Northlake TK-8 School Project

Addendum

PREPARED FOR:

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March 2022

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March 2022

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LIST OF ABBREVIATIONS

ALUC	Airport Land Use Commission
applicant	Greenbriar Development Project applicant
AQMP	Air Quality Mitigation Plan
basin plan	water quality control plan
BMP	best management practice
BO	Biological Opinion
CalEEMod	California Estimator Model
Caltrans	California Department of Transportation
CDE	California Department of Education
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
City	City of Sacramento
CLUP	Comprehensive Land Use Plan
CNEL	community noise equivalent level
CO	carbon monoxide
CSD-1	Sacramento County Sanitation District 1
dBA	A-weighted decibels
DEIR	Draft EIR
DTSC	California Department of Toxic Substances Control
EIR	environmental impact report
ESD	equivalent single family dwelling unit
FEIR	Final Environmental Impact Report
FEMA	Federal Emergency Management Agency
FMMP	Farmland Mapping and Monitoring Program
GGS	giant garter snake
GHG	greenhouse gas
gpd	gallon per day

I-5	Interstate 5
K-6	kindergarten through 6th grade
LAFCo	Local Agency Formation Commission
lb/day	pounds per day
L_{dn}	day-night average noise level
L_{eq}	energy-equivalent noise level
LOS	level of service
mgd	gallons per day
MS4	Municipal Separate Storm Sewer Systems
$MTCO_2e$	metric tons of carbon dioxide equivalent
MTP/SCS	Metropolitan Transportation Plan and Sustainable Communities Strategy
NBHCP	Natomas Basin Habitat Conservation Plan
NCIC	North Central Information Center
NNCP	North Natomas Community Plan
NO_X	oxides of nitrogen
NPDES	National Pollutant Discharge Permit
OPR	California Office of Planning and Research
PEA	Preliminary Environmental Assessment
PM_{10}	respirable particulate matter
$PM_{2.5}$	fine particulate matter
project	Northlake TK-8 School project
RDEIR	Recirculated Draft EIR
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SACOG	Sacramento Area Council of Governments
SB	Senate Bill
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMUD	Sacramento Municipal Utility District
SOI	Sphere of Influence

SR	State Route
SRCSD	Sacramento Regional County Sanitation District
SRDEIR	Second Recirculated Draft EIR
SRWTP	Sacramento Regional Water Treatment Plant
State CEQA Guidelines	California Environmental Quality Act Guidelines
SWPPP	stormwater pollution prevention plan
TAC	toxic air contaminant
TK-8	kindergarten through 8th grade level students
TK-8	kindergarten through 8th grade level students
TRUSD	Twin Rivers Unified School District
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
UWMP	Urban Water Management Plan
VMT	vehicle miles traveled

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1 INTRODUCTION

This section describes the background of the Northlake TK-8 School project (Amended Project), the purpose of this Addendum, and the actions required by the Twin Rivers Unified School District (TRUSD) to approve the Amended Project.

1.1 PROJECT BACKGROUND

TRUSD is proposing to construct and operate a new school to serve transitional kindergarten through 8th grade level students (TK-8) with 1,083 seats in the Northlake Community, located northwest of the intersection of SR 70/99 and I-5 in the North Natomas area of the City of Sacramento. The project was previously evaluated as part of the Greenbriar Development Project. The environmental impact report (EIR) for the Greenbriar Development Project was certified by the City of Sacramento (City) in 2008 (SCH #2005062144). The environmental process for the Greenbriar Development Project EIR began in 2006 and involved the preparation of the following documents that are relevant to the proposed amendments being considered for the project:

- Draft EIR (DEIR) for the Greenbriar Development Project (Volumes I-III), July 2006
- Recirculated Draft EIR (RDEIR) for the Greenbriar Development Project (Air Quality; Hydrology, Drainage and Water Quality), November 2006
- Second Recirculated Draft EIR (SRDEIR) for the Greenbriar Development Project (Transportation and Circulation), April 2007
- Final EIR (FEIR) for the Greenbriar Development Project, August 2007

On September 19, 2007, the Sacramento Local Agency Formation Commission (LAFCo) certified the Final EIR and approved the Sphere of Influence Amendment for the project. In January 2008, the City of Sacramento certified the EIR and approved the Greenbriar Development Project (City of Sacramento 2008). After the City's approval of the project, LAFCo approved annexation of the proposed project to the City of Sacramento service area boundary in June 2008 (LAFCo 2008). The above documents together comprise the EIR for the Greenbriar Development Project and are referred to collectively as the 2008 EIR.

Following approval of the project in 2008, the Greenbriar Development Project applicant engaged in extensive discussions with the City, the U.S. Fish and Wildlife Service, the California Department of Fish and Wildlife, and the United States Army Corps of Engineers regarding the project's strategy for conserving habitat in the Natomas Basin. In 2017, the project owner applied to the City to amend the approved project to incorporate into the project, among other things, an updated conservation strategy for habitat preservation to benefit special-status species in the Natomas Basin. The City considered the amendment and completed an Environmental Checklist and Addendum (May 31, 2017 Addendum) consistent with the requirements of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines. The City approved a Minor Tentative Map Amendment (Z18-059) on June 28, 2018, concurrently with a second Addendum to the Final EIR. A third Addendum (April 15, 2019) to the Final EIR was also completed that addresses Phase 2 entitlements. The Phase 2 entitlements increased the elementary school from 10 acres to 16.8 acres.

Since the prior approvals, TRUSD proposes to increase the capacity of the school from 800 seats to 1,083 seats and proposes to serve TK-8 grade levels rather than K-6. The increase in the number of students and range of grades offered at the school comprise the Amended Project, which is the subject of this document. In addition, the Greenbriar Development Project EIR contained only basic information about the site, such as its location, size, and student capacity. A more detail project description is now available and provided in Chapter 2, "Project Description."

1.2 BASIS FOR THE ADDENDUM

The Greenbriar Development project is an approved, master planned community with residential, commercial, recreational parks and open space, and public/quasi-public land uses located in North Natomas in the City of Sacramento. The Sacramento City Council approved the Greenbriar Development project in 2008 after certifying the EIR for the project.

The school included within the Greenbriar Development Project has been modified to include an increase in the number of students and grades offered onsite. To consider approval of the school and modification to the approved plans, TRUSD must ensure that, if needed, environmental review consistent with the requirements of the CEQA and the State CEQA Guidelines has been completed. Because the City has previously complied with CEQA for the Greenbriar Development Project, the new discretionary action before TRUSD, as the Responsible Agency for approval of the school, would be consideration of a change in an already-approved project. CEQA provides guidance to agencies when evaluating changes to an already approved project. As outlined by CEQA, TRUSD would not need to start from scratch, but could use information in the certified EIR; to the extent it remains adequate. Consistent with the requirements of CEQA Guidelines Section 15162, TRUSD must, therefore, determine whether any changed circumstances or "new information of substantial importance" will trigger the need for a subsequent EIR. Under that section, when an EIR has been certified for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, based on substantial evidence in the light of the whole record, one or more of the following:

> (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
>
> (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
>
> (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:
>
> > (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
> >
> > (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;
> >
> > (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
> >
> > (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

If any of the triggers set forth above occurs, TRUSD would be required to prepare a subsequent EIR, unless "only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation," in which case a "supplement to an EIR" would suffice (see CEQA Guidelines, Section 15163). If there are no grounds for either a subsequent EIR or a supplement to an EIR, then TRUSD could prepare an addendum pursuant to CEQA Guidelines Section 15164, explaining why "some changes or additions" to the 2008 Final EIR "are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred."

This Addendum contains an environmental checklist which has been prepared to determine whether any additional environmental review would be required for TRUSD to consider adoption of the Amended Project. This analysis considers whether the Amended Project or environmental conditions that exist today have changed such that new or

substantially more severe environmental impacts would occur compared to that evaluated in the 2008 EIR. As presented in this Addendum, there is no substantial evidence that the proposed modifications to the Amended Project would result in new or substantially more severe environmental impacts that were not previously analyzed or disclosed in the 2008 EIR and addenda. No conditions outlined in Section 15162 have been met to require subsequent environmental documentation. Therefore, TRUSD has determined that an Addendum is the appropriate environmental process to comply with CEQA for approval of the Northlake TK-8 School.

1.3 RESPONSIBLE AGENCY APPROVAL

TRUSD is the public agency that is responsible for carrying out development of the school described in the Greenbriar Development Project and 2008 EIR and addenda. A "responsible agency" is defined in Public Resources Code Section 21069 as a public agency, other than the lead agency that has responsibility for carrying out or approving a project. A responsible agency compiles with CEQA by considering the EIR or Negative Declaration prepared by the Lead Agency and by reaching its own conclusion on whether and how to approve the project (CEQA Guidelines Section 15096).

The checklist provided in Chapter 4 provides an evaluation of the adequacy of the 2008 EIR and addenda, in terms of how Northlake TK-8 School was described and its environmental impacts evaluated. The Board will consider the information contained in the Addendum while considering approval of the Amended Project. The findings of the identified significant environmental impacts and statement of overriding considerations, which addresses the benefits of the project along with a discussion of the significant environmental impacts, will be considered for adoption by the TRUSD Board. Adoption of the findings and statement of overriding considerations would comprise the actions taken by the TRUSD Board to approve the project. If the project is approved a Notice of Determination will be filed with the State Clearinghouse and Sacramento County Clerk.

1.4 DOCUMENT ORGANIZATION

This Addendum is organized as follows:

- Chapter 1: Introduction. This chapter introduces the environmental review process and background information about the project.
- Chapter 2: Project Description and Background. This chapter summarizes the Original Project analyzed in the 2008 EIR and addenda, identifies project objectives, and provides a detailed description of the Amended Project.
- Chapter 3: Approach to the Environmental Checklist. This chapter provides a summary of the general approach of the checklist presented in Chapter 4.
- Chapter 4: Environmental Checklist. This chapter presents an analysis of a range of environmental issues identified in the CEQA Environmental Checklist. It determines if the modifications added to the Amended Project would result in a change in the previously identified impacts, a new less-than-significant impact, a new less-than-significant impact with mitigation incorporated, or a new potentially significant impact. If any impacts were determined to be potentially significant and could not be clearly mitigated to less-than-significant, an EIR would be required.
- Chapter 4: References. This chapter lists the references used in preparation of this Addendum.
- Chapter 5: List of Preparers. This chapter identifies report preparers.

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2 PROJECT DESCRIPTION

2.1 PROJECT OVERVIEW

TRUSD is proposing to construct and operate a new school to serve transitional kindergarten through 8th grade level students (TK-8) with 1,083 seats in the Northlake Community in the North Natomas area of the City of Sacramento. The Greenbriar Development Project (now referred to as Northlake Community) included an elementary school that would serve up to 800 kindergarten through 6th grade (K-6) students. Since adoption of the Greenbriar Development Project and certification of the 2008 EIR, the school site was increased from 10 acres to 16.8 acres. This expansion was addressed in the Addendum to Greenbriar Development Project Environmental Impact Report, adopted on April 15, 2019. TRUSD has modified the school to serve TK-8 grade level students, rather than K-6, and has increased the number of seats from 800 to 1,083. The increased student body is the Amended Project, which is the subject of this Addendum. In addition, TRUSD has developed a detailed plan of the proposed school facilities, which is evaluated in Chapter 4 of this addendum.

2.2 PROJECT LOCATION AND SITE CHARACTERISTICS

The project site encompasses 16.8 acres within the 577-acre Northlake community, located northwest of the intersection of SR 70/99 and Interstate 5 (I-5) in the North Natomas area of the City of Sacramento. The project site is bordered by agricultural and rural residential land uses to the west and north, I-5 and agricultural lands to the south, and State Route (SR) 70/99 and a new residential community currently under development within North Natomas to the east and south. Regional access to the project site is provided from SR 70/99 and I-5 (Figure 2-1). Local access to the project site is provided by Elkhorn Boulevard (Figure 2-2).

While the project site is now undergoing active grading, and residential and commercial development, prior to approval of the Greenbriar Development Project, the site primarily consisted of former rice fields and associated water canals. Other crops that were cultivated on-site in the past include alfalfa and hay. A racehorse training facility was located in the northwest corner of the project site, but it was demolished prior to approval of the Greenbriar Development Project. Other buildings that were located on the project site include agricultural outbuildings, greenhouses, and other support structures (e.g., wells). The off-site reserves consist of active agricultural fields.

The approved Metro Air Park development project is located to the west and consists of proposed commercial, hotel, and recreational (i.e., golf course) land uses. The North Natomas Community Plan (NNCP) area is located adjacent to the eastern boundary of the project site across SR 70/99 and south of Elkhorn Boulevard. Development in the North Natomas area includes residential and commercial land uses.

2.3 PROJECT BACKGROUND AND DESCRIPTION OF THE ORIGINAL PROJECT

As described in Chapter 1 and above, the project site is located within the master planned Northlake community (formerly and herein referred to as the Greenbriar Development Project). The Greenbriar Development Project includes mixed-use residential and commercial development centered on a common lake/detention basin located in the North Natomas area of Sacramento, as well as a conservation strategy for preservation of habitat and benefits to special-status wildlife in the Natomas Basin. A 10-acre (net) elementary school site was included within the master plan to meet the student generation demands of the Greenbriar Development Project (assumed to serve up to 800 K-6 students), which was subsequently increased to 16.8 acres during the Phase 2 entitlements and was approved with an Addendum. No additional details of the site plan or design were previously known or evaluated.

2.4 Project Description

The following sections provide details related to the proposed school facilities, project design features, utilities, construction activities, and construction workforce.

2.4.1 School Facilities

The Amended Project would consist of a 16.8-acre TK-8 school campus serving the Rio Linda and North Natomas area. The project site is located adjacent to a planned neighborhood park that could invite potential joint use opportunities. The Amended project includes a gymnasium building, cafeteria building, administration/library building, classroom buildings, and ancillary support spaces based on the educational specifications established in the TRUSD 2015 Long Range Facility Master Plan (TRUSD 2015). This school would accommodate approximately 1,083 students in 2024.

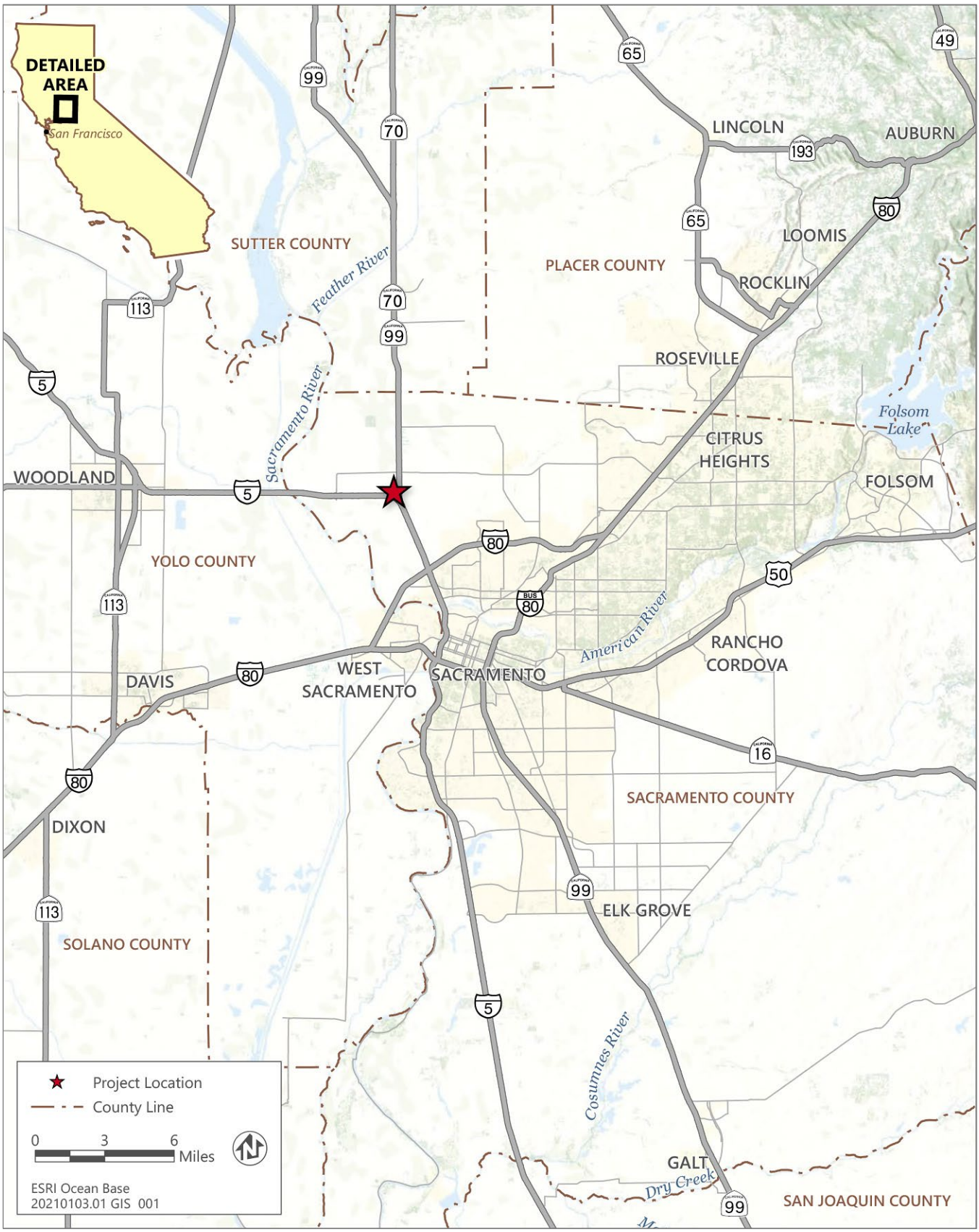
The overall school design would feature a radial finger design footprint with each wing dedicated to independent grade levels and outdoor learning areas between each wing. The grounds would also feature play fields and ball courts to the north of the classroom buildings (Figure 2-3).

The campus would contain eight main buildings:

1. Administration/library
2. Transitional Kindergarten/Kindergarten classrooms
3. Cafeteria
4. Gymnasium
5. 1st-2nd Grade Classrooms
6. 3rd-4th Grade Classrooms
7. 5th-6th Grade Classrooms
8. 7th-8th Grade Classrooms

2.4.2 Access and Parking

Vehicular access to the project site would be provided from the east, south, and west. Student drop-off for the TK and kindergarten classrooms would be provided on the southwestern edge of the school grounds, while 1st through 8th grade students would enter via the main entry near the administrative buildings. Staff parking would be located along the southern and southeastern edge of campus. Approximately 112 surface parking spaces would be provided for faculty and staff. At least 10 percent of the total onsite parking spaces would be electric vehicle-ready, such that in addition to including underground conduit, spaces must also include installation of dedicated branch circuits/electrical pre-wiring, circuit breakers, and other electrical components, including a 240-volt outlet or blank cover, needed to support future installation of one or more charging stations. It is estimated that up to three small school buses or vans would provide transportation for students with special needs.

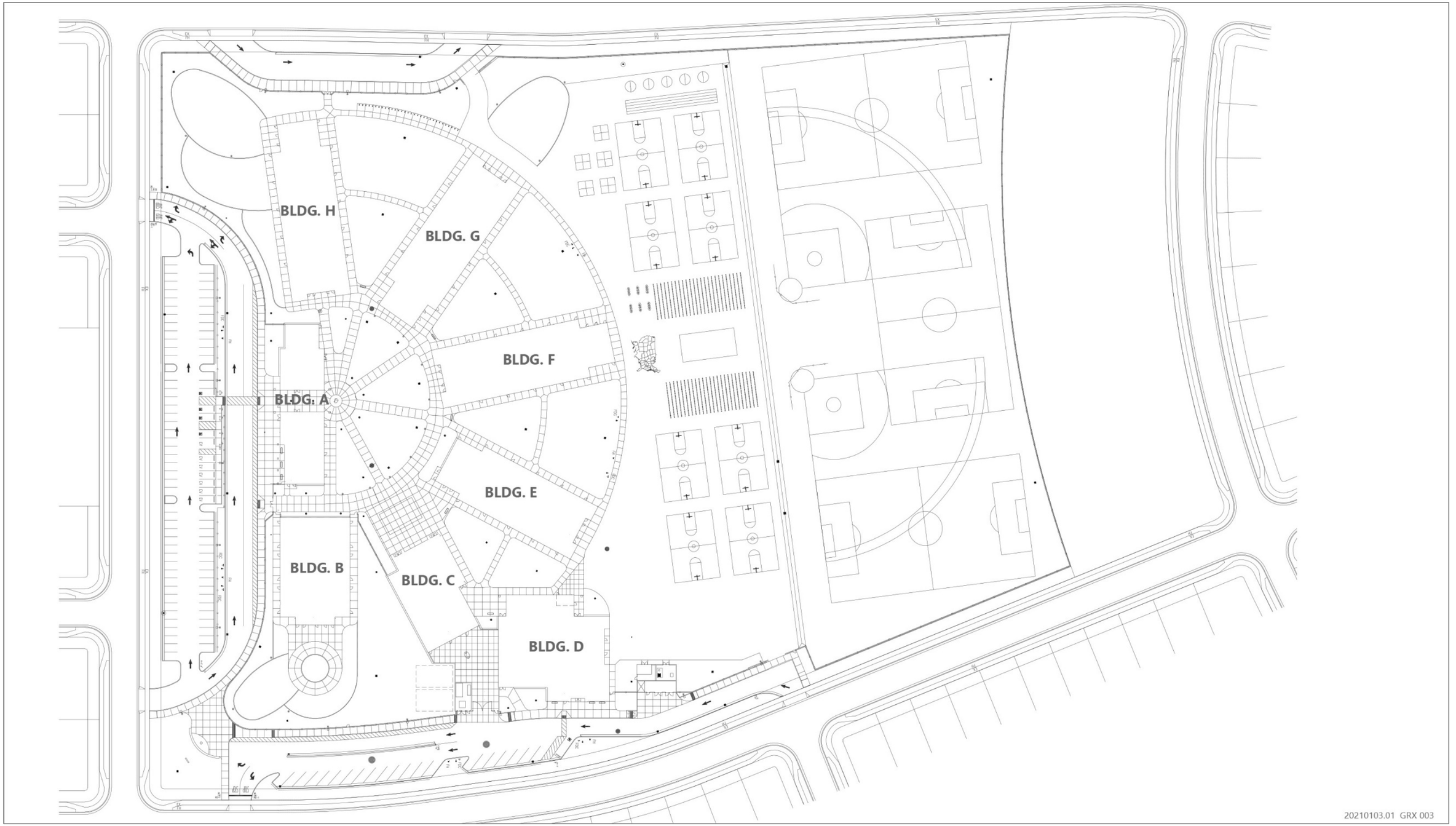


Source: adapted by Ascent Environmental in 2021

Figure 2-1 Regional Location

Source: adapted by Ascent Environmental in 2021

Figure 2-2 Project Vicinity/Site



Source: adapted by Ascent Environmental in 2021

Figure 2-3 Site Plan

2.4.3 Project Design Features

The overall design concept for the campus is to provide the community with a school that is consistent with the other existing and proposed Farmhouse Style development within the Greenbriar Development Project. Similar to the Northlake Community Center, the campus architecture would consist of cement plaster and fiber cement vertical siding. The administration building at the front of the campus would include stone veneer accents on the columns, all of which are commonly used materials throughout the community. Classroom buildings would be no taller than those of a typical single-story house within the greater Greenbriar Development Project site. Figure 2-4 depicts the main entrance of the campus at the Administration building.

Figure 2-4 Main Campus Entry

2.4.4 Utilities

The Amended Project would be served as part of the phased expansion and extension of public utility infrastructure from adjacent areas (e.g., NNCP area) to the project site described in Section 3.5.7 of the Greenbriar EIR. Potable water, wastewater (including pump and lift stations if necessary), and storm water drainage facilities for Northlake Elementary School would connect to existing distribution and transmission lines. The project would be served with electricity from SMUD. Natural gas would be stubbed into the site and capped in the utility yard. No distribution lines would be installed as part of the project.

2.4.5 Construction Activities

Construction of the Amended Project would occur over approximately 1.5 years. Construction equipment would vary from day to day depending on the construction phase and the activities occurring but would involve operation of graders, rollers, concrete pumps, excavators, skid steers, and loaders (see Table 2-1).

Table 2-1 Construction Phasing and Duration

Construction Phase	Anticipated Duration
Utility installation	50 days
Final grading	20 days
Rock placement, paving, turf installation, fencing, landscaping, concrete pouring	4 months
Development of classroom facilities	12 months

The Greenbriar Development Project applicant and TRUSD have an agreement in place that requires the project site to be delivered in a construction-ready condition, in accordance with the standards for school site construction as approved by the California Division of State Architect. These conditions include rough grading of the site; utilities stubbed on the site, including water, sewer, computer cable hook ups, fiber options; and, curbs gutters, roads on at least three sides of the site, and work necessary to prepare the site for construction. Rough grading of the site has

been completed, and work to prepare the site in a construction-ready condition in on-going. Specific construction activities would begin with utility installation completion, followed by final grading over a period of approximately 70 days. Rock placement, paving, turf installation, fencing, landscaping, and concrete pouring would be completed prior to development of the classroom facilities, which would include framing, footing excavation, and general construction.

2.4.6 Construction Workforce

The construction workforce would consist of 20 workers on a daily basis. Construction activities would occur between approximately 6:00 a.m. and 5:00 p.m., Monday through Friday, for most of project construction.

3 APPROACH TO THE ENVIRONMENTAL CHECKLIST

3.1 EXPLANATION OF CHECKLIST EVALUATION CATEGORIES

The purpose of this checklist is to evaluate the categories in terms of any "changed condition" (i.e., changed circumstances, project changes, or new information of substantial importance) that may result in a different environmental impact significance conclusion. The row titles of the checklist include the full range of environmental topics, as presented in Appendix G of the California Environmental Quality Act Guidelines (State CEQA Guidelines). The column titles of the checklist have been modified to help answer the questions to be addressed pursuant to Public Resources Code Section 21166 and State CEQA Guidelines Section 15162. A "no" answer does not necessarily mean that there are no potential impacts relative to the environmental category, but that there is no change in the condition or status of the impact since it was analyzed and addressed with mitigation measures in the Final Environmental Impact Report (FEIR) (2008). For instance, the environmental categories might be answered with a "no" in the checklist because the impacts associated with the Amended Project were adequately addressed in the EIR, and the environmental impact significance conclusions of EIR remain applicable for the Amended Project. The purpose of each column of the checklist is described below.

3.1.1 Where Impact Was Analyzed in the Prior Environmental Documents

This column provides a cross-reference to the pages of the prior environmental documents where information and analysis may be found relative to the environmental issue listed under each topic. In this case, the relevant environmental documents include the DEIR, Recirculated Draft EIR (RDEIR), SRDEIR, FEIR, and three addenda.

3.1.2 Do Proposed Project Changes Involve New or Substantially More Severe Significant Impacts?

Pursuant to Section 15162(a)(1), this column indicates whether there have been substantial changes proposed in the project that would require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of a previously identified impact.

3.1.3 Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?

Pursuant to Section 15162(a)(2) of the CEQA Guidelines, this column indicates whether there have been substantial changes to the project site or the vicinity (circumstances under which the project is undertaken) that have occurred subsequent to the prior environmental documents, which would result in the current project having new significant environmental impacts that were not considered in the prior environmental documents or that substantially increase the severity of a previously identified impact.

3.1.4 Any Substantially Important New Information Requiring New Analysis or Verification?

Pursuant to Section 15162(a) (3) (A-D) of the CEQA Guidelines, this column indicates whether new information of substantial importance which was not known and could not have been known with the exercise of reasonable diligence at the time the previous environmental documents were certified as complete is available requiring an update to the analysis of the previous environmental documents to verify that the environmental conclusions and

Mitigation Measures remain valid. If the new information shows that: (A) the project will have one or more significant effects not discussed in the prior environmental documents; or (B) that significant effects previously examined will be substantially more severe than shown in the prior environmental documents; or (C) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects or the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) that mitigation measures or alternatives which are considerably different from those analyzed in the prior environmental documents would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative, the question would be answered 'Yes' requiring the preparation of a subsequent EIR or supplement to the EIR. However, if the additional analysis completed as part of this Environmental Checklist Review finds that the conclusions of the prior environmental documents remain the same and no new significant impacts are identified, or identified significant environmental impacts are not found to be substantially more severe, the question would be answered 'No' and no additional EIR documentation (supplement to the EIR or subsequent EIR) would be required. Notably, where the only basis for preparing a subsequent EIR or a supplement to an EIR is a new significant impact or a substantial increase in the severity of a previously identified impact, the need for the new EIR can be avoided if the project applicant agrees to one or more mitigation measures that can reduce the significant effect(s) at issue to less than significant levels. (See *River Valley Preservation Project v. Metropolitan Transit Development Board* (1995) 37 Cal.App.4th 154, 168.)

3.1.5 Do Prior EIR Mitigation Measures/Environmental Commitments Address/Resolve Impacts?

This column indicates whether the prior environmental documents provide mitigation measures to address effects in the related impact category. In some cases, the mitigation measures have already been implemented. A "yes" response will be provided in either instance. If "N/A" is indicated, this Environmental Checklist Review concludes that the impact does not occur with this project and, therefore, no mitigation measures are needed. A "no" response indicates that mitigation measures are proposed in this document and have been agreed to by the applicant.

3.2 DISCUSSION AND MITIGATION SECTIONS

3.2.1 Discussion

A discussion of the checklist elements is provided under each environmental category to clarify the answers and provide substantial evidence for the conclusions. The discussion provides information about the environmental issue, how the Amended Project relates to the issue, and the status of any mitigation that may be required or that has already been implemented.

3.2.2 Mitigation Measures

Applicable mitigation measures from the prior environmental review that apply to the Amended Project are listed under each environmental category.

The Greenbriar Development Project applicant and TRUSD have an agreement in place that requires the project site to be delivered in a construction-ready condition, in accordance with the standards for school site construction as approved by the California Division of State Architect. These conditions include rough grading of the site; utilities stubbed on the site, including water, sewer, computer cable hook ups, fiber options; and, curbs gutters, roads on at least three sides of the site, and work necessary to prepare the site for construction. Rough grading of the site has been completed, and work to prepare the site in a construction-ready condition in on-going. Thus, the analysis of the impacts from the Amended Project assumes the conditions of the agreement will be met prior to transfer of ownership of the site to, and construction of the project by, TRUSD.

Consistent with on-going development of the overall Greenbriar Development Project, including conditioning the Northlake TK-8 School to construction-ready conditions, some mitigation measures incorporated into the checklist below have been modified. These modifications include deletion of measures that are no longer relevant or have been completed by the Greenbriar project applicant, and minor changes to render the measures enforceable by TRUSD. As presented, the mitigation measures provide a level of environmental protection equal to or greater than those presented in the current Mitigation Monitoring Plan (MMP) for the 2008 EIR. The modifications do not result in a new or more severe significant adverse effects on the environment and are feasible and enforceable.

3.2.3 Conclusions

Each resource section in Chapter 4 addresses if there are new circumstances or new information and whether the conclusions in the 2008 EIR and addenda remail valid.

3.3 ACRONYMS USED IN CHECKLIST TABLES

Acronyms used in the Environmental Checklist tables and discussion include:

EIR	Environmental Impact Report
FEIR	Final Environmental Impact Report
MM	mitigation measure
N/A	not applicable
RDEIR	Recirculated Draft Environmental Impact Report
SRDEIR	Second Recirculated Draft Environmental Impact Report

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4 ENVIRONMENTAL CHECKLIST

4.1 AESTHETICS

Environmental Issue Area	Where Impact Was Analyzed in the DEIR, RDEIR, SRDEIR, FEIR, or Addenda	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Any Substantially Important New Information Requiring New Analysis or Verification?	Do Prior EIR Mitigation Measures/ Environmental Commitments Address/Resolve Impacts?
1. Aesthetics					
a. Have a substantial adverse effect on a scenic vista?	DEIR, pp. 6.7-8 – 6.7-9; Impact 6.7-1	No	No	No	N/A
b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	DEIR, p. 6.7-9; Impact 6.7-2	No	No	No	N/A
c. In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	DEIR, pp. 6.7-9 – 6.7-10; Impact 6.7-3	No	No	No	N/A
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	DEIR, pp. 6.7-10 – 6.7-11; Impact 6.7-4	No	No	No	Yes

4.1.1 Discussion

The 2008 DEIR addresses aesthetics in Section 6.7. Since certification of the 2008 EIR, the project site, along with the entire Northlake Community (formerly known as Greenbriar Development Project), has been graded and construction is ongoing. Adjacent areas east of State Route (SR) 70/99 and south of Interstate 5 (I-5) have continued to develop with residential uses since 2008, while adjacent areas north and west of the Greenbriar Development Project site remain undeveloped and are consistent with agricultural properties in the Natomas Basin that may be left fallowed, used for grazing activities, or cultivated with crops.

a. The analysis contained in the 2008 DEIR under Impact 6.7-1 found that views on or near the Greenbriar Development Project site are not considered scenic vistas. While the Amended Project site has been graded and areas within the Greenbriar Development Project site have been developed, conditions have not changed substantially since certification of the EIR in 2008 with respect to the scenic quality or scenic vistas of the site or the surrounding areas. Therefore, the conclusions of the EIR and addenda remain valid, and

there are no new circumstances that would result in new impacts or new information that would require additional analysis because of an effect on a scenic vista.

b. The analysis contained in the 2008 DEIR under Impact 6.7-2 notes that there are no officially designated state scenic highways or national scenic byways adjacent to or near the Greenbriar Development Project site. Conditions have not changed since the certification of the EIR in 2008 (Caltrans 2019; FHWA n.d.). Therefore, the conclusions of the 2008 EIR and addenda remain valid, and there would be no new circumstances that would result in new impacts or new information that would require additional analysis because of an effect on scenic resources within a state scenic highway or national scenic byway.

c. The analysis in the 2008 DEIR under Impact 6.7-3 notes that the visual character of the Natomas Basin has been gradually changing from agricultural to suburban development and that because the Greenbriar Development Project would convert a large area of land from visual open space to suburban development, there would be a significant impact on the visual character of the area. The DEIR concludes that because of the scale and nature of the project, no feasible mitigation is available to avoid conversion of the local viewshed from agricultural to suburban development; therefore, the impact would be significant and unavoidable. Since the certification of the 2008 EIR, the Greenbriar Development Project site has been graded and is under development. In terms of consideration of the site as a nonurbanized area, the visual impacts of the Amended Project would be substantially similar to those discussed in the 2008 EIR and addenda because it would continue to convert the local viewshed from agricultural to suburban development. In addition, because the Greenbriar Development Project has been approved and is currently under development, it could be considered an existing urban area. With this in mind, the Amended Project consists of an increase in student body and number of grade levels, which would not affect zoning or compliance with regulations governing scenic quality. The visual character of the Amended Project would be consistent with that of the larger Greenbriar Development Project. The conclusions of the 2008 EIR and addenda regarding impacts of the Amended Project related to degradation of the existing visual character or quality of the site and its surroundings remain valid and are unchanged, and there are no new circumstances that would result in substantially more severe impacts or new information that would require additional analysis with respect to degradation of visual character of the site and its surroundings.

d. The analysis in the DEIR under Impact 6.7-4 notes that lighting and reflective surfaces associated with the Greenbriar Development Project could inadvertently cause light and glare for motorists on I-5 and SR 70/99 under day and nighttime conditions and that the degree of nighttime darkness in the City of Sacramento would diminish, resulting in a significant impact. The Amended Project would not add a substantially greater level of light or glare compared to that discussed in the 2008 EIR and addenda. Implementation of Mitigation Measure 6.7-4 would continue to reduce impacts to less-than-significant level. The conclusions of the 2008 EIR and addenda regarding impacts of the Amended Project from light and glare remain valid and are unchanged, and there are no new circumstances that would result in substantially more severe impacts or new information that would require additional analysis with respect to creation of a new source of substantial light or glare.

4.1.2 Mitigation Measures

The following mitigation measure referenced in the 2008 EIR would remain applicable if the Amended Project were approved. The mitigation measures have been modified slightly from the 2008 EIR (shown in underline/~~strikeout~~). These modifications include deletion of some measures that are no longer relevant or have been completed by the Greenbriar developer, and minor changes to render the measures enforceable by TRUSD. As presented, the mitigation measures provide a level of environmental protection equal to or greater than those presented in the current Mitigation and Monitoring Plan (MMP) for the 2008 EIR. The modifications do not result in a new or more severe significant adverse effects on the environment and are feasible and enforceable. No additional mitigation measures are required for the Amended Project.

Modified Mitigation Measure 6.7-4

a. ~~The project applicant~~ TRUSD shall install light fixtures that have light sources aimed downwards and install shielded lighting outside to prevent glare or reflection or any nuisance, inconvenience, and hazardous interference of any kind on adjoining streets or property.

b. ~~The project applicant shall adhere to all requirements of the City of Sacramento design guidelines regarding appropriate building materials, lighting, and signage in the office/commercial areas to prevent light and glarerom adversely affecting motorists and adjacent land uses. All proposed development plans shall be approved by the City.~~

4.1.3 Conclusion

No new circumstances have occurred nor has any substantially important new information been found with respect to aesthetics requiring additional analysis or verification. Therefore, the conclusions of the 2008 EIR and addenda remain valid, and approval of the project would not result in new or substantially more severe significant impacts on aesthetics.

4.2 AGRICULTURE AND FOREST RESOURCES

Environmental Issue Area	Where Impact Was Analyzed in the DEIR, RDEIR, SRDEIR, FEIR, or Addenda	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Any Substantially Important New Information Requiring New Analysis or Verification?	Do Prior EIR Mitigation Measures/ Environmental Commitments Address/Resolve Impacts?
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 of the California Resources Agency, to non-agricultural use?	DEIR pp. 6.11-7 – 6.11-8; Impact 6.11-1 First Addendum, page 3-7	No	No	No	Yes
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	DEIR p. 6.11-8; Impact 6.11-2	No	No	No	N/A
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))?	Not previously evaluated	No	No	No	N/A
d. Result in the loss of forest land or conversion of forest land to non-forest land?	Not previously evaluated	No	No	No	N/A
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?	DEIR pp. 6.11-8 – 6.11-9; Impact 6.11-3	No	No	No	N/A

4.2.1 Discussion

Agriculture is addressed in Section 6.11 of the DEIR and in the first addendum to the 2008 EIR. Since certification of the 2008 EIR and approval of the addenda, the project site and greater Greenbriar Development area have been graded and are zoned for planned development. Adjacent areas east of SR 70/99 and south of I-5 have continued to develop with residential uses, while adjacent areas to the north of the site remain undeveloped and are consistent with agricultural properties in the Natomas Basin that may be left fallowed, used for grazing activities, or cultivated with crops. In 2018, the California Department of Conservation released updated Farmland Mapping and Monitoring Program (FMMP) data. The FMMP data indicates no changes to Important Farmland conditions on the site and it continues to be designated as Farmland of Local Importance (DOC 2018). The entire Greenbriar Development Project site has been graded, and construction is ongoing.

a. As described in the DEIR on p. 6.11-7, implementing the Greenbriar Development Project would result in the conversion of approximately 518 acres of agricultural land to non-agricultural uses, inclusive of the school

site. The 518 acres of agricultural land subject to conversion were classified as Important Farmland based on FMMP data. Currently available FMMP data indicate that the types and acreages of Important Farmland designated on the project site have not changed substantially since 2007, when the EIR was prepared (DOC 2018). The 2008 EIR concludes that this impact would remain significant and unavoidable even after implementation of Mitigation Measure 6.11-1. Mitigation Measure 6.11-1 involves implementation of Mitigation Measure 6.6-2, which calls for the project applicant to "coordinate with the City to identify appropriate lands to be set aside in permanent conservation easement at a ratio of one open space acre converted to urban land uses to one-half open space acre preserved and at a ratio of one habitat acre converted to urban land uses to one-half habitat acre preserved" in a manner consistent with the principles of the City/County Joint Vision Plan. Mitigation Measure 6.6-2, as set forth in the 2008 EIR, also specifies that all conserved open space and habitat land shall be in the North Natomas Joint Vision Area, and the City and County entered an open space agreement/memorandum of understanding to that effect in 2008.

In February 2012, four years after the EIR was certified, the Sacramento County Board of Supervisors initiated a Master Plan and General Plan Amendment process to move the Urban Services Boundary and Urban Policy Area in the Natomas Joint Vision Area with specific boundary locations to be determined through a master planning process (Sacramento County 2012). This action by the County of Sacramento was a departure from the original 2002 memorandum of understanding between the County of Sacramento and the City of Sacramento, which originally called for the city to take the lead in "urbanizing" substantial portions of the Natomas Joint Vision area and for the county to take the lead in developing an open space conservation program.

Mitigation Measure 6.6-2 was revised in 2017 as part of Phase 1 entitlements to reflect the fact that the County rescinded the 2008 Open Space Agreement/Memorandum of Understanding to allow Greenbriar to conserve open space and habitat land outside of Sacramento County. (Resolution No. 2015-0784.) The 2017 Addendum concluded that the North Nestor Reserve, located near the Sacramento County line in Sutter County, along with the other off-site reserves within Sacramento County, provide equivalent benefits associated with preservation of agricultural land in the Natomas Basin, as contemplated in the 2008 EIR, because all reserve lands would still be located within the Natomas Basin. Requirements associated with Mitigation Measure 6.6-2 have been satisfied by the Greenbriar developer and no further mitigation is required by TRUSD. The Amended Project would not affect the project site area or otherwise involve additional conversion of agriculture above that analyzed in the 2008 EIR and addenda. There are no new circumstances resulting in new impacts or new information requiring additional analysis related to important farmlands. The conclusions regarding impacts to important farmland contained in the 2008 EIR and 2017 Addendum remain valid, and no additional impacts would occur.

b. As described in the EIR analysis under Impact 6.11-2, at the time of the prior analysis, the Greenbriar Development Project site was not under a Williamson Act contract but was zoned for agricultural land uses. The project site was rezoned from an agricultural zoning designation to residential, commercial, and open space designations as part of the 2008 approvals; therefore, there are no resulting conflicts or impacts with respect to Williamson Act contracts or agricultural zoning designations. The Amended Project would not affect the project site area or otherwise involve additional conflicts with Williamson Act or agricultural zoning above that analyzed in the 2008 EIR and addenda. There are no new circumstances resulting in new impacts or new information requiring additional analysis related to the Williamson Act or agricultural buffers. The conclusions regarding impacts on agricultural preserves contained in the 2008 EIR and addenda remain valid.

c, d. These topics were not addressed in the 2008 EIR, because they were added to Appendix G of the CEQA Guidelines in the amendments of 2010. The entire Greenbriar Development Site was previously zoned form agricultural uses, which does not support forest resources. As discussed above, the Greenbriar Development Project site has been graded and forestlands are present in the project vicinity; therefore, no new significant impacts related to forestry resources would occur.

e. The DEIR analysis on pages 6.11-8 and 6.11-9 identifies potential conflicts with adjacent agricultural operations north of the project site as a significant impact. Mitigation Measure 6.11-3 requires the project applicant to notify all prospective residents and tenants within 500 feet of existing agricultural uses north of Elkhorn

Boulevard with respect to the agricultural operations and potential conflicts that could occur. This mitigation measure is not applicable to the Amended Project because it is located farther than 500 feet south of existing agricultural land uses. The Amended Project would not affect the project site area or otherwise involve conversion of agricultural land to other uses above that analyzed in the 2008 EIR and addenda. The DEIR concludes that even with implementation of this mitigation measure, the impact would be significant and unavoidable. There are no changed circumstances resulting in new or substantially more severe impacts or new information requiring additional analysis related to agricultural buffers. The conclusions regarding impacts on agricultural preserves contained in the 2008 EIR and addenda remain valid, and no impacts would occur.

4.2.2 Mitigation Measures

No mitigation measures are required.

4.2.3 Conclusion

No new circumstances involving new significant impacts have occurred. Requirements related to Mitigation Measure 6.11-1 and 6.11-3 have been satisfied, thus impacts of the Greenbriar Development Project related to Farmland have been addressed and no additional mitigation measures are required for the Northlake TK-8 School project. No substantially important new information with respect to agriculture and forest resources that would require new analysis or verification. Therefore, the conclusions of the 2008 EIR and addenda remain valid, and implementation of the project would not result in any new significant impacts associated with agriculture and forest resources.

4.3 AIR QUALITY

Environmental Issue Area	Where Impact Was Analyzed in the DEIR, RDEIR, SRDEIR, FEIR, or Addenda	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Any Substantially Important New Information Requiring New Analysis or Verification?	Do Prior EIR Mitigation Measures/ Environmental Commitments Address/Resolve Impacts?
3. Air Quality. Would the project:					
a. Conflict with or obstruct implementation of the applicable air quality plan?	RDEIR; pp. 6.2-16 – 6.2-23; Impacts 6.2-1 – 6.2-3; 2018 Addendum, pp .4-6	No	No	No	Yes
b. 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?	RDEIR; pp. 6.2-16 – 6.2-23; Impacts 6.2-1 – 6.2-3; 2018 Addendum, pp .4-6	No	No	No	Yes
c. Expose sensitive receptors to substantial pollutant concentrations?	RDEIR; pp. 7-14 – 7-15.	No	No	No	Yes
d. Result in other emissions (e.g. those leading to odors) adversely affecting a substantial number of people?	RDEIR pp. 6.2-24 – 6.2-31; Impact 6.2-4	No	No	No	Yes

4.3.1 Discussion

The 2006 RDEIR analyzed air quality impacts of construction and operation of the Greenbriar Development Project. Changes in the regulatory setting, since the prior environmental review was conducted, would not result in new or increased severity of impacts because the project site and proposed land uses would be essentially the same as those which were previously analyzed. The 2006 RDEIR provided air quality monitoring data from 2003–2005 for multiple monitoring locations near the plan area. Current air quality conditions in the plan area are similar to those at the time of the 2006 RDEIR, but current monitoring and attainment designations are provided below to characterize the existing air quality setting. Table 4-1 below summarizes the current National and California ambient air quality standards and attainment designations. Table 4-2 summarizes the most recent air quality monitoring data for criteria air pollutants for which the region is in nonattainment. Measurements are from the Sacramento-Goldenland Court and Sacramento-T Street air quality monitoring stations, which are representative of air quality conditions in the project vicinity.

Table 4-1 Ambient Air Quality Standards and Designations for Sacramento County

Pollutant	Averaging Time	California		National Standards [1]	
		Standards [2,3]	Attainment Status [4]	Primary[3]	Attainment Status[6]
Ozone	1-hour	0.09 ppm (180 µg/m^3)	N (Serious)	—	N (Moderate)
	8-hour	0.070 ppm (137 µg/m^3)		0.070 ppm (147 µg/m^3)	
Carbon monoxide (CO)	1-hour	20 ppm (23 mg/m^3)	A	35 ppm (40 mg/m^3)	A
	8-hour	9 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	
Nitrogen dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	A	53 ppb (100 µg/m^3)	U/A
	1-hour	0.18 ppm (339 µg/m^3)		100 ppb (188 µg/m^3)	

Pollutant	Averaging Time	California		National Standards [1]	
		Standards [2,3]	Attainment Status [4]	Primary[3]	Attainment Status[6]
Sulfur dioxide (SO_2)	24-hour	0.04 ppm (105 µg/m^3)	A	—	A
	3-hour	—		0.5 ppm (1300 µg/m^3) [5]	
	1-hour	0.25 ppm (655 µg/m^3)		0.75 ppm (196 µg/m^3)	
Respirable particulate matter (PM_{10})	Annual Arithmetic Mean	20 µg/m^3	N	—	A
	24-hour	50 µg/m^3		150 µg/m^3	
Fine particulate matter ($PM_{2.5}$)	Annual Arithmetic Mean	12 µg/m^3	A	12 µg/m^3	A/N [7]
	24-hour	—		35 µg/m^3	
Lead [8]	30-day Average	1.5 µg/m^3	A	—	—
	Calendar Quarter	—		1.5 µg/m^3	U/A
	Rolling 3-Month Avg	—		0.15 µg/m^3	A
Sulfates	24-hour	25 µg/m^3	A	No National Standards	
Hydrogen sulfide	1-hour	0.03 ppm (42 µg/m^3)	U		
Vinyl chloride [8]	24-hour	0.01 ppm (26 µg/m^3)	U		
Visibility-reducing particle matter	8-hour	Extinction coefficient of 0.23 per kilometer —visibility of 10 mi or more	U		

Notes: µg/m^3 = micrograms per cubic meter; ppm = parts per million; ppb = parts per billion

[1] National standards (other than ozone, PM, and those based on annual averages or annual arithmetic means) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. The PM_{10} 24-hour standard is attained when 99% of the daily concentrations, averaged over 3 years, are equal to or less than the standard. The $PM_{2.5}$ 24-hour standard is attained when 98 % of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact the EPA for further clarification and current federal policies.

[2] California standards for ozone, CO (except Lake Tahoe), SO_2 (1- and 24-hour), NO_2, PM, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. CAAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[3] Concentration expressed first in units in which it was promulgated [i.e., parts per million (ppm) or micrograms per cubic meter (µg/m^3)]. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[4] Unclassified (U): a pollutant is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.

Attainment (A): a pollutant is designated attainment if the state standard for that pollutant was not violated at any site in the area during a 3-year period.

Nonattainment (N): a pollutant is designated nonattainment if there was a least one violation of a state standard for that pollutant in the area.

Nonattainment/Transitional (NT): is a subcategory of the nonattainment designation. An area is designated nonattainment/transitional to signify that the area is close to attaining the standard for that pollutant.

[5] Secondary Standard

[6] Nonattainment (N): any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for the pollutant.

Attainment (A): any area that meets the national primary or secondary ambient air quality standard for the pollutant.

Unclassifiable (U): any area that cannot be classified based on available information as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant.

Maintenance (M): any area previously designated nonattainment pursuant to the CAAA of 1990 and subsequently redesignated to attainment subject to the requirement to develop a maintenance plan under Section 175A of the CAA, as amended.

[7] ARB has identified lead and vinyl chloride as toxic air contaminants with no threshold of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[8] Sacramento County is in attainment for annual federal standard for fine particulate matter ($PM_{2.5}$), but in nonattainment for 24-hour federal standard.

Source: CARB 2019

Table 4-2 Summary of Annual Data on Ambient Air Quality in Sacramento (2018–2020)

	2018	2019	2020
Ozone [1]			
Maximum concentration (1-hr/8-hr avg, ppm)	0.090/0.073	0.088/0.077	0.086/0.079
Number of days state standard exceeded (1-hr/8-hr)	0/2	0/4	0/6
Number of days national standard exceeded (8-hr)	0	1	1
Fine Particulate Matter ($PM_{2.5}$) [2]			
Maximum concentration ($\mu g/m^3$)	40.2	33.2	42.1
Number of days national standard exceeded (24-hour measured)	6.1	0	3.0
Respirable Particulate Matter (PM_{10}) [1]			
Maximum concentration ($\mu g/m^3$)	51.0	35.0	54.0
Number of days state standard exceeded	6.0	0	6.1
Number of days national standard exceeded	N/A[3]	0.0	0.0

Notes: $\mu g/m^3$ = micrograms per cubic meter; ppm = parts per million

[1] Measurements from the Sacramento-Goldenland Court air quality monitoring station (68 Goldenland Court, Sacramento, CA 95834).

[2] Measurements from the Sacramento-T Street air quality monitoring station (1309 T Street, Sacramento, CA 95814).

[3] There was no data available to determine the value.

Source: CARB 2021

The analysis below compares the school included within the Greenbriar Development Project as presented in the 2008 EIR and addenda, to the Amended Project to determine if the changes to the project (i.e., increased student body and range of grades) has resulted in a new significance impact or an impact of greater severity.

a, b. Short-term construction emissions are evaluated in the RDEIR under Impact 6.2-1. This impact was considered significant in the RDEIR. The Amended Project would result in emissions of criteria air pollutants and precursors during construction and operation. Construction of the Amended Project would generate emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ from site preparation, grading, building construction, paving, and application of architectural coatings. The California Estimator Model (CalEEMod) Version 2020.4.0 was used to estimate these emissions. Table 4-3 below summarizes the construction emissions from implementation of the Amended Project (i.e., the school portion of the larger Greenbriar Development Project).

Table 4-3 Summary of Average Daily Pounds Per Day Construction Emissions of Criteria Pollutants and Precursor Emissions for the Amended Project

Emissions Source	ROG (lb/day)	NOx (lb/day)	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)
2022	4	39	21	12
2023	31	17	1	1
SMAQMD Emissions Threshold	N/A	85	80[a]	82[a]

Notes: lb/day = pounds per day; ROG = reactive organic gases; NOx = oxides of nitrogen; PM_{10} = particulate matter 10 micrometers or less in diameter; $PM_{2.5}$ = fine particulate matter.

[a] SMAQMD applies a zero emissions threshold to unmitigated emissions of PM_{10} and $PM_{2.5}$. With the implementation of all best available control technology and best management practices, which are included for the Amended Project, an 80 and 82 lb/day is applied to PM_{10} and $PM_{2.5}$, respectively.

Source: Appendix A (calculations by Ascent Environmental in 2021).

Construction-generated emissions of NO_X would not exceed Sacramento Metropolitan Air Quality Management District's (SMAQMD) significance threshold of 85 pounds per day (lb/day). Mitigation Measure 6.2-1 identifies best management practices that would reduce emissions of fugitive PM_{10} and $PM_{2.5}$ emissions that would apply to the Amended Project. Mitigation Measure 6.2-1 (a) has been implemented by the Greenbriar Development Applicant, as required prior to issuance of the grading permit by the City of Sacramento. Implementation of these measures would reduce on-site fugitive dust emissions to a greater

degree to what is estimated and summarized in Table 4-3 above. These emissions would be below SMAQMD's post-mitigation thresholds of 80 and 82 lb/day for PM_{10} and $PM_{2.5}$, respectively.

Long-term operational emissions of ROG, NO_X, and PM_{10} are evaluated under Impact 6.2-2 in the RDEIR. Operational emissions associated with the entire Greenbriar Development Project were expected to exceed SMAQMD's significant threshold of 65 lb/day for ROG and NO_X.

The long-term operational emissions of the previously approved school project and the Amended Project are summarized in Table 4-4 below. Operational emissions would be generated from operation of landscaping equipment and vehicle trips accessing the project site. The previous project consisted of a school site capable of accommodating 800 kindergarten through 6th grade students. The Amended Project expands the previous project to accommodate 1,083 students ranging from TK to 8th grade. While the expansion of the school site from 10 to 16.8 acres was approved in the Phase 2 Amendments Addenda, this analysis considers the increased student body and range of grades.

Table 4-4 Summary of Operational Emissions of Criteria Pollutants and Precursor Emissions for the Previous Project and Amended Project (2024)

Emissions Source	ROG (lb/day)	NOx (lb/day)	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)
Previous Project				
Mobile	5	4	7	2
Energy	<1	2	<1	<1
Area	10	<1	<1	<1
Total	15	6	7	2
Amended Project				
Mobile	6	6	9	2
Energy	<1	3	<1	<1
Area	20	<1	<1	<1
Total	26	9	9	3
Net Difference	**11**	**3**	**2**	**1**
SMAQMD Emissions Threshold	65	65	80[a]	82[a]

Notes: lb/day = pounds per day; ROG = Reactive Organic Gases; NOx = Oxides of Nitrogen; PM_{10} = Particulate matter 10 micrometers or less in diameter; $PM_{2.5}$ = Fine particulate matter.

[a] SMAQMD applies a zero emissions threshold to unmitigated emissions of PM_{10} and $PM_{2.5}$. With the implementation of all best available control technology and best management practices, which are included for the Amended Project, an 80 and 82 lb/day is applied to PM_{10} and $PM_{2.5}$, respectively.

Source: Appendix A (calculations by Ascent Environmental in 2021).

As shown above in Table 4-4, operation of the Amended Project would generate slightly greater operational emissions than the previous project. This is attributable to higher mobile source emissions associated with vehicles accessing the project site from the increase of 283 students. Nevertheless, the emissions from operation of the Amended Project would not exceed SMAQMD's emissions thresholds for ROG, NO_X, PM_{10} or $PM_{2.5}$.

Mitigation Measure 6.2-2 identified in the RDEIR requires the implementation of an Air Quality Mitigation Plan to reduce operational emissions by a minimum of 15 percent (shown in detail in Appendix E to the DEIR). The RDEIR found that with Mitigation Measure 6.2-2, the impact would remain significant and unavoidable, even with application of a 15 percent reduction under this Mitigation Measure. The Addendum prepared in 2018 updated the Air Quality Mitigation Plan (AQMP) to reflect changes in the project site plan and included a new Measure 28 to require the applicant to implement onsite solar systems to provide 12.5 percent of the entire Greenbriar Development project, which includes the school analyzed in this discussion.

However, because the Amended Project would not exceed SMAQMD's threshold of significance of 65 lb/day for ROG or NO_X, an AQMP is not required, and Mitigation Measure 6.2-2 does not apply.

There would not be a more severe impact than what was identified in the RDEIR and addenda.

Impact 6.2-3 in the RDEIR addresses potential effects from carbon monoxide (CO) emissions. Based on modeling conducted for the RDEIR, per SMAQMD's screening procedures, the predicted local mobile-source CO concentrations would not exceed the 1-hour or 8-hour CAAQS, and the impact is therefore considered less than significant.

The Amended Project would consist of similar land uses and intensity levels compared to the previously approved project. Due to declining emissions factors in the statewide vehicle fleet mix however, emissions of criteria pollutants and CO estimated for the Amended Project would likely be less than the previously estimated emissions and would not result in new or substantially more severe impacts. In addition, air quality significance criteria in the latest guidance from SMAQMD have not changed substantially since the EIR was certified. There are no new circumstances resulting in new impacts or new information requiring additional analysis related to the criteria air emissions. The conclusions regarding impacts on criteria air emissions contained in the 2008 EIR and addenda remain valid, and no further impacts would occur.

c. Exposure of sensitive receptors to toxic air contaminant (TAC) emissions is addressed in the RDEIR under Impact 6.2-4. The analyses conducted for the DEIR showed that implementation of the previous project could result in the exposure of existing sensitive receptors to minor short-term increases in construction emissions that would be considered less than significant. A health risk assessment of exposure to TACs for future residents along the margins of the previous project closest to freeways shows that previous project would not result in a substantially increased health risk, and the operational exposure is considered less than significant. The RDEIR concludes, however, that given that proposed on-site commercial land uses were not yet been identified, and given the potential proximity of nearby sensitive receptors, exposure of nearby on-site receptors to mobile-source TACs associated with commercial and other activities on the site would be considered potentially significant. Mitigation Measure 6.2-4 required the implementation of a site-specific plan to reduce TAC emissions from diesel equipment and heavy trucks. The impact was determined to be significant and unavoidable, based on the uncertainty associated with on-site commercial land use activities and proximity of sensitive receptors to such uses. The Amended Project is not a commercial land use or a significant source of mobile-source diesel PM, however, nor is it located within the proximity of a commercial land use or source of mobile-source diesel PM. Therefore, Mitigation Measure 6.2-4 identified in the DEIR would not be applicable to the Amended Project.

The Amended Project is an educational land use. Public Resources Code Section 21151.8(a)(1)(D) states than an environmental impact report shall not be certified if a new elementary or secondary school is sited within 500 feet of the edge of the closest traffic lane of a freeway or other busy traffic corridor. While the Amended Project is situated within the vicinity of Interstate 5 and State Route 99, these arterials are located approximately 850 feet from the closest portion of the project site. This is consistent with the location of the previous project, which was approved in 2008. The Amended Project would not change the location of the previous project. Therefore, the location of the Amended Project would similarly not meet the criteria of PRC Section 21151.8 and is not disqualified from CEQA certification.

The Amended Project would consist of nearly identical land uses (but can accommodate additional students) compared to the previous project. Due to declining emissions factors in the statewide vehicle fleet mix, however, emissions of TACs would likely be less than what was identified in the 2008 EIR, and therefore estimated incremental exposure levels would likely be equal to or less than what was previously analyzed despite a small increase in new vehicle trips associated with a greater study body. In addition, air quality significance criteria in the latest guidance from SMAQMD have not changed substantially since the EIR was certified. There are no new circumstances resulting in new impacts or new information requiring additional analysis related to TACs. The conclusions regarding impacts on TACs contained in the 2008 EIR and addenda remain valid, and no further impacts would occur.

d. Exposure to odor emissions is addressed under Impact 6.2-5 in the RDEIR. The RDEIR finds that certain aspects of project operations could result in the frequent exposure of on-site receptors to substantial objectionable odor emissions from on-site land uses. Implementation of Mitigation Measure 6.2-5, which calls for specific site design and review procedures during the permitting stages of the Greenbriar Development Project to be implemented by the City would be reduced to a less-than-significant level. However, the Amended Project is not a source of odors, nor would the Amended Project contribute new receptors to existing odors within the project area. Thus, Mitigation Measure 6.2-5 would not be applicable to the Amended Project. There are no new circumstances resulting in new impacts or new information requiring additional analysis related to odors. The conclusions regarding impacts on odor emissions contained in the 2008 EIR and addenda remain valid, and no additional impacts would occur.

4.3.2 Mitigation Measures

The following mitigation measure referenced in the 2008 EIR would remain applicable if the Amended Project were approved. The mitigation measures have been modified slightly from the 2008 EIR (shown in underline/~~strikeout~~). These modifications include deletion of some measures that are no longer relevant or have been completed by the Greenbriar developer, and minor changes to render the measures enforceable by TRUSD. As presented, the mitigation measures provide a level of environmental protection equal to or greater than those presented in the current Mitigation and Monitoring Plan (MMP) for the 2008 EIR. The modifications do not result in a new or more severe significant adverse effects on the environment and are feasible and enforceable. No additional mitigation measures are required for the Amended Project.

Modified Mitigation Measure 6.2-1

In accordance with the recommendations of the SMAQMD, the project applicant shall implement the following measures to reduce temporary construction emissions.

~~a. The project applicant shall implement the following measures to reduce NO_x and visible emissions from heavy-duty diesel equipment.~~

~~i. Before issuance of a grading permit, the project applicant shall provide a plan for approval by the lead agency, in consultation with SMAQMD, demonstrating that the heavy-duty (>50 horsepower), off-road vehicles to be used in the construction project, including owned, leased, and subcontractor vehicles, will achieve a project-wide fleet-average 20% NO_x reduction and 45% particulate reduction compared to the most recent ARB fleet average at the time of construction. Acceptable options for reducing emissions include the use of late-model engines, low-emission diesel products, alternative fuels, particulate matter traps, engine retrofit technology, after-treatment products, and/or such other options as become available.~~

~~ii. Before issuance of a grading permit, the project applicant shall submit to the lead agency and SMAQMD a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 hp, that will be used an aggregate of 40 or more hours during any portion of project construction. 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 operations occur. At least 48 hours before heavy-duty off-road equipment is used, the project applicant shall provide the SMAQMD with the anticipated construction timeline including start date, and the name and phone number of the project manager and on-site foreman.~~

~~iii. Before issuance of a grading permit, the project applicant shall ensure that emissions from off-road, diesel-powered equipment used on the project site do not exceed 40% opacity for more than 3 minutes in any 1 hour. Any equipment found to exceed 40% opacity (for white smoke) or Ringlemann 2.0 (for black smoke) shall be repaired immediately, and the SMAQMD shall be notified of non-compliant equipment within 48 hours of identification. A visual survey of all in-operation equipment shall be made at least weekly by the construction contractor, and the contractor shall submit a monthly summary of visual survey results throughout the duration of the construction project, except that the monthly summary shall not be required for any 30-day period in which no construction operations occur. The monthly summary shall include the quantity and type of vehicles~~

~~surveyed, as well as the dates of each survey. The SMAQMD and/or other officials may conduct periodic site inspections to determine compliance.~~

~~b.~~ As recommended by the SMAQMD, ~~the project applicant~~ TRUSD shall reduce fugitive dust emissions by implementing the measures listed below during construction.

i. All disturbed areas, including storage piles that are not being actively used for construction purposes, shall be effectively stabilized of dust emissions using water, a chemical stabilizer or suppressant, or vegetative ground cover. Soil shall be kept moist at all times.

ii. All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or a chemical stabilizer or suppressant.

iii. When materials are transported off-site (e.g., trees, plantings), all material shall be covered, effectively wetted to limit visible dust emissions, or maintained with at least 2 feet of freeboard space from the top of the container.

iv. All operations shall limit or expeditiously remove the accumulation of project-generated mud or dirt from adjacent public streets at least once every 24 hours when operations are occurring.

v. After materials are added to or removed from the surfaces of outdoor storage piles, the storage piles shall be effectively stabilized of fugitive dust emissions using sufficient water or a chemical stabilizer or suppressant.

vi. Onsite vehicle speeds on unpaved roads shall be limited to 15 mph.

vii. Wheel washers shall be installed for all trucks and equipment exiting unpaved areas, or wheels shall be washed to remove accumulated dirt before such vehicles leave the site.

viii. Sandbags or straw waddles shall be installed to prevent silt runoff to public roadways from adjacent project areas with a slope greater than 1%.

ix. Excavation and grading activities shall be suspended when winds exceed 20 mph.

x. The extent of areas simultaneously subject to excavation and grading shall be limited, wherever possible, to the minimum area feasible.

xi. Emulsified diesel, diesel catalysts, or SMAQMD-approved equal, shall be used on applicable heavy-duty construction equipment that can be operated effectively and safely with the alternative fuel type.

~~c. The applicant shall pay $2,587,955 into SMAQMD's off-site construction mitigation fund to further mitigate construction-generated emissions of NO_x that exceed SMAQMD's daily emission threshold of 85 lb/day. The calculation of the fee listed here based on the current cost of $14,300 to reduce a ton of NO_x. However, the then current cost of reducing NO_x should be used at the time of the payment of the fee. The fee shall be paid to SMAQMD prior to the issuance of any grading permit for any portion of the project. The fee can be paid on an acre basis ($4,485.19) as development occurs and grading permits sought. (See Appendix D of the DEIR for calculation worksheet).~~

~~d.~~ In addition to the measures identified above, construction operations are required to comply with all applicable SMAQMD rules and regulations.

4.3.3 Conclusion

No new circumstances have occurred nor has any substantially important new information been found with respect to air quality requiring new analysis or verification. Therefore, the conclusions of the 2008 EIR remain valid and approval of the Amended Project would not result in new or substantially more severe significant impacts to air quality.

4.4 BIOLOGICAL RESOURCES

Environmental Issue Area	Where Impact Was Analyzed in the DEIR, RDEIR, SRDEIR, FEIR, or Addenda	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Any Substantially Important New Information Requiring New Analysis or Verification?	Do Prior EIR Mitigation Measures/ Environmental Commitments Address/Resolve Impacts?
4. Biological Resources. Would the project:					
e. 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?	DEIR pp. 6.12-21 – 6.12-47; Impacts 6.12-2, 6.12-5, 6.12-8, 6.12-12, 6.12-13	No	No	No	Yes
f. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	DEIR pp. 6.12-21 – 6.12-47; Impacts 6.12-1, 6.12-2, and 6.12-3.	No	No	No	Yes
g. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	DEIR pp. 6.12-32 – 6.12-34; Impact 6.12-3	No	No	No	Yes
h. Interfere substantially with the movement of any native resident or migratory fish and wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	DEIR pp. 6.12-21 – 6.12-47; Impacts 6.12-1, 6.12-2, 6.12-3, 6.12-4, 6.12-5, 6.12-6, 6.12-7, 6.12-8, 6.12-9, 6.12-10, 6.12-11, 6.12-12, and 6.12-13.	No	No	No	Yes
i. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	DEIR pp. 6.12-37; Impact 6.12-7	No	No	No	Yes
j. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	DEIR pp. 6.12-38 – 6.12-47; Impact 6.12-9	No	No	No	Yes

4.4.1 Discussion

Biological Resources are addressed in Section 6.12 of the DEIR. While the area of proposed development has not changed, the Greenbriar Development Project applicant (applicant) has been coordinating with the City and resource agencies including the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), and the U.S. Army Corps of Engineers (USACE) to further refine the conservation strategy identified in the certified 2008 EIR (see Greenbriar Conservation Strategy dated January 2017). The project applicant prepared a Biological Resources Evaluation in June 2013 (HELIX 2013a), an updated Analysis of the Effects of the Greenbriar Development Project on the Natomas Basin Habitat Conservation Plan (HELIX 2016), and Greenbriar Conservation Strategy (HELIX 2017). Through that process the project applicant has refined the project's multi-species conservation strategy. Specifically, the revised conservation strategy enhances the mitigation identified in the 2008 EIR by:

- enhancing and preserving under a conservation easement a 28.3-acre (approximately 250-foot-wide) corridor along Lone Tree Canal referred to as the Lone Tree Canal Reserve;
- including measures to reduce or offset effects on Lone Tree Canal such as barriers/fencing, creation/enhancement of marsh habitat along the canal corridor, design of canal crossings to minimize obstacles to giant garter snake movement, and funding to manage the Lone Tree Canal Reserve in perpetuity;
- avoiding and minimizing construction-related effects on special-status species; and
- establishing approximately 528.5 acres of Off-Site Reserves in addition to the corridor conserved along Lone Tree Canal, including the Spangler Reserve (235.4 acres), the Moody Reserve (74±acres), and the North Nestor Reserve (219.1 acres). Habitat quality would increase at these sites because:
  - habitat would be preserved in perpetuity at all reserve sites;
  - habitat would be managed for the benefit of numerous Natomas Basin Habitat Conservation Plan (NBHCP) Covered Species at all reserve sites;
  - habitat would be enhanced at the Lone Tree Canal Reserve by recontouring the banks to enhance foraging habitat and cover for giant garter snake (GGS) and reduce maintenance disturbance, and establishment of native grassland in the upland areas;
  - managed marsh and upland habitat (annual grassland with seasonal wetlands) would be created at the Spangler Reserve;
  - habitat disturbance caused by farming or canal maintenance would be limited to authorized activities at all reserve sites and would be reduced at the Lone Tree Canal Reserve; and
  - habitat would be relatively free of human intrusion at the Lone Tree Canal Reserve and the Off-Site Reserves.

On May 16, 2017, the USFWS issued the Biological Opinion (BO) for the Greenbriar Development Project. The Greenbriar Development Project BO includes all properties associated with the Greenbriar Development Project: Greenbriar Development Project Site, inclusive of the school site, and off-site improvement lands, the Lone Tree Canal Reserve on the Greenbriar Development Project Site, and the three off-site reserves (the Spangler Reserve, the Moody Reserve, and the North Nestor Reserve). In the BO, the USFWS concurred with the USACE conclusion that the Greenbriar Development Project may affect giant garter snake. USFWS also concurred that the Greenbriar Development Project may affect but is not likely to adversely affect the valley elderberry longhorn beetle, vernal pool fairy shrimp, and vernal pool tadpole shrimp.

The BO addresses the entire Greenbriar Development Project, which includes construction of a mixed-used development on the Greenbriar Development Project Site, off-site infrastructure improvements, establishment of several habitat reserves, and implementation of the Greenbriar Conservation Strategy. The "Greenbriar Conservation Strategy" includes the establishment of reserves and implementation of other proposed conservation measures that would increase mitigation and reserve sites in the Natomas Basin and will assure that the Greenbriar Development Project (with its conservation strategy) will not compromise the effectiveness of the NBHCP.

The NBHCP, was approved by USFWS and CDFW in 2003, establishes the overall conservation program for the development of a 17,500-acre portion of the Natomas Basin. The Greenbriar Project Site where the mixed-used development would be constructed and the off-site improvement lands where off-site infrastructure improvements would occur are located within the boundaries of the NBHCP Plan Area but are not within the City of Sacramento or Sutter County Permit Areas, as defined by the NBHCP, where take of NBHCP Covered Species was previously authorized. As a result, the potential effects of the development on the Greenbriar Development Project Site and off-site improvement lands were not evaluated in the NBHCP.

Because the Greenbriar Development Project would result in additional development and reserve establishment that was not addressed in the NBHCP, the Greenbriar Conservation Strategy establishes, as part of the project description, conservation measures incorporated in the Greenbriar Development Project to avoid and minimize impacts to giant garter snake and other state and federally listed species covered in the NBHCP. The Greenbriar Conservation Strategy is designed to offset the impacts of take of federally listed species resulting from the Greenbriar Project and help achieve the NBHCP's goals and objectives. The Greenbriar Conservation Strategy will also benefit common species not covered by the NBHCP by the reserve establishment. The species conservation measures included in the BO are consistent with the measures included in the Greenbriar Conservation Strategy, and thus fully enforceable both as project components and mitigation measures.

a. The analysis contained in the 2008 EIR and subsequent addenda under Impact 6.12-1, 6.12-2, 6.12-4, 6.12-5, 6.12-6, 6.12-8, 6.12-10, 6.12-11, 6.12-12 and 6.12-13 found that impacts to giant garter snake, Swainson's hawk, special-status plants, burrowing owl habitat, northwestern pond turtle, loggerhead shrike nests, valley elderberry longhorn beetle, tricolored blackbird, Aleutian Canada goose, and nesting birds were potentially significant. However, as part of Greenbriar Project Phase 2 project, the project site, inclusive of the school site, has been completely graded and all vegetation and drainage/irrigation ditches have been removed. As such, there are no remaining biological resources on the site at this time and thus the Amended Project will have no impact on giant garter snake, special-status plants, northwest pond turtle, valley elderberry longhorn beetle, and tricolored blackbird. However, since the school site will remain undeveloped before construction commences, there is potential for burrowing owl, loggerhead shrike, Swainson's hawk to use the site for foraging or nesting or common bird species to nest in the vicinity of the site, and thus the species-specific avoidance and minimization measures discussed below are applicable to TRUSD. The Amended Project would not result in any new significant impacts or in a substantial increase in the severity of impacts due to new information or changes in the Amended Project or in the circumstances in which the Amended Project would be implemented. Therefore, the conclusions in the 2008 EIR and subsequent addenda remain valid, and no additional impacts would occur.

SWAINSON'S HAWK

The project site has recently been graded, but because construction will not commence until 2023, there is potential for California ground squirrels and other fossorial mammals to recolonize the site and provide suitable prey for Swainson's hawk. Implementation of the Greenbriar Conservation Strategy by the Greenbriar developer has mitigated for the loss of Swainson's hawk foraging habitat.

There are no trees in the project site that could provide suitable nesting habitat for this species, however, there are trees within 0.5 mile of the project site that provide suitable nesting habitat for this species. Implementation of the Amended Project could result in nest disturbance and potential nest abandonment if construction occurs during the nesting season. As under the 2008 EIR and subsequent addenda, Mitigation Measure 6.12-2 would minimize the potential for impacts to Swainson's hawk to a less than significant level by requiring pre-construction surveys for nesting Swainson's hawks, and if found, implementing a 0.5 mile no-disturbance buffer around the nest during the nesting season (between March 15 and September 15). If avoidance within 0.25 mile of an active nest is not feasible, then the project applicant can retain a qualified biologist to conduct intensive nest monitoring.

BURROWING OWL

No focused surveys have been conducted for burrowing owls; however, an owl and possible active burrow in a remnant structure were observed on the Greenbriar Project Site on December 13, 2012. Subsequent visits during winter 2012/2013 have resulted in negative findings. The California Natural Diversity Database records indicated documented occurrences of this species in the area (with the nearest documentation from 2003); active burrows and owls were observed near drainage canals adjacent to rice fields approximately 0.75 mile north of the project site near SR 70/99 (CDFW 2013). Additional observations of this species were documented in 2006 and updated in 2008 north of Elverta Road, approximately 1 mile east of SR 70/99 and in 2012 just southwest of Del Paso Road and East Commerce Way, approximately 1.4 miles of the project site.

The Greenbriar Project Conservation Strategy to preserve, enhance, and manage On- and Off-site Reserves will offset the loss of potential nesting habitat for this species at the Greenbriar Project Site. The loss of potential foraging habitat is not expected to adversely affect the species due to the abundance of foraging habitat in the basin and relatively few burrowing owls present in the Basin.

Although the site was recently graded, it's likely that the site will remain undisturbed until construction starts in 2023, which could allow California ground squirrels or other burrowing mammals to dig new burrows that could be used by burrowing owls. However, as under the 2008 EIR and subsequent addenda, Mitigation Measure 6.12-5 would reduce the potential for impacts to burrowing owl to a less-than-significant level by conducting pre-construction surveys, and if found, avoiding the burrow during the nesting season or if approved by CDFW relocating the owls after developing a relocation plan under consultation with CDFW.

LOGGERHEAD SHRIKE

No focused surveys have been conducted for loggerhead shrike. The Greenbriar Project Conservation Strategy to preserve, enhance, and manage On- and Off-site Reserves will offset the loss of potential nesting habitat for this species at the Greenbriar Project Site. Although the site was recently graded, it's likely that the site will remain undisturbed until construction starts in 2023. Natural vegetation may grow during that time and could provide suitable nesting habitat for this species. As such, construction of the school project, such as vegetation removal, re-grading, general construction activities, could result in removal or disturbance of loggerhead shrike nests, if construction activities were to occur during the typical nesting season (between March 1 and July 31). However, as under the 2008 EIR and subsequent addenda, Mitigation Measure 6.12-8 would minimize the potential for impacts to loggerhead shrike nests to a less-than-significant level by requiring pre-construction nesting surveys, and if found, establishing a 100-foot no construction buffer during the nesting season or until the young have fledge and are no longer dependent on the nest as determined by a qualified biologist.

ALEUTIAN CANADA GOOSE

Although the project site has been graded as part of the Greenbriar Project Phase 2, the Amended Project will remain vacant until construction starts in 2023. During that time, natural vegetation will likely grow on the site and may provide suitable wintering and foraging habitat for Aleutian Canada goose. Because this species typically spends winter in the Sacramento Valley, it has the potential to be affected by construction of the school project if construction activities (including re-grading, vegetation removal, general construction activities in the vicinity of where the birds are roosting, foraging, etc.) were to occur between October 1 through May 15. However, as under the 2008 EIR and subsequent addenda, Mitigation Measure 6.12-12 would minimize the potential for impacts to Aleutian Canada geese to less than significant level by requiring pre-construction surveys for overwintering Aleutian Canada geese, and if found, delaying construction till the birds have left the area or coordinating with CDFW on usage of deterrents to encourage the birds to leave the site.

NESTING BIRDS

Although the Amended Project site has been graded as part of the Greenbriar Project Phase 2, the project site will remain vacant until construction starts in 2023. During that time, natural vegetation will likely grow on the site and may provide suitable nesting habitat for common bird species. As such, implementation of the school project, such as vegetation removal, re-grading, general construction activities, could result in removal or disturbance of bird nests within or immediately adjacent to the project site, if construction activities were to occur during the typical nesting season (between February 1 and August 31). However, as under the 2008 EIR and subsequent addendums, Mitigation Measure 6.12-13 would minimize the potential for impacts to bird nests to a less-than-significant level by requiring pre-construction nesting surveys within and up to 300 feet of the project site, and if found, establishing a 300-foot no construction buffer during the nesting season or until the young have fledge and are no longer dependent on the nest as determined by a qualified biologist.

The Amended Project would not result in any new significant impacts or in a substantial increase in the severity of impacts due to new information or changes in the Amended Project or in the circumstances in which the Amended Project would be implemented. Therefore, the conclusions in the 2008 EIR and subsequent addenda remain valid, and no additional impacts would occur.

b. The DEIR disclosed potential impacts to riparian habitat in Lone Tree Canal (see 2008 EIR Mitigation Measure 6.10-3) but concluded that these impacts would be less than significant with mitigation. The Lone Tree Canal is approximately 0.6 mile west of the school project site. Furthermore, the site was graded as part of the Greenbriar Project Phase 2 and the irrigation/drainage ditches are no longer present. The Greenbriar Project by implementing the Greenbriar Conservation Strategy mitigated the loss of riparian habitat or other sensitive natural community. The school project, including the Amended Project, will have no impact on riparian habitat or other sensitive natural communities. Therefore, the conclusions of the 2008 EIR and subsequent addenda remain valid, and there are no new circumstances that would result in new impacts or new information that would require additional analysis due to an effect on riparian habitat or other sensitive natural community.

c. The analysis contained in the DEIR under Impact 6.12-3 found that loss and degradation of wetlands and waters of the United States would be a significant impact and required mitigation to reduce the impact to a less-than-significant level. The prior EIR estimated that the Greenbriar project likely would result in the loss of 14.15 acres of jurisdictional waters of the United States.

A total of 21.71 acres of potential waters of the U.S. were verified by USACE on September 12, 2014, on the Greenbriar Project Site and Off-Site Improvement Lands, as well as areas that include improvements by others not overlapping the Greenbriar Project Site and Off-site Improvement Lands. No riparian habitat occurs beyond the banks for the canals in the project site.

The irrigation/drainage ditches that were within the project site were removed when grading for the Greenbriar Project Phase 2 took place and thus are no longer present. The implementation of the Greenbriar Conservation Strategy and 2008 EIR Mitigation measure 6.12-3 ensured that no net loss of wetlands would occur. The school project, including the Amended Project, will have no impact to wetlands or waters of the United States. Therefore, the conclusions of the 2008 EIR and subsequent addenda remain valid, and there are no new circumstances that would result in new impacts or new information that would require additional analysis due to an effect on a wetlands or waters of the United States.

d. The analysis contained in the 2008 EIR under Impact 6.12-9 describes the effect of the Greenbriar Project on wildlife connectivity within the context of the Natomas Basin Habitat Conservation Plan. Consistent with the 2008 EIR analysis, the revised effects analysis (HELIX 2016) explained that the Greenbriar Conservation Strategy, as well as the proposed development on the Greenbriar project site and Off-Site Improvement Lands, have an overall beneficial effect on the establishment and management of reserves in the Natomas Basin and vicinity. Because the acreage of land in the Natomas Basin that is potentially available and suitable for preservation substantially exceeds the 8,750 acres that will be preserved by the NBHCP, the Greenbriar Development Project would not preclude the preservation of sufficient land to attain the NBHCP's goals and objectives. The Greenbriar Project would provide land for the establishment of reserves at a 1.03:1 ratio,

rather than a 0.5:1 ratio required by the NBHCP. The Off-Site Reserves will be managed for the benefit of all of the NBHCP Covered Species. Reserve lands will be adjacent to or near existing reserves, increasing the connectivity of habitats and the resources available to covered species using reserves established by the NBHCP; in addition, it would conserve an important corridor of canal habitat along Lone Tree Canal. The project also would increase opportunities to establish new reserves, particularly to create larger reserves by preserving additional land adjacent to existing TNBC reserves. Because the Greenbriar Development Project is establishing reserves at a 1.03:1 ratio (impacts: mitigation) for habitat converted to urban uses and protecting GGS movement corridor along Lone Tree Canal, the potential effects (both adverse and beneficial) that would result from implementing the Greenbriar Project would be unlikely to alter the population viability of any of the covered species. For these reasons, the Greenbriar Project would have an overall beneficial effect on the attainment of this goal. Therefore, the conclusions of the EIR remain valid, and the additional analysis reflected in the revised Greenbriar Effects Analysis (2019) concludes that the impact on wildlife corridors would be less than significant.

The project site has been graded as part of the Greenbriar Project Phase 2 and is located within an approved development area with a partially constructed neighborhood to the north, I-5 and the Westlake neighborhood to the south, SR-70/99 and Natomas Creek neighborhood to the east and thus its landlocked from potential wildlife corridor areas and thus it does not provide a route for wildlife movement or corridors. As such, the Amended Project will have no impact on wildlife corridors.

e. The analysis contained in the 2008 EIR under Impact 6.12-7 found that no loss of protected trees would occur. Conditions have not changed substantially since certification of the EIR in 2008 with respect to tree removal and potential conflicts with local policies or ordinances protecting biological resources. Therefore, the conclusions of the EIR remain valid, no impact would occur, and no mitigation would be required.

f. The analysis contained in the DEIR under Impact 6.12-9 described the potential conflict with the Natomas Basin Habitat Conservation Plan. Consistent with the DEIR conclusions, a revised effects analysis was prepared in 2016 that evaluated the effects on each species covered by the NBHCP, on the conservation strategy of the NBHCP, on specific conservation measures, and consequently on attainment of the NBHCP's goals and objectives because of implementing the proposed development on the project site and Off-Site Improvement Lands as well as the associated conservation strategy (HELIX 2016).

The revised effects analysis used the 2001 land cover data that represents baseline conditions of the NBHCP, and considered changes in land cover in 2005 and 2015. Interpretations of the project's effects on the NBHCP were based on the sum of anticipated effects on the viability of populations of NBHCP covered species using the Natomas Basin, on the effectiveness of the NBHCP's conservation strategy, and on attainment of the goals and objectives of the NBHCP.

Overall, the Greenbriar Development Project was found not to reduce the viability of any of the Covered Species, reduce the effectiveness of the NBHCP conservation strategy, or adversely affect attainment of the NBHCP goals and objectives. It would have this outcome because the Greenbriar Conservation Strategy integrates mitigation measures discussed above under a), 6.12-2, 12-2, 6.12-5, 6.12-8 6.12-12 and 6.12-13. These measures include preservation, enhancement, and management in perpetuity of reserve lands at a 1.03:1 ratio (preserved: converted), as well as the avoidance and minimization of effects on the Lone Tree Canal corridor. For the Covered Species, the increased habitat values on preserved lands offset the habitat values lost because of the development at the Greenbriar Project Site, and thus ensure preservation of resources in the Natomas Basin for these species. The Greenbriar Conservation Strategy ensures preservation of the Lone Tree Canal corridor, which is essential for maintaining connectivity of aquatic habitat and movement of GGS between the southern and central Natomas Basin.

Without mitigation, implementation of the Amended Project would result in potential conflicts with the NBHCP, however, as under the 2008 EIR and subsequent addenda, this potential impact would be less than significant with implementation of the mitigation measures discussed under a), above: Mitigation Measure 6.12-2, 12-2, 6.12-5, 6.12-8 6.12-12 and 6.12-13.

4.4.2 Mitigation Measures

Mitigation Measures 6.12-2, 12-2, 6.12-5, 6.12-8 6.12-12 and 6.12-13 referenced in the 2008 EIR or the 2017 EIR Addendum are applicable for the development of the school site. The mitigation measures have been modified slightly from the 2008 EIR (shown in underline/~~strikeout~~). These modifications include deletion of some measures that are no longer relevant or have been completed by the Greenbriar developer, and minor changes to render the measures enforceable by TRUSD. As presented, the mitigation measures provide a level of environmental protection equal to or greater than those presented in the current Mitigation and Monitoring Plan (MMP) for the 2008 EIR. The modifications do not result in a new or more severe significant adverse effects on the environment and are feasible and enforceable. These measures are also integrated into the Greenbriar Conservation Strategy, and thus fully enforceable both as project components and mitigation measures. No additional mitigation measures are required for the Amended Project.

Modified Mitigation Measure 6.12-2

The Project Applicant shall implement the Greenbriar Conservation Strategy, which includes the establishment of approximately 557 acres of on- and off-site reserves and represents a 1.03:1 ratio (area preserved: area impacted). This significantly exceeds the NBHCP mitigation ratio of 0.5:1. The Project's reserves will be enhanced, preserved, and managed in perpetuity. Land uses at the reserves will be consistent with the intended habitat types and ratios of the NBHCP reserve system, which are composed of 50 percent rice, 25 percent managed marsh, and 25 percent upland. Based on the current design, the Greenbriar Development Project proposes 259.4 acres of rice (46.6 percent), 143.8 acres of managed marsh (25.8 percent), and 153.9 acres of upland (27.6 percent).

The Greenbriar Project Applicant has been implementing the Greenbriar Conservation Strategy, and the mitigation for habitat lost has been met.

The Twin Rivers School District shall implement the following measures to minimize potential impacts to Swainson's hawks.

a. Surveys shall be conducted by a qualified biologist on and adjacent to the Greenbriar Project Site, Spangler Reserve, and any other properties associated with the Greenbriar Development Project where construction or restoration activities resulting in ground disturbance or mechanized land clearing would occur. The surveys shall be conducted consistent with the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (SHTAC 2000) in the calendar year that construction is scheduled to commence.

b. If breeding Swainson's hawks (i.e. exhibiting nest building or nesting behavior) are identified, no new disturbances (e.g., heavy equipment operation associated with construction) will occur within 0.5 mile of an active nest between March 15 and September 15, or until a qualified biologist, with concurrence by CDFW, has either determined that young have fledged or that the nest is no longer occupied, or that construction can commence with pre-cautions in place (would be determined in coordination with CDFW). Routine disturbances such as agricultural activities, commuter traffic, and routine facility maintenance activities within 0.5 mile of an active nest are not restricted.

c. Where disturbance of a Swainson's hawk nest cannot be avoided, the nest tree may be destroyed during the non- nesting season. For purposes of this provision, the Swainson's hawk nesting season is defined as March 15 to September 15. If a nest tree (any tree that has an active nest in the year the impact is to occur) must be removed, tree removal shall only occur between September 15 and February 1.

d. If a Swainson's hawk nest tree is to be removed and fledglings are present, the tree may not be removed until September 15 or until a qualified biologist in coordination with CDFW has determined that the young have fledged and are no longer dependent upon the nest tree.

e. If construction or other project related activities which may disturb nesting birds are proposed within a 1/4-mile buffer zone of an active nest, intensive monitoring (funded by the Project Applicant) by a qualified

biologist will be required. Exact implementation of this measure will be based on specific information at the construction area.

Mitigation Measure 6.12-5

a. In the calendar year that construction is scheduled to commence, surveys will be conducted by a qualified biologist to determine presence/absence of western burrowing owls and/or occupied burrows in the Greenbriar Project Site and accessible areas within 500 feet according to the CDFW's Staff Report on Burrowing Owls (CDFW 2012). Winter survey(s) shall be conducted between December 1 and January 31 and nesting survey(s) shall be conducted between April 15 and July 15. Pre-construction surveys shall also be conducted within 30 days prior to construction to ensure that no additional western burrowing owls have established territories since the initial surveys. If no western burrowing owls are found during any of the surveys, a letter report documenting survey methods and findings shall be submitted to CDFW, and no further mitigation will be necessary.

b. Occupied burrows shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist verifies through non-invasive measures that either: 1) the birds have not begun egg-laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

c. If nest sites are found, the USFWS and CDFW shall be contacted regarding suitable mitigation measures, which may include a 300-foot buffer from the nest site during the breeding season (February 1 - August 31), or a relocation effort for the burrowing owls if the birds have not begun egg-laying and incubation or the juveniles from the occupied burrows are foraging independently and are capable of independent survival. If on-site avoidance is required, the location of the buffer zone will be determined by a qualified biologist. The developer shall mark the limit of the buffer zone with yellow caution tape, stakes, or temporary fencing. The buffer will be maintained throughout the construction period.

d. If relocation of the owls is approved for the site by CDFW, the developer shall hire a qualified biologist to prepare a plan for relocating the owls to a suitable site. The relocation plan must include: (a) the location of the nest and owls proposed for relocation; (b) the location of the proposed relocation-site; (c) the number of owls involved and the time of year when the relocation is proposed to take place; (d) the name and credentials of the biologist who will be retained to supervise the relocation; (e) the proposed method of capture and transport for the owls to the new site; (f) a description of the site preparations at the relocation-site (e.g., enhancement of existing burrows, creation of artificial burrows, one-time or long-term vegetation control, etc.); and (g) a description of efforts and funding support proposed to monitor the relocation. Relocation options may include passive relocation to another area of the site not subject to disturbance through one-way doors on burrow openings, or construction of artificial burrows in accordance CDFW guidelines.

e. Where on-site avoidance is not possible, disturbance and/or destruction of burrows shall be offset through development of suitable habitat on the Project's reserves. Such habitat shall include creation of new burrows with adequate foraging area (a minimum of 6.5 acres or 300 feet radii) around the newly created burrows. This habitat (created burrows and associated foraging habitat) will be protected and managed in perpetuity as burrowing owl habitat according to guidelines established in the Site-Specific Management Plan for the reserve. Management activities in the burrowing owl habitats on the reserve shall include but are not limited to 1) vegetation management (grazing, mowing, burning), management of ground squirrels and other fossorial mammals, semi-annual and annual artificial burrow cleaning and maintenance (if applicable), control of non-native weeds and wildlife potentially detrimental to burrowing owls, and trash removal.

f. The project applicant shall implement Mitigation Measure 6.12-2.

Mitigation Measure 6.12-8

On-site Avoidance and Minimization Measures

a. If construction begins during the breeding season for loggerhead shrikes (March 1 to July 31), pre-construction surveys for loggerhead shrike shall be conducted by a qualified biologist on the Greenbriar Project Site, Spangler Reserve, and any other proposed construction/restoration areas (involving ground disturbance or vegetation removal) as well as on publicly accessible land within 500 feet of those sites (and on private land if permission is granted by the landowner). The pre-construction surveys will be conducted by a qualified biologist within two weeks prior to commencement of construction to determine presence/absence of nesting loggerhead shrike. If surveys determine loggerhead shrikes are present, the following measures shall be implemented to avoid disturbance to occupied nests during the nesting season:

   - A boundary shall be marked by brightly colored construction fencing that establishes a buffer zone a minimum of 100 feet from the active nest. No project-related disturbance shall occur within the fenced, 100-foot buffer during the nesting season (March 31 to July 31) or until the young have fledged and are no longer dependent on the nest as determined by a qualified biologist.

Mitigation Measure 6.12-12

a. Precautionary measures shall be implemented consistent with measures included in the NBHCP to avoid potential impacts to foraging Aleutian Canada geese if they are present during ground disturbance or vegetation disturbance/removal associated with construction or restoration activities on the Greenbriar Project Site, Spangler Reserve, or any other properties associated with the Greenbriar Development Project.

b. A pre-construction survey for Aleutian Canada geese shall be conducted within two weeks prior to beginning construction if construction is scheduled to commence during the time of year that this species would be present in the Basin (October 1 through May 15). If Aleutian Canada geese are identified, CDFW should be consulted regarding the appropriate avoidance and minimization measures to avoid impacts to this species. Such measures shall be appropriate for the use (e.g., foraging, roosting, etc.) and activity of the species, since this species is a seasonal visitor to the Basin. Measures may include postponing the start of construction until the birds have left on their own accord or implementing deterrents to encourage the birds to leave the site on their own accord.

Mitigation Measure 6.12-13

a. The following avoidance and minimization measures shall be implemented prior to site disturbance to avoid impacts to nesting raptors and other birds on the project sites or immediately adjacent properties. This is a general nesting bird protection measure. Specific measures for special-status bird species are listed individually.

   - To avoid impacts to nesting birds, a nesting survey shall be conducted within the Greenbriar Project Site, Spangler Reserve, and/or any other sites as needed prior to commencing with earth-moving or construction work if this work would occur during the typical nesting season (between February 1 and August 31).
   - The nesting survey shall include examination of all areas on or within 300 feet of the entire site, not just trees slated for removal, since ground vibrations and noise from earth-moving equipment can disturb nesting birds and potentially result in nest abandonment. Areas within 300 feet of the site shall be surveyed on foot if accessible or from within the site or publicly accessible areas by scanning the surrounding land with the aid of binoculars.
   - If nesting birds are identified during the surveys, CDFW shall be notified to determine the appropriate buffer, orange construction fence shall be installed to establish a 300-foot radius around the nest unless a qualified biologist determines that a lesser distance will adequately protect the nest (refer to discussion below for more detail). If the tree or nest is located off the site, then the buffer shall be demarcated per the above where the buffer intersects the site.
   - The size of the non-disturbance buffer may be altered if a qualified biologist conducts behavioral observations and determines the nesting birds are well acclimated to disturbance. If this occurs, the biologist shall prescribe a modified buffer that allows sufficient room to prevent undue

disturbance/harassment to the nesting birds. If the buffer is reduced, the qualified biologist shall remain on site to monitor the behavior of the nesting birds during construction to ensure that the reduced buffer does not result in take of eggs or nestlings.

- No construction or earth-moving activity shall occur within the established buffer until it is determined by a qualified biologist that the young have fledged (are no longer dependent on the nest or the adults for feeding) and have attained sufficient flight skills to avoid project construction zones. This typically occurs by August 31. This date may be earlier or later and shall be determined by a qualified biologist. If a qualified biologist is not hired to monitor the nesting raptors, then the full 300-foot buffer(s) shall be maintained in place from February 1 through the month of August. The buffer may be removed, and work may proceed as otherwise planned within the buffer on September 1.

4.4.3 Conclusion

Mitigation Measures listed above (6.12-2, 6.12-5, 6.12-8 6.12-12 and 6.12-13) are consistent with the Conservation Strategy and habitat compensatory mitigation is the wholly responsibility of the Greenbriar Development Project applicant. TRUSD will implement all necessary pre-construction surveys, as listed in 6.12-2, 6.12-5, 6.12-8 6.12-12 and 6.12-13. Together these mitigation measures would reduce potentially significant impacts to a less-than-significant level because compensation for loss of habitat would be provided through the Conservation Strategy and potential disturbance to individuals would be avoided through species specific pre-construction surveys and compliance with the respective requirements based on the current habitat conditions. Therefore, the Amended Project would not result in any new significant impacts or impacts of greater severity than described in the 2008 EIR.

No new circumstances have occurred nor has any substantially important new information been found with respect to air quality requiring new analysis or verification. Therefore, the conclusions of the 2008 EIR remain valid and approval of the Amended Project would not result in new or substantially more severe significant impacts to biological resources.

4.5 CULTURAL RESOURCES

Environmental Issue Area	Where Impact Was Analyzed in the DEIR, RDEIR, SRDEIR, FEIR, or Addenda	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Any Substantially Important New Information Requiring New Analysis or Verification?	Do Prior EIR Mitigation Measures/ Environmental Commitments Address/Resolve Impacts?
5. Cultural Resources. Would the project:					
k. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	DEIR pp. 6.13-8 – 6.13-9; Impacts 6.13-1, 6.13-2	No	No	No	Yes
l. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	DEIR pp. 6.13-8 – 6.13-9; Impacts 6.13-2	No	No	No	Yes
m. Disturb any human remains, including those interred outside the formal cemeteries?	DEIR pp. 6.13-9 – 6.13-10; Impact 6.13-3	No	No	No	Yes

4.5.1 Discussion

The 2008 EIR addresses Cultural Resources in Section 6.13. However, because of the time between preparation of the 2008 document and the current project, a new record search from the North Central Information Center (NCIC) of the California Historical Resources Information System was warranted. The results of the updated search found that no new cultural resources have been identified within the project site since the completion of the 2008 EIR and all subsequent addenda. Additional research also revealed that a geoarchaeological investigation had been performed by Far Western Anthropological Group for the entire Greenbriar development site in 2016. This assessment included the TRUSD project site. The investigation affirmed the 2008 EIR's conclusion that the entire Greenbriar development site has a low likelihood for buried archaeological resources (Far Western 2016). Therefore, local conditions for cultural resources remain the same as stated in the existing setting of the 2008 EIR (Appendix B).

a. The 2008 EIR analysis addresses damage or destruction of documented historical resources (Impact 6.13-1). The 2008 EIR concluded that no impacts would occur with respect to documented historical resources. No new historical resources were identified in the updated NCIC records search. The Amended Project would be within the boundaries of the previously approved school site and would not involve disturbance of areas outside of the evaluated project area. Therefore, the impact assessments contained in the 2008 EIR regarding documented historical resources remain valid and no additional impacts would occur.

b. Impact 6.13-2 discusses potential impacts to undocumented cultural resources, including archaeological resources. No archaeological resources have been identified within the project site in the investigations conducted for the 2008 EIR, its addenda, or the updated NCIC records search. A 2016 geoarchaeological investigation has also validated the 2008 EIR conclusion that project site has a low likelihood to contain subsurface archaeological deposits. Regardless, in the case of accidental discovery, Implementation of Mitigation Measure 6.13-2 would reduce this impact to a less-than-significant level. The Amended Project would be within the boundaries of the previously approved school site and would not involve disturbance of areas outside of the evaluated project area. As such, potentially significant impacts to archaeological resources, including undocumented archaeological resources discovered during project construction, as addressed in in the 2008 EIR remain valid, and no additional impacts would occur.

c. The 2008 EIR addresses discovery of human remains in Impact 6.13-3. Implementation of Mitigation Measure 6.13-3 would reduce this impact to a less-than-significant level. There are no new circumstances resulting in new impacts or new information requiring additional analyses related to the disturbance of human remains. The conclusions regarding impacts to human remains in the 2008 EIR remain valid, and no new environmental impacts would occur.

4.5.2 Mitigation Measures

The following mitigation measure referenced in the 2008 EIR would remain applicable if the Amended Project were approved. The mitigation measures have been modified slightly from the 2008 EIR (shown in underline/~~strikeout~~). These modifications include deletion of some measures that are no longer relevant or have been completed by the Greenbriar developer, and minor changes to render the measures enforceable by TRUSD. As presented, the mitigation measures provide a level of environmental protection equal to or greater than those presented in the current Mitigation and Monitoring Plan (MMP) for the 2008 EIR. The modifications do not result in a new or more severe significant adverse effects on the environment and are feasible and enforceable. No additional mitigation measures are required for the Amended Project.

Modified Mitigation Measure 6.13-2:

If an inadvertent discovery of cultural materials (e.g., unusual amounts of shell, charcoal, animal bone, bottle glass, ceramics, burned soil, structure/building remains) is made during project-related construction activities, ground disturbances in the area of the find shall be halted and a qualified professional archaeologist shall be notified regarding the discovery. The archaeologist shall determine whether the resource is potentially significant as per CEQA and develop specific measures to ensure preservation of the resource. Specific measures for significant or potentially significant resources could include, but not necessarily be limited to in-field documentation, archival research, subsurface testing, and excavation. The specific type of measure necessary would be determined according to evidence indicating degrees of resource integrity, spatial and temporal extent, and cultural associations and would be conducted in a manner consistent with CEQA ~~and the City's guidelines for preserving archaeological and cultural artifacts~~.

Modified Mitigation Measure 6.13-3

In accordance with the California Health and Safety Code, if human remains are uncovered during ground disturbing activities all such activities in the vicinity of the find shall be halted immediately and TRUSD ~~the City~~ or TRUSD's ~~the City's~~ designated representative shall be notified. The ~~City~~ TRUSD shall immediately notify the county coroner and a qualified professional archaeologist. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]). The responsibilities of the Agency for acting upon notification of a discovery of Native American human remains are identified in detail in the California Public Resources Code Section 5097.9. The ~~City~~ TRUSD or their appointed representative and the professional archaeologist shall consult with a Most Likely Descendant (MLD) determined by the NAHC regarding the removal or preservation and avoidance of the remains and determine if additional burials could be present in the vicinity.

4.5.3 Conclusion

No new circumstances have occurred nor has any substantially important new information been found requiring new analysis or verification with respect to documented or undocumented historical resources or archaeological resources. Although a new record search from the NCIC of the California Historical Resources Information System was warranted, implementation of the mitigation measures and impact conclusions presented in the 2008 EIR and addenda remain valid. No is no substantially important new information with respect to cultural resources that would require new analysis or verification. Therefore, the conclusions of the 2008 EIR and addenda remain valid, and implementation of the Amended Project would not result in any new significant impacts associated with cultural resources.

4.6 ENERGY

	Environmental Issue Area	Where Impact Was Analyzed in the DEIR, RDEIR, SRDEIR, FEIR, or Addenda	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Any Substantially Important New Information Requiring New Analysis or Verification?	Do Prior EIR Mitigation Measures/ Environmental Commitments Address/Resolve Impacts?
6.	Energy. Would the project:					
a.	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Not addressed	No	No	Yes	NA
b.	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	Not addressed	No	No	Yes	NA

4.6.1 Discussion

Impact 6.4-6 in Section 6.4 of the DEIR addressed increased demand for electric services associated with implementation of the Greenbriar Development Project. In 2006, when the DEIR was released, Appendix G of the State CEQA Guidelines did not include criteria pertaining to energy impacts, and it was not a standard practice to assess energy impacts consistent with Appendix F of the CEQA Guidelines in environmental documents. In 2018, Appendix G of the CEQA Guidelines was amended to include new checklist items for assessing energy impacts. These impacts are discussed below.

Page 6.4-3 of the DEIR summarizes the existing electricity infrastructure present at the project site. Sacramento Municipal Utility District (SMUD) continues to supply electricity to the project site. However, since certification of the DEIR, the existing environment has slowly been developed and augmented with new electrical infrastructure.

The 2019 Title 24 Part 6 Building Energy Efficiency Standards were adopted by the California Energy Commission (CEC) on May 9, 2018, and took effect on January 1, 2020. The standards are designed to move the State closer to its zero net energy goals for new residential development. Nonresidential buildings are anticipated to reduce energy consumption by 30 percent compared to the 2016 standards primarily through prescriptive requirements for high-efficiency lighting. The building efficiency standards are enforced through the local plan check and building permit process. Local government agencies may adopt and enforce additional energy standards for new buildings as reasonably necessary in response to local climatologic, geologic, or topographic conditions, provided that these standards are demonstrated to be cost effective and exceed the energy performance required by Title 24 Part 6.

a. Project construction would involve fuel consumption and use of other non-renewable resources. Construction equipment typically runs on diesel fuel or gasoline. The same fuels typically are used for vehicles that transport equipment and workers to and from a construction site. However, construction-related fuel consumption would be short-term and consistent with construction activities of a similar character. This energy use would not be considered wasteful, inefficient, or unnecessary.

Based on the electricity assumptions used in the CalEEMod model used in this analysis, the Amended Project's total electricity consumption would be 597 megawatt hours per year in 2024. As a project design feature, the project would not include any on-site natural gas combustion.

Operation of the Amended Project would also result in approximately 102,000 and 20,291 gallons of gasoline and diesel fuel consumed per year. This would be approximately 26,600 and 5,300 more gallons of gasoline and diesel fuel than would occur under the previous project. This is attributable to the increased capacity of the Amended Project to accommodate more students and grades. These levels of gasoline consumption also reflect implementation of 10 percent EV charging stations (see discussion in Section 4.8, "Greenhouse Gas Emissions.")

The Amended Project is expected to follow the provisions of California Code of Regulations, Title 24. These include Parts 6 and 11, which incorporates building energy efficiency standards. Compliance with the energy efficiency provisions of Title 24 would reduce the operational energy consumption of the Amended Project; therefore, project operations would not be conducted in a manner that would involve wasteful, inefficient, or unnecessary use of energy. Project impacts related to energy consumption would be less then significant.

b. The Amended Project involves the expansion of a previously approved elementary school. Building standards related to energy efficiency, as described in a) above, would apply and are incorporated into the design and operation of the Amended Project. Therefore, the Amended Project would be consistent with energy efficiency plans of the State. The Amended Project impacts related to energy plans would be less then significant.

4.6.2 Mitigation Measures

No mitigation measures are required.

4.6.3 Conclusion

Energy resources was added as a new topic in the Environmental Checklist by State CEQA Guidelines amendments that went into effect on January 3, 2019. Therefore, this topic was not included in the DEIR. No new potentially significant effects are evident. The impacts of the Amended Project related to energy resources would be less than significant with no mitigation required. Implementation of the Amended Project would not result in any new significant impacts associated with energy use or resources.

4.7 GEOLOGY AND SOILS

Environmental Issue Area	Where Impact Was Analyzed in the DEIR, RDEIR, SRDEIR, FEIR, or Addenda	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Any Substantially Important New Information Requiring New Analysis or Verification?	Do Prior EIR Mitigation Measures/ Environmental Commitments Address/Resolve Impacts?
6. Geology and Soils. Would the project:					
a. Directly or indirectly cause 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?	DEIR pp. 6.9-11 – 6.9-13; Impact 6.9-1	No	No	No	Yes
b. Result in substantial soil erosion or the loss of topsoil?	DEIR p. 6.9-13; Impact 6.9-2	No	No	No	Yes
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?	DEIR p. 6.9-14; Impact 6.9-3	No	No	No	Yes
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994; as updated), creating substantial direct or indirect risks to life or property?	DEIR pp. 6.9-14 – 6.9-15; Impact 6.9-4	No	No	No	Yes
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	N/A	N/A	N/A	N/A	N/A
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Not previously evaluated	No	No	No	N/A

4.7.1 Discussion

Geology and soils are addressed in the Section 6.9 of the DEIR. Regional and local conditions remain the same as stated in the existing setting. In 2021, a geotechnical analysis of the school project site was prepared (WKA 2021). The Geotechnical Engineering and Geologic Hazards Report is summarized as follows.

GENERAL SITE CONDITIONS

The project site is in the eastern portion of the Great Valley Geomorphic Province of California in the central portion of the Sacramento Valley. The Great Valley of California is generally considered to be an elongated sedimentary trough, approximately 450 miles long and 50 miles wide. Rock units within the Great Valley geomorphic province consist of Mesozoic to Cenozoic marine and non-marine sedimentary socks. These sediments have been folded into an asymmetric syncline, the axis of which lies immediately east of the interior Coast Ranges. The sedimentary units on the east side of the Great Valley are minimally deformed and are deposited on basement rocks of the Sierra Nevada geomorphic province (WKA 2021: 4).

SOILS

Borings performed at the site contained very stiff to hard, silty lean to fat clay overlying a layer of clay with sand and medium dense silty sand underlying silty to sandy clay. Groundwater was encountered approximately 10 to 13 feet below existing grade, although a monitoring well located approximately 2 miles north of the site indicates that groundwater has fluctuated from 2.3 to 10 feet below ground surface (WKA 2021: 5).

Subsidence occurs when a large land area settles due to extensive withdrawal of groundwater, oil, natural gas, or oxidation of peat. Based on subsurface exploration and previous studies of the site, subsidence is unlikely. According to the geotechnical report, the potential for subsidence/hydrocollapse would not adversely affect the site, provided that recommendations in the Geotechnical Engineering and Geologic Hazards Report are followed (WKA 2021).

The Geotechnical Engineering and Geologic Hazards Report indicates that native clays are capable of exerting substantial expansion pressures on building foundations, interior floor slabs and exterior flatwork. Recommendations to reduce the effects of potentially expansive clays are included in the Geotechnical Engineering and Geologic Hazards Report (WKA 2021).

The Geotechnical Engineering and Geologic Hazards Report indicates that the existing disturbed soils on the site are not suitable for support of the proposed school buildings and includes recommendations that the soils be replaced with select, low-expansion potential granular fill or be lime-treated (WKA 2021).

SEISMIC HAZARDS

No active or potentially active faults are known to underlie the school site based on the published geologic maps or aerial photographs. The site is not located within an Alquist-Priolo Earthquake Fault Study Zone, and there is no surface evidence of faulting. For these reasons, the Geotechnical Engineering and Geologic Hazards Report indicates that the ground rupture at the site resulting from seismic activity is unlikely. The site is not located within a seismic hazard zone pursuance to the Seismic Hazard Zone Mapping Act. The potential for ground lurching, or lateral spreading, and liquefaction during or following seismic events would be very low, provided that recommendations included in the Geotechnical Engineering and Geologic Hazards Report are followed (WKA 2021).

PALEONTOLOGICAL RESOURCES

A search of the University of California Museum of Paleontology (UCMP) database was conducted on November 9, 2021. Records of paleontological finds maintained by UCMP (2021) state that there are 13 localities at which fossil remains have been found in Sacramento County. These occur in three major geologic formations: the Mariposa, Riverbank and Victor Formations. The database did not list any paleontological resources on or near the project site

(UCMP 2021). In addition, the entirety of the project site is underlain by Quaternary basin deposits, generally characterized by horizontally stratified fine-grain sediments, from the Holocene period, which are geologically too young to contain fossils (WKA 2021).

a. The DEIR analysis addresses the potential for ground shaking and liquefaction to occur within the project area, which could damage structures during strong earthquakes generated along faults in the region (Impact 6.9-1). The impact was considered potentially significant because the project site is in an area with moderate ground-shaking potential and alluvial soil types. However, as part of implementation of Mitigation Measure 6.9-1, a Geotechnical Engineering and Geologic Hazards Report was prepared to evaluate seismic conditions and potential seismic hazards on the site for the proposed school. As discussed above, the project site is not located within an Alquist-Priolo Earthquake Fault Study Zone and the potential for ground rupture, lateral spreading, and liquefaction, are considered low if recommendations included in the Geotechnical Engineering and Geologic Hazards Report are followed (WKA 2021). Complying with these site-specific recommendations and specifications would reduce risks associated with seismic hazards to a less-than-significant level and no additional mitigation would be required. The Amended Project would be within the boundaries of the previously approved school site and would not involve disturbance of areas outside of the evaluated project area. There are no new circumstances resulting in new impacts or new information requiring additional analyses related to seismic hazards. The conclusions regarding impacts related to exposure to seismic hazards contained in the 2008 EIR and addenda remain valid, and no additional impacts would occur.

b. The DEIR analysis addresses the potential for excavation and grading during construction activities to result in localized erosion (Impact 6.9-2). As discussed on page 6.9-13 of the DEIR, project construction, including development of the proposed school, would involve excavation and grading of soil and would remove vegetation cover, exposing on-site soils to wind and water erosion. In addition, high groundwater levels could result in the need to dewatering during excavation activities, further increasing the potential for erosion. The impact was found to be potentially significant because localized erosion could occur during wind and rain events. Implementation of Mitigation Measure 6.9-2 would reduce this impact to a less-than-significant level. The Amended Project would be within the boundaries of the previously approved school site and would not involve disturbance of areas outside of the evaluated project area. The conclusions of the DEIR and addenda remain valid because the same types, quantities, and durations of construction activities would occur as previously evaluated. Therefore, no additional impacts would occur.

c. The DEIR analysis addresses the potential for unstable soil conditions that could lead to subsidence or compression related to project construction on soils with low strength and high shrink-swell potential (Impact 6.9-3). This impact was considered potentially significant primarily because alluvial soils and high groundwater levels are present in the area and dewatering activities that could occur during construction on the Greenbriar project site could result in subsidence. However, as part of implementation of Mitigation Measure 6.9-1, a Geotechnical Engineering and Geologic Hazards Report was prepared to evaluate potential unstable soil conditions on the site for the proposed school. As confirmed through the Geotechnical Engineering and Geologic Hazards Report, recommendations must be followed to avoid subsidence/hydrocollapse at the project site (WKA 2021). Complying with these site-specific recommendations and specifications would reduce risks associated with unstable soil conditions to less than significant and no additional mitigation would be required. The Amended Project would be within the boundaries of the previously approved school site and would not involve disturbance of areas outside of the evaluated project area. There are no new circumstances resulting in new impacts or new information requiring additional analyses related to unstable soil conditions that could lead to subsidence or compression. The conclusions regarding this impact contained in the 2008 EIR and addenda remain valid, and no additional impacts would occur.

d. The DEIR analysis addresses the potential for damage associated with expansive soils (Impact 6.9-4). The impact was considered potentially significant because of the soil types found on the project site. However, as part of implementation of Mitigation Measure 6.9-1, a Geotechnical Engineering and Geologic Hazards

Report was prepared to evaluate potential expansive soils on the site for the proposed school. As confirmed through the Geotechnical Engineering and Geologic Hazards Report, native clays found on the project site can exert substantial expansion pressures on building foundations, interior floor slabs and exterior flatwork. Recommendations to reduce the effects of potentially expansive clays are included in the Geotechnical Engineering and Geologic Hazards Report. Complying with these site-specific recommendations and specifications would reduce risks associated with expansive soils to less than significant and no additional mitigation would be required. The Amended Project would be within the boundaries of the previously approved school site and would not involve disturbance of areas outside of the evaluated project area. There are no new circumstances resulting in new impacts or new information requiring new analyses related to expansive soils. The conclusions regarding this impact contained in the 2008 EIR and addenda remain valid, and no additional impacts would occur.

e. This topic was dismissed from the 2008 EIR and not addressed in the addenda because it is not applicable to the project. The new development would be connected to a municipal sewer system and would not involve septic tanks or alternative wastewater disposal systems. There would be no change because of the Amended Project, and there are no new circumstances resulting in new impacts or new information requiring new analyses related to septic systems or alternative wastewater disposal. The conclusions regarding this impact contained in the 2008 EIR and addenda remain valid, and no additional impacts would occur.

f. This topic was not addressed in the 2008 EIR or the addenda. As discussed above, the database did not list any paleontological resources on or near the project site (UCMP 2021), and because the entirety of the project site is underlain by Quaternary basin deposits, generally characterized by horizontally stratified fine-grain sediments, from the Holocene period, the soils are geologically too young to contain fossils (WKA 2021: Figure 4). Because the UCMP database did not identify paleontological finds on or near the project site and because the soil type underlying the site is not considered sensitive for paleontological resources, development of the site would have a less-than-significant impact on paleontological resources.

4.7.2 Mitigation Measures

The following mitigation measure referenced in the 2008 EIR would remain applicable if the Amended Project were approved. The mitigation measures have been modified slightly from the 2008 EIR (shown in underline/~~strikeout~~). These modifications include deletion of some measures that are no longer relevant or have been completed by the Greenbriar developer, and minor changes to render the measures enforceable by TRUSD. As presented, the mitigation measures provide a level of environmental protection equal to or greater than those presented in the current Mitigation and Monitoring Plan (MMP) for the 2008 EIR. The modifications do not result in a new or more severe significant adverse effects on the environment and are feasible and enforceable. No additional mitigation measures are required for the Amended Project.

Modified Mitigation Measure 6.9-2

~~a. A grading and erosion control plan shall be prepared by a California Registered Civil Engineer and submitted to the City of Sacramento Development Services Department for approval prior to issuance of the first building permits. The plan shall be consistent with the California Building Standards Code grading requirements and shall identify the site-specific grading to be used for new development. All grading shall be balanced on-site, where feasible.~~

~~b.~~ To ensure soils do not directly or indirectly discharge sediments into surface waters because of construction activities, the project applicant shall develop a Stormwater Pollution Prevention Plan (SWPPP) as discussed in Section 6.10, "Hydrology, Drainage, and Water Quality." The SWPPP shall identify Best Management Practices that would be used to protect stormwater runoff and minimize erosion during construction. The project applicant shall prepare plans to control erosion and sediment, shall prepare preliminary and final grading plans, and shall prepare plans to control urban runoff from the project site during construction, in compliance with the ~~City of Sacramento Grading, Erosion, and Sediment Control Ordinance~~ Department of the State Architect.

4.7.3 Conclusion

No new circumstances involving new significant impacts have occurred. Although there is new information available regarding the conditions within the Northlake TK-8 school project site provided in the Geotechnical Engineering and Geologic Hazards Report (WKA 2021), implementation of the mitigation measures and impact conclusions presented in the 2008 EIR and addenda remain valid. No is no substantially important new information with respect to geology and soils that would require new analysis or verification. Therefore, the conclusions of the 2008 EIR and addenda remain valid, and implementation of the Amended Project would not result in any new significant impacts associated with geology or soils.

4.8 GREENHOUSE GAS EMISSIONS

Environmental Issue Area	Where Impact Was Analyzed in the DEIR, RDEIR, SRDEIR, FEIR, or Addenda	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Any Substantially Important New Information Requiring New Analysis or Verification?	Do Prior EIR Mitigation Measures/ Environmental Commitments Address/Resolve Impacts?
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?	FEIR pp. 4-504 – 4-508	No	No	No	NA
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	FEIR pp. 4-504 – 4-508	No	No	No	NA

4.8.1 Discussion

Greenhouse gas (GHG) emissions or associated impacts from the previous project were not previously evaluated in the DEIR, RDEIR, or SRDEIR. The FEIR addressed GHG emissions in responses to comments received on the drafts that were circulated for public review. In response to comment 29-93, the FEIR concluded, "….it cannot be determined how CO_2 emissions associated with the proposed project might or might not influence actual effects of global climate change."

At the time the EIR was certified in 2008, the new Appendix G Checklist questions with respect to GHG emissions (noted in the table above) and related CEQA Guidelines text amendments were not yet available. The regulatory setting has changed considerably since 2008 with respect to how climate change and GHG emissions are addressed in CEQA. California Senate Bill (SB) 97 (2007) directed the California Natural Resources Agency to amend the State CEQA Guidelines to address and mitigate a project's GHG emissions and impacts on climate change. The Natural Resources Agency subsequently amended the CEQA Guidelines in late 2009 to incorporate revisions to Appendix G and related text amendments recommended by the Governor's Office of Planning and Research that integrate analysis and mitigation of GHG emissions and climate change into the CEQA review process. The amendments were finalized and published in February 2010.

SMAQMD published new guidance for addressing GHGs in February 2021. SMAQMD recommends that an 1,100 metric tons of carbon dioxide equivalent ($MTCO_2e$) be applied as a bright-line threshold of significance for evaluating construction emissions of GHGs. SMAQMD also recommends a tiered approach to evaluating the significance of operational emissions. All projects are required to implement the following tier 1 BMPs:

- BMP 1 – Projects shall be designed and constructed without natural gas infrastructure.
- BMP 2 – Projects shall meet the current CalGreen Tier 2 standards, except all electric vehicle capable spaces shall instead be electric vehicle ready.

Projects can screen out by comparing to the SMAQMD's operational screening levels table (equivalent to 1,100 $MTCO_2e$/year), including implementation of tier 1 best management practices (BMPs). If the project emissions exceed the screening level, or the project fails to implement tier 1 BMPs, the project may have a cumulatively considerable contribution to a significant cumulative environmental impact, and all feasible mitigation is required. Projects exceeding the screening level, must implement tier 1 and tier 2 BMPs, or provide equivalent onsite or off-site mitigation measures.

The analysis presented here evaluates the Amended Project's GHG emissions and associated climate change impacts in the context of the current regulatory environment. The analysis below compares the school included within the Greenbriar Development Project as presented in the 2008 EIR and addenda (previous project), to the Amended Project to determine if the changes to the project (i.e., increased student body and range of grades) would result in a new significance impact or an impact of greater severity.

a, b. The Amended Project would result in GHG emissions during construction (short-term) and operation (long-term), which are described separately below.

SHORT-TERM CONSTRUCTION-RELATED EMISSIONS

Construction of the Amended Project would include site preparation, grading, building construction, paving, and application of architectural coatings. Construction activities are anticipated to be completed over the course of 1.5 years commencing in March 2023 and ending in July 2024, with the first full operational year being 2024 (i.e., first year when the school is operational). GHG emissions would not differ substantially if construction were to begin at a later time.

During construction of the Amended Project, GHG emissions would be generated temporarily and intermittently, associated primarily with exhaust emissions from heavy off-road equipment, on-road trucks, and construction employee vehicle trips. Construction emissions were estimated using emission factors contained in CalEEMod, based on information contained in the site plan obtained by TRUSD (e.g., project footprint) and model default settings where project-specific information was not available. Assumptions used to estimate construction-generated GHG emissions are worst-case, intended to establish an upper bound for GHG emissions that would occur associated with full build-out of the Amended Project.

Construction of the Amended Project would result in a total of approximately 876 $MTCO_2e$ over the 1.5-year construction period (see Appendix A for detailed model output). By comparison, the previous project would generate approximately 635 $MTCO_2e$ over the 1.5-year construction period. Therefore, the Amended Project would result in 251 $MTCO_2e$ more construction-related emissions as compared to the previous project. Based on the most recent guidance published by SMAQMD, the Amended Project's additional construction emissions of 251 $MTCO_2e$ would be below 1,100 $MTCO_2e$ and would therefore be less than significant.

LONG-TERM OPERATION-RELATED EMISSIONS

Long-term operational emissions of GHGs related to both the previous project and the Amended Project would occur from area, energy, mobile, waste, and water-related sources. Area sources include emissions from landscaping equipment; energy-related sources include electricity generated at off-site power generation facilities; mobile sources include vehicle trips associated with students, employees, and visitors to the project area; waste-related emissions are associated with solid waste disposal in a landfill; and water-related emissions are associated with pumping, distribution, and treatment of project-related water. Consistent with SMAQMD's tier 1 BMPs, the project would not include natural gas as an energy supply and would provide at least 10 percent of parking as EV-ready spaces, which would include underground conduit, installation of dedicated branch circuits/electrical pre-wiring, circuit breakers, and other electrical components, including a 240-volt outlet or blank cover, needed to support future installation of one or more charging stations.

Operational emissions from area-wide, energy, mobile, waste, and water-related sources were estimated using CalEEMod Version 2020.4.0. It was conservatively assumed that the school under both the previous project and Amended Project scenarios would become fully operational, i.e., buildout, by 2024.

Operational GHG emissions for the previous project and the Amended Project are summarized below in Table 4-5 (see Appendix A for detailed model output).

As shown in Table GHG-1, implementation of the Amended Project would result in operational GHG emissions of approximately 1,941 $MTCO_2e$ per year. This would be greater than the anticipated 1,291 $MTCO_2e$ per year that would be generated by the previously approved school project. This is attributable to the expanded capacity to accommodate more students compared to the previous project.

Table 4-5 Summary of Project-Generated Operational Greenhouse Gas Emissions

Source[1]	Operational Emissions [$MTCO_2e$/year]
Previous Project	
Area	<1
Energy	507
Mobile	705
Waste	73
Water	6
Total Operational Emissions	**1,291**
Amended Project	
Area	<1
Energy	850
Mobile	984
Waste	99
Water	8
Total Operational Emissions	**1,941**
Net Difference in Emissions	**650**
SMAQMD Screening Threshold	**1,100**

Notes: $MTCO_2e$ = carbon dioxide equivalent.

Emissions were modeled for operational year 2024 as the earliest assumed year of full project buildout and operation.

Totals may not sum exactly due to rounding.

Source: Ascent Environmental 2021.

As noted previously, SMAQMD recommends a tiered approach to determine significance, as shown above. Tier 1 requires projects to implement BMPs 1 and 2 to demonstrate consistency with the 2017 Scoping Plan. Once BMPs 1 and 2 are implemented, the project's operational GHG emissions would be compared to a threshold of 1,100 $MTCO_2e$ per year. Projects that fall under that level would not result in a cumulative considerable contribution to climate change and projects that exceed the screening level threshold are to implement the Tier 2 BMP (BMP 3). As stated previously, the project would not include natural gas and therefore is compliant with SMAQMD's BMP 1. In addition, the project would incorporate, at a minimum, 10 percent EV ready charging stations to serve the Amended Project. Because the Amended Project would be consistent with SMAQMD's tier 1 BMPs and would introduce new emissions below 1,100 $MTCO_2e$/year (a total of 650 $MTCO_2e$/year above the previous project), the Amended Project's contribution to climate change would be less than significant.

4.8.2 Mitigation Measures

No mitigation measures are required.

4.8.3 Conclusion

The Amended Project would not introduce new GHG emissions beyond what could have reasonably been assumed in the DEIR, RDEIR, SDEIR, or FEIR had GHG emissions been directly addressed. Thus, GHG emissions from the Amended Project would be less-than-significant. Approval of the Amended Project would not result in new or substantially more severe significant impacts to climate change.

4.9 HAZARDS AND HAZARDOUS MATERIALS

Environmental Issue Area	Where Impact Was Analyzed in the DEIR, RDEIR, SRDEIR, FEIR, or Addenda	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Any Substantially Important New Information Requiring New Analysis or Verification?	Do Prior EIR Mitigation Measures/ Environmental Commitments Address/Resolve Impacts?
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?	Not previously analyzed 2	No	No	No	Yes
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?	DEIR pp. 6.8-16 – 6.8-18; Impacts 6.8-1, 6.8-2	No	No	No	Yes
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Not previously analyzed	No	No	No	N/A
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?	DEIR p. 6.8-8	No	No	No	N/A
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?	DEIR pp. 6.8-18 – 6.8-24; Impacts 6.8-3, 6.8-4; FEIR p. 4-30.	No	No	No	Yes
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	DEIR p. 6.8-24; Impact 6.8-5	No	No	No	N/A
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	Not previously analyzed	No	No	No	N/A

4.9.1 Discussion

Hazards and hazardous materials are addressed in the "Public Health and Hazards" section of the DEIR (Section 6.8). Since the 2008 EIR was prepared, the Greenbriar Development Project site has been graded, and construction is ongoing.

In 2020, TRUSD entered into an Environmental Oversight Agreement with the California Department of Toxic Substances Control (DTSC) regarding the oversight of environmental investigations on the proposed school site. A Preliminary Environmental Assessment (PEA) was conducted to determine whether a release or potential release of hazardous substances or naturally occurring material on the site would pose a threat to human health. The potential contaminants of concern identified on the site were residual pesticides and metals from historic agricultural land use; however, the level of contamination was found to be below the level that poses a threat to human health. In April 2021, DTSC concurred with the "no further action" finding in the PEA report (DTSC 2021a).

a. The DEIR and addenda did not address the potential for hazards to the public or the environment through the routine transport, use, or disposal of hazardous materials. Construction activities would involve the use of hazardous materials, such as fuels gasoline, and oil. The use and storage of these materials could potentially expose and adversely affect workers, the public, or the environment through improper handling or use, accident, environmentally unsound disposal methods, fire, explosion, or other emergencies. Exposure to hazardous materials may result in adverse health or environmental effects. The California Highway Patrol and California Department of Transportation are responsible for enforcing regulations related to the transportation of hazardous materials on local roadways, and the use of these materials is regulated by DTSC, as outlined in CCR Title 22. TRUSD and its construction contractors would be required to comply with the California Environmental Protection Agency's Unified Program, which protects Californians from hazardous waste and hazardous materials by ensuring consistency throughout the state regarding the implementation of administrative requirements, permits, inspections, and enforcement at the local regulatory level. Regulated activities would be managed by the Sacramento County Environmental Management Department, which is the designated Certified Unified Program Agency, and in accordance with the regulations included in the Unified Program (e.g., hazardous materials release response plans and inventories, California Uniform Fire Code hazardous material management plans and inventories). Such compliance would reduce the potential for accidental release of hazardous materials during project construction.

   The Amended Project would be required to comply with existing laws and regulations regarding the transportation, use, and disposal of hazardous materials. These regulations are specifically designed to protect the public health and the environment and must be adhered to during project construction and operation. Because the Amended Project would comply with applicable regulations, the impact would be less than significant.

b. The DEIR addresses the potential for health hazards caused by contaminated soil (Impact 6.8-1), as well as from soils contaminated by previously unknown underground storage tanks or by other sources at the former Two Jakes Park Site (Impact 6.8-2). However, as discussed above, following review of the conclusions in the PEA report prepared in 2020 for the school site, DTSC determined that no further cleanup action is required for the site (DTSC 2021a). Therefore, there would not be reasonably foreseeable upset and accident conditions involving the release of hazardous materials on the project site into the environment. Mitigation measures related to Impact 6.8-1 and 6.8-2 are not applicable to the Amended Project because the PEA demonstrates that soil within the school project site is not contaminated. The conclusions regarding these impacts contained in the 2008 EIR and addenda remain valid, and no additional impacts would occur.

c. This impact was not previously analyzed in the 2008 EIR and addenda. The Amended Project involves development of a school; however, as discussed above under a), compliance with existing laws and regulations regarding the transportation, use, and disposal of hazardous materials would protect the public health and the environment during construction of the Amended Project and use of the haul routes. Therefore, this impact would be less than significant.

d. As required by California Government Code Section 65962.5, DTSC maintains a Hazardous Waste and Substances Site List for the state, called the Cortese List (DTSC 2021b). No site included on the list is located on or near either the proposed school site or the larger Greenbriar Development Project site; therefore, no impact would occur.

e. The DEIR addresses potential safety hazards related to the proximity of the Sacramento International Airport to the Amended Project's land uses (Impact 6.8-3). In addition, the DEIR addresses the potential for airspace safety hazards associated with the project's water feature (Impact 6.8-4). No private airstrips are located in the project vicinity.

The DEIR analysis under Impact 6.8-3 found that the Greenbriar Development Project's residential land uses would be compatible with safety standards outlined in the 1994 Sacramento International Airport Comprehensive Land Use Plan (CLUP). However, the DEIR concluded that concentrations of people at the proposed parks and light rail station located within the overflight zone (a safety zone of the Sacramento International Airport) could reach a density of over 50 persons per acre at any one time, which would exceed density standards allowed by the CLUP and result in a significant impact. Mitigation Measure 6.8-3 calls for the City to request a consistency determination from the Sacramento Area Council of Governments (SACOG), which serves as the Sacramento County Airport Land Use Commission (ALUC), and to provide notice to override the CLUP before approving any CLUP override. The DEIR determined that this measure would not fully reduce this impact; therefore, the impact would be significant and unavoidable. In 2008, the City certified the EIR and adopted Resolution 2008-600, which approved a CLUP override for the Greenbriar project, in compliance with Mitigation Measure 6.8-3 (City of Sacramento 2008).

The DEIR analysis under Impact 6.8-4 finds that the project's water feature, a 39-acre lake/detention basin, could attract large numbers of birds, potentially interfering with aircraft flight routes. This impact is unrelated to the proposed school project and is not discussed further.

For projects located near airports, the California Department of Education's (CDE) school site selection criteria require that CDE, the school district and the California Department of Transportation, Aeronautics Program, Office of Airports (Division of Aeronautics) consult to review the proposed site location for potential safety hazards prior to the school district taking title to the property. On August 16, 2017, the California Department of Transportation (Caltrans), Aeronautics Program issued a letter to the CDE noting that the project site is located within the Sacramento County Airport Land Use Compatibility Plan Referral Area 1, making the site subject to review by ALUC. The ALUC stated that there were no compatibility issues with the site in relation to airport activities. In addition, the school site would be subject to occasional over-flight at an elevation of 1,000 feet above ground level. However, no conditions were identified that would create and undue hazard. Finally, the potential for an accidental crash at the project site would result in potentially severe consequences, the risk is considered low and there are no objections to developing the site as a school (Brooks, pers. comms., 2017). This letter indicates that there would be no land use hazards associated with the proximity of the proposed school to the Sacramento International Airport. The Amended Project would be within the boundaries of the previously approved school site and would not involve disturbance of areas outside of the evaluated project area.

f. The DEIR addressed interference with an adopted emergency response or emergency evacuation plan under Impact 6.8-5. Development of the Amended Project would not interfere with emergency plans, because sufficient ingress and egress routes would be provided to ensure public safety in the event of an emergency, and the impact would be than significant. There are no new circumstances resulting in new impacts or new information requiring new analyses related to emergency response and evacuation planning. The conclusions regarding this impact contained in the 2008 EIR and addenda remain valid, and no additional impacts would occur.

g. Wildland fire risk was not previously analyzed in the 2008 EIR and addenda. As shown on the State Responsibility Area fire hazard severity zone map for Sacramento County, the school site and larger Greenbriar Development Project site are not located in a wildfire hazard area (CAL FIRE 2007). There are no new circumstances resulting in new impacts or new information requiring new analyses related to wildland fire risk.

4.9.2 Mitigation Measures

No mitigation measures are required.

4.9.3 Conclusion

No new circumstances involving new significant impacts have occurred. There is new information available regarding existing hazardous conditions on the project site (DTSC 2021a) and proximity of the project site to the Sacramento International Airport (Brooks, pers. comms., 2017). Through implementation of these mitigation measures as part of the larger Greenbriar Development Project, the impact conclusions presented in the 2008 EIR and addenda remain valid and TRUSD is not required to implement further mitigation measures to address impacts to hazards and hazardous materials. No substantially important new information with respect to hazards and hazardous materials that would require new analysis or verification. Therefore, the conclusions of the 2008 EIR and addenda remain valid, and approval of the Amended Project would not result in any new significant impacts related to hazards and hazardous materials.

4.10 HYDROLOGY AND WATER QUALITY

Environmental Issue Area	Where Impact Was Analyzed in the DEIR, RDEIR, SRDEIR, FEIR, or Addenda	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Any Substantially Important New Information Requiring New Analysis or Verification?	Do Prior EIR Mitigation Measures/ Environmental Commitments Address/Resolve Impacts?
9. Hydrology and Water Quality. Would the Project:					
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	RDEIR pp. 6.10-19 – 6.10-21; Impact 6.10-1	No	No	No	Yes
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	Not previously evaluated	N/A	N/A	N/A	N/A
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: i. Result in substantial erosion or siltation on- or off-site; ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; iii. Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff; or iv. Impede or redirect flood flows?	RDEIR pp. 6.10-19 – 6.10-22, 6.10.25 – 6.10-26; Impacts 6.10-1, 6.10-2, and 6.10-4	No	No	No	Yes
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	RDEIR pp. 6.10-18, 6.10-25 – 6.10-26; Impact 6.10-3	No	No	No	Yes
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Not addressed	No	No	No	Yes

4.10.1 Discussion

Hydrology and water quality are addressed in Section 6.10 of the RDEIR. The environmental setting remains generally the same as stated in the DEIR. Specific updates to the setting with respect to regulatory requirements, groundwater, and flooding are provided under the answers to the appropriate checklist questions below.

a. The RDEIR addresses water quality impacts related to construction and operation of the project under Impact 6.10-1. Implementation of Mitigation Measure 6.10-1 would reduce the impact to less than significant. However, compliance with this Mitigation Measure is inclusive of the improvement plan processing through the City Public Works Department. An Erosion Control Plan is included with the Improvement Plans. A stormwater pollution prevention plan has been prepared for the project in accordance with the National Pollutant Discharge Permit (NPDES) process through the California Regional Water Quality Control Board (RWQCB), and the Greenbriar Development Project has obtained Section 401 Water Quality Certification from the California RWQCB. Compliance with the City's erosion and sediment control ordinance and stormwater management and discharge control ordinance, Stormwater Quality Implementation Plan, and NPDES Construction General Permit would prevent substantial degradation of water quality during project construction. These regulatory instruments are designed to ensure that discharges from construction projects do not result in violation of the State Water Board's water quality objectives. Because TRUSD would be required to adhere to applicable regulations and standards would reduce water quality impacts from construction activities to a less-than-significant level thus, Mitigation Measure 6.10-1 is no longer applicable.

b. This topic was dismissed from the RDEIR and not addressed in the addenda because it is not applicable to the Greenbriar Development Project. On page 6.10-18, the RDEIR states that the project would not rely on groundwater to serve the proposed development. The school project also would not rely on groundwater. This impact would be less than significant.

Therefore, there are no new circumstances resulting in new impacts or new information requiring additional analyses related to groundwater. The conclusions regarding groundwater contained in the RDEIR and addenda remain valid, and no additional impacts would occur.

c. The RDEIR addresses erosion impacts related to construction and operation of the project under Impact 6.10-1. As discussed above under a), adherence to applicable regulations and standards would reduce water quality impacts from construction activities to a less-than-significant level. Because this impact would be less than significant through implementation of applicable regulations (e.g., NPDES Construction General Permit), Mitigation Measure 6.10-1 is no longer applicable.

Potential impacts attributable to on-site flooding hazards are addressed under Impact 6.10-4 in the RDEIR. The stormwater runoff collection system design as part of the Greenbriar Development Project would be adequate to protect the project site during major storms and flood events. Stormwater flows from off-site could cause localized flooding on-site, but the RDEIR explains that implementation of Mitigation Measure 6.10-4 would reduce this potential effect to less than significant. The Elkhorn Boulevard improvements included in Mitigation Measure 6.10-4 are included as part of the future Elkhorn Boulevard Improvement Plans. The culvert replacement in Elkhorn Blvd is part of the RD 1000 Improvement Plans for the overall Greenbriar Development Project. Raising of Elkhorn was required prior to issuance of building permits for the larger Greenbriar Development Project (City of Sacramento 2020).

The State Water Board issues both general and individual permits for discharges to surface waters, including for both point-source and non-point-source discharges. In response to the 1987 amendments, the EPA developed the Phase I NPDES Storm Water Program for cities with populations larger than 100,000, and Phase II for smaller cities. In California, the State Water Board has drafted the General Permit for Discharges of Storm Water from Municipal Separate Storm Sewer Systems (MS4 General Permit). The City of Sacramento has coverage under the Phase I MS4 General Permit issued by the Central Valley RWQCB.

Under the federal Clean Water Act, stormwater discharges are regulated through NPDES Municipal Stormwater Permits. In California, the State Water Board and its nine Regional Boards oversee implementation of the Clean Water Act, and the Central Valley RWQCB issues and enforces NPDES stormwater permits and the State water quality law, Porter – Cologne, within the Central Valley. Phase I NPDES permits have been issued to municipalities with a population greater than 100,000 (and certain industries and construction projects) since 1990.

The Sacramento Areawide NPDES Municipal Stormwater Permit is a Phase I permit and applies to the County of Sacramento along with the Cities of Citrus Heights, Elk Grove, Folsom, Galt, Rancho Cordova and Sacramento. Originally issued in 1990, the Sacramento stormwater permit has been reissued several times. The most recent permit (NPDES Permit No. CAS082597) was adopted in December 2002, reissued in September 2008, and reissued again in April 2015. The Central Valley Water Board replaced it with a Region-wide MS4 Permit in June 2016. Compliance with the Region-wide MS4 permit would regulate and manage the quality of urban runoff throughout their jurisdictions, including runoff from new development and significant redevelopment projects.

Compliance with regulations, including the Regional-wide MS4 permit and NPDES Construction General Permit, in combination with implementation of mitigation measures adopted and implemented through the larger Greenbriar Development Project, would reduce potential drainage-related impacts to a less-than-significant level. No further mitigation would be required for the Amended Project.

d. The potential for seismically induced seiche or occurrence of a tsunami is addressed briefly in the RDEIR (page 6.10-18) but not analyzed further in the impact analysis section, because the project site is distant from the ocean and because the depth of the lake/detention basin included in the Greenbriar Development Project would be relatively shallow. There are no new circumstances resulting in new impacts or new information requiring new analyses. The conclusions contained in the RDEIR and addenda remain valid, and no additional impacts would occur.

The RDEIR addresses on-site flooding risk from potential for levee and dam failure under Impact 6.10-3. The analysis contained in the RDEIR finds that a short-term, significant and unavoidable impact could occur because USACE could no longer support its certification that the Natomas Basin levee system met criteria for 100-year flood protection. Mitigation Measure 6.10-3 requires compliance with applicable Federal Emergency Management Agency (FEMA) and City building, design, and flood insurance regulations, as well as participation in a funding mechanism established by the Sacramento Area Flood Control Agency or the City for the purpose of implementing levee improvements to provide 100-year flood protection or greater for the project site.

In 2005, FEMA reinforced the agency's long-standing regulation to ensure that levee owners or communities document that a levee meets federal standards for protection against the one percent-annual-chance flood. After re-evaluation of the levees by USACE, FEMA remapped the Natomas Basin area into a floodplain with an AE flood zone designation in December 2008. The AE flood zone designation required elevating or flood-proofing structures at or above the 100-year floodplain, which would be up to 20 feet in some areas. This caused a de-facto building moratorium. As of June 16, 2015, the City has obtained a new flood insurance rate map to provide Natomas with an A99 flood zone designation. A99 is an interim flood zone designation, which is still considered a high-risk flood zone, but allows construction in Natomas, with local conditions.

The Natomas Levee Improvement Project is currently underway and will provide complete levee improvements to the Natomas Basin that will meet 200-year flood protection standards. Implementation of the Amended Project would allow for development of a school, which would not generate large quantities of hazardous materials or other pollutants that would be substantially different or of greater concentration that under the existing conditions. Therefore, while inundation of the Amended Project site could occur under rare circumstances (i.e., greater than 200-year flood event or levee failure), the land uses associated with the Amended Project, if inundated, would not substantially contribute to degraded water quality conditions. This impact would be less than significant.

e. Discharges from the Greenbriar Development Project are subject to State water quality laws and regulations. The Central Valley RWQCB is responsible for preparing a water quality control plan (basin plan) that identifies beneficial uses of the Sacramento River and its tributaries and for preparing water quality objectives for the protection of beneficial uses. Numerical and narrative criteria are contained in the basin plan for key water quality constituents, including dissolved oxygen, water temperature, trace metals, turbidity, suspended material, pesticides, salinity, radioactivity, and other related constituents. The Basin Plan criteria are applied

through the Phase I MS4 General Permit issued by the Central Valley RWQCB to cover stormwater discharges from activities in the City, including those from development associated with the Amended Project.

The project site lies above the North American Subbasin. The North American Public Draft Groundwater Sustainability Plan was released for public review on September 14, 2021, and is currently under development.

Because the Amended Project would not affect implementation of the Basin Plan, through the Phase I MS4 General Permit, and a sustainable groundwater management plan has not been approved for the North American Subbasin, this impact would be less than significant.

4.10.2 Mitigation Measures

No mitigation measures are required.

4.10.3 Conclusion

No new circumstances involving new significant impacts have occurred. There is new information available regarding regulations pertaining to the Amended Project, which are consistent with requirements associated with Mitigation Measure 6.10-1. In addition, the requirements associated with Mitigation Measure 6.10-3 and 6.10-4 have been addressed through future Elkhorn Boulevard Improvement Plans, the RD 1000 Improvement Plans for the overall Greenbriar Development Project, and implementation of the Natomas Levee Improvement Project. Through implementation of these mitigation measures as part of the larger Greenbriar Development Project, the impact conclusions presented in the 2008 EIR and addenda remain valid and TRUSD is not required to implement further mitigation measures to address impacts to hydrology and water quality. No substantially important new information with respect to hydrology and water quality that would require new analysis or verification. Therefore, the conclusions of the 2008 EIR and addenda remain valid, and implementation of the Amended Project would not result in any new significant impacts associated with hydrology and water quality.

4.11 LAND USE AND PLANNING

Environmental Issue Area	Where Impact Was Analyzed in the DEIR, RDEIR, SRDEIR, FEIR, or Addenda	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Any Substantially Important New Information Requiring New Analysis or Verification?	Do Prior EIR Mitigation Measures/ Environmental Commitments Address/Resolve Impacts?
10. Land Use and Planning. Would the project:					
a. Physically divide an established community?	Not analyzed in the 2008 EIR; discussed in the 2017 Addendum	No	No	No	N/A
b. Create a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	DEIR Chapter 5	No	No	No	N/A

4.11.1 Discussion

Land use and planning are addressed in the "Project Consistency with Plans and Policies" chapter of the DEIR (Chapter 5). As noted in the Introduction to Chapter 5, environmental impacts or mitigation measures are not addressed in Chapter 5 directly, because physical environmental impacts are addressed in Chapter 6. The Phase 2 Addendum included changes to the land use plan.

a. As discussed in the 2017 Addendum, Chapter 5 of the DEIR does not directly address the physical division of an existing community. The project site is located on the periphery of the City of Sacramento and is bounded to the south by Interstate 5 and to the east by State Route 70/99. The Amended Project is located within the planned Greenbriar Project and is designed to serve TK-8 grade students from the surrounding areas. The expansion of the project site from 10 acres to 16.8 acres was approved as part of the third addendum to the 2008 EIR, approved in 2019. Because the Amended Project would be developed as part of the larger Greenbriar project it would not physically divide an established community.

b. The DEIR analysis in Chapter 5 examined existing plans and policies in effect at the time the EIR was prepared. A few changes to the list of Adopted Plans and Policies, as well as actions with respect to implementation of the Amended Project, have occurred since the EIR was certified. The major changes are summarized below. None of these changes would result in any conflicts with relevant plans or policies applicable to the project site. Sacramento LAFCo approved the City of Sacramento Sphere of Influence (SOI) amendment for the Greenbriar project in September 2007. LAFCo also approved the expansion of the Sacramento Regional County Sanitation District's (SRCSD) SOI and an expansion of the Sacramento County Sanitation District 1 (CSD-1) SOI for the Greenbriar project in September 2007.

- Sacramento LAFCo approved annexation of the Greenbriar project site into the City limits, as well as into the service boundaries of SRCSD and CSD-1, in June 2008.
- The City of Sacramento approved a North Natomas Community Plan (NNCP) amendment to incorporate Greenbriar as a special planning area within the NNCP concurrent with certification of the EIR in January 2008.

The City of Sacramento adopted the 2035 General Plan in March 2015. The adoption of the new General Plan included new land use designations for the Greenbriar site that were generally consistent with the Greenbriar project as approved in 2008. Section 2 above contains a description of the Amended Project and any required discretionary actions.

- The City of Sacramento adopted a CAP in March 2015 that sets a GHG emissions reduction target and sets forth specific actions that the City will take to reduce GHG emissions from both existing and new development. The consistency of the Amended Project with the CAP is addressed in further detail in the Greenhouse Gas Emissions section of this Checklist.

SACOG adopted the 2020 Metropolitan Transportation Plan and Sustainable Communities Strategy (MTP/SCS) in 2019, pursuant to the requirements of the California Sustainable Communities and Climate Protection Act of 2008 (SB 375). The MTP/SCS establishes GHG reduction targets for cars and light duty trucks for the SACOG region for 2040 and provides CEQA streamlining benefits for certain projects that are consistent with MTP/SCS.

The Phase 2 Addendum included a General Plan Amendment, Rezone, PUD Schematic Plan Amendment, Tentative Mater Parcel Map, and Tentative Subdivision Map for Greenbriar Phase 2. This included modifications to residential lots, and enlargement of the elementary school and corresponding decrease to the adjacent neighborhood park site. The Amended Project is consistent with the prior approvals and entitlements included in the Phase 2 Addendum.

4.11.2 Mitigation Measures

No mitigation measures are required.

4.11.3 Conclusion

The 2008 EIR addressed consistency with various plans and policies in effect at the time the DEIR was prepared. Environmental impacts or mitigation measures were not addressed in the Chapter 5 of the DEIR directly with respect to land use plans and policies since physical environmental impacts were addressed in the various sections of Chapter 6 in the DEIR and are documented throughout this checklist. Further, new information or changes to existing plans and policies, as well circumstances with respect to the Amended Project and potential impacts, are addressed in other sections of the checklist. The project site is consistent with the school site as depicted in the Phase 2 Addendum. None of these changes would result in any conflicts with relevant plans or policies applicable to the project site.

4.12 MINERAL RESOURCES

Environmental Issue Area	Where Impact Was Analyzed in the DEIR, RDEIR, SRDEIR, FEIR, or Addenda	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Any Substantially Important New Information Requiring New Analysis or Verification?	Do Prior EIR Mitigation Measures/ Environmental Commitments Address/Resolve Impacts?
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?	Not previously analyzed	No	No	No	N/A
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?	Not previously analyzed	No	No	No	N/A

4.12.1 Discussion

a, b. Mineral resources are not addressed in the 2008 EIR and addenda. The project site does not contain any known mineral resource that would be of value to the region and state and is not designated as a locally important mineral resource recovery site in the City's 2035 General Plan or other locally adopted plans (Sacramento County 2017:13). The Amended Project would not result in changes to the project site; therefore, no impacts to mineral resources would occur.

4.12.2 Mitigation Measures

No mitigation measures are required.

4.12.3 Conclusion

No new circumstances involving new significant impacts have occurred, nor has any substantially important new information been found requiring new analysis or verification. Therefore, the conclusions of the 2008 EIR and addenda remain valid, and approval of the Amended Project would not result in any new significant impacts related to mineral resources.

4.13 NOISE

Environmental Issue Area	Where Impact Was Analyzed in the DEIR, RDEIR, SRDEIR, FEIR, or Addenda	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Any Substantially Important New Information Requiring New Analysis or Verification?	Do Prior EIR Mitigation Measures/ Environmental Commitments Address/Resolve Impacts?
12. Noise. Would the project result in:					
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	DEIR pp. 6.3-21 – 6.3-39; Impacts 6.3-1, 6.3-2, 6.3-4, SRDEIR p. 7-17 to 7-18 Cumulative Impacts Section 7.2.3 Noise	No	No	No	Yes
b. Generation of excessive groundborne vibration or groundborne noise levels?	DEIR pp. 6.3-43 – 6.3-44; Impact 6.3-6	No	No	No	Yes
c. For a project located within the vicinity of a private airstrip or 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?	DEIR pp. 6.3-25 – 6.3-26; Impact 6.3-3; SRDEIR p. 7-17 to 7-18 Cumulative Impacts Section 7.2.3 Noise	No	No	No	Yes

4.13.1 Discussion

Noise impacts were analyzed in Section 6.3 of the DEIR and cumulative noise impacts are addressed in the SRDEIR, Section 7.2.3. The analyses include noise impacts from project-generated construction, traffic-source noise from area roadways, and airport activities. Environmental conditions in the project area have not changed appreciably since the DEIR analysis was completed. However, In March 2009, the City adopted the 2030 General Plan Update, which includes changes to Exterior Noise Compatibility Standards. These new standards maintained the same exterior noise level standards for "Normally Acceptable" noise levels for residential uses (60 A-weighted decibels [dBA] day-night average noise levels [L_{dn}] or CNEL) but raised the noise level standards for schools, libraries and churches, and for office buildings, businesses, and commercial uses from 65 dBA L_{dn} to 70dBA L_{dn}. The interior noise level standards remained the same for residential, transient lodgings, hospitals, nursing homes and other uses where people normally sleep (45 dBA L_{dn}). These standards will be applied in this analysis.

a. **Long-term Stationary and Area-Source Noise.** Long-term stationary and area-source noise levels were evaluated in the DEIR, Impact 6.3-3 on pages 6.3-25 and 6.3-26. The Amended Project would not introduce new noise sources to the site that would alter noise levels on the site and surrounding area but would increase the number of students onsite. However, the proposed school development is essentially the same as that approved in the 2008 EIR. The proposed school development is located near residential and recreational uses.

   The only noise-sensitive receptors close to the project site are residences located approximately 1,000 and 1,200 feet to the south and east of the project site, respectively. However, these receptors would be buffered from new noise sources on the project site by Interstate 5 and State Route 99, which support high volumes of vehicle traffic, particularly during the hours of the day where the school would be operational (i.e.,

primarily daytime hours). It is foreseeable that any additional noise generated from the Amended Project would not be measurably greater than the noise generated by these highways.

The DEIR concluded that noise generated at the school proposed on the site in 2008 would not affect these off-site receptors as the nearest park or school would be a minimum of 800 feet away and would not have a direct line of site to the off-site receptors. This impact was considered less than significant. The Amended Project would remain substantially the same in terms of the land use types and patterns as described in the 2008 EIR and addenda. Moreover, the Amended Project is located farther than 1,000 feet from the nearest sensitive receptor. Therefore, it is anticipated that impacts related to noise would be similar to those described in the DEIR and SRDEIR.

Long-Term Operational Traffic Source Noise. DEIR Impact 6.3-4 addresses the compatibility of proposed residential and school uses with future on-site daily and hourly average noise levels. The DEIR concluded that the school land uses (sensitive receptors) proposed on the project site would not be exposed to future noise levels generated by area automobile traffic and light rail trains and crossing signals that exceed applicable local exterior noise standards (40 A-weighted decibels [dBA] energy equivalent noise level used in the analysis). This impact was found to be less than significant.

The Amended Project would remain substantially the same in terms of the land use types and patterns. The conclusions of the DEIR remain valid and no additional impacts would occur.

DEIR Impact 6.3-2 describes how sensitive receptors located in unincorporated Sacramento County and the City of Sacramento would experience traffic generated noise levels more than the County and City's 60 dBA day-night average noise level/community noise equivalent level (L_{dn}/CNEL) standard along three of the five road segments and five of the receptors would experience an increase in traffic noise levels that is greater than 4 dBA. However, the locations of these roadway segments are not within the vicinity of the Amended Project. Also, the level of vehicle trips generated from the Amended Project would not be substantially more than what would have been generated by the school land use evaluated in the 2008 DEIR. Also of note, this increase in noise is a result of the traffic generated from Greenbriar Development Project in its entirely. The Amended Project evaluated herein represents a fraction of the total trips generated from implementation of the Greenbriar Development Project. It is not expected that operation of the Amended Project alone would generate significant vehicle trips that would trigger a similar impact as what was evaluated in the DEIR.

For instance, the entire Greenbriar Development Project was anticipated to introduce a total of 46,318 new daily trips; however, for this analysis, it is assumed that the Amended Project would introduce 534 new daily trips to the project area when compared to the previous project. This is attributable to the Amended Project's capacity to accommodate an additional 283 students as compared to the previous project. For context, this represents 1 percent of the Greenbriar Development Project's total vehicle trips. As such, no greater or substantially more severe impact would occur.

The Amended Project would remain substantially the same in terms of the land use types as analyzed in the 2008 EIR and addenda. Moreover, the Amended Project is located approximately 750 feet from Interstate 5 and State Route 99, which support high volumes of daily vehicles. It is not expected that additional vehicle trips generated from the Amended Project would combine with the mobile-source noise generated by these highways such that receptors located further than 1,000 feet from the project site would experience a notable increase in mobile-source noise.

There would be no greater impact than that described in the DEIR and SRDEIR.

Short-term Construction Noise. Short-term construction noise was evaluated in the July 2006 DEIR, Impact 6.3-1 on pages 6.3-21 and 6.3-22. The discussion noted that depending upon the operations conducted and equipment used individual equipment noise levels can range from 79 to 91 dBA at 50 feet. The simultaneous operation of the on-site heavy-duty equipment associated with the Greenbriar Development Project could result in combined intermittent noise levels of approximately 94 dBA at 50 feet from the project site. Short-term construction-generated noise levels could exceed City of Sacramento Noise Code standards or result in a

noticeable increase in ambient noise levels at existing nearby off-site sensitive land uses as well as on-site residences that are constructed and inhabited before other portions of the Greenbriar Development Project are complete. This impact was considered potentially significant. Mitigation Measure 6.3-1, states that construction operations shall be limited to the hours between 7 a.m. to 6 p.m. Monday through Saturday, and 9 a.m. to 6 p.m. on Sunday. With the implementation of this measure, construction would not result in a noticeable increase in ambient noise levels at noise-sensitive receptors during the more noise-sensitive hours of the day, and potential impacts would be a less than significant. The Amended Project would remain substantially the same in terms of the approved land use types, street pattern, and on-site infrastructure requirements, and therefore impacts associated with short-term construction noise would be similar to those described in the DEIR.

In March 2009, the City adopted the 2030 General Plan Update, which includes changes to Exterior Noise Compatibility Standards. These new standards maintained the same exterior noise level standards for "Normally Acceptable" noise levels for residential uses (60dBA L_{dn} or CNEL) but raised the noise level standards for schools, libraries and churches, and for office buildings, businesses, and commercial uses from 65 dBA L_{dn} to 70dBA L_{dn}. The interior noise level standards remained the same for residential, transient lodgings, hospitals, nursing homes and other uses where people normally sleep (45 dBA L_{dn}). These changes to noise level standards would not alter the conclusions reached in the DEIR with respect to exposure of persons to noise levels in excess of local standards.

b. Exposure of sensitive receptors or generation of excessive vibration levels is addressed in DEIR Impact 6.3-6, pages 6.3-43 and 6.3-44. The DEIR concludes that short-term construction-generated vibration levels would exceed Caltrans recommended standard of 0.2 in/sec peak particle velocity with respect to the prevention of structural damage for normal buildings and could exceed the federal transit administration's maximum acceptable vibration standard of 80 velocity decibels with respect to human response for residential uses (i.e., annoyance) at on-site residential dwellings that are developed and inhabited before nearby construction is completed. The DEIR concluded that this would be a potentially significant impact. Application of DEIR Mitigation Measure 6.3-6, however, would reduce the impact to a less-than-significant level.

With respect to the Amended Project, the construction of the school would not occur within 60 feet of inhabited residences. Therefore, while the Amended Project would entail similar types of construction equipment and construction activities, the construction scheduling and undeveloped location of the Amended Project would not expose inhabited residences to excessive vibration. Therefore, this impact would be less than significant, and implementation of Mitigation Measure 6.3-6 is not required. As such, no greater or substantially more severe impact would occur.

c. The DEIR Impact 6.3-5 on page 6.3-39 – 6.3-42 evaluates exposure of residential areas and schools to aircraft noise generated by aircraft overflights of the project site. The DEIR analysis concludes that sleep disruption would be infrequent, and an overflight easement disclosing that Greenbriar Development Project would be subject to sleep and speech disruption from aircraft overflights would be provided for residential areas within the overflight zone. The DEIR concluded that this is a less-than-significant impact. However, the DEIR indicated that students at the elementary school could be exposed to noise generated by aircraft overflights that would result in speech and classroom disruption, which was found to be a significant impact. Mitigation Measure 6.3-5 requires a site-specific acoustical analysis be conducted once constructions plan are available to ensure that the school is designed to not exceed 40 dBA energy-equivalent noise level (L_{eq}), as measured during the peak hour of noise during school operation. In addition to standards set forth in Mitigation Measure 6.3-5, a letter to from the Caltrans Department of Aeronautics to the California Department of Education on August 16, 2017, indicates that the school must also achieve its CNEL 45 db interior noise level standard. This standard has been added to Mitigation Measure 6.3-5, as shown below. These thresholds could be achieved by implementation of noise reduction measures and design features including increased noise-attenuation measures in building construction (e.g., dual-pane, sound-rate windows; mechanical air systems; and exterior wall insulation). The efficacy of these noise reduction measures would be summarized in a site-specific acoustical analysis and would be required to meet Caltrans' CNEL 45 db interior noise level threshold of significance.

4.13.2 Mitigation Measures

The following mitigation measure referenced in the 2008 EIR would remain applicable if the Amended Project were approved. The mitigation measures have been modified slightly from the 2008 EIR (shown in underline/~~strikeout~~). These modifications include deletion of some measures that are no longer relevant or have been completed by the Greenbriar developer, and minor changes to render the measures enforceable by TRUSD. As presented, the mitigation measures provide a level of environmental protection equal to or greater than those presented in the current Mitigation and Monitoring Plan (MMP) for the 2008 EIR. The modifications do not result in a new or more severe significant adverse effects on the environment and are feasible and enforceable. No additional mitigation measures are required for the Amended Project.

Mitigation Measure 6.3-1

Construction operations shall be limited to the hours between 7 a.m. to 6 p.m. Monday through Saturday, and 9 a.m. to 6 p.m. on Sunday

As discussed above, the ANSI interior noise standards must be met under Mitigation Measure 6.3-5. In addition, the project must meet Caltrans Department of Aeronautics CNEL 45 db interior noise level standard. This modified mitigation measure provides an additional standard and thus a level of environmental protection equal to or greater than that afforded by the mitigation measure included in the Final EIR and the MMRP. These standards can be feasibly met through building construction design features, including dual-pane, sound-rated windows; mechanical air systems; and exterior wall insulation.

Modified Mitigation Measure 6.3-5

Prior to issuance of any building permits, site-specific acoustical analyses shall be conducted once construction plans are available for the proposed school to ensure satisfaction with the City of Sacramento interior noise level standards and Caltrans Department of Aeronautics interior noise level standards for schools. This site-specific acoustical analysis shall include site-specific design requirements to reduce noise exposure of proposed on-site receptors and all feasible design requirements shall be implemented into the final site design. Noise reduction measures and design features may include but are not limited to the use of increased noise-attenuation measures in building construction (e.g., dual-pane, sound-rated windows; mechanical air systems; and exterior wall insulation). Implementation of these design measures would ensure interior noise levels meet ~~the City's noise standards and~~ the ANSI standard and the Caltrans Department of Aeronautics standard, including the ANSI standard that the interior of schools shall not exceed 40 dBA Leq and measured during the peak hour of noise during school operations or the Caltrans Department of Aeronautics CNEL 45 db interior noise level standard.

4.13.3 Conclusion

No new circumstances involving new significant impacts have occurred. While there are modified noise level standards adopted as part of the City's 2009 General Plan Update, the conclusions contained in the DEIR would be unaffected by these changes. No new analyses or verifications are required with respect to any associated impacts or mitigation measures. Therefore, the conclusions contained in the noise analysis in the DEIR and cumulative noise analysis in the SRDEIR remain valid and no additional impacts would occur.

4.14 POPULATION AND HOUSING

Environmental Issue Area	Where Impact Was Analyzed in the DEIR, RDEIR, SRDEIR, FEIR, or Addenda	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Any Substantially Important New Information Requiring New Analysis or Verification?	Do Prior EIR Mitigation Measures/ Environmental Commitments Address/Resolve Impacts?
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 (for example, through extension of roads or other infrastructure)?	DEIR pp. 7-1 to 7-5, SRDEIR pp. 7-1 to 7-5	No	No	No	N/A
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	N/A	N/A	N/A	N/A	N/A

4.14.1 Discussion

CEQA does not identify a population increase as a significant environmental impact in and of itself. An increase in the number of residents in the project site resulting from the development of the Greenbriar project, however, was found to contribute to environmental effects, such as increased traffic, air quality degradation, and additional demands for public services and infrastructure. Impacts indirectly attributable to population growth, including air quality, traffic, and public services, are addressed in the 2008 EIR and addenda.

a. The SRDEIR addresses inducement of population growth in Section 7.1, "Growth-Inducing Impacts," on pages 7-1 through 7-5. When the DEIR was prepared, the project site was outside the city boundaries and the city's SOI; therefore, the SRDEIR noted that the project would be inconsistent with current land use designations and was not identified for future urban development. However, after the certification of the FEIR, the city's SOI was amended, and the project site was annexed into the city. Therefore, the Amended Project would be consistent with current land use planning.

