DRAFT

Initial Study and Mitigated Negative Declaration

Simplot Growers Facility Expansion Project

Lead Agency:

City of Orland
815 Fourth Street
Orland, California 95963

July 2018

30 YEARS

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

DRAFT

Initial Study and Mitigated Negative Declaration
Simplot Growers Facility
Expansion Project

July 2018

Lead Agency:

City of Orland
815 Fourth Street
Orland, CA 95963

Prepared by:

55 Hanover Lane
Suite A
Chico, California 95973

THIS PAGE INTENTIONALLY LEFT BLANK

DRAFT MITIGATED NEGATIVE DECLARATION
SIMPLOT GROWERS FACILITY EXPANSION PROJECT

Lead Agency:	City of Orland
Project Proponent:	J. R. Simplot Company
Project Location:	The Project is located in the City of Orland at 1536 Railroad Avenue. The Project is bordered by the California Northern railroad tracks to the west, existing industrial and commercial uses to the north, Railroad Avenue to the east, and Eucalyptus/County Road 18 to the south (Figure 1. Project Vicinity and Figure 2 Site Location). The approximate center of the site is located at latitude 39˚44'05" N and longitude 122˚44'44" W.
Project Description:	The Project proposes the expansion of an existing agricultural fertilizer industrial use. The Project has submitted multiple applications to the City including applications for an annexation, a lot line adjustment/merger, a pre-zone, a rezone, and a conditional use permit. The Project would include the expansion of the existing chemical warehouse and a new office, dry barn, tank farm, wash station, and a blend plant.
Public Review Period:	To be determined

Mitigation Measures Incorporated into the Project to Avoid Significant Effects:

Biological Resources

BIO-1: A certified biologist shall conduct a preconstruction nesting bird survey of all suitable habitat on the project within 14 days of the commencement of construction during the nesting season (February 1 - August 31). Surveys should be conducted within 300 feet of the Project for nesting raptors, and 100 feet of the Project for nesting songbirds. If active nests are found, a no-disturbance buffer around the nest shall be established. The buffer distance shall be established by a biologist in consultation with CDFW or the CEQA lead agency. The buffer shall be maintained until the fledglings are capable of flight and become independent of the nest tree, to be determined by a qualified biologist. Once the young are independent of the nest, no further measures are necessary. Preconstruction nesting surveys are not required for construction activity outside the nesting season.

Timing/Implementation: *Within 14 days prior to grading and construction activities occurring during nesting season (February 1 through August 31)*

Monitoring/Enforcement: *City of Orland*

Cultural Resources

CUL-1: If subsurface deposits believed to be cultural or human in origin are discovered during grading and construction activities, all work must halt within a 100-foot radius of the discovery and the construction manager shall immediately notify the City of Orland. The Project applicant shall retain a qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:

- If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately and no agency notifications are required.
- If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, he or she shall immediately notify the lead agency and applicable landowner. The agencies shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be eligible for inclusion in the NRHP or CRHR. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: 1) is not eligible for the NRHP or CRHR; or 2) that the treatment measures have been completed to their satisfaction.
- If the find includes human remains, or remains that are potentially human, he or she shall ensure reasonable protection measures are taken to protect the discovery from disturbance (Assembly Bill [AB] 2641). The archaeologist shall notify the Placer County Coroner (as per § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California Public Resources Code, and AB 2641 will be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the Project (§ 5097.98 of the Public Resources Code). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (§ 5097.94 of the Public Resources Code). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the Public Resources Code). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

Timing/Implