could occur in the onsite pond. However, the pond is outside of the area to be disturbed by the Proposed Project. Three special-status raptors listed in Table 3-4 were observed on or over the project site during surveys. The project site could provide foraging opportunities for these species as well as other raptors or migratory birds, such as purple martin. Migratory birds, including non-listed raptors, are protected from killing,

20 North Fork Associates, *Wetland Delineation for the +/-60-Acre Hartwick Property*, May 27, 2004.
21 North Fork Associates, *Biological Assessment for the +/-60-acre Hartwick-Loomis Properties*, July 6, 2004.
22 Adrienne Graham, AICP, memorandum to Bob King, Town Planner, May 14, 2018.
23 California Native Plant Society, Rare Plant Program, 2018. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org (accessed 15 February 2018).

TABLE 3-4

Special-Status Species that Could Occur on the Project Site

Genus/Species	Common Name	Status Federal/CA/Other	Habitats and Seasonal Distribution in California	Likelihood of Occurrence within Project Site
PLANTS				
Balsamorhiza macrolepis var. *macrolepis*	Big-scale balsam-root	FSC/none/CNPS 1.B2	Woodlands and grasslands	Moderate. The site has suitable habitat for this species. Not observed during 2004 survey.
Clarkia biloba ssp. *Brandegeeae*	Brandegee's clarkia	None/none/CNPS 4.2	Chaparral and woodlands	Moderate. The site has suitable habitat for this species. Members of clarkia genus observed during 2004 survey. Had been rated CNPS 3 in 2004; now rated 4.2, and no longer of concern.
Sagittaria sanfordii	Sanford's arrowhead	FSC/none/CNPS 1.B2	Marshes and swamps.	Low. Could occur in ponds. Not observed during 2004 survey.
INVERTEBRATES				
Desmocerus californicus dimorphus	Valley elderberry longhorn beetle	FT/none/none	Elderberry shrubs in woodland and riparian habitats	Low. Elderberry shrubs do occur on site. No exit holes were observed during 2004 survey.
AMPHIBIANS				
Rana aurora draytoni	California red-legged frog	FT/none/none	Ponds and streams	Low. Prefers pools over 0.5 meter deep with fringing vegetation.

TABLE 3-4

Special-Status Species that Could Occur on the Project Site

Genus/Species	Common Name	Status Federal/CA/Other	Habitats and Seasonal Distribution in California	Likelihood of Occurrence within Project Site
REPTILES				
Clemmys mamorata marmorata	Northwestern pond turtle	FSC/CSC/none	Permanent water, basking sites, uplands for nesting	High. Suitable aquatic and upland habitat are present.
BIRDS				
Accipiter cooperii	Cooper's hawk	none/CSC/none	Open woodlands and riparian deciduous	High. One individual observed during 2004 survey. Suitable nesting and foraging habitat is present.
Circus cyaneus	Northern harrier	none/CSC/none	Marshes, grasslands and farmland	Moderate. Individual observed during 2004 survey. Suitable foraging habitat on site.
Elanus leucurus	White-tailed kite	MNBMC/CFP/none	Open fields, marshes with nearby trees	High. Two individuals observed during 2004 survey. Suitable nesting and foraging habitat is present.

TABLE 3-4

Special-Status Species that Could Occur on the Project Site

Genus/Species	Common Name	Status Federal/CA/Other	Habitats and Seasonal Distribution in California	Likelihood of Occurrence within Project Site
FEDERAL				
	FE	Federally listed as Endangered		
	FT	Federally listed as Threatened		
	FPE	Federally proposed as Endangered		
	FPT	Federally proposed as Threatened		
	FC	Federal Candidate Species (former Category 1 candidates)		
	FSC	U.S. Fish and Wildlife Service designated “Species of Concern” (former Category 2 Candidates for listing)		
	MNBMC	U.S. Fish and Wildlife Service designated “Migratory Non-game Bird of Management Concern”		
STATE				
	SE	State listed as Endangered		
	ST	State listed as Threatened		
	SR	State listed as Rare		
	CFP	California Department of Fish and Game designated “Fully Protected”		
	CSC	California Department of Fish and Game designated “Species of Special Concern”		
	SA	California Department of Fish and Game designated “Special Animal”		
OTHER				
	CNPS List 1a	Plants presumed extinct in California		
	CNPS List 1b	Plants that are rare, threatened, or endangered in California and elsewhere		
	CNPS List 2	Plants that are rare, threatened, or endangered in California, but are more common elsewhere		
	CNPS List 3	Plants about which we need more information – a review list		
	CNPS List 4	Plants of limited distribution – a watch list		

possession and/or harm by the Migratory Bird Treaty Act (16 U.S.C., Section 703, Supplement I, 1989) and California Fish and Game Code Section 3503.

A wetland delineation was prepared in June 2004 and verified by the U.S. Army Corps of Engineers (Corps). The verified delineation identified a total of 1.72 acres of jurisdictional wetlands on the 40-acre project site, including a seasonal pond, wetland swales, seeps, fringe wetlands and an isolated wetland. All of the wetlands appeared to be seasonal, and are typically dormant and dry by September or October. The seasonal pond is an extension of a larger pond on the Croftwood project to the north of the project site. This pond dries out substantially during the dry season, and the portion of the pond on the project site is completely dry by summer. With the exception of one isolated seep, the wetlands on the project site are considered tributary to Secret Ravine, and ultimately the Sacramento River, a navigable waterway. None of these wetlands are located in the areas that would be disturbed by the Proposed Project.

An arborist report was also prepared for the entire project site. Every tree meeting the Town's criteria for protected trees was tagged, evaluated for structural condition and vigor and inventoried. The resulting Master Inventory documented 1,174 trees meeting the ordinance criteria. The combined diameter of these trees is 19,817. Of the total, 140 trees were recommended for removal due to compromised health and/or structural stability.[24] Another arborist report was prepared in April 2017, and focused on the area in which the Proposed Project would be constructed. The 2017 arborist report found 54 oak trees measuring 4 inches in diameter at breast height (dbh) within and/or overhanging the area to be developed.[25] Of these, five were recommended to be removed due to the nature and extent of defects, compromised health and/or structural instability.[26] The 2017 report also provides general guidelines for the protection of trees that will remain in place.

The site of the off-site intersection improvements is largely disturbed, composed of low grasses. There are two oak trees west of James Drive that are within the area to be disturbed.

a. The Proposed Project would result in conversion of approximately 1.84 acres of grassland to roads, barns and riding facilities, including the intersection improvements at James Drive and Rocklin Road and installation of the water line. This would also bring increased activity to the project site.

   Special-Status Plant Species

   Habitat for two special-status plant species occurs within the project site—big-scale balsam-root and Sanford's arrowhead. Neither plant was observed during surveys in 2004, which were conducted during the appropriate season. However, the potential exists for these plants to have migrated to the site since 2004. Habitat for Sanford's arrowhead would be associated with the pond, which would not be affected by the Proposed Project. Big-scale balsam-root occurs in woodlands and grasslands, so there is suitable habitat for this plant that would be disturbed by the Proposed Project. The loss of individual plants, if present, would be a significant impact.

24 Sierra Nevada Arborists, *Poppy Ridge 2 Project Site, Initial Arborist Report and Inventory Summaries*, June 27, 2005, page 4.
25 Sierra Nevada Arborists, *Arborist Report and Tree Inventory Summary*, *Aerometals Project 3 Project Site*, April 19, 2017, page 2.
26 Sierra Nevada Arborists, *Arborist Report and Tree Inventory Summary*, *Aerometals Project 3 Project Site*, April 19, 2017, page 3.

Valley Elderberry Longhorn Beetle

An elderberry shrub was observed near the western edge of the project site during the 2004 survey. Elderberry shrubs can provide habitat for the Valley elderberry beetle (VELB), a federally listed threatened insect species. The elderberry shrub did not have evidence of the VELB (exit holes) at that time of the 2004 survey. If VELB had since occupied the elderberry shrub, removal or trimming of the shrub would be a significant impact.

California Red-legged Frog and Northwestern Pond Turtle

These two species could occur in the pond at the northern end of the project site. The Proposed Project would not alter the pond or area immediately surrounding the pond. With the exception of a bioswale that would connect to the pond, the site plan shows that grading and other construction activities would be a minimum of 50 feet from the edge of the pond. Therefore, there would be no impact on red-legged frog or pond turtle.

Raptors and Migratory Birds

The project site provides foraging habitat for three raptors observed during the field survey—northern harrier, white-tailed kite and Cooper's hawk. Other raptors and/or migratory birds could also use the site for foraging and nesting. The loss of foraging habitat for these raptors would not be a significant impact, because in part of the relatively small size of the project site. Only 1.75 acres of new impervious surface would be created, with an additional approximately 1.5 acres of pervious surface such as arena footing that would not support grasslands. The remaining 36.75 acres of the project site would be retained in its current condition, which would provide suitable foraging habitat for raptors. In addition, there is similar habitat surrounding the project site. The areas to the south, east and northeast are zoned Residential Agricultural, which would develop at very low densities, thereby retaining much of the existing habitat value, including raptor foraging. However, construction activities near nesting trees could disrupt raptor and/or migratory bird nesting behavior. In addition, up to two trees could be removed to accommodate intersection improvements. Disturbance to raptors or migratory birds during the nesting season could result in the abandonment of a nest, with the consequence that young would be lost. This would be a significant impact.

Implementation of the following mitigation measure would reduce impacts on special-status plants by identifying any new plants that occur within the construction area, and avoiding or moving them. Impacts on VELB would be reduced by avoiding the shrub, or, if it would be removed or altered during construction, by compensating for its loss if it shows evidence of VELB presence. The impact on nesting raptors and/or migratory birds would be reduced by ensuring that nest are located and left undisturbed during the nesting season. These measures would reduce impacts on special-status species to a ***less-than-significant***.

Mitigation Measures

3. *Preconstruction surveys shall be conducted in the same year as the onset of grading, as specified below*:

(a) *Prior to approval of Improvement Plans, the Project Applicant shall retain a qualified botanist to conduct confirmation plant survey(s) for Boggs Lake hedge hyssop within the areas to be disturbed, including the area where intersection improvements would occur. The survey(s) shall be conducted during the appropriate blooming period. These plants have not been observed on the project site through previous surveys; however, appropriate habitat for these species is present. If plants are present, but are in areas where soil disturbance is not necessary, the plants shall be flagged and avoided during grading and construction. If avoidance of the plants is not feasible, then the botanist shall notify the Town and the appropriate regulatory agency and Identify measures to fully offset the loss of the plant, including relocation and transplanting of the plant population and/or off-site replacement planting at a 2:1 or higher ratio and/or equally effective measures. If the confirmation survey(s) do not reveal the presence of these plants, then no further action is required.*

(b)i. *The site to be disturbed shall be surveyed for the presence of the valley elderberry longhorn beetle and its elderberry host plant by a qualified biologist in accordance with current USFWS protocols. If elderberry plants with one or more stems measuring 1.0 inch or greater in diameter at ground level occur on or adjacent to the disturbance site, or are otherwise located where they could be directly or indirectly disturbed, minimization and compensation measures shall be implemented so that there is no net loss of VELB habitat. These measures shall include transplanting existing shrubs and planting replacement habitat (conservation plantings) and/or equally effective measures at the ratios identified in the protocols. Surveys are valid for a period of two years. Elderberry plants with no stems measuring 1.0 inch or greater in diameter at ground level are unlikely to be habitat for the beetle because of their small size and/or immaturity. Therefore, no minimization measures are required for removal of elderberry plants with all stems measuring 1.0 inch or less in diameter at ground level.*

ii. *For elderberry plants with stems measuring 1.0 inch or greater, any elderberry plant within 100 feet of the area to be disturbed shall be protected and/or compensated for in accordance with the USFWS Conservation Guidelines for the Valley Elderberry Longhorn Beetle and the Programmatic Formal Consultation Permitting Projects with Relatively Small Effects on the Valley Elderberry Longhorn Beetle Within the Jurisdiction of the Sacramento Field Office."*

(c) *Should construction activities occur during the breeding season (February 15 through August 31), a pre-construction survey for raptor and/or nesting birds protected under the Migratory Bird Treaty Act shall be conducted by a qualified biologist to identify the location of nests in active use that were established prior to the start of project implementation activities. The pre-construction survey shall take place no more than 14 days prior to initiation of construction. All trees and shrubs within 500 feet of the area of disturbance shall be surveyed, with particular attention to any trees or shrubs that would be removed or directly disturbed. If an active nest of a protected bird is found on site or in the vicinity of off-site improvements at any time, the biologist shall, in consultation with the California Department of Fish and Wildlife (CDFW), determine whether construction work would*

affect the active nest or disrupt reproductive behavior. Criteria used for this evaluation shall include presence of visual screening between the nest and construction activities, and behavior of adult raptors in response to the surveyors or other ambient human activity. If construction could affect the nest or disrupt reproductive behavior, the biologist shall, in consultation with CDFW, determine an appropriate construction-free buffer zone around the nest to remain in place until the young have fledged or other appropriate protective measures to ensure no take of protected species occurs. The buffer shall be sufficient to ensure that the nesting birds are not disturbed by construction activities to the extent that they might abandon the next prematurely.

b., c. The project site does not contain creeks or riparian habitat. However, grasslands can support wetlands, such as seasonal swales. Based on the 2004 wetland delineation, the 40-acre project site contains 1.72 acres of jurisdictional Waters of the U.S. The jurisdictional wetlands include the seasonal pond in the northern portion of the project site and a seep/swale system located primarily in the northeast quadrant of the 40-acre site. None of the project features would encroach on these wetlands. The intersection improvement site is heavily disturbed, and is not expected to contain wetlands.

Although the jurisdictional wetlands would be avoided, they could be adversely affected by nearby activities, such as grading for construction, and vegetation maintenance. The following measures would ensure that jurisdictional wetlands are protected from fill or degradation. With these measures, this impact would be ***less than significant.*** Wetlands within pastures would not be adversely affected by grazing, so no restrictions on allowing horses in pastures are required.

Mitigation Measure

4(a) Prior to issuance of Improvement Plans or building permits, the project applicant shall provide to the Town confirmation from a qualified biologist that the 2004 wetland delineation within the areas to be disturbed and adjacent areas is accurate, and that no wetlands are present in the area where intersection improvements would occur. The wetland delineation for the area to be affected by the Proposed Project shall be updated if needed. (This provision may be met through the 404 permit process.) If an updated wetland delineation indicates that the Proposed Project would result in fill of jurisdictional wetlands, the project applicant shall carry out on-site replacement or off-site banking to mitigate for impacts to wetlands to ensure no net loss of wetlands, consistent with Loomis Municipal Code Section 13.58. Minimum replacement ratios shall be 1:1 for wetland habitat. If off-site mitigation is chosen, the project applicant shall provide written evidence that compensatory habitat has been established through the purchase of mitigation credits at an approved wetlands mitigation bank. The amount of money required to purchase these credits shall be equal to the amount necessary to replace wetland or habitat acreage and value, including compensation for temporal loss. Evidence of payment, which describes the amount and type of habitat purchased at the bank site, shall be provided to the Town prior to the issuance of grading permits.

(b) *No grading or other disturbance shall occur and no structures shall be constructed, within 25 feet from the edge of jurisdictional wetlands, or a lesser amount determined to be adequately protective by a qualified biologist. During*

construction, temporary fencing shall be placed around the wetlands that are in proximity to construction areas.

d. The Proposed Project would not impede the migration of wildlife. Depending on the species, any wildlife that travels through the project site could continue to do so, because the majority of the 40-acre site will be left undisturbed. Therefore, this impact would be ***less than significant***.

e. As stated above, 54 oak trees with a diameter of 6 inches or more at breast height were identified in the area to be developed by the Proposed Project. In addition, two oak trees are located in the area where the intersection improvement would occur. Chapter 13.54 of the Municipal Code for the Town of Loomis protects native oak trees with a diameter of six or more inches at dbh, defined as 54 inches above the ground. Blue oaks that have a diameter of 4 inches dbh are also protected, along with any other tree specifically identified by Town Council resolution. A tree permit must be obtained prior to removing, relocating, cutting-down or undertaking any other action that would destroy a protected tree. Dead and dying trees are exempted from the requirement for a tree permit. Section 13.54.050 provides standard procedures for the treatment of trees to be preserved. Trenching, cutting roots, irrigation, fencing, retaining walls, grading and other aspects of development that could harm trees are addressed.

As shown in Figure 2-4 in Chapter 2, project facilities, including the access road, water line, parking and structures, have been sited so that the oak trees need not be removed. However, portions of some elements of the project, such as the access road, would be located under the tree canopy, and therefore could disturb the critical root zone. Grading, excavation, compaction and application of materials (e.g., asphalt) in these areas could result in damage to the root zone, with an adverse effect on one or more protected oak trees. In addition, if final design requires that the planned facilities be shifted closer to one or more protected trees, those trees may need to be removed.

The potential loss of and/or damage to protected trees would be a ***less-than-significant*** impact with implementation of the following mitigation measure.

Mitigation Measure

5(a) *If the removal of one or more protected trees is required for project implementation, the project applicant shall implement one or a combination of the following measures:*

(i) pay an in lieu fee for removal of trees, as calculated according to the Town Tree Ordinance (Section 13.54 of the Municipal Code). The fee shall be paid at the time that Improvement Plans are approved.

Or

(ii) Prepare a Tree Planting and Maintenance Plan that provides for the planting of trees on site or at another location within the town where maintenance to ensure survival of the trees will be guaranteed. If trees are to be planted on site, they shall be located in easements that can be protected and reviewed annually for a period of five years.

Trees planted to meet the provisions of this measure shall be the same species

as the tree(s) that are removed. The selected method shall be adequate to ensure the long-term viability of new plantings at a level that meets or exceeds the level of tree removal, as measured at diameter at breast height.

(b) *All construction shall be conducted in accordance with Section 13.54.070 of the Municipal Code and the April 2017 Sierra Nevada Arborist report with respect to protected trees within 50 feet of any area to be disturbed by the Proposed Project.*

The above mitigation measure would ensure that the loss of oak trees, if any, due to project construction would be fully offset by the planting and monitoring of same species of trees that are removed at a level that would ensure that a comparable number of inches would be replaced.

The ordinance also regulates certain activities during construction in order to protect trees that are not being removed. A tree permit is required for trenching, grading, paving or otherwise disturbing exposed roots within a critical root zone. A utility and/or irrigation "Trenching-Pathway" plan must be submitted to the Town, showing accurately the proposed location for underground utility lines and the critical root zones (CRZ) of each protected tree within 50 feet of soil disturbance activity. The Trenching-Pathway plan must avoid the CRZs unless encroachment is unavoidable. In that case, a supplemental arborist report must be submitted, and any trenching within a CRZ must be done with hand tools, air spades or other acceptable methods. The 2017 arborist report also provides additional protective measures. These measures will ensure that trees within 50 feet of construction activities are not harmed by excavation or grading.

f. No adopted Habitat Conservation Plans, Natural Conservation Community Plans, or other approved local, regional, or state Habitat Conservation Plans have been adopted that cover the project site or immediate vicinity. Therefore, the Proposed Project would not conflict with such plans and there would be ***no impact.***

Issues		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than Significant Impact	No Impact
5.	**CULTURAL RESOURCES.** *Would the project:*				
a.	Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5?	☐	■	☐	☐
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5?	☐	■	☐	☐
c.	Directly or indirectly destroy a unique paleontological resource or unique geologic feature?	☐	■	☐	☐
d.	Disturb any human remains, including those interred outside of formal cemeteries.	☐	■	☐	☐

Discussion

A Cultural Resources Assessment was prepared by Peak and Associates for the 60-acre Summerstone-Bertoni parcel, which included the 40-acre Poppy Ridge 2 project site (which, in turn, includes the Proposed Project) in November 2004.[27] In preparation for the assessment, a records search was performed at the North Central Information Center of the California Historical Resources Information System to identify cultural resources that had been reported in or near the project site. The sacred lands file was checked, but no sites were listed in the project site. Native Americans with knowledge of the area were contacted. A field inspection was conducted in October 2004 using 15-meter transects, and a test excavation was conducted at one site that appeared to have potential for historic archaeology. Five cultural resources were recorded and evaluated in 2004.

Previous surveys identified a prehistoric food processing loci and evidence of mining activity north of the project site, along Secret Ravine. However, the 2004 field survey found no evidence of prehistoric occupation or use of the project site.

In October 2017, Peak and Associates updated the 2004 study. A records check was performed, which found that no subsequent surveys of the project site had been conducted. A pedestrian field inspection was conducted. There was good soil visibility throughout the project site. Evidence of a recent fire was observed, and there was heavy ground squirrel activity, which provided for ample visual access to subsurface soils. The five historic resources were still present, although one, a cistern, had been repaired and altered since 2004. There was no evidence of other historic resources or prehistoric occupation or use of the project site.[28]

27 Peak & Associates, Inc., *Cultural Resources Assessment of the Proposed Summerstone-Bertoni Subdivision*, November 19, 2004.

28 Peak & Associates, Inc., *Cultural Resource Assessment of the Proposed Flying Change Farms Project*, October

The five cultural resources that were recorded during the original field survey and confirmed in the second survey are:

James #1: (P-31-006109) Two segments of a very small miners ditch. The ditch has washed out at a drainage, but a portion still exists for 165 feet west of the drainage and 100 feet to the east. The ditch is, on average, approximately three feet wide, and is shallow.[29]

James #2: (P-31-006110) A segment of a small miners ditch. Approximately 190 feet of this ditch survives within the project site, and extends offsite for an unknown distance. The ditch is approximately 10 inches deep and two feet wide, on average. It may be part of the ditch system recorded to the north of the project area, but the connection is not obvious.[30]

James #3: (P-31-006111) A rectangular excavation about three feet deep, lined with dressed granitic rock approximately 2.5 feet in width. The outer dimensions are approximately 17 feet by 15 feet, with a gap for a door. The feature could be the remains of a smoke house.[31]

During the 2004 study, this site was selected for further field work to determine if it had importance and significance in providing information on past historic period activities in the area. In May 2006, overgrown grass and weeds were removed from the interior and exterior of the rock-walled remnant. A metal detector was used to identify objects within the walls and across the mowed areas. Exposed metal objects were examined but not saved, because it was determined that none were of analytical use.[32]

Consultation with the property owners at the time indicated that the structure had been described as a spring house possibly dating to the late 1880s. The structural remnant was in poor condition, and the metal items found during the survey appeared to be discards when no longer of use or value.[33]

James #4: (P-31-006112) A square concrete foundation for a tank house. This feature consists of an eight-inch-wide curb, with dimensions of 12.5 by 12.5 feet. There are nine concrete footings in the form of squared blocks in the interior of the foundation. There is no sign of the superstructure for the tank house.[34]

James #5: (P-31-006113) Small farm headquarters complex, including a residence, garage,

31, 2017, page 11.

29 Peak & Associates, Inc., *Cultural Resource Assessment of the Proposed Flying Change Farms Project*, October 31, 2017, page 7.

30 Peak & Associates, Inc., *Cultural Resource Assessment of the Proposed Flying Change Farms Project*, October 31, 2017, page 8.

31 Peak & Associates, Inc., *Cultural Resource Assessment of the Proposed Flying Change Farms Project*, October 31, 2017, page 8.

32 Peak & Associates, Inc., *Cultural Resource Assessment of the Proposed Flying Change Farms Project*, October 31, 2017, page 8.

33 Peak & Associates, Inc., *Cultural Resource Assessment of the Proposed Flying Change Farms Project*, October 31, 2017, page 9.

34 Peak & Associates, Inc., *Cultural Resource Assessment of the Proposed Flying Change Farms Project*, October 31, 2017, page 9.

wood shed and barn. The residence is a Craftsman bungalow, with many additions and modifications. An original section appears to remain as a rectangular side-gabled (at a steep pitch), one-story frame structure with brick chimney. The two-thirds width front porch is covered by a cross gable that appears to be a later addition, designed to be consistent with the Craftsman style. Other additions include sky lights, aluminum framed windows, solar panels on the roof and stucco wall finish. The outbuildings are simple and utilitarian. The wood shed is small, with a gabled roof and flush board siding missing several boards. The barn is one-story, with four bays open on one long site, and a metal roof and siding. The garage is modern, with aluminum roof, siding and roll-up doors.[35]

Consistent with the 2004 report, the 2017 report concluded that none of the five recorded resources would be considered historically significant. No events of unusual historic significance have occurred on the project site, nor have there been historically significant persons associated with the site. The ditch remnants (James #1 and #2) could be related to historic mining, but are small sections disconnected from other mining features, and therefore lack the integrity needed to be considered eligible for the California Register of Historical Resources (CRHR). The residence is over 50 years of age, but does not have any unusual or characteristic architectural traits that would indicate historic significance. None of the five resources has the potential to return significant data through application of archaeological techniques. For these reasons, the Cultural Resource Assessment did not find that any of these resources met criteria for listing on the National Register of Historic Places (NRHP) or the CRHR.[36]

Cultural resources have been recorded near the project site. For example, surveys of the Croftwood project north of the project site found evidence of mining activity. A prehistoric food processing loci was discovered north of the project site, on the eastern bank of Secret Ravine.[37]

a., b.,
d. As discussed above, the Cultural Resource Assessments did not identify any significant historic or prehistoric resources within the project site. Of the five resources identified within the 40-acre site, only one, the foundation for the tank house (James #4), is in the area that would be disturbed by the Proposed Project. Because it is not eligible for listing on the CRHR or NHRP, the loss of this feature would not be a significant impact. The house and associated buildings (James #5) would be retained, although it should be noted that because they are not eligible for listing, their removal or alteration would not be considered a significant impact. The remaining resources, none of which is considered historically significant, are not in proximity to Proposed Project construction areas.

Although the Proposed Project would not affect any known historically significant resources, the potential exists for such resources to be located below the surface, where they would not have been discovered during the field surveys. The area where intersection improvements and pipeline installation would occur is heavily disturbed and does not contain any structures. However, subsurface cultural resources could be

35 Peak & Associates, Inc., *Cultural Resource Assessment of the Proposed Flying Change Farms Project*, October 31, 2017, page 10.
36 Peak & Associates, Inc., *Cultural Resource Assessment of the Proposed Flying Change Farms Project*, October 31, 2017, page 12.
37 Peak & Associates, Inc., *Cultural Resource Assessment of the Proposed Flying Change Farms Project*, October 31, 2017, page 7.

present. If such resources are present, they could be damaged during grading and/or excavation. This would be a significant impact.

The following mitigation measure would reduce this impact to a ***less-than-significant*** level by ensuring that buried cultural resources, if present, would be identified, protected and treated appropriately.

Mitigation Measure

6(a) *If any cultural resources, such as structural features, unusual amounts of bone or shell artifacts, or architectural remains, are encountered during any construction activities, the contractor shall implement measures deemed necessary and feasible to avoid or minimize significant effects on the cultural resources including the following:*

- *Suspend work within 100 feet of the find;*
- *Immediately notify the Town's Planning Director and coordinate any necessary investigation of the site with a qualified archaeologist as needed to assess the resources (i.e., whether it is a "historical resource" or a "unique archaeological resource");*
- *Provide management recommendations should the finding be historically significant or a unique archaeological resource Possible management recommendations for historical or unique archaeological resources could include resource avoidance or data recovery excavations, where avoidance is infeasible in light of project design or layout, or is unnecessary to avoid significant effects; and*
- *As warranted by any cultural resources found on site, prepare reports for resources identified as potentially eligible for listing in the California Register of Historical Resources in consultation with the State Historic Preservation Officer, and if applicable, tribal representatives.*

(b) *If human remains are discovered during any phase of construction, all ground-disturbing activity within 100 feet of the remains shall be halted immediately, and the Town's Planning Department and the County Coroner shall be notified immediately. If the remains are determined by the County Coroner to be Native American, the Native American Heritage Commission shall be notified within 24 hours to request the names of the most likely descendent(s), and Public Resources Code Section 5097.98 shall be adhered to in the treatment and disposition of the remains. The Planning Department staff shall be responsible for approval of recommended mitigation as it deems appropriate, taking account of the provisions of state law, as set forth in California Environmental Quality Act Guidelines, Section 15064.5(e), and Public Resources Code, Section 5097.98. The project applicant shall implement approved mitigation, to be verified by the Planning Department, before resuming ground-disturbing activities within 100 feet of where the remains were discovered.*

c. There are no known paleontological resources or unique geologic features on the project site. However, the project site is located on the Riverbank Formation geologic unit.[38]

38 California Department of Conservation, Division of Mines and Geology, *Open File Report 95-10, Geology, Plate*

Although the Riverbank Formation in the Loomis area has not been comprehensively surveyed for paleontological resources, construction activities in areas containing Riverbank Formation in the Sacramento area (e.g., during the construction of ARCO Arena) have yielded a number of important vertebrate animal fossils.[39] These fossils included ground sloth, bison, horse, camel, antelope or deer, and mammoth, which were found about 13 to 30 feet below the surface. Plant fossils have also been found. While all of the animals were widely distributed in North America during the Plio-Pleistocene, this discovery in the Riverbank Formation is important in that it is one of a small number of sites in northern California that helps expand scientific knowledge about the range of animals and the general paleoecology of the Sacramento Valley. This formation, which consists of alluvial materials (gravel, sand, and silt) derived from older granitic and volcanic rocks in the Sierra Nevada to the east, could contain substantial numbers or unique types of invertebrate (marine), plant, or vertebrate fossils or other resources of paleontological value.

In areas like the project site where the geologic formations are not exposed, paleontological resources would typically not be visible where the ground has not been disturbed. If present, such resources could be damaged or destroyed during site preparation, similar to archaeological resources, which would be a significant impact. Implementation of the following mitigation measure would reduce this impact to a ***less-than-significant*** level by ensuring that any paleontological resources encountered during construction would be treated appropriately.

Mitigation Measure

7. *The project applicant shall inform heavy equipment operators and workers involved with initial site development of the potential for paleontological resources to be present. Workers shall be instructed as to the indicators of paleontological remains.*

   If any evidence of fossils is discovered during excavation or grading, all work within 50 feet of the find shall be suspended, and the Town of Loomis shall be notified. The Town shall coordinate investigation of the site with a qualified paleontologist as needed to assess the resource and provide proper management recommendations, such as avoiding the resource and/or excavating and recording data on the resources. The contractor shall implement any measures deemed necessary for the protection of paleontological resources. All significant paleontological resources recovered shall be subject to scientific analysis and professional curation. A report of these activities shall be prepared for the Town by the paleontologist according to current professional standards.

1, 1995.

39 City of Lincoln, *Village 1 Specific Plan Draft Environmental Impact Report*, May 2012, page 4.5-12.

Issues		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than Significant Impact	No Impact
6.	**GEOLOGY AND SOILS.** *Would the project:*				
a.	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i.	Rupture of a known earthquake fault, as delineated on the most recent Alquist - Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	■
ii.	Strong seismic ground shaking?	☐	☐	■	☐
iii.	Seismic-related ground failure, including liquefaction?	☐	☐	■	☐
iv.	Landslides?	☐	☐	☐	■
b.	Result in substantial soil erosion, or the loss of topsoil?	☐	☐	■	☐
c.	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	■	☐
d.	Be located on expansive soils, as defined in Table 18-1-13 of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	■	☐	☐
e.	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	■	☐	☐

Discussion

a.i. The Proposed Project is not located in an Alquist-Priolo Earthquake Fault Zone.[40] There are no known active faults in south Placer County, so there would be ***no impact*** from exposure of people or structures to ground rupture or seismic ground shaking.

a.ii-iii, c. The Town of Loomis is not in an area subject to severe seismic events. The fault system nearest to Loomis is the Foothill Fault System, which traverses Amador, El Dorado and Placer counties for over 200 miles. Two segments of this system are relatively close to Loomis—the Bear Mountain Fault Zone (Spencerville Fault) between Folsom and Auburn, and the Melones Fault Zone, about 15 miles to the east. These faults have not ruptured in the last 200 years, but are considered potentially active.[41]

The active fault nearest to the project site is the Dunnigan Hills fault, approximately 40 miles to the northwest.[42]

The maximum anticipated probable groundshaking in Loomis would be VI on the Modified Mercalli Scale.[43] Typical effects from this level of groundshaking would be cracked chimneys, moved furniture and broken glassware inside structures. Structural damage would be minimal for buildings constructed according to Building Code standards.

Other potential hazards associated with seismic events include liquefaction, subsidence, lurch cracking and lateral spreading.

Due to the presence of active and potentially active faults, all areas within the state are exposed to some degree of seismic ground-shaking and associated seismic hazards, such as liquefaction. Although the Central Valley is generally considered less seismically active than other areas of California, the project site is nevertheless susceptible to seismic ground-shaking due to earthquakes on faults associated with the Foothills/Bear Mountains System, Coast Range-Sierran block boundary, San Andreas, and others.

The Proposed Project would not construct buildings used for long-term human occupation (e.g., residences, offices), and most boarders would be onsite for short periods of time (and often outside). The design and construction of the Proposed Project would comply with the Town's Construction Codes (Chapter 11.04 of the Loomis Municipal Code), which incorporate the International Building Code, as amended. The IBC, which is used widely throughout the U.S., has been modified for California conditions with numerous more detailed and/or stringent regulations. Specific minimum seismic safety requirements are set forth in Chapter 16 of the IBC. Prior to construction of structures, the IBC requires that geotechnical investigations be conducted to determine the site-specific soil conditions that could possibly constrain building designs, such as soils susceptible to liquefaction or landslides. In addition, the State earthquake protection law (California Health and Safety Code 191000 et seq.) requires that buildings

40 California Department of Conservation, CGIS Information Warehouse: Regulatory Maps, accessed via internet, http://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=regulatorymaps, January 26, 2018.
41 Town of Loomis, *Town of Loomis General Plan*, July 2001, page 124.
42 Town of Loomis, *Town of Loomis General Plan*, July 2001, page 124.
43 Town of Loomis, *Town of Loomis General Plan*, July 2001, page 125.

be designed to resist stresses produced by lateral forces caused by earthquakes. Earthquake-resistant design and materials are required to meet or exceed the current seismic engineering standards of the California Building Code Seismic Zone 3 improvements. For these reasons, the Proposed Project would not result in a substantial risk of exposure to injury, loss or death due to ground failure and ground shaking, and this would be a ***less-than-significant impact***.

a.iv. Earthquake-induced landslides on steep slopes can occur in either bedrock or unconsolidated deposits. The project site does not have any steep slopes, so development on the site would not result in exposure of people or structures to landslides. Therefore, there would be ***no impact***.

b. There is a potential for grading and construction activities to increase erosion. Because the project site is larger than one acre, the project applicant would be required to apply for and comply with the General Construction Activity Stormwater Permit. Permit applicants are required to prepare and retain at the construction site a stormwater pollution prevention plan (SWPPP) that includes erosion-control measures. The SWPPP would address project construction and would specify control measures and Best Management Practices (BMPs) designed to minimize erosion during construction.

Because the Proposed Project would disturb over 50 cubic yards of soil, a grading permit would be required, as set forth in Chapter 12.04 of the Municipal Code. Section 12.04.580 provides specifications for grading and long term erosion and sediment control, including limitation of grading operations during the rainy season, installation of vegetation and structures for erosion control, and control of runoff.

In addition, the Proposed Project has identified measures that will be used to protect stormwater quality, including a 125-foot setback and buffer from the nearest creek and use of silt fence, bio-filter bags and/or fiber rolls along the perimeter of the project site and below the tow or down slope of exposed or erodible slopes[44]. These measures would prevent erosive materials from the project site from entering drainages.

Compliance with the SWPPP and Chapter 12.04 of the Municipal Code, and implementation of project water quality measures would ensure that substantial erosion and/or loss of topsoil would not occur during project construction or operation. Therefore, this impact would be ***less than significant***.

d. Soils on the project site are predominately Andregg coarse sandy loam, 2 to 9 percent slopes, and the entire area that would be developed is composed of these soils.[45] Andregg soil types are moderately deep, gently rolling well-drained soils underlain by weathered granitic bedrock. These soils can pose constraints to development. The primary limitation is due to slopes. This soil type exhibits moderately rapid permeability, medium surface runoff, and moderate erosion hazard, although exposed soils erode rapidly. This soil type does not exhibit expansive characteristics. If proper site preparation construction techniques are not used, buildings, the driveway and parking area, and pipelines could be subject to settling and other damage, which would be a significant impact. This would be a ***less-than-significant impact*** with incorporation of the following mitigation measure, which would ensure that appropriate measures to

44 Casey Feickert, TSD Engineering, Inc., *Preliminary Drainage & Stormwater Quality Report*, March 13, 2018, page 2.

45 Natural Resources Conservation Service, Web Soil Survey, National Cooperative Soil Survey, January 28, 2018.

address site constraints are incorporated into project design and construction.

Mitigation Measure

8. *Prior to approval of Improvement Plans, a geotechnical report shall be prepared to characterize the soils and geologic constraints of the project site. The recommendations of the geotechnical report shall be incorporated into the design and construction of buildings, roads, parking areas and pipelines.*

e. The Proposed Project would add a single restroom, and a new leach field would be used for the restroom. The septic system and leach field would be retained for separate use by the existing residence. Depending on design, capacity and operation, septic systems can release contaminants into the surrounding soil and groundwater. In addition, the septic system's leach field could be compromised by activities in the leach field area. The potential release of contaminants from the septic system would be a significant impact. The following measure would ensure that the septic systems would not result in soil or groundwater contamination, and that the leach filed would be protected.

Mitigation Measure

9*(a)* *Prior to approval of Improvement Plans, the project applicant shall provide documentation demonstrating that the project septic system and leach field have capacity to accept the flows from the new restroom, and will comply with Placer County Sewage Ordinance, Article 8.24.*

(b) *The leach field shall be protected so that no activities, including horses grazing or being ridden, occur over the leach field.*

Placer County Department of Health and Human Services, Division of Environmental Health regulates septic systems in the county. Placer County has extensive requirements for the design and construction of septic systems[46], which are intended to protect groundwater, soils, the environment and human health. Compliance with County regulations and the above mitigation measure would protect water quality and human health, so use of septic systems would be a ***less-than-significant impact***.

46 Placer County, Placer County Code, Article 8.24.

Issues	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than Significant Impact	No Impact
7. GREENHOUSE GAS EMISSIONS. Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	■	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	■	☐

Discussion

Gases that trap heat in the atmosphere are called green house gasses (GHGs). The main concern with GHGs is that increases in GHG concentrations in the Earth's atmosphere is causing global climate change. Global climate change is a change in the average weather on Earth that can be measured by wind patterns, storms, precipitation, and temperature.

The principal GHGs are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), sulfur hexafluoride (SF_6), perfluorocarbons (PFCs), and hydrofluorocarbons (HFCs). Because different GHGs have different Global Warming Potentials (GWPs) and CO_2 is the most common reference gas for climate change, GHG emissions are often quantified and reported as CO_2 equivalents (CO_2e). For example, SF_6 is a GHG commonly used in the utility industry as an insulating gas in circuit breakers and other electronic equipment. SF_6, while comprising a small fraction of the total GHGs emitted annually world-wide, is a very potent GHG with 22,800 times the GWP as CO_2. Therefore, an emission of one metric ton (MT) of SF_6 could be reported as an emission of 22,800 MT of CO_2e (MT CO_2e).[47] Large emission sources are reported in million metric tons (MMT) of CO_2e.[48]

Global warming can affect California by reducing snow pack, and increasing sea level rise, the number of extreme heat days per year, high ozone days, wildfires, and drought years. Globally, climate change has the potential to affect numerous environmental resources through changes related to future air and ocean temperatures and precipitation patterns. The anticipated effects of global warming on weather and climate are likely to vary regionally, but are expected to include the following direct effects[49]:

- Higher maximum temperatures and more hot days over nearly all land areas;

47 Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)], 2007.

48 A metric ton is 1,000 kilograms; it is equal to approximately 1.1 U.S. tons and approximately 2,204.6 pounds.

49 Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2001: Working Group I: The Scientific Basis*, 2001.

- Higher minimum temperatures, fewer cold days and frost days over nearly all land areas;
- Reduced diurnal temperature range over most land areas;
- Increase of heat index over land areas; and
- More intense precipitation events.

Also, there are many secondary effects that are projected to result from global warming, including global rise in sea level, ocean acidification, impacts on agriculture, changes in disease vectors, and changes in habitat and biodiversity. While the possible outcomes and the feedback mechanisms involved are not fully understood and much research remains to be done, the potential for substantial environmental, social, and economic consequences over the long term could be great.

California produced 459 gross $MMTCO_2e$ in 2012.[50] This is an increase from levels between 2009 and 2011 (458.44, 453.06, and 450.94 $MMTCO_2e$ respectively) but a decrease from levels between 2000 and 2008 when emissions ranged from a low of 466.32 in 2000 to a high of 492.86 in 2004.[51] Combustion of fossil fuel in the transportation sector was the single largest source of California's GHG emissions in 2012, accounting for 36 percent of total GHG emissions in the state.[52] This sector was followed by the electric power sector (including both in-state and out-of-state sources) (21 percent) and the industrial sector (19 percent).[53]

a.,b. The Proposed Project would generate GHG emissions from the construction and operation of the equestrian facility. Construction sources of GHGs associated with the Proposed Project would consist of mobile sources from onsite construction equipment, haul trucks, and delivery and worker vehicle trips. Once operational, GHGs would be generated primarily by vehicle trips to and from the facility, electrical use, and the horses themselves.

The PCAPCD has adopted a threshold of 1,100 MT CO_2e/year as a De Minimis level of GHG emissions. Projects that generate less than 1,100 MT CO2e/year are excluded from GHG impact analysis, because GHG emissions below this level would not contribute considerably to GHG levels.[54] PCAPCD also identifies projects that would be expected to fall below the De Minimis level, including single-family residential projects of fewer than 71 dwelling units.[55] Vehicle emissions are usually the largest single source of GHG for a typical residential subdivision. As discussed in Item 16, Traffic/Transportation, the Proposed Project would generate 139 vehicle trips per day, which is equivalent to approximately 15 single-family dwelling units. The Proposed Project would not increase the number of residences on the project site, so house-related GHG emissions would not change. There would be some electrical use,

50 California Air Resources Board, *California Greenhouse Gas Inventory for 2000-2012 — by Category as Defined in the 2008 Scoping Plan*, March 24, 2014.
51 California Air Resources Board, *California Greenhouse Gas Inventory for 2000-2012 — by Category as Defined in the 2008 Scoping Plan*, March 24, 2014.
52 California Air Resources Board, *California Greenhouse Gas Inventory for 2000-2012 — by Category as Defined in the 2008 Scoping Plan*, March 24, 2014.
53 California Air Resources Board, *California Greenhouse Gas Inventory for 2000-2012 — by Category as Defined in the 2008 Scoping Plan*, March 24, 2014.
54 PCAPCD, *CEQA Handbook*, August 2017, page 24.
55 PCAPCD, *CEQA Handbook*, August 2017, Table 2-6.

primarily for lighting of the restroom, barn and arena, but this would be limited because most activities would occur during the day. One source of GHG under the Proposed Project that would not occur with a typical residential development is methane produced by the horses. Methane is a particularly potent GHG, 25 times greater than CO. A typical horse is estimated to generate approximately 45.5 lbs/year of methane[56], so 55 horses would generate approximately 2,502.5 lbs/year of methane or approximately 28.4 MT CO_2e. Given that the Proposed Project would generate far less traffic than a 71-dwelling unit project, and that the GHG emissions from project electrical use and the horses to be housed on the project site would be minimal, the combined annual GHG emissions attributable to the Proposed Project would be well below 1,100 MT CO_2e De Minimis level. Therefore, this impact would be ***less than significant.***

56 Christa Lesté-Lasserre, *Does Horses' Waste Help or Hinder the Environment*, in the Horse, Your Guide to Equine Health Care, July 25, 2013, page 2.

Issues		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than Significant Impact	No Impact
8.	**HAZARDS AND HAZARDOUS MATERIALS.** *Would the project:*				
	a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	■	☐
	b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	■	☐
	c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	■
	d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	■	☐	☐
	e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	■
	f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	■
	g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	■

Issues		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than Significant Impact	No Impact
h.	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	■	☐	☐

Discussion

a., b. Implementation of the Proposed Project would involve construction of several buildings and facilities, including a paved driveway and parking. Construction would require site preparation activities, such as excavation and grading at the project site. During construction, oil, diesel fuel, gasoline, hydraulic fluid, and other liquid hazardous materials would be used. If spilled, these substances could pose a risk to the environment or human health.

Once constructed, the Proposed Project would use some hazardous materials, primarily for landscaping. The barn would have an Automatic Fly Control System, which would provide timed release of fly repellent. Most fly repellents for horses are based on pyrethrins or synthetic pyrethroid compounds.[57] These compounds can be toxic if inhaled in high doses[58], which would not occur with an automatic fly spray system, and are considered to be of low chronic toxicity for humans and other mammals.[59] The fly spray would be confined to the barn, and not expected to travel to adjacent properties. Furthermore, pyrethrins are inactivated and decomposed by exposure to light and air, so any spray that migrated outside of the barn would break down. For these reasons, the use of fly spray would not pose a risk to the public.

The design and construction of the Proposed Project would comply with the Town's Construction Codes (Chapter 11.04 of the Loomis Municipal Code), which incorporates the International Building Code, as amended, and the 2016 California Fire Code (CFC), as amended. Other laws and regulations that govern the use and storage of hazardous materials include, but are not limited to, Chapter 6.95 of the California Health and Safety Code (inventory and emergency response), Title 8 of the Code of California Regulations (CCR) (workplace safety), and Titles 22 and 26 of the CCR (hazardous waste). Delivery of hazardous materials to the site and along public roadways would be required to comply with Title 49 of the Federal Code of Federal Regulations (CFR), as monitored and enforced by the California Highway Patrol (CHP) and California Department of Transportation (Caltrans). Storage of all flammable materials at construction sites would

57 Karen Briggs, *Fly Protection Uncovered,* published in the Horse, September 17, 2001, page 1.
58 Pesticide Information Project, Extension Toxicology Network, *Pyrethrins*, March 1994, page 2.
59 Bond, C.; Buhl, K.; Stone, D. 2014. *Pyrethrins General Fact Sheet*; National Pesticide Information Center, Oregon State University Extension Services. http://npic.orst.edu/factsheets/pyrethrins.html, November 2014.

be subject to the regulations of Title 19 of the CCR and the Uniform Fire Code. In addition, as discussed in Item 9(a)(c)(f), the contractor would have to prepare a Stormwater Pollution Prevention Plan (SWPPP), which would ensure that soil and contaminants do not enter surface waters. Assuming compliance with these regulations, potential exposure of people or the environment to hazardous materials associated with the Proposed Project would be a ***less-than-significant impact***.

c. No schools are located within ¼ mile of the project site. Therefore, there would be ***no impact.***

d. No properties in the vicinity of the project site are on the Cortese List. An Environmental Research Report was prepared for the project site in April 2005. To prepare the report, federal, State and regional databases were searched for records of hazards on or within a mile of the project site. In a recent database search, the closest site records were for properties located over 2,000 feet from the project site, both of which had been cleaned up.[60]

The Environmental Research Report found that the project site was not identified as generating hazardous wastes or having posted violations for hazardous materials use. The only site record was for a 500-gallon waste-oil storage tank, located on the project site adjacent to the existing house.[61] According to the then property owner, the tank was used for diesel fuel, was last filled in 1979, and was removed in the mid-1980s.[62] Nonetheless, if the tank had leaked, groundwater and soils in the vicinity of the tank could be contaminated. As shown in Figure 2-4 in Chapter 2, no construction is planned in the vicinity of the existing house. The nearest facility would be the outdoor dressage court, which would require grading, but not excavation, to construct. Therefore, the Proposed Project is not expected to encounter soils or groundwater that could have been contaminated by the fuel tank.

Although no contaminated sites are listed in State or federal databases, prior activities at the project site, including the waste oil tank, could have released hazardous materials into the soil. If present, such contamination could appear as darkened soil, or abandoned containers. Exposure to contaminated soils, if present, could harm construction workers, which would be a significant impact. Implementation of the following mitigation measure would reduce the potential risk of exposure to a ***less-than-significant*** level by ensuring that contaminated groundwater or soils, if present, are identified and remediated promptly.

Mitigation Measure

10. *In the event previously unidentified hazardous materials contamination is discovered or believed to be present, work shall stop immediately and the site shall be investigated by a qualified professional. If contaminated, the area shall be remediated by a qualified professional, in consultation with Placer County*

60 California Department of Toxic Substances Control, *Enviorstor,* James Drive, Loomis, CA, accessed via internet at http://www.envirostor.dtsc.ca.gov/?surl=vot5m, January 15, 2018.
61 DCI Services, *Environmental Research Report, Vacant Land, 5145 James Drive,* April 5, 2005, page 7.
62 Jim Bertoni, former property owner, personal communication, December 1, 2005.

Environmental Health Division, the Regional Water Quality Control Board and/or the California Department of Toxics Substances Control, as appropriate. Work shall not resume until potential hazards have been identified and managed.

e,f. No airports are located in the Town of Loomis. The nearest airports are in Lincoln and Auburn. The project site is not located in an airport land use plan or in the vicinity of a private airstrip. Therefore, there would be ***no impact*** from aircraft.

g. Access to the project site would be from James Drive, an existing road. The road would be widened to accommodate increased traffic and horse trailers. No barriers or other impediments to emergency response would be constructed. Therefore, there would be ***no impact***.

h. Within Placer County, the most severe wildfire risks occur east of Auburn. Western Placer County, including the Town of Loomis, is not defined as a very high fire hazard area by CalFire.[63] Nonetheless, wildfires can occur within the grasslands, oak woodlands and riparian areas of the county. The project site is composed of grasslands and oak woodlands, so there is some risk of wildfire, and there is still evidence of a fire in the northern portion of the project site. However, the risk of a severe wildfire is low on the project site, because it is located in a community that is largely developed, particularly to the west and north.

As discussed in Item 14a, below, the South Placer Fire Department (SPFD), which maintains a station within 3.8 miles of the project site, will continue to provide service to the project site. The SPFD provided an initial assessment of the Proposed Project, and provided several recommendations, including:

- Specifications for posting and design of the address to ensure that is visible from the roadway fronting the project access;
- Specifications for entry gates;
- Prohibiting parking on fire lanes and posting notices stating “No Parking Fire Lane”;
- Paving specifications;
- Access road widths and vertical clearance;
- Placement of fire extinguishers; and
- Fire flow requirements.

The Proposed Project would not substantially increase the risk of fire on the project site. Approximately 1.84 acres of grassland would be replaced by buildings, arenas and paddocks with non-vegetative footing, and paved areas, reducing the fuel load for wildfire. The Proposed Project would not use propane, natural gas or other fuels. Hay bales can ignite if baled and/or stored improperly, but usually only within the first six weeks of baling[64], so it is more likely to occur before being sold to a horse stable.

63 California Department of Forestry and Fire Protection, Fire Resource Assessment Program, *Fire Hazard Severity Zones in SRA*, Placer County, November 7, 2007; California Department of Forestry and Fire Protection, Fire Resource Assessment Program, *Draft Fire Hazard Severity Zones in LRA*, Placer County, November 24, 2008.

64 University of Tennessee Agricultural Extension Service, Agricultural Engineering Department, *Hay Fires: Prevention and Control*, October 1988.

Standard horse-keeping practices would minimize the risk of fire. For example, as shown in Figure 2-4 in Chapter 2, hay storage would be separated from the barn and other facilities and activities. In addition, smoking is typically not allowed in proximity to stables. Nonetheless, the increase in activity on the project site would increase the potential for wildland fires, which is considered a significant impact. Implementation of the following mitigation measure would ensure that appropriate steps are taken to minimize the risk of fire, reducing the impact to a ***less-than-significant level***.

Mitigation Measure

11. *In order to minimize the potential for wildland or structure fires, and to ensure that the fire department can respond quickly and effectively to any onsite fires, the site plan shall be reviewed by the South Placer Fire Department, and all measures recommended by the SPFD shall be implemented.*

Issues		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than Significant Impact	No Impact
9.	**HYDROLOGY AND WATER QUALITY** *Would the project:*				
	a. Violate any water quality standards or waste discharge requirements?	☐	■	☐	☐
	b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	■	☐
	c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	■	☐	☐
	d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	■	☐	☐
	e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	■	☐	☐
	f. Otherwise substantially degrade water quality?	☐	■	☐	☐
	g. Place housing within a 100-year flood hazard area, as mapped on a	☐	☐	☐	■

Issues		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than Significant Impact	No Impact
	federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				
h.	Place within a 100-year floodplain structures which would impede or redirect flood flows?	☐	☐	☐	■
i.	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	■
j.	Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	■

Discussion

The approximately 11-acre portion of the project site that would be developed drains from south to north. Stormwater runoff sheet-flows across natural open space and low-lying areas. There are two main drainage shed areas in the area to be developed.[65]

Surface water quality is regulated by Section 303 of the federal Clean Water Act, through the National Pollutant Discharge Elimination System (NPDES) program. In the State of California, the NPDES program is implemented by each Regional Water Quality Control Board (RWQCB); the Central Valley RWQCB covers the Town of Loomis. The NPDES program is applicable to all discharges to waters of the United States, including stormwater discharges associated with municipal drainage systems, construction activities, industrial operations, and "point sources" (such as wastewater treatment plant discharges and other direct discharges to water bodies). In April 2003, the SWRCB adopted an NPDES Phase II General Permit for the Discharge of Storm Water from small municipal separate storm sewer systems (MS4s) to provide NPDES permit coverage to municipalities that were not covered under the NPDES Phase I Rule for municipalities serving more than 100,000 people. The Town is a regulated Small MS4 under the State's NPDES permit, and is subject to the provisions of the NPDES Phase II General Permit. Under this permit, stormwater discharges must not cause or contribute to a violation of water quality standards contained in a Statewide Water Quality Control Plan, the California Toxics Rule, or the applicable RWQCB Basin Plan. For the Town, the applicable basin plan is the Water Quality Control Plan for the Sacramento River and the San Joaquin River Basins. The Basin Plan establishes water quality objectives and implementation programs to meet stated objectives and to protect the beneficial uses of water in the basin, in compliance with the federal Clean Water Act and the state Porter-Cologne Water Quality Control Act.

65 Casey Feickert, PE, TSD Engineering, Inc., *Preliminary Drainage & Stormwater Quality Report*, March 13, 2018, page 2.

To facilitate compliance with the MS4 permit, the *West Placer Storm Water Quality Design Manual* was prepared collaboratively by Placer County, the Town of Loomis, the City of Lincoln, the City of Auburn and the City of Roseville, all of which have lands within the boundaries of the MS4 permit. The Manual applies to development and redevelopment projects approved after July 1, 2015, and provides a consistent approach to addressing stormwater management within the West Placer region. The Manual is intended, among other things, to minimize the adverse affects of storm water runoff on water quality, minimize the percentage of impervious surfaces on land development projects, preserve the overall pre-development water balance, and guide proper selection, design and maintenance of storm water BMPs to address pollutants generated by land development.[66] The Manual provides specific guidance on the development of a Storm Water Quality Plan (SWQP) for post-project conditions, and provides a template for the SWQP.

a.,c., d.,
e.,f. Construction

Construction of the Proposed Project would involve earth-disturbing and building activities that could result in the discharge of sediment or other pollutants (e.g., petroleum products or building materials such as paints and cement) to Secret Ravine via runoff from the construction site. Because activities associated with project development would disturb more than one acre of land, the applicant would be required to obtain and comply with the State General Construction Activity Stormwater Permit. The General Permit is intended to ensure compliance with state water quality objectives and water protection laws and regulations, including those related to waste discharges. General Permit applicants are required to prepare a stormwater pollution prevention plan (SWPPP) and retain it at the construction site. The stormwater quality management program addresses project construction and specifies control measures and BMPs designed to minimize sedimentation and release of products used during construction into local swales and the pond, and ultimately, to Secret Ravine. The SWPPP must include the following elements:

1. Identify pollutant sources, including sources of sediment, which may affect the quality of stormwater discharges from the construction site.
2. Identify non-stormwater discharges.
3. Identify, construct, implement in accordance with a time schedule, and maintain BMPs to reduce or eliminate pollutants in stormwater discharges and authorized non-stormwater discharges from the construction site during construction.
4. Identify, construct, implement in accordance with a time schedule, and assign maintenance responsibilities for post-construction BMPs to be installed during construction that are intended to reduce or eliminate pollutants after construction is completed.

Typical BMPs can include scheduling or limiting activities to certain times of year,

66 Placer County, City of Roseville, City of Lincoln, Town of Loomis, City of Auburn, *West Placer Storm Water Quality Design Manual*, April 2016, page 1-2.

implementing dust control measures, stabilizing cut and fill slopes as soon as possible, using mulch and compost blankets, riprap, and sediment retention structures to control sediment, vegetated buffers, fiber rolls and berms, and straw or hay bales.

As discussed in Item 6b, project construction must also comply with the Town's Grading, Erosion and Sediment Control Ordinance (Chapter 12.04 of the Municipal Code), which requires preparation of an erosion and sediment control plan that complies with the Town's stormwater management plan and the California Stormwater Quality Association Stormwater Best Management Practice Handbook. The Town's Grading Ordinance specifies that the erosion and sediment control plan prevent discharge through all stages of project construction and that the plan include measures to ensure permanent site stabilization. The Grading Ordinance also requires that all construction equipment and maintenance and construction materials storage areas be located within designated areas protected with a berm to contain any loose materials, and all that disturbed areas be protected through revegetation or a protective cover.

A Preliminary Drainage and Storm Water Quality Report has been prepared for the Proposed Project, and includes a Stormwater Quality Plan as required under the MS4 permit. The Report identifies BMPs that would be used during construction, including sediment controls, paving and grading measures, and waste management.[67]

Compliance with the Town's Grading Ordinance and the General Construction permit, including preparation of a SWPPP approved by the RWQCB would reduce potential impacts on water quality due to construction activities to a ***less-than-significant level*** by ensuring that all appropriate and necessary BMPs are implemented to avoid or minimize the discharge of pollutants and sediment to surface water.

Operation

The Proposed Project would result in approximately 1.84 acres of new impervious surfaces. This will result in an increase in stormwater runoff, which could alter downstream flood conditions, which would be a significant impact. Furthermore, urban contaminants could be released into surface waters, which would be a significant impact on water quality.

The Preliminary Drainage and Stormwater Quality Report for the project states that stormwater would be collected from roof drains in trenches, which would drain to an approximately 4,400 square foot bioretention area. The bioretention areas would provide water quality treatment and hydromodification. According to the Preliminary Report, these measures would be sufficient to capture and treat the runoff from the project's new impervious surfaces.[68] No underground drainage system would be installed. The project site will continue to discharge stormwater to Secret Ravine, and

67 Casey Feickert, PE, TSD Engineering, Inc., *Preliminary Drainage & Stormwater Quality Report*, March 13, 2018, page 3.

68 Casey Feickert, PE, TSD Engineering, Inc., *Preliminary Drainage & Stormwater Quality Report*, March 13, 2018, page 2.

ultimately into the American River.[69]

The Preliminary Drainage and Stormwater Quality Report identifies a number of measures that will be used to protect stormwater quality, including:

- A 125-foot setback and buffer from the nearest creek;
- Permeable pavement in the parking area,
- The following best management practices (BMPs):
    - To prevent accidental spills or leaks, materials will be stored indoors away from storm drains or sensitive areas.
    - For parking/storage areas and maintenance, trash receptacles will be provided, "No Litter" signs posted and surface sweeping shall be conducted regularly.
    - Indoor and structural pest control: Federal, State and local laws and regulations for the use, storage and disposal of pesticides shall be followed.
    - Landscape/outdoor pesticide use: Federal, State and local laws and regulations for the use, storage and disposal of pesticides shall be followed.
    - Outdoor storage of equipment or materials: Limit exposure to rainfall whenever possible
    - Building and grounds maintenance: Encourage proper lawn management and landscaping.[70]

The Report identifies the following BMP's that would be used to protect water quality during construction:

A. SEDIMENT CONTROL

1. Implement the use of silt fence, bio-filter bags, and/or fiber rolls along the perimeter of the project and below the toe or down slope of exposed and erodible slopes. (SE-1, SE-5, and SE-14 of the CASQA Stormwater BMP Handbook).

2. This project will implement the use of porous paving for the ±8,465-SF parking lot.

B. PAVING & GRINDING OPERATIONS (CASQA Stormwater BMP Handbook NS-3)

1. For paving involving asphaltic cement concrete, do not allow sand or gravel placed over new asphalt to wash into storm drains, streets, or creeks. Vacuum or sweep loose sand and gravel and properly dispose of this waste by referring to WM-5, Solid Waste Management.

69 Casey Feickert, PE, TSD Engineering, Inc., *Preliminary Drainage & Stormwater Quality Report*, March 13, 2018, page 2.

70 Casey Feickert, PE, TSD Engineering, Inc., *Preliminary Drainage & Stormwater Quality Report*, March 13, 2018, page 2.

2. Leaks and spills from paving equipment can contain toxic levels of heavy metals and oil and grease. Place drip pans or absorbent materials under paving equipment when not in use. Clean up spills with absorbent materials and dispose of in accordance with the applicable regulations. See NS-10, Vehicle and Equipment Maintenance, WM-4, Spill Prevention and Control, and WM-10, Liquid Waste Management.

3. Substances used to coat asphalt transport trucks and asphalt spreading equipment should not contain soap and should be non-foaming and non-toxic.

4. Paving equipment parked onsite should be parked over plastic to prevent soil contamination.

5. Clean asphalt coated equipment offsite whenever possible. When cleaning dry, hardened asphalt from equipment, manage hardened asphalt debris as described in WM-5, Solid Waste Management. Any cleaning onsite should follow NS-8, Vehicle and Equipment Cleaning.

C. WASTE MANAGEMENT

The following steps will help keep a clean site and reduce storm water pollution (CASQA Stormwater BMP Handbook WM-5, WM-9):

1. Select designated waste collection areas onsite. Inspect dumpsters for leaks and repair any dumpster that is not watertight. Locate containers in a covered area or in a secondary containment. Provide an adequate number of containers with lids or covers that can be placed over the container to keep rain out or to prevent loss of wastes when it is windy.

2. Collect site trash daily, especially during rainy and windy conditions. Remove this solid waste promptly since erosion and sediment control devices tend to collect litter. Make sure that toxic liquid wastes (used oils, solvents, and paints) and chemicals (acids, pesticides, additives, curing compounds) are not disposed of in dumpsters designated for construction debris. Do not hose out dumpsters on the construction site. Leave dumpster cleaning to the trash hauling contractor. Arrange for regular waste collection before containers overflow.

3. Clean up immediately if a container does spill. Make sure that construction waste is collected, removed, and disposed of only at authorized disposal areas.

4. Proper sanitary and septic waste management prevent the discharge of pollutants to stormwater from sanitary and septic waste by providing convenient, well-maintained facilities, and arranging for regular service and disposal.

The Preliminary Report also includes a Post-Construction Storm Water Quality Plan (SWQP), based on the template provided in the *West Placer Storm Water Quality Design Manual,* which includes calculations for project runoff and the reductions in runoff that would be achieved by the water quality measures.

The following mitigation measure would further ensure that the measures that are ultimately implemented are adequate to offset project increases in runoff and to protect water quality. With mitigation, this impact would be ***less than significant***.

Mitigation Measure

12. (a) *Prior to approval of Improvement Plans, the Town Engineer shall confirm that proposed on-site features will provide enough detention to reduce project-generated peak flows to pre-development levels for the 2-year 10-year and 100-year storm event. The selected features and the final Drainage and Stormwater Quality Report and SWQP shall be consistent with the West Placer Stormwater Quality Design Manual.*

(b) *The project applicant shall incorporate Best Management Practices (BMPs) to control erosion and sedimentation during grading and installation of infrastructure, during all construction activities, and during project operation. The final drainage report (prepared consistent with Town requirements, including Chapter 12.04 of the Municipal Code, and the Placer County Storm Drainage Manual) shall include descriptions and/or plan drawings demonstrating the use of BMPs. BMPs for this project shall include the following measures, and/or equally effective measures as determined appropriate and as approved by the Town of Loomis:*

i. An Erosion and Sediment Control Plan shall be submitted for review and approval to the Town of Loomis prior to the issuance of any grading permits. The plan shall comply with Town standards and must be implemented for any construction to take place between October 15 and May 15 of any 12-month period. This plan may be included as a subsection of the Construction Emission/Dust Control Plan required by PCAPCD.

ii. Grading activities shall be timed to minimize the amount of exposed areas during the wet season. By mid-October, all areas that have been graded and that will remain undeveloped during the rainy season shall be revegetated with compatible native vegetation and secured from the possibility of erosion.

iii. Streets adjacent to each construction and demolition site shall be kept clean of project dirt, mud, materials, and debris during the construction and demolition periods.

iv. The final landscaping and irrigation plans shall include landscaping treatment for any cut and fill banks to minimize soil erosion in these areas. Landscaping materials shall include drought-tolerant ground cover as well as a variety of trees and shrubs.

v. Infrastructure shall be designed to minimize drainage concentration from impervious surfaces.

b. Water for the Proposed Project would be provided by Placer County Water Agency (PCWA), which purveys surface water for domestic use. Therefore, the Proposed Project would not rely on groundwater. Although the Proposed Project would increase impervious surface slightly, which could reduce recharge, the project site is not an important recharge area. Therefore, the Proposed Project would not adversely affect

groundwater supplies or aquifer characteristics, and the impact would be ***less than significant***.

g-i. The Proposed Project is not located within the 100-year floodplain. Therefore, there would be ***no impact.***

j. Due to the flat topography in the project site, there is little or no possibility of a mudslide. A seiche is a periodic oscillation of a body of water typically brought about by an earthquake) that results in flooding. There are no large water bodies near the project site that could be subject to a seiche. The project site is not located in an area in which a tsunami or mudflow could directly or indirectly affect project site development. For these reasons, ***no impact*** would occur.

Issues		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than Significant Impact	No Impact
10.	**LAND USE AND PLANNING.** *Would the project:*				
	a. Physically divide an established community?	☐	☐	☐	■
	b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	■
	c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	■

Discussion

a. The project site is located near the Loomis/Rocklin border, in an area that is presently not developed, so it would not divide an established community. The Proposed Project would not construct any buildings or roadways that would interrupt existing circulation or access. For these reasons, ***no impact*** would occur.

b. The project site is designated and zoned Residential Estate, which allows for development of equestrian facilities. The Proposed Project would not alter the land use designation or zoning. No inconsistencies with General Plan or its policies have been identified. For these reasons, ***no impact*** would occur.

c. There are no habitat conservation plans or natural community conservation plans within or adjacent to the project site. Therefore, there would be ***no impact***.

Issues		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than Significant Impact	No Impact
11.	**MINERAL RESOURCES.** *Would the project:*				
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?	☐	☐	■	☐
b.	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	■

Discussion

a. Tailings from mines and quarries are located in some areas of Loomis, particularly along Secret Ravine and Antelope Creek. However, these tailings are not suitable for construction use, due to their age.[71]

The project site is not known to contain mineral or other natural resources. No tailings have been reported on the project site. The project site is not located within a Mineral Resource Zone, as defined by the California Geological Survey.[72] Therefore, the Proposed Project would not result in the loss of availability of a known mineral resource and ***no impact*** would occur.

b. The County General Plan does not identify locally-important mineral resource recovery sites.[73] Therefore, ***no impact*** would occur.

71 Town of Loomis, *Taylor Road Mixed-Use Project*, *Initial Study/Mitigated Negative Declaration*, May 2005, page 3-56.
72 California Department of Mines and Geology, Mineral Land Classification of Placer County, California. DMG, Open File Report 95-10, Plate 5 (Areas Classified MRZ-2a and MRZ-2b for all minerals), 1995.
73 Placer County, *Placer County General Plan*, May 21, 2013, page 38.

Issues		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than Significant Impact	No Impact
12.	**NOISE.** *Would the project result in:*				
	a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	■	☐
	b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	■	☐
	c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	■	☐
	d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	■	☐	☐
	e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	■
	f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	■

Discussion

a., c. The Loomis General Plan establishes standards for acceptable noise levels at different land uses[74]. For example, the exterior standard is 65 dBA Ldn[75] at outdoor gathering

74 Town of Loomis, *Loomis General Plan*, July 2001, Table 8-3.

75 DBA refers to an "A-weighted" sound level that reflects that human hearing is less sensitive at low and extremely high frequencies. Ldn is an A-weighted average sound level for a 24-hour day, which includes a 10 dBA penalty

areas, and the interior noise standard is 45 dBA Ldn. The General Plan does not specify maximum noise levels for recreational facilities other than playgrounds and neighborhood parks, so the project site would not be subject to 24-hour noise standards, except for the existing house. However, the Proposed Project would be subject to restrictions on noise created by project activities that could affect surrounding sensitive land uses. The General Plan standards for short-duration noise levels are shown in Table 3-5.

TABLE 3-5
Maximum Allowable Noise Exposure Levels (Ldn)

Noise Sensitive Land Use	Outdoor Activity Areas[1,]	Interior Spaces	
	dBA Ldn	*dBA Ldn*	*dBA Leq*
Residential	65	45	—
Transient lodging	65	45	—
Hospitals and nursing homes	65	45	—
Theaters, auditoriums, music halls	—	—	35
Churches, meeting halls	65	—	40
Office buildings	—	—	45
Schools, libraries, museums	—	—	45
Playgrounds, neighborhood parks	70	—	—

1 Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use.
2 Where it is not possible to reduce noise in outdoor activity areas to 65 dBA Ldn/Community Noise Equivalent Level (CNEL) or less using practical application of the best available noise reduction measures, an exterior noise level of up to 70 dBA Ldn/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

Source: Town of Loomis General Plan, July 2001, Table 8-3.

Noise levels in rural areas tend to be relatively low. Primary sources of noise are typically vehicular traffic and machinery associated with agricultural activities, such as crop dusters and tractors. There are no active agricultural operations in the project vicinity that would generate substantial noise levels. The project site is outside of the 65 dBA contour for Interstate 80. The existing house on the project site is located approximately 3,500 feet from Interstate 80, and the 60 dBA contour occurs at 1,397 feet from the freeway[76] (so the 65 dBA contour would be even closer to the freeway). The nearest roadways that would produce relatively high levels of noise are Sierra College Boulevard and Rocklin Road. These roadways are over one-quarter mile from the home on the project site, and their 65 dBA Ldn contours fall approximately 54 to 149 feet from

for night-time sound levels. The Town of Loomis uses dBA Ldn levels to define acceptable levels of noise for different land uses and activities.

76 Town of Loomis, *Environmental Impact Report for the Village at Loomis,* July 2017, Table 4.7-4, page 4.12-8; City of Rocklin, *Rocklin 60 Project DEIR,* May 2009, Table 4.4-4, page 4.4-8.

the roadway centerline. These data demonstrate that traffic noise levels on the project site are well below the 65 dBA Ldn standard for residential development.

The Proposed Project would increase traffic levels slightly in the project vicinity, although not enough to create noticeable increases in noise. In order to be noticeable, traffic typically has to double (which would result in an approximate increase of 3 dBA, the lowest change generally noticeable to human beings).

The Proposed Project would generate approximately 139 new vehicle trips per day. These trips would all use James Drive to access the project site. While this would represent an increase in daily traffic on James Drive, the total number of trips would not be substantial enough to exceed the Town's noise standards. There are two existing homes on James Drive, and the outdoor gathering areas are over 75 feet from the centerline of James Drive.

As discussed in Item 16, current daily levels of traffic on Rocklin Road are approximately 11,700. The 139 trips attributable to the Proposed Project would increase traffic on Rocklin Road by only 1.2 percent. Increases on other area roadways would be less than 139 vehicles, as project traffic would be distributed in different directions. Even if all project traffic used Barton Road only or Sierra College Boulevard only, the increase in trips would be well below one percent, and therefore well below 1 dBA.

The noises generated by the Proposed Project would be consistent with the existing rural environment. Onsite activities would not exceed the 24-average or short-duration noise standards identified in the General Plan, because there would be no permanent sources of excessive noise (see Item d., below, for a discussion of construction noise). Further, there are no existing sensitive receptors in proximity to the portion of the project site that would be developed. In the future, there could be residences located north and west of the project site. These would be considered sensitive receptors. They would be able to hear some noise at times. For example, small tractors could be used for maintenance activities, such as dragging the arenas. However, the indoor arena and barn walls would dampen noise from within or south or west of those buildings. The outdoor arena would be 25 feet from the northern property line, so future residents might hear some tractor noise, but it would be of short duration). There would be no amplified sound. Because the barn would be closed from 8:30pm to 7am, there would be little or no discernable noise at night.

Because the Proposed Project would not subject existing or future sensitive receptors to unacceptable noise levels, or noticeably increase noise on local roadways, this would be a ***less-than significant-impact.***

b. Vibration is sound radiated through the ground. The rumbling sound caused by the vibration of room surfaces is called groundborne noise. The ground motion caused by vibration is measured as particle velocity in inches per second and in the U.S. is referenced as vibration decibels (VdB).

Construction activities that would occur with the Proposed Project have the potential to generate low levels of groundborne vibration. However, given the distance to existing residences and buildings, existing sensitive receptors would not experience severe

vibration. Project construction is expected to be complete before future residences are constructed north and west of the project site. In addition, construction would occur only during the day, when vibration would be less disruptive. Therefore, this impact is considered ***less than significant***.

d. Activities associated with project construction elevate noise levels in the area surrounding the project site. Activities involved in construction will typically generate maximum noise levels ranging from 55 to 90 dB L_{max} at a distance of 50 feet, as shown in Table 3-6. Construction activities are temporary in nature and typically occur during normal daytime working hours. However, when construction occurs in areas proximate to sensitive uses, such as residences, the noise can be disruptive to daily activities. As shown in Figure 2-3 in Chapter 2, Project Description, there are no existing residences in close proximity to the project site, except the onsite residence. There are two homes adjacent to James Drive in proximity to the area where the off-site intersection improvements would be constructed.

The Federal Highway Administration (FHA) has compiled data regarding the noise generating characteristics of specific types of construction equipment and typical construction activities. Typical noise levels for the types of equipment that could be used to construct the Proposed Project are shown in Table 3-6. These noise levels diminish rapidly with distance from the construction site at a rate of approximately 6 to 7.5 dBA per doubling of distance. For example, a noise level of 84 dBA measured at 50 feet from the noise source to the receptor would drop to 78 dBA at 100 feet from the source to the receptor, and drop by another 6 dBA to 72 dBA at 200 feet from the source to the receptor.

As shown in Table 3-6, construction equipment could temporarily reach up to 90 dBA during the daytime at 50 feet from the source. The nearest existing homes are located approximately 1,000 feet from the project site, so even the loudest construction equipment would result in noise levels below 65 dBA at local residences. The exception would be the two homes adjacent to James Drive, which would experience higher noise levels during construction of intersection improvements, paving of James Drive and installation of the water line. These activities would be of short duration. Nonetheless, construction noise levels could result in a substantial temporary or periodic increases in ambient noise levels above existing noise levels, which would be considered a significant impact.

The following mitigation measure would reduce the above impact to a ***less-than-significant*** level by reducing construction noise and restricting it to daytime, when noise is less distracting.

Mitigation Measure

13. *The project applicant shall ensure that all contractors implement the following measures during construction of the Proposed Project:*

TABLE 3-6
Typical Construction Equipment Noise

Equipment Description	Maximum Noise Level at 50 feet, dBA
Auger drill rig	85
Backhoe	80
Bar bender	80
Chain saw	85
Compactor (ground)	80
Compressor (air)	80
Concrete mixer truck	85
Concrete pump truck	82
Concrete saw	90
Crane (mobile or stationary)	85
Dozer	85
Dump truck	84
Excavator	85
Flat bed truck	84
Front end loader	80
Generator (25 kilovolt-amperes [kVA] or less)	70
Generator (more than 25 kVA)	82
Grader	85
Hydra break ram	90
Jackhammer	85
Mounted impact hammer (hoe ram)	90
Paver	85
Pickup truck	55
Pneumatic tools	85
Pumps	77
Rock drill	85
Scraper	85
Soil mix drill rig	80
Tractor	84
Vacuum street sweeper	80
Vibratory concrete mixer	80

SOURCE: Federal Highway Administration, 2006.

- *Project construction activities shall be limited to daytime hours of 7:00 a.m. to 7:00 p.m. Monday through Friday, and 8:00 a.m. to 7:00 p.m. on Saturdays unless conditions warrant that certain construction activities occur during evening or early morning hours (e.g., extreme heat).*
- *All noise-producing project equipment and vehicles using internal-combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory*

specifications. Mobile or fixed "package" equipment (e.g., arc welders, air compressors) shall be equipped with shrouds and noise-control features that are readily available for that type of equipment.

- *All mobile or fixed noise-producing equipment used on the project site that are regulated for noise output by a federal, state, or local agency shall comply with such regulations while in the course of project activity.*
- *Electrically powered equipment shall be used instead of pneumatic or internal combustion-powered equipment, where feasible.*
- *Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive receptors.*
- *Material stockpiles and staging areas shall be indicated on project plans prior to issuance of grading and building permits.*
- *Construction site and access road speed limits shall be established and enforced during the construction period. Speed limits shall be noted on project plans prior to issuance of grading and building permits.*
- *The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only. This prohibition shall be noted on project plans prior to issuance of grading and building permits.*
- *No project-related public address or music system shall be audible at any adjacent receptor. This prohibition shall be noted on project plans prior to issuance of grading and building permits.*

There is generally an increase in ambient noise during the day. By limiting the hours of construction to these hours, the potential for nuisance noise is reduced because project construction-related noise increases would be less noticeable due to background noise levels. The use of mufflers on construction equipment would decrease the overall noise generated during construction. Because sound diminishes with distance, locating noise-generating equipment away from noise sensitive uses would reduce overall noise impacts associated with project construction. Limiting the speed limit on James Drive would reduce traffic noise levels at the two adjacent residences. The restriction on noise-producing signals, public address systems and music would also ensure that nearby residents are not subjected to disruptive noises.

e, f. The Proposed Project site is not located within an airport land use plan area or within two miles of an airport or private airstrip. Therefore, the project would not be exposed to, or affected by, excessive aircraft noise levels. ***No impact*** would occur.

Issues		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than Significant Impact	No Impact
13.	**POPULATION AND HOUSING.** *Would the project:*				
	a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	■	☐
	b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	■	☐
	c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	■	☐

Discussion

a. The Proposed Project would develop a boarding and training stable. No new housing would be constructed as part of the project. The existing house on the project site would be retained, and would be occupied by the stable manager. Two additional employees would live offsite. The addition of three employees would not substantially increase the employment base in Loomis or Placer County. The Proposed Project would generate additional economic activity due to the services it requires, such as delivery of feed and bedding and solid waste disposal. However, deliveries are expected only once every 4 to 6 months, and solid waste would be removed on a regular schedule. Farriers and veterinarians would also provide services intermittently, and various supplies would be needed (e.g., tack, fly spray, supplements). It is anticipated that supplies and services would be obtained locally for the most part. With 55 horses, the Proposed Project would not generate enough demand to employ a full time farrier or veterinarian, or substantial expansion of local or regional tack or feed stores. Therefore, the Proposed Project would not substantially induce growth in employment or related demand for increased housing. Furthermore, at least a portion of the horses boarded at the project stable would be relocating from other facilities in the area, and so would already be using area farriers, veterinarians and supplies. For these reasons, the Proposed Project would not induce substantial growth.

The Proposed Project would connect to an existing waterline, but not sewer or drainage facilities. No water, wastewater or storm drainage facilities would be extended to serve the project site, beyond a project-specific connection to the existing water line in Rocklin Road. The new water line would serve only the project site. The Proposed Project includes onsite drainage swales and similar facilities to capture runoff from the relatively

small increase in impervious surfaces. Therefore, the Proposed Project would not induce growth through the extension of infrastructure.

Because the Proposed Project would not induce substantial unplanned growth, this impact is considered ***less than significant***.

b,c. Most of the project site is presently undeveloped. One home is located within the project site. That home would be retained. The existing tenants would need to relocate to accommodate the stable manager, who would live onsite. The relocation of one tenant would not necessitate the construction of replacement housing, so this impact would be ***less than significant***.

Issues		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than Significant Impact	No Impact
14.	**PUBLIC SERVICES** *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*				
a.	Fire protection?	☐	■	☐	☐
b.	Police protection?	☐	☐	■	☐
c.	Schools?	☐	☐	■	☐
d.	Parks?	☐	☐	■	☐
e.	Other public facilities?	☐	☐	■	☐

Discussion

a. The South Placer Fire District (SPFD) serves the project site. The SPFD was formed in 1952 and consolidated with the Loomis Fire Protection District merged in July 2017. The SPFD serves several communities in unincorporated Placer County, including Granite Bay, Loomis, Penryn and Newcastle, covering 55 square miles and a population of approximately 42,000[77]. In addition to fire suppression and emergency medical services (including ambulance), services include code enforcement, plan checks, business inspections, public education. and provides fire suppression, advance life support and various fire prevention programs, including business safety inspections, community safety education, plan checking, code enforcement and fire investigation. The SPFD staffs five full-time fire stations, one volunteer station and one storage facility/station.[78] The SPFD has 54 full-time employees, one part-time employee, five volunteers, and six intern firefighters.[79]

The closest fire stations to the project site are Station 16 at 5300 Olive Ranch Road and Station 19 at 7070 Auburn Folsom Road. Both stations are approximately 3.8 miles from the project site.

77 South Placer Fire District, *Consolidation Service Plan, South Placer Fire Protection District and Loomis Fire Protection District*, February 1, 2017, page 7.

78 South Placer Fire District, *Consolidation Service Plan, South Placer Fire Protection District and Loomis Fire Protection District*, February 1, 2017, page 7.

79 South Placer Fire District, *Consolidation Service Plan, South Placer Fire Protection District and Loomis Fire Protection District*, February 1, 2017, page 5.

The project site is already in the SPFD service area, so the Proposed Project would not extend the area requiring fire protection or emergency medical services. Most of the project site would not be altered by the Proposed Project, so the risk of fire in those areas would remain the same as existing conditions. While the Proposed Project would not increase the residential population within the SFPD service area, there is the possibility that fire suppression and/or emergency medical services could be required at some point by the Proposed Project.

Standard horse-keeping practices, such as keeping hay storage separated from the barns and prohibiting smoking, would minimize the potential for fires to occur. In addition, the project applicant would pay the applicable SPFD fire fee, which funds facilities improvements, and property taxes, a portion of which would be used to fund fire protection services.

Building design and construction must comply with the 2016 California Fire Code, which includes construction techniques that minimize fire risk. As discussed in Item 8h, above, he SPFD provided an initial assessment of the Proposed Project, and provided several recommendations. The SPFD would also conduct a plan check prior to approval of the building permit, the following measure would ensure that appropriate steps are taken to minimize the risk of fire, by requiring that recommendations of the SPFD are implemented, reducing the potential for a fire on the project site.

Payment of the fire fee and property taxes, and implementation of the following mitigation measure would insure that fire protection services could be provided to the Proposed Project without diminishing service to others within the SPFD's service area. While the Proposed Project would pay the fire fee, the project would not generate enough increased demand to result in the need for fire protection staff or facilities beyond those currently planned for. For these reasons, the impact would be ***less than significant*** with mitigation***.***

Mitigation Measure

14. *Implement Mitigation Measure 11.*

b. Law enforcement services are provided by the Placer County Sheriff's Department, which has a substation located in Loomis, at Horseshoe Bar Road and Interstate 80. This 24-hour station serves west and south Placer County. Approximately 50 officers are housed at this substation, including 33 patrol positions, 3 detectives, 4 patrol sergeants, 1 Community Services/School Safety sergeant, 4 Drug Abuse Resistance Education (DARE) officers, 4 school resource officers, 1 community services officer, and several reserve deputies.[80]

The project site is already in the service area for the Sheriff's Department. The Proposed Project would not increase the residential population of the County, and would not result in activities that typically require the Sheriff's Department to respond. While unlikely, there is the possibility that a crime could occur within the project area, requiring

80 Town of Loomis, *Environmental Impact Report for the Village at Loomis,* July 2017, page 4.12-8.

a response from the Sheriff's Department. The project applicant would pay property taxes, which are used to fund a variety of services, including law enforcement. Because the project site is in the existing service area, and the project applicant would pay taxes that could be used to fund the Sheriff's Department, the slight potential for there to be a need for law enforcement services would be a ***less-than-significant impact.***

c. The Proposed Project would not increase the number of residential units in the Town of Loomis or Placer County, so the demand for population-related services, such as schools, libraries and social services, would be unaffected. The Proposed Project would require planning and related Town and County services during permitting and construction, but these would be within the day-to-day operations of these jurisdictions. In addition, the project applicant would pay directly for most of these services through fees. For these reasons, the impact on public services would be ***less than significant***.

d. The Proposed Project would not increase the number of residences in the Town of Loomis, so it would not generate a demand for parks and related recreational services. The project site is not adjacent to existing or planned bridle trails. Some boarders may choose to trailer their horses to trails, but because the focus would be on dressage and hunter/jumper training, rather than trail riding, there would not be a large number of boarders using local or regional trails at any one time. Therefore, there would be no impact on parks, and the impact on public recreation facilities (e.g., trails) would be ***less than significant***.

e. The Proposed Project would not substantially increase demand for other public services. However, the Placer Mosquito & Vector Control District has communicated to the Town a concern that drainage areas, catch basins, stormwater structures or other depressions that hold water for as little as 72 to 96 hours could be a source of mosquitos, which can be a threat to public health by transmitting West Nile virus to people.[81] Horses can be vaccinated against the West Nile virus, but no vaccine is available for people. Therefore, the potential increase in mosquito activity is considered a significant impact. The following mitigation measure would minimize the risk of increased mosquito populations by managing sources of standing water. With mitigation, this would be a ***less-than-significant impact.***

Mitigation Measure

15(a) *Construction and maintenance of drainage facilities shall implement BMPs to minimize the potential for mosquito breeding within those facilities in accordance with the recommendations of the Best Management Practices for Mosquito Control in California: Recommendations of the California Department of Public Health and Mosquito and Vector Control Association of California (Mosquito BMPs Handbook; CDPH and MVCAC 2010). The BMPs shall be identified in a Mosquito Control Plan subject to approval of the Town. The following measures, or others that are equally effective, shall be included at a minimum:*

81 Angella Falco, Field Station Manager, Placer Mosquito & Vector Control District, written communication to Robert King, Town Planner, Town of Loomis, May 12, 2017, page 1.

- *Construct or improve large ditches to a slope of at least 2:1 (vertical: horizontal) and a minimum 4-foot wide bottom. Consider a 3:1 slope or greater to discourage burrowing animal damage, potential seepage problems, and prevent unwanted vegetation growth.*
- *Keep ditches clean and well-maintained. Periodically remove accumulated sediment and vegetation. Maintain ditch grade and prevent areas of standing water.*
- *Routinely inspect, maintain, and repair irrigation system components; check and repair leaky outdoor faucets.*
- *Manage sprinkler and irrigation systems to minimize pooling.*
- *Design and operate wash racks to minimize water from pooling for extended periods of time.*
- *Remove emergent vegetation and debris from gutters and channels that accumulate water.*
- *During summer months, maintain water levels in troughs and buckets that minimize the likelihood of mosquito breeding.*
- *Regularly inspect areas and items that could retain water (e.g., buckets, troughs, barrels).*
- *Irrigate only as frequently as is needed to maintain proper soil moisture. Check soil moisture regularly.*
- *Do not over fertilize. Over-fertilization can leach into irrigation run-off making mosquito production more likely in ditches or further downstream.*
- *When possible, use sprinklers or drip systems rather than flood irrigation.*
- *Keep animals off the pasture while the soil is soft. Mosquito habitat is created in irrigated pastures when water collects in hoof prints.*

Issues		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than Significant Impact	No Impact
15.	**RECREATION.**				
a.	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	■	☐
b.	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	■	☐

Discussion

a,b. Please see Item 14d.

Issues		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than Significant Impact	No Impact
16.	**TRANSPORTATION/ TRAFFIC** *Would the project:*				
	a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	■	☐
	b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	■	☐
	c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	■
	d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	■	☐
	e. Result in inadequate emergency access?	☐	☐	■	☐
	f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such	☐	☐	■	☐

Issues	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than Significant Impact	No Impact
facilities?				

Discussion

a,b. A traffic study was prepared for the Proposed Project, and is attached as Appendix A. The traffic study describes the roadway, transit, bicycle and pedestrian facilities in the project vicinity, and evaluates the effects of the Proposed Project on these facilities.

The findings of the traffic study are summarized below. For a complete description of these facilities, including the existing and cumulative volumes and levels of service on study area roadways and intersections, please see Appendix A. The methods used to calculate the number of vehicle trips that would be generated by the Proposed Project and the impacts of these trips on study area facilities are also described.

Roadway Impacts

Existing Conditions

The traffic study focuses on the roadways and intersections in the vicinity of the project site. The roadways that are closest to the project site are:

- **Interstate 80**, the primary east-west arterial across Placer County and Northern California. Near the project site, Interstate 80 is a 6-lane, controlled-access freeway. The interchanges nearest the project site are Rocklin Road interchange to the west and Sierra College Boulevard to the north.
- **Sierra College Boulevard**, a north-south arterial road that connects State Route 193 (SR 193) north of Penryn to Interstate 80, and then continues southerly through Rocklin and Roseville before becoming Hazel Avenue in Sacramento County.
- **Rocklin Road**, an east-west arterial street that links Rocklin with Interstate 80. Rocklin Road continues easterly beyond Sierra College Blvd through the Town of Loomis to Barton Road, and this portion of Rocklin Road provides freeway access to the unincorporated portion of Placer County near Granite Bay. Rocklin Road is the public road closest to the project site. This roadway is a 4-lane arterial street between Interstate 80 and Sierra College Boulevard; this portion of Rocklin Road is located in the City of Rocklin. East of Sierra College Boulevard, it is a two-lane, rural road. A middle lane is provided between Sierra College Boulevard and James Drive. Just west of James Drive, Rocklin Road enters the Town of Loomis. Rocklin Road terminates to the east at Barton Road. The speed limit on Rocklin Road is 40 miles per hour (mph) where it is in the Town of Loomis. Portions of Rocklin Road have sidewalks, but there are no sidewalks where it intersects with James Drive.
- Barton Road, a two lane north-south minor arterial that extends from its northern terminus at Brace Road in the Town of Loomis, continues southerly into the

Granite Bay Community Plan area and extends across Douglas Blvd through Granite Bay to the Sacramento County line. The speed limit is 35 mph north of Douglas Boulevard and 40 mph in the vicinity of the project site.

- **James Drive**, a private road that extends north from Rocklin Road to provide access to the project site. There are no shoulders or sidewalks on James Drive.
- **Monte Claire Drive**, a private two-lane street that extends south from a point on Rocklin Road opposite James Drive to provide access to an existing residential subdivision. Monte Claire Drive is generally a 22-foot-wide road.
- **Sierra College Blvd/Rocklin Road intersection**, a signalized intersection located west of the project site, within the City of Rocklin. Two through lanes are provided in each direction on Rocklin Road, and three through lanes are provided on Sierra College Blvd. Separate left-turn lanes are provided on each approach, and dual left-turn lanes are available on the northbound Sierra College Blvd approach. Separate right-turn lanes are provided on the northbound, southbound and eastbound approaches. Crosswalks are striped across the western and southern legs of the intersection.
- **Rocklin Road/James Drive/Monte Claire Drive intersection,** a stop sign-controlled intersection (on the Monte Claire Drive approach only) located in the Town of Loomis. Rocklin Road transitions from two eastbound travel lanes to a single eastbound through lane and a separate right-turn lane. A continuous Two-Way Left-Turn (TWLT) lane is available on Rocklin Road, and it is striped as a dedicated westbound left-turn lane approaching Monte Claire Drive. The southbound James Drive approach has a single lane, while the two-lane northbound Monte Claire Drive approach is striped as separate left turn and right-turn lanes.
- **Rocklin Road/Barton Road intersection,** a "tee" intersection controlled by an all-way stop located in the Town of Loomis. A separate left-turn lane is provided on the northbound approach, but the other approaches are single lanes. The Town of Loomis Circulation Element indicates that a roundabout intersection will be installed at this location in the future.

Levels of Service

The operating conditions experienced by motorists are described as "levels of service" (LOS). Level of service is a qualitative measure of how traffic operations affect several factors, including speed and travel time, traffic interruptions, freedom to maneuver, driving comfort and convenience. Levels of service are designated "A" through "F" from best to worst, which cover the entire range of traffic operations that could occur. Levels of service "A" through "E" generally represent traffic volumes at less than roadway capacity, while LOS "F" represents over capacity or forced-flow conditions. The Town of Loomis considers LOS A through LOS C to be acceptable on roadways and intersections within the Town limits. LOS D is allowed at several intersections under specified conditions.

Within the City of Rocklin, LOS C is the minimum standard for roadways and intersections, although LOS D may be acceptable during peak periods under specific circumstances.

All of the facilities in the study area operate at acceptable levels of service (LOS C or better), as shown in Tables 3-7 and 3-8.

Project Impacts

Traffic impacts are evaluated under three scenarios—existing conditions, existing plus approved/pending projects (EPAP) and cumulative. In each case, the trips generated by the Proposed Project are added to the roadway network to determine whether the Proposed Project would result in an unacceptable level of service (LOS D or worse for the study area facilities), or, if a roadway or intersection is already projected to operate at LOS D or worse, whether the Proposed Project would increase congestion by a substantial amount. For the traffic study, when an intersection or roadway in the study area would exceed LOS C without the addition of project traffic, the project impact is considered significant if the project traffic would increase the total roadway or intersection volume by 5% or more.[82]

The Proposed Project is estimated to generate 139 new vehicle trips per day, with 6 of those trips occurring during the weekday a.m. peak hour and 16 trips occurring in the weekday p.m. peak hour.[83] As shown in Tables 3-7 and 3-8, the study area intersections and roadway segments would operate at LOS C or better under both existing and existing plus project conditions. Therefore, the increase in traffic under Existing plus Project conditions would be less-than-significant.

The traffic study also considered traffic levels under "Existing plus Approved Projects" (EPAP) conditions. For this analysis, projects that had been approved in the vicinity of the project site, in both the City of Rocklin and the Town of Loomis were identified, including the number of residential units and the amount of non-residential development that could occur under each project. The number of vehicle trips generated by each project in the a.m. and p.m. peak hour was then determined and added to the traffic volumes identified in the Existing scenario. Approved roadway improvements are also taken into consideration. Finally, project trips were added to determine if the Proposed Project would have an adverse impact under the EPAP scenario.

As shown in Tables 3-9 and 3-10, one intersection, Rocklin Road/Sierra College Boulevard, would operate at LOS D with or without the Proposed Project. However, the Proposed Project would increase traffic volumes at this intersection by only 0.02%, which, because it would be less than 5%, would not be considered substantial. Therefore, the impact of the Proposed Project would be less than significant under this scenario.

The Proposed Project would also contribute to cumulative traffic congestion. The project contribution would be relatively small, because of the number of trips that would be generated.

82 KD Anderson & Associates, Inc., *Traffic Impact Analysis for the Flying Change Farms*, April 6, 2018, page 12.
83 KD Anderson & Associates, Inc., *Traffic Impact Analysis for the Flying Change Farms*, April 6, 2018, page 16.

TABLE 3-7
Existing Plus Project Intersection Level of Service

Intersection	Control	AM Peak Hour				PM Peak Hour			
		Existing		EX Plus Project		Existing		EX Plus Project	
		Vol/Cap or Ave Delay (sec/veh)	LOS	Vol/Cap or Ave Delay (sec/veh)	LOS	Vol/Cap or Ave Delay (sec/veh)	LOS	Vol/Cap or Ave Delay (sec/veh)	LOS
Rocklin Road/Sierra College Blvd	Signal	0.530	A	0.530	A	0.700	C	0.704	C
Rocklin Road/James Drive/ Monte Claire Drive	NB / SB Stop								
Northbound Approach		17.2	C	17.5	C	16.8	A	17.2	C
Southbound Approach		-	-	11.5	B	10.4	B	12.5	B
Rocklin Road/Barton Road	All-Way Stop	18.2	C	18.4	C	14.9	B	15.0	C

Source: KD Anderson & Associates, Inc., *Traffic Impact Analysis for the Flying Change Farms*, April 6, 2018.

TABLE 3-8
Existing Plus Project Daily Traffic Volumes and Levels of Service

Roadway	Segment	# of Lanes	Existing			Existing Plus Project			
			Average Daily Traffic	Vol/Cap Ratio*	LOS	Average Daily Traffic		Vol/Cap Ratio	LOS
						Project Only	Total		
Rocklin Road	Sierra College Blvd to Project (Rocklin)	2	11,694	0.780	C	90	11,784	0.786	C
	Project to Barton Road (Loomis)	2	11,694	0.780	C	49	11,743	0.783	C

Notes: (*) based on General Plan threshold capacity of 15,000 ADT for two lane road
Souce: KD Anderson & Associates, Inc., *Traffic Impact Analysis for the Flying Change Farms*, April 6, 2018.

TABLE 3-9
Existing Plus Approved/Pending Projects Intersection Level of Service

Intersection	Control	AM Peak Hour				PM Peak Hour			
		EPAP		EPAP Plus Project		EPAP		EPAP Plus Project	
		Vol/Cap or Ave Delay (sec/veh)	LOS	Vol/Cap or Ave Delay (sec/veh)	LOS	Vol/Cap or Ave Delay (sec/veh)	LOS	Vol/Cap or Ave Delay (sec/veh)	LOS
Rocklin Road/Sierra College Blvd	Signal	0.597	A	0.597	A	**0.840**	**D**	**0.842**	**D**
Rocklin Road/James Drive/ Monte Claire Drive	NB / SB Stop			19.9.5	C				
Northbound Approach		19.7.3	C	11.9	B	19.0	C	20.2	C
Southbound Approach		-	-			10.9	B	13.6	B
Rocklin Road/Barton Road	All-Way Stop	22.0	C	22.3	C	20.4	C	20.8	C

Notes: **BOLD** values exceed the minimum LOS standard
Souce: KD Anderson & Associates, Inc., *Traffic Impact Analysis for the Flying Change Farms*, April 6, 2018.

TABLE 3-10
Existing Plus Approved/Pending Project Daily Traffic Volumes And Levels of Service

Roadway	Segment	# of Lanes	Existing Plus Approved Projects				EPAP Plus Project			
			Average Daily Traffic		V / C*	LOS	Average Daily Traffic		V / C	LOS
			Growth	Total			Project Only	Total		
Rocklin Road	Sierra College Blvd to Project (Rocklin)	2	1,129	**12,823**	**0.855**	**D**	90	**12,913**	**0.861**	**D**
	Project to Barton Road (Loomis)	2	1,097	**12,791**	**0.853**	**D**	49	**12,840**	**0.856**	**D**

Notes:
(*) based on General Plan threshold capacity of 15,000 ADT for two lane road
BOLD values exceed the minimum LOS standard
Source: KD Anderson & Associates, Inc., *Traffic Impact Analysis for the Flying Change Farms*, April 6, 2018.

For example, Rocklin Road is projected to carry an average 18,675 to 18,725 vehicles per day (see Table 3-12). With only two lanes, Rocklin Road would operate at LOS F. When a third lane is added, the roadway would operate at LOS D. The Proposed Project would increase the volumes on this roadway by 49 cars from James Drive to Barton Road (in the Town of Loomis) and by 90 vehicles from James Drive to Sierra College Boulevard, an increase of less than 1%, and therefore not substantial.

Similarly, the Rocklin Road intersections would operate at LOS D or worse (see Table 13-11), but the project contribution would be far below the 5% threshold. At the intersections of Rocklin Road/Sierra College Boulevard and Rocklin Road/Barton Road, the project increment would be 0.2% and 0.3% respectively. At the intersection of Rocklin Road/James Drive/Monte Claire Drive, the Proposed Project would add 6 vehicles in the a.m. peak hour and 16 vehicles in the p.m. peak hour, representing 0.5% and 1.1% increases, respectively.[84] In addition, the Proposed Project would contribute its fair share to roadway improvements through the payment of the Town's traffic fee. Those improvements include a roundabout at the Rocklin Road/Barton Road intersection, which would result in LOS C at this intersection.

Because the Proposed Project would not result in a substantial increase of traffic on study area roadway segments or intersections, the increase in project traffic would be a ***less-than-significant impact.***

c. The Proposed Project site is not located within an airport land use plan area or within two miles of an airport or private airstrip. Construction of residential uses would not result in a change in air traffic patterns, and ***no impact*** would occur.

d. An equestrian center is compatible with rural residential uses, such as those located in the vicinity of the project site. For the most part, vehicles entering and leaving the project site would be similar to those using any commercial facility, such as personal automobiles and trucks, delivery trucks, and waste removal vehicles. Trucks with horse trailers would also enter and exit the site. Some farm equipment, such as a tractor, would be used onsite, but would not travel on public roads.

The existing Rocklin Road/James Drive intersection is not designed to current Town standards. Therefore, there could be conflicts with entering and exiting vehicles that are using James Drive at the same time.[85] The Proposed Project includes improvements to James Drive and its intersection with Rocklin Road in order to better accommodate entering and exiting vehicles, including those with horse trailers. James Drive would be widened to 20 feet within approximately 100 feet of Rocklin Road. As shown in Figure 2-5 (in Chapter 2), tapers would be provided east and west of James Drive, which would provide an area for vehicles that are entering or existing to accelerate or decelerate. and Minimum sight distance would be 440 feet in each direction. In addition, the intersection configuration and improvements will be subject to review and approval by the Town Engineer during the Improvement Plan process to ensure that Town standards met.

84 KD Anderson & Associates, Inc., *Traffic Impact Analysis for the Flying Change Farms*, April 6, 2018, page 38.
85 KD Anderson & Associates, Inc., *Traffic Impact Analysis for the Flying Change Farms*, April 6, 2018, page 22.

TABLE 3-11
Cumulative – Year 2030 Plus Project Intersection Level of Service

Intersection	Control	AM Peak Hour				PM Peak Hour			
		Cumulative		Cumulative Plus Project		Cumulative		Cumulative Plus Project	
		Vol/Cap or Ave Delay (sec/veh)	LOS	Vol/Cap or Ave Delay (sec/veh)	LOS	Vol/Cap or Ave Delay (sec/veh)	LOS	Vol/Cap or Ave Delay (sec/veh)	LOS
Rocklin Road/ Sierra College Blvd	Signal	**0.884**	**D**	**0.886**	**D**	**1.371**	**F**	**1.375**	**F**
	Improved	0.769	C	0.769	C	0.794	C	0.796	C
Rocklin Road/James Drive/ Monte Claire Drive	NB/SB Stop								
Northbound Approach		**34.6**	**D**	**35.1**	**E**	**45.6**	**E**	**47.6**	**E**
Southbound Approach		**-**	**-**	15.4	C	11.4	B	20.6	C
Rocklin Road/Barton Road	All-Way Stop	**133.3**	**F**	**134.4**	**F**	**199.5**	**F**	**201.5**	**F**
	Roundabout	15.0	B	15.1	C	23.4	C	23.7	C

Notes: **BOLD** values exceed the minimum LOS standard
Source: KD Anderson & Associates, Inc., *Traffic Impact Analysis for the Flying Change Farms*, April 6, 2018.

TABLE 3-12
Cumulative – Year 2030 Plus Project Daily Traffic Volumes and Levels of Service

Roadway	Segment	# of Lanes	Cumulative			Cumulative Plus Project			
						Average Daily Traffic			
			Average Daily Traffic	Vol/Cap Ratio*	LOS	Project Only	Total	Vol/Cap ratio	LOS
Rocklin Road	Sierra College Blvd to Project (Rocklin)	2	18,675	**1.245**	**F**	90	18,765	**1.251**	**F**
	Project to Barton Road (Loomis)	2	18,725	**1.248**	**F**	49	18,774	**1.252**	**F**
	Improved per Circulation Element	3**		**0.832**	**D**			**0.834**	**D**

Notes:
(*) based on General Plan threshold capacity of 15,000 ADT for two lane road
(**) based on capacity of three-lane roadway with roundabouts and moderate access controls
Source: KD Anderson & Associates, Inc., *Traffic Impact Analysis for the Flying Change Farms*, April 6, 2018.

With the proposed intersection improvements, vehicular access to the project site would have a ***less-than-significant impact*** related to road hazards.[86]

e. Access to the project site is planned via James Drive, which would also serve as an Emergency Vehicle Access. As discussed in Item 16d, above, the intersection at James Drive and Rocklin Road would be widened and improved to accommodate horse trailers, which are of similar length to emergency vehicles Therefore, the project site would be easily accessed by emergency equipment.

The Proposed Project would not include any uses that could result in a substantial hazard. However, during construction of the water connection and intersection improvements, Rocklin Road could be partially or fully blocked for short periods of time, which could impede the efficient movement of emergency vehicles. This would be a significant impact.

The following mitigation measure would reduce the potential impact on emergency services to a ***less-than-significant level*** by ensuring that emergency vehicles can travel on Rocklin Road during construction.

Mitigation Measure

16. *Prior to issuance of a grading permit, the applicant shall prepare a Construction Traffic Management Plan that includes methods for street closure (e.g., timing, signage, location and duration restrictions), criteria for flaggers and/or other traffic controls, and maintenance of access for residents of James Drive and Monte Claire Drive, and that emergency vehicles will be able to travel on Rocklin Road.*

f. Transit

Bus service to the Rocklin - Loomis area is provided by Placer County Transit. The *Taylor Road Shuttle* links Loomis, Penryn, Auburn and Sierra College in Rocklin. Service is provided between 6:30 a.m. and 4:15 p.m., Monday through Friday, with four stops per day. Loomis is also served by *Placer Commuter Express*, which runs during commute hours and links the community with downtown Sacramento, and *Placer County Transit Dial-a-Ride*.[87]

Project employees and clients would be able to take advantage of the existing Placer Transit services available along Rocklin Road and Sierra College Blvd. While existing stops are not particularly close to the site, the number of additional riders generated by the project is unlikely to be large enough to justify changes to existing routes or modification of existing schedules. The existing transit service has the capacity to accommodate any riders originating in the project. Thus the project's impact is not significant and mitigation is not required.[88]

86 KD Anderson & Associates, Inc., *Traffic Impact Analysis for the Flying Change Farms*, April 6, 2018, page 22.
87 KD Anderson & Associates, Inc., *Traffic Impact Analysis for the Flying Change Farms*, April 6, 2018, page 6.
88 KD Anderson & Associates, Inc., *Traffic Impact Analysis for the Flying Change Farms*, April 6, 2018, page 22.

Bicycle Facilities

The existing bicycle system in the Town of Loomis consists of a series of Class II (on-street lanes) facilities on major arterials. There are Class II lanes on Sierra College Boulevard and on the south side of Rocklin Road from Sierra College Boulevard to Monte Claire Drive. Class III (routes) are proposed on Barton Road and Rocklin Road in Loomis. The Bicycle Plan indicates that Barton Road from Rocklin Road south to the Town limits and Rocklin Road west of Barton Road are planned to be Class III – Level A bicycle routes. This level of improvement would be characterized by shared use with motor vehicle traffic and is identified by Bike Route signs. These routes are intended to have a minimum amount of paving (at least 2-ft) beyond the travel lane to provide more room for bicyclists.[89] The Proposed Project would not affect the installation of this bike lane. The Proposed Project would be unlikely to generate substantial bicycle traffic given the location of project client's residences.[90] Therefore, the Proposed Project would not interfere with existing or planned bicycle facilities.

Pedestrian Facilities

The *Town of Loomis Trails Master Plan (2010)* identifies the location of existing and planned sidewalks and trails. Sidewalks are currently provided on major downtown area streets and in developed residential subdivisions. However, there are many gaps in the sidewalk system. There are sidewalks on the south side of Rocklin Road from Sierra College Blvd to Monte Claire Drive (in Rocklin). There are no sidewalks east of Monte Claire Drive nor on the north side of Rocklin Road. The Town's Trails Master Plan does not indicate that sidewalks will be constructed on Rocklin Road or Barton Road.[91]

The Proposed Project is not expected to generate pedestrian activity due to the regional distribution of its clients' residences, so few if any pedestrians are anticipated.[92] Therefore, there would not be a demand for additional pedestrian improvements as a result of the Proposed Project.

Because the Proposed Project would not substantially increase use of or demand for bicycle, pedestrian or transit facilities, and would not interfere with the operation or safety of and/or planning for such facilities, this impact would be ***less than significant***.

89 KD Anderson & Associates, Inc., *Traffic Impact Analysis for the Flying Change Farms*, April 6, 2018, page 6.
90 KD Anderson & Associates, Inc., *Traffic Impact Analysis for the Flying Change Farms*, April 6, 2018, page 22.
91 KD Anderson & Associates, Inc., *Traffic Impact Analysis for the Flying Change Farms*, April 6, 2018, page 6.
92 KD Anderson & Associates, Inc., *Traffic Impact Analysis for the Flying Change Farms*, April 6, 2018, page 22.

Issues	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than Significant Impact	No Impact
17. TRIBAL CULTURAL RESOURCES Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	■	☐
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set for in subdivision (c) of Public Resource Code section 5024.1 the lead agency shall consider the significance of the resource to a California Native American tribe.?	☐	☐	■	☐

Discussion

a., b. No tribal cultural resources as defined in Public Resources Code section 21074 have been identified in the project area. The project site was subjected to a complete cultural resource field survey in November 2017. Soil visibility was good throughout the project site. Rock outcrops were examined for evidence of modification, such as artwork, grinding surfaces, or other cultural uses. No signs of human association were observed. Nor was there tool stone material, even in the exposed bed of drainages.[93] For these reasons, it is not anticipated that tribal cultural resources are present on the project site, and the impact would be ***less than significant***.

93 Peak and Associates, Inc., *Cultural Resource Assessment of Proposed Flying Change Farms Project,* October 31, 2017, page 11.

The Town has received a request from the United Auburn Indian Community (UAIC) for consultation, pursuant to AB 52 (Public Resources Code Section 21080.3), and has begun consultation consistent with statutory requirements.

Issues		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than Significant Impact	No Impact
18.	**UTILITIES AND SERVICE SYSTEMS.** *Would the project:*				
	a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	■
	b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	■	☐
	c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	■	☐
	d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	■	☐
	e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	■	☐
	f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	■	☐
	g. Comply with federal, state, and local statutes, and regulations related to solid waste?	☐	☐	■	☐

Discussion

a., e. The Proposed Project would be served by a septic system, so there would not be any project wastewater conveyed to a wastewater treatment facility. Therefore, ***no impact*** would occur.

b., d. The existing residence on the project site obtains its water from a single groundwater well. The Proposed Project would obtain water from the Placer County Water Agency (PCWA). A water line would be extended from the project site to an existing 14-inch water line in Rocklin Road, approximately 300 feet south of the project site. The Proposed Project is estimated to generate an average water demand of 7,100 gallons per day (gpd), or approximately 8 acre-feet per year (AFY), and a maximum daily demand of 11,400 gpd.[94]

Most of the Town of Loomis obtains water from the PCWA, and is within PCWA's Zone 1 service area. Some rural parcels use groundwater wells. PCWA has rights to water to serve Zone 1 from a number of sources, including 155,000 AFY from the American River and 100,400 AFY from the Yuba and Bear rivers (through an agreement with PG&E).[95] The PCWA potable water delivery system includes eight water treatment plants and over 30 storage tanks.[96]

PCWA's Urban Water Management Plan (UWMP) projects future demand from its service area, and evaluates its ability to meet that demand. The UWMP also identifies water conservation measures that would be implemetned during certain conditions. The UWMP concludes that PCWA will have adequate supplies to meet water demand in its service area under normal, single-dry and multiple-dry years.[97]. It was assumed that there would be 3,187 single family homes in Loomis at buildout, with a demand for 3,065 acre-feet per year (system demand).[98] This represents approximately 1.1 percent of PCWA's total water demand at buildout (post 2045).[99] Under existing zoning, buildout of the Town of Loomis would include up to 17 single family homes on 2.3-acre lots within the project site. Assuming 0.644 AFY per unit[100], development of the project site under the existing zoning would generate a demand of 10.85 AFY. Because the Proposed Project would use less water than anticipated in the UWMP, PCWA would have sufficient supplies to meet project demand even with buildout of the Town and other PCWA customers.

While PCWA has the water supply needed to meet project demand, additional infrastructure would be required. As stated above, the Proposed Project would connect to the water main in Rocklin Road, 300 feet from the project site. According to PCWA, because there is no water main fronting the project site, a variance in the Agency's main line extension policy is required. A private pipeline would then need to be installed in an

94 TSD Engineering, Inc., *FCF Water Consumption Estimates—CEQA Application*, October 18, 2017.
95 Placer County Water Agency, *2015 Urban Water Management Plan*, June 2, 2016, Table 3-1, page 3-2.
96 Placer County Water Agency, *2015 Urban Water Management Plan*, June 2, 2016, page 2-14.
97 Placer County Water Agency, *2015 Urban Water Management Plan*, June 2, 2016, Table 3-1, page 3-2.
98 Placer County Water Agency, *2015 Urban Water Management Plan*, June 2, 2016, page 7-3.
99 Placer County Water Agency, *2015 Urban Water Management Plan*, June 2, 2016, Table 4-16, page 4-29.
100 Tully & Young, *Water Supply Analysis for the Village at Loomis*, September 9, 2015, page 2.

easement from the meter location to the parcel. The Proposed Project would also need to pay the applicable water connection charges and installation costs.[101]

PCWA has the ability to provide potable water to the Proposed Project without expanding its current water supplies and/or treatment or conveyance facilities. The only improvement required to convey water to the project site would be the connection to the water line in Rocklin Road, and the water line in James Drive, which would be installed as part of the project. For this reasons, the impact on water supply and treatment would be ***less than significant***.

c. Please see Item 8d, e.

f., g. The Proposed Project would generate waste, primarily manure and bedding. As discussed in Chapter 2, manure and bedding would be stored on site, and emptied and hauled offsite by a manure removal service. This waste would be taken to a local composting facility, rather than a landfill. Therefore, the Proposed Project would not adversely affect the regional landfill. Therefore this impact would be ***less than significant***.

101 Josh Lelko, Engineering Technician, Placer County Water Agency, written communication to Grace Kamphefner, February 9, 2018.

Issues		Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than Significant Impact	No Impact
19.	**MANDATORY FINDINGS OF SIGNIFICANCE.**				
a.	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	■	☐	☐
b.	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	■	☐	☐
c.	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	■	☐	☐

Discussion

a. As discussed in Item 4, the project site provides habitat for several listed species, as well as wetlands. The Proposed Project would not adversely affect most of those resources. The jurisdictional wetlands would be avoided. Habitat for one plant species, Sanford's arrowhead, Northwestern pond turtle and California red-legged frog, which is tied to the wetlands and pond, would similarly be avoided. The habitat and species that could be affected by project development, such as the elderberry shrub, a CNPS 1.2b plant, nesting raptors and migratory birds and oak trees would be protected from disturbance by Mitigation Measures 3 and 4. For these reasons, the Proposed Project would not

reduce any species below self-sustaining levels or eliminate a plant or animal community. No historic buildings would be removed, but unknown subsurface historic or prehistoric resources, if any are present, could be disturbed by project construction. However, with implementation of mitigation measures identified in Item 5, impacts on cultural resources would be ***less than significant*.**

b. The Proposed Project would contribute to cumulative traffic congestion, air quality degradation, noise and demand for fire protection services and water supply. As discussed throughout this Initial Study, the Proposed Project's contribution to cumulative impacts would not be considerable, so the cumulative impacts of the project would be ***less than significant***.

c. As discussed throughout this Checklist, potential impacts on human beings that could occur as a result of the Proposed Project are less than significant or could be reduced to ***less-than-significant*** levels with mitigation.

4. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

4. Environmental Factors Potentially Affected

Those factors checked below involve impacts that are “Potentially Significant”:

[ ] Aesthetics	[ ] Agriculture Resources	[ ] Air Quality
[ ] Biological Resources	[ ] Cultural Resources	[ ] Geology/Soils
[ ] Greenhouse Gas Emissions	[ ] Hazards & Hazardous Materials	[ ] Hydrology/Water Quality
[ ] Land Use/Planning	[ ] Mineral Resources	[ ] Noise
[ ] Population/Housing	[ ] Public Services	[ ] Recreation
[ ] Transportation/Traffic	[ ] Tribal Cultural Resources	[ ] Utility/Service Systems
[ ] Mandatory Findings of Sig.	[X] None After Mitigation	

5. DETERMINATION

5. Determination

On the basis of this Initial Study:

☐ I find that the proposed project WILL NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that as originally submitted, the proposed project could have a significant effect on the environment; however, revisions in the project have been made by or agreed to by the project proponent which will avoid these effects or mitigate these effects to a point where clearly no significant effect will occur. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on the attached Environmental Checklist. An ENVIRONMENTAL IMPACT REPORT is required, to analyze the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or (MITIGATED) NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or (MITIGATED) NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Robert King
Town Planner
Town of Loomis

May 21, 2018
Date

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6. REFERENCES

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7. REPORT PREPARERS

7. REPORT PREPARATION

Town of Loomis

Robert King, Town Planner

DIS/MND Report Preparation

Adrienne L. Graham, AICP

Mark Biegaj, The Communicator (Word Processing and Graphics)

Peak & Associates, Cultural Resources

APPENDIX

TRAFFIC IMPACT ANALYSIS AND APPENDICES

ON DISK

Attachment G

Staff Report to Planning Commission regarding Major Use Permit and Design Review Application #17-08 “Flying Change Farms Equestrian Center”
(July 24, 2018)

PLANNING COMMISSION HEARING
JULY 24, 2018

MAJOR USE PERMIT AND DESIGN REVIEW APPLICATION #17-08
"FLYING CHANGE FARMS EQUESTRIAN CENTER"
APPLICANT: GRACE AND REX KAMPHAFNER

STAFF REPORT

REQUEST

To allow the construction and operation of a private equestrian center to be known as the "The Flying Change Farms Equestrian Center." The facility will cater to dressage and hunter/jumper riders, and consist of a 40-stall boarding barn, covered riding arena, two outdoor arenas, buildings for hay storage and manure storage, and an on-site manager's quarters.

RECOMMENDATION

The Planning Commission adopt Resolution #18-04 approving a Major Use Permit (MUP) to allow construction and operation of a private equestrian center to be known as the "The Flying Change Farms Equestrian Center" subject to the approved Design Review and adoption of a Mitigated Negative Declaration as per the California Environmental Quality Act (CEQA) and the recommended findings and conditions of approval.

SITE DESCRIPTION

Location: Approximately ¼ mile north of the intersection of James Drive and Rocklin Rd.
APN: 045-050-003

Size: 40.0 acres

General Plan, Zoning, and Existing Land Uses

	GENERAL PLAN	ZONING	CURRENT LAND USE
ON SITE	RESIDENTIAL ESTATE	RE	VACANT
NORTH*	LOW DENSITY RESIDENTIAL	PD-1.93	OPEN SPACE
EAST	RESIDENTIAL ESTATE	RE	VACANT
SOUTH	RESIDENTIAL ESTATE	RE	VACANT
WEST*	MIXED USE	PD-CC	VACANT

*Within the City of Rocklin

Improvements/Utilities/Service Systems

Sewer – Septic
Water – Currently wells, will be served by PCWA
Gas/Electric – PG&E
Trash – Recology
Fire – South Placer Fire District

Existing Conditions

The project site is currently grazing land with one residence and associated out buildings. The residence would remain if the project is approved. There is also an 8-stall "mare motel" (barn for mares and foals) on the site. The project site consists of gently rolling topography, with elevations ranging from 340 to 380 feet. Most of the site is composed of grasslands and oak woodland and is used for grazing. A seasonal pond is located along the northern border that drains to a larger pond in the City of Rocklin. In addition to the pond, there are seeps and wetland swales located on the project site.

The project site is surrounded primarily by grasslands and oak woodlands. A band of trees and other vegetation abuts the northern and western project boundaries, along with a large pond to the north. The project site is surrounded by undeveloped open spaces and rural residences at present, higher-density development is being proposed on the Sierra College property to the west. Sierra College has partnered with a development company on an application to develop a 107-acre Planned Development in the City of Rocklin. The "North Village" of this project would be located immediately west of the project site, and include residential and mixed uses (e.g., residential, institutional, medical, retail, office) along the project site's western boundary.

To the south of the project site is the approved Poppy Ridge 1 project to develop seven lots on 20 acres. The equestrian center property had previously been approved for Phase II of Poppy Ridge, but its subdivision map was never recorded and expired. The area to the east is also designated Residential Estate, which allows for residential development on lots of at least 2.3 acres. The partially-developed Croftwood project is located to the north, in the City of Rocklin. The Croftwood Unit 1 project plans for 156 single-family homes with minimum 10,000 square foot residential lots. The pond immediately north of the project site will remain as designated open space, of the Croftwood project.