The SRDEIR notes that development of the North Natomas area will continue to have growth-inducing effects on the adjacent areas surrounding the plan area and concludes that development of the Greenbriar Development Project would not substantially contribute to an overall growth-inducing effect because of its specific location and the nature of the proposed development. The Greenbriar Development Project would be located between residential development occurring in the NNCP area and commercial and industrial development approved for the future Metro Air Park. The SRDEIR also notes that the city would have to extend infrastructure and provide services to the site. Because the land north of the site is outside the city's SOI, it was determined that it is unlikely that the Greenbriar Development Project would induce growth on adjacent lands that are not within the SOI and are not included in existing and long-term plans involving development. The SRDEIR recognizes that the Greenbriar Development Project's potential for setting a precedent for growth and extension of the NNCP boundaries is an important consideration. As the NNCP area is being built out, substantial pressure has been placed to consider development of the area to the north, including the project site. Further, under the Joint Vision and the SACOG Blueprint, much of the area is identified as future urban development.

The SRDEIR concludes that overall, the Greenbriar project would be growth inducing because the increased population associated with the Greenbriar project would increase demand for goods and services, thereby fostering population and economic growth in the city of Sacramento and nearby communities. It can be expected that a successful project would place pressure on adjacent areas to the north to seek development entitlements. In summary, much of the growth that the Greenbriar project would induce has been evaluated and provided for in the City General Plan, County General Plan, and other relevant planning documents.

The discussion regarding population growth inducement provided in the SRDEIR remains relevant. The proposed school project would not be growth inducing, however. It was proposed to address the increased demand for school facilities associated with the Greenbriar Development Project. The Amended Project would increase capacity at the school and accommodate new population growth within the Greenbriar Development Project. There are no new circumstances resulting in new impacts or new information requiring additional analyses related to inducement of population growth. The conclusions in the SRDEIR and addenda remain valid, and no additional impacts would occur.

b. No residences are located within the project site boundaries. Therefore, of housing or persons would be displaced.

4.14.2 Mitigation Measures

No mitigation measures are required.

4.14.3 Conclusion

No new circumstances have occurred, nor has any substantially important new information been found requiring new analysis or verification. Therefore, the conclusions of the SRDEIR and addenda remain valid, and approval of the amendment to the Amended Project would not result in any new significant impacts related to population and housing.

4.15 PUBLIC SERVICES

Environmental Issue Area	Where Impact Was Analyzed in the DEIR, RDEIR, SRDEIR, FEIR, or Addenda	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Any Substantially Important New Information Requiring New Analysis or Verification?	Do Prior EIR Mitigation Measures/ Environmental Commitments Address/Resolve Impacts?
14. Public Services.					
a. 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, to maintain acceptable service ratios, response times or other performance objectives for any the public services:					
i. Fire protection?	DEIR p. 6.5-5 to 6.5-6; Impact 6.5-1; SRDEIR p. 7-19 Cumulative Impacts Section 7.2.5	No	No	No	Yes
ii. Police protection?	DEIR p. 6.5-6 Impact 6.5-2 SRDEIR p. 7-19 Cumulative Impacts Section 7.2.5	No	No	No	N/A
iii. Schools?	DEIR p. 6.5-8 to 6.5-9; Impact 6.5-4; SRDEIR p. 7-19 Cumulative Impacts Section 7.2.5	No	No	No	N/A
iv. Parks?	DEIR p. 6.6-10 to 6.6-12; Impacts 6.6-1 and 6.6-2; SRDEIR p. 7-20 Cumulative Impacts Section 7.2.6	No	No	No	Yes
v. Other public facilities?	N/A	N/A	N/A	N/A	N/A

4.15.1 Discussion

Public services are addressed in the DEIR and SRDEIR. The environmental setting remains generally the same as stated in the DEIR in terms of law enforcement services. Prior to annexation into the City, the project site was located within the North Natomas Fire Protection District. However, the project site is currently served by the City of Sacramento Fire Department. Since the approval of the Greenbriar Development Project, Station 43 has been put into service south of the project site at 4201 El Centro Road. Station 43 is approximately 2 miles south of the project site and the closest station to the project site. The next nearest fire station to the project site is Fire Station 30, located at the northeast corner of Regency Park Circle and Club Center Drive approximately 3 miles east of the project site. Fire Station 3, located at 7208 West Elkhorn Boulevard, is approximately 4 miles west of the project site, on the opposite

side of Sacramento International Airport from the project site. Specific updates to the setting with respect to schools are parks are addressed in the following discussions.

a.i. The DEIR addresses impacts associated with fire and emergency services in Impact 6.5-1 on pages 6.5-5 to 6.5-6. The DEIR analysis of the Greenbriar Development Project notes that, at the time of the DEIR preparation (2006), the City was planning to construct a new fire station to serve the project site and surrounding area, but the timing of construction and exact location of the fire station were unknown. Previously the response time to the site from the nearest fire station was estimated to be seven minutes, which was more than the optimal response time of 4.5 minutes noted in the DEIR. Because it was unknown whether adequate fire protection facilities would be in place at the time the first occupancy permit would be issued, the Greenbriar Development Project could have resulted in residents living in an area where inadequate fire and emergency response services are provided. The DEIR determined that this would be a potentially significant impact. The DEIR included mitigation measures that would provide for financing and construction of a fire station to serve the project site. However, because of the uncertainties about location and timing of the opening of the fire station, the impact was considered to be significant and unavoidable.

As noted above, Station 43 has been constructed and placed in service since the approval of the original project. According to the Sacramento Metropolitan Fire Department, Station 43 would be the most likely station to respond to the project site because of its easy access to the site from I-5. The 2017 Addendum concluded that the response time from Station 43 would not be at the optimal time (five minutes or less) but would be within an acceptable range according to fire personnel. However, as reflected in the Findings of Fact approved with the Phase 1 entitlements, following publication of the Addendum, the Fire Department recalculated its response times and determined that an additional fire station was no longer needed on the project site because fire unit travel times from Stations 30 and 43 via Meister Way would be well within the 5:50 minute standard at 3:54 and 4:26 respectively. Therefore, the construction of a new fire station at 50 percent buildout is no longer a condition of approval and a funding mechanism is not included in the updated Greenbriar Financing Plan. Because the response times are even faster than the optimal response time of 5:50 minutes (and below the 4.5 minutes assumed in the prior EIR), the impact to fire services remains less than significant. No further analysis is required because impacts associated with fire and emergency services described in the DEIR would be reduced to a less-than-significant level. Overall, impacts would be less than that described in the DEIR. The Amended Project would not increase population levels or result in other changes that could affect response times or require the construction of new fire protection facilities. Therefore, the conclusions of the EIR and addenda remain valid, and there are no new circumstances that would result in new impacts or new information that would require additional analysis because of an effect on fire and emergency services.

ii. The DEIR addresses impacts associated with demand for police services on page 6.5-6, in Impact 6.5-2. The DEIR notes that because the City would add personnel to the police department on an as-needed basis to meet service goals, the Greenbriar Development Project would not result in the need to construct any new police facilities (the construction of which could result in significant physical environmental impacts). The applicant's finance plan would ensure adequate funding is paid into a fee program that would ensure basic police services as development occurs; the Greenbriar Development Project would not result in any substantial adverse impacts to police facilities and services. Therefore, the DEIR concluded that this impact would be less than significant. The Amended Project would not affect nearby population levels and by consequence, law enforcement response times or ability to serve the public. Therefore, the conclusions of the EIR and addenda remain valid, and there are no new circumstances that would result in new impacts or new information that would require additional analysis because of an effect on a law enforcement.

iii. The DEIR addresses Impact 6.5-4 associated with schools on pages 6.5-8 to 6.5-9. The DEIR notes that school facilities currently serving the Natomas area, including the proposed elementary school site at the project site, would provide adequate school services to the project site. No additional facilities would be required. In addition, the project applicant would be required to pay development impact fees to the Twin Rivers Union

School District. The DEIR analysis concludes that the Greenbriar Development Project would result in less-than-significant impacts to school services.

Since certification of the 2008 EIR, addenda have included modifications to the Tentative Master Parcel Map and Tentative Subdivision Map, which have modified the number of residential housing units. In addition, the School Facility Fee Justification for Residential, Commercial & Industrial Development Projects for the Twin Rivers Unified School District (TRUSD 2019) contains student generation rates based on residential housing units. Table 4-6 provides a comparison of the student generation rates associated with the number of residential units considered under the 2008 EIR and under the current Tentative Master Parcel Map and Tentative Subdivision Map.

Table 4-6 Projected Student Generation

Grade Group	Students per Residential Housing Unit	2008 EIR		Current Tentative Master Parcel Map and Tentative Subdivision Map Residential Units	
		Residential Units	Students	Residential Units	Students
K-6	0.285	3,218	917	2,753	785
7-8	0.072		232		198
9-12	0.118		380		325
		1,529		1,308	

Source: TRUSD 2019

Note: Current student generation rates do not include assumptions related to TK student attendance

Based on current generation rates, a total of 983 K-8 students would reside within the Greenbriar Development Project site. These children could be accommodated by the 1,083 seats that would be available at the school. This number may not account for the entire student body because there are currently not generation rates available from TRUSD for TK. However, as stated in Impact 6.5-4 of the Draft EIR, as allowed by State law, the project applicant has agreed to pay school impact fees, which would be allocated to TRUSD. These school districts would be responsible for constructing the facilities needed to serve this project. Although the school impact fees are often insufficient to fund 100 percent of new school facility construction and operation, the California State Legislature has declared the school impact fee to be full and adequate mitigation under CEQA. Under California Government Code Section 65996, the City is limited to charging the statutorily created fee to offset impacts to local school districts generated by Amended Projects. Section 65996 does not provide for remediation of existing deficiencies in school services. The increase in student body and age range of students would not affect the capacity of schools within TRUSD. Therefore, the conclusions of the EIR and addenda remain valid, and there are no new circumstances that would result in new impacts or new information that would require additional analysis because of an effect on schools.

iv. The DEIR addresses impacts associated with parks and recreation on pages 6.6-10 to 6.6-11 in Section 6.6, "Parks and Open Space." Under Impact 6.6-1, the DEIR for the approved project concludes that residential development under the Greenbriar Development Project would require 48.2 net acres of parks under the City's Quimby Act standards. The approved project would provide approximately 48.4 net acres of neighborhood and community parks. Therefore, the DEIR concludes that the Greenbriar Development Project would provide sufficient parkland to meet the City's standards for parkland dedication, and thus would provide sufficient park facilities to meet demand. This impact was determined to be less than significant.

The Phase 2 amendments reduced the number of housing units and a altered the mix of densities within the Greenbriar Development Project. Using the standards contained in Chapter 16.64 of the City Code to calculate the required parkland dedication, the Greenbriar Development Project, as currently planned, would require 24.94 acres of neighborhood and community parkland. The parkland acreage dedicated under the Phase 2 amendments total approximately 25.79 acres (including 5 percent acreage credit per recreational amenity in Phase 1), which meets dedication requirements under the City's Quimby Act ordinance.

The Amended Project does not affect the number of housing units or otherwise affect the City's Quimby Act ordinance. Therefore, the conclusions of the EIR and addenda remain valid, and there are no new circumstances that would result in new impacts or new information that would require additional analysis because of an effect on a parks and recreation.

4.15.2 Mitigation Measures

No mitigation measures are required.

4.15.3 Conclusion

No new circumstances involving new significant impacts have occurred. Requirements related to Mitigation Measure 6.6-2 have been satisfied, thus impacts of the Greenbriar Development Project related to open space have been addressed and no additional mitigation measures are required for the Northlake TK-8 School project. Because the response times are even faster than the optimal response time of 5:50 minutes (and below the 4.5 minutes assumed in the prior EIR), the impact to fire services remains less than significant for the overall Greenbriar Development Project, including the Northlake TK-8 School. No substantially important new information with respect to public services that would require new analysis or verification. Therefore, the conclusions of the 2008 EIR and addenda remain valid, and implementation of the Amended Project would not result in any new significant impacts associated with public services.

4.16 RECREATION

Environmental Issue Area	Where Impact Was Analyzed in the DEIR, RDEIR, SRDEIR, FEIR, or Addenda	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Any Substantially Important New Information Requiring New Analysis or Verification?	Do Prior EIR Mitigation Measures/ Environmental Commitments Address/Resolve Impacts?
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?	DEIR p. 6.6-10 to 6.6-12; Impacts 6.6-1 and 6.6-2; SRDEIR p. 7-20 Cumulative Impacts Section 7.2.6	No	No	No	Yes
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?	DEIR p. 6.6-10 to 6.6-12; Impacts 6.6-1 and 6.6-2; SRDEIR p. 7-20 Cumulative Impacts Section 7.2.6	No	No	No	Yes

4.16.1 Discussion

Impacts on recreational facilities is discussed in Section 6.6 of the DEIR and SRDEIR. The environmental settings remain generally the same as stated in the DEIR.

a., b. The DEIR addresses impacts associated with parks and recreation on pages 6.6-10 to 6.6-11 in Section 6.6, "Parks and Open Space." Under Impact 6.6-1, the DEIR for the approved project concludes that residential development under the Greenbriar Development Project would require 48.2 net acres of parks under the City's Quimby Act standards. The approved project would provide approximately 48.4 net acres of neighborhood and community parks. Therefore, the DEIR concludes that the Greenbriar Development Project would provide sufficient parkland to meet the City's standards for parkland dedication, and thus would provide sufficient park facilities to meet demand. This impact was determined to be less than significant.

The Phase 2 amendments reduced the number of housing units and a altered the mix of densities within the Greenbriar Development Project. Using the standards contained in Chapter 16.64 of the City Code to calculate the required parkland dedication, the Greenbriar Development Project, as currently planned, would require 24.94 acres of neighborhood and community parkland. The parkland acreage dedicated under the Phase 2 amendments total approximately 25.79 acres (including 5 percent acreage credit per recreational amenity in Phase 1), which meets dedication requirements under the City's Quimby Act ordinance.

The Amended Project involves and increase to the student body and expansion of grades taught at the school. It does not increase population levels such that substantial physical deterioration of a facility would be accelerated. In addition, there are no recreational facilities included as part of the project. Therefore, the conclusions of the EIR and addenda remain valid, and there are no new circumstances that would result in new impacts or new information that would require additional analysis because of an effect on a parks and recreation.

4.16.2 Mitigation Measures

No mitigation measures are required.

4.16.3 Conclusion

No new circumstances involving new significant impacts have occurred. No substantially important new information with respect to recreation resources would require new analysis or verification. Therefore, the conclusions of the 2008 EIR and addenda remain valid, and implementation of the Amended Project would not result in any new significant impacts associated with recreation resources.

4.17 TRANSPORTATION/TRAFFIC

Environmental Issue Area	Where Impact Was Analyzed in the DEIR, RDEIR, SRDEIR, FEIR, or Addenda	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Any Substantially Important New Information Requiring New Analysis or Verification?	Do Prior EIR Mitigation Measures/ Environmental Commitments Address/Resolve Impacts?
16. Transportation/Traffic. Would the project:					
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	SRDEIR pp. 6.1-82 to 6.1-84; Impacts 6.1-9 to 6.1-10.	No	No	No	Yes
b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	Not addressed	No	No	No	N/A
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	SRDEIR pp. 6.1-84 to 6.1-89; Impacts 6.1-11 to 6.1-14.	N/A	No	No	Yes
d. Result in inadequate emergency access?	SRDEIR pp. 6.1-89; Impact 6.1-15	No	No	No	Yes

4.17.1 Discussion

The 2008 EIR used automobile delay or level of service (LOS) as the primary metric to evaluate the Greenbriar Development Project's CEQA transportation impacts, consistent with industry standards and the City General Plan goals and policies at the time. On September 27, 2013, Governor Jerry Brown signed SB 743 (Steinberg) into law and started a process to change transportation impact analysis as part of CEQA compliance. SB 743 directed the California Office of Planning and Research (OPR) to revise the CEQA Guidelines to modify the criteria for determining the significance of transportation impacts to promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses. Subdivision (b)(2) of Public Resources Code Section 21099 provides that "[u]pon certification of the guidelines by the Secretary of the Natural Resources Agency pursuant to this section, automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to [CEQA], except in locations specifically identified in the guidelines, if any." Section 15064.3 of the CEQA Guidelines, adopted in December 2018, provides that vehicle miles traveled (VMT) is the "most appropriate measure of transportation impacts" and mandates analysis of VMT impacts effective July 1, 2020.

As provided in CEQA Guidelines Section 15007, "amendments to the guidelines apply prospectively only," and CEQA documents must meet the "content requirements in effect when the document was set out for public review," and "shall not need to be revised to conform to any new content requirements in guideline amendments taking effect before the document is finally approved."

The 2008 EIR was set out for public review and certified long before the amendment to the CEQA Guidelines adding VMT as the measure of transportation impacts. In addition, information was known about the impact of VMT on the environment at the time that the 2008 EIR was prepared; and thus, it could have been evaluated in the transportation chapter of the EIR at that time. The 2008 EIR and all subsequent review of projects within the Specific Plan have utilized the LOS threshold of significance for traffic impacts. As directed by Section 15007, the 2008 EIR does not need

to be revised to conform to the new VMT requirements. In addition, the change in law (replacement of the LOS standard with VMT) does not constitute new significant information under CEQA (PRC 21166 or CEQA Guidelines 15162) as it does not constitute a new impact caused by the changes proposed in the Amended Project.

The Amended Project would remain substantially the same as the approved project in terms of land use patterns but would result in the school's capacity increasing from an estimated 800 seats to 1,083 seats to accommodate a greater range of ages and grade levels. The change in capacity of the school site and range of grades would result in changes to the travel patterns in the area; and thus, would affect the VMT associated with implementation of the Amended Project.

For these reasons, this section provides the environmental and regulatory setting related to VMT, as well as new analysis of the VMT generated by the Amended Project.

REGULATORY SETTING

Senate Bill 743

SB 743, passed in 2013, required OPR to develop new State CEQA guidelines that address traffic metrics under CEQA. As stated in the legislation, upon adoption of the new guidelines, "automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any."

In December of 2018, OPR published the most recent version of the *Technical Advisory on Evaluating Transportation Impacts in CEQA* (December 2018) which provides guidance for VMT analysis. The Office of Administrative Law approved the updated State CEQA Guidelines and lead agencies had an opt-in period until July 1, 2020 to implement the updated guidelines regarding VMT. As of July 1, 2020, implementation of Section 15064.3 of the updated CEQA Guidelines apply statewide.

Governor's Office of Planning and Research Technical Advisory on Evaluating Transportation Impacts

In December of 2018, OPR published the most recent version of the *Technical Advisory on Evaluating Transportation Impacts* (Technical Advisory) (December 2018) which provides guidance for VMT analysis. The guidance provided thus far relative to VMT significance criteria is focused on residential, office, and retail uses. However, the Technical Advisory does include guidance related to local-serving projects and states that lead agencies have discretion to develop and adopt their own thresholds. Additionally, the Technical Advisory states that because lead agencies will best understand their own communities and the likely travel behaviors of future project users, they are likely in the best position to decide when a project will likely be local serving.

a. The SRDEIR addressed pedestrian and bicycling circulation under Impact 6.1-9 and demand for Public Transportation under Impact 6.1-10. As discussed under 6.1-9 of the SRDEIR, the Greenbriar Development Project was determined to result in inadequate access to on- and off-site pedestrian and bicycle facilities. Mitigation Measure 6.1-9 of the SRDEIR included requirements for bicycle and pedestrian facilities that would reduce these impacts to a less-than-significant level. These requirements have been addressed for the Greenbriar Development Project, which includes the Northlake TK-8 School. Generally, the Northlake TK-8 School project has been revised to increase the number of students, and it would not affect pedestrian and bicycle facilities such as sidewalks, crosswalks, and bicycle lanes. Mitigation Measure 6.1-9 would be implemented by the City of Sacramento and the Greenbriar Development Project applicant and would reduce potentially significant impacts on bicycle and pedestrian facilities to a less-than-significant level through requirements for on- and off-site pedestrian and bicycle facilities to serve the overall development.

The SRDEIR concluded that impacts on demand for public transportation are considered significant (Impact 6.1-10). Mitigation Measure 6.1-10, which reduces these impacts to a less-than-significant level, has been completed and the Greenbriar Development Project site has been annexed into the North Natomas Transit District (City of Sacramento 2020).

The Amended Project would not disrupt or preclude construction or use of any planned bicycle, pedestrian, or transit facilities within the greater Greenbriar Development Project site. Therefore, the Amended Project would not interfere with or adversely affect any existing or planned public bicycle, pedestrian, or transit facilities. Thus, no new significant impacts or substantially more severe impacts would occur. The findings of the 2008 EIR remain valid, and no additional impacts would occur.

b. No VMT guidelines and thresholds have been adopted by TRUSD or the City to meet the State requirements set by SB 743 and address CEQA Guidelines Section 15064.3. Therefore, in the absence of adopted VMT guidelines and thresholds of significance, the VMT analysis here-in relies on the guidance provided in CEQA Guidelines Section 15064.3 and the OPR Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR 2018).

State CEQA Guidelines Section 15064.3(b) identifies criteria for analyzing the transportation impacts of a project. To determine how the Amended Project should be considered, the applicable criteria are discussed herein. Section 15064.3(b)(1) addresses land use projects. The Amended Project is a school; and thus, would be considered a "land use project." Additionally, Section 15064.3(b)(1) also notes that projects resulting in a decrease VMT in the project area as compared to existing conditions should also be presumed to have a less than significant effect. Section 15064.3(b)(3), Qualitative Analysis, states that if existing models or methods are not available to estimate the VMT for the particular project being considered, a lead agency may analyze the project's VMT qualitatively. Additionally, this section notes that for many projects, a qualitative analysis of construction traffic may be appropriate. Section 15064.3(b)(4), Methodology, explains that the lead agency, (in this case, TRUSD) has discretion to choose the most appropriate methodology to evaluate VMT subject to other applicable standards, such as CEQA Guidelines Section 15151 (standards of adequacy for EIR analyses).

As described above, the Amended Project would result in the original school capacity increasing from an estimated 800 seats to 1,083 seats and increase the curriculum to include TK and 7th and 8th grade classrooms. TRUSD assigns students to school based on address; and thus, the new school site would primarily serve the Greenbriar Development Project site and the associated existing and planned residential development. Although some students may choose to attend private or charter schools, implementation of the project would not affect the number of students generated within the Greenbriar Development Project as a whole. However, the change in capacity of the school site would result in changes to the travel patterns in the area compared to project described in the 2008 EIR; and thus, would affect the VMT associated with implementation of the Amended Project.

The existing schools in the general vicinity of the Greenbriar Development Project site and serving the same grade levels as the Amended Project (i.e., TK–8th) include those listed below:

- Westlake Charter School K–8th: Approximately 1 mile east of the project site
- Natomas Middle School 6th–8th: Approximately 0.75 mile southeast of the project site
- Paso Verde School TK–8th: Approximately 1 mile south of the project site
- Regency Park Elementary School K–8th: Approximately 2.3 miles east of the project site
- Natomas Park Elementary School TK–5th: Approximately 2.5 miles southeast of the project site
- Heron School K–8: Approximately 1.75 miles southeast

Generally, by adding a new school into the urban fabric of the Greenbriar Development Project site (i.e., the population the school is being built to serve), the distances for students to travel to their associated school would be decreased because the provision of such local-serving land uses tend to shorten trips and reduce VMT. Thus, the Amended Project would be considered a local-serving land use. Additionally, school-based trips are not discretionary in nature; and thus, would be generated by families with school aged children within the Greenbriar Development Project area regardless of whether the Amended Project is constructed. By providing a local-serving land use (i.e., the Amended Project) in closer proximity to those that it would

serve; daily trips to more distant school sites would not be required; thus, presumably reducing total VMT of the Greenbriar Development Project

As shown in Table 4-7 the total student generation rate of TK through 8th grade students from the Greenbriar Development Project has decreased from 1,149 to 983, based on the current Tentative Master Parcel Map and Tentative Subdivision Map residential units and updated student generation rates developed by TRUSD. As described above, the 2008 EIR included a school that would have an estimated capacity of 800 seats and would serve grades K–6th, which would not be sufficient to serve the estimated 917 K–6th grade students. In addition to the remaining 117 K–6th grade students who would need to seek schooling elsewhere, the estimated 232 7th and 8th grade students would also need to travel to another school outside of the Greenbriar Development Project. In contrast, the Amended Project provides adequate seats for the estimate 983 K–8th grade students, indicating a potential decrease in VMT associated with the Amended Project compared to the school described in the 2008 EIR. (Note that generation rates do not currently include TK student attendance assumptions, and thus student body numbers may be slightly underestimated).

Table 4-7 Projected Kindergarten through 8th Grade Student Generation

Grade Group	Students per Residential Housing Unit	2008 EIR		Current Tentative Master Parcel Map and Tentative Subdivision Map Residential Units	
		Residential Units	Students	Residential Units	Students
TK-6	0.285	3,218	917	2,753	785
7-8	0.072		232		198
Total K-8		1,149		983	

Source: TRUSD 2019

Note: Current student generation rates do not include assumptions related to TK student attendance

Therefore, the combination of lower student generation and the addition of student capacity to what was originally planned and analyzed in the 2008 EIR would likely reduce the trip lengths for approximately 349 (117 K–6 graders and 232 7-8 graders) additional students. Therefore, it is anticipated that the addition of school capacity associated with the Amended Project would not result in an increase in VMT for the plan area as compared to that which was previously analyzed. Therefore, the conclusions of the EIR and addenda remain valid, and there are no new circumstances that would result in new impacts or new information that would require additional analysis because of an effect on VMT.

c. The SRDEIR addressed roadway safety impacts under Impact 6.1-14. Implementation of a mitigation measure requiring traffic calming measures (Mitigation Measure 6.1-14) would reduce these potentially significant impacts to a less-than-significant level. The SRDEIR also concluded that impacts associated the project site access would be potentially significant (Impact 6.1-13) because uncontrolled access points along Meister Way could result in hazardous and unsafe driving conditions. Implementation of a measure requiring improved access along Meister Way (Mitigation Measure 6.1-13) would reduce these impacts to a less-than-significant level. Finally, the SRDEIR concluded that construction-related transportation and circulation impacts would be potentially significant (Impact 6.1-11), but implementation of a construction traffic management plan (Mitigation Measure 6.1-11) would reduce these impacts to a less-than-significant level.

The Amended Project would be required to be constructed in accordance with applicable roadway design and safety standards. Additionally, the types of vehicles accessing the project site (i.e., passenger vehicles and busses) would be consistent with those currently utilizing the surrounding transportation network. Thus, the Amended Project would not increase hazards because of a design feature or incompatible uses. Additionally, construction traffic routes have been previously established by the Greenbriar developer and the City, and construction traffic control plans will be prepared by the Greenbriar developer to the satisfaction of the City Traffic Engineer per City Code 12.20.030, consistent with Mitigation Measure 6.1-11; thus, reducing construction-related transportation hazards. Therefore, the Amended Project would not substantially increase transportation hazards and would result in a less-than-significant impact. Thus, no new significant

impacts or substantially more severe impacts would occur. The findings of the 2008 EIR and addenda remain valid, and no additional impacts would occur.

d. Emergency vehicle access is addressed in Impact 6.1-15 of the SRDEIR and was determined to result in potentially significant impacts; however, implementation of a measure requiring coordination with City Development Services Department and emergency services departments (Mitigation Measure 6.1-15) would reduce these impacts to a less-than-significant level.

Emergency access has been reviewed and approved by the City of Sacramento as part of the Greenbriar development and meets emergency access and design requirements and standards. Additionally, construction traffic routes have been previously established by the Greenbriar developer and the City, and construction traffic control plans will be prepared by the Greenbriar developer to the satisfaction of the City Traffic Engineer per City Code 12.20.030, Mitigation Measure 6.1-11, and Mitigation Measure 6.1-15; thus, ensuring adequate emergency access is maintained during construction of the Amended Project. Therefore, the conclusions of the EIR and addenda remain valid, and there are no new circumstances that would result in new impacts or new information that would require additional analysis because of an effect on emergency access.

4.17.2 Mitigation Measures

No mitigation measures are required.

4.17.3 Conclusion

While most of the conclusions of the 2008 EIR remain valid, LOS is no longer subject to analysis within CEQA documents and has been replaced with an evaluation of VMT. In addition, updated school generation rates have changed projections for classroom demand associated with the Greenbriar Development Project. These changes would not result in new significant impacts or in a substantial increase in the severity of the previously identified impacts.

No new circumstances have occurred nor has any substantially important new information been found with respect to aesthetics requiring additional analysis or verification. Therefore, the conclusions of the 2008 EIR and addenda remain valid, and approval of the Amended Project would not result in new or substantially more severe significant impacts on biological resources.

4.18 UTILITIES AND SERVICE SYSTEMS

Environmental Issue Area	Where Impact Was Analyzed in the DEIR, RDEIR, SRDEIR, FEIR, or Addenda	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Any Substantially Important New Information Requiring New Analysis or Verification?	Do Prior EIR Mitigation Measures/ Environmental Commitments Address/Resolve Impacts?
17. Utilities and Service Systems. Would the Project:					
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	DEIR pp. 6.4-14; Impact 6.4-4	No	No	No	Yes
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	DEIR pp. 6.4-9 to 6.4-11; Impact 6.4-1	No	No	No	Yes
c. 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?	DEIR pp. 6.4-14; Impact 6.4-4; p. 7-16 to 7-17 Cumulative Impact Section 7.2.4 Utilities	No	No	No	Yes
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	DEIR pp. 6.4-15; Impact 6.4-5	No	No	No	Yes
e. Comply with federal, state, and local statutes and regulations related to solid waste?	. DEIR pp. 6.5-7 to 6.5-8 Impact 6.5-3	No	No	No	N/A

4.18.1 Discussion

The DEIR addresses utilities in Section 6.4. The environmental setting remains generally the same as stated in the DEIR. Specific updates to the setting with respect to wastewater collection, conveyance or treatment services are provided under the answers to the appropriate checklist questions below.

a. The DEIR addresses water delivery infrastructure in Impacts 6.4-1 and 6.4-2 on pages 6.4-9 to 6.4-11. Other than construction of the necessary infrastructure to connect the project site to the City's existing water system, no additional water supply facilities would be needed to serve the Amended Project. Therefore, this would be a less-than-significant impact related to water supply impacts. The land use pattern associated with the school project was evaluated in the Phase 2 Addendum and would remain the same under the Amended Project.

The DEIR addresses impacts related to wastewater conveyance infrastructure in Impacts 6.4-3, and Impact 6.4-4, which addresses Sacramento Regional Water Treatment Plant (SRWTP) expansion. With approval of the Greenbriar Development Project in 2008, the project site was annexed to the City, and SOI's for SRCSD and CSD-1 were amended to include the project site. Wastewater collection services would be provided by CSD-1 and SRCSD. The DEIR concludes that because sufficient capacity within the CSD-1's and SRCSD's conveyance facilities would be available to serve the Greenbriar Development Project, there would be less-than-significant impacts to wastewater collection services. The land use pattern associated with the school project was evaluated in the Phase 2 Amendments. The Phase 2 Amendments Addendum indicated that the land use pattern would remain substantially similar to that presented in the 2008 EIR, and thus the impacts described in the 2008 EIR would remain valid. The Amended Project does not affect the land use pattern, therefore the analysis of wastewater conveyance infrastructure presented in the 2008 EIR and addenda remain valid.

The 2008 EIR identified significant and unavoidable impacts related to the need for construction of expanded SRWTP facilities (Impact 6.4-4). However, a substantial upgrade to SRWTP was approved in 2015, and is currently under way. The upgrade, known as the EchoWater Project, must be built by 2023 to meet new water quality requirements that were issued by the Central Valley RWQCB as part of the Sacramento Regional Sanitation District's (Regional San's) 2010 NPDES permit. Upon completion of the Echowater Project, capacity at SRWTP will be 350 million gallons per day (mgd). Regional San treats an average of 135 mgd during normal weather years (Regional San 2020), which is well under the current permitted capacity of 181 mgd (Regional San 2014). It is not anticipated that Regional San will need to consider further improvements to the SRWTP until after 2050 (Regional San 2014). The Amended Project would accommodate approximately 283 additional students relative to the previously approved school project. According to the City of Sacramento's Sewer Generation Rates, each student would contribute 0.025 equivalent single family dwelling unit (ESD) (City of Sacramento 2018). Assuming the City of Sacramento's recommended flow factor of 310 gallon per day (gpd)/ESD, there would be an additional 2,193.25 gpd of wastewater generated by increasing the student body from 800 to 1,083 students (0.025 ESD/student x 283 students x 310 gpd/ESD). As discussed above, Regional San has a current permitted capacity of 181 mgd and is currently expanding to a capacity of 350 mgd. With average daily flow rates of 135 mgd, an additional 0.0025 mgd could be accommodated by the remaining capacity available at the SRWTP (46 mgd) and no additional infrastructure beyond that contemplated in the 2008 EIR and addenda would be required.

Impact 6.4-4 in the DEIR was determined to be significant and unavoidable because the Greenbriar Development Project was partly driving a need to upgrade the SRWTP at the time. Upgrades to SRWTP would have resulted in significant and unavoidable impacts. However, as noted above there is currently capacity at SRWTP to serve the Amended Project and construction is currently underway at SRWTP to substantial increase capacity. While there are environmental impacts associated with the Echowater project, the Amended Project and overall Greenbriar Development Project are not driving the need to increase capacity. Therefore, Mitigation Measure 6.4-4, which addresses potential impacts related to the need to expand the SRWTP, would not be necessary to reduce this impact to a less-than-significant level.

The DEIR addresses stormwater drainage in Impact 6.4-5. The DEIR notes that the Greenbriar Development Project would increase the volume of stormwater generated at the project site, which would result in a significant impact related to storm drainage capacity. Mitigation Measure 6.4-5 required the project proponents to fully fund and install a new pump that would increase pumping capacity to reduce the impact to a less-than-significant level. However, these improvements are no longer required according to RD 1000 (City of Sacramento 2020). The Phase 2 Amendments Addendum indicated that the land use pattern would remain substantially similar to that presented in the 2008 EIR, and thus the impacts described in the 2008 EIR would remain valid. The Amended Project does not affect the land use pattern, therefore the analysis of stormwater drainage infrastructure presented in the 2008 EIR and addenda remain valid.

The DEIR addresses demand for electricity infrastructure in Impact 6.4-6. The DEIR concludes that extension of existing electricity facilities would not require any upgrades to SMUD's transmission systems that are not

currently planner for, nor would it result in any additional physical disturbance beyond that currently anticipated for the Amended Project. The Phase 2 Amendments Addendum indicated that the land use pattern would remain substantially similar to that presented in the 2008 EIR, and thus the impacts described in the 2008 EIR would remain valid. The Amended Project does not affect the land use pattern, therefore the analysis of electricity infrastructure presented in the 2008 EIR and addenda remain valid.

As discussed above, the Amended Project would not substantially affect relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, or telecommunications facilities. The Phase 2 Amendments included changes to the land use pattern, including alterations to the size of the school site and adjacent park. The Phase 2 Amendments Addendum indicated that the land use pattern would remain substantially similar to that presented in the 2008 EIR, and thus the impacts described in the 2008 EIR would remain valid. Because the Amendment project does not affect the land use pattern of the Greenbriar Development Project, the conclusions of the EIR and addenda remain valid. There are no new circumstances that would result in new impacts or new information that would require additional analysis because of an effect on utility infrastructure.

b. The DEIR addresses water supplies in Impacts 6.4-on pages 6.4-9 to 6.4-11. The DEIR notes that water demands for the Greenbriar Development Project would be met by the City of Sacramento through existing water supply entitlements available from the American River, Sacramento River, and the City's local groundwater well system. In May 2021, the City release the 2020 Urban Water Management Plan (UWMP), which is prepared every five years to provide a framework for long-term water supply planning, and document how urban water suppliers are carrying out their long-term resource planning responsibilities to ensure adequate water supplies are available to meet existing and future water demands. The 2020 UWMP factors in buildout of the Greenbriar Development Project in its long-term water supply plan, as it is included in the 2035 General Plan (adopted March 2015). In regard to water reliability, the 2020 UWMP indicates that there would be a surplus in retail water supply of between 235,391 and 198,436 acre feet per year through 2045 during normal, dry, and multiple dry year conditions. Thus, sufficient water supplies would be available to the Greenbriar Development Project through the reasonably foreseeable future during normal, dry, and multiple dry years.

The Phase 2 amendments included a larger school site and corresponding smaller adjacent park than considered in the 2008 EIR. As shown in Table 6.4-1 in the DEIR, parks/landscape have a greater water demand than a school (2.6 versus 1.55 gallons per minute per acre). Therefore, the amended project would result in a decrease in water demand compared to the original project. Thus, sufficient water supplies would be available to the Greenbriar Development Project through the reasonably foreseeable future during normal, dry, and multiple dry years. Furthermore, the Amended Project would not drive population growth within the Greenbriar Development Project, and student generation rates and associated water demand overall would not be altered. That is, the overall water demand from the City's existing water supply entitlements would not change due to implementation of the Amended Project because the student body of TRUSD schools would remain the same. Therefore, the conclusions of the EIR and addenda remain valid, and there are no new circumstances that would result in new impacts or new information that would require additional analysis because of an effect on water supply.

c. As discussed above under a), the difference between the original project (800 seat generating 0.0062 mgd of wastewater) and amended project (1,083 seat generating 0.0084 mpd of wastewater) would not be substantial compared to current 181 and future 350 mgd capacity of the SRWTP (0.0012 percent and 0.00063 percent, respectively). In addition, the Amended Project would not drive population growth within the Greenbriar Development Project, and student generation rates and associated wastewater generation rates of TRUSD schools would not be altered. That is, the overall demand of wastewater treatment from Regional San would not change due implementation of the Amended Project because the student body of TRUSD schools would remain the same. Therefore, adequate capacity to serve the Amended Project's projected demand in addition to the provider's existing commitment is available.

Therefore, the conclusions of the EIR and addenda remain valid, and there are no new circumstances that would result in new impacts or new information that would require additional analysis because of an effect on wastewater treatment capacity.

d, e. The DEIR addresses demand for solid waste disposal services and capacity in Impact 6.5-3 on page 6.5-7 and 6.5-8. The DEIR notes that with the combined residential and commercial land use solid waste disposal rates, the total solid waste generated by the Greenbriar Development Project would be approximately 7.37 tons of refuse per day which accounts for approximately 0.4 percent of the solid waste accepted at the Sacramento Recycling and Transfer Station on a daily basis. This volume of waste is not substantial in relation to total available capacity and staff of the Department of Utilities Solid Waste Division indicated that the transfer station would be able to accept solid wastes from the Amended Project. In addition, the 2035 City General Plan EIR indicated that Sacramento County Keifer Landfill is able to serve the area until 2065 (City of Sacramento 2014). Furthermore, the Amended Project would not drive population growth within the Greenbriar Development Project, and student generation rates and associated solid waste generation rates TRUSD schools overall would not be altered. That is, the overall demand of solid waste capacity at Keifer Landfill and compliance with regulations pertaining to solid waste would not change due to the increase in student body and age of students served by TRUSD due to implementation of the Amended Project.

Because existing solid waste facilities would have adequate capacity to serve the Amended Project into the foreseeable future, additional solid waste facilities would not be required. Therefore, the Amended Project would have a less-than-significant impact on solid waste services.

4.18.2 Mitigation Measures

No mitigation measures are required.

4.18.3 Conclusion

No new circumstances involving new significant impacts have occurred. The requirements associated with Mitigation Measure 6.4-4 and 6.4-5 have been addressed through the EchoWater Project at Regional San. Requirements associated with Mitigation Measure 6.4-5 is no longer required, according to RD 1000. Through implementation of these mitigation measures as part of the larger Greenbriar Development Project, the impact conclusions presented in the 2008 EIR and addenda remain valid and TRUSD is not required to implement further mitigation measures to address impacts to utilities and service systems. No substantially important new information with respect to utilities and service systems that would require new analysis or verification. Therefore, the conclusions of the 2008 EIR and addenda remain valid, and implementation of the Amended Project would not result in any new significant impacts associated with utilities and service systems.

4.19 WILDFIRE

Environmental Issue Area	Where Impact Was Analyzed in the DEIR, RDEIR, SRDEIR, FEIR, or Addenda	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Any Substantially Important New Information Requiring New Analysis or Verification?	Do Prior EIR Mitigation Measures/ Environmental Commitments Address/Resolve Impacts?
18. Wildfire. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:					
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	N/A	N/A	N/A	N/A	N/A
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	N/A	N/A	N/A	N/A	N/A
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	N/A	N/A	N/A	N/A	N/A

4.19.1 Discussion

The project site is not located in or near a state responsibility area or lands classified as very high fire hazard severity zones. This topic is not discussed further.