Existing access to the site is from James Drive, an 18-foot wide gravel road, via Rocklin Road. Currently no other public streets abut the project site or provide access. The easement for James Drive is 33-feet wide from Rocklin Road to the entrance of the project site. There is an additional 17-foot easement along James Drive adjacent to the two parcels immediately north of Rocklin Road.

PROJECT DESCRIPTION

Facilities

The proposed facility will consist of the following structures:

- 40-stall barn,
- 250-foot x 120-foot covered riding arena,
- 230-foot x 150-foot outdoor arena,
- 210-foot x 75-foot outdoor arena (dressage court),
- 30-foot x 90-foot building for storage of hay, bedding and fodder system,
- 30-foot x 40-foot enclosed manure storage building
- two- 75-foot diameter round pens,
- three 130-foot x 50-foot paddocks

The U-shaped barn will be about 15 feet tall and have a central aisle along each leg with stalls on either side. In addition to the 40 horse stalls, the barn will have feed rooms, wash racks, grooming bays, tack rooms, a rest room, an office, and a lounge. The covered arena have a pitched metal roof, approximately 20 to 23 feet at its peak, and open sided. Lighting will be suspended from the covered arena roof, and not directly visible outside of the arena. Outdoor arenas will be fenced but not covered and will not be lighted. Security lighting will be provided for ingress/egress and at trailer parking area. The covered arena will use

footing not requiring watering and will be dust free. (Footing is a mixture of sand and other soil like amendments to provide an even surface that prevents slippage and cushioning for hoofs.) The footing for outdoor arenas will also be dust free, with little watering. A tractor would be used to daily "drag" (i.e., fluff and level) the arena.

Construction

Project construction will require grading to level the building sites and create pads. Concrete work will be undertaken for barn and arena footings. Standard techniques will be used to construct the barn. The driveway and parking areas will be paved. An estimated 5.3 acres will be graded, including 0.1 acres offsite (the intersection improvements). Approximately 11,500 cubic yards of soil are expected to be disturbed and distributed on site. The earthwork will be balanced on-site, so that no native soil will be exported or imported. Approximately 1.75 acres of new impervious surface will be created onsite. An additional 0.09 acres of impervious surface will be created at the offsite intersection of James Drive with Rocklin Road.

Operation

Flying Change Farms will be able to board 40 horses within the horse barn, an additional eight within the Mare Motel, and seven in open pasture for a maximum total of 55 horses allowed on the site. These horses will be predominantly high-end performance horses, competing in dressage and hunter/jumper disciplines. The average boarder would visit their horse(s) 4-6 times per week. Two trainers would be on site daily to train horses and give lessons. All the boarded horses would be in a full or partial training program. One to two clients are expected to trailer in 3 to 4 days per week for lessons, primarily from the surrounding area, such as Auburn, Newcastle, Penryn, Loomis, Granite Bay and Orangevale. The facility will not host horse shows or similar events. The site has a single residence, which will be the on-site manager's quarters. Two additional employees will live off site. Operating hours will be 7am to 8:30 pm, seven days per week.

PROJECT ISSUES

Biology

Habitat on the 40-acre project site is composed of approximately 17.2 acres of annual grassland, 24 acres of oak woodland, and 0.18 acres of seasonal pond. The oak woodland is dominated by blue and interior live oaks. The understory of the oak woodland is composed primarily of grasslands, lacking woody vegetation. The annual grassland is dominated by nonnative grasses. The project site provides habitat for several special-status species. An elderberry shrub is located near the western border of the project site. Elderberry shrubs can provide habitat for the Valley elderberry longhorn beetle, which is a Federal threatened species. Although they were not observed during field surveys, both California red-legged frog and Northwestern pond turtle could occur in the onsite pond. However, the pond is outside of the area to be disturbed by the Proposed Project. Three special-status raptors listed in Table 3-4 of the IS\MND were observed on or over the project site during surveys. Migratory birds, including non-listed raptors, are protected and mitigation measures have been prepared for their protection.

A wetland delineation was prepared in June 2004 and verified by the U.S. Army Corps of Engineers (Corps). The verified delineation identified a total of 1.72 acres of jurisdictional wetlands on the 40-acre project site, including a seasonal pond, wetland swales, seeps, fringe wetlands and an isolated wetland. All of the wetlands appeared to be seasonal, and are typically dormant and dry by September or October. The seasonal pond is an extension of a larger pond on the Croftwood project to the north of the project site. This pond dries out substantially during the dry season, and the portion of the pond on the project site is completely dry by summer. None of these wetlands are located disturbed by the Proposed Project.

An arborist report was also prepared for the entire project site. Every tree meeting the Town's criteria for

protected trees was tagged, evaluated for structural condition and vigor and inventoried. The resulting arborist report was prepared in April 2017, and focused on the area in which the Proposed Project would be constructed. The 2017 arborist report found 54 oak trees measuring 4 inches in diameter at breast height (dbh) within and/or overhanging the area to be developed. Of these, five were recommended to be removed due to the nature and extent of defects, compromised health and/or structural instability. The 2017 report also provides general guidelines for the protection of trees that will remain in place. As shown in Figure 2-4 of the IS\MND, project facilities, including the access road, water line, parking and structures, have been sited so that the oak trees need not be removed. However, portions of some elements of the project, such as the access road, would be located under the tree canopy, and therefore could disturb the critical root zone. Grading, excavation, compaction and application of materials (e.g., asphalt) in these areas could result in damage to the root zone, with an adverse effect on one or more protected oak trees. In addition, if final design requires that the planned facilities be shifted closer to one or more protected trees, those trees may need to be removed. There are two oak trees west of James Drive that are within the area to be disturbed. Those that would be removed within the site are subject to **Section 13.54 Tree Preservation and Protection** of the Loomis Zoning Ordinance. This requires the applicant to acquire a *Tree Removal Permit* prior to any on site grading or construction and provide mitigation and\or replacement as part of their improvement plans.

The Proposed Project would result in conversion of approximately 1.84 acres of grassland to roads, barns and riding facilities, including the intersection improvements at James Drive and Rocklin Road and installation of the water line.

Cultural Resources

In November 2004, a Cultural Resources Assessment was prepared by Peak and Associates which included the current project site. For that study the North Central Information Center of the California Historical Resources Information System was contacted to identify cultural resources that had been reported in or near the project site. The sacred lands file was checked, but no sites were listed in the project site. Native Americans with knowledge of the area were contacted. A field inspection was conducted in October 2004 using 15-meter transects, and a test excavation was conducted at one site that appeared to have potential for historic archaeology. Five cultural resources were recorded and evaluated in 2004. Previous surveys identified a prehistoric food processing loci and evidence of mining activity north of the project site, along Secret Ravine. The 2004 survey found no evidence of prehistoric occupation or use of the project site.

In October 2017, Peak and Associates updated the 2004 study. A records check was performed, which found that no subsequent surveys of the project site had been conducted. A pedestrian field inspection was conducted. There was good soil visibility throughout the project site. Evidence of a recent fire was observed, and there was heavy ground squirrel activity, which provided for ample visual access to subsurface soils. The five historic resources were still present, although one, a cistern, had been repaired and altered since 2004. There was no evidence of other historic resources or prehistoric occupation or use of the project site. The United Auburn Indian Community (UAIC) in response to the request for review and comment sent recommended measures which have been included as part of the IS\MND mitigation measures and conditions of approval.

Hydrology\Water Quality

The approximately 11-acre portion of the project site that would be developed drains from south to north. Stormwater runoff sheet-flows across natural open space and low-lying areas. Construction of the Proposed Project will involve earth-disturbing and building activities that could result in the discharge of sediment or other pollutants. Because activities associated with project development would disturb more than one acre of land, the applicant is required to obtain and comply with the State General Construction

Activity Stormwater Permit. The project must also comply with the Town's Grading, Erosion and Sediment Control Ordinance (Chapter 12.04 of the Municipal Code), which requires preparation of an erosion and sediment control plan that complies with the Town's stormwater management plan and the ***California Stormwater Quality Association Stormwater Best Management Practice Handbook***. The Town's Grading Ordinance specifies that the erosion and sediment control plan prevent discharge through all stages of project construction and that the plan include measures to ensure permanent site stabilization. The Grading Ordinance also requires that all construction equipment and maintenance and construction materials storage areas be located within designated areas protected with a berm to contain any loose materials, and all that disturbed areas be protected through revegetation or a protective cover. The Preliminary Drainage and Storm Water Quality Report identifies BMPs that would be used during construction, including sediment controls, paving and grading measures, and waste management.

The Proposed Project will result in approximately 1.84 acres of new impervious surfaces. This will result in an increase in stormwater runoff, which could alter downstream flood conditions, which would be a significant impact. Furthermore, urban contaminants could be released into surface waters, which would be a significant impact on water quality. The Report for the project states that stormwater would be collected from roof drains in trenches, which would drain to an approximately 4,400 square foot bioretention area. The bioretention areas would provide water quality treatment and hydromodification sufficient to capture and treat the runoff from the project's new impervious surfaces. The report also identifies a number of measures and best management practices (BMPs) to protect the quality and quantity of stormwater run off that include a 125-foot setback and buffer from the nearest streams, creeks, and ponds; and permeable pavement in the parking area.

Noise

The noises generated by the Proposed Project would be consistent with the existing rural environment. Onsite activities would not exceed the 24-average or short-duration noise standards identified in the General Plan, because there would be no permanent sources of excessive noise. In the future, there could be residences located north and west of the project site who may be able to hear some noise at times. For example, small tractors could be used for maintenance activities, such as dragging the arenas. However, the indoor arena and barn walls would dampen noise from within or south or west of those buildings. The outdoor arena would be 25 feet from the northern property line, however most of the land immediately to the north is dedicated open space. While future residents might hear some project noise, it would be of short duration. **There will be no amplified sound.** Because the barn would be closed from 8:30pm to 7am, there would be little or no discernable noise at night.

Transportation\Traffic

An equestrian center is compatible with rural residential uses, such as those located in the vicinity of the project site. For the most part, vehicles entering and leaving the project site would be similar to those using any commercial facility, such as personal automobiles and trucks, delivery trucks, and waste removal vehicles. Trucks with horse trailers would also enter and exit the site. Some farm equipment, such as a tractor, would be used onsite, but would not travel on public roads.

The Proposed Project is estimated to generate 139 new vehicle trips per day, with 6 of those trips occurring during the weekday a.m. peak hour and 16 trips occurring in the weekday p.m. peak hour. As shown in Tables 3-7 and 3-8, of the IS\MND the study area intersections and roadway segments would operate at LOS C or better under both existing and existing plus project conditions. Therefore, the increase in traffic under Existing plus Project conditions would be less-than-significant.

The existing Rocklin Road/James Drive intersection is not designed to current Town standards. Therefore, there could be conflicts with entering and exiting vehicles that are using James Drive at the same time.

The Proposed Project includes improvements to James Drive and its intersection with Rocklin Road in order to better accommodate entering and exiting vehicles, including those with horse trailers. James Drive would be widened to 20 feet within approximately 100 feet of Rocklin Road. Tapers would be provided east and west of James Drive, which would provide an area for vehicles that are entering or existing to accelerate or decelerate. The intersection configuration and improvements will be subject to review and approval by the Town Engineers of **both** Rocklin and Loomis during the Improvement Plan process to ensure that compatible standards are met.

Utilities\Public Services

Both the Placer County Water Agency (PCWA) and the South Placer Municipal Utility District (SPMUD) have had the opportunity to review the project during the preliminary application review, and review of the proposed IS\MND. Neither currently serve the project site, but the applicant has been in discussion with PCWA for extension of their line along James Road to their property for future service, subject to compliance with their standard conditions and regulations, to obtain a Can and Serve Letter.

Policy 4 of the Public Services Element of the Loomis General Plan states public water and sewer is required for any proposed (new) dwelling unit within 300 feet of such service, and for all proposed development in a **"nonresidential land use designation."**

The project site is designated Residential Estate within the Land Use Element, a residential land use designation. Therefore, the proposed equestrian center is **not** required to be served by public water or sewer. Since no new dwelling is proposed, only the use of the existing house, public water and sewer service is not required. In addition, public services are not required, as the project parcel is over 300 feet from the nearest available public service on Poppy Ridge Court. There is also precedent as the Planning Commission approved the Shambaugh Equestrian Facility In December 2004 and did not require either public water or sewer.

DESIGN REVIEW

Design Review is required for all non-residential development as per **Section 13.62.040 Design Review** to ensure proposed development maintains and enhances ***"the small-town, historic, and rural character of the community."***

The proposed buildings are consistent with the historic and rural character of the community. The design and choice of colors are traditional styles found in 19th and early 20th century motifs typical of farm and ranches of that period. The massing of the buildings create a harmonious groupings, while limiting the built environment to less than 25% of the total project site. The buildings are setback away from neighboring properties creating a sense of space, while also allowing native vegetation to buffer the structures. Development of the proposed project would not substantially degrade the existing visual character or the quality of the site and its surroundings. The project site will not be converted to residential uses, as allowed by the zoning, but instead retain the natural oak woodland landscape character of the area. Existing vegetation will shield and buffer the site uses from public vantage points and future off-site residential development, such as to the west. Additional landscaping is proposed around the parking areas from the future residences to the west as per Section 13.30.100 A of the Loomis Zoning Ordinance. Irrigation and watering is consistent with the Town's Water Efficient Landscape Conservation Ordinances.

Section 13.30.080 of the Loomis Municipal Code requires outdoor lighting to be shielded or recessed so that the light source is not visible from off the site and so that glare and reflections are confined to the maximum extent feasible within the boundaries of the site. Further, **Section 13.30.080(b)** requires lighting fixtures to be directed downward and away from adjoining properties and public rights-of-way

and requires that off-site illumination does not exceed one foot-candle.

Chapter 13.54 of the Loomis Municipal Code protects native oak trees with a diameter of six or more inches at dbh, defined as 54 inches above the ground. The report prepared by Sierra Nevada Arborists in April 2017 identified 56 oak trees subject to the ordinance in the area to be developed. The project facilities, including the access road, water line, parking and structures, have been sited so that the oak trees need not be removed. However, portions of some elements of the project, such as the access road, would be located under the tree canopy, and therefore could disturb the critical root zone. In addition, if final design requires that the planned facilities be shifted closer to one or more protected trees, those trees may need to be removed. In addition to complying with the Town's Tree Ordinance, mitigation has been required as part of the Negative Declaration that should any protected tree be removed or irrevocably damaged, an in-lieu fee be paid or replacement trees be planted on-site.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Pursuant to CEQA Guidelines Section 15070 Decision to Prepare a Negative or Mitigated Negative Declaration the Town of Loomis prepared an *Initial Study Mitigated Negative Declaration (IS/MND).* **(**Attachment 3**)** Mitigation measures were identified to reduce potential impacts to a level of less than significant in the *IS/MND Mitigation Monitoring Report Plan (MMRP)* **(**Attachment 6) and included as required Conditions of Approval for this project

A Notice of Intent to Adopt a Negative Declaration was posted and mailed to adjacent property owners and Public Agencies for the 30 day public review between June 1, 2018 and and July 7, 2018.

Negative Declarations do require a formal response to comments as do environmental impact reports. However, the Public Comments (attachment #7) were reviewed and where necessary the draft IS\MND was revised as shown in the *IS\MND Errata* document (Attachment #5). In addition, the town prepared a *Response to Comments Memorandum* (Attachment #8) providing a summary of the pertinent comments and any town response to it.

A Notice of Determination will be filed with the Placer County Clerk upon approval of the project.

RECOMMENDATION

The Planning Commission adopt Resolution #18-04 approving a Major Use Permit (MUP) to allow construction and operation of a private equestrian center to be known as the "The Flying Change Farms Equestrian Center" subject to the approved Design Review and adoption of a Mitigated Negative Declaration as per the California Environmental Quality Act (CEQA) and the recommended findings and conditions of approval.

ATTACHMENTS

1. Draft Resolution #18-04
   - Exhibit A: Recommended Findings
   - Exhibit B: Recommended Conditions of Approval
2. Project Application

California Environmental Quality Act (CEQA) Documents

3. Flying Change Farms Initial Study\Mitigated Negative Declaration (IS\MND)*
4. Studies and Reports
   - Arborist Report
   - Cultural Studies Report

Drainage Report
Traffic Analysis Report

5. IS\MND Errata
6. Mitigation Monitoring and Reporting Program (MMRP)
7. Public Comments
   Agency Comments
   Citizen Comments
8. Response to Comments Memorandum

** Previously Distributed to Planning Commission Members. Additional copies available at Town Hall or the Loomis Website: www.Loomis.ca.gov*

NOTE: Notice published in the Loomis News on July 12, 2018, and mailed July 12, 2018.

Attachment H

Exhibit 4 to Staff Report to Planning Commission regarding Major Use Permit and Design Review Application #17-08 “Flying Change Farms Equestrian Center”
(July 24, 2018)

RESOLUTION NO. 18-04

A RESOLUTION OF THE PLANNING COMMISSION OF THE TOWN OF LOOMIS APPROVING A MAJOR USE PERMIT AND DESIGN REVIEW (APPLICATION, #17-08) TO ALLOW THE CONSTRUCTION AND OPERATION OF A PRIVATE EQUESTRIAN CENTER ON A 40 ACRE PARCEL, LOCATED APPROXIMATELY ¼ MILE NORTH OF THE INTERSECTION OF JAMES ROAD AND ROCKLIN ROAD WITHIN THE TOWN OF LOOMIS. (APN: 045-050-003)

WHEREAS, Grace and Rex Kamphafner, the applicant/owners, have requested to construct and operate a private equestrian center and submitted a Major Use Permit and Design Review, Application #17-08; and,

WHEREAS, on July 24, 2018, the Planning Commission conducted a public hearing of the application, at which time any person interested in the matter was given an opportunity to be heard; and

WHEREAS, the Planning Commission reviewed and considered the staff report relating to the application, the plans, the written and oral evidence presented to the Planning Commission in support of and in opposition to the application; and

WHEREAS, the Planning Commission of the Town of Loomis hereby makes the findings attached herein as Exhibit A for the Major Use Permit and Design Review for the construction and operation of the equestrian center.

NOW THEREFORE, based upon the findings set forth hereinabove, the Planning Commission of the Town of Loomis, at its meeting of July 24, 2018, did resolve as follows:

1. Pursuant to CEQA Guidelines **Section 15070 Decision to Prepare a Negative or Mitigated Negative Declaration** the Town of Loomis prepared an Initial Study Mitigated Negative Declaration (IS\MND). Mitigation measures were identified to reduce potential impacts to a level of less than significant in the IS\MND and the Mitigation Monitoring Report Plan (MMRP) and is hereby adopted.

2. The proposed Project is consistent with the goals, policies and land uses in the Town of Loomis General Plan and Zoning Ordinance.

3. The Major Use Permit and Design Review (Application #17-08) is hereby approved per the findings set forth in Exhibit A and the Conditions of Approval set forth in Exhibit B.

ADOPTED this 24th day of July, 2018, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAINED:

_____
George Obranovich, Chairman

_____
Carol Parker, Planning Secretary

EXHIBIT A
FINDINGS: MAJOR USE PERMIT AND DESIGN REVIEW APPLICATION #17-08
PLANNING COMMISSION, JULY 24, 2018

California Environmental Quality Act (CEQA)

1. The initial study identified possible adverse environmental effects, but conditions of project approval have reduced them to a point where they are less than significant.

2. Pursuant to CEQA Guidelines **Section 15070 Decision to Prepare a Negative or Mitigated Negative Declaration** the Town of Loomis prepared an Initial Study Mitigated Negative Declaration (IS\MND). Mitigation measures were identified to reduce potential impacts to a level of less than significant in the IS\MND and the Mitigation Monitoring Report Plan (MMRP).

Conditional Use Permit

1. The proposed use as conditioned is allowed within the applicable zoning district and complies with all other applicable provisions of this Zoning Ordinance and Municipal Code;
2. The proposed use as conditioned is consistent with the General Plan;
3. The design, location, size, and operating characteristics of the proposed activity are compatible with the existing and future land uses in the vicinity;
4. The site is physically suitable for the type, density and intensity of use being proposed, including access, utilities, and the absence of physical constraints; and
5. Granting the permit would not be detrimental to the public interest, health, safety, convenience, or welfare, or materially injurious to persons, property or improvements in the vicinity and zoning district in which the property is located in that the impacts of the use on the surrounding neighborhoods and the Town of Loomis have been minimize to acceptable levels by the recommended conditions of approval conditions of approval.

Design Review

1. The proposed Project complies with Section 13.62.040 Design Review of the Town of Loomis Zoning Code.
2. The proposed Project provides architectural design, building massing and scale appropriate to and compatible with the site surroundings and the community.
3. The proposed Project provides attractive and desirable site layout and design, including, but not limited to, building arrangement, exterior appearance and setbacks, drainage, fences and walls, grading, landscaping, lighting, signs, etc.;
4. The proposed Project provides efficient and safe public access, circulation and parking.
5. The proposed Project provides appropriate open space and landscaping, including the use of water efficient landscaping.
6. The proposed Project is consistent with the Town of Loomis General Plan.
7. The proposed Project complies with any applicable design guidelines and/or adopted design review policies.

EXHIBIT B
CONDITIONS OF APPROVAL
MAJOR USE PERMIT, AND DESIGN REVIEW APPLICATION #17-08
PLANNING COMMISSION, JULY 24, 2018

Major Use Permit and Design Review Application #17-08 is approved to allow the applicant/owner to construct and operate a private equestrian center, as per the following conditions. The applicant/owner has one (1) year [July 24, 2019] in which to initiate building construction.

GENERAL CONDITIONS

1. _____The applicant/owner shall comply with all applicable provisions of the Town of Loomis Municipal Code.

2. _____ The Project shall proceed only in accordance with approved plans on file in the Planning Department, the conditions contained herein and the Town of Loomis Municipal Code. Prior to any use of the Project site or business activity being commenced thereon, all conditions of approval and required improvements, shall be completed to the satisfaction of the Town. Approval of this Project shall not waive compliance with all sections of the Town of Loomis Municipal Code (Zoning, Building Codes, etc.), Loomis General Plan, and applicable policy plans.

3. _____ The project shall proceed only in accordance with approved plans on file in the Planning Department, the conditions contained herein, and the Town of Loomis Municipal Code. Approval of this project, subject to these plans, conditions, and Code(s), shall not be interpreted as the Town having waived compliance with any sections of the Town of Loomis Municipal Code (Zoning, Building Codes, etc.), Loomis General Plan, or applicable Plans.

4. _____ Development shall be substantially in accordance with the plans approved by the Planning Commission on July 24, 2018, except as may be modified by the conditions stated herein.

5. _____ When submitting for Plan Check, the owner must provide to the Planning Department a copy of the final conditions of approval with a cover letter specifying how and where the revised plans address each of the conditions. Plan Check by the Planning Department and Town Engineer will not be initiated without compliance with this condition. All plans shall be consistent with that approved by the Planning Department. The owner shall be responsible for correcting any inconsistency which may occur through error or omission during plan preparation or construction.

6. _____ The owner shall defend, indemnify, and hold harmless the Town of Loomis and its agents, officers and employees from any claim, action or proceeding against the Town, or its agents, officers and employees to attach, set aside, void, or annul, an approval of the Planning Commission, or Town Council as to the project, subject of this application.

7. _____ The conditions of approval of the application shall prevail over all omissions, conflicting notations, specifications, dimensions, typical sections, and the like, which may or may not be shown on the map or improvement plans.

8. _____All construction plans, such as, but not limited to the site plan, building elevations, landscaping, and irrigation plans, grading plan, mechanical drawings, street improvement plans, and detailed drawings submitted to the Building Division for permits shall be coordinated for consistency by the applicant/owner prior to the issuance of any permits, or commencement of the subject use, whichever comes first. Any change or modification to one particular plan shall require the

corresponding revisions on other plans. All plans shall be consistent with that approved by the Planning Department. The applicant/owner shall be responsible of correcting any inconsistency which may occur through error or omission during plan preparation or construction.

IMPROVEMENTS

9. _____ The applicant/owner shall obtain an encroachment permit prior to any work within public rights-of-way from either the Town of Loomis or City of Rocklin as may be within their jurisdiction and notify the corresponding agency of such requests.

10. _____ The applicant\owner shall provide frontage improvements including asphalt, curb, gutter and sidewalks at the ultimate right of way width of Rocklin Road consistent with Town specifications and approval of the Town Engineer.

11. _____ Provide tapers east and west of James Drive for acceleration and deceleration as recommended by a traffic study prepared by KdAnderson along Rocklin road consistent with the long term plans for widening it to the satisfaction of the Town engineers of both Loomis and Rocklin.

12. _____ The applicant/owner shall construct all improvements required as a condition of approval of this Project prior to tenant occupancy of the building or enter into a contract agreement with the Town to construct all improvements, and shall post a 150% bond, cash deposit, or instrument of credit, guaranteeing the construction of all improvements for a twelve month period. Approved time extension in accordance with the provisions of the Loomis Municipal Code.

13. _____ The plans for site improvements required as a condition of approval of this Project shall be prepared by a California Registered Civil Engineer and shall be approved by the Town Engineer prior to any construction by the applicant/owner.

14. _____ The applicant/owner shall submit certified as-built Mylar plans, and computer generated design files, on disk prior to final acceptance of improvements.

15. _____ Cost of all inspections related to on-site and off-site improvements shall be borne by the applicant/owner and shall be paid prior to completion of the improvements.

16. _____The applicant/owner shall indemnify, exonerate and hold harmless the Town of Loomis and all officers and employees thereof against all claims, demands and causes of action arising out of improvements constructed within this Project.

17. _____The applicant/owner shall be responsible for all actions of his contractors and subcontractors until such time as the improvements have been accepted as complete by the Town.

18. _____ All grading shall conform to the Town Grading Ordinance with prior review and approval by the Town Engineer. All grading shall be constructed in a manner so that post–development runoff flows do not exceed predevelopment flows, through the use of a drainage plan that includes provisions for on–site detention of runoff flows, in accordance with the **Placer County Flood Control District Storm Water Management Manual and the Loomis Land Development Manual.**

19. _____All utility facilities shall be placed underground in accordance with Town Ordinance.

20. _____No construction, including but not limited to impenetrable barriers, structures, and/or fencing, shall occur within the area defined as the streambed\wetlands.

AGENCIES

21. _____ The applicant/owner shall obtain a permit for Septic Disposal from the Placer County Environmental Health Services prior to the issuance of building permits, and abandonment of wells.

22. _____The South Placer Municipal Utility District (SPMUD) stated "Should the applicant decide to connect to the public sewer system, the design and construction of all on-site and off-site facilities which may be required as a result of this project, including the acquisition and granting of sewer easements, will be the responsibility of the developer\owner."

23. _____Obtain and provide to the Town a Will-Serve letter from the Placer County Water Agency (PCWA) prior to the issuance of Building Permits and prior to abandonment and capping of the existing on-site wells.

24. _____ The Town of Loomis and the South Placer Fire District will review and approve the plans submitted by the applicant/owner to ensure the buildings and grounds are in compliance with regulations in accordance with the approved use as an equestrian center.

25. _____ The applicant shall provide a will-serve letter from Recology prior to occupancy, and subscribe to weekly refuse collection.

26. _____The applicant/owner shall provide a will-serve or similar instrument showing they have a contract with a licensed waste hauler for the removal and disposal of manure and other similar waste materials in compliance with local, state, and federal laws prior to the boarding of any horses.

27. _____Comply with all regulations and requirements of the South Placer Fire District as to water supply, sprinklers, and vehicular access.

GENERAL PLANNING

28. _____ Owner shall construct the project consistent with the site plan, dated March 14, 2018, contained in project's Mitigated Negative Declaration (MND), including the location, orientation and dimensions (height, length, width) of the facilities identified on the site plan and described in the IS\MND.

29. _____The facility shall be limited to the boarding of 55 horses on site, 40 horses in stalls in the main barn, 8 horses in stalls in the existing "mare motel", and 7 additional horses in pasture.

30. _____The operating hours of the facility shall be limited to 7:00 am to 8:30 deliveries and pick-ups (solid waste/manure).

31. _____The facility shall not host horse shows or similar events.

32. _____The covered arena will use footing that does not require watering and is dust free. The footing for the outdoor arenas will also be dust free and require little watering. Any dust control watering of the arenas shall be done by automatic sprinkler systems.

33. _____Outdoor lighting shall conform to Section 13.30.080 Outdoor Lighting of the Loomis Municipal Code and shall not exceed the height of any adjacent or attached building, shall

be shielded or recessed so that the source is not visible from offsite, and is directed toward project facilities and downward and away from and not spillover onto adjoining properties to minimize spillover light.

34. _____The outdoor arenas or dressage areas shall not be lighted other than for security needs consistent with the standards referenced in Condition #6 above.

35. _____The Barn, Mare Motel and Manure Garage shall be equipped with an Automatic Fly Control System that provides fly control 24 hours a day 7 days a week.

36. _____Manure and soiled bedding shall be removed from stalls and common areas once or twice a day and stored in a covered bin within the Manure Garage as shown on the project site plan. No outside and/or uncovered manure or soiled bedding shall be permitted on the project site.

37. _____Covered bins containing manure and soiled bedding shall be contained in the Manure Garage which shall be an enclosed structure, with a weather proof roof and doors that shall remain closed except for the delivery and removal of waste materials.

38. _____Manure disposal bins shall be located as shown on the site plan and be at least of 120 feet from the Owner's northern property line and at least 300 feet from the owner's western property line.

39. _____Manure and waste pick up shall be scheduled often enough to empty bins before they reach full capacity, and a minimum of once per week.

40. _____The automated fly spray system shall be regularly maintained. If at any time, the system fails the system shall be repaired or replaced within one week.

41. _____No amplified sound system is allowed.

42. _____Owner shall provide invoices of the licensed waste hauler noting removal of manure and soiled bedding from the Manure Garage.

43. _____These conditions of approval shall run with the land.

44. _____Violations of any of these conditions of approval shall constitute grounds for enforcement action by the Town of Loomis, including but not limited to the rescission of the project's conditional use permit.

45. _____The property owner and future property owner shall be responsible to ensure all conditions are incorporated into the standard provisions of any sale, lease and/or rental agreements entered into with any new owners or tenants on the property subject to this Conditional Use Permit.

46. _____ All lighting shall be shielded (bulb shall not be visible from roadway or adjacent properties) and directed on-site. The plans shall be reviewed by the Planning Department and Town Engineer prior to building permit issuance and the lighting shall be installed prior to building final or any

certificates of occupancy being issued in accordance with the Loomis Municipal Code.

47. _____ The applicant/owner shall pay the Road Circulation Fees, Drainage Fees, Community Facilities Fee and Fire Fee in affect at the time of building permit issuance.

48. _____ Occupancy and boarding shall not be permitted until all conditions incorporated into this Permit are completed by the applicant/owner and accepted or approved by the Town.

49. _____ The applicant/owner shall construct the building as shown in the design plans presented to, reviewed by, and approved by the Planning Commission on July 24, 2018, and marked "APPROVED" in the Project file.

50. _____ If construction or tree removal occurs during the nesting season of bird species protected by the Migratory Bird Treaty Act (MBTA) or the California Department of Fish and Wildlife (CDFW) between February 15 through August 31 a qualified biologist shall conduct a pre-construction survey for active nests within 14 days prior of construction activities or tree removal. If no active nests are located a report shall be filed with the Town prior to issuance of building, grading or tree removal permits. If active nests are located the Town shall be immediately notified and a qualified biologist shall mark buffer zones and monitor nests until the end of breeding or the young have fledged to the satisfaction of the Planning Director.

51. _____ If prehistoric or historical archaeological deposits are discovered during project activities, all work within 25 feet of the discovery shall be halted and the Town of Loomis Planning Department shall be notified. The archaeologist shall assess the situation, and consult with agencies and Native American Tribes, as to the treatment of the discovery. Mitigation may consist of, but is not necessarily limited to, systematic recovery and analysis of archaeological deposits; recording the resource; preparation of a report of findings; and accessioning recovered archaeological materials as appropriate with affected tribal groups.

52. _____ The project shall conform to the General Plan, including the Noise Element standards, State Noise Insulation Standards (CA code of Regulations, Title 24) and Chapter 35 of the Uniform Building Code. Noise generated by the project shall not cause the Ldn to exceed 60 dBA at the property line during or after construction, nor shall it cause the noise level at the property line to exceed 75 dBA at any time during or after construction.

53. _____ No construction work shall begin prior to 7:00 a.m. nor occur after 7:00 p.m. Monday through Friday nor prior to 8:00 a.m. or after 5:00 p.m. on Saturday, with no work to occur on Sundays or holidays.

54. _____No permits for Grading and Building shall be issued until the Tree Removal Permit is approved and mitigation accepted by the Town.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

55. _____The Mitigation Measures of the adopted Initial Study/Mitigated Negative Declaration, as shown in the Mitigation Measure Monitoring Report are incorporated herein by reference as required conditions of approval.

Attachment I

Additional References

Sierra College Timeline

Timeline

Sierra College

All Events

- All Events
- General
- President's
- Athletics
- Foundation
- Development

1882Sierra Normal College is established in Auburn at the site of today's Placer High School.

1897Auburn High School is established in the old Sierra Normal College Building. It was a direct outgrowth of Sierra Normal College.

1903Placer High School District purchases the Normal College grounds and renames the high school. It is now called Placer County High School.

1906Sierra Normal College building is demolished and replaced with a $40,000 brick structure.

1914Placer Union High School District is born, stretching from Loomis to Lake Tahoe. College classes are offered at the Placer County High School. The college is called Placer Junior College. It was the indirect descendant of Sierra Normal College, which had given birth to Placer County High School.

1920Placer Junior College is abandoned due to enrollment loss caused by World War I.

1935Placer Junior College gained a regional reputation for academic excellence. The scholastic ratings of the university, which ranked the academic achievements of institutions providing students to the university, reinforce the college's prestige. From 1935 to 1940, one hundred forty nine other schools placed students in UC Berkeley, but Placer College ranked first in academic accomplishment for the

period.

1936Voters agree to re-establish the college in Auburn. The college is called Placer Junior College.

1936Placer Junior College athletes are called “Spartans.” The first graduate of Placer Junior College is a young woman named Marion Sully. About 100 students are enrolled.

Dr. John Napier named first president

1936-1941

1936Three wings of buildings were constructed to serve primarily Placer Junior College, but Placer High School students shared many of the facilities, instructors and organizations with the new college. The entire operating budget of Placer Junior College in its first year was $8,000. Current budget is $75,000,000.

1939282 students are enrolled. World War II begins.

1941The USA enters World War II. John Napier is replaced by Ernest Oertel. The 1941 attack on Pearl Harbor essentially ended enrollment by men as they went off to serve their country during World War II. The war became a daily presence on campus, even while the more light-hearted aspects of college life continued. Additionally, enrollment dropped significantly when Americans of Japanese ancestry were forced into internment camps. By 1943 student population dropped to 53.

Harold Chastain named as president

1942-1948

1945As the war neared its conclusion in 1945, enrollment had edged up to 119. The war’s end brought returning veterans, the end of internment, and the GI Bill of Rights. Enrollment in the post-war years exploded as a result.

1946467 students were enrolled—half were veterans.

Harold Weaver named as president

1948-1971

1949856 students were enrolled in 1949 and the Placer College facility was bursting at the seams.

1950Placer College won the State Championship in Men's Basketball.

In 1954, Placer College was renamed Sierra College

The college athletes gained a new nickname – "Wolverines"

Sierra Goes Out for a Bond

In 1958, a site selection committee for the new campus was appointed. Thirty-five possible locations were considered until the present Rocklin site was chosen. The location near the Interstate highway then being constructed was a plus, but the land itself was far from inviting. Located on a largely bare knob of decomposed granite, the college site was quickly nicknamed “Sahara College.” Bond issues to fund construction were passed and the Rocklin campus began to emerge.

1961The new Rocklin campus opened and enrollment reached 1500. Landscaping, under the capable direction of Ted Kitada, turned the campus into a garden.

In 1962 Nevada County joined a huge new Sierra Junior College District. It began in Roseville ... and extended to the beautiful shores of Lake Tahoe. The Sierra Junior College District then had more square miles – 3,200 – than students.

Enrollment boomed in the 1960s. By the end of the decade Sierra College boasted 100 full-time faculty members, nine new campus buildings, and enrollment was nearly 4,000. However, as fast as new facilities could be built, they were filled. The decade saw much student population growth. The student population increased by 45% in 1962 alone. A 32% increase happened the next year. And a 40% boost the next. By the turn of the 1970s, more than 4,000 students were enrolled.

From 1970 to 1980, enrollment jumped from 4,000 to nearly 10,000.

William Winstead named as president

1971-1974

Marion Akers named as acting president

1975

Gerald Angove named as president

1975-1993

1980Enrollment from 1980 to 1990 jumped from about 10,000 to nearly 14,000. Sierra College extended its own services with the opening of a child care center and expanded course offerings in Nevada County and other satellite centers.

Sierra College received national recognition as the Summer training camp of the San Francisco 49ers of the National Football League. From 1981 to 1997, the 49ers trained in Rocklin. Arguably, their best years were a result of their Sierra College experience. The 49ers won five Super Bowls during their stay at the college, and have not won another one since leaving the friendly confines of Sierra.

198650th anniversary

1990Sierra College scientific experiments rode on the space shuttle Endeavor.

In 1990s, the student population from 1990 to the year 2000 swelled from about 14,000 to nearly 18,000.

Kevin Ramirez named as president

1993-2005

1994Groundbreaking for NCC campus

1996The 105-acre Nevada County Campus was opened. Twelve locations were considered in the county until property between Grass Valley and Nevada City was chosen.

1999Sierra won the State Championship in Women's Basketball.

1998Sierra College Natural History Museum held the first Dinosaur Day.

2000In early 2000s, the Football team had a nation-leading 37 straight victories and was nationally ranked for years.

2002Additional centers were opened in the Tahoe/Truckee area and Roseville. And funding was provided for a new library at Twelve Bridges in association with the City of Lincoln and others. Classes were also taught at local high schools and community centers. Bonds were passed to fund additional construction in Truckee and on the Nevada County Campus.

2002The Sierra College Press was formed to publish the award-winning "Standing Guard: Telling our Stories" as part of the Standing Guard Project's examination of Japanese-American Internment during World War II. The Sierra College Press is the first complete academic press operated by a community college in the United States.

2003Sierra College won the inaugural NATYCA Cup for national athletic excellence

Sierra College's reputation continued to grow. The college became a state leader in transfers to the State University and college system. The completion of two-year degrees and certificate programs increased three-fold. In 2005, Sierra College ranked first in California for the awarding of associate degrees and #13 nationally.

2005The Center for Sierra Nevada Studies is formed, with the extensive involvement of Sierra College students, faculty, and staff and the regional community. A Center project, The Sierra Nevada Virtual Museum, is launched. As of November 2006, this award-winning website has had 400,000 visitors from 75 countries on six continents.

Dr. Morgan Lynn named as interim president

2005-2006

Dr. Leo Chavez named as president

2006-2011

2007Wrestling team wins State Championship

2007Women's tennis wins State Championship

2008Baseball team wins State Championship

2008Sierra College Tahoe-Truckee Campus opens

The 28,000 square foot "green building" was revealed.

2009Sierra College's Truckee campus earns LEED gold

The Tahoe-Truckee Campus of Sierra College was the first community college in California to receive LEED Gold certification.

William H. Duncan, IV named as president

2011-Current

2010The Sierra College Press published The Illuminated Landscape edited by Gary Noy and Rick Heide.

2012Cheer Take First Place in USA Collegiate Championships

2014Sierra College starts to offer Bachelor's Degree in Nursing

In collaboration with California State University Sacramento (CSUS), Sierra College started to offer selected Associate Degree Nursing (ADN) students an opportunity to pursue their Bachelor of Science Nursing (BSN) degree concurrently during the ADN program.

2014Women's softball wins the State Championship.

2014Nursing village is moved to Rocklin campus from Roseville Gateway facility.

2014The Sierra College Press published Sierra Stories: Tales of Dreamers, Schemers, Bigots, and Rogues by Gary Noy, which won the Gold Medal for Best Regional Nonfiction from the Next Generation Indie Book Awards in 2016.

2014Sierra College Veterans Center Chosen to be the hub for Veterans for an eight-county Small Business Development Center region. Small business development centers provide business counseling services to small business owners—counseling that is critical to driving success in new and existing business ventures.

Sierra College Internship Program Awarded the 2014 College of the Year From the CA Internship and Work Experience Association (CIWEA)

2015Sacramento State began offering classes on the Sierra College

Five upper-division courses are offered at Sierra's Rocklin campus as part of a growing partnership between Sierra College and Sacramento State.

2015Hacker Lab opens

Sierra College brought Hacker Lab, a co-working and maker space open to the Rocklin community.

201680th anniversary

2016Natural History Museum Ranked in the 30 Most Amazing Higher Ed Natural History Museums

Museum has been ranked 26th in the top 30 higher education natural history museums in the nation. As stated in the article: “A natural history museum exhibits natural history such as animals, plants, ecosystems, geography, paleontology, and climatology. Some museums feature natural-history collections in addition to others, for example, those related to art and science. These museums are truly places where wonder meets science, and they allow us to marvel at our complexly beautiful planet.”

2016Men's Swimming and Diving team wins State Championship

2016Nevada County Campus celebrates 20 years

2016First-Ever AFA CyberCamp At Sierra College Nevada County Campus

Sierra College is one of the distinguished organizations across the United States selected to participate in the second season of the Air Force Association’s (AFA) CyberCamp Program.

2016Sierra Alum, Alex Obert, Named To US Men’s Olympic Water Polo Team. Obert tallied two goals in 2016 Olympic Games in Rio de Janeiro, Brazil.

2016Rocklin Mini Maker Faire and Sierra Celebration

8000 community members attended Rocklin Mini Maker Faire and Sierra Celebration at Rocklin Campus

2016The Sierra College Press published King Sequoia: The Tree That Inspired a Nation, Created Our National Park System, and Changed the Way We Think about Nature by William Tweed

2016Women's Golf team wins State Championship

Rocklin Road East of 1-80 General Development Plan (1999)

ORDINANCE NO. 820

ORDINANCE OF THE CITY COUNCIL OF THE CITY
OF ROCKLIN APPROVING AN AMENDMENT TO THE
ROCKLIN ROAD GENERAL DEVELOPMENT PLAN AND A REZONING
FROM PLANNED DEVELOPMENT COMMERCIAL (PD-C)
TO PLANNED DEVELOPMENT RESIDENTIAL 13 UNITS PER ACRE (PD-13)
(Emerald Oaks/PDG-99-08, Z-99-01)

The City Council of the City of Rocklin does ordain as follows:

Section 1. The City Council of the City of Rocklin finds and determines that:

A. A mitigated negative declaration of environmental impacts for this project has been certified.

B. The proposed general development plan amendment and proposed zoning are being considered concurrently with an amendment to the General Plan land use element (GPA-99-01) which would designate the site as Medium High Density Residential, and is made conditional on approval of the GPA-99-01.

C. The proposed general development plan amendment and zoning is consistent with and implements the policies of the City of Rocklin's General Plan, including the Housing Element.

D. The proposed area is physically suited to the uses authorized by the general development plan amendment.

E. The general development plan amendment and proposed zoning is compatible with the land uses existing and permitted on the properties in the vicinity.

F. The land uses, and their density and intensity, allowed by the proposed general development plan amendment and in the proposed zone are not likely to create serious health problems or create nuisances on properties in the vicinity.

G. The City Council has considered the effect of the proposed general development plan amendment and of the proposed zoning on the housing needs of the region and has balanced those needs against the public service needs of its residents and available fiscal and environmental resources.

Section 2. The City Council of the City of Rocklin hereby approves the amendment to the general development plan and rezoning of the properties as shown on Exhibit A attached hereto and incorporated by reference herein, from Planned Development Commercial (PD-C) to Planned Development Residential 13 units per acre (PD-13) subject to approval of GPA-99-01.

Section 3. Within 15 days of the passage of this ordinance, the City Clerk shall cause the full text of the ordinance, with the names of those City Council members voting for and against the ordinance, to be published in the Placer Herald. In lieu of publishing the full text of the ordinance, the City Clerk, if so directed by the City Attorney and within 15 days, shall cause a summary of the ordinance, prepared by the City Attorney and with the names of the City Council members voting for and against the ordinance, to be published in the Placer Herald, and shall post in the office of the City Clerk a certified copy of the full text of the ordinance, along with the names of those City Council members voting for and against the ordinance. The publication of a summary of the ordinance in lieu of the full text of the ordinance is authorized only where the requirements of Government Code section 36933(c)(1) are met.

PASSED AND ADOPTED this 14th day December, 1999, by the following roll call vote:

AYES:	Councilmembers:	Lund, Yorde, Cullivan, Magnuson, Hill
NOES:	Councilmembers:	None
ABSENT:	Councilmembers:	None
ABSTAIN:	Councilmembers:	None

Peter Hill, Mayor

ATTEST:

City Clerk

First Reading : 11/23/99
Second Reading: 12/14/99
Effective Date: 1/14/2000

SLZ/gb
e:\clerk\ord\pdg9908 z9901 ordinance

EXHIBIT A

GENERAL DEVELOPMENT PLAN
ROCKLIN ROAD EAST OF I-80
(PDG-97-02, PDG-99-08)

PURPOSE

The area of the Rocklin Road frontage east of I-80 is subject to unique land use compatibility issues due to its proximity to Sierra Community College, the topography, and the mix of existing uses.

This General Development Plan addresses compatibility of new uses with Sierra Community College and the existing residential uses through limiting uses to compatible or potentially compatible uses, and through limits on hours of operation of certain uses.

1. MAP

The map of the areas covered by General Development Plan PDG 97-02 is attached and labeled Exhibit A. The area is divided into three sub-areas, as follows:

Area 1: West of Aguilar Road to I-80
Area 2: Aguilar Road to Schatz Lane
Area 3: Schatz Lane to the eastern boundary of the PD-C zone

2. USE AND DEVELOPMENT STANDARDS

The use and development standards of Rocklin Municipal Code Chapter 17.46 C-2 zone shall apply in the areas covered by General Development Plan PDG 97-02 with two exceptions: 1) that Sec. 17.46.010 permitted uses and Sec. 17.46.020 conditional uses shall not apply in Area 2, but rather the permitted and conditional uses shall be as specified in Section 5 of this General Development Plan below and 2) that the use and development standards specified in Section 6 of this General Development Plan, below, shall apply in the PD-13 zone within Area 3.

3. INTERPRETATION

All provisions of the Rocklin Municipal Code Title 17 (Zoning Ordinance) shall apply to this project unless otherwise specified in this General Development Plan.

4. AREA 1 USES – PD-C ZONE

The Community Development Director may determine certain uses or activities which are not explicitly stated in chapter 17.46 of the Rocklin Municipal Code to be permitted or conditional uses, provided the use or activity has characteristics which are similar to one of the uses listed in Chapter 17.46.

5. AREA 2 USES – PD-C ZONE

a. Permitted Uses – Area 2

1. Banks
2. Bookstore and periodical store, except that adult/sex oriented book and periodical stores shall be regulated by Section 17.79.020 of the Rocklin Municipal Code.
3. Churches
4. Coin-operated laundry or pick-up station for laundry or dry cleaner
5. Personal services, including but not limited to, beauty salons and barber shops
6. Pet Shop/Grooming Services
7. Plant Nursery/Flower shop – indoor only
8. Offices and clinics
9. Radio and/or television repair
10. Restaurant, coffee shop
11. Retail sales
12. Retail food store, defined as follows:
"A small retail food or specialty food store having not more than three thousand square feet of floor area. This store may not include the sale of gasoline, the sale of hard liquors, or arcade or pinball type games."
13. The Community Development Director may determine certain uses or activities which are not explicitly stated above to be permitted uses, provided the use or activity has characteristics which are similar to one of the uses listed above.

b. Conditional Uses – Area 2

The following uses are permitted in Area 2 subject to the issuance of a conditional use permit:

1. Any permitted use with outside sales, display or outdoor storage
2. Any use operating between the hours of 11:00 p.m. and 6:00 a.m..

3. Theaters, except that adult/sex-oriented motion picture theaters shall be regulated by Section 17.79.020 of the Rocklin Municipal Code.
4. Commercial cluster complex
5. Day care center
6. Schools
7. Veterinary clinic
8. Mobile pushcart vending facility
9. Exercise or athletic club; figure salon
10. Massage parlor
11. Hotels/motels/lodging
12. Restaurant and food service establishments serving alcohol
13. Dry cleaners with dry-cleaning performed on site
14. Public utility uses entirely contained within a building.
15. The Community Development Director may determine certain uses or activities which are not explicitly stated above to be conditionally permitted uses, provided the use or activity has characteristics which are similar to one of the uses listed above.

c. Prohibited Uses – Area 2

The following uses are prohibited in Area 2:

1. Auto and marine related sales and services
2. Service stations or gas stations
3. Auto repair
4. Billiard Parlors
5. Bowling alleys
6. Liquor stores
7. Convenience stores
8. Drive-through restaurants
9. Public utility uses not entirely contained within a building, including equipment yards, storage yards, warehouses, or repair shops

6. AREA 3 USE AND DEVELOPMENT STANDARDS - PD-C ZONE

The Community Development Director may determine certain uses or activities which are not explicitly in Chapter 17.46 of the Rocklin Municipal Code to be permitted or conditional uses, provided the use or activity has characteristics which are similar to one of the uses listed in Chapter 17.46.

7. AREA USE AND DEVELOPMENT STANDARDS – PD-13 ZONE

a. Permitted Uses – Area 3 PD-13 Zone

No uses are permitted in the Area 3 PD-13 zone without issuance of a conditional use permit.

b. Conditional Uses – Area 3 PD-13 Zone

The following uses are permitted in the Area 3 PD-13 zone subject to the issuance of a conditional use permit:

1. Apartments, townhouses, condominiums (for residential use, including cluster developments);

2. Accessory buildings subject to regulations in section 17.08.090;

3. Accessory uses subject to regulation in Section 17.08.100.

b. Height regulations.

The height regulations shall be those set forth in the R-3 Zone (Chapter 17.40.020 of the Zoning Ordinance) as amended.

c. Lot Area

The lot area regulations shall be those set forth in the R-3 Zone (Chapter 17.40.030 of the Zoning Ordinance) as amended.

d. Lot area per family unit.

The minimum lot area per family unit regulations shall be 3,500 square feet, or 1,050 square feet for individual condominium type lots.

e. Density.

The maximum number of units per acre shall be 13 units per acre.

f. Lot coverage.

The maximum lot coverage by all structures and buildings shall not exceed sixty percent of the lot area.

g. Lot width.

The lot width regulations shall be those set forth in the R-3 Zone (Chapter 17.40.060 of the Zoning Ordinance) as amended.

h. Setbacks.

1. Front. There shall be a front setback of not less than twenty feet.

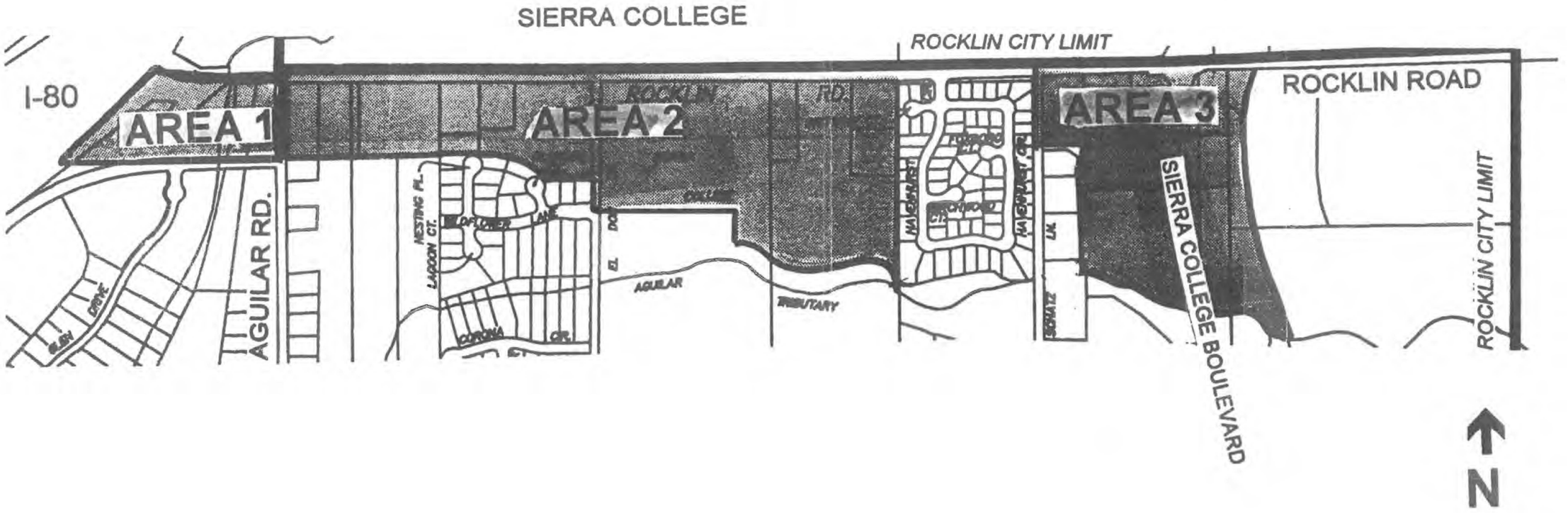
2. Rear. There shall be a rear setback of not less than fifteen feet.

3. Interior Side. There shall be an interior side setback of not less than ten feet. For accessory structures not exceeding fourteen feet in height, there shall be an interior side setback of not less than three feet.

4. Street Side. There shall be an street side setback of not less than fifteen feet.

5. Specified Streets. Front, side, street side, or rear setbacks required for lots abutting a highway or street for which rights-of-way are established by the circulation element of the general plan shall be measured from the adopted plan line or the property line, whichever provides the greater setback.

FILE NO. PDG-97-02



ROCKLIN ROAD GENERAL DEVELOPMENT PLAN
PDG-97-02

ORDINANCE NO. 993

ORDINANCE OF THE CITY COUNCIL OF THE CITY OF ROCKLIN
APPROVING AN AMENDMENT TO THE ROCKLIN ROAD EAST OF I-80
GENERAL DEVELOPMENT PLAN, ORDINANCE 820,
TO REZONE A 10.19-ACRE SITE FROM PLANNED DEVELOPMENT-COMMERCIAL (PD-C)
TO PLANNED DEVELOPMENT-20 DWELLING UNITS PER ACRE (PD-20)

(Rocklin Road East of I-80 / PDG-99-08A & Sierra College Apartments / Z-2012-04)

The City Council of the City of Rocklin does ordain as follows:

Section 1. The City Council of the City of Rocklin finds and determines that:

A. The proposed general development plan amendment and rezone of an approximately 10.19-acre site (APNs 045-160-063, 045-160-064 and 045-160-065) is consistent with the General Plan Amendment (GPA-2012-05) being processed concurrently. The proposed Rocklin Road East of I-80 General Development Plan Amendment would establish land uses and development criteria for the proposed zoning designation.

B. A Notice of Exemption has been approved for this project via City Council Resolution No. 2013-75.

C. The proposed general development plan amendment and rezoning are consistent with and implement the policies of the City of Rocklin's General Plan, including the Housing Element.

D. The area is physically suited to the uses authorized in the proposed general development plan amendment and rezoning.

E. The proposed general development plan amendment and rezoning are compatible with the land uses existing and permitted on the properties in the vicinity.

F. The land uses, and their density and intensity, allowed in the proposed general development plan amendment and rezoning are not likely to create serious health problems or create nuisances on properties in the vicinity.

G. The City Council has considered the effect of the proposed general development plan amendment and rezoning on the housing needs of the region and has balanced those needs against the public service needs of its residents and available fiscal and environmental resources.

Section 2. The City Council of the City of Rocklin hereby approves the general development plan amendment and rezoning as shown on Exhibit A, attached hereto and incorporated by reference herein.

Section 3. The City Council of the City of Rocklin hereby approves an amendment to the East of I-80 General Development Plan as set forth in Exhibit B, attached hereto and incorporated herein.

Section 4. Within 15 days of the passage of this ordinance, the City Clerk shall cause the full text of the ordinance, with the names of those City Council members voting for and against the ordinance, to be published in the Placer Herald. In lieu of publishing the full text of the ordinance, the City Clerk, if so directed by the City Attorney and within 15 days, shall cause a summary of the ordinance, prepared by the City Attorney and with the names of the City Council members voting for and against the ordinance, to be published in the Placer Herald, and shall post in the office of the City Clerk a certified copy of the full text of the ordinance, along with the names of those City Council members voting for and against the ordinance. The publication of a summary of the ordinance in lieu of the full text of the ordinance is authorized only where the requirements of Government Code section 36933(c)(1) are met.

INTRODUCED at a regular meeting of the City Council of the City of Rocklin held on April 23, 2013, by the following vote:

AYES:	Councilmembers:	Yuill, Butler, Janda, Magnuson, Ruslin
NOES:	Councilmembers:	None
ABSENT:	Councilmembers:	None
ABSTAIN:	Councilmembers:	None

PASSED AND ADOPTED at a regular meeting of the City Council of the City of Rocklin held on May 14, 2013, by the following vote:

AYES:	Councilmembers:	Magnuson, Yuill, Butler, Janda, Ruslin
NOES:	Councilmembers:	None
ABSENT:	Councilmembers:	None
ABSTAIN:	Councilmembers:	None

Diana L. Ruslin

Diana L. Ruslin, Mayor

ATTEST:

Barbara Ivanusich

Barbara Ivanusich, City Clerk

First Reading: 4/23/13
Second Reading: 5/14/13
Effective Date: 6/14/13

EXHIBIT A

Map of Existing and Proposed General Development Plan / Zoning

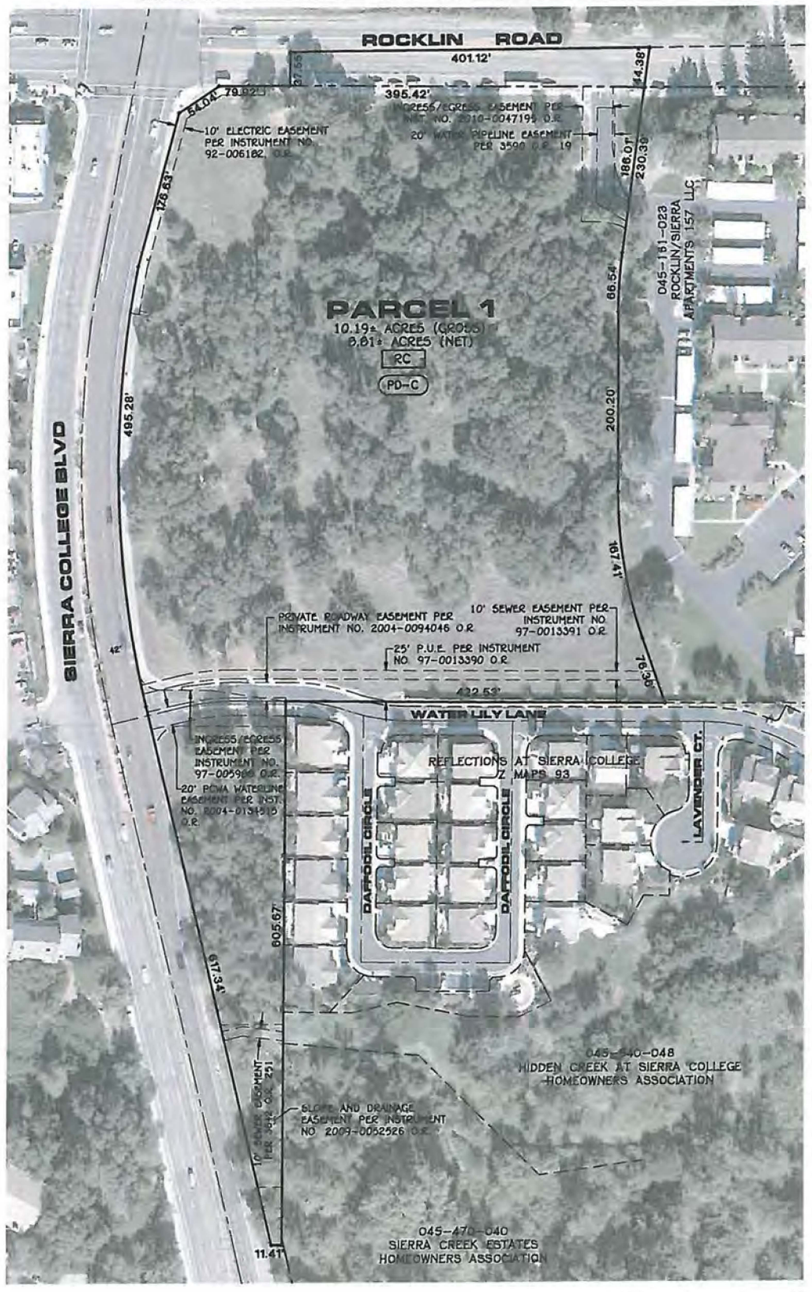
REZONE EXHIBIT FOR:

SIERRA COLLEGE APARTMENTS

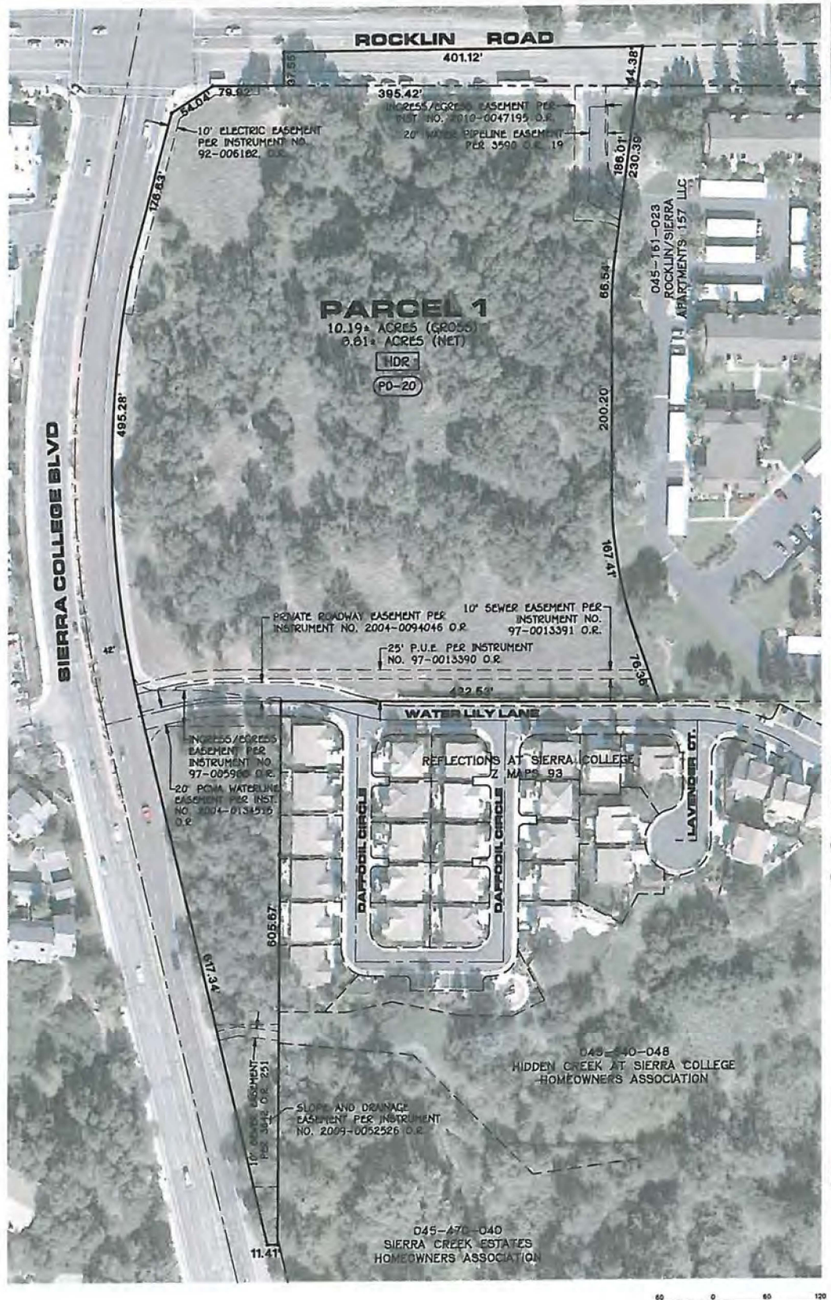
SIERRA COLLEGE BOULEVARD

CITY OF ROCKLIN CALIFORNIA

EXISTING GENERAL PLAN DESIGNATION AND ZONING

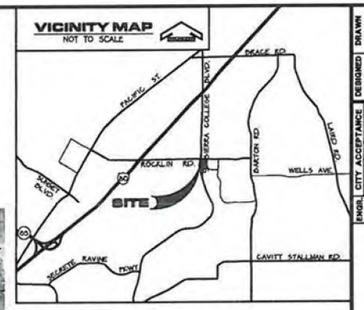


PROPOSED GENERAL PLAN DESIGNATION AND ZONING



VICINITY MAP

NOT TO SCALE



GENERAL NOTES

ASSESSORS PARCEL NUMBER	045-161-014, 045-161-015, 045-161-016
EXISTING GP DESIGNATION	RC
PROPOSED GP DESIGNATION	HDR
EX. GENERAL DEVELOPMENT PLAN	ROCKLIN ROAD GENERAL DEVELOPMENT PLAN
EXISTING ZONING	PD-C
PROPOSED ZONING	PD-20
OWNER	RICHARD J. RESCH AND MELBA L. RESCH, HUSBAND AND WIFE, AS COMMUNITY PROPERTY 1735 ARDEN WAY, SUITE 100 SACRAMENTO, CA 95815 ATTN: RICHARD RESCH PH. (916) 923-1908
ENGINEER	BURRELL CONSULTING GROUP 1001 ENTERPRISE WAY, SUITE 100 ROSEVILLE, CA. 95678 ATTN: JIM KOO, PLS PH. (916) 783-8890
UTILITY DISTRICTS	
SEWER	SOUTH PLACER MUNICIPAL
ELECTRIC	PACIFIC GAS & ELECTRIC
GAS	PACIFIC GAS & ELECTRIC
TELEPHONE	SURewest TELEPHONE
DRAINAGE	CITY OF ROCKLIN
WATER	PLACER COUNTY WATER AGENCY
NUMBER OF EXISTING LOTS	1
NUMBER OF PROPOSED LOTS	1
GROSS ACREAGE	10.19± ACRES
NET ACREAGE	8.81± ACRES

THIS REZONE EXHIBIT IS A GRAPHIC REPRESENTATION OF THE SUBJECT SITE. THE LOCATION OF THE PROPERTY LINES HAVE NOT BEEN DETERMINED AT THIS TIME. PROPERTY LINE DIMENSIONS SHOWN HEREON ARE APPROXIMATE ONLY AND MAY BE SUBJECT TO CHANGE ONCE A FINAL BOUNDARY SURVEY IS COMPLETED.

LEGEND

RC	RETAIL COMMERCIAL
HDR	HIGH DENSITY RESIDENTIAL
PD-C	PLANNED DEVELOPMENT COMMERCIAL
PD-20	PLANNED DEVELOPMENT MULTI-FAMILY DEVELOPMENT 20 UNITS/ACRE

NOTES

1. ALL KNOWN EASEMENTS HAVE BEEN PLOTTED AND ACCOUNTED FOR HEREON.
2. THIS SURVEY IS BASED ON INFORMATION OBTAINED FROM A PRELIMINARY TITLE REPORT PREPARED BY PLACER TITLE COMPANY, ORDER NO. 404-9241, DATED JUNE 18, 2012.

EXHIBIT A

FILE NO. Z-2012-04

DW

DESIGNED BY: JCK
DRAWN BY: JCK
CHECKED BY: JM
SCALE: HORIZ. 1"=60' VERT. N/A

ENGR. SHEET	CITY ACCEPTANCE BY	DATE	DESCRIPTION	REV. NO.
			1. ADDED GENERAL DEVELOPMENT PLAN DESIGNATION & REVISED TEXTS OVER AERIAL PHOTO	1

ELEVATION BENCHMARK INFORMATION
DESCRIPTION: UNKNOWN

BURRELL CONSULTING GROUP, INC.
1001 Enterprise Way, Suite 100 Roseville, CA. 95678 (916) 783-8890

SITE EXHIBIT MAP FOR
SIERRA COLLEGE APARTMENTS
SIERRA COLLEGE BLVD. AND ROCKLIN RD.
SITE EXHIBIT MAP
CITY OF ROCKLIN CALIFORNIA

SHEET 1 OF 1 SHEETS

JOB NO. 1602-00-1022

S:\Proj\1602\Survey\Exhibits\1602-624 Exhibits.dwg, 02/25/13 12:54:09pm, Jose

APPROVED

April 23, 2013 DW

RECOMMENDED BY PLANNING COMMISSION
FOR APPROVAL ON March 5, 2013 DW

EXHIBIT B

The Rocklin Road East of I-80 General Development Plan is hereby amended to add the following section:

8. AREA 3 USE AND DEVELOPMENT STANDARDS – PD-20 ZONE

a. Permitted Uses – Area 3 PD-20 Zone

The following uses are permitted in the Area 3 PD-20

1. Apartments, townhouses, condominiums (for residential use, including cluster developments)
2. Accessory structures and uses (subject to regulations in Zoning Ordinance Chapter 17.08.090 and 17.08.100)
3. Schools, public elementary and secondary
4. Triplexes

b. Conditional Uses – Area 3 PD-20 Zone

The following uses are permitted in the Area 3 PD-20 zone subject to the issuance of a conditional use permit:

1. Community Care Facilities/ Residential Facilities
2. Day Care Facilities

c. Height Restrictions

1. Maximum number of stories shall be 3.
2. Maximum principle building height shall be 35 feet.
3. Maximum accessory building height shall be 14 feet.

d. Lot Area

The minimum lot area shall be 5.0 acres (for apartments, townhouses, and condominiums only).

e. Density

The minimum number of units per acre shall be 20 units per acre.

f. Lot Coverage

The maximum lot coverage by all structures and buildings shall not exceed sixty (60) percent of the lot area.

g. Setbacks

1. 6 lane arterial. There shall be a setback of not less than 20 feet.
2. 4 lane arterial. There shall be a setback of not less than 20 feet.
3. Multi Family. There shall be a setback of not less than 15 feet.
4. Single Family. There shall be a setback of not less than 20 feet.
5. For accessory structures not exceeding 14 feet in height, there shall be an interior side setback or rear setback of not less than 10 feet.
6. Off Street Parking. There shall be a setback of not less than 25 feet.
7. Specified Streets. Front, side, street side, or rear setbacks required for lots abutting a highway or street for which rights-of-way are established by the Circulation Element of the General Plan shall be measured from the adopted plan line or the property line, whichever provides the greater setback.

h. Fencing

Open type fencing, a minimum of 4 feet in height, shall be incorporated into the project when multi-family units front along a public road. The purpose of the fencing is to discourage residents from using the public road for on-street parking. The fence shall be sited parallel to the public roadway, with a minimum 5 feet setback.

i. Landscaping

Landscaping shall be required in all multi-family residential projects and granite boulders shall be incorporated into landscaped areas.

ORDINANCE NO. 857

ORDINANCE OF THE CITY COUNCIL OF THE CITY OF ROCKLIN APPROVING A PREZONING TO PLANNED DEVELOPMENT (PD) AND ADOPTING A GENERAL DEVELOPMENT PLAN (Sierra College Area / Z-2001-03; PDG-2001-09)

The City Council of the City of Rocklin does ordain as follows:

Section 1. The City Council of the City of Rocklin finds and determines that:

A. A negative declaration of environmental impacts for this project has been approved via City Council Resolution No. 2002-176.

B. The proposed prezoning and general development plan are consistent with the City of Rocklin's General Plan land use element which designates the site as Retail Commercial, Medium Density Residential, Recreation/Conservation, and Public/Quasi-Public.

C. The proposed prezoning and general development plan are consistent with and implement the policies of the City of Rocklin's General Plan, including the Housing Element.

D. The area is physically suited to the uses authorized in the proposed prezone and general development plan.

E. The proposed prezoning and general development plan are compatible with the land uses existing and permitted on the properties in the vicinity.

F. The land uses, and their density and intensity, allowed in the proposed prezone and general development plan are not likely to create serious health problems or create nuisances on properties in the vicinity.

G. City has considered the effect of the proposed prezoning and general development plan on the housing needs of the region and has balanced those needs against the public service needs of its residents and available fiscal and environmental resources.

Section 2. The City Council of the City of Rocklin hereby approves the prezoning of the properties in the Sierra College area as shown on Exhibit A, attached hereto and incorporated by reference herein, to Planned Development (PD) and adoption of the general development plan in the form attached hereto as Exhibit B and incorporated by reference herein.

Section 3. Within 15 days of the passage of this ordinance, the City Clerk shall cause the full text of the ordinance, with the names of those City Council members voting for and against the ordinance, to be published in the Placer Herald. In lieu of publishing the full text of the ordinance, the City Clerk, if so directed by the City Attorney and within 15 days, shall cause a summary of the ordinance, prepared by the City Attorney and with the names of the City Council members voting for and against the ordinance, to be published in the Placer Herald, and shall post in the office of the City Clerk a certified copy of the full text of the ordinance, along with the names of those City Council members voting for and against the ordinance. The publication of a summary of the ordinance in lieu of the full text of the ordinance is authorized only where the requirements of Government Code section 36933(c)(1) are met.

PASSED AND ADOPTED this 25th day June, 2002, by the following roll call vote:

AYES:	Councilmembers:	Magnuson, Storey, Lund
NOES:	Councilmembers:	None
ABSENT:	Councilmembers:	Hill, Yorde
ABSTAIN:	Councilmembers:	None

Kathy Lund, Vice Mayor

ATTEST:

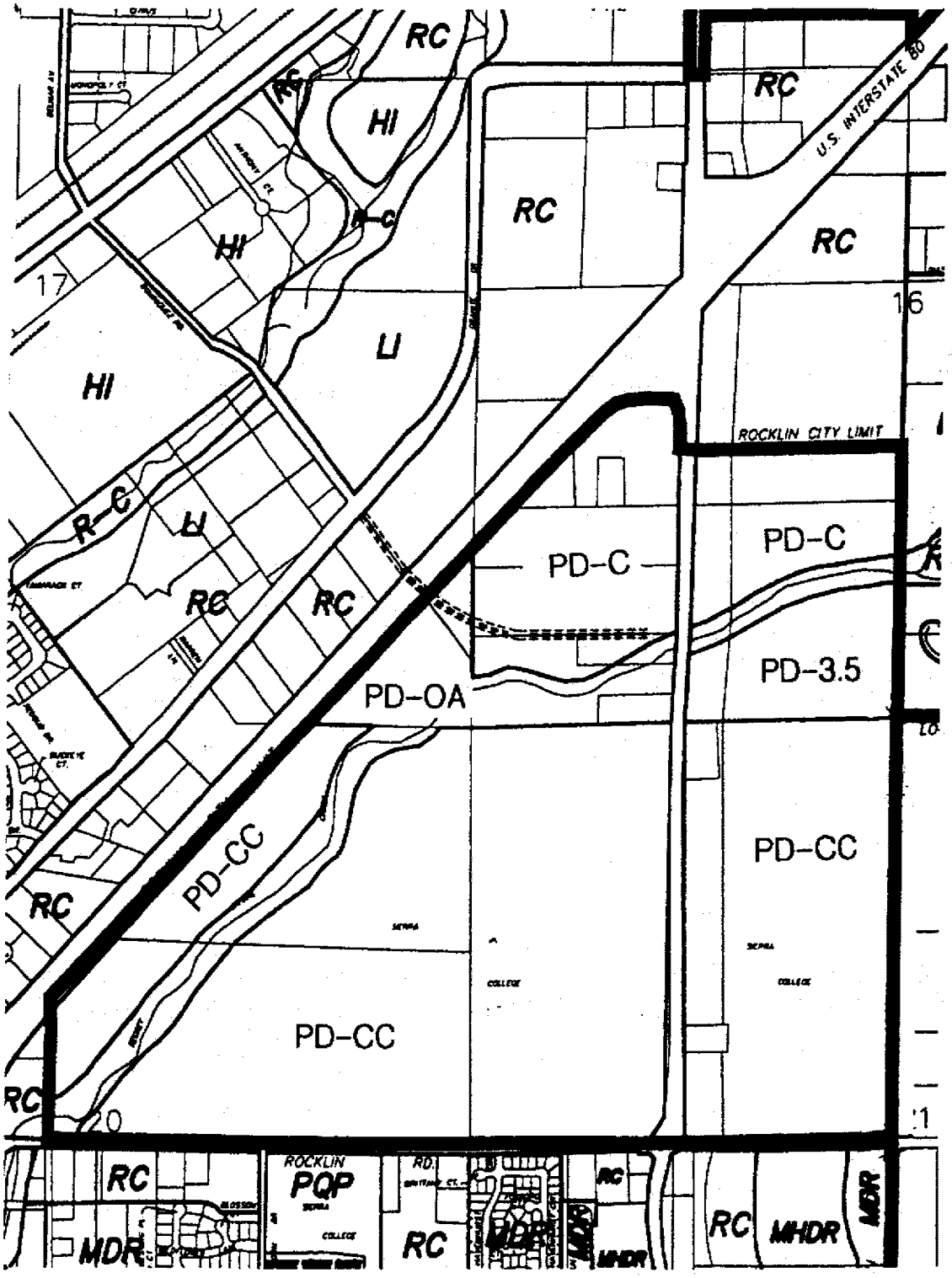
City Clerk

First Reading : 6-11-02
Second Reading: 6-25-02
Effective Date: 7-25-02

E:\clerk\ord\Sierra College Area Z-2001-03 PDG-2001-09.doc

EXHIBIT A

THE MAP OF THE PREZONING TO PLANNED DEVEOPMENT (PD)
IS ON FILE IN THE PLANNING DEPARTMENT AND WITH THE CITY CLERK.