4.19.2 Mitigation Measures

No mitigation measures are required.

4.19.3 Conclusion

No new circumstances involving new significant impacts have occurred. No substantially important new information with respect to Wildfire that would require new analysis or verification. Therefore, the conclusions of the 2008 EIR and addenda remain valid, and implementation of the Amended Project would not result in any new significant impacts associated with wildfire.

4.20 MANDATORY FINDINGS OF SIGNIFICANCE

Would the Project:	Where Impact Was Analyzed in the DEIR, RDEIR, SRDEIR, FEIR, or Addenda	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Any Substantially Important New Information Requiring New Analysis or Verification?	Do Prior EIR Mitigation Measures/ Environmental Commitments Address/Resolve Impacts?
a) Have the potential to substantially 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, substantially 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?	See above Section 4.4, "Biological Resources," and Section 4.5, "Cultural Resources"	No	No	No	Yes
b) 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)?	SRDEIR Section 7.2	No	No	No	Yes
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	See above Section 4.1 through 4.19	No	No	No	Yes

4.20.1 Discussion

a. Similar to the 2008 EIR and addenda, the Greenbriar Development Project components would result in potentially significant impacts to biological resources and cultural resources. As discussed above, the Amended Project would not result in new significant environmental impacts that would cause substantial adverse impacts on human beings, either directly or indirectly.

b. The 2008 EIR provides an analysis of overall cumulative impacts of the Greenbriar Development Project taken together with other past, present, and probable future projects producing related impacts, as required by Section 15130 of the State CEQA Guidelines. The goal of such an exercise is twofold: first, to determine

whether the overall long-term impacts of all such projects would be cumulatively significant; and second, to determine whether the Greenbriar Development Project itself would cause a "cumulatively considerable" (and thus significant) incremental contribution to any such cumulatively significant impacts.

The Amended Project, included as part of the Greenbriar Development Project, has been modified to increase in size and student capacity. As discussed in Sections 4.1 through 4.19, there would be no new significant impacts or impacts of greater severity than disclosed in the 2008 EIR and addenda. Impacts would remain of similar type to those disclosed in the 2008 EIR. Thus, the Amended Project would not cause a cumulatively considerable incremental contribution to any cumulative impact.

c. All impacts identified for the Amended Project, including cumulative impacts, would be similar to those discussed in the 2008 EIR. Therefore, the conclusions of the 2008 EIR and addenda remain valid, and implementation of the Amended Project would not result in any new significant impacts associated with utilities and service systems. Therefore, the Amended Project would not result in new significant environmental impacts that would cause substantial adverse impacts on human beings, either directly or indirectly.

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5 REFERENCES

1 Introduction

None used.

2 Project Description

TRUSD. *See* Twin Rivers Unified School District.

Twin Rivers Unified School District. 2015. Long-Range Facility Master Pan Updated – October 2021. Facility Assessment. Available: https://static1.squarespace.com/static/610440d901952c568d86bb6a/t/618afa00ec9fc070204abf4b/1636497929366/Executive+Summary.pdf. Accessed: January 2022..

3 Environmental Checklist

None used.

3.1 Aesthetics

California Department of Transportation. 2019 (August). California State Scenic Highways. Available: https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways. Accessed October 27, 2021.

Caltrans. *See* California Department of Transportation.

Federal Highway Administration. n.d. America's Byways: California. Available: https://www.fhwa.dot.gov/byways/states/CA. Accessed October 27, 2021.

FHWA. *See* Federal Highway Administration.

3.2 Agriculture and Forest Resources

Sacramento County. 2012 (February 7). Staff report to Board of Supervisors, 2003-0171: Initiation of the Northwest Master Plan and General Plan Amendments for the Natomas Joint Vision Area.

California Department of Conservation. 2018. Farmland Mapping and Monitoring Program. Available: https://www.conservation.ca.gov/dlrp/fmmp/Pages/county_info.aspx. Accessed: November 2021.

3.3 Air Quality

California Air Resources Board. 2019. Maps of State and Federal Area Designations. Available: https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations#:~:text=CARB%20makes%20State%20area%20designations,sulfide%2C%20and%20visibility%20reducing%20particles. Accessed: August 25, 2021.

_____. 2021. Top Four Summary of Pollutants Homepage. Available: https://www.arb.ca.gov/adam/topfour/topfour1.php. Accessed January 26, 2021.

3.4 Biological Resources

HELIX Environmental Planning Inc., 2016 (October), *Analysis of the Effects of the Greenbriar Development Project on the Natomas Basin Habitat Conservation Plan*.

HELIX Environmental Planning Inc., 2017 (January), *Greenbriar Development Project Conservation Strategy*.

HELIX Environmental Planning Inc., 2013 (June). *Greenbriar Development Project: Greenbriar Project Site and Off-site Improvement Lands Biological Resources Evaluation*.

California Department of Fish and Wildlife 2013. California Natura Diversity Database.

Swainson's Hawk Technical Advisory Committee. 2000 (May 31). Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley. Available: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83990 . Accessed: January 2022.

3.5 Cultural Resources

Far Western Anthropological Research Group, Inc. 2016 (September). *Buried Site Sensitivity Assessment in Support of the Proposed Greenbriar Development Project for the Greenbriar Project Site and Spangler Mitigation Site, near Natomas, Sacramento County, California.*

3.6 Energy

None used.

3.7 Geology and Soils

UCMP. *See* University of California Museum of Paleontology.

University of California Museum of Paleontology. 2021. Results of web locality search. Available: https://ucmpdb.berkeley.edu/cgi/ucmp_query2. Accessed November 9, 2021.

Wallace-Kuhl & Associates. 2021 (September 1). *Geotechnical Engineering Report: Northlake TK-8 Campus/Greenbriar School*. WKA No. 10023.04P. West Sacramento, CA. Prepared for Twin Rivers Unified School District, North Highlands, CA.

WKA. *See* Wallace-Kuhl & Associates.

3.8 Greenhouse Gas Emissions

None used.

3.9 Hazards and Hazardous Materials

Brooks, Chris. 2017 (August 16). California Department of Transportation. Division of Aeronautics Letter to Lisa Constancio, Consultant, School Facilities and Transportation Services Division, California Department of Education, regarding the Greenbriar School site.

CAL FIRE. *See* California Department of Forestry and Fire Protection.

California Department of Forestry and Fire Protection. 2007 (November 6). Fire Hazard Severity Zones in SRA Adopted by CAL FIRE on November 7, 2007: Sacramento County. Scale 1:100,000. Available: https://osfm.fire.ca.gov/media/6756/fhszs_map34.pdf. Accessed November 12, 2021.

California Department of Toxic Substances Control. 2021a. Results of EnviroStor search for Northlake School (60003018). Available: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=60003018. Accessed November 11, 2021.

———. 2021b. Results of EnviroStor search. Available: https://www.envirostor.dtsc.ca.gov/public/search.asp?PAGE=6&CMD=search&ocieerp=&business_name=&main_street_number=&main_street_name=&city=&zip=&county=&branch=&status=ACT%2CBKLG%2CCOM&site_type=CSITES%2CFUDS&cleanup_type=&npl=&funding=&reporttype=CORTESE&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST+%28CORTESE%29&federal_superfund=&state_response=&voluntary_cleanup=&school_cleanup=&operating=&post_closure=&non_operating=&corrective_action=&tiered_permit=&evaluation=&spec_prog=&national_priority_list=&senate=&congress=&assembly=&critical_pol=&business_type=&case_type=&display_results=&school_district=&pub=&hwmp=False&permitted=&pc_permitted=&inspections=&inspectionsother=&complaints=&censustract=&cesdecile=&ORDERBY=city&next=Next+50. Accessed November 12, 2021.

California Department of Transportation. 2011 (October). *California Airport Land Use Planning Handbook*. Available: https://dot.ca.gov/-/media/dot-media/programs/aeronautics/documents/californiaairportlanduseplanninghandbook-a11y.pdf. Accessed November 12, 2021.

City of Sacramento. 2008 (January 29). *Resolution No. 2008-053: Certifying the Environmental Impact Report and Adopting the Mitigation Monitoring and Reporting Program for the Greenbriar Development Project (M05-046/P05-069)*.

DTSC. *See* California Department of Toxic Substances Control.

3.10 Hydrology and Water Quality

City of Sacramento. 2020 (May 12). *Greenbriar Development Project Mitigation Monitoring Plan*.

Wallace-Kuhl & Associates. 2021 (September 1). *Geotechnical Engineering Report: Northlake TK-8 Campus/Greenbriar School*. WKA No. 10023.04P. West Sacramento, CA. Prepared for Twin Rivers Unified School District, North Highlands, CA.

3.11 Land Use and Planning

None used.

3.12 Mineral Resources

Sacramento County. 2017 (September 26). *County of Sacramento General Plan Conservation Element*. Adopted December 15, 1993. Amended September 26, 2017. Available https://planning.saccounty.net/LandUseRegulationDocuments/Documents/General-Plan/Conservation%20Element%20-%20Amended%2009-26-17.pdf. Accessed November 15, 2021.

3.13 Noise

None used.

3.14 Population and Housing

None used.

3.15 Public Services

Sacramento County. 2017 (September 26). *County of Sacramento General Plan Conservation Element*. Adopted December 15, 1993. Amended September 26, 2017. Available https://planning.saccounty.net/LandUseRegulationDocuments/Documents/General-Plan/. Accessed November 15, 2021.

Twin Rivers Unified School District. 2019. School Facility Fee Justification for Residential, Commercial & Industrial Development Projects for the Twin Rivers Unified School District. Available: https://www.twinriversusd.org/documents/Twin%20Rivers%20-%20Level%20I%202019%20FINAL%202019-03-21.pdf. Accessed: January 2022.

3.16 Recreation

None used.

3.17 Transportation/Traffic

City of Sacramento. 2020 (May 12). *Greenbriar Development Project Mitigation Monitoring Plan*.

California Office of Planning and Research. 2018 (December). *Technical Advisory on Evaluating Transportation Impacts in CEQA*. Available: https://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf. Accessed: January 2022.

OPR. *See* California Office of Planning and Research.

Twin Rivers Unified School District. 2019. School Facility Fee Justification for Residential, Commercial & Industrial Development Projects for the Twin Rivers Unified School District. Available: https://www.twinriversusd.org/documents/Twin%20Rivers%20-%20Level%20I%202019%20FINAL%202019-03-21.pdf. Accessed: January 2022.

3.18 Tribal Cultural Resources

None used.

3.19 Utilities and Service Systems

City of Sacramento. 2014. Draft Master Environmental Impact Report for the City of Sacramento 2035 General Plan Update. State Clearinghouse Number: 2012122006. Available: http://www.cityofsacramento.org/-/media/Corporate/Files/CDD/Planning/Environmental-Impact-Reports/2035-GP-Update/Public-Draft-MEIR081114.pdf?la=en. Accessed: January 2022.

———. 2018. Section 9. Sewer Collection Systems. Available: https://www.cityofsacramento.org/-/media/Corporate/Files/DOU/Specs-Drawings/Section9.pdf?la=en. Accessed: November 2021.

City of Sacramento. 2020. Greenbriar Development Plan MMRP with City Notes.

Sacramento Regional County Sanitation District. 2014 (March). EchoWater Project Draft Environmental Impact Report. State Clearinghouse Number: 2012052017. Available: https://www.regionalsan.com/sites/main/files/file-attachments/echowater_deir.pdf?1411583508. Accessed: November 2021.

Regional San. 2020. 2020 State of the District. Available: https://www.regionalsan.com/sites/main/files/file-attachments/final_sod_report_web.pdf?1616609782. Accessed: November 2021.

3.20 Mandatory Findings of Significance

None used.

6 REPORT PREPARERS

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Appendix A

Air Quality and Greenhouse Gas Modeling and Assumptions Data

Northlake Tk-8 (Previous Project) Mitigated - Sacramento County, Annual

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

Northlake Tk-8 (Previous Project) Mitigated

Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	800.00	Student	10.00	435,600.00	0
Parking Lot	112.00	Space	1.01	44,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Construction of K-8 school with parking.

Construction Phase - Construction would occur over a 1.5 year period. Assumes the same construction period as the proposed project.

Trips and VMT - Maximum of 20 works per day.

Energy Use - No on-site natural gas per SMAQMD's tier 1 mitigation.

Table Name	Column Name	Default Value	New Value
tblEnergyUse	NT24NG	0.66	0.00
tblEnergyUse	T24NG	14.46	0.00
tblLandUse	LandUseSquareFeet	66,882.70	435,600.00
tblLandUse	LotAcreage	1.54	10.00

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

tblTripsAndVMT	VendorTripNumber	79.00	48.00
tblTripsAndVMT	WorkerTripNumber	18.00	20.00
tblTripsAndVMT	WorkerTripNumber	202.00	20.00
tblTripsAndVMT	WorkerTripNumber	15.00	20.00
tblTripsAndVMT	WorkerTripNumber	40.00	20.00

2.0 Emissions Summary

Northlake Tk-8 (Previous Project) Mitigated - 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	0.1556	1.5774	1.3393	2.8400e-003	0.2585	0.0702	0.3287	0.1115	0.0654	0.1769			252.1250	0.0582	6.3200e-003	255.4619
2023	2.2177	1.8755	2.0019	4.2100e-003	0.0479	0.0807	0.1286	0.0134	0.0759	0.0893			374.1812	0.0673	0.0141	380.0765
Maximum	**2.2177**	**1.8755**	**2.0019**	**4.2100e-003**	**0.2585**	**0.0807**	**0.3287**	**0.1115**	**0.0759**	**0.1769**			**374.1812**	**0.0673**	**0.0141**	**380.0765**

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	0.1556	1.5774	1.3393	2.8400e-003	0.2585	0.0702	0.3287	0.1115	0.0654	0.1769			252.1247	0.0582	6.3200e-003	255.4616
2023	2.2177	1.8755	2.0019	4.2100e-003	0.0479	0.0807	0.1286	0.0134	0.0759	0.0893			374.1808	0.0673	0.0141	380.0762
Maximum	**2.2177**	**1.8755**	**2.0019**	**4.2100e-003**	**0.2585**	**0.0807**	**0.3287**	**0.1115**	**0.0759**	**0.1769**			**374.1808**	**0.0673**	**0.0141**	**380.0762**

Northlake Tk-8 (Previous Project) Mitigated - 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	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**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**7-4-2022**	**10-3-2022**	1.0682	1.0682
2	**10-4-2022**	**1-3-2023**	0.6664	0.6664
3	**1-4-2023**	**4-3-2023**	0.5947	0.5947
4	**4-4-2023**	**7-3-2023**	0.5962	0.5962
5	**7-4-2023**	**9-30-2023**	0.5831	0.5831
		Highest	1.0682	1.0682

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	1.9077	1.1000e-004	0.0116	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005			0.0226	6.0000e-005	0.0000	0.0241
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			504.7392	0.0465	5.6400e-003	507.5831
Mobile	0.4855	0.5889	4.1568	8.2300e-003	0.8418	6.6800e-003	0.8485	0.2251	6.2400e-003	0.2313			774.0889	0.0569	0.0402	787.4754
Waste						0.0000	0.0000		0.0000	0.0000			29.6367	1.7515	0.0000	73.4236
Water						0.0000	0.0000		0.0000	0.0000			5.0895	2.7700e-003	1.5400e-003	5.6180
Total	**2.3932**	**0.5890**	**4.1684**	**8.2300e-003**	**0.8418**	**6.7200e-003**	**0.8485**	**0.2251**	**6.2800e-003**	**0.2313**			**1,313.5768**	**1.8577**	**0.0473**	**1,374.1242**

Northlake Tk-8 (Previous Project) Mitigated - Sacramento County, Annual

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	1.9077	1.1000e-004	0.0116	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005			0.0226	6.0000e-005	0.0000	0.0241
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			504.7392	0.0465	5.6400e-003	507.5831
Mobile	0.4855	0.5889	4.1568	8.2300e-003	0.8418	6.6800e-003	0.8485	0.2251	6.2400e-003	0.2313			774.0889	0.0569	0.0402	787.4754
Waste						0.0000	0.0000		0.0000	0.0000			29.6367	1.7515	0.0000	73.4236
Water						0.0000	0.0000		0.0000	0.0000			5.0895	2.7700e-003	1.5400e-003	5.6180
Total	**2.3932**	**0.5890**	**4.1684**	**8.2300e-003**	**0.8418**	**6.7200e-003**	**0.8485**	**0.2251**	**6.2800e-003**	**0.2313**			**1,313.5768**	**1.8577**	**0.0473**	**1,374.1242**

	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	7/4/2022	7/15/2022	5	10	
2	Grading	Grading	7/16/2022	8/26/2022	5	30	
3	Building Construction	Building Construction	8/27/2022	10/20/2023	5	300	

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

4	Paving	Paving	10/21/2023	11/17/2023	5	20	
5	Architectural Coating	Architectural Coating	11/18/2023	12/15/2023	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 90

Acres of Paving: 1.01

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 653,400; Non-Residential Outdoor: 217,800; Striped Parking Area: 2,688 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Northlake Tk-8 (Previous Project) Mitigated - Sacramento County, Annual

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

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	20.00	48.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	20.00	0.00	0.00	10.00	6.50	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	tons/yr										MT/yr					
Fugitive Dust					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003			16.7197	5.4100e-003	0.0000	16.8549
Total	**0.0159**	**0.1654**	**0.0985**	**1.9000e-004**	**0.0983**	**8.0600e-003**	**0.1064**	**0.0505**	**7.4200e-003**	**0.0579**			**16.7197**	**5.4100e-003**	**0.0000**	**16.8549**

Northlake Tk-8 (Previous Project) Mitigated - Sacramento County, Annual

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	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
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
Worker	3.1000e-004	2.0000e-004	2.5200e-003	1.0000e-005	7.3000e-004	0.0000	7.4000e-004	2.0000e-004	0.0000	2.0000e-004			0.6048	2.0000e-005	2.0000e-005	0.6107
Total	**3.1000e-004**	**2.0000e-004**	**2.5200e-003**	**1.0000e-005**	**7.3000e-004**	**0.0000**	**7.4000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**			**0.6048**	**2.0000e-005**	**2.0000e-005**	**0.6107**

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					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003			16.7197	5.4100e-003	0.0000	16.8549
Total	**0.0159**	**0.1654**	**0.0985**	**1.9000e-004**	**0.0983**	**8.0600e-003**	**0.1064**	**0.0505**	**7.4200e-003**	**0.0579**			**16.7197**	**5.4100e-003**	**0.0000**	**16.8549**

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	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
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
Worker	3.1000e-004	2.0000e-004	2.5200e-003	1.0000e-005	7.3000e-004	0.0000	7.4000e-004	2.0000e-004	0.0000	2.0000e-004			0.6048	2.0000e-005	2.0000e-005	0.6107
Total	**3.1000e-004**	**2.0000e-004**	**2.5200e-003**	**1.0000e-005**	**7.3000e-004**	**0.0000**	**7.4000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**			**0.6048**	**2.0000e-005**	**2.0000e-005**	**0.6107**

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					0.1381	0.0000	0.1381	0.0548	0.0000	0.0548			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0544	0.5827	0.4356	9.3000e-004		0.0245	0.0245		0.0226	0.0226			81.8019	0.0265	0.0000	82.4633
Total	**0.0544**	**0.5827**	**0.4356**	**9.3000e-004**	**0.1381**	**0.0245**	**0.1626**	**0.0548**	**0.0226**	**0.0774**			**81.8019**	**0.0265**	**0.0000**	**82.4633**

Northlake Tk-8 (Previous Project) Mitigated - Sacramento County, Annual

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	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
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
Worker	9.2000e-004	6.0000e-004	7.5700e-003	2.0000e-005	2.2000e-003	1.0000e-005	2.2200e-003	5.9000e-004	1.0000e-005	6.0000e-004			1.8143	6.0000e-005	5.0000e-005	1.8321
Total	**9.2000e-004**	**6.0000e-004**	**7.5700e-003**	**2.0000e-005**	**2.2000e-003**	**1.0000e-005**	**2.2200e-003**	**5.9000e-004**	**1.0000e-005**	**6.0000e-004**			**1.8143**	**6.0000e-005**	**5.0000e-005**	**1.8321**

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					0.1381	0.0000	0.1381	0.0548	0.0000	0.0548			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0544	0.5827	0.4356	9.3000e-004		0.0245	0.0245		0.0226	0.0226			81.8018	0.0265	0.0000	82.4632
Total	**0.0544**	**0.5827**	**0.4356**	**9.3000e-004**	**0.1381**	**0.0245**	**0.1626**	**0.0548**	**0.0226**	**0.0774**			**81.8018**	**0.0265**	**0.0000**	**82.4632**

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	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
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
Worker	9.2000e-004	6.0000e-004	7.5700e-003	2.0000e-005	2.2000e-003	1.0000e-005	2.2200e-003	5.9000e-004	1.0000e-005	6.0000e-004			1.8143	6.0000e-005	5.0000e-005	1.8321
Total	**9.2000e-004**	**6.0000e-004**	**7.5700e-003**	**2.0000e-005**	**2.2000e-003**	**1.0000e-005**	**2.2200e-003**	**5.9000e-004**	**1.0000e-005**	**6.0000e-004**			**1.8143**	**6.0000e-005**	**5.0000e-005**	**1.8321**

3.4 Building Construction - 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	0.0768	0.7027	0.7364	1.2100e-003		0.0364	0.0364		0.0343	0.0343			104.2764	0.0250	0.0000	104.9009
Total	**0.0768**	**0.7027**	**0.7364**	**1.2100e-003**		**0.0364**	**0.0364**		**0.0343**	**0.0343**			**104.2764**	**0.0250**	**0.0000**	**104.9009**

Northlake Tk-8 (Previous Project) Mitigated - Sacramento County, Annual

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

3.4 Building Construction - 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	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
Vendor	4.6000e-003	0.1240	0.0361	4.3000e-004	0.0127	1.1500e-003	0.0138	3.6600e-003	1.1000e-003	4.7500e-003			41.4650	1.0800e-003	6.0800e-003	43.3035
Worker	2.7700e-003	1.8100e-003	0.0227	6.0000e-005	6.6100e-003	4.0000e-005	6.6500e-003	1.7600e-003	3.0000e-005	1.7900e-003			5.4430	1.9000e-004	1.6000e-004	5.4964
Total	**7.3700e-003**	**0.1258**	**0.0588**	**4.9000e-004**	**0.0193**	**1.1900e-003**	**0.0204**	**5.4200e-003**	**1.1300e-003**	**6.5400e-003**			**46.9079**	**1.2700e-003**	**6.2400e-003**	**48.7999**

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	0.0768	0.7027	0.7364	1.2100e-003		0.0364	0.0364		0.0343	0.0343			104.2762	0.0250	0.0000	104.9008
Total	**0.0768**	**0.7027**	**0.7364**	**1.2100e-003**		**0.0364**	**0.0364**		**0.0343**	**0.0343**			**104.2762**	**0.0250**	**0.0000**	**104.9008**

Northlake Tk-8 (Previous Project) Mitigated - Sacramento County, Annual

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

3.4 Building Construction - 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	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
Vendor	4.6000e-003	0.1240	0.0361	4.3000e-004	0.0127	1.1500e-003	0.0138	3.6600e-003	1.1000e-003	4.7500e-003			41.4650	1.0800e-003	6.0800e-003	43.3035
Worker	2.7700e-003	1.8100e-003	0.0227	6.0000e-005	6.6100e-003	4.0000e-005	6.6500e-003	1.7600e-003	3.0000e-005	1.7900e-003			5.4430	1.9000e-004	1.6000e-004	5.4964
Total	**7.3700e-003**	**0.1258**	**0.0588**	**4.9000e-004**	**0.0193**	**1.1900e-003**	**0.0204**	**5.4200e-003**	**1.1300e-003**	**6.5400e-003**			**46.9079**	**1.2700e-003**	**6.2400e-003**	**48.7999**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1651	1.5104	1.7056	2.8300e-003		0.0735	0.0735		0.0691	0.0691			243.3950	0.0579	0.0000	244.8425
Total	**0.1651**	**1.5104**	**1.7056**	**2.8300e-003**		**0.0735**	**0.0735**		**0.0691**	**0.0691**			**243.3950**	**0.0579**	**0.0000**	**244.8425**

Northlake Tk-8 (Previous Project) Mitigated - Sacramento County, Annual

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

3.4 Building Construction - 2023

Unmitigated Construction 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
Vendor	6.5700e-003	0.2457	0.0741	9.6000e-004	0.0295	1.3100e-003	0.0308	8.5300e-003	1.2500e-003	9.7800e-003			93.4765	2.3100e-003	0.0137	97.6215
Worker	6.0200e-003	3.7300e-003	0.0490	1.3000e-004	0.0154	8.0000e-005	0.0155	4.1000e-003	8.0000e-005	4.1800e-003			12.3728	3.9000e-004	3.5000e-004	12.4880
Total	**0.0126**	**0.2494**	**0.1230**	**1.0900e-003**	**0.0449**	**1.3900e-003**	**0.0463**	**0.0126**	**1.3300e-003**	**0.0140**			**105.8493**	**2.7000e-003**	**0.0141**	**110.1095**

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	0.1651	1.5104	1.7056	2.8300e-003		0.0735	0.0735		0.0691	0.0691			243.3947	0.0579	0.0000	244.8422
Total	**0.1651**	**1.5104**	**1.7056**	**2.8300e-003**		**0.0735**	**0.0735**		**0.0691**	**0.0691**			**243.3947**	**0.0579**	**0.0000**	**244.8422**

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

3.4 Building Construction - 2023

Mitigated Construction 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
Vendor	6.5700e-003	0.2457	0.0741	9.6000e-004	0.0295	1.3100e-003	0.0308	8.5300e-003	1.2500e-003	9.7800e-003			93.4765	2.3100e-003	0.0137	97.6215
Worker	6.0200e-003	3.7300e-003	0.0490	1.3000e-004	0.0154	8.0000e-005	0.0155	4.1000e-003	8.0000e-005	4.1800e-003			12.3728	3.9000e-004	3.5000e-004	12.4880
Total	**0.0126**	**0.2494**	**0.1230**	**1.0900e-003**	**0.0449**	**1.3900e-003**	**0.0463**	**0.0126**	**1.3300e-003**	**0.0140**			**105.8493**	**2.7000e-003**	**0.0141**	**110.1095**

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003			20.0269	6.4800e-003	0.0000	20.1888
Paving	1.3200e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	**0.0117**	**0.1019**	**0.1458**	**2.3000e-004**		**5.1000e-003**	**5.1000e-003**		**4.6900e-003**	**4.6900e-003**			**20.0269**	**6.4800e-003**	**0.0000**	**20.1888**

Northlake Tk-8 (Previous Project) Mitigated - Sacramento County, Annual

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

3.5 Paving - 2023

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
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
Worker	5.7000e-004	3.5000e-004	4.6600e-003	1.0000e-005	1.4700e-003	1.0000e-005	1.4800e-003	3.9000e-004	1.0000e-005	4.0000e-004			1.1784	4.0000e-005	3.0000e-005	1.1893
Total	**5.7000e-004**	**3.5000e-004**	**4.6600e-003**	**1.0000e-005**	**1.4700e-003**	**1.0000e-005**	**1.4800e-003**	**3.9000e-004**	**1.0000e-005**	**4.0000e-004**			**1.1784**	**4.0000e-005**	**3.0000e-005**	**1.1893**

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	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003			20.0268	6.4800e-003	0.0000	20.1888
Paving	1.3200e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	**0.0117**	**0.1019**	**0.1458**	**2.3000e-004**		**5.1000e-003**	**5.1000e-003**		**4.6900e-003**	**4.6900e-003**			**20.0268**	**6.4800e-003**	**0.0000**	**20.1888**

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

3.5 Paving - 2023

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
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
Worker	5.7000e-004	3.5000e-004	4.6600e-003	1.0000e-005	1.4700e-003	1.0000e-005	1.4800e-003	3.9000e-004	1.0000e-005	4.0000e-004			1.1784	4.0000e-005	3.0000e-005	1.1893
Total	**5.7000e-004**	**3.5000e-004**	**4.6600e-003**	**1.0000e-005**	**1.4700e-003**	**1.0000e-005**	**1.4800e-003**	**3.9000e-004**	**1.0000e-005**	**4.0000e-004**			**1.1784**	**4.0000e-005**	**3.0000e-005**	**1.1893**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.0252					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	1.9200e-003	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004			2.5533	1.5000e-004	0.0000	2.5571
Total	**2.0272**	**0.0130**	**0.0181**	**3.0000e-005**		**7.1000e-004**	**7.1000e-004**		**7.1000e-004**	**7.1000e-004**			**2.5533**	**1.5000e-004**	**0.0000**	**2.5571**

3.6 Architectural Coating - 2023

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
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
Worker	5.7000e-004	3.5000e-004	4.6600e-003	1.0000e-005	1.4700e-003	1.0000e-005	1.4800e-003	3.9000e-004	1.0000e-005	4.0000e-004			1.1784	4.0000e-005	3.0000e-005	1.1893
Total	**5.7000e-004**	**3.5000e-004**	**4.6600e-003**	**1.0000e-005**	**1.4700e-003**	**1.0000e-005**	**1.4800e-003**	**3.9000e-004**	**1.0000e-005**	**4.0000e-004**			**1.1784**	**4.0000e-005**	**3.0000e-005**	**1.1893**

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					
Archit. Coating	2.0252					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	1.9200e-003	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004			2.5533	1.5000e-004	0.0000	2.5571
Total	**2.0272**	**0.0130**	**0.0181**	**3.0000e-005**		**7.1000e-004**	**7.1000e-004**		**7.1000e-004**	**7.1000e-004**			**2.5533**	**1.5000e-004**	**0.0000**	**2.5571**

3.6 Architectural Coating - 2023

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
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
Worker	5.7000e-004	3.5000e-004	4.6600e-003	1.0000e-005	1.4700e-003	1.0000e-005	1.4800e-003	3.9000e-004	1.0000e-005	4.0000e-004			1.1784	4.0000e-005	3.0000e-005	1.1893
Total	**5.7000e-004**	**3.5000e-004**	**4.6600e-003**	**1.0000e-005**	**1.4700e-003**	**1.0000e-005**	**1.4800e-003**	**3.9000e-004**	**1.0000e-005**	**4.0000e-004**			**1.1784**	**4.0000e-005**	**3.0000e-005**	**1.1893**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	0.4855	0.5889	4.1568	8.2300e-003	0.8418	6.6800e-003	0.8485	0.2251	6.2400e-003	0.2313			774.0889	0.0569	0.0402	787.4754
Unmitigated	0.4855	0.5889	4.1568	8.2300e-003	0.8418	6.6800e-003	0.8485	0.2251	6.2400e-003	0.2313			774.0889	0.0569	0.0402	787.4754

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Elementary School	1,512.00	0.00	0.00	2,271,079	2,271,079
Parking Lot	0.00	0.00	0.00		
Total	1,512.00	0.00	0.00	2,271,079	2,271,079

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
Elementary School	10.00	5.00	6.50	65.00	30.00	5.00	63	25	12
Parking Lot	10.00	5.00	6.50	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
Elementary School	0.542485	0.056811	0.183752	0.130945	0.025591	0.005989	0.013266	0.009393	0.000917	0.000565	0.025954	0.000983	0.003351
Parking Lot	0.542485	0.056811	0.183752	0.130945	0.025591	0.005989	0.013266	0.009393	0.000917	0.000565	0.025954	0.000983	0.003351

5.0 Energy Detail

Northlake Tk-8 (Previous Project) Mitigated - Sacramento County, Annual

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	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000			504.7392	0.0465	5.6400e-003	507.5831
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000			504.7392	0.0465	5.6400e-003	507.5831
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
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

Northlake Tk-8 (Previous Project) Mitigated - 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					
Elementary School	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
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
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**

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					
Elementary School	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
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
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**

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			
Elementary School	3.09276e+006	502.1931	0.0463	5.6100e-003	505.0226
Parking Lot	15680	2.5461	2.3000e-004	3.0000e-005	2.5604
Total		**504.7392**	**0.0465**	**5.6400e-003**	**507.5831**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Elementary School	3.09276e+006	502.1931	0.0463	5.6100e-003	505.0226
Parking Lot	15680	2.5461	2.3000e-004	3.0000e-005	2.5604
Total		**504.7392**	**0.0465**	**5.6400e-003**	**507.5831**

6.0 Area Detail

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

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	tons/yr										MT/yr					
Mitigated	1.9077	1.1000e-004	0.0116	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005			0.0226	6.0000e-005	0.0000	0.0241
Unmitigated	1.9077	1.1000e-004	0.0116	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005			0.0226	6.0000e-005	0.0000	0.0241

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	0.2025					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7041					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Landscaping	1.0700e-003	1.1000e-004	0.0116	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005			0.0226	6.0000e-005	0.0000	0.0241
Total	**1.9077**	**1.1000e-004**	**0.0116**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**			**0.0226**	**6.0000e-005**	**0.0000**	**0.0241**

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	0.2025					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7041					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Landscaping	1.0700e-003	1.1000e-004	0.0116	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005			0.0226	6.0000e-005	0.0000	0.0241
Total	**1.9077**	**1.1000e-004**	**0.0116**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**			**0.0226**	**6.0000e-005**	**0.0000**	**0.0241**

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	5.0895	2.7700e-003	1.5400e-003	5.6180
Unmitigated	5.0895	2.7700e-003	1.5400e-003	5.6180

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Elementary School	1.93939 / 4.98701	5.0895	2.7700e-003	1.5400e-003	5.6180
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**5.0895**	**2.7700e-003**	**1.5400e-003**	**5.6180**

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

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Elementary School	1.93939 / 4.98701	5.0895	2.7700e-003	1.5400e-003	5.6180
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**5.0895**	**2.7700e-003**	**1.5400e-003**	**5.6180**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	29.6367	1.7515	0.0000	73.4236
Unmitigated	29.6367	1.7515	0.0000	73.4236

Northlake Tk-8 (Previous Project) Mitigated - Sacramento County, Annual

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			
Elementary School	146	29.6367	1.7515	0.0000	73.4236
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**29.6367**	**1.7515**	**0.0000**	**73.4236**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Elementary School	146	29.6367	1.7515	0.0000	73.4236
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**29.6367**	**1.7515**	**0.0000**	**73.4236**

9.0 Operational Offroad

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

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

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

Northlake Tk-8 (Previous Project) Mitigated

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	800.00	Student	10.00	435,600.00	0
Parking Lot	112.00	Space	1.01	44,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Construction of K-8 school with parking.

Construction Phase - Construction would occur over a 1.5 year period. Assumes the same construction period as the proposed project.

Trips and VMT - Maximum of 20 works per day.

Energy Use - No on-site natural gas per SMAQMD's tier 1 mitigation.

Table Name	Column Name	Default Value	New Value
tblEnergyUse	NT24NG	0.66	0.00
tblEnergyUse	T24NG	14.46	0.00
tblLandUse	LandUseSquareFeet	66,882.70	435,600.00
tblLandUse	LotAcreage	1.54	10.00

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

tblTripsAndVMT	VendorTripNumber	79.00	48.00
tblTripsAndVMT	WorkerTripNumber	18.00	20.00
tblTripsAndVMT	WorkerTripNumber	202.00	20.00
tblTripsAndVMT	WorkerTripNumber	15.00	20.00
tblTripsAndVMT	WorkerTripNumber	40.00	20.00

2.0 Emissions Summary

Northlake Tk-8 (Previous Project) Mitigated - 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	3.6973	38.8801	29.6330	0.0635	19.8092	1.6357	21.4226	10.1428	1.5049	11.6271			6,157.5609	1.9486	0.1525	6,207.4001
2023	202.7826	16.6399	17.4810	0.0375	0.4413	0.7129	1.1543	0.1236	0.6710	0.7946			3,678.5939	0.7179	0.1473	3,738.3901
Maximum	**202.7826**	**38.8801**	**29.6330**	**0.0635**	**19.8092**	**1.6357**	**21.4226**	**10.1428**	**1.5049**	**11.6271**			**6,157.5609**	**1.9486**	**0.1525**	**6,207.4001**

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	3.6973	38.8801	29.6330	0.0635	19.8092	1.6357	21.4226	10.1428	1.5049	11.6271			6,157.5609	1.9486	0.1525	6,207.4001
2023	202.7826	16.6399	17.4810	0.0375	0.4413	0.7129	1.1543	0.1236	0.6710	0.7946			3,678.5939	0.7179	0.1473	3,738.3901
Maximum	**202.7826**	**38.8801**	**29.6330**	**0.0635**	**19.8092**	**1.6357**	**21.4226**	**10.1428**	**1.5049**	**11.6271**			**6,157.5609**	**1.9486**	**0.1525**	**6,207.4001**

Northlake Tk-8 (Previous Project) Mitigated - 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

Northlake Tk-8 (Previous Project) Mitigated - 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	10.4560	8.4000e-004	0.0930	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004			0.1996	5.2000e-004		0.2126
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
Mobile	4.6613	4.1780	34.1604	0.0680	6.7047	0.0514	6.7561	1.7875	0.0480	1.8355			7,048.0743	0.4557	0.3267	7,156.8272
Total	**15.1173**	**4.1788**	**34.2533**	**0.0680**	**6.7047**	**0.0517**	**6.7564**	**1.7875**	**0.0483**	**1.8359**			**7,048.2739**	**0.4562**	**0.3267**	**7,157.0398**

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	10.4560	8.4000e-004	0.0930	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004			0.1996	5.2000e-004		0.2126
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
Mobile	4.6613	4.1780	34.1604	0.0680	6.7047	0.0514	6.7561	1.7875	0.0480	1.8355			7,048.0743	0.4557	0.3267	7,156.8272
Total	**15.1173**	**4.1788**	**34.2533**	**0.0680**	**6.7047**	**0.0517**	**6.7564**	**1.7875**	**0.0483**	**1.8359**			**7,048.2739**	**0.4562**	**0.3267**	**7,157.0398**

Northlake Tk-8 (Previous Project) Mitigated - 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	7/4/2022	7/15/2022	5	10	
2	Grading	Grading	7/16/2022	8/26/2022	5	30	
3	Building Construction	Building Construction	8/27/2022	10/20/2023	5	300	
4	Paving	Paving	10/21/2023	11/17/2023	5	20	
5	Architectural Coating	Architectural Coating	11/18/2023	12/15/2023	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 90

Acres of Paving: 1.01

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 653,400; Non-Residential Outdoor: 217,800; Striped Parking Area: 2,688 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48

Northlake Tk-8 (Previous Project) Mitigated - Sacramento County, Summer

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

Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	20.00	48.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Northlake Tk-8 (Previous Project) Mitigated - 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 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					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836			3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**19.6570**	**1.6126**	**21.2696**	**10.1025**	**1.4836**	**11.5860**			**3,686.0619**	**1.1922**		**3,715.8655**

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
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
Worker	0.0725	0.0366	0.5915	1.4400e-003	0.1521	8.3000e-004	0.1530	0.0404	7.6000e-004	0.0411			146.1503	4.3400e-003	3.7800e-003	147.3843
Total	**0.0725**	**0.0366**	**0.5915**	**1.4400e-003**	**0.1521**	**8.3000e-004**	**0.1530**	**0.0404**	**7.6000e-004**	**0.0411**			**146.1503**	**4.3400e-003**	**3.7800e-003**	**147.3843**

Northlake Tk-8 (Previous Project) Mitigated - 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 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					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836			3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**19.6570**	**1.6126**	**21.2696**	**10.1025**	**1.4836**	**11.5860**			**3,686.0619**	**1.1922**		**3,715.8655**

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
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
Worker	0.0725	0.0366	0.5915	1.4400e-003	0.1521	8.3000e-004	0.1530	0.0404	7.6000e-004	0.0411			146.1503	4.3400e-003	3.7800e-003	147.3843
Total	**0.0725**	**0.0366**	**0.5915**	**1.4400e-003**	**0.1521**	**8.3000e-004**	**0.1530**	**0.0404**	**7.6000e-004**	**0.0411**			**146.1503**	**4.3400e-003**	**3.7800e-003**	**147.3843**

Northlake Tk-8 (Previous Project) Mitigated - 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 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					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041			6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**9.2036**	**1.6349**	**10.8385**	**3.6538**	**1.5041**	**5.1579**			**6,011.4105**	**1.9442**		**6,060.0158**

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
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
Worker	0.0725	0.0366	0.5915	1.4400e-003	0.1521	8.3000e-004	0.1530	0.0404	7.6000e-004	0.0411			146.1503	4.3400e-003	3.7800e-003	147.3843
Total	**0.0725**	**0.0366**	**0.5915**	**1.4400e-003**	**0.1521**	**8.3000e-004**	**0.1530**	**0.0404**	**7.6000e-004**	**0.0411**			**146.1503**	**4.3400e-003**	**3.7800e-003**	**147.3843**

Northlake Tk-8 (Previous Project) Mitigated - 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 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					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041			6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**9.2036**	**1.6349**	**10.8385**	**3.6538**	**1.5041**	**5.1579**			**6,011.4105**	**1.9442**		**6,060.0158**

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
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
Worker	0.0725	0.0366	0.5915	1.4400e-003	0.1521	8.3000e-004	0.1530	0.0404	7.6000e-004	0.0411			146.1503	4.3400e-003	3.7800e-003	147.3843
Total	**0.0725**	**0.0366**	**0.5915**	**1.4400e-003**	**0.1521**	**8.3000e-004**	**0.1530**	**0.0404**	**7.6000e-004**	**0.0411**			**146.1503**	**4.3400e-003**	**3.7800e-003**	**147.3843**