SIERRA COLLEGE AREA ANNEXATION
PRE ZONE Z-2001-03
GENERAL DEVELOPMENT PLAN PDG-2001-09

EXHIBIT A

ANNEXATION AN-2002-01 SIERRA COLLEGE AREA EXHIBIT A

SIERRA COLLEGE ANNEXATION

TO THE CITY OF ROCKLIN
COUNTY OF PLACER, STATE OF CALIFORNIA

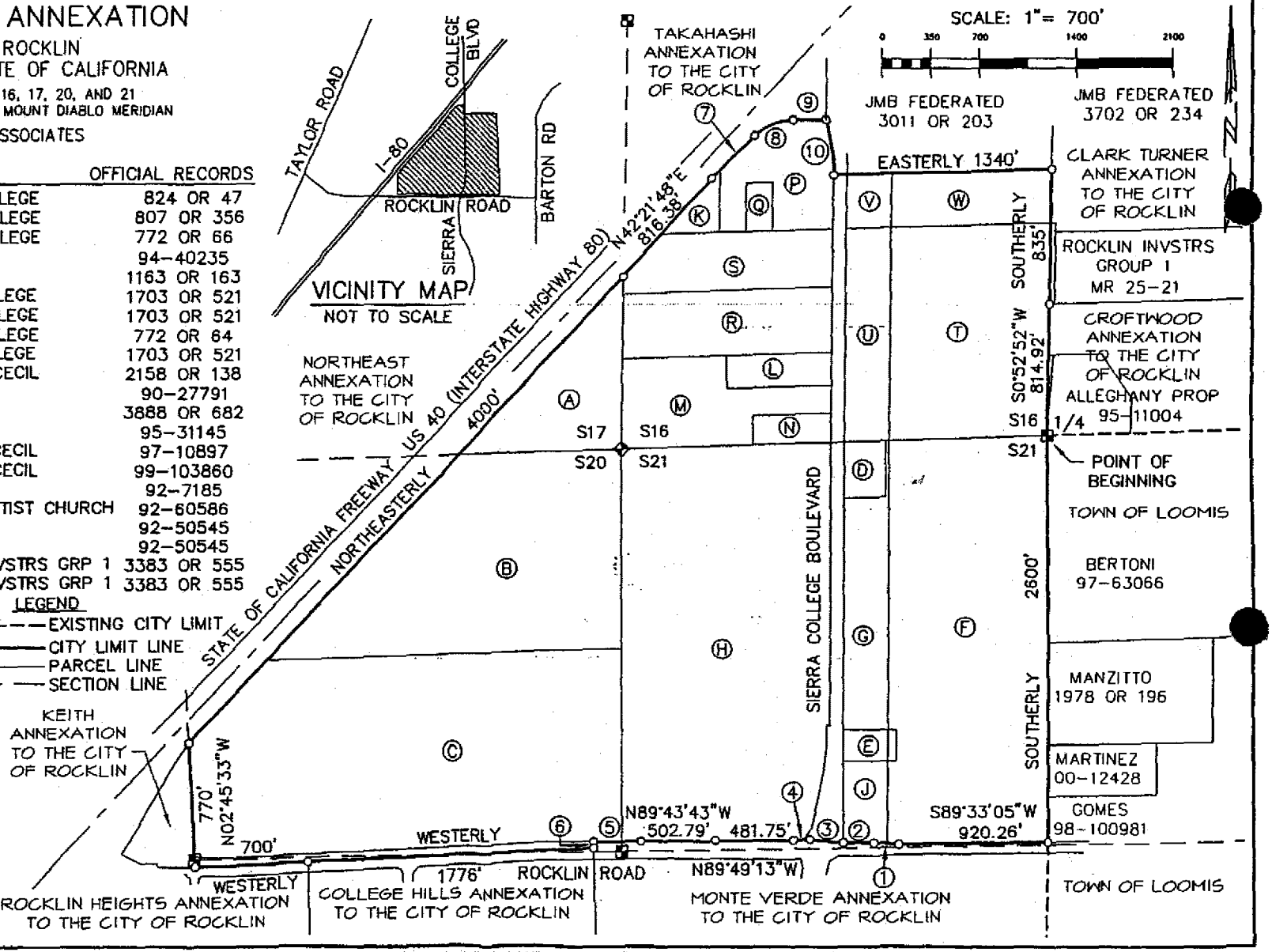
BEING A PORTION OF SECTIONS 16, 17, 20, AND 21
TOWNSHIP 11 NORTH, RANGE 7 EAST, MOUNT DIABLO MERIDIAN

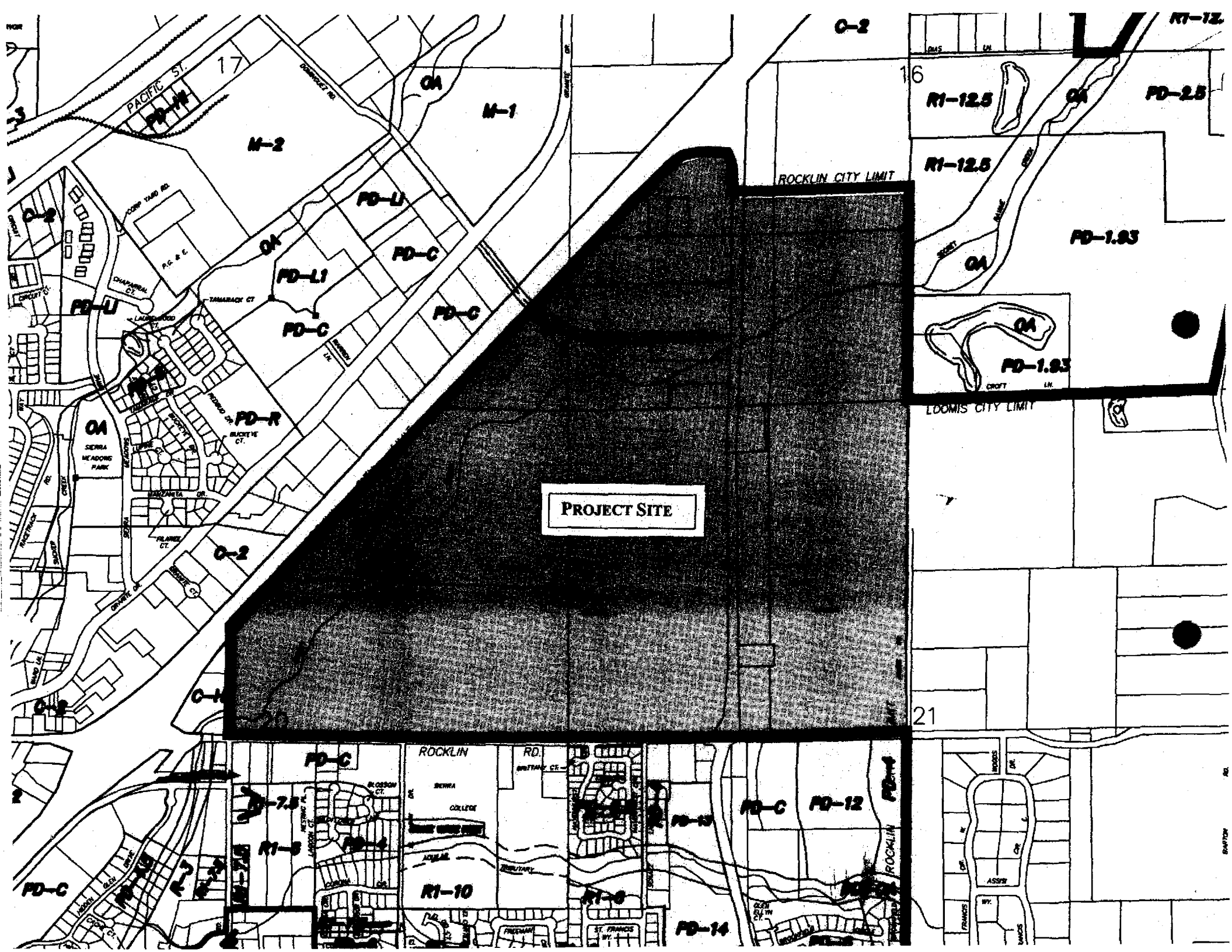
DAVID EVANS AND ASSOCIATES
ROSEVILLE, CA

CODE	APN	OWNER	OFFICIAL RECORDS
A	045-020-017	SIERRA COLLEGE	824 OR 47
B	045-080-003	SIERRA COLLEGE	807 OR 356
C	045-080-030	SIERRA COLLEGE	772 OR 66
D	045-150-009	UYEDA	94-40235
E	045-150-011	OTANI	1163 OR 163
F	045-150-023	SIERRA COLLEGE	1703 OR 521
G	045-150-024	SIERRA COLLEGE	1703 OR 521
H	045-150-037	SIERRA COLLEGE	772 OR 64
J	045-150-038	SIERRA COLLEGE	1703 OR 521
K	045-052-002	FINEGOLD, CECIL	2158 OR 138
L	045-052-010	CLOVER	90-27791
M	045-052-011	CLOVER	3888 OR 682
N	045-052-012	CUMMINGS	95-31145
P	045-052-014	FINEGOLD, CECIL	97-10897
Q	045-052-015	FINEGOLD, CECIL	99-103860
R	045-052-016	NASSI	92-7185
S	045-052-018	SIERRA BAPTIST CHURCH	92-60586
T	045-053-020	SNECCHI	92-50545
U	045-053-021	SNECCHI	92-50545
V	045-053-032	ROCKLIN INVSTRS GRP 1	3383 OR 555
W	045-053-034	ROCKLIN INVSTRS GRP 1	3383 OR 555

1	N85°38'19"W 150.33'
2	N89°27'10"W 183.56'
3	N83°59'48"W 200.33'
4	S85°16'48"W 62.91'
5	S89°23'47"W 293.56'
6	S00°37'10"W 39'
7	N45°28'21"E 376.25'
8	DELTA =43°48'00" R=345.00' L=263.74' C=N68°09'48"E 257.36'
9	S89°56'12"E 197.22'
10	SOUTHERLY 350'

LEGEND
- EXISTING CITY LIMIT
- CITY LIMIT LINE
- PARCEL LINE
- SECTION LINE




PROJECT SITE
ROCKLIN CITY LIMIT
LOOMIS CITY LIMIT
PACIFIC ST.
DOMINGUEZ RD.
COMP TWO RD.
CHAPARRAL CT.
TAMARACK CT.
LAUREL WOOD CT.
SIERRA MEADOWS PARK
SIERRA MEADOWS DR.
LUPINE CT.
BUCKEYE CT.
MANZANITA DR.
PLUMAS CT.
GRANITE DR.
ROCKLIN RD.
SIERRA COLLEGE
FREEMAN
ST. FRANCIS WY.
CROFT LN.
M-1
M-2
C-2
OA
PD-C
PD-L1
PD-R
PD-7.5
PD-10
PD-12
PD-14
PD-1.83
PD-2.5
R1-10
R1-12.5
16
17
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Sierra College Area General Development Plan (2002)

EXHIBIT B

SIERRA COLLEGE AREA

GENERAL DEVELOPMENT PLAN
PDG-2002-09

By

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Sierra College Area
General Development Plan

Table of Contents

Chapter One – Introduction

1.1 Purpose of General Development Plan

A General Development Plan is a detailed planning document that defines, in detail, the development criteria for a project area. Chapter 17.60 of the Rocklin Municipal Code establishes a Planned Development process as a "means to provide for greater flexibility in environmental design than is provided under the strict application of the zoning and subdivision ordinances." The Sierra College Area General Development Plan has been created to allow the integrated development of the 375-acre project area in a manner that will (a) promote the development of developable areas and avoid sensitive environmental areas, (b) encourage creative and innovative design by allowing flexibility in property development standards, (c) encourage the preservation of open space, and (d) accommodate various types of large scale, complex and phased development in the planning area. More specifically, the Sierra College Area General Development Plan:

1. Establishes the interrelationship between land uses within the plan area.
2. Establishes the interrelationship between land uses in the plan area and the surrounding land uses.
3. Establishes development standards such as the lot sizes, building setbacks, and height limits.

The General Development Plan will serve as the regulatory land use document for the annexation area after it is annexed into the City of Rocklin.

1.2 Interpretation

All provisions of the Rocklin Municipal Code (R.M.C.) shall apply to this project unless otherwise specified in this General Development Plan. Whenever there is a conflict between Title 17 of the R.M.C. and this General Development Plan, the provisions of the General Development Plan shall prevail.

1.3 Plan Area Location and Description

Rocklin is located in the County of Placer, about 20 miles northeast of the City of Sacramento. The Sierra College Area annexation includes approximately 375 acres located in the unincorporated portion of the County of Placer but within the

Sphere of Influence of the City of Rocklin. The existing Sierra Community College campus is located outside the western area of the City of Rocklin at 5000 Rocklin Road. The campus is composed of several parcels located on the north side of Rocklin Road and both east and west of Sierra College Boulevard. The campus encompasses approximately 275 acres of the 375-acre annexation area. The remaining 100 acres are located immediately to the north of the Sierra Community College campus, along both the easterly and westerly sides of Sierra College Boulevard.

Chapter Two – Zoning Districts and Relationship to the Rocklin Municipal Code

2.1 Zoning Districts

To encourage a more creative and flexible approach to the use of land in this planning area, the General Development Plan identifies the zoning for the Sierra College area as Planned Development (PD).

The Sierra College Area General Development Plan will utilize the following zoning categories.

PD-3.5 Residential – Three-and-one half (3.5) dwelling units to the gross acres.
Purpose: To provide for medium density single family-detached residential units, with minimum lot size of 10,000 square feet.

PD-CC Community College
Purpose: To provide for the Sierra Community College and its related residential and educational facilities.

PD-C Commercial
Purpose: To provide for a mix of retail and services to meet the needs of local residents, the college, and travelers along Interstate 80.

PD-OA Open Space
Purpose: To provide for an open space corridor along the natural drainage course.

Chapter Three – Permitted Land Uses and Development Standards

3.1 Introduction

This chapter presents information regarding permitted uses and development standards associated with the zoning districts applied in the Sierra College Area annexation. The required standards presented in this chapter are prescriptive, which means all projects must comply with them without any discretion.

3.2 PD-3.5 (Residential 3.5 dwelling units per gross acre)

3.2.1 Permitted Land Uses

The following Table outlines the permitted and conditionally permitted uses in the PD-3.5 residential district.

Table 1
Permitted and Conditionally Permitted Uses in Residential Districts

Uses	PD-3.5
Accessory uses & structure	P
Places of Assembly for Community Service*	U
Community/Residential Care	U
Day Care Facilities	U
Public Utility Buildings	U
Schools, private elementary and secondary	U
Schools, public elementary and secondary	P
Secondary residential units	U
Single family	P

P = Permitted Use U = Conditionally Permitted Use

The Community Development Director may determine certain uses or activities that are not explicitly stated above to be permitted or conditionally permitted uses provided the use or activity has characteristics that are similar to those of the uses listed above.

* ***Non-commercial places of assembly, including but not limited to, fraternal halls, churches and meeting halls.***

3.2.2 Development Standards

Single Family residential development shall meet the following minimum development standards:

Table 2
Residential Development Standards

Maximum Units Per Gross Acre:	3.5
Minimum Lot Area (Square Feet):	10,000
Minimum Lot Width (Interior):	80 feet
Minimum Lot Width (Corner):	85 feet
Setbacks:	
Front:	25 feet
Side, Interior:	10 feet
Side, Street:	10 feet
Rear:	25 feet
Along the Sierra College Blvd. Frontage	30 feet
Maximum Lot Coverage:	35 percent
Maximum Building Height:	
Principal Building:	30 feet
Accessory Building:	14 feet

1. Residential uses that are adjacent to Sierra Community College shall construct a minimum six-foot high solid masonry wall along the common property line.

2. For all locations adjoining the Sierra College Blvd. frontage, commercially zoned properties or riparian areas, buildings shall be limited to single story and slab-on-grade foundations. Multi-story or multi-level construction may be permitted if the Community Development Director determines that the design of the building precludes it from being adversely affected by noise, glare, and other impacts from the adjacent commercial site.

3.3 PD-CC (Community College)

3.3.1 Permitted Uses

All uses and facilities typically found on a community college campus are permitted. Such uses include, but are not limited to, classrooms, dormitory,

library, bookstore, and other support facilities. Uses that involve the potential to create off-site odor, dust, noise, light, vibration, traffic, or other nuisance factors, will be considered with a conditional use permit. Such uses include, but are not limited to, sports facility/stadium and performing arts theater and additions or modifications to such existing facilities that are in place upon annexation to the City.

3.3.2 Development Standards

Development on the Sierra Community College campus shall meet the following minimum development standards:

Table 3
Community College Development Standards

Maximum Units Per Gross Acre:	n/a
Minimum Lot Area (Square Feet):	n/a
Minimum Lot Width (Interior):	n/a
Minimum Lot Width (Corner):	n/a
Minimum Lot Depth:	n/a
Setbacks for Structures:	
Street*:	25 feet
Adjacent to non-campus residential property:	20 feet
Adjacent to non-campus commercial property:	10 feet
Setbacks for Parking Lot and campus roads:	
Street*:	15 feet
Adjacent to non-campus residential property:	5 feet
Adjacent to non-campus commercial property:	5 feet
Maximum Lot Coverage:	n/a
Maximum Building Height:	50 feet

*The street setbacks shall be provided along Sierra College Boulevard, Rocklin Road, and private streets that are not interior roads on the Community College campus. Setbacks are not required along interior campus roadways.

The following additional regulations shall apply:

1. All setback areas along public right-of-ways shall be landscaped, irrigated, and maintained.
2. Development by Sierra Community College is exempt from Design Review unless the proposed project requires approval of a conditional use permit pursuant to the Rocklin Municipal Code.

3.4 PD-C (Commercial)

3.4.1 Permitted Land Uses

The following Table outlines the permitted and conditionally permitted uses in the PD-C, Commercial district:

Table 4
Permitted and Conditionally Permitted Uses in Commercial District

Uses	PD-C
Automobile Service Station	U
Automotive Dealership	U
Automotive Dealership (entirely indoor without repair)	P
Automotive Repair Shop (Light)	U
Banking, Insurance, Financial	P
Beauty/barber salon	P
Broadcasting Studios	U
Business Support Services such as Copy Shops and Mailing Services	P
Car Wash	U
Places of assembly for community services	U
Coin Operated Laundry or Pick-up Station for Laundry or Dry Cleaner	P
Convenience Store	U
Convenience Store with Gasoline Sales	U
Day Care Facilities	U
Delicatessen	P
Drive-through Facilities	P
Dry cleaning Pick-up Facility	P
Gas Station	P
Liquor Store	P
Hotel/Lodging	P
Massage Parlors	U
Mobile Pushcart Vending Facility	U
Mortuary without Cremation Service	U
Offices	P

Uses (Cont'd)	PD-C
Outdoor Dining	P
Pet Shop, Grooming Services	P
Plant Nurseries (stand alone or accessory to a department store)	P
Public Utility Uses, but not including Equipment Yards, Storage Yards, Warehouses or Repair Shops.	U
Restaurant, with or without Bar	P
Restaurant Ancillary to and within Primary Use	P
Retail Sales (inside an enclosed building) except that Adult/sex-Oriented Sales Shall be Regulated by Section 17.79.020 of the Rocklin Municipal Code	P
Schools, College and University	U
Schools, Private Elementary and Secondary	U
Schools, Public Elementary and Secondary	P
Schools, Specialized Education and Training, including Trade Schools and Studios with Instructional Classes With or Without Alcohol Sales (Dance, Music, Art)	U
Sports and Recreation Facility, Exercise, Athletic Club or Figure Salons	U
Theaters (Except that Adult/sex-Oriented Motion Picture shall be Regulated by Section 17.79.020 of the Rocklin Municipal Code)	U
Uses Involving Public Address System designed to be heard outside of an enclosed building	U
Vehicle Rental Storage (Outside)	U
Veterinary Clinic	U

P = Permitted Use U = Conditionally Permitted Use

Permitted and conditionally permitted uses are subject to the following conditions and criteria:

1. The Community Development Director may determine certain uses or activities that are not explicitly stated above to be permitted or conditionally permitted uses provided the use or activity has characteristics that are similar to those of the uses listed above.
2. All permitted uses shall be conducted entirely within a building with outside storage or display prohibited.

3.4.2 Development Standards

Development in the commercial area shall meet the following minimum development standards:

Table 5
Commercial Development Standards

Maximum Units Per Gross Acre:	n/a
Minimum Lot Area (Square Feet):	n/a
Minimum Lot Width (Interior):	n/a
Minimum Lot Width (Corner):	n/a
Minimum Lot Depth:	n/a
Setbacks from: Streets: Residential property:	 15 feet 15 feet
Maximum Building Height:	40 feet

The following additional regulations shall apply:

1. The maximum permitted building height is 40 feet. A height over 40 feet may be allowed subject to approval of a Conditional Use Permit.
2. Parking and drive aisles shall be set back at least 15 feet back from the public right-of-way.
3. All building and parking lot setback areas along public right-of-ways shall be landscaped, irrigated, and maintained.

3.5 PD-OA (Open Space)

3.5.1 Permitted Land Uses

The following Table outlines the permitted and conditionally permitted uses in the PD-OA, Open Space district.

Table 6
Permitted and Conditionally Permitted Uses in Open Space Districts

Uses	**PD-OA**
Open, Natural Drainage Courses	P
Passive parks	U
Public Utility Uses, but not including equipment yards, storage yards, warehouses or repair shops	U

P = Permitted Use U = Conditionally Permitted Use

The Community Development Director may determine certain uses or activities that are not explicitly stated above to be permitted or conditionally permitted uses provided the use or activity has characteristics that are similar to those of the uses listed above.

3.5.2 Development Standards

The open space area shall be maintained in accordance with all applicable local, state or federal law.

Chapter Four – Non-Conforming Uses

4.1 Definitions

Non-Conforming Use: a use that, though lawful when commenced, is now unlawful due to change in the regulations concerning the use.

Non-Conforming Structure: a structure that, though lawful when constructed, is now unlawful due to the change in the regulations concerning the structure (i.e., parking, setbacks, and height).

4.2 Residential Non-Conforming Uses

Residential uses and structures, in a non-residential zone, which exist legally at the time of adoption of this General Development Plan, shall be considered legal non-conforming uses. The residential structures may be modified, enlarged, and maintained provided the number of dwelling units is not increased.

All new development must meet the development standards outlined in the General Development Plan and Title 17 of the Rocklin Municipal Code.

4.3 Non-residential Non-Conforming Uses

All existing commercial uses and structures in a residential zone shall be considered legal non-conforming. The structures may be maintained as necessary to protect the public health and safety. All new development must meet the requirements outlined in the General Development Plan and Title 17 of the Rocklin Municipal Code.

4.4 Placer County Conditional Use Permits

The provisions of RMC Section 17.62.030, Non-Conforming Uses and Structures /Conditional Uses Without a Permit, shall not apply to any use which was granted a conditional use permit by Placer County prior to the annexation of the area affected by this ordinance. The provisions of the conditional use permit shall be recognized and enforced by the City of Rocklin.

4.5 Restoration of Nonconforming Building

Any legal nonconforming structure, or any structure in which a legal nonconforming use existed, as defined in this Chapter Four, which is damaged or destroyed by any reason may be rebuilt or restored to the same size and character, and may continue to be used or occupied for the same purposes, as existed prior to the damage or destruction.

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Facilities Master Plan: Sierra College Rocklin Campus (Jun. 2014)

SIERRA COLLEGE

Facilities Master Plan

SIERRA COLLEGE
ROCKLIN CAMPUS
JUNE 2014

ap architects

Executive Summary

In March 2012, the Facilities Master Planning (FMP) Task Force was established to prepare a Facilities Master Plan (FMP) that illustrates the long-term vision of facility planning at the Rocklin Campus. The Task Force met on a regular basis to identify planning interests, propose ideas and ultimately recommend a FMP to the Sierra Joint Community College District's Board of Trustees for approval. It is the intent of the FMP Task Force to continue meeting periodically to maintain the integrity of the Master Plan, making revisions as necessary, ensuring that it aligns with the Education Master Plan and the Strategic Plan, and reflects the goals of the District.

The FMP Task Force is a standing subcommittee of the Strategic Council, with representatives from the Student Senate, Classified Senate, Academic Senate, and Management Senate. Members are responsible for keeping their constituent groups up to speed on the FMP development and for communicating constituents' interests and concerns to the FMP Task Force, as this is the driving force behind the success of the planning process.

While the Sierra College Rocklin Campus consists of approximately 300 acres in its entirety, the Master Plan focuses solely on the facility planning and site development of the primary 192 acres bounded by Interstate 80 (I-80), Rocklin Road and Sierra College Boulevard. The remaining 108 acres (72 acres along the east side of Sierra College Boulevard and 36 acres along the south side of Rocklin Road at El Don Drive) has been designated by the District for potential development by non-District agencies and has been excluded from the master planning process. Refer to the Appendices A and B for additional site plan information.

The general health and future outlook of the Rocklin Campus is positive. Projected enrollment growth for the next 20 to 30 years is expected to increase significantly and will either need to be accommodated on the Rocklin Campus or designated to a new off-site center; this decision will be made by the District at a future time. The FMP has been designed to allow for future growth and serve the maximum projected enrollment of the College on the Rocklin Campus.

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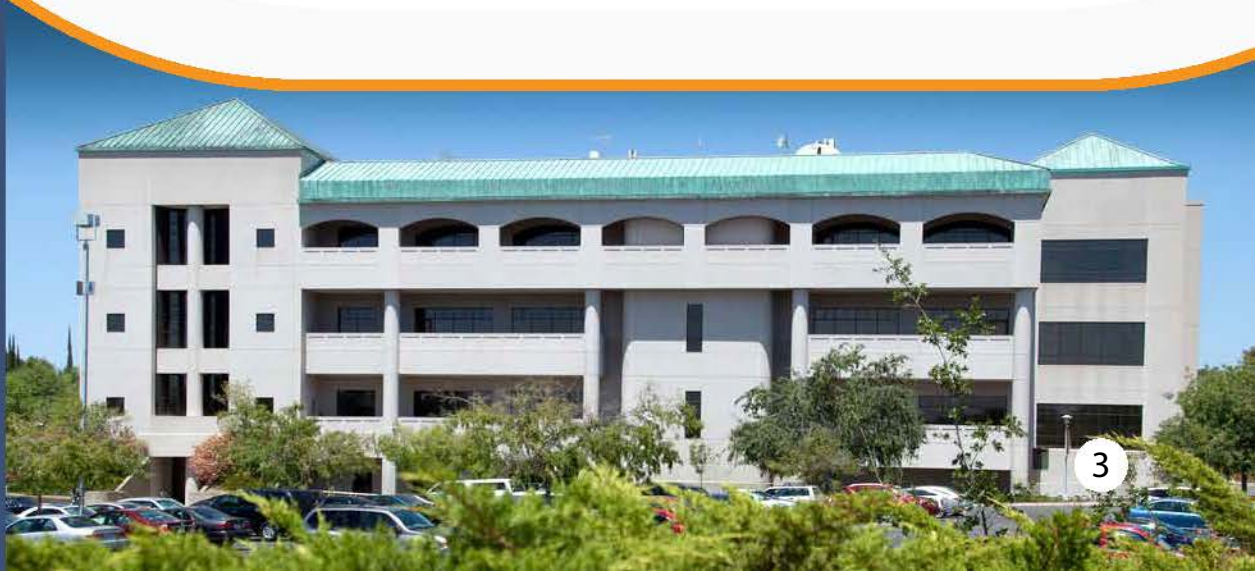


SIERRA COLLEGE

History of Campus

Sierra Normal College was initially established in the City of Auburn in 1882. In 1920, the College was abandoned due to enrollment loss caused by World War I. With an enrollment of about 100 students, the College was re-established in 1936 as Placer Junior College. Between 1935 and 1940, three buildings were constructed to serve primarily Placer Junior College, but Placer High School students shared many of the facilities, instructors and organizations with the College. Nearly 200 students were enrolled at the College in 1938, increasing to 282 students in 1939.

The momentous effects of World War I and II initially caused drastic declines in the student population. However, following World War II, enrollment increased to 467 students; nearly half were veterans. By 1949, enrollment rose to 856 students. Placer College reached full capacity in the early 1950s, rallying a search for a new campus location. The enrollment target at that time was 1,500 students. Area population continued to grow and the need for new facilities grew acute.

Placer College was renamed Sierra College in 1954. With the passing of a Placer County bond in 1957, a site selection committee determined that its present location in Rocklin was most suitable to establish the campus. The new Rocklin campus opened in 1961 with an enrollment of 1,500 students. Growth was immediate. By the end of the 1960s, Sierra College boasted 100 full-time faculty members, nine new campus buildings, and enrollment was nearly 4,000 students. New facilities were continuously constructed throughout the decade. In 1980, the College had reached a district-wide enrollment of 10,000 students. By 2013, district-wide enrollment had increased to 19,000 students with the Rocklin Campus enrolling 14,400 of those students. The district also serves students at three other areas of the district: Tahoe/Truckee area, Grass Valley area and the City of Roseville.

Existing Facility

The Sierra College Rocklin Campus consists of 42 buildings totaling more than 563,000 GSF (gross square feet) of facilities. 440,000 square feet is deemed assignable (ASF) or available for assignment to occupants for specific College use. Altogether, the buildings contain more than 1,030 rooms and 9,700 stations (student desks, instructor desks, etc.).

Nineteen of the existing buildings around campus (306,000 GSF) were constructed in the 1960s. Twelve of these buildings have been expanded and/or modernized at least once since their inception, with a majority of those renovations occurring in the 1970s. Some of the original 1960s buildings include:

- A Administration
- B Business and Technology
- C Academic
- D Music
- E Art
- F Human Development
- G Gymnasium/Lockers
- H Construction Technology/Metals
- I Agriculture
- J Campus Center/Dining
- K Bookstore
- L Winstead Hall (Student Services)
- M Academic
- N Automotive Technology
- R Greenhouses
- S Sewell Hall (Science)
- U Security/H.R./Business Services
- Yt2 Logistics
- Z Residence Halls

Following the initial phase of buildings was the construction of 185,000 GSF of new facilities, which was completed between 1971 and 1996. These buildings include:

- Ft Human Development (Expansion)
- Gt Gymnasium/Lockers (Expansion)
- LR Library/Learning Resource Center
- P Child Development Center
- Pt Child Development Center (Expansion)
- T Dietrich Theatre
- W Weaver Hall (Academic)
- X Logistics (Expansion)
- Xt Logistics (Expansion)

In addition to numerous modular buildings, the most recent building constructed on the Rocklin Campus within the last 17 years is the V-building (Math and Technology Center), completed in 2007 and featuring more than 53,000 GSF of laboratory, lecture and office space.

Seventy-five percent of the existing buildings on campus range from 17 to 53 years old. The age of each facility has made it increasingly difficult for the College to meet the maintenance demands given the growing enrollment and how often the building is used. In addition to the aged facilities, the physical room sizes and outdated infrastructure prevents instructional flexibility and opportunities for repurposing these spaces for other instructional uses.

Existing Enrollment

For clarification and consistency within the FMP, all references to student enrollment figures shall be identified as "headcount," defined as the number of students physically attending the Rocklin Campus.

Nearly 14,400 students were enrolled at the Rocklin Campus during the Fall 2013 term. For planning purposes, this does not imply that all of those students were on campus at one particular time. When considering the number of full-time and part-time students, as well as the impacts of class scheduling, it is difficult to determine the maximum number of students at the Rocklin Campus on a daily basis. One student may attend a one-hour class four days a week, another student may be on campus for eight hours two days a week. Some students may choose to stay on campus for long periods of time between classes while others leave and return. Evening classes contribute to the unknowns as these students may or may not also attend classes during the daytime hours.

Students at the Rocklin Campus are taking more units per term than the average community college student in California. According to the California Community Colleges Chancellor's Office (CCCCO) MIS Data Mart database, about 43% were enrolled full-time (12+ units per semester) and 42% were part-time (6-11 units per semester). These figures are significantly higher than the state average. The CCCCO MIS Data Mart report for the Fall 2013 term reported that only 30% of students state-wide were enrolled full-time and 33% were part-time.

With the student population stretching the boundaries of the maximum capacity of Rocklin Campus facilities, it is important for the College to utilize existing facilities effectively and efficiently. According to CCCCO standards, classroom and office space on the Rocklin Campus is adequate based on current enrollment figures. These standards fluctuate based on course offerings and how the space is used. Despite these variances, the College exhibits a significant need for additional laboratory space at the Rocklin Campus.

Education Plan Linkage

As projected in the District's Education Master Plan (EMP), population growth in both Placer and Nevada Counties is expected to continue through 2020. Placer County, particularly in the southern area, is expected to grow at a rate of 11% to over 390,000 while Nevada County is anticipated to grow at the much slower rate of 6% to over 104,000.

In response to projected population growth, the EMP addresses the assessment and planning of an off-site center to be located in Western Placer County. The decision to build such a center will directly impact the decision-making related to the facility needs of the Rocklin Campus.

The EMP also calls for resource development ideas, including the feasibility of securing local bond funding and other revenue-generating ideas, that could support facility projects.

Enrollment Projections

The Rocklin Campus is growing. The CCCCO and Sierra College Planning, Research and Resource Development Department projections confirm that growth will continue for the foreseeable future. Long term growth (20 to 30 years), while difficult to accurately predict, is planned to be in the range of 24,000 to 30,000 students, an increase of 75 to 100 percent above the Fall 2013 enrollment of 14,400 students. The Master Plan is structured to accommodate this variance in final size through the phasing and scale of the projects to be constructed at the end of the 20 year plan.

Should the District reconsider hosting 30,000 students at the Rocklin Campus, one alternative may include establishing an off-site center. This option would accommodate a portion of the additional enrollment growth and lessen the impacts to the Rocklin Campus. A second alternative may include expanding the hours of instruction to include Friday and/or Saturday. This option would increase the efficiency of campus operations by reducing the negative impacts caused during peak campus use Monday through Thursday.

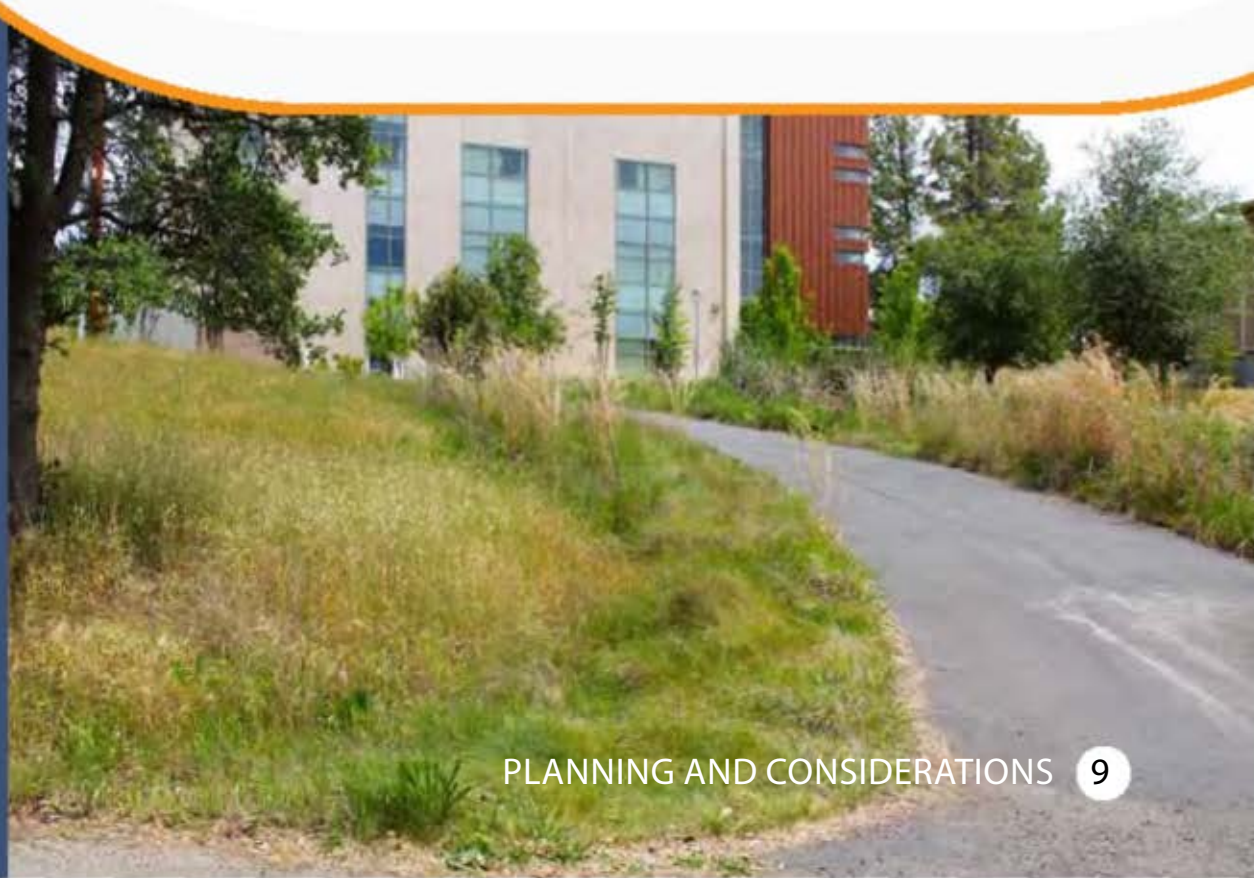
Vehicular Circulation

Most of the Rocklin Campus students and staff driving to and from the Rocklin Campus utilize Interstate 80. Two interchanges, Rocklin Road and Sierra College Boulevard, serve the campus and neighboring areas. Both interchanges are located within a mile of the campus. Since a majority of vehicles arrive from the eastbound direction of I-80, it is common practice for students to assume that the first exit, Rocklin Road, is closer to the campus and a less timely route of the two.

Rocklin Road features two lanes of traffic in each direction. While this may be suitable for the flow of everyday traffic, circulation issues at the intersections and within the perimeter roads of the campus ultimately create gridlock along Rocklin Road during peak instructional periods. When approaching the campus on Rocklin Road, left turn lanes into campus are inadequate and cannot dispense traffic quickly enough to alleviate congestion from I-80 along Rocklin Road during peak periods. A recent traffic study has found that the intersection of Rocklin Road and El Don Drive currently operates at an unacceptable level of service because of this problem.

While Sierra College Boulevard also features two lanes of traffic in each direction, the multi-lane entrance into parking lots J and K is sufficient for receiving large traffic volume during peak periods.

A meandering single lane access drive exists along the northwest edge of the developed campus and provides a one-way traffic route for staff and service vehicles. This drive serves as a natural boundary between the campus and nature area. It is utilized on a daily basis, providing primary access to instructional buildings and staff and accessible parking along the rear of the campus. Featuring one lane in width and limited clearances, the drive is not engineered to support large scale emergency service vehicles.



Parking

More than 4,380 parking spaces currently serve students, staff and faculty at the Rocklin Campus. The majority of parking is located along the perimeter of the campus, primarily at the south edge along Rocklin Road (2,300 spaces) and the northeast corner at Sierra College Boulevard (730 spaces). Several smaller parking lots are situated in the middle of campus and along the rear access drive (850 spaces).

A portion of the District-owned 36 acres at Rocklin Road and El Don Drive is currently utilized for overflow parking (500 spaces). This lot is opened on an as needed basis, typically at the beginning of each term, and is heavily used by students due to its proximity to the campus. Unfortunately, the students are forced to cross Rocklin Road at the El Don Drive intersection, lengthening the red light intervals for east and westbound traffic and further contributing to the traffic congestion in that area.

In an attempt to save time by avoiding the parking scene on campus, students also resort to parking in nearby shopping centers and residential areas. The City of Rocklin recently implemented parking restrictions in designated neighborhoods adjacent to campus and require residents to display parking permits when parking in the street.

Recent traffic studies show that parking demands at the Rocklin Campus have significantly increased since 2011. While experiencing a subtle decline in total enrollment during this period, these findings may reflect: 1) an increase in the number of students driving to campus alone; 2) a lack of or declining interest in alternative means of transportation (public transit, biking, walking, etc.); and/or 3) adjustments made to course scheduling (concentrated AM schedule). At the beginning of the Fall 2013 term, all parking areas approached capacity very quickly in the early morning hours and lessened as the day progressed.

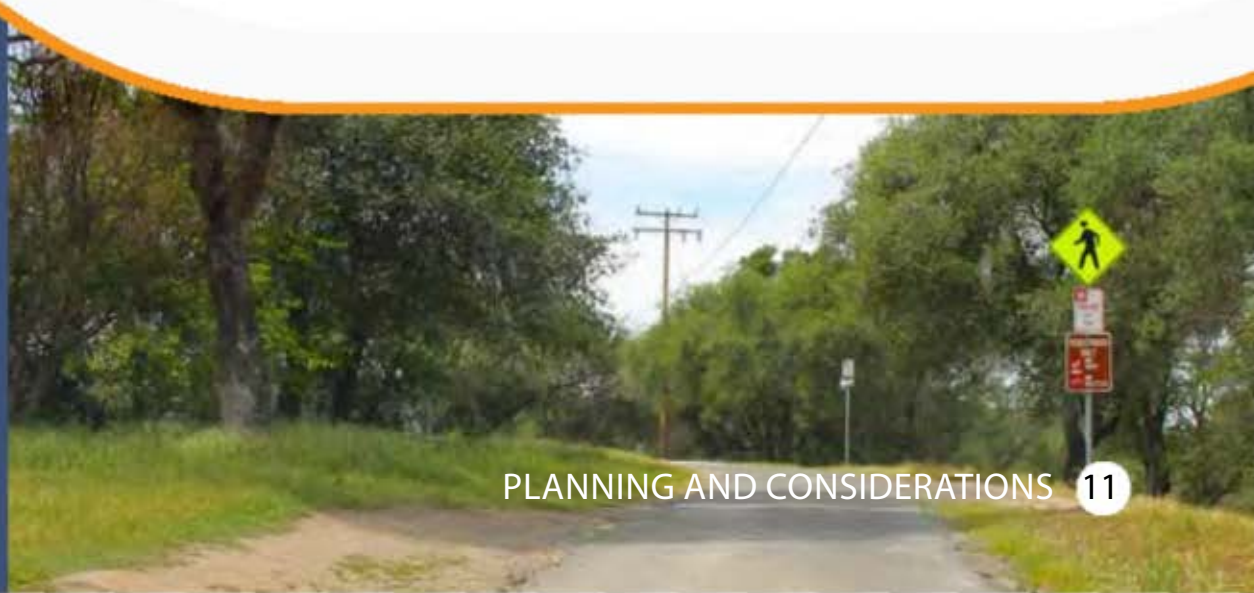
Pedestrian Circulation

The Rocklin Campus is a destination community college. With the majority of students, faculty and staff commuting from outlying communities, the campus is designed to accommodate vehicles in parking areas along the campus perimeter and allow pedestrians to filter into the campus core.

The primary pedestrian circulation issue on the campus is associated with the location of Campus Drive. Campus Drive is the main circulation road that connects the El Don Drive and Havenhurst Circle intersections at Rocklin Road. Vehicles entering and exiting the campus utilize Campus Drive to access all parking lots along the southern portion of campus. More than 1,700 students are forced to cross Campus Drive to get to campus facilities. Despite the use of clearly defined crosswalks, pedestrian traffic during peak periods creates significant vehicular congestion that poses potential safety issues to pedestrians.

A secondary issue related to pedestrian circulation involves the access drive along the nature area and internal campus walks. The campus does not clearly distinguish pedestrian versus vehicular paths, creating confusion for students. The paved internal walks on campus are primarily traveled by students, but it is common to find maintenance vehicles also utilizing those paths. The rear access drive resembles a similar feel and sense of scale as some of the larger internal campus walks, providing pedestrians with a familiar comfortable level when walking along the back of the campus. However, the drive is heavily traveled by staff and service vehicles on a daily basis. Some areas of the drive feature sharp turns, blind corners and minimal clearances, creating dangerous circumstances for pedestrians.

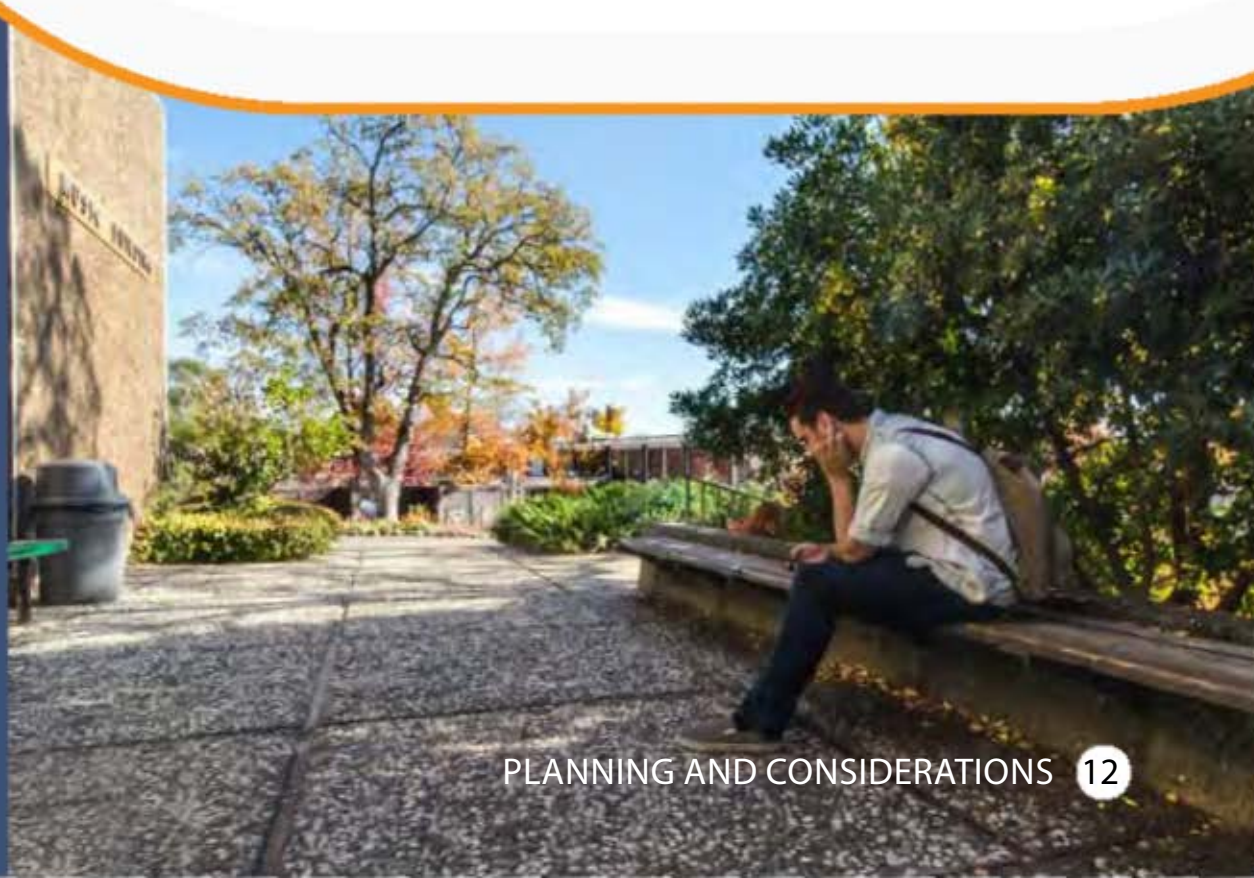
The Rocklin Campus does not provide well-defined, accessible paths of travel for pedestrians from the campus perimeter to the core of campus. Students often approach the campus from intersections along Rocklin Road, but pedestrian circulation through the parking lots to specific destinations on campus is vague and secondary to vehicular circulation.



Campus Life

Sierra College provides a vibrant learning and support setting for students taking classes on the Rocklin Campus. The College encourages a spirited campus life environment through athletics, student government and sundry student clubs to name just a few of the many extracurricular activities available to students. The natural surroundings and established landscape contribute to the higher education atmosphere, featuring a balance of open and intimate spaces throughout the campus.

One of the main considerations when developing a Master Plan is to not only maintain a campus culture that encourages and invites learning, but to enhance the out of classroom learning opportunities for future students as they pursue their higher education goals. The look and feel of the campus facilities and landscape are important components of the higher education environment and play a key role in complementing a student's collegiate experience.



Nature Area

The Rocklin Campus features approximately 90 acres of oak woodland and green space located between I-80 and the developed campus. This area is densely populated with natural vegetation, primarily oak trees, shrubs and grassland, and is home to many species of reptiles, amphibians, fish, insects and other wildlife.

A prominent element of the nature area is Secret Ravine, a perennial tributary that spans approximately 10.5 miles through surrounding communities and unincorporated portions of Placer County. The stream runs along I-80, stretching from the northeast to the southwest corners of the Rocklin Campus. This area is rich in biodiversity, as it is home to more than 900 species of plants and animals. Lists maintained by the Sierra College Biology Department include approximately 550 plant species, 220 invertebrates, 14 species of fish, 24 species of reptiles and amphibians, 33 mammals and 92 birds. Numerous eco-habitats are also featured in the nature area, including oak woodlands, grasslands, oak savannas, riparian zones, ponds, springs and vernal pools. In addition, evidence of Native American settlement, such as bedrock mortars, pestles and subterranean structures, have been found throughout the area.

The nature area is a very unique biological asset to the Rocklin Campus and a rare feature for a community college campus. Many disciplines use this outdoor space for educational purposes including Biology, Botany, Zoology, Microbiology, Environmental Studies, Geology, Geography, Anthropology, Agriculture, Physical Education, Art, Music, among others. In addition to the collegiate disciplines, this area is also used extensively by the public, as well as other school and community groups.

Instructional Space

The projected growth of the Rocklin Campus introduces a significant need for increased instructional space. The Master Plan proposes a modernization of all existing instructional facilities, as well as the construction and expansion of three new instructional buildings. The new buildings, outlined below, will be located along the inside of a new reinforced fire lane which will also serve as the primary utility corridor for the campus. Larger, multi-story buildings will provide a higher level of efficiency and decreased carbon footprint as compared to the current layout of facilities. In comparison to other buildings in the campus core, the immense scale of the new buildings will create a backdrop for the Rocklin Campus and outline the implied boundary of the developed campus. Two of the new buildings are simply identified as "instructional" due to the unknowns related to the instructional programs that will be offered once these buildings are completed.

Science Building

The Science Building project entails the construction of a new 108,000 square foot classroom laboratory building near the northeast corner of campus. The building is designed to replace the offerings of the existing Dt, I, R S, and St-buildings; these buildings will be modernized and repurposed or demolished.

Instructional Building (West)

The Instructional Building (West) project is designed to replace the existing B, C, M and Mt- buildings with a new 80,000 square foot facility featuring classrooms, labs and offices.

Instructional Building (W-Building Modernization/Expansion)

Should the District elect to maximum student enrollment at the Rocklin Campus, the Instructional Building (W-Building Modernization/Expansion) is specifically intended to accommodate the final phase of growth. The Master Plan depicts a modernization of the existing W-building and the new construction of a 60,000 square foot, three-story addition. The completed project will feature approximately 90,000 square feet of classrooms, labs and offices.

Student Services and Support Space

Student Services and Student Support spaces must be expanded to effectively serve the increased student population at the Rocklin Campus.

Student Services is currently primarily located in the L-building; however related services are also scattered throughout the campus. The Master Plan proposes locating the Student Services Department in the S-building, a prominent, highly accessible facility overlooking the campus core. Following the completion of the new Science Building, a modernization and expansion of the S-building will entail an interior and exterior modernization, including an approximately 16,000 square foot addition to the building. Upon completion, the facility will provide more than 59,000 square feet of centralized Student Services space.

Student Support spaces include the Campus Center (food services, student government, student lounge), Bookstore and Library, which are currently located in the J, K and LR-buildings, respectively. The Master Plan proposes to maintain the current location of these spaces, while modernizing and/or expanding the facilities as necessary to incorporate the enrollment growth of the Rocklin Campus.

The increase in student enrollment will require an increase in staff and faculty. Additional office space will be included in each modernization/expansion project to meet the space requirements of the College.

Physical Education and Athletics Space

Student enrollment growth will directly impact the instructional programs and supporting facilities related to Physical Education and the Athletics Departments. Existing facilities at the Rocklin Campus include a gymnasium and locker rooms (G and Gt-buildings), 25-yard lap pool, diving pool, five tennis courts and football, baseball, softball and soccer fields. The fields are very independent from each other in that there is no sense of shared space among the athletic facilities. Training, locker and team rooms are inadequate and do not currently meet the requirements of the instructional and Athletics programs.

The location of the new Science Building in the Master Plan triggers the relocation of the existing tennis and pool facilities. By shifting these elements to the southeast side of the gymnasium and near the sports fields, the Master Plan exhibits a new communal layout that clearly identifies the "field sports" component of the plan.

The G-building is the primary Athletics facility that will be expanded to accommodate new locker and training rooms, a fitness/wellness center, offices and aquatics complex. The aquatics complex includes a 50-meter pool and platform diving pool. In addition to the three-story, 20,000 square foot gymnasium expansion is the new construction of NCAA regulation-sized soccer, baseball and softball fields, as well as a tennis complex featuring 10 courts. Supporting field house and storage buildings will also be constructed with the new facilities. The football field is shown to remain in its current location with no changes made to the existing layout or capacity.

Vehicular Circulation

The Master Plan proposes significant changes along Rocklin Road and within the main parking lots to improve vehicular circulation and accommodate an increase in daily traffic volume.

To improve the flow of traffic along Rocklin Road and increase the number of vehicles entering and exiting the campus, a third intersection has been proposed between the El Don Drive and Havenhurst Circle intersections. This intersection will serve as the main entrance to the campus, greeting the public with a tree-lined boulevard leading to a circular drop-off at the core of campus. Despite the short distances between intersections, a third point of access at the perimeter of campus will offer students another option and prevent eastbound traffic from backing up along Rocklin Road between El Don Drive and I-80. The Master Plan proposes a minimum of two left-hand turn lanes into campus for eastbound cars at each of the three intersections along Rocklin Road.

Vehicles filter into campus through long driveways leading to roundabouts. Each roundabout is connected by the primary perimeter drive, which acts very similar to the existing Campus Drive. Multiple lanes in each direction allow for increased vehicle volume, with the roundabouts providing continuous flow throughout the campus parking lots. Parking will be minimized south of the perimeter drive to lessen the number of students having to cross the drive to get to campus facilities. The perimeter drive provides a continuous connection to the northeast parking structure and parking lots. Traffic studies will be required to determine the actual layout of the roundabouts, perimeter road and parking lots. The size and capacity of these will be determined by the enrollment projections of the campus.

The Master Plan also includes a new, realigned fire lane to replace the existing access drive. The new road will be engineered to support emergency service vehicles and will be constructed with natural materials (pavers, brick, stone, etc.) to soften the transition from the developed campus to the nature area. The new fire lane will provide access to College and local emergency service vehicles only.

Parking

The Master Plan features more than 5,000 parking spaces on the Rocklin Campus, an increase of nearly 1,200 spaces. All parking has been located at the perimeter of the developed campus in an effort to keep vehicular circulation away from pedestrians as much as possible. This includes the removal of all existing parking lots within the campus, along the rear access drive and the overflow parking on the 36-acre parcel.

The most significant parking improvements in the Master Plan are the parking structures, located at the northeast and southwest corners of campus. The three-story structures, as depicted in the plan, each have a capacity of approximately 1,000 vehicles. The northeast structure, Parking Structure (North), is slated to be constructed concurrently with the construction of the new Science Building. This structure will attract many students to the northeast corner of campus, balancing the traffic volume on campus and alleviating much of the current traffic congestion along Rocklin Road and Campus Drive. The southwest structure, Parking Structure (West), is intended to accommodate the final phase of enrollment growth at the end of the 20 year plan. This will be constructed concurrently with the Instructional Building (W-Building Modernization/Expansion); the final location and capacity will be determined by the projected growth and traffic volume.

With a potential enrollment of 30,000 students, the College will likely need to increase the number of parking spaces on campus if current traffic volume patterns are sustained. Other options for lessening traffic demands may include encouraging the use of public transportation services, improving local bike path routes and/or adjusting course schedules to balance the number of students on campus throughout the day.

Pedestrian Circulation

The Master Plan features pedestrian friendly paths of travel through a hierarchy of walkways and defined outdoor spaces throughout the campus.

Vehicular circulation remains in parking areas along the campus perimeter and allows pedestrians to filter into the campus core. With the relocation of the perimeter drive (formerly Campus Drive), fewer students will need to cross the drive after parking their vehicle. A traffic study will be required to clearly identify crosswalk locations and pedestrian routes in parking areas. It is important for these paths to provide direct accessibility for pedestrians to primary destinations and focal points on campus. The College is currently preparing an ADA Transition Plan that will be implemented in all phases of the Master Plan.

A variety of pedestrian walks within the developed campus are strategically located and sized to provide students and staff with a direct connection between buildings. Ranging from six to forty feet in width, the scale of the walk provides pedestrians with a certain comfort level based on the surrounding environment. For example, the large tree-lined corridor that leads from the south parking lot to the Science Building features a pair of sweeping 40 foot wide walks. While also serving as an emergency fire lane through campus, these walks are designed to receive high levels of foot traffic and effectively transfer masses of students from one area to another during peak instructional periods. In contrast, the smaller tree-lined corridor between the L and J-buildings serves as a secondary connector for students walking through campus and features a more intimate setting among the dense arrangement of buildings.

Materials should be considered when constructing accessible pedestrian paths of travel. The Master Plan reflects concrete walks throughout the campus; however, the use of natural-colored paver bricks, decomposed granite and/or textured concrete may contribute to the pedestrian comfort level. Vehicular paths should be constructed with a different material, such as asphalt paving, to differentiate their use.

By designating a new fire lane along the nature area and isolating all vehicular traffic outside of the developed campus, the Master Plan establishes a clear separation between pedestrian and vehicular circulation.

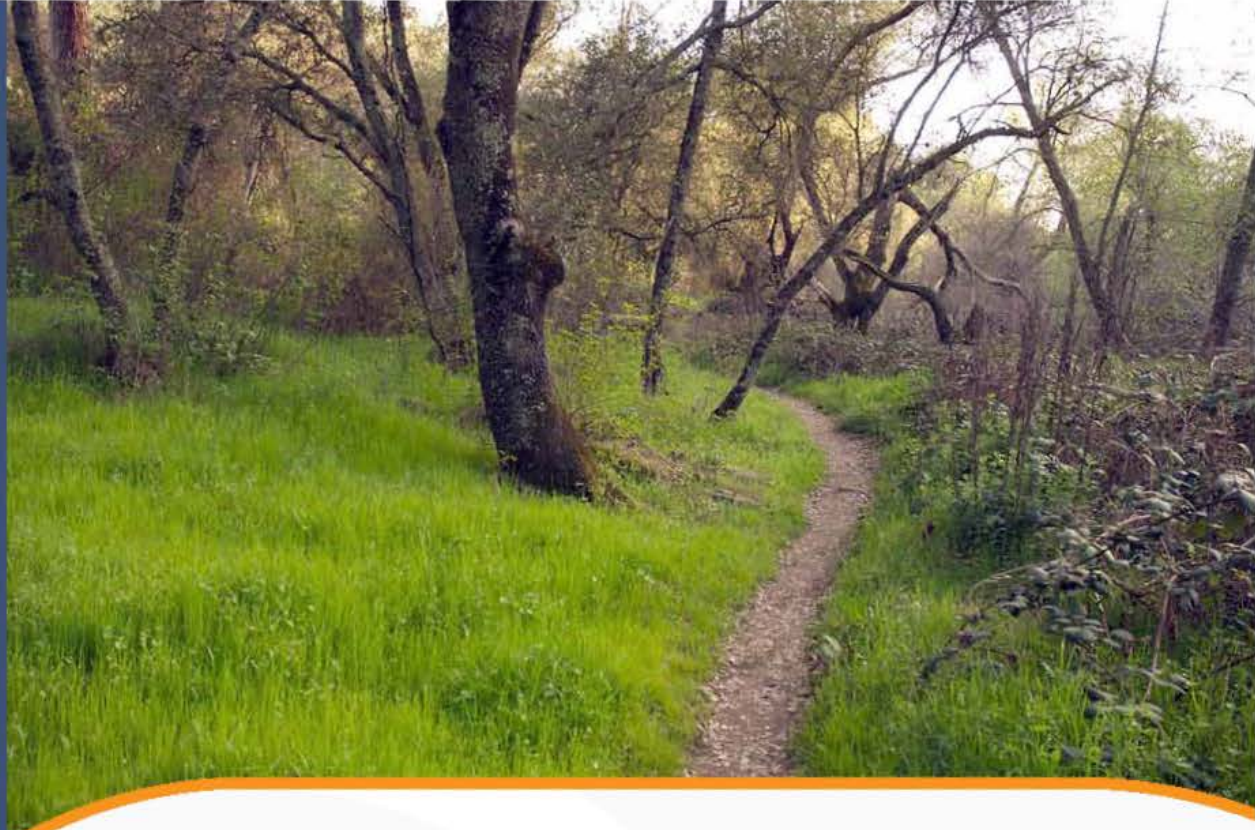
Campus Life

The Master Plan design is driven by the student experience. Working harmoniously with the vivid natural landscape of the Rocklin Campus, the strategic positioning of buildings and their relationship to the outdoor spaces around them support the College's vision of providing students with a vibrant learning environment.

The Master Plan features two distinct open spaces in the heart of the campus, both of which are accessed by the two main circular drop-offs and encourage a communal campus atmosphere. Located where the A-building currently stands, the Master Plan proposes an expansive courtyard surrounded by primary instructional and support facilities on campus - LR (Library), T (Theatre), S (Student Services), V (Math), Instructional Building (West), L (Administration) and J (Campus Center). The presence of the Instructional Building and V-building along the west side of the courtyard soften the scale of the LR-building and balance the surrounding facilities. An amphitheatre-style setting along the north side of the courtyard provides students with terraced seating overlooking green space and a centralized reflecting pool in front of the S-building. This area is designed to encourage student interaction and learning opportunities outside of the classroom. The walks and landscaping take full advantage of the natural topography, creating a flexible outdoor space that compliments the buildings that surround it.

The second open space, located south of the new Science Building and surrounded by the G (Gymnasium), N/H (Vocational), K (Bookstore), J (Campus Center) and D-buildings (Music), features tree-lined corridors and generous grass areas for student activities and special events. This type of flexible outdoor environment is beneficial for supporting the maximum student population of the Rocklin Campus. A second water feature is proposed as a focal point for the courtyard. The orientation of the walkways and landscaping accentuate the presence of the surrounding facilities and contribute to the feel of a higher education environment.

The smaller outdoor spaces between buildings are equally important to the success of the Master Plan and should be consciously designed to contribute to the College's goal of providing students with the best educational experience possible.



Nature Area

To preserve the uniqueness of the nature area, it is the desire of the FMP Task Force to minimize encroachment of new development, both in size and nature of impact, into this portion of the campus.

The proposed fire lane between the nature area and the campus core defines the limits of future expansion of the Rocklin Campus. In attempts to offset encroachment impacts of proposed facilities (i.e. Science Building, parking structures), the routing of the fire lane is intended to expand the nature area by meandering closely behind the proposed facilities. The new fire lane, as depicted in the Master Plan, is significantly closer to the campus core in many areas than the existing rear access drive.

The existing Child Development Center (CDC) (P-building) at the southwest corner of campus will be removed and a new facility will be constructed at the northeast corner. Encroachment of the new CDC facility will be minimal, as a portion of that land has recently been cleared for other purposes. Upon demolition of the existing CDC buildings, the Master Plan proposes a natural restoration of this area with a bike trail extension tying local trails into the Rocklin Campus.

An Environmental Constraints Report has been completed by the College and will be referenced throughout the implementation of the Master Plan.

Funding Plan

A majority of the proposed projects in the Master Plan are eligible for state funding through the Capital Outlay Program. This program assists community college districts by providing state funding for major capital projects, such as new construction or facility modernizations. The District is expected to contribute a share of the cost for each project. The projects included in the Master Plan are sized (in building area) and phased to achieve the highest scores when ranked by the CCCCO for funding eligibility. Of all the projects included in the Master Plan, the Campus Center modernization (J/K-buildings), Maintenance and Operations (M&O) building and parking-related projects are not eligible for state funding and must be funded entirely by the District.

The District does not currently have the funding required to implement the Master Plan and must identify additional funding sources before submitting projects through the Capital Outlay Program.

Project Phasing

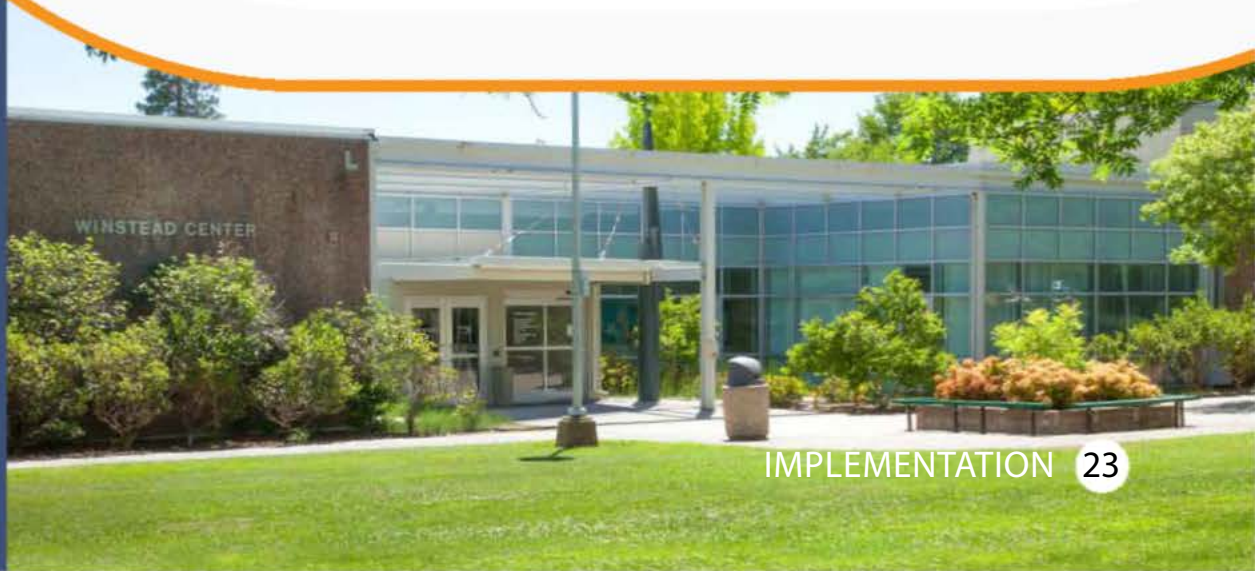
The phasing of the Master Plan is driven by funding methods, enrollment projections and the spatial needs of the Rocklin Campus. Below is a brief phasing of the Master Plan outlined in five year intervals. The priority of these projects may be adjusted in reality based on enrollment growth and the vision of the District.

Phase 1 includes the new construction of the CDC facility, Science Building and Parking Structure (North). Once completed, the I and P-buildings will be demolished and the S-building (Sewell Hall) will be vacated. Initial improvements to vehicular circulation and campus entrances/exits will also be included in this phase.

Phase 2 projects include the S-Building Modernization, Field Sports Modernization/Expansion, L-Building Modernization and G-Building Modernization. The S-building will be modernized to accommodate the Student Services Department, currently located in L-building and other locations around campus. Once vacated, the L-building (Winstead Hall) will be utilized as swing space, or temporary work space, for all remaining projects. The first tenants in the L-building will be those displaced by the modernization of the G-building. Upon completion, the L-building will be vacated. Additional improvements to vehicular and pedestrian circulation will be completed in this phase.

Phase 3 includes the D-Building Modernization, H/N-Building Modernization/Expansion and new construction of Instructional Building (West). These projects will likely be completed after one another unless additional swing space is available on campus. The L-building will once again be vacated after the completion of these projects.

Phase 4 projects include the J/K-Building Modernization/Expansion, T-Building Modernization, M&O Modernization/Expansion, L-Building Modernization, Instructional Building (W-Building Modernization/Expansion) and Parking Structure (West). A similar process to previous phases will be followed. The L-Building Modernization includes the relocation of Administration, demolition of the A-building and development of the new central courtyard and amphitheatre. The final projects in the Master Plan are the Instructional Building (W-Building Modernization/Expansion) and Parking Structure (West).



Continuing Areas for Consideration (On-Campus)

The following items were intentionally left unresolved by the Facilities Master Planning (FMP) Task Force with an expectation to revisit and further develop them in future versions of the Master Plan:

Field Sports

While the Master Plan features a concentrated area for Physical Education and athletic facilities, the layout does not meet the program requirements of the College. Flexible outdoor turf space is a key component of Physical Education curriculum and is not provided in the plan. Athletic fields and supporting facilities must also be reviewed in detail to reflect the long-term vision of the College.

Parking Structures

The Master Plan depicts two 1,000 vehicle parking structures - Parking Structure (North) and Parking Structure (West). The FMP Task Force has struggled with the location and capacity of Parking Structure (North), considering the proposed location will occupy roughly 2.5 acres of the existing oak woodland. Alternative options will be explored.

Nature Area Preservation

The FMP Task Force will revisit recommendations pertaining to the preservation of the 90 acre nature area, which includes oak woodlands, grasslands and Secret Ravine.

Rocklin Campus Enrollment Capacity

With enrollments projected to double the number of students over the next 20 years, a key decision will be made to determine whether the Rocklin Campus will accommodate the entire growth or divert it to a new educational center in Western Placer County. This decision will ultimately determine the size and location of the Instructional Building (W-Building Modernization/Expansion), as well as the total parking capacity of the campus.

Continuing Areas for Consideration (Off-Campus)

Student Housing

The Master Plan identifies the Residence Hall (Z-building) as being demolished. No plans have been confirmed regarding the future of student housing or its potential location(s).

Public Safety Facility

The FMP Task Force will need to continue discussions relating to the permanent location of public safety programs (EMT, Fire, and Police). The Master Plan does not feature a new facility designated solely for public safety programs; however, some of these courses may be offered in the new instructional buildings.

Use of Adjacent Properties

The 36 and 72-acre properties adjacent to the Rocklin Campus are currently identified by the District for development and revenue-generating purposes and, at this point, are not included in the Master Plan. Despite the current status of these properties, the FMP Task Force believes it should continue to look at the properties for potential future facility needs should development opportunities not arise or should those opportunities allow a blending of both development and educational facility needs.

A. . . . . Lee Hall–Administration
B. . . . . Carner Hall—Business & Technology
C. . . . . Classrooms
D. . . . . Walker Hall—Music
Dt. . . . . ESL
E. . . . . Art
F. . . . . Human Environmental Sciences
Ft . . . . . Health,PE, Recreation/Athletics Division
G. . . . . Gymnasium, locker rooms
G-ME . . Offices
Gt 1 . . . Cardio Room
Gt 2 . . . Classrooms
Gt 3 . . . Weight Room
H. . . . . Construction Technology/Metals
I . . . . . Agriculture,Forestry
J . . . . . Campus Center/Café
K. . . . . Bookstore
L . . . . . Winstead Center
LR. . . . . Library/Learning Resource Center
M . . . . . Classrooms
ME 1,2 . Mechanical Rooms
Mt. . . . Classrooms, Offices
N. . . . . AutomotiveTechnology
P. . . . . Child Development Center
R. . . . . Greenhouse
S. . . . . Sewell Hall
St . . . . . Classrooms
T . . . . . DietrichTheatre
U. . . . . Security Services, Human Resources, Residence Hall
V. . . . . Math &Technology Center
W . . . . . Weaver Hall
X. . . . . Warehouse, Shipping/Receiving
Xt . . . . . Temporary building
Y. . . . . Facilities,Transportation
Yt1,2 . . Facilities Development, Grounds
Z. . . . . Residence Hall

NORTH
Cross Country Trail
ME 2
Nature Trail
Staff Parking
Dt7,8
Dt5,6
Dt1
Dt2
Dt3,4
R
W
C
D
E
Ft
F
Standing Guard Remembrance Garden
M
Mt
B
L
Student Services
J
Campus Center
Café
Amphitheater
ME 1
K
Bookstore
I
H
N
Lot K
Stadium Entrance
Tennis
Lot J
G-ME
Pools
G
Gym
Locker Rooms
Gt3
Gt1
Gt2
Bus and Staff Parking
Sierra College Blvd.
SIERRA
V
A
S
Z
LR
Library
Lot A2
Staff
Lot N
Softball
Baseball
Soccer
Security and Parking
U
Lot R
Lot S
St
T
Theatre
Lot A1
Staff
Lot C
Wolverine Way
Center Drive
Lot B
Campus Drive
Bus Stop
Lot G
P
Yt1
Y
Yt2
X
Xt
Corporation Road
Lot D
Lot E
Lot F
Lot H
Lot I
East Entrance
West Entrance
Rocklin Road

P Daily Parking Dispensers
Disabled Parking
30 30-minute Visitor Parking
Campus Directories
Security Services
Information

Existing Campus Site Plan

20 Year Campus Master Plan

SIERRA COLLEGE

College Park (Formerly Sierra Villages)

ROCKLIN
CALIFORNIA

Menu

COLLEGE PARK (FORMERLY SIERRA VILLAGES)

Southern site: SE corner of Rocklin Rd./El Don Dr. (36+/- acres)
View General Location - Southern Site

Northern site: NE corner of Rocklin Rd./Sierra College Blvd. (72 +/- acres)
View General Location - Northern Site

APNs 045-130-061, -063; 045-150-023, -048, -052

This application was originally submitted on January 9, 2017. The information below represents the most current version of the project application documents, which were submitted on November 12, 2020:

College Park – November 12, 2020

Full Project Site North and South (108+/-acres)

Requested Entitlements

- *General Development Plan Amendment, PDG2017-0001*
- *Rezone (South Village Rezone), Z2019-0001*
- *Rezone (North Village Rezone), Z2017-0001*

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2. **Tentative Map**

    a. Tentative Parcel Map
    b. Tentative Subdivision Map
    c. Preliminary Site Plan
    d. Parking Plan
    e. Preliminary Grading and Drainage
    f. Sanitary Sewer and Water
    g. Tree Impact Exhibit

3. **Design Review**
   See Design Review Package above

College Park North (72 +/- acres)

Requested Entitlements

- *General Plan Amendment (North Village GPA), GPA2017-0001*
- *Tentative Subdivision Map (North Village Small Lot TSM), SD2017-0001*
- *Tentative Subdivision Map (North Village Large Lot TSM), SD2019-0001*
- *Tentative Parcel Map (North Village TPM), DL2019-0002*
- *Tree Preservation Permit (North Village), TRE2017-0001*
- *Design Review (North Village SFR), DR2019-0004*
- *Design Review (North Villlage Condo), DR2019-0004*
- *Design Review (North Village Three-Plexes), DR2019-0006*

1. **General Plan Amendment**

    a. General Plan Designations - Existing and Proposed

2. **Tentative Map**

    a. Tentative Parcel Map
    b. Tentative Subdivision Map (Small Lot)
    c. Tentative Subdivision Map (Large Lot)
    d. Preliminary Site Plan

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1. Preliminary Site Plan (North Village)
2. Preliminary Site Plan (South Village)

Sierra Villages (now known as College Park) – Original Submittal, January 9, 2017

- Original Application Submitted January 9, 2017

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Menu

Does the Age of a Tree Effect Carbon Storage? (2001)

National Aeronautics and Space Administration
Goddard Institute for Space Studies

Research Results

Does the Age of a Tree Effect Carbon Storage?

By Ayesha Anwar

Introduction

"The greenhouse effect has been detected and it is changing our climate now," stated James Hansen in a 1988 edition of Th Washington Post. The greenhouse effect is caused by anthropogenic acts such as dramatic increased use of fossil fuels. Remains of organisms produced fossil fuels three hundred million years ago. Today, fossil fuels such as coal, oil, and gases a used in cars, factories, and other machineries. Even though fossil fuels make millions of lives easier, burning them is making earth an unsafe place to live in due to the chemicals released by these greenhouse gases. When these tiny particles of greenhouse gases are released into the atmosphere they trap solar heat within the atmosphere. When the atmosphere has t much greenhouse gases, it behaves like a one way valve. It allows energy (in the form of solar energy) to pass through from sun into the earth but does not allow the heat energy to escape back out. More solar radiation is trapped within the earth, ma it warmer.

Carbon plays a major role in keeping the earth stable. It has allowed life to exist and flourish on earth. However, if carbon dio is being produced by the combustion of fossil fuels the earth will begin to go through many negative changes. Making carbon dioxide a greenhouse gas. When coal is burned the carbon that is produced and released into the atmosphere eventually rea with oxygen, generating CO2. The amount of carbon dioxide stored in the atmosphere contributes to about 50% of the greenhouse effect. As time passes there is an increase in the amount of CO2, which may produce environmental changes, s as an increase in atmospheric temperature.

Over much of the last century, the East Coast land has changed from basic agricultural use to forestland. Because there is a increase in the amount of forests, more trees are taking in carbon dioxide and reducing the amount of CO2 in the atmosphere When plants allow CO2 to flow into the leaves, tiny amounts of water vapor being released which cools the land surface. However, when the concentration in the amount of carbon dioxide increases, plants aren't able to release as much water vap causing a decrease in ability to keep the land cool. If this continues to happen, our climate will change. There will be an incre in temperature, which may cause droughts affecting vegetation growth. This will cause further complications to the earth beca the earth will not be able to adapt to the changed environment as quickly as needed.

Ecosystems play a major role in keeping the earth stable. An ecosystem consists of biotic and abiotic factors that keep the environment in equilibrium. Our study focuses on how the Black Rock Forest stores carbon. According to William Schuster, director of Black Rock Forest, over a past 72 years above ground carbon storage has increased in the Black Rock Forest. Th Black Rock Forest has had a six-fold increase in biomass over the 70-year period, while thinned plots have taken an extra 40 years to reach the same amount of biomass. The tree that stores the most carbon in the Black Rock Forest is the Red Oak, w has a growth rate of approximately 600 kg/H. Carbon in trees make up approximately 1/3 of carbon stores and the remaining

of carbon storage is below ground. The Black Rock Forest is still trying to recover from past settlers that broke down the fores into various types of ecosystems. Over the past 15 years there have been 3 forest fires from West Point Military Academy, ea causing stored carbon levels to decrease in amount.

In order to understand the difference in carbon storage between young and old forests we have been collecting various types data, such as temperature change, sun intensity, the population of animals, and human impact on the environment. By lookin these variables one is able to observe and hypothesize about the tree growth, giving us an idea of the amount of carbon that be stored in the trees. Since the older trees have been living longer, they have had more time to store carbon than of the you forest. I believe that older forests would have more carbon storage than the younger forests, but since there are more trees ir younger site there would be more carbon storage in the younger site due to quantity as well as variety of trees. The younger are also storing carbon in a faster rate because they're producing food more quickly than the older forest.

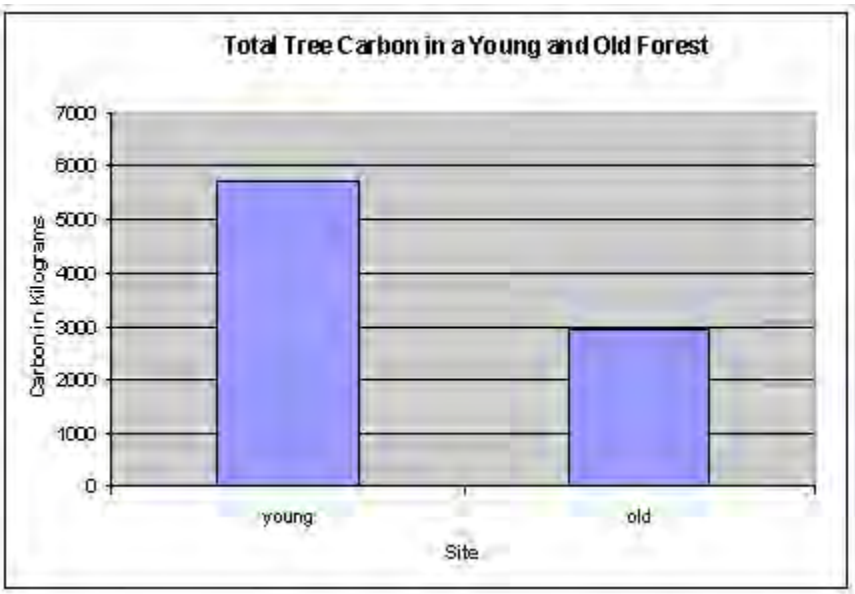
Methods

The way we are researching our question is by using a variety of techniques to help us understand and look further into the amount of carbon storage in old and young forests. Throughout our two-week period in Black Rock Forest we have collected recorded tremendous amount of data, which has helped us understand the importance as well as the amount of carbon stora plants. We have mapped out two different sites, one site that consists of old trees which are 150 years old, and the another s consisting of young tree, which are approximately 35 years old. Each site was an area covering 42.5 square meters. After the forest was divided into two parts, we mapped out each part into four quadrants in which all the trees were counted. Afterward we described the canopy of the trees, the circumference, and the types of trees. This was done so future researchers would l able to locate our sites and do further research in the years to come.

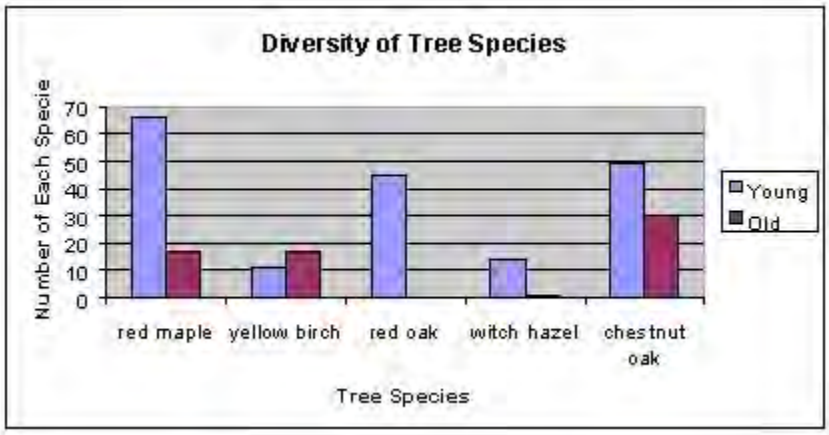
After mapping our sites, we used a GPS (Global Positioning System) device to record longitude, latitude, and elevation of the sites. We sketched maps of the sites, determining site orientation, with using a compass. For the topography we observed, recorded, and then drew a sketch of what we saw for both sites. The vertical survey (above ground), and landscape survey (above ground) were drawn, including the name of the species, and the biotic and abiotic factors. To find out the percentage the tree root coverage we just observed the ground carefully and estimated a percentage. To check soil composition we dug about a meter down and observed the soil pit then sketched the layers of sediments in the pit, for both sites. Using a dowel w checked the soil depth for each corner and the center (for both sites).