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

3.4 Building Construction - 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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612			2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**			**2,554.3336**	**0.6120**		**2,569.6322**

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
Vendor	0.1039	2.6146	0.7872	9.4800e-003	0.2892	0.0254	0.3146	0.0833	0.0243	0.1075			1,015.7719	0.0266	0.1488	1,060.7641
Worker	0.0725	0.0366	0.5915	1.4400e-003	0.1521	8.3000e-004	0.1530	0.0404	7.6000e-004	0.0411			146.1503	4.3400e-003	3.7800e-003	147.3843
Total	**0.1763**	**2.6512**	**1.3787**	**0.0109**	**0.4414**	**0.0262**	**0.4676**	**0.1236**	**0.0251**	**0.1487**			**1,161.9222**	**0.0309**	**0.1525**	**1,208.1483**

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

3.4 Building Construction - 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					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612			2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**			**2,554.3336**	**0.6120**		**2,569.6322**

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
Vendor	0.1039	2.6146	0.7872	9.4800e-003	0.2892	0.0254	0.3146	0.0833	0.0243	0.1075			1,015.7719	0.0266	0.1488	1,060.7641
Worker	0.0725	0.0366	0.5915	1.4400e-003	0.1521	8.3000e-004	0.1530	0.0404	7.6000e-004	0.0411			146.1503	4.3400e-003	3.7800e-003	147.3843
Total	**0.1763**	**2.6512**	**1.3787**	**0.0109**	**0.4414**	**0.0262**	**0.4676**	**0.1236**	**0.0251**	**0.1487**			**1,161.9222**	**0.0309**	**0.1525**	**1,208.1483**

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

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584			2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**			**2,555.2099**	**0.6079**		**2,570.4061**

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
Vendor	0.0642	2.2226	0.6919	9.1500e-003	0.2892	0.0124	0.3016	0.0832	0.0119	0.0951			981.0442	0.0242	0.1438	1,024.5049
Worker	0.0674	0.0324	0.5451	1.3900e-003	0.1521	7.8000e-004	0.1529	0.0404	7.2000e-004	0.0411			142.3398	3.9100e-003	3.5000e-003	143.4791
Total	**0.1316**	**2.2550**	**1.2370**	**0.0105**	**0.4413**	**0.0132**	**0.4545**	**0.1236**	**0.0126**	**0.1362**			**1,123.3840**	**0.0282**	**0.1473**	**1,167.9840**

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

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584			2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**			**2,555.2099**	**0.6079**		**2,570.4061**

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
Vendor	0.0642	2.2226	0.6919	9.1500e-003	0.2892	0.0124	0.3016	0.0832	0.0119	0.0951			981.0442	0.0242	0.1438	1,024.5049
Worker	0.0674	0.0324	0.5451	1.3900e-003	0.1521	7.8000e-004	0.1529	0.0404	7.2000e-004	0.0411			142.3398	3.9100e-003	3.5000e-003	143.4791
Total	**0.1316**	**2.2550**	**1.2370**	**0.0105**	**0.4413**	**0.0132**	**0.4545**	**0.1236**	**0.0126**	**0.1362**			**1,123.3840**	**0.0282**	**0.1473**	**1,167.9840**

Northlake Tk-8 (Previous Project) Mitigated - Sacramento County, Summer

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

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694			2,207.5841	0.7140		2,225.4336
Paving	0.1323					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1651**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**			**2,207.5841**	**0.7140**		**2,225.4336**

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
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
Worker	0.0674	0.0324	0.5451	1.3900e-003	0.1521	7.8000e-004	0.1529	0.0404	7.2000e-004	0.0411			142.3398	3.9100e-003	3.5000e-003	143.4791
Total	**0.0674**	**0.0324**	**0.5451**	**1.3900e-003**	**0.1521**	**7.8000e-004**	**0.1529**	**0.0404**	**7.2000e-004**	**0.0411**			**142.3398**	**3.9100e-003**	**3.5000e-003**	**143.4791**

Northlake Tk-8 (Previous Project) Mitigated - Sacramento County, Summer

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

3.5 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694			2,207.5841	0.7140		2,225.4336
Paving	0.1323					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1651**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**			**2,207.5841**	**0.7140**		**2,225.4336**

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
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
Worker	0.0674	0.0324	0.5451	1.3900e-003	0.1521	7.8000e-004	0.1529	0.0404	7.2000e-004	0.0411			142.3398	3.9100e-003	3.5000e-003	143.4791
Total	**0.0674**	**0.0324**	**0.5451**	**1.3900e-003**	**0.1521**	**7.8000e-004**	**0.1529**	**0.0404**	**7.2000e-004**	**0.0411**			**142.3398**	**3.9100e-003**	**3.5000e-003**	**143.4791**

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

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	202.5235					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708			281.4481	0.0168		281.8690
Total	**202.7152**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**			**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	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
Worker	0.0674	0.0324	0.5451	1.3900e-003	0.1521	7.8000e-004	0.1529	0.0404	7.2000e-004	0.0411			142.3398	3.9100e-003	3.5000e-003	143.4791
Total	**0.0674**	**0.0324**	**0.5451**	**1.3900e-003**	**0.1521**	**7.8000e-004**	**0.1529**	**0.0404**	**7.2000e-004**	**0.0411**			**142.3398**	**3.9100e-003**	**3.5000e-003**	**143.4791**

Northlake Tk-8 (Previous Project) Mitigated - Sacramento County, Summer

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

3.6 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	202.5235					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708			281.4481	0.0168		281.8690
Total	**202.7152**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**			**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	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
Worker	0.0674	0.0324	0.5451	1.3900e-003	0.1521	7.8000e-004	0.1529	0.0404	7.2000e-004	0.0411			142.3398	3.9100e-003	3.5000e-003	143.4791
Total	**0.0674**	**0.0324**	**0.5451**	**1.3900e-003**	**0.1521**	**7.8000e-004**	**0.1529**	**0.0404**	**7.2000e-004**	**0.0411**			**142.3398**	**3.9100e-003**	**3.5000e-003**	**143.4791**

Northlake Tk-8 (Previous Project) Mitigated - 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	4.6613	4.1780	34.1604	0.0680	6.7047	0.0514	6.7561	1.7875	0.0480	1.8355			7,048.0743	0.4557	0.3267	7,156.8272
Unmitigated	4.6613	4.1780	34.1604	0.0680	6.7047	0.0514	6.7561	1.7875	0.0480	1.8355			7,048.0743	0.4557	0.3267	7,156.8272

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Elementary School	1,512.00	0.00	0.00	2,271,079	2,271,079
Parking Lot	0.00	0.00	0.00		
Total	1,512.00	0.00	0.00	2,271,079	2,271,079

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
Elementary School	10.00	5.00	6.50	65.00	30.00	5.00	63	25	12
Parking Lot	10.00	5.00	6.50	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
Elementary School	0.542485	0.056811	0.183752	0.130945	0.025591	0.005989	0.013266	0.009393	0.000917	0.000565	0.025954	0.000983	0.003351
Parking Lot	0.542485	0.056811	0.183752	0.130945	0.025591	0.005989	0.013266	0.009393	0.000917	0.000565	0.025954	0.000983	0.003351

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
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

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	lb/day										lb/day					
Elementary School	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
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
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**

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					
Elementary School	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
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
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**

6.0 Area Detail

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

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	10.4560	8.4000e-004	0.0930	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004			0.1996	5.2000e-004		0.2126
Unmitigated	10.4560	8.4000e-004	0.0930	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004			0.1996	5.2000e-004		0.2126

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	1.1097					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.3377					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.5800e-003	8.4000e-004	0.0930	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004			0.1996	5.2000e-004		0.2126
Total	**10.4560**	**8.4000e-004**	**0.0930**	**1.0000e-005**		**3.3000e-004**	**3.3000e-004**		**3.3000e-004**	**3.3000e-004**			**0.1996**	**5.2000e-004**		**0.2126**

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	1.1097					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.3377					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.5800e-003	8.4000e-004	0.0930	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004			0.1996	5.2000e-004		0.2126
Total	**10.4560**	**8.4000e-004**	**0.0930**	**1.0000e-005**		**3.3000e-004**	**3.3000e-004**		**3.3000e-004**	**3.3000e-004**			**0.1996**	**5.2000e-004**		**0.2126**

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

Northlake Tk-8 (Proposed Project) (Mitigated) - Sacramento County, Annual

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

Northlake Tk-8 (Proposed Project) (Mitigated)

Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	1,083.00	Student	16.80	731,808.00	0
Parking Lot	112.00	Space	1.01	44,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Construction of K-8 school with parking.

Construction Phase - Construction would occur over a 1.5 year period.

Trips and VMT - Maximum of 20 workers per day.

Energy Use - No on-site natural gas allowed per SMAQMD's Tier 1 mitigation.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	PhaseEndDate	5/29/2023	12/26/2024
tblConstructionPhase	PhaseEndDate	4/3/2023	10/31/2024
tblConstructionPhase	PhaseEndDate	2/7/2022	9/7/2023
tblConstructionPhase	PhaseEndDate	5/1/2023	11/28/2024

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

tblConstructionPhase	PhaseEndDate	12/27/2021	7/27/2023
tblConstructionPhase	PhaseStartDate	5/2/2023	11/29/2024
tblConstructionPhase	PhaseStartDate	2/8/2022	9/8/2023
tblConstructionPhase	PhaseStartDate	12/28/2021	7/28/2023
tblConstructionPhase	PhaseStartDate	4/4/2023	11/1/2024
tblConstructionPhase	PhaseStartDate	12/14/2021	7/14/2023
tblEnergyUse	NT24NG	0.66	0.00
tblEnergyUse	T24NG	14.46	0.00
tblLandUse	LandUseSquareFeet	90,542.45	731,808.00
tblLandUse	LotAcreage	2.08	16.80
tblTripsAndVMT	WorkerTripNumber	18.00	20.00
tblTripsAndVMT	WorkerTripNumber	326.00	20.00
tblTripsAndVMT	WorkerTripNumber	15.00	20.00
tblTripsAndVMT	WorkerTripNumber	65.00	20.00

2.0 Emissions Summary

Northlake Tk-8 (Proposed Project) (Mitigated) - 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					
2023	0.1370	1.4908	1.2737	3.2700e-003	0.2753	0.0574	0.3328	0.1164	0.0535	0.1699	0.0000	294.9343	294.9343	0.0568	0.0142	300.5857
2024	3.5966	2.2481	2.1888	5.9700e-003	0.1004	0.0761	0.1765	0.0286	0.0716	0.1002	0.0000	544.3578	544.3578	0.0733	0.0376	557.3988
Maximum	**3.5966**	**2.2481**	**2.1888**	**5.9700e-003**	**0.2753**	**0.0761**	**0.3328**	**0.1164**	**0.0716**	**0.1699**	**0.0000**	**544.3578**	**544.3578**	**0.0733**	**0.0376**	**557.3988**

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					
2023	0.1370	1.4908	1.2737	3.2700e-003	0.2753	0.0574	0.3328	0.1164	0.0535	0.1699	0.0000	294.9341	294.9341	0.0568	0.0142	300.5855
2024	3.5966	2.2481	2.1888	5.9700e-003	0.1004	0.0761	0.1765	0.0286	0.0716	0.1002	0.0000	544.3574	544.3574	0.0733	0.0376	557.3984
Maximum	**3.5966**	**2.2481**	**2.1888**	**5.9700e-003**	**0.2753**	**0.0761**	**0.3328**	**0.1164**	**0.0716**	**0.1699**	**0.0000**	**544.3574**	**544.3574**	**0.0733**	**0.0376**	**557.3984**

Northlake Tk-8 (Proposed Project) (Mitigated) - 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	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**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
7	**6-14-2023**	**9-13-2023**	0.7678	0.7678
8	**9-14-2023**	**12-13-2023**	0.7300	0.7300
9	**12-14-2023**	**3-13-2024**	0.7018	0.7018
10	**3-14-2024**	**6-13-2024**	0.6906	0.6906
11	**6-14-2024**	**9-13-2024**	0.6878	0.6878
12	**9-14-2024**	**9-30-2024**	0.1271	0.1271
		Highest	0.7678	0.7678

Northlake Tk-8 (Proposed Project) (Mitigated) - Sacramento County, Annual

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	tons/yr										MT/yr					
Area	3.2022	1.4000e-004	0.0152	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0297	0.0297	8.0000e-005	0.0000	0.0316
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	846.2305	846.2305	0.0780	9.4600e-003	850.9984
Mobile	0.6572	0.7973	5.6273	0.0111	1.1396	9.0400e-003	1.1486	0.3047	8.4400e-003	0.3131	0.0000	1,047.9228	1,047.9228	0.0770	0.0544	1,066.0448
Waste						0.0000	0.0000		0.0000	0.0000	40.1212	0.0000	40.1212	2.3711	0.0000	99.3985
Water						0.0000	0.0000		0.0000	0.0000	0.9289	5.9610	6.8899	3.7500e-003	2.0900e-003	7.6053
Total	**3.8594**	**0.7974**	**5.6425**	**0.0111**	**1.1396**	**9.0900e-003**	**1.1487**	**0.3047**	**8.4900e-003**	**0.3132**	**41.0501**	**1,900.1439**	**1,941.1939**	**2.5299**	**0.0659**	**2,024.0787**

Northlake Tk-8 (Proposed Project) (Mitigated) - Sacramento County, Annual

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	3.2022	1.4000e-004	0.0152	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0297	0.0297	8.0000e-005	0.0000	0.0316
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	846.2305	846.2305	0.0780	9.4600e-003	850.9984
Mobile	0.6572	0.7973	5.6273	0.0111	1.1396	9.0400e-003	1.1486	0.3047	8.4400e-003	0.3131	0.0000	1,047.9228	1,047.9228	0.0770	0.0544	1,066.0448
Waste						0.0000	0.0000		0.0000	0.0000	40.1212	0.0000	40.1212	2.3711	0.0000	99.3985
Water						0.0000	0.0000		0.0000	0.0000	0.9289	5.9610	6.8899	3.7500e-003	2.0900e-003	7.6053
Total	**3.8594**	**0.7974**	**5.6425**	**0.0111**	**1.1396**	**9.0900e-003**	**1.1487**	**0.3047**	**8.4900e-003**	**0.3132**	**41.0501**	**1,900.1439**	**1,941.1939**	**2.5299**	**0.0659**	**2,024.0787**

	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	7/14/2023	7/27/2023	5	10	
2	Grading	Grading	7/28/2023	9/7/2023	5	30	
3	Building Construction	Building Construction	9/8/2023	10/31/2024	5	300	

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

4	Paving	Paving	11/1/2024	11/28/2024	5	20	
5	Architectural Coating	Architectural Coating	11/29/2024	12/26/2024	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 90

Acres of Paving: 1.01

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,097,712; Non-Residential Outdoor: 365,904; Striped Parking Area: 2,688 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	20.00	127.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7254	16.7254	5.4100e-003	0.0000	16.8606
Total	**0.0133**	**0.1376**	**0.0912**	**1.9000e-004**	**0.0983**	**6.3300e-003**	**0.1046**	**0.0505**	**5.8200e-003**	**0.0563**	**0.0000**	**16.7254**	**16.7254**	**5.4100e-003**	**0.0000**	**16.8606**

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

3.2 Site Preparation - 2023

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	2.9000e-004	1.8000e-004	2.3300e-003	1.0000e-005	7.3000e-004	0.0000	7.4000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.5892	0.5892	2.0000e-005	2.0000e-005	0.5947
Total	**2.9000e-004**	**1.8000e-004**	**2.3300e-003**	**1.0000e-005**	**7.3000e-004**	**0.0000**	**7.4000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.5892**	**0.5892**	**2.0000e-005**	**2.0000e-005**	**0.5947**

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					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7253	16.7253	5.4100e-003	0.0000	16.8606
Total	**0.0133**	**0.1376**	**0.0912**	**1.9000e-004**	**0.0983**	**6.3300e-003**	**0.1046**	**0.0505**	**5.8200e-003**	**0.0563**	**0.0000**	**16.7253**	**16.7253**	**5.4100e-003**	**0.0000**	**16.8606**

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

3.2 Site Preparation - 2023

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	2.9000e-004	1.8000e-004	2.3300e-003	1.0000e-005	7.3000e-004	0.0000	7.4000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.5892	0.5892	2.0000e-005	2.0000e-005	0.5947
Total	**2.9000e-004**	**1.8000e-004**	**2.3300e-003**	**1.0000e-005**	**7.3000e-004**	**0.0000**	**7.4000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.5892**	**0.5892**	**2.0000e-005**	**2.0000e-005**	**0.5947**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1381	0.0000	0.1381	0.0548	0.0000	0.0548	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0498	0.5177	0.4208	9.3000e-004		0.0214	0.0214		0.0197	0.0197	0.0000	81.8028	81.8028	0.0265	0.0000	82.4642
Total	**0.0498**	**0.5177**	**0.4208**	**9.3000e-004**	**0.1381**	**0.0214**	**0.1594**	**0.0548**	**0.0197**	**0.0745**	**0.0000**	**81.8028**	**81.8028**	**0.0265**	**0.0000**	**82.4642**

Northlake Tk-8 (Proposed Project) (Mitigated) - Sacramento County, Annual

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

3.3 Grading - 2023

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	8.6000e-004	5.3000e-004	6.9900e-003	2.0000e-005	2.2000e-003	1.0000e-005	2.2200e-003	5.9000e-004	1.0000e-005	6.0000e-004	0.0000	1.7675	1.7675	6.0000e-005	5.0000e-005	1.7840
Total	**8.6000e-004**	**5.3000e-004**	**6.9900e-003**	**2.0000e-005**	**2.2000e-003**	**1.0000e-005**	**2.2200e-003**	**5.9000e-004**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**1.7675**	**1.7675**	**6.0000e-005**	**5.0000e-005**	**1.7840**

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					0.1381	0.0000	0.1381	0.0548	0.0000	0.0548	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0498	0.5177	0.4208	9.3000e-004		0.0214	0.0214		0.0197	0.0197	0.0000	81.8027	81.8027	0.0265	0.0000	82.4641
Total	**0.0498**	**0.5177**	**0.4208**	**9.3000e-004**	**0.1381**	**0.0214**	**0.1594**	**0.0548**	**0.0197**	**0.0745**	**0.0000**	**81.8027**	**81.8027**	**0.0265**	**0.0000**	**82.4641**

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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 - 2023

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	8.6000e-004	5.3000e-004	6.9900e-003	2.0000e-005	2.2000e-003	1.0000e-005	2.2200e-003	5.9000e-004	1.0000e-005	6.0000e-004	0.0000	1.7675	1.7675	6.0000e-005	5.0000e-005	1.7840
Total	**8.6000e-004**	**5.3000e-004**	**6.9900e-003**	**2.0000e-005**	**2.2000e-003**	**1.0000e-005**	**2.2200e-003**	**5.9000e-004**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**1.7675**	**1.7675**	**6.0000e-005**	**5.0000e-005**	**1.7840**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0637	0.5826	0.6579	1.0900e-003		0.0283	0.0283		0.0267	0.0267	0.0000	93.8809	93.8809	0.0223	0.0000	94.4392
Total	**0.0637**	**0.5826**	**0.6579**	**1.0900e-003**		**0.0283**	**0.0283**		**0.0267**	**0.0267**	**0.0000**	**93.8809**	**93.8809**	**0.0223**	**0.0000**	**94.4392**

Northlake Tk-8 (Proposed Project) (Mitigated) - Sacramento County, Annual

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

3.4 Building Construction - 2023

Unmitigated Construction 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	6.7100e-003	0.2507	0.0756	9.8000e-004	0.0301	1.3400e-003	0.0315	8.7000e-003	1.2800e-003	9.9800e-003	0.0000	95.3961	95.3961	2.3500e-003	0.0140	99.6262
Worker	2.3200e-003	1.4400e-003	0.0189	5.0000e-005	5.9500e-003	3.0000e-005	5.9800e-003	1.5800e-003	3.0000e-005	1.6100e-003	0.0000	4.7724	4.7724	1.5000e-004	1.4000e-004	4.8168
Total	**9.0300e-003**	**0.2522**	**0.0945**	**1.0300e-003**	**0.0361**	**1.3700e-003**	**0.0374**	**0.0103**	**1.3100e-003**	**0.0116**	**0.0000**	**100.1685**	**100.1685**	**2.5000e-003**	**0.0141**	**104.4430**

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	0.0637	0.5826	0.6579	1.0900e-003		0.0283	0.0283		0.0267	0.0267	0.0000	93.8808	93.8808	0.0223	0.0000	94.4391
Total	**0.0637**	**0.5826**	**0.6579**	**1.0900e-003**		**0.0283**	**0.0283**		**0.0267**	**0.0267**	**0.0000**	**93.8808**	**93.8808**	**0.0223**	**0.0000**	**94.4391**

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

3.4 Building Construction - 2023

Mitigated Construction 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	6.7100e-003	0.2507	0.0756	9.8000e-004	0.0301	1.3400e-003	0.0315	8.7000e-003	1.2800e-003	9.9800e-003	0.0000	95.3961	95.3961	2.3500e-003	0.0140	99.6262
Worker	2.3200e-003	1.4400e-003	0.0189	5.0000e-005	5.9500e-003	3.0000e-005	5.9800e-003	1.5800e-003	3.0000e-005	1.6100e-003	0.0000	4.7724	4.7724	1.5000e-004	1.4000e-004	4.8168
Total	**9.0300e-003**	**0.2522**	**0.0945**	**1.0300e-003**	**0.0361**	**1.3700e-003**	**0.0374**	**0.0103**	**1.3100e-003**	**0.0116**	**0.0000**	**100.1685**	**100.1685**	**2.5000e-003**	**0.0141**	**104.4430**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1611	1.4721	1.7703	2.9500e-003		0.0672	0.0672		0.0632	0.0632	0.0000	253.8748	253.8748	0.0600	0.0000	255.3756
Total	**0.1611**	**1.4721**	**1.7703**	**2.9500e-003**		**0.0672**	**0.0672**		**0.0632**	**0.0632**	**0.0000**	**253.8748**	**253.8748**	**0.0600**	**0.0000**	**255.3756**

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

3.4 Building Construction - 2024

Unmitigated Construction 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	0.0173	0.6645	0.1980	2.6000e-003	0.0814	3.5600e-003	0.0850	0.0235	3.4000e-003	0.0269	0.0000	253.0243	253.0243	6.1800e-003	0.0372	264.2672
Worker	5.8700e-003	3.4600e-003	0.0475	1.3000e-004	0.0161	8.0000e-005	0.0162	4.2800e-003	8.0000e-005	4.3500e-003	0.0000	12.5810	12.5810	3.7000e-004	3.4000e-004	12.6924
Total	**0.0232**	**0.6679**	**0.2455**	**2.7300e-003**	**0.0975**	**3.6400e-003**	**0.1011**	**0.0278**	**3.4800e-003**	**0.0313**	**0.0000**	**265.6053**	**265.6053**	**6.5500e-003**	**0.0376**	**276.9596**

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	0.1611	1.4721	1.7703	2.9500e-003		0.0672	0.0672		0.0632	0.0632	0.0000	253.8745	253.8745	0.0600	0.0000	255.3753
Total	**0.1611**	**1.4721**	**1.7703**	**2.9500e-003**		**0.0672**	**0.0672**		**0.0632**	**0.0632**	**0.0000**	**253.8745**	**253.8745**	**0.0600**	**0.0000**	**255.3753**

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

3.4 Building Construction - 2024

Mitigated Construction 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	0.0173	0.6645	0.1980	2.6000e-003	0.0814	3.5600e-003	0.0850	0.0235	3.4000e-003	0.0269	0.0000	253.0243	253.0243	6.1800e-003	0.0372	264.2672
Worker	5.8700e-003	3.4600e-003	0.0475	1.3000e-004	0.0161	8.0000e-005	0.0162	4.2800e-003	8.0000e-005	4.3500e-003	0.0000	12.5810	12.5810	3.7000e-004	3.4000e-004	12.6924
Total	**0.0232**	**0.6679**	**0.2455**	**2.7300e-003**	**0.0975**	**3.6400e-003**	**0.1011**	**0.0278**	**3.4800e-003**	**0.0313**	**0.0000**	**265.6053**	**265.6053**	**6.5500e-003**	**0.0376**	**276.9596**

3.5 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885
Paving	1.3200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0112**	**0.0953**	**0.1463**	**2.3000e-004**		**4.6900e-003**	**4.6900e-003**		**4.3100e-003**	**4.3100e-003**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1885**

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

3.5 Paving - 2024

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	5.4000e-004	3.2000e-004	4.3400e-003	1.0000e-005	1.4700e-003	1.0000e-005	1.4800e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.1490	1.1490	3.0000e-005	3.0000e-005	1.1591
Total	**5.4000e-004**	**3.2000e-004**	**4.3400e-003**	**1.0000e-005**	**1.4700e-003**	**1.0000e-005**	**1.4800e-003**	**3.9000e-004**	**1.0000e-005**	**4.0000e-004**	**0.0000**	**1.1490**	**1.1490**	**3.0000e-005**	**3.0000e-005**	**1.1591**

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	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884
Paving	1.3200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0112**	**0.0953**	**0.1463**	**2.3000e-004**		**4.6900e-003**	**4.6900e-003**		**4.3100e-003**	**4.3100e-003**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1884**

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

3.5 Paving - 2024

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	5.4000e-004	3.2000e-004	4.3400e-003	1.0000e-005	1.4700e-003	1.0000e-005	1.4800e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.1490	1.1490	3.0000e-005	3.0000e-005	1.1591
Total	**5.4000e-004**	**3.2000e-004**	**4.3400e-003**	**1.0000e-005**	**1.4700e-003**	**1.0000e-005**	**1.4800e-003**	**3.9000e-004**	**1.0000e-005**	**4.0000e-004**	**0.0000**	**1.1490**	**1.1490**	**3.0000e-005**	**3.0000e-005**	**1.1591**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.3982					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5569
Total	**3.4000**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5569**

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

3.6 Architectural Coating - 2024

Unmitigated Construction 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	5.4000e-004	3.2000e-004	4.3400e-003	1.0000e-005	1.4700e-003	1.0000e-005	1.4800e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.1490	1.1490	3.0000e-005	3.0000e-005	1.1591
Total	**5.4000e-004**	**3.2000e-004**	**4.3400e-003**	**1.0000e-005**	**1.4700e-003**	**1.0000e-005**	**1.4800e-003**	**3.9000e-004**	**1.0000e-005**	**4.0000e-004**	**0.0000**	**1.1490**	**1.1490**	**3.0000e-005**	**3.0000e-005**	**1.1591**

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					
Archit. Coating	3.3982					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5568
Total	**3.4000**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5568**

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

3.6 Architectural Coating - 2024

Mitigated Construction 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	5.4000e-004	3.2000e-004	4.3400e-003	1.0000e-005	1.4700e-003	1.0000e-005	1.4800e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.1490	1.1490	3.0000e-005	3.0000e-005	1.1591
Total	**5.4000e-004**	**3.2000e-004**	**4.3400e-003**	**1.0000e-005**	**1.4700e-003**	**1.0000e-005**	**1.4800e-003**	**3.9000e-004**	**1.0000e-005**	**4.0000e-004**	**0.0000**	**1.1490**	**1.1490**	**3.0000e-005**	**3.0000e-005**	**1.1591**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	0.6572	0.7973	5.6273	0.0111	1.1396	9.0400e-003	1.1486	0.3047	8.4400e-003	0.3131	0.0000	1,047.9228	1,047.9228	0.0770	0.0544	1,066.0448
Unmitigated	0.6572	0.7973	5.6273	0.0111	1.1396	9.0400e-003	1.1486	0.3047	8.4400e-003	0.3131	0.0000	1,047.9228	1,047.9228	0.0770	0.0544	1,066.0448

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Elementary School	2,046.87	0.00	0.00	3,074,473	3,074,473
Parking Lot	0.00	0.00	0.00		
Total	2,046.87	0.00	0.00	3,074,473	3,074,473

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
Elementary School	10.00	5.00	6.50	65.00	30.00	5.00	63	25	12
Parking Lot	10.00	5.00	6.50	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
Elementary School	0.542485	0.056811	0.183752	0.130945	0.025591	0.005989	0.013266	0.009393	0.000917	0.000565	0.025954	0.000983	0.003351
Parking Lot	0.542485	0.056811	0.183752	0.130945	0.025591	0.005989	0.013266	0.009393	0.000917	0.000565	0.025954	0.000983	0.003351

5.0 Energy Detail

Northlake Tk-8 (Proposed Project) (Mitigated) - Sacramento County, Annual

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	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	846.2305	846.2305	0.0780	9.4600e-003	850.9984
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	846.2305	846.2305	0.0780	9.4600e-003	850.9984
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

Northlake Tk-8 (Proposed Project) (Mitigated) - 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					
Elementary School	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
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					
Elementary School	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
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**

Northlake Tk-8 (Proposed Project) (Mitigated) - Sacramento County, Annual

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			
Elementary School	5.19584e+006	843.6844	0.0778	9.4300e-003	848.4380
Parking Lot	15680	2.5461	2.3000e-004	3.0000e-005	2.5604
Total		**846.2304**	**0.0780**	**9.4600e-003**	**850.9984**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Elementary School	5.19584e+006	843.6844	0.0778	9.4300e-003	848.4380
Parking Lot	15680	2.5461	2.3000e-004	3.0000e-005	2.5604
Total		**846.2304**	**0.0780**	**9.4600e-003**	**850.9984**

6.0 Area Detail

Northlake Tk-8 (Proposed Project) (Mitigated) - Sacramento County, Annual

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

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	tons/yr										MT/yr					
Mitigated	3.2022	1.4000e-004	0.0152	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0297	0.0297	8.0000e-005	0.0000	0.0316
Unmitigated	3.2022	1.4000e-004	0.0152	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0297	0.0297	8.0000e-005	0.0000	0.0316

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	0.3398					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.8610					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.4100e-003	1.4000e-004	0.0152	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0297	0.0297	8.0000e-005	0.0000	0.0316
Total	**3.2022**	**1.4000e-004**	**0.0152**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.0297**	**0.0297**	**8.0000e-005**	**0.0000**	**0.0316**

Northlake Tk-8 (Proposed Project) (Mitigated) - Sacramento County, Annual

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	0.3398					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.8610					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.4100e-003	1.4000e-004	0.0152	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0297	0.0297	8.0000e-005	0.0000	0.0316
Total	**3.2022**	**1.4000e-004**	**0.0152**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.0297**	**0.0297**	**8.0000e-005**	**0.0000**	**0.0316**

7.0 Water Detail

7.1 Mitigation Measures Water

Northlake Tk-8 (Proposed Project) (Mitigated) - Sacramento County, Annual

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	6.8899	3.7500e-003	2.0900e-003	7.6053
Unmitigated	6.8899	3.7500e-003	2.0900e-003	7.6053

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Elementary School	2.62545 / 6.75116	6.8899	3.7500e-003	2.0900e-003	7.6053
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**6.8899**	**3.7500e-003**	**2.0900e-003**	**7.6053**

Northlake Tk-8 (Proposed Project) (Mitigated) - Sacramento County, Annual

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

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Elementary School	2.62545 / 6.75116	6.8899	3.7500e-003	2.0900e-003	7.6053
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**6.8899**	**3.7500e-003**	**2.0900e-003**	**7.6053**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	40.1212	2.3711	0.0000	99.3985
Unmitigated	40.1212	2.3711	0.0000	99.3985

Northlake Tk-8 (Proposed Project) (Mitigated) - Sacramento County, Annual

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			
Elementary School	197.65	40.1212	2.3711	0.0000	99.3985
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**40.1212**	**2.3711**	**0.0000**	**99.3985**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Elementary School	197.65	40.1212	2.3711	0.0000	99.3985
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**40.1212**	**2.3711**	**0.0000**	**99.3985**

9.0 Operational Offroad

Northlake Tk-8 (Proposed Project) (Mitigated) - Sacramento County, Annual

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

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

Northlake Tk-8 (Proposed Project) (Mitigated) - Sacramento County, Summer

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

Northlake Tk-8 (Proposed Project) (Mitigated)

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	1,083.00	Student	16.80	731,808.00	0
Parking Lot	112.00	Space	1.01	44,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Construction of K-8 school with parking.

Construction Phase - Construction would occur over a 1.5 year period.

Trips and VMT - Maximum of 20 workers per day.

Energy Use - No on-site natural gas allowed per SMAQMD's Tier 1 mitigation.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	PhaseEndDate	5/29/2023	12/26/2024
tblConstructionPhase	PhaseEndDate	4/3/2023	10/31/2024
tblConstructionPhase	PhaseEndDate	2/7/2022	9/7/2023
tblConstructionPhase	PhaseEndDate	5/1/2023	11/28/2024

Northlake Tk-8 (Proposed Project) (Mitigated) - Sacramento County, Summer

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

tblConstructionPhase	PhaseEndDate	12/27/2021	7/27/2023
tblConstructionPhase	PhaseStartDate	5/2/2023	11/29/2024
tblConstructionPhase	PhaseStartDate	2/8/2022	9/8/2023
tblConstructionPhase	PhaseStartDate	12/28/2021	7/28/2023
tblConstructionPhase	PhaseStartDate	4/4/2023	11/1/2024
tblConstructionPhase	PhaseStartDate	12/14/2021	7/14/2023
tblEnergyUse	NT24NG	0.66	0.00
tblEnergyUse	T24NG	14.46	0.00
tblLandUse	LandUseSquareFeet	90,542.45	731,808.00
tblLandUse	LotAcreage	2.08	16.80
tblTripsAndVMT	WorkerTripNumber	18.00	20.00
tblTripsAndVMT	WorkerTripNumber	326.00	20.00
tblTripsAndVMT	WorkerTripNumber	15.00	20.00
tblTripsAndVMT	WorkerTripNumber	65.00	20.00

2.0 Emissions Summary

Northlake Tk-8 (Proposed Project) (Mitigated) - 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					
2023	3.3891	34.5480	28.5962	0.0635	19.8092	1.4253	21.0760	10.1428	1.3113	11.3083	0.0000	6,153.8175	6,153.8175	1.9481	0.3840	6,203.5627
2024	340.0597	19.2365	18.4460	0.0520	0.9172	0.6464	1.5636	0.2606	0.6085	0.8691	0.0000	5,240.6946	5,240.6946	0.7175	0.3774	5,369.9049
Maximum	**340.0597**	**34.5480**	**28.5962**	**0.0635**	**19.8092**	**1.4253**	**21.0760**	**10.1428**	**1.3113**	**11.3083**	**0.0000**	**6,153.8175**	**6,153.8175**	**1.9481**	**0.3840**	**6,203.5627**

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					
2023	3.3891	34.5480	28.5962	0.0635	19.8092	1.4253	21.0760	10.1428	1.3113	11.3083	0.0000	6,153.8175	6,153.8175	1.9481	0.3840	6,203.5627
2024	340.0597	19.2365	18.4460	0.0520	0.9172	0.6464	1.5636	0.2606	0.6085	0.8691	0.0000	5,240.6946	5,240.6946	0.7175	0.3774	5,369.9049
Maximum	**340.0597**	**34.5480**	**28.5962**	**0.0635**	**19.8092**	**1.4253**	**21.0760**	**10.1428**	**1.3113**	**11.3083**	**0.0000**	**6,153.8175**	**6,153.8175**	**1.9481**	**0.3840**	**6,203.5627**

Northlake Tk-8 (Proposed Project) (Mitigated) - 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

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	17.5498	1.1100e-003	0.1218	1.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004		0.2615	0.2615	6.8000e-004		0.2786
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	6.3103	5.6559	46.2446	0.0921	9.0765	0.0696	9.1461	2.4199	0.0650	2.4848		9,541.3306	9,541.3306	0.6169	0.4423	9,688.5548
Total	**23.8601**	**5.6570**	**46.3664**	**0.0921**	**9.0765**	**0.0700**	**9.1465**	**2.4199**	**0.0654**	**2.4853**		**9,541.5921**	**9,541.5921**	**0.6176**	**0.4423**	**9,688.8334**

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	17.5498	1.1100e-003	0.1218	1.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004		0.2615	0.2615	6.8000e-004		0.2786
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	6.3103	5.6559	46.2446	0.0921	9.0765	0.0696	9.1461	2.4199	0.0650	2.4848		9,541.3306	9,541.3306	0.6169	0.4423	9,688.5548
Total	**23.8601**	**5.6570**	**46.3664**	**0.0921**	**9.0765**	**0.0700**	**9.1465**	**2.4199**	**0.0654**	**2.4853**		**9,541.5921**	**9,541.5921**	**0.6176**	**0.4423**	**9,688.8334**

Northlake Tk-8 (Proposed Project) (Mitigated) - 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	7/14/2023	7/27/2023	5	10	
2	Grading	Grading	7/28/2023	9/7/2023	5	30	
3	Building Construction	Building Construction	9/8/2023	10/31/2024	5	300	
4	Paving	Paving	11/1/2024	11/28/2024	5	20	
5	Architectural Coating	Architectural Coating	11/29/2024	12/26/2024	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 90

Acres of Paving: 1.01

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,097,712; Non-Residential Outdoor: 365,904; Striped Parking Area: 2,688 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48

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

Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	20.00	127.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Northlake Tk-8 (Proposed Project) (Mitigated) - 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 - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**19.6570**	**1.2660**	**20.9230**	**10.1025**	**1.1647**	**11.2672**		**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

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	0.0674	0.0324	0.5451	1.3900e-003	0.1521	7.8000e-004	0.1529	0.0404	7.2000e-004	0.0411		142.3398	142.3398	3.9100e-003	3.5000e-003	143.4791
Total	**0.0674**	**0.0324**	**0.5451**	**1.3900e-003**	**0.1521**	**7.8000e-004**	**0.1529**	**0.0404**	**7.2000e-004**	**0.0411**		**142.3398**	**142.3398**	**3.9100e-003**	**3.5000e-003**	**143.4791**

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

3.2 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**19.6570**	**1.2660**	**20.9230**	**10.1025**	**1.1647**	**11.2672**	**0.0000**	**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

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	0.0674	0.0324	0.5451	1.3900e-003	0.1521	7.8000e-004	0.1529	0.0404	7.2000e-004	0.0411		142.3398	142.3398	3.9100e-003	3.5000e-003	143.4791
Total	**0.0674**	**0.0324**	**0.5451**	**1.3900e-003**	**0.1521**	**7.8000e-004**	**0.1529**	**0.0404**	**7.2000e-004**	**0.0411**		**142.3398**	**142.3398**	**3.9100e-003**	**3.5000e-003**	**143.4791**

Northlake Tk-8 (Proposed Project) (Mitigated) - Sacramento County, Summer

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

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**9.2036**	**1.4245**	**10.6281**	**3.6538**	**1.3105**	**4.9643**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

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	0.0674	0.0324	0.5451	1.3900e-003	0.1521	7.8000e-004	0.1529	0.0404	7.2000e-004	0.0411		142.3398	142.3398	3.9100e-003	3.5000e-003	143.4791
Total	**0.0674**	**0.0324**	**0.5451**	**1.3900e-003**	**0.1521**	**7.8000e-004**	**0.1529**	**0.0404**	**7.2000e-004**	**0.0411**		**142.3398**	**142.3398**	**3.9100e-003**	**3.5000e-003**	**143.4791**

Northlake Tk-8 (Proposed Project) (Mitigated) - Sacramento County, Summer

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

3.3 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**9.2036**	**1.4245**	**10.6281**	**3.6538**	**1.3105**	**4.9643**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

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	0.0674	0.0324	0.5451	1.3900e-003	0.1521	7.8000e-004	0.1529	0.0404	7.2000e-004	0.0411		142.3398	142.3398	3.9100e-003	3.5000e-003	143.4791
Total	**0.0674**	**0.0324**	**0.5451**	**1.3900e-003**	**0.1521**	**7.8000e-004**	**0.1529**	**0.0404**	**7.2000e-004**	**0.0411**		**142.3398**	**142.3398**	**3.9100e-003**	**3.5000e-003**	**143.4791**

Northlake Tk-8 (Proposed Project) (Mitigated) - Sacramento County, Summer

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

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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	0.1699	5.8806	1.8307	0.0242	0.7651	0.0328	0.7980	0.2202	0.0314	0.2516		2,595.6795	2,595.6795	0.0642	0.3805	2,710.6692
Worker	0.0674	0.0324	0.5451	1.3900e-003	0.1521	7.8000e-004	0.1529	0.0404	7.2000e-004	0.0411		142.3398	142.3398	3.9100e-003	3.5000e-003	143.4791
Total	**0.2373**	**5.9130**	**2.3758**	**0.0256**	**0.9173**	**0.0336**	**0.9509**	**0.2606**	**0.0321**	**0.2927**		**2,738.0193**	**2,738.0193**	**0.0681**	**0.3840**	**2,854.1483**

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

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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	0.1699	5.8806	1.8307	0.0242	0.7651	0.0328	0.7980	0.2202	0.0314	0.2516		2,595.6795	2,595.6795	0.0642	0.3805	2,710.6692
Worker	0.0674	0.0324	0.5451	1.3900e-003	0.1521	7.8000e-004	0.1529	0.0404	7.2000e-004	0.0411		142.3398	142.3398	3.9100e-003	3.5000e-003	143.4791
Total	**0.2373**	**5.9130**	**2.3758**	**0.0256**	**0.9173**	**0.0336**	**0.9509**	**0.2606**	**0.0321**	**0.2927**		**2,738.0193**	**2,738.0193**	**0.0681**	**0.3840**	**2,854.1483**

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

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	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	0.1626	5.7638	1.7732	0.0237	0.7651	0.0324	0.7974	0.2202	0.0310	0.2512		2,546.2451	2,546.2451	0.0624	0.3741	2,659.2894
Worker	0.0630	0.0289	0.5060	1.3500e-003	0.1521	7.5000e-004	0.1529	0.0404	6.9000e-004	0.0410		138.7506	138.7506	3.5300e-003	3.2500e-003	139.8078
Total	**0.2255**	**5.7927**	**2.2792**	**0.0251**	**0.9172**	**0.0331**	**0.9503**	**0.2606**	**0.0316**	**0.2922**		**2,684.9957**	**2,684.9957**	**0.0659**	**0.3774**	**2,799.0972**

Northlake Tk-8 (Proposed Project) (Mitigated) - Sacramento County, Summer

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

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	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	0.1626	5.7638	1.7732	0.0237	0.7651	0.0324	0.7974	0.2202	0.0310	0.2512		2,546.2451	2,546.2451	0.0624	0.3741	2,659.2894
Worker	0.0630	0.0289	0.5060	1.3500e-003	0.1521	7.5000e-004	0.1529	0.0404	6.9000e-004	0.0410		138.7506	138.7506	3.5300e-003	3.2500e-003	139.8078
Total	**0.2255**	**5.7927**	**2.2792**	**0.0251**	**0.9172**	**0.0331**	**0.9503**	**0.2606**	**0.0316**	**0.2922**		**2,684.9957**	**2,684.9957**	**0.0659**	**0.3774**	**2,799.0972**

Northlake Tk-8 (Proposed Project) (Mitigated) - Sacramento County, Summer

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

3.5 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.1323					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1205**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

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	0.0630	0.0289	0.5060	1.3500e-003	0.1521	7.5000e-004	0.1529	0.0404	6.9000e-004	0.0410		138.7506	138.7506	3.5300e-003	3.2500e-003	139.8078
Total	**0.0630**	**0.0289**	**0.5060**	**1.3500e-003**	**0.1521**	**7.5000e-004**	**0.1529**	**0.0404**	**6.9000e-004**	**0.0410**		**138.7506**	**138.7506**	**3.5300e-003**	**3.2500e-003**	**139.8078**

Northlake Tk-8 (Proposed Project) (Mitigated) - Sacramento County, Summer

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

3.5 Paving - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.1323					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1205**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

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	0.0630	0.0289	0.5060	1.3500e-003	0.1521	7.5000e-004	0.1529	0.0404	6.9000e-004	0.0410		138.7506	138.7506	3.5300e-003	3.2500e-003	139.8078
Total	**0.0630**	**0.0289**	**0.5060**	**1.3500e-003**	**0.1521**	**7.5000e-004**	**0.1529**	**0.0404**	**6.9000e-004**	**0.0410**		**138.7506**	**138.7506**	**3.5300e-003**	**3.2500e-003**	**139.8078**

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

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	339.8160					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**339.9967**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	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	0.0630	0.0289	0.5060	1.3500e-003	0.1521	7.5000e-004	0.1529	0.0404	6.9000e-004	0.0410		138.7506	138.7506	3.5300e-003	3.2500e-003	139.8078
Total	**0.0630**	**0.0289**	**0.5060**	**1.3500e-003**	**0.1521**	**7.5000e-004**	**0.1529**	**0.0404**	**6.9000e-004**	**0.0410**		**138.7506**	**138.7506**	**3.5300e-003**	**3.2500e-003**	**139.8078**

Northlake Tk-8 (Proposed Project) (Mitigated) - Sacramento County, Summer

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

3.6 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	339.8160					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**339.9967**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	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	0.0630	0.0289	0.5060	1.3500e-003	0.1521	7.5000e-004	0.1529	0.0404	6.9000e-004	0.0410		138.7506	138.7506	3.5300e-003	3.2500e-003	139.8078
Total	**0.0630**	**0.0289**	**0.5060**	**1.3500e-003**	**0.1521**	**7.5000e-004**	**0.1529**	**0.0404**	**6.9000e-004**	**0.0410**		**138.7506**	**138.7506**	**3.5300e-003**	**3.2500e-003**	**139.8078**

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	6.3103	5.6559	46.2446	0.0921	9.0765	0.0696	9.1461	2.4199	0.0650	2.4848		9,541.3306	9,541.3306	0.6169	0.4423	9,688.5548
Unmitigated	6.3103	5.6559	46.2446	0.0921	9.0765	0.0696	9.1461	2.4199	0.0650	2.4848		9,541.3306	9,541.3306	0.6169	0.4423	9,688.5548

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Elementary School	2,046.87	0.00	0.00	3,074,473	3,074,473
Parking Lot	0.00	0.00	0.00		
Total	2,046.87	0.00	0.00	3,074,473	3,074,473

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
Elementary School	10.00	5.00	6.50	65.00	30.00	5.00	63	25	12
Parking Lot	10.00	5.00	6.50	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
Elementary School	0.542485	0.056811	0.183752	0.130945	0.025591	0.005989	0.013266	0.009393	0.000917	0.000565	0.025954	0.000983	0.003351
Parking Lot	0.542485	0.056811	0.183752	0.130945	0.025591	0.005989	0.013266	0.009393	0.000917	0.000565	0.025954	0.000983	0.003351

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

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	lb/day										lb/day					
Elementary School	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
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**

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					
Elementary School	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
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

Northlake Tk-8 (Proposed Project) (Mitigated) - Sacramento County, Summer

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

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	17.5498	1.1100e-003	0.1218	1.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004		0.2615	0.2615	6.8000e-004		0.2786
Unmitigated	17.5498	1.1100e-003	0.1218	1.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004		0.2615	0.2615	6.8000e-004		0.2786

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	1.8620					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	15.6766					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0113	1.1100e-003	0.1218	1.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004		0.2615	0.2615	6.8000e-004		0.2786
Total	**17.5498**	**1.1100e-003**	**0.1218**	**1.0000e-005**		**4.3000e-004**	**4.3000e-004**		**4.3000e-004**	**4.3000e-004**		**0.2615**	**0.2615**	**6.8000e-004**		**0.2786**

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	1.8620					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	15.6766					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0113	1.1100e-003	0.1218	1.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004		0.2615	0.2615	6.8000e-004		0.2786
Total	**17.5498**	**1.1100e-003**	**0.1218**	**1.0000e-005**		**4.3000e-004**	**4.3000e-004**		**4.3000e-004**	**4.3000e-004**		**0.2615**	**0.2615**	**6.8000e-004**		**0.2786**

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

Off'-Model ROG Adjustment

Construction

Phase	# of Days (CalEEMod default)	% of year	Adjusted # of Days	Off Model Adjustments lb/day	
				238	Adjusted Arch Coating Days
Site Preparation	10	3%	10	based on 2/3 building days plus paving and arch coating	
Grading	30	8%	30	**380**	Unmitigated ROG (2024) Proposed Project
Building Construc	300	79%	300	7600	ROG X Arch Tech Days
Paving	20	5%	20	**31.93277311**	**Adjusted ROG (2024)**
Arch Coating	20	5%	20	**202**	Unmitigated ROG (2024) Previous Project
	380		380	6060	ROG X Arch Tech Days
				25.46218487	**Adjusted ROG (2024)**

Energy Calculations Summary

Operational Fuel Use Summary (Amended project)		
Vehicle Class	**Diesel Gallons**	**Gasoline Gallons**
Passenger	339	53,517
Truck	19,260	46,796
Bus	634	1,444
Other	48	258
Total	**20,281**	**102,015**

1. Fleet mix calculated from CalEEMod default values.
2. Gallons per mile calculated from EMFAC 2014.
3. Annual VMT obtained from CalEEMod output file.

Operational Fuel Use Summary (previous project)		
Vehicle Class	**Diesel Gallons**	**Gasoline Gallons**
Passenger	250	39,532
Truck	14,227	34,568
Bus	468	1,067
Other	35	191
Total	**14,981**	**75,357**

1. Fleet mix calculated from CalEEMod default values.
2. Gallons per mile calculated from EMFAC 2014.
3. Annual VMT obtained from CalEEMod output file.

Operational Fuel Use Summary (Net difference		
Vehicle Class	**Diesel Gallons**	**Gasoline Gallons**
Passenger	89	13,984
Truck	5,033	12,228
Bus	166	377
Other	12	67
Total	**5,300**	**26,658**

1. Fleet mix calculated from CalEEMod default values.
2. Gallons per mile calculated from EMFAC 2014.
3. Annual VMT obtained from CalEEMod output file.

EMFAC2014 (v1.0.7) Emissions Inventory
Region Type: County
Region: Sacramento
Calendar Year: 2024
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CalYr	VehClass	Class	MdlYr	Speed	Fuel	Population	VMT (mi/day)	Trips	Fuel_Consumption (1000 gal/day)	Fuel (gal/day)
SACRAMENTO	2024	HHDT	Truck	Aggregated	Aggregated	GAS	3.817736	401.5883168	76.38526471	0.086850297	86.85029668
SACRAMENTO	2024	HHDT	Truck	Aggregated	Aggregated	DSL	10801.02	852743.2289	82353.16031	129.4334506	129433.4506
SACRAMENTO	2024	LDA	Passenger	Aggregated	Aggregated	GAS	621184.5	21791121.19	2906212.223	656.5160125	656516.0125
SACRAMENTO	2024	LDA	Passenger	Aggregated	Aggregated	DSL	6304.422	224625.5875	29452.21692	4.193102239	4193.102239
SACRAMENTO	2024	LDT1	Truck	Aggregated	Aggregated	GAS	66406.62	2167045.803	302428.5847	76.58153967	76581.53967
SACRAMENTO	2024	LDT1	Truck	Aggregated	Aggregated	DSL	155.5559	2531.091863	558.9087838	0.114799994	114.7999937
SACRAMENTO	2024	LDT2	Truck	Aggregated	Aggregated	GAS	213508.8	7147811.653	985234.2998	269.9971475	269997.1475
SACRAMENTO	2024	LDT2	Truck	Aggregated	Aggregated	DSL	1356.312	52866.74641	6603.512714	1.338876831	1338.876831
SACRAMENTO	2024	LHDT1	Truck	Aggregated	Aggregated	GAS	16148.68	520461.6574	240591.2861	61.1965833	61196.5833
SACRAMENTO	2024	LHDT1	Truck	Aggregated	Aggregated	DSL	14131.98	472339.8454	177762.4691	25.62710815	25627.10815
SACRAMENTO	2024	LHDT2	Truck	Aggregated	Aggregated	GAS	2236.898	73166.69887	33326.45314	9.81533138	9815.33138
SACRAMENTO	2024	LHDT2	Truck	Aggregated	Aggregated	DSL	4849	165824.487	60994.31875	10.05130996	10051.30996
SACRAMENTO	2024	MCY	Passenger	Aggregated	Aggregated	GAS	30709.38	203163.0217	61418.76007	5.426202322	5426.202322
SACRAMENTO	2024	MDV	Truck	Aggregated	Aggregated	GAS	150017.8	4701204.899	680651.5265	218.7063409	218706.3409
SACRAMENTO	2024	MDV	Truck	Aggregated	Aggregated	DSL	3405.597	126439.0711	16336.56875	4.256688934	4256.688934
SACRAMENTO	2024	MH	Other	Aggregated	Aggregated	GAS	2880.979	24624.58787	288.2131753	5.025871689	5025.871689
SACRAMENTO	2024	MH	Other	Aggregated	Aggregated	DSL	1083.677	9270.538143	108.3677135	0.928207266	928.2072663
SACRAMENTO	2024	MHDT	Truck	Aggregated	Aggregated	GAS	2018.784	94274.66572	40391.82033	19.47151244	19471.51244
SACRAMENTO	2024	MHDT	Truck	Aggregated	Aggregated	DSL	13677.89	680254.5378	106222.4766	69.52918912	69529.18912
SACRAMENTO	2024	OBUS	Bus	Aggregated	Aggregated	GAS	544.9957	22876.14392	10904.27402	4.765749036	4765.749036
SACRAMENTO	2024	OBUS	Bus	Aggregated	Aggregated	DSL	540.1861	37513.41656	5175.60571	4.664454978	4664.454978
SACRAMENTO	2024	SBUS	Bus	Aggregated	Aggregated	GAS	133.3686	6358.180942	533.4745975	0.652551399	652.551399
SACRAMENTO	2024	SBUS	Bus	Aggregated	Aggregated	DSL	1029.486	32124.91948	11880.12273	3.986527652	3986.527652
SACRAMENTO	2024	UBUS	Bus	Aggregated	Aggregated	GAS	212.9381	16076.65729	851.7525173	3.729263937	3729.263937
SACRAMENTO	2024	UBUS	Bus	Aggregated	Aggregated	DSL	2.065795	131.9980556	8.263178853	0.015090483	15.09048265

Project VMT (mi/yr) 3,074,473 From CalEEMod output

	Gas (gal)	Diesel (gal)
Passenger	53,517	339
Truck	46,796	19,260
Bus	1,444	634
Other	258	48
Total	102,015	20,281

mi/gal	CO2_RUNEX (tons/day)	CO2 (lb/day)	% of vehicle class EMFAC	% vehicle class CalEEMod	% vehicle class project	VMT by project vehicle class (mi/yr)	Gallons of fuel
4.623914162	0.819008141	1,638	0.000470715	0.026318	1.23883E-05	38.0874484	8.237057839
6.588275481	1347.640189	2,695,280	0.999529285	0.026318	0.026305612	80875.89297	12275.7303
33.19206352	6049.751452	12,099,503	0.989797049	0.578893	0.572986583	1761631.779	53073.8855
53.57026247	47.04847017	94,097	0.010202951	0.578893	0.005906417	18159.11948	338.9776089
28.29723472	704.5252537	1,409,051	0.998833371	0.033999	0.033959336	104407.0609	3689.655967
22.04783974	1.288106936	2,576	0.001166629	0.033999	3.96642E-05	121.9465975	5.530999814
26.47365618	2483.566014	4,967,132	0.992658088	0.21284	0.211277347	649566.5003	24536.33514
39.48589235	15.02279292	30,046	0.007341912	0.21284	0.001562653	4804.333006	121.6721396
8.504750254	572.5970624	1,145,194	0.524235364	0.010628	0.005571573	17129.65214	2014.127591
18.43125813	285.4461147	570,892	0.475764636	0.010628	0.005056427	15545.8469	843.4501212
7.454327932	91.86161093	183,723	0.306148106	0.004325	0.001324091	4070.88067	546.1096838
16.49779856	111.6331732	223,266	0.693851894	0.004325	0.003000909	9226.215055	559.239163
37.441107	47.18226898	94,365	1	0.005392	0.005392	16577.55842	442.7635758
21.49551257	2008.12988	4,016,260	0.973809363	0.104491	0.101754314	312840.8915	14553.77677
29.70362012	47.76194114	95,524	0.026190637	0.104491	0.002736686	8413.866777	283.2606511
4.899565567	47.60645068	95,213	0.726493475	0.000566	0.000411195	1264.208868	258.0246862
9.987573336	10.41489794	20,830	0.273506525	0.000566	0.000154805	475.94285	47.65350241
4.841671442	181.5573061	363,115	0.121718672	0.018736	0.002280521	7011.400333	1448.136334
9.783726035	757.6812369	1,515,362	0.878281328	0.018736	0.016455479	50591.9258	5171.028462
4.800115103	44.60017246	89,200	0.378809578	0.001852	0.000701555	2156.912946	449.3460885
8.042400826	50.85756756	101,715	0.621190422	0.001852	0.001150445	3537.01105	439.7954201
9.743571082	5.791210351	11,582	0.16522008	0.000598	9.88016E-05	303.7628762	31.17572332
8.058371165	40.49127774	80,983	0.83477992	0.000598	0.000499198	1534.771978	190.4568487
4.310946492	35.24693626	70,494	0.991856323	0.001362	0.001350908	4153.33113	963.4383395
8.747106283	0.16932192	339	0.008143677	0.001362	1.10917E-05	34.10109601	3.898557409

Gasoline Sum	102,015
Diesel Sum	20,281

EMFAC2014 (v1.0.7) Emissions Inventory
Region Type: County
Region: Sacramento
Calendar Year: 2024
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CalYr	VehClass	Class	MdlYr	Speed	Fuel	Population	VMT (mi/d	Trips	Fuel_Consumption (1000 gal/day)	Fuel (gal/d	mi/gal	CO2_RUNEX (tons/day)	CO2 (lb/day)	% of vehicle class EMFAC	% vehicle class CalEEMod	% vehicle class project	VMT by project vehicle class (mi/yr)	Gallons of fuel
SACRAMEN	2024	HHDT	Truck	Aggregated	Aggregated	GAS	3.817736	401.5883	76.38526	0.08685	86.8503	4.623914	0.819008	1,638	0.000471	0.026318	1.24E-05	28.13477	6.084622984
SACRAMEN	2024	HHDT	Truck	Aggregated	Aggregated	DSL	10801.02	852743.2	82353.16	129.4335	129433.5	6.588275	1347.64	2,695,280	0.999529	0.026318	0.026306	59742.12	9067.945401
SACRAMEN	2024	LDA	Passenger	Aggregated	Aggregated	GAS	621184.5	21791121	2906212	656.516	656516	33.19206	6049.751	12,099,503	0.989797	0.578893	0.572987	1301298	39205.08874
SACRAMEN	2024	LDA	Passenger	Aggregated	Aggregated	DSL	6304.422	224625.6	29452.22	4.193102	4193.102	53.57026	47.04847	94,097	0.010203	0.578893	0.005906	13413.94	250.3989884
SACRAMEN	2024	LDT1	Truck	Aggregated	Aggregated	GAS	66406.62	2167046	302428.6	76.58154	76581.54	28.29723	704.5253	1,409,051	0.998833	0.033999	0.033959	77124.33	2725.507814
SACRAMEN	2024	LDT1	Truck	Aggregated	Aggregated	DSL	155.5559	2531.092	558.9088	0.1148	114.8	22.04784	1.288107	2,576	0.001167	0.033999	3.97E-05	90.08059	4.085688027
SACRAMEN	2024	LDT2	Truck	Aggregated	Aggregated	GAS	213508.8	7147812	985234.3	269.9971	269997.1	26.47366	2483.566	4,967,132	0.992658	0.21284	0.211277	479827.5	18124.71778
SACRAMEN	2024	LDT2	Truck	Aggregated	Aggregated	DSL	1356.312	52866.75	6603.513	1.338877	1338.877	39.48589	15.02279	30,046	0.007342	0.21284	0.001563	3548.907	89.87785587
SACRAMEN	2024	LHDT1	Truck	Aggregated	Aggregated	GAS	16148.68	520461.7	240591.3	61.19658	61196.58	8.50475	572.5971	1,145,194	0.524235	0.010628	0.005572	12653.48	1487.813643
SACRAMEN	2024	LHDT1	Truck	Aggregated	Aggregated	DSL	14131.98	472339.8	177762.5	25.62711	25627.11	18.43126	285.4461	570,892	0.475765	0.010628	0.005056	11483.54	623.0472207
SACRAMEN	2024	LHDT2	Truck	Aggregated	Aggregated	GAS	2236.898	73166.7	33326.45	9.815331	9815.331	7.454328	91.86161	183,723	0.306148	0.004325	0.001324	3007.114	403.4051476
SACRAMEN	2024	LHDT2	Truck	Aggregated	Aggregated	DSL	4849	165824.5	60994.32	10.05131	10051.31	16.4978	111.6332	223,266	0.693852	0.004325	0.003001	6815.302	413.1037479
SACRAMEN	2024	MCY	Passenger	Aggregated	Aggregated	GAS	30709.38	203163	61418.76	5.426202	5426.202	37.44111	47.18227	94,365	1	0.005392	0.005392	12245.66	327.0645275
SACRAMEN	2024	MDV	Truck	Aggregated	Aggregated	GAS	150017.8	4701205	680651.5	218.7063	218706.3	21.49551	2008.13	4,016,260	0.973809	0.104491	0.101754	231092.1	10750.71298
SACRAMEN	2024	MDV	Truck	Aggregated	Aggregated	DSL	3405.597	126439.1	16336.57	4.256689	4256.689	29.70362	47.76194	95,524	0.026191	0.104491	0.002737	6215.23	209.2414916
SACRAMEN	2024	MH	Other	Aggregated	Aggregated	GAS	2880.979	24624.59	288.2132	5.025872	5025.872	4.899566	47.60645	95,213	0.726493	0.000566	0.000411	933.857	190.5999651
SACRAMEN	2024	MH	Other	Aggregated	Aggregated	DSL	1083.677	9270.538	108.3677	0.928207	928.2073	9.987573	10.4149	20,830	0.273507	0.000566	0.000155	351.5737	35.20111206
SACRAMEN	2024	MHDT	Truck	Aggregated	Aggregated	GAS	2018.784	94274.67	40391.82	19.47151	19471.51	4.841671	181.5573	363,115	0.121719	0.018736	0.002281	5179.243	1069.722199
SACRAMEN	2024	MHDT	Truck	Aggregated	Aggregated	DSL	13677.89	680254.5	106222.5	69.52919	69529.19	9.783726	757.6812	1,515,362	0.878281	0.018736	0.016455	37371.69	3819.781195
SACRAMEN	2024	OBUS	Bus	Aggregated	Aggregated	GAS	544.9957	22876.14	10904.27	4.765749	4765.749	4.800115	44.60017	89,200	0.37881	0.001852	0.000702	1593.288	331.9269564
SACRAMEN	2024	OBUS	Bus	Aggregated	Aggregated	DSL	540.1861	37513.42	5175.606	4.664455	4664.455	8.042401	50.85757	101,715	0.62119	0.001852	0.00115	2612.751	324.8719839
SACRAMEN	2024	SBUS	Bus	Aggregated	Aggregated	GAS	133.3686	6358.181	533.4746	0.652551	652.5514	9.743571	5.79121	11,582	0.16522	0.000598	9.88E-05	224.3863	23.02915997
SACRAMEN	2024	SBUS	Bus	Aggregated	Aggregated	DSL	1029.486	32124.92	11880.12	3.986528	3986.528	8.058371	40.49128	80,983	0.83478	0.000598	0.000499	1133.719	140.6883552
SACRAMEN	2024	UBUS	Bus	Aggregated	Aggregated	GAS	212.9381	16076.66	851.7525	3.729264	3729.264	4.310946	35.24694	70,494	0.991856	0.001362	0.001351	3068.019	711.6811827
SACRAMEN	2024	UBUS	Bus	Aggregated	Aggregated	DSL	2.065795	131.9981	8.263179	0.01509	15.09048	8.747106	0.169322	339	0.008144	0.001362	1.11E-05	25.1901	2.879820984

			Gasoline Su	75,357
Project VM	2,271,079	From CalEEMod output	Diesel Sum	14,981

	Gas (gal)	Diesel (gal)
Passenger	39,532	250
Truck	34,568	14,227
Bus	1,067	468
Other	191	35
Total	75,357	14,981

Appendix B

Cultural Resources Report

Memo

455 Capitol Mall, Suite 300
Sacramento, CA 95814
916.444.7301

Date: January 25, 2022

To: Twin Rivers Unified School District

From: Emilie Zelazo, M.A. Anthropology Registered Professional Archaeologist, and M.A. Architectural Historian, Ascent Environmental

Subject: Cultural Resources Update for the Twin Rivers Northlake Elementary School Project, Sacramento County, California

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INTRODUCTION

Ascent was retained by Twin Rivers Unified School District to prepare a Cultural Resources Update memorandum for the Northlake School Project, Sacramento County, California. This memo was prepared in support of the additional CEQA documentation associated with the project. It includes a summary of current California Historical Resources Information System record search and Scared Lands File database search results. Ascent was also retained to perform a new cultural resources survey of the project site; however, that was not possible as the site was actively being graded by heavy equipment when Ascent was scheduled to perform the survey on August 12, 2021.

PROJECT LOCATION AND DESCRIPTION

The Twin Rivers Northlake Elementary School Project is located northwest of the intersection of Interstate 5 and Highway 99 in Sacramento, Sacramento County, California. The project site consists of approximately 16.8-acres of vacant land and is a planned K-8 school designed with 49 classrooms for 963 students, with a potential capacity for 1,063 students. The projected opening is July 2024. Figure 1 in Attachment A depicts the project location and site limits.

CULTURAL SETTING

Prehistoric Setting

The project is in the American River Basin, north of Sacramento in California's Central Valley. The Central Valley region of California was one of the most densely populated areas in North America during prehistoric times. Early work conducted by Sacramento Junior College and the University of California, Berkeley in the first forty years of the 20th Century within the region resulted in the development of the Central California Taxonomic System and a tripartite classification scheme (Early, Middle, and Late Periods). In 2007, this classification system was updated based the findings of studies since the 1940s and results based on new technologies such as Carbon 14 dating and obsidian hydration (Rosenthal et al. 2007:147). The resulting new classification system is briefly described below.

Paleo-Indian and Lower Archaic Period (11,500–5550 cal B.C.E.) sites are not well represented in the Central Valley. This is likely because large segments of the Late Pleistocene landscape throughout the valley have been buried or removed by periodic episodes of deposition and erosion, in particular the formation of the Sacramento–San Joaquin Delta about 6,000 years ago. The archaeological evidence that is available for this early period is primarily defined by basally thinned, fluted projectile points found in sites located in and around Fresno, south of Sacramento. These points are morphologically similar to well-dated Clovis points found elsewhere in North America.

Middle Archaic Period/Windmiller Pattern (5550–550 cal B.C.E.) sites are characterized by extended burials orientated to the west, specialized grave goods, baked clay balls, charmstones and exotic lithic materials. Year-round settlements with seasonal forays into the foothills resulted in the acquisition of a varied subsistence resource base that was dominated by fish and acorn acquisition. However, archaeological evidence shows heavy exploitation of elk, deer, antelope, rabbits, waterfowl, and numerous additional floral and faunal species.

Upper Archaic Period/Berkeley Pattern (550 cal B.C.E. – 1100 cal. C.E.) artifact assemblages show a dramatic increase in the use of mortar and pestle groundstone technology, possibly related to an expanded reliance on acorns as a staple food resource. Flexed burials, with various orientations are common, as well as specialized bone tools, numerous distinctive shell beads and ornaments, and stone tools unique to the period frequently occur on sites dated to this time.

Emergent Period/Augustine Pattern (1100 cal. C.E. – Historic Contact) cultural manifestations are distinguished by the presence of shaped mortars and pestles, the use of bow and arrow technology and the introduction of the harpoon, particularly during early phases of this period. Bone awls are common. There is an increased usage of shell for decorative items and ground stone artifacts such as tubular pipes and charmstones are commonly encountered. Mortuary practices can be highly variable and include pre-interment pit burning, cremations, and flex burials.

Ethnographic Setting

Ethnographically, the project site was located within the territory of the Nisenan. The Nisenan are a branch of Maidu peoples whose language is part of the Penutian language family. Nisenan controlled the east side of the Sacramento River from its confluence with the American River, as well as the drainages of the Yuba, Bear, and the lower portion of the Feather River. Their permanent settlements were generally located on the terraces or knolls which separate parallel streams.

A typical village consisted of several conical houses covered with bark slabs. The nearest ethnographic villages in relationship to the project were called *Yokol* and *Olo* (Wilson and Towne 1978:388). Food gathering was based on seasonal ripening, but hunting, gathering, and fishing went on all year, with the greatest activity in late summer and early fall. They gathered many different staples, not depending on one crop.

Nisenan lifeways within the project area were significantly interrupted by the settlement of John Sutter in 1839 and the Gold Rush in 1849. Today, many descendants of the Nisenan continue to live in the territory of their ancestors, working to maintain kinship and cultural ties to their ancestral lands despite continual disruptions to time-honored lifeways.

Historic Setting

The historic growth and economy of the project site is tied to the theme of agriculture. In the American River Basin, the development of agriculture as an economic endeavor is closely tied to the creation of Reclamation District 1000.

Reclamation District 1000

Reclamation District 1000 (RD 1000) is one of a handful of major reclamation districts in the project vicinity which were established following enabling legislation in 1911-1913. Floodplain reclamation was a key element in the social,

economic, and physical transformation of the region. Before reclamation, Sacramento vicinity was regularly flooded extensively; permanent settlements were repeatedly threatened, property destroyed, and lives lost.

RD 1000 was one of the first and largest of the districts in the state, transforming over 55,000 acres of floodplain into productive agricultural land. It was created in 1911 by the State Reclamation Board and control over its development was granted to the Natomas Company in 1913 (Peak and Associates 2014:11). RD 1000 extends roughly from the northern limits of the City of Sacramento in the south to Pleasant Grove in the north and from Elverta on the east to the Sacramento River on the west. To service the various fields located throughout the district, a series of canals was developed by the Natomas Company across the district. The canal system once located in the project site was named the Greenbriar Ditches (Gerry 2014).

RD 1000 operated primarily as agricultural land with some small areas of commercial development until sometime around 2014. While still in operation, the RD 1000 was found eligible for the National Register of Historic Places in 1996 as a rural historic landscape district (Peak and Associates 2014:12). In 1997, an Historic American Engineering Report was prepared as mitigation for impacts to the district which is today under extensive residential and commercial development.

NCIC RECORD SEARCH

On July 29, 2021, a search of the project site and a one-half-mile radius around the project site was conducted at the North Central Information Center (NCIC), at California State University, Sacramento (SAC-21-149). The following information was reviewed:

- site records of previously recorded cultural resources,
- previous cultural studies,
- NRHP and CRHR listings,
- the California Historic Resources Inventory
- Built Environment Resource Directory (BERD) for Sacramento County

The records search identified two previously recorded resources within the project site and none within a one-half-mile radius. The search also found that the entire project site had been previous investigated three times, and four investigations have occurred within one-half-mile. Table 1 lists the previously recorded resources within the project site. Table 2 lists the previous studies which included the project site and Table 3 lists the studies within the one-half-mile radius. No new resources have been identified within the project site since it was last studied in 2014 by Peak and Associates. Further, both P-34-05197 and P-34-05251 have been previously impacted and an Historic Architectural Engineering Report was prepared to mitigate for those impacts in 1997 (Peak and Associates 2014:12). Thus, no additional work is needed in regards to these resources. A copy of the NCIC record search results is attached in Attachment B.

Table 1 Previously Recorded Resources within Project Site

Primary/Trinomial Number	Name	Age	Attribute Codes
P-34-05197/CA-SAC-1239H	Greenbriar Ditches	Historic 2D2	AH06 (Water conveyance system)
P-34-005251	Reclamation District 1000	Historic 2D2	AH01 (Unknown)

Table 2 Reports Within Project Site

Report Number	Year	Author/Affiliation	Title	Percent of Project Site Investigated
4181	2000	Peak and Associates	Cultural Resources Overview for the North Natomas Long-term Planning Area Sacramento County, California	100%
11138	1995	Denise Bradley and Michael Corbett Dames & Moore, Inc	Rural Historic Landscape Report for Reclamation District 1000 for the Cultural Resources Inventory and Evaluations for the American River Watershed Investigation, Sacramento and Sutter Counties, California	100%
12379	2014	Peak and Associates	Determination of Eligibility and Effect for the Greenbriar Project, Sacramento County, California	100%

Table 3 Reports Outside the Project Site, Within 0.50-Mile Radius

Report Number	Year	Author/Affiliation	Title
70	1983	Henry Bass	Negative Archeological Survey Report for the Expansion of State Route 99 Between Interstate 5 and Striplin Road, Sacramento, and Sutter Counties Post Mile 31.7/36.9;0.0/8.3
3440	1990	Susan Lindstrom	A Preliminary Cultural Resource Evaluation of the Sacramento Regional Transit Systems Planning Study Sacramento/Natomas/Airport Route: EIR
4175	2000	Peak and Associates	Cultural Resource Assessment for the Proposed El Centro Crossing Project, City of Sacramento, California
6147	2005	ECORP Consulting	Cultural Resources Inventory for Natomas Urban Village

SCARED LANDS FILE

Ascent requested a search of the Sacred Lands File from the Native American Heritage Commission (NAHC) on July 21, 2021. Negative results were returned on August 12, 2021. This is the same result that was given for the project site in 2014 (Peak and Associates 2014:13).

CONCLUSION

No new cultural resources were identified within the project site as a result of either the NCIC or NAHC search. Work at the project site is subject to the cultural resources mitigation measures developed under the 2008 Greenbriar Development EIR: Mitigation Measure 6.13-2, which requires halting ground-disturbing activities upon an inadvertent discovery of cultural material, and Mitigation Measure 6.13-3 regarding stoppage of work within a 100-foot radius if human remains are discovered. Implementation of these existing measures will ensure a less than significant impact to cultural resources, including human remains, should any be found during project activities. Therefore, no additional investigation is required, and no modifications or new mitigation measures are needed.

REFERENCES

Gerry, Robert. 2014. Resource Record for P-34-005197 (CA-SAC-1239H). Record on file at North Central Information Center, California State University Sacramento, Sacramento.

Peak and Associates, Inc. 2014. *Determination of Eligibility and Effect for the Greenbriar Project, Sacramento County, California*. Prepared for Helix Environmental Planning, Inc., Folsom.

Rosenthal, J. S., G. G. White, and M. Q. Sutton. 2007. "The Central Valley: A View from the Catbird's Seat." In *California Prehistory: Colonization, Culture, and Complexity* edited by T. L. Jones and K. A. Klar, pp. 147-164. Altamira Press, Plymouth, United Kingdom.

Wilson, N. L., and A. H. Towne. 1978. Nisenan. In, *California Handbook of North American Indians*, Vol. 8, ed. R. F. Heizer and W. C. Sturtevant, 387-397. Washington, D.C. Smithsonian Institution.

Attachment A

Maps

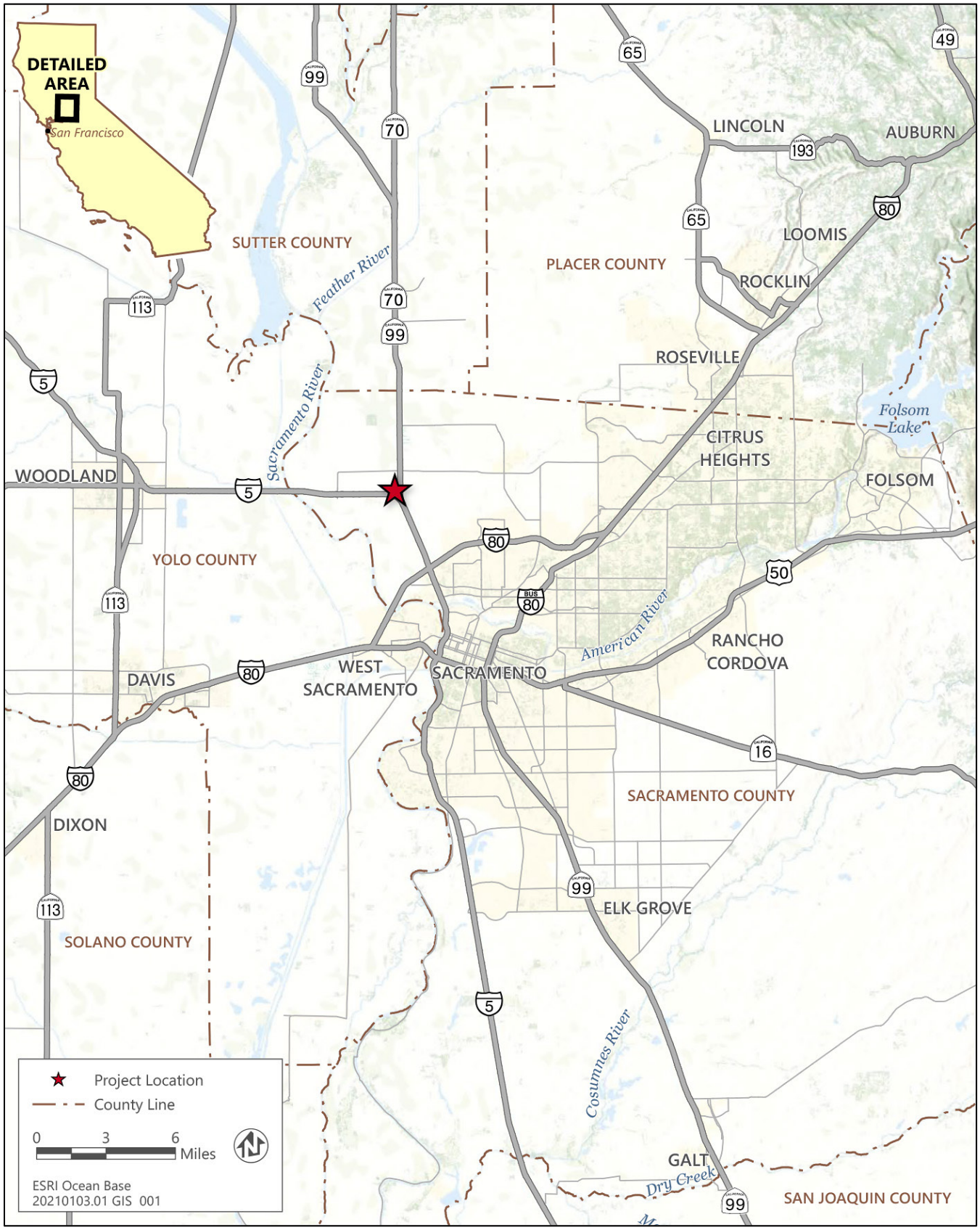

Figure 1 Project Vicinity

Figure 2 Project Location

Attachment B

NCIC Results

California Historical Resources Information System

NORTH CENTRAL INFORMATION CENTER

AMADOR
EL DORADO
NEVADA
PLACER
SACRAMENTO
YUBA

California State University Sacramento
6000 J Street, Folsom Hall, Suite 2042
Sacramento, California 95819-6100
phone: (916) 278-6217
fax: (916) 278-5162
email: ncic@csus.edu

7/29/2021

NCIC File No.: SAC-21-149

Alta Cunningham
Ascent Environmental
455 Capitol Mall, Suite 300
Sacramento, CA 95814

Re: 20210103.01-Twin Rivers-Northlake Elementary CEQA

The North Central Information Center (NCIC) received your records search request for the project area referenced above, located on the Taylor Monument USGS 7.5' quad. The following reflects the results of the records search for the project area and a ½-mi radius.

As indicated on the data request form, the locations of resources and reports are provided in the following format: ☒ custom GIS maps ☐ shapefiles

Recorded resources within project area:	P-34-5197 P-34-5251
Recorded resources outside project area, within radius:	None
Known reports within project area:	4181 11138 12379
Known reports outside project area, within radius:	70 3440 4175 6417

Resource Database Printout (list):	☐ enclosed	☐ not requested	☒ nothing listed/NA
Resource Database Printout (details):	☒ enclosed	☐ not requested	☐ nothing listed/NA
Resource Digital Database Records:	☐ enclosed	☒ not requested	☐ nothing listed/NA
Report Database Printout (list):	☐ enclosed	☒ not requested	☐ nothing listed/NA
Report Database Printout (details):	☒ enclosed	☐ not requested	☐ nothing listed/NA
Report Digital Database Records:	☐ enclosed	☒ not requested	☐ nothing listed/NA
Resource Record Copies:	☒ enclosed	☐ not requested	☐ nothing listed/NA
Report Copies:	☒ enclosed	☐ not requested	☐ nothing listed/NA
Built Environment Resources Directory:	☒ enclosed	☐ not requested	☐ nothing listed/NA
Archaeological Determinations of Eligibility:	☐ enclosed	☐ not requested	☒ nothing listed/NA
CA Inventory of Historic Resources (1976):	☐ enclosed	☐ not requested	☒ nothing listed/NA

Caltrans Bridge Survey:	☐ enclosed	☒ not requested	☐ nothing listed/NA
Ethnographic Information:	☐ enclosed	☒ not requested	☐ nothing listed/NA
Historical Literature:	☐ enclosed	☒ not requested	☐ nothing listed/NA
Historical Maps:	☐ enclosed	☒ not requested	☐ nothing listed/NA
Local Inventories:	☐ enclosed	☒ not requested	☐ nothing listed/NA
GLO and/or Rancho Plat Maps:	☐ enclosed	☒ not requested	☐ nothing listed/NA
Shipwreck Inventory:	☐ enclosed	☒ not requested	☐ nothing listed/NA
Soil Survey Maps:	☐ enclosed	☒ not requested	☐ nothing listed/NA

Please forward a copy of any resulting reports and resource records from this project to NCIC as soon as possible. The lead agency/authority and cultural resources consultant should coordinate sending documentation to NCIC. Please note that local planning agencies rarely, if ever, send reports and resource records to our office. Digital materials are preferred and can be sent to our office through our file transfer system or on a CD by mail via USPS to the address on the top of the first page. Hard copies may also be mailed. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, it is possible that not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the California Historical Resources Information System (CHRIS) Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the records search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Sincerely,

Paul Rendes, Coordinator
North Central Information Center