For about two weeks everyday we would check the air temperature, floor temperature, and soil temperature in the center of b sites, using a thermometer. We measured sun intensity on the floor, as well as a meter above the ground, on each of the four corners of the two sites, using a voltmeter. To measure wind speed, we stood in the center of the site holding the wind speed device 1.5 meters above ground. We also identified whether cloud coverage was complete, moderate, light, or non-existent. Every other day we would take out samples of soil on the forest floor, 10 centimeters, and 15 centimeters below ground. The samples were taken to the lab, where soil pH moisture was measured. To measure the percentage of moisture in the soil, we weighed of the soil before and after putting the soil samples in a 100°C oven that evaporated the moisture from the soil. The percentage moisture in the soil was the mass of the soil before putting it in the oven subtracted by the mass of the soil after putting the soil sample in the oven. Once we obtained percentage of soil moisture, we divided the sample value by the mass the original soil and then multiplied by 100 to get the percentage of soil then multiplied by 100 to get the percentage of the moisture. We also adjusted our masses to account for the tin cans that we used to hold the soil. Subsequently soil was burne a 500°C oven to determine the amount of carbon stored within the soil sample.

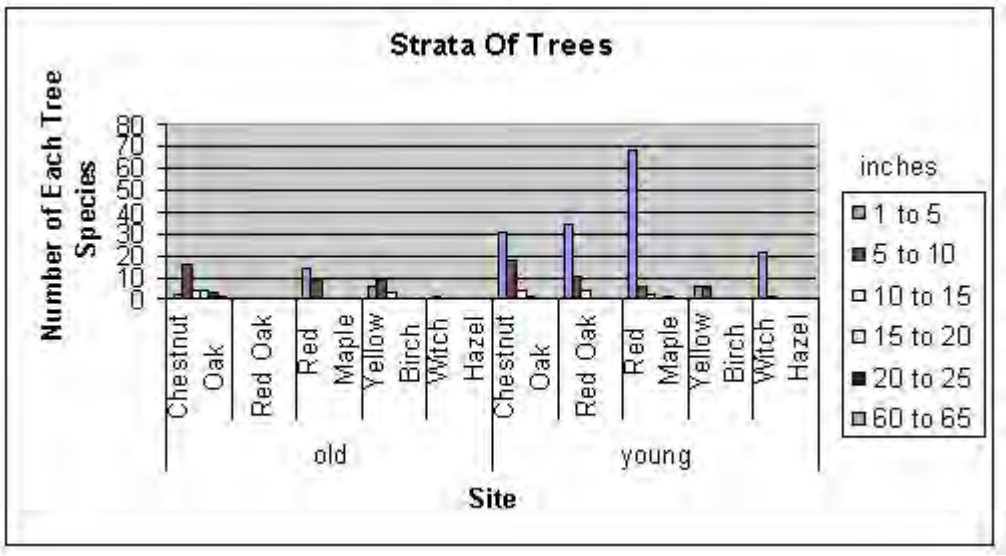
Results



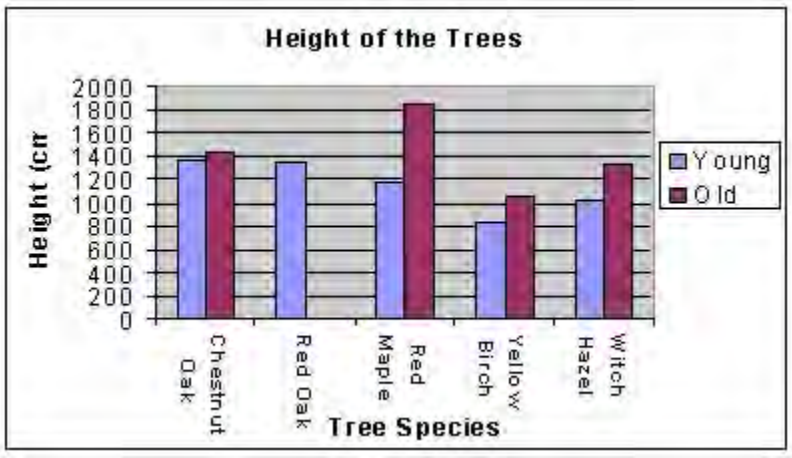
The chart above shows the amount of total tree carbon in the young and the old forest. The chart describes the carbon storag within each plot in one area for both young and old. The horizontal axis describes the site and the vertical axis shows the car storage in kilograms. The young site had more carbon storage then the old, because there were half as many trees and there was less species variety in the old site. The chart above shows the amount of total tree carbon in the young and the old fores The chart describes the carbon storage within each plot in one area for both young and old. The horizontal axis describes the and the vertical axis shows the carbon storage in kilograms. The young site had more carbon storage then the old, because t were half as many trees and there was less species variety in the old site.



The bar graph above shows the diversity of tree species. The horizontal axis shows the tree species and the vertical axis sho the number of trees in each species. For the young site there are more red maples then any other tree species, and for the o site there are more chestnut oak then any other tree species. There is a bigger number as well as a larger variety of trees in t young site then there is in the old site.



The graph above displays the strata of the trees in both the young and the old site. The horizontal axis illustrates the site's tre species and the vertical axis illustrates the number of each tree species. The diameter was taken from breast height for each Most of the red maples in the young site are one to five inches in diameter and the chestnut oak from the old site is mostly fiv ten inches in diameter



The graph above displays the height of the trees. The horizontal axis shows the tree species and the vertical axis shows the height of the trees in centimeters. The red maple is the tallest in the old site and the chestnut oak is the tallest in the young si

Discussion

Our main objective was to compare the amount of carbon storage in old and young ecosystems Site 1 was the young decidu forest; it is 35 years old. There were many different species found as well as different (canopy) heights. The tree species four the young site were red maple, red oak, witch hazel, chestnut oak, and yellow birch. Site 2 was the old deciduous forest, whi 150 years old. Most of the trees were in a dominant (canopy) height. Every type of tree is present from site 1 except the red c The most abundant tree species in site 2 was chestnut oak.

Overall the carbon team has measured the amount of carbon stored at Black Rock Forest both under natural and impacted conditions. Carbon is vital for life on earth but there haven't been many studies focusing on this issue. Carbon storage in the forest is influencing atmospheric carbon levels by helping to keep the level of carbon in balance. This will help keep an ecosy in a homeostasis, in which animals will be able to adapt to the changes that are happening at a rapid rate. However, in the ye to come carbon rates will increase dramatically making it nearly impossible for plants to store such a high amount of carbon i small amount of time.

All of the aforementioned variables listed in the methods help to determine the amount of carbon storage in the forest. They r have an influence on climate, which determines how the trees will grow. The trees are the mean through which carbon is stor the forest. Additional research is necessary to substantiate our results; we look forward to comparing next year's research re

with this year's results. The carbon team is still in the process of figuring out how an addition amount of carbon dioxide will af different types of ecosystems. This can only be determined if further research is done in the years to come.

Future Questions Specific to sites with varying age:

1. How does carbon storage in 90-year-old forest compare to that of forests that is 35 and 100 years old?
2. What predictions can we make regarding the amount of carbon storage in 20, 50, and 100 years to come?
3. How do carbon storage rates vary with forests of different ages?

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Forest Carbon FAQs

Forest Carbon FAQs

What is forest carbon?

Carbon in forests comes from carbon dioxide in the atmosphere. This carbon is sometimes called *biogenic* carbon, because it cycles through living organisms. Trees draw carbon dioxide from the atmosphere through a process called photosynthesis. Plants use photosynthesis to produce various carbon-based sugars necessary for tree functioning and to make wood for growth. Every part of a tree stores carbon, from the trunks, branches, leaves, and roots. By weight, dried tree material is about 50 percent carbon. Trees also release carbon dioxide to the atmosphere as a function of their physiology. When some or all parts of a tree decompose after death or burn during fire, the carbon is released back to the atmosphere. Thus, the amount of carbon in forests closely mirrors the natural cycle of tree growth and death.

Carbon can also be found in soils. Carbon in soils comes from the organic matter from trees and other vegetation in varying degrees of decomposition. In fact, soil carbon represents about 50 percent of the total carbon stored in forest systems in the United States. Like vegetation, soils release carbon dioxide when soil microbes break down organic matter. Some soil carbon can decompose in hours or days, but most resides in soils for decades or centuries. In some conditions, carbon resides in soils for thousands of years before fully decomposing. Soil carbon is generally considered very stable, meaning it does not change much or quickly in response to vegetation dynamics. Exceptions are when soils are disturbed significantly, such as tilled for agriculture, with soil erosion, extreme fire events, or with permanent changes in certain types of vegetation cover.

What is fossil fuel carbon?

Fossil fuels formed from organic materials under geologic processes which took place over hundreds of millions of years. Therefore, when we burn fossil fuels for energy, carbon dioxide is released into the atmosphere, and there is no natural mechanism within that geologic cycle to re-capture or sequester the carbon from the atmosphere. This results in a net increase of carbon in the atmosphere or the ocean, which can also absorb some surplus carbon dioxide. Unlike forests and their products which present a closed loop cycle when allowed to regrow, fossil fuels represent an open system of carbon. Most fossil fuel carbon emissions remain in the atmosphere for thousands of years.

How much carbon is in trees?

The chemical composition of trees varies from species to species but is approximately 50 percent carbon by dry weight. Other elements in trees include oxygen, hydrogen, nitrogen, and smaller amounts of calcium, potassium, sodium, magnesium, iron, and manganese. Carbon is one of the most important elements that form the physical structure of the tree material in trunks, bark, branches, and even leaves. While all vegetation stores carbon, trees are particularly important because they live a long time and because of their comparably dense nature and large size. Because forests are largely composed of trees with large amounts of carbon, forests are akin to a sea of carbon.

How does carbon cycle through forest ecosystems?

Because forests are naturally dynamic systems, the carbon contained within forests is always changing. On the scale of minutes, forests can simultaneously take up and store carbon through photosynthesis and release carbon as trees respire and soils release carbon through decomposition by soil microbes. Over months and years, the balance of uptake and loss of carbon in a forest determines whether the forest is gaining or losing carbon stocks. The amount of carbon uptake and storage depends on the growing conditions and species of the trees in a given system. For example, in some temperate forests, a warm and wet climate can support forests that grow quickly and store a great deal of carbon. The opposite might be true of forests with a cold and dry climate. Younger forests generally take up and store carbon at greater rates than older forests.

Forests have natural boom and bust cycles that are reflected in carbon storage of that forest. Trees die for a variety of reasons and when they do, carbon is released back to the atmosphere. Sometimes, trees in small stands die from isolated events like wind storms, avalanches, or small fires. Other times, trees die in large numbers with natural disturbances like insects or disease, hurricanes, droughts, and large wildfires. Carbon can be released quickly from forests with these events, as in the case of intense fire, or slowly, with non-fire disturbances where carbon is lost mainly through decomposition. Standing dead and fallen trees can continue to store carbon but will decompose over years or decades eventually releasing carbon back into the atmosphere. This death and decomposition process set the stage for new tree growth as new trees have more access to light and nutrients released from decomposition, starting the uptake phase of the carbon cycle once again.

How is timber harvesting (e.g., logging, commercial thinning, salvage harvesting) a carbon mitigation strategy?

Timber harvesting has an initial impact on forest carbon stocks and releases carbon to the atmosphere through use of fossil fuels in management activities and in decomposition of any woody waste material. However, this statement portrays an incomplete picture of carbon in the forest and how it interacts with the atmosphere and effects climate. This narrowly focused view considers only carbon dynamics on the forest, and assumes all physical carbon leaving the forest (e.g. timber products) enters the atmosphere immediately. This view does not consider long-term forest carbon dynamics and the many pathways forest carbon can take before eventually re-entering the atmosphere.

The Forest Service, following the more holistic view outlined by the International Panel of Climate Change, considers forest carbon dynamics and where the carbon goes once it leaves the boundaries of the forest. In some cases, carbon emissions from harvesting activities can be less than the carbon emissions associated if the same forest is unmanaged, particularly in cases where forests are experiencing high rates of mortality.

When forests are harvested or thinned, and maintained as forests, they regrow and eventually recover carbon lost during harvesting. This cycling of carbon in the forest is sometimes called a "closed loop." Additionally, some carbon in harvested trees is transferred to wood products, which can store carbon for months to decades and even centuries depending on the product (e.g., paper, furniture, single-family home). Carbon storage continues when forest products enter landfills at the end of their usable life.

Further, harvested wood products generally produce less emissions when substituted for energy-intensive materials made with fossil fuels. For example, using a wood beam in place of the production of a more energy-intensive steel beam. Wood can also be substituted directly for fossil fuels in energy production, such as burning wood pellets in place of coal, or 'co-firing' woody waste material with natural gas.

For many forests, recurring timber harvests on a sustainably managed forest will effectively "store" more carbon over time than if the forest is unmanaged. "Store" in this sense refers to carbon in the forest, carbon in harvested wood products, and the avoided carbon emissions in the atmosphere. New tree growth restarts the process of storing carbon on the forest, even as the previously harvested trees continue to store carbon in wood products and emit fewer emissions when substituted for fossil fuel-intensive materials. In some cases where wood substitution is high, such as in tall wood buildings, avoided carbon emissions are substantial.

The magnitude and timeframe of these carbon dynamics vary greatly depending on forest attributes, type of harvested wood products, and environmental factors. A key assumption, however, is that the forestland will not be permanently converted to a non-forest condition after harvesting and will remain productive for the foreseeable future. The Forest Service does not expect significant changes in land-use cover or productivity as a result of harvesting.

Why does the Forest Service support timber harvesting (e.g., logging, commercial thinning, salvage harvesting) when isn't the best approach to minimize carbon emissions is to keep carbon in trees?

According to the best available science, harvesting and the use of harvested wood products can play an important role in reducing carbon emissions along with good management for healthy forests. According to the International Panel on Climate Change, the best way to explain the effects of forest management is to take the viewpoint of the atmosphere when considering impacts of carbon. That is, what the atmosphere actually "sees" in terms of carbon entering or leaving the atmosphere. This requires looking at how management influences forest carbon stocks, the emissions associated with harvesting activities, and how carbon is stored in harvested wood products once it leaves the forest. This perspective also considers whether or not there is an associated permanent change in land-use or land cover that will alter the ability of the harvested area to regrow as a forest and continue to remove and store carbon from the atmosphere in the future. Reducing conversion of forestland to non-forestland is an agreed principal globally to reducing emissions. National Forest System lands provide a buffer against land-use change, keeping forests as forests.

Increased risk of carbon loss through disturbances, such as wildfires and insect epidemics, can undercut the goal of maximizing carbon storage on the forest. In cases where forests are risk for carbon loss through such disturbances, a more effective way to reduce carbon in the atmosphere is through various types of harvesting and management activities. This approach initially reduces the amount of carbon stocks on the forest, but transfers carbon to wood-based products or energy use. When considering the whole system—both forest carbon and use of forest products—carbon emissions can be much lower than if the forest was unmanaged.

What is substitution?

Substitution refers to the use of forest products in place of more energy-intensive products, such as materials and energy derived from fossil fuels. When we substitute wood products for fossil fuels and fossil fuel intensive materials, the unused fossil fuel carbon remains stored in the ground and does not enter the atmosphere. Conversely, the amount of biogenic carbon from forests released can be sequestered on relatively short timescales. Fewer emissions can be produced when wood is used in place of, or substituted for, products that require a lot of energy to manufacture, such as some steel or concrete products. Wood is as a direct substitute for coal or natural gas when used as energy generation from wood pellets and woody waste material from timber processing.

What is leakage and spillover?

Carbon "leakage" is the shift of emissions from one place to another due to efforts to avoid emissions. For example, if a timber producing country entirely curtails their timber harvesting, other countries may increase production to meet demand. Leakage can be quite significant but is very difficult to measure because of societal reliance on the forest system and use, rapid and global nature of market adjustments, and difficulty identifying cause and effect.

Spillover is like leakage, but the effects are positive. For example, an innovation in technology or approach in one area that results in fewer emissions in another technology or approach, which also reduces emissions. Another example is adoption of better forest management practices that result in lower rates of mortality over time.

Why isn't the Forest Service doing carbon mitigation projects?

The U.S. Forest Service is obligated by law to balance multiple goals for the public benefit. The Forest Service considers carbon among a suite of benefits that forest provide and not in isolation. In many instances, Forest Service vegetation management activities align with carbon mitigation strategies identified by the best available science.

Is the Forest Service participating in carbon markets?

No. Congress has not given the U.S. Forest Service the authority to allow National Forest System (NFS) lands to participate in carbon markets or produce carbon credits. However, organizations can partner with the U.S. Forest Service in needed restoration work to improve carbon sequestration, forest health, and resilience to climate change.

Why would storing carbon in harvested wood products be better than keeping it in the trees if so much of the tree is wasted in the process?

The amount of carbon from a tree that is ultimately stored in wood products varies significantly depending on harvesting practices (e.g., cut to length vs. whole tree) and stand characteristics (e.g., age, defect, forest type). Thousands of products can be produced from wood. Carbon "stored" in these products can range from days to centuries.

Modern harvesting practices leave little waste. Some logging residues, such as leaves and branches, stay in the forest and become firewood, or decay and contribute to forest habitat and nutrient cycling. Mills are generally very efficient at using "mill residues," such as sawdust and bark. These materials often heat and power milling operations or are used for other wood products, such as particle board. The use

of mill residues makes an important contribution to the carbon reduction potential of harvested wood products and forest management in general. For example, most biomass for energy production is a by-product of conventional forest product streams, such as milling residues, with some use of whole trees killed by insects, disease, or natural disturbance.

Finally, disturbance is a natural part of the forest cycle. In some locations, fire is important while in most areas pests and disease routinely alter the forest composition. Even if these forests were left unmanaged, they would experience mortality and carbon loss. Management and harvest allow society to utilize and store that carbon at times for longer periods than in the forest.

Fuels reduction treatments will reduce forest carbon storage if they are maintained. With the probability of wildfire so low in many forest types, how can this have any carbon benefit?

The U.S. Forest Service balances multiple goals for the public benefit, and thus, carbon does not have priority over the many other services that forests provide. Many management activities the U.S. Forest Service conducts is consistent with carbon mitigation strategies, although carbon management might not be the primary or only purpose.

Hazardous fuel reduction treatments (treatments) are done primarily to protect lives and property in and around communities. The goal is to reduce the probability of severe wildfire. Severe wildfires pose a greater risk to communities and cause more damage to trees, often killing them as well as impacting carbon stored in the soil. In many locations, fire is a natural part of the cycle and fire suppression results in increased fuel loads in those forests.

An approach to carbon mitigation is to maximize carbon stored in the forest system, but this often comes with risk. In some ecosystems, increased carbon stocks have a concurrent increase in risk of carbon loss through wildfires and insects and disease. Treatments lower carbon stocks to a more stable level if they are maintained.

From a strictly carbon perspective, there will be instances where these treatments will have a positive effect on carbon and some that will not. The carbon costs of treatments would need to be weighed against the probability of losing greater amount of carbon should the forest have a high-severity wildfire at some point in the future. Forest type, conditions, site variation, and differing fire regimes make it extremely difficult to make general conclusions about the carbon outcomes of fuel treatments.

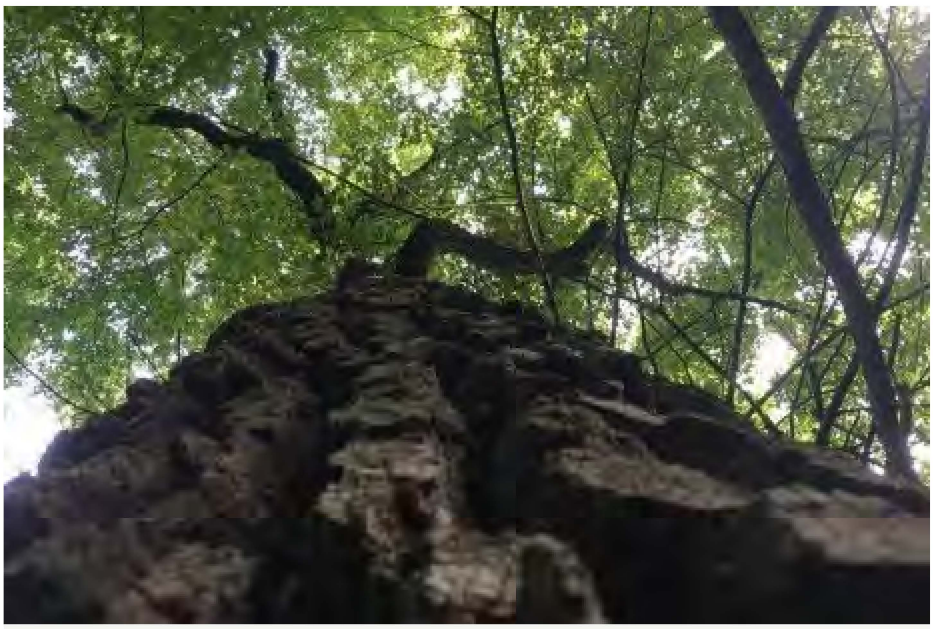
How Forests Store Carbon (Sept. 24, 2020)

PennState Extension

How Forests Store Carbon

This article offers an introduction to how forest store carbon. It describes how forests impact the carbon cycle, and how forests can be used to help combat climate change.

ARTICLES | **UPDATED: SEPTEMBER 24, 2020**



A mature white oak (Photo credit: Calvin Norman)

The threat of climate change due to increases in carbon dioxide (CO_2) and other pollutants in the atmosphere from human sources has caused some people to become interested in carbon capture and sequestration technology. This includes pumping CO_2 underground into old coal mines and aquifers. While these technologies may work, they are unproven, expensive, and for the most part theoretical.

Fortunately, the best carbon capture technology has already been created: trees and forests. According to the US Forest Service, America's forests sequester 866 million tons of carbon a year, which is roughly 16% of the US annual emissions (depending on the year). Forests sequester or store carbon mainly in trees and soil. While they mainly pull carbon out of the atmosphere—making them a sink—they also release carbon dioxide. This occurs naturally, such as when a tree dies and is decomposed (thereby releasing carbon dioxide, methane, and other gases).

The movement of carbon and other gases within forests and soils occurs on a cycle. Forest management can influence these cycles and enhance carbon capture.

Trees

Trees are without a doubt the best carbon capture technology in the world. When they perform photosynthesis, they pull carbon dioxide out of the air, bind it up in sugar, and release oxygen. Trees use sugar to build wood, branches, and roots. Wood is an incredible carbon sink because it is made entirely of carbon, it lasts for years as a standing tree, and takes years to break down after the tree dies. While trees mainly store carbon, they do release some carbon, such as when their leaves decompose, or their roots burn sugar to capture nutrients and water.

Let's look at a real example, a white oak can live for 200 years; all that time it is pulling carbon out of the air and storing it. After several anthracnose outbreaks the tree dies, but it takes decades for the tree to rot. While it is slowly breaking down, the rotten tree is still keeping carbon out of the atmosphere.

Forests capture and store different amounts of carbon at different speeds depending on the average age of the trees in the stand and the number of trees in the stand. Young forests have many trees and are excellent at capturing carbon. Young trees grow quickly and are able pull in carbon rapidly. Not every small sapling becomes a large tree due to competition for light, resources, and growing space, but when they die and decompose little carbon is released. The trees that remain continue to grow and sequester more carbon as the forest matures.

Established or mature forests are made up of "middle-aged trees", which are medium to large, healthy, and have a large root system. Middle-aged trees grow slower than young trees, but the amount of carbon captured and stored is relatively greater. Some of large trees occasionally die, but they are quickly replaced by younger trees who take advantage of the new space. Since more trees are growing compared to those that are dying, the overall net productivity (how many trees grow versus how many die) is positive and carbon capture is enhanced.

Old-growth forests have a more fixed, or less dynamic, carbon cycle within live and dead trees and the soil. In old growth forests, large trees dominate by shading out small saplings, so recruitment of young trees and net productivity is

zero. Still, the carbon is well contained within the big trees, slowly rotting logs, thick leaf litter and soil. Large individual trees may take up as much carbon as an individual middle-age tree, but since there are fewer trees in an old growth stand, the total additional carbon capture is often lower.

Soil

The carbon that is sequestered in forests comes in many forms. For example, forest soils contain plant roots, leaf litter, and other dissolved organic material. The amount of carbon stored in forest soils is variable, and how much carbon soil can sequester is dependent on many local factors like local geology, soil type, and vegetation. In some forests, like in Canada by the tundra, the soil holds more carbon than the trees, but in other forests, like the rain forest, the soil holds relatively little carbon and the trees store more carbon. This is because some soil types, like clay soils, can bind up a large amount of carbon, whereas sandy soils are not able to bind much carbon. Soils with more organic material (bits of wood, decaying leaves, or dead creatures) can store more carbon because organic material easily binds loose carbon molecules and the organic material itself is stored carbon. Soils that are frozen for a good part of the year or have a high-water table can also store large amounts of carbon because decomposition is slow.

Permanence

Besides capturing large amounts of carbon, forests are good at storing it for a long time. However, like all things natural, carbon in forests ultimately gets released into the atmosphere through decomposition, respiration, or other methods. Some places are better at storing carbon for long periods than others; this is called permanence. The carbon that makes up a center of a mature white oak remains bound up for a long time. It has been pulled out of the atmosphere a hundred or more years ago, and it will remain bound up until the tree dies and is decomposed. That process can take decades to centuries depending on how long the tree is alive. Carbon captured by a small trillium has little permanence. Trilliums are annual plants, so the aboveground plant dies annually and rapidly decomposes or they are commonly eaten by deer.

Examples

Let's look at how forest growth and soils affect the permanence of forest carbon. The Amazon rainforest appears to be a good place for carbon sequestration because it is full of big trees that grow rapidly. But research has found the Amazon is a poor carbon sink because there is little permanence. Whole trees rapidly decompose in the hot humid climate, the soils are not able to store a lot of carbon. The near constant rain also helps to break down organic material and wash away soil and nutrients. In contrast, the spruce forests of Alaska are excellent carbon sinks. The spruce grow large, decomposition is slow due to the cold, and the soil is able to lock up carbon in permafrost. Unfortunately, the growth rates in these forests is relatively slow due to the cold temperatures and limited growing season. Changes in global climate are also melting the permafrost, releasing much of the captured carbon. Pennsylvanian forests offer an ideal middle of the road solution. The trees grow well and are long-lived, decomposition occurs at a mild rate, and the soil stores a moderate amount of carbon. This means our forests have great potential to serve as an effective carbon sink and provide long-term carbon storage.

Management Strategies

While carbon capture in trees is a natural process, there are ways to encourage trees to sequester more carbon through forest management. The most important strategy is to keep forests as forests. When forests are converted to other types of land uses, carbon is released and the land loses its potential to store carbon. This does not mean that clear cutting (where silviculturally appropriate) must be stopped. Clear cutting simply resets the forests age and can in fact accelerate carbon capture by growing younger trees. The best way to enhance carbon capture without cutting is to increase forest cover. This can be done by planting old fields with a mix of native trees or restoring old mine sites.

Controlling invasive plant species is another important strategy for enhancing carbon capture. While many non-native/invasive plant species can grow rapidly and appear to be a good carbon sink, they are not. Invasive species disrupt native ecosystems, change the makeup of the local soil microbes, and prevent tree regeneration, all of which interferes with a forest's ability to sequestration carbon. Native trees and plants are adapted to thrive in local conditions and tend

to function better as carbon capture mechanisms. Native plants also provide other important benefits such as wildlife habitat.

Practicing sustainable silviculture is essential for ensuring forests remain healthy and can also help enhance carbon capture. Harvesting is considered sustainable when decisions are based on silvicultural knowledge and follow a long-term management plan. Professional foresters are also important for helping owners meet multiple management objectives while maintaining the value of their stands. Forests that maintain their value are more likely to remain as forests in the future when ownership changes.

Uneven aged stands offer the best carbon capture services, as well as other benefits (e.g., wildlife habitat). In an uneven aged stand, there is continuous recruitment of younger trees, but older trees also remain and help hold carbon for long periods. Uneven aged stand management requires harvesting to occur through single tree or group selection. However, removing individual trees disturbs the soils in the local area. These soils also hold carbon and frequent disturbance over time can turn soils from a carbon sink to a carbon source. To help prevent soil disturbance in these stands it is important to extend the rotation period. For example, a hardwood forest that has been traditionally thinned every 10-15 years should be thinned ever 20-25 years, so the soils have time to recover between entries. In comparison, the rotation of even-aged forests do not need to be extended. In Pennsylvania, these harvests tend to occur every 80 to 100 years, which means the soils can remain undisturbed for long periods.

There are several other best practices you can adopt today for enhancing carbon storage in trees and soils. When harvesting, it is important to reduce damage to the soil. This can be done by putting slash on skid trails, not harvesting in the rain, harvesting in the winter, and using forwarders instead of whole-tree skidding. Harvesting trees that are slowly growing can also contribute to carbon sequestration. Instead of letting mature trees die and decompose, they can be removed and cut into products like 2x4s, flooring, or cabinets which go into homes and buildings and that could be around for centuries. The Liberty Bell is a great example of how high-quality wood products can help store carbon. The wooden yoke of the Liberty Bell is made from American elm harvested in the 1770s (there is some disagree on how old the beam is). Instead of decomposing in a forest centuries ago, the carbon in that wood is still around today holding up the Bell.

Closing Remarks

Forests are an important carbon sink, as both trees and forest soil are able store large amount of carbon for a long time. However, carbon management is not just about deciding which trees to cut, but also where harvesting and planting occurs on the landscape. It is important to maintain a mix of tree ages and forest types with a focus on young and established forests, as these forests capture and sequester the most carbon. However, this does not mean old-growth forest should be sacrificed to create more young forests. This could release large amounts of carbon, and a new forest would take decades to sequester as much carbon as currently stored in the old-growth forest. The key is to use planning and management strategies that help capture additional carbon while minimizing losses of stored carbon. Professional foresters can help you understand the potential of your land and forests for enhancing carbon capture through forest management, while maintaining the value and health of your forests.

April 19, 2004, Report on Senate Bill No. 1334, California Senate Committee on Environmental Quality

CA B. An., S.B. 1334 Sen., 4/19/2004

California Bill Analysis, Senate Committee, 2003-2004 Regular Session, Senate Bill 1334

April 19, 2004
California Senate
2003-2004 Regular Session

SENATE COMMITTEE ON ENVIRONMENTAL QUALITY

Byron D. Sher, Chairman

2003-2004 Regular Session

BILL NO:	SB 1334		
AUTHOR:	Kuehl		
AMENDED:	March 31, 2004		
FISCAL:	Yes	HEARING DATE:	April 19, 2004
URGENCY:	No	CONSULTANT:	Randy Pestor

SUBJECT : CALIFORNIA ENVIRONMENTAL QUALITY ACT

SUMMARY :

Existing law , under the California Environmental Quality Act (CEQA), requires lead agencies with the principal responsibility for carrying out or approving a proposed project to prepare a negative declaration, mitigated declaration, or environmental impact report (EIR) for this action, unless the project is exempt from CEQA. CEQA includes various statutory exemptions, as well as categorical exemptions in the CEQA guidelines. CEQA also clarifies that certain types of projects are subject to the act (e.g. , Napa Valley rail service, certain higher education facilities).

This bill :

1) Under CEQA:

a) Specifies that CEQA applies to timberland conversions and oak woodland conversions, but does not apply to oak woodland conversions under the Conversion of Oak Woodlands Law (#2 below).

b) Requires the State Board of Forestry and Fire Protection to adopt regulations by January 1, 2006, to implement above requirement.

c) Requires an alternative to mitigating the conversion of timberland to include a monetary contribution to the California Forest Legacy Program, if certain conditions are met (e.g. , mitigation includes at least the same amount of acreage as proposed for conversion, landowner provides appraisal funds).

d) Requires a county, in a provision of its oak woodlands management plan or by ordinance, to require mitigation as specified (e.g. , monetary contribution to Oak Woodlands Conservation Fund, planting replacement trees, onsite mitigation, offsite mitigation). Certain state entities are authorized to establish a mitigation bank that may be used to fulfill the offsite mitigation requirements.

e) Authorizes a county to charge a fee to cover administrative, monitoring, and mitigation enforcement costs.

f) Authorizes the oak woodlands management plan or ordinance to exempt certain activities (e.g. , conversion of less than three acres, harvesting of fuelwood for noncommercial use by the landowner, removal of dead and diseased trees posing risks).

g) Defines certain terms (e.g. , conversion, oak, oak woodlands).

h) Provides that the above requirements cannot prohibit a county from adopting a plan or ordinance that is more protective of oak trees or oak woodlands.

2) Enacts the Conversion of Oak Woodlands Law that:

a) Requires conversion of oak woodlands from an agricultural use to another use to meet certain requirements under CEQA added by the bill (#1 d above), regardless of whether an oak woodlands management plan or local ordinance has been adopted.

b) Requires a landowner or project proponent to give notice of a proposed agricultural oak woodlands conversion to the county agricultural commissioner.

c) Requires the commissioner to provide notice of the conversion and make a finding that the mitigation alternative under CEQA has been implemented.

d) Authorizes the commissioner to require a licensed arborist or registered forester to oversee mitigation.

e) Requires the commissioner to provide a biennial report commencing January 1, 2006, regarding oak woodlands conversions.

f) Provides fee authority for the commissioner's administrative costs.

g) Provides related legislative intent.

h) Authorizes the Secretary of the Resources Agency to revoke the applicability of the Law to a county that does not adequately supervise or mitigate oak woodlands conversions.

COMMENTS :

1) Purpose of Bill . According to the author, “The conversion of oak woodlands and timberlands in California into residential ranchettes and intensive agriculture has created an unprecedented threat to California's signature landscapes. More than one million acres of California's oak woodlands have been lost since 1950 along with nearly 90 percent of riparian woodland statewide. Other threats to oak woodlands include the fragmentation of large ranches into small exurban lots. For example, in Nevada County, the median size of landholdings in 1957 was 550 acres, and by 2001 had been reduced to just 9 acres. The fragmentation leads to an increase in roads, invasion of exotic plant and animal species, and fencing, all of which causes harm to indigenous wildlife. Vinyard expansion in coastal counties and some areas of the Sierra foothills also seriously contributes to the loss of oak woodlands.”

The author notes that CEQA “is supposed to require mitigation for the loss of oak woodlands. However, local governments often fail to enforce this aspect of CEQA. Local ordinances dealing with oak woodlands are often voluntary. In reality, there is no effective mechanism in existing law to mitigate for the loss of oak woodlands.”

According to the author, in response to the above concerns, “Rather than create a new mandate for state agencies to enforce CEQA, this bill provides a menu of options for landowners to mitigate for projects that affect oak woodlands. The bill will be administered at the county level. It does not prohibit any projects.” The author notes the options available under the bill, the numerous exemptions, and indicates that “Agricultural conversions will be handled separately, by the county agricultural commissioner or another local official. Lands within city boundaries are also exempted. Counties with strong oak woodland ordinances may be exempted from the bill upon certification by the Secretary of Resources.”

2) Brief background on CEQA . CEQA provides a process for evaluating the environmental effects of a project, and includes statutory exemptions, as well as categorical exemptions in the CEQA guidelines. If a project is not exempt from CEQA, an initial study is prepared to determine whether a project may have a significant effect on the environment. If the initial study shows that there would not be a significant effect on the environment, the lead agency must prepare a negative declaration. If the initial study shows that the project may have a significant effect on the environment, the lead agency must prepare an EIR.

Generally, an EIR must accurately describe the proposed project, identify and analyze each significant environmental impact expected to result from the proposed project, identify mitigation measures to reduce those impacts to the extent feasible, and evaluate a range of reasonable alternatives to the proposed project. Prior to approving any project that has received environmental review, an agency must make certain findings. If mitigation measures are required or incorporated into a project, the agency must adopt a reporting or monitoring program to ensure compliance with those measures.

If a mitigation measure would cause one or more significant effects in addition to those that would be caused by the proposed project, the effects of the mitigation measure must be discussed but in less detail than the significant effects of the proposed project.

3) Seeking to provide guidance . Current law allows a state agency regulatory program plan or other documentation containing certain information to be submitted in lieu of an environmental impact report (EIR) if the program has been certified by the Secretary of the Resources Agency (commonly referred to as a "functional equivalent"). The CEQA guidelines provide that a timber harvesting plan is a discretionary action under the Z'berg-Nejedly Forest Practice Act of 1973 (CEQA guidelines 15357), and specifies that regulation of timber harvesting operations is a functional equivalent program (CEQA guidelines 15251(a)). For a timber conversion, all timber must be cut in accordance with an approved conversion pursuant to a timber harvesting plan, with the exception of certain requirements (Public Resources Code 4622). Therefore, a conversion should currently be addressed through the functional equivalent program. SB 1334, however, specifies that a timberland conversion is subject to CEQA and provides certain procedures for mitigating the effects of a timberland conversion. This bill also sets procedures for mitigating oak woodland conversions.

4) Clarification needed . SB 1334 enacts the Conversion of Oak Woodlands Law (COWL), which sets requirements for conversion of oak woodlands from an agricultural use to another agricultural use, and adds requirements under CEQA relating to the conversion of oak woodlands and timberland.

Clarification is needed in the above provisions. For example, a) COWL requires compliance with one of the new mitigation requirements under CEQA (Public Resources Code 4811), (assuming "of Section 21083.4" on page 3, lines 5 and 6, should not be stricken) but 21083.4(a) prohibits CEQA from applying to COWL; b) 21083.4(d)(3) provides for contributions to the Oak Woodlands Conservation Fund, while the Oak Woodlands Conservation Act prohibits grants from the fund to be used for acquiring land to mitigate project impacts (Fish and Game Code 1366(b)); c) 21083.4(d)(4) authorizes a mitigation alternative of planting replacement trees on up to 10 acres, while 21083.4(d)(5) requires mitigation options to "double in acreage the land converted"; d) 21083.4(d)(5) allows counties to reduce the required mitigation acreage for "superior quality mitigation lands" but this term is undefined and there is no guidance on the reduced amount; e) 21083.4(d)(5) allows a equal amount of mitigation land in certain areas with undefined terms or cross references (e.g. , urban reserve line, urban services line); f) 21083.4(d)(9) allows exemptions for certain purposes (e.g. , harvesting of fuelwood by the landowner, projects within oak woodlands with no oak trees greater than five inches in diameter), but sets no acreage limits for the exemptions; and g) allows stricter local ordinances under CEQA (21083.4(d)(10)), but not under COWL.

If the committee believes that procedures should be specified for mitigating the conversion of oak woodlands, then terms, mitigation alternatives, and exemptions in SB 1334 should be clarified, and it may be appropriate for the bill to focus on oak woodlands conversions.

5) Support and opposition concerns . Supporters generally note the value of the state's oak woodlands (e.g. , support thousands of plants and animals, watershed functions, scenery that supports tourist industry), problems associated with the conversion of oak woodlands, and the importance of mitigating conversion impacts and establishing appropriate mitigation options.

Opponents assert that SB 1334 expands CEQA for oak and timber conversions, requires the Board of Forestry and Fire Protection to develop duplicative regulations for timberland, requires up to two-to-one mitigation, creates a quasi-CEQA process for converting oak woodlands on agricultural lands, and conflicts with the Oak Woodlands Conservation Act of 2001.

SOURCE : Senator Kuehl

SUPPORT : California Oak Foundation, Defenders of Wildlife, Endangered Habitats League, Natural Resources Defense Counsel, Planning and Conservation League, Sierra Club California

OPPOSITION : Agricultural Council of California, Association of California Water Agencies, California Agricultural Commissioners and Sealers Association, California Association of Realtors, California Association of Winegrape Growers, California Building Industry Association, California Business Properties Association, California Cattlemen's Association, California Chamber of Commerce, California Farm Bureau Federation, California Forestry Association, California Grain and Feed Association, California Manufacturers and Technology Association, California Association of Counties, California Wool Growers Association, Consulting Engineers and Land Surveyors of California, Family Winemakers of California, Forest Landowners of California, Kern County Water Agency, Lumber Association of California and Nevada, Regional Council of Rural Counties, Resource Landowners, Coalition, Transportation Corridor Agencies of Orange County, Tulare County Farm Bureau, Wine Institute

CA B. An., S.B. 1334 Sen., 4/19/2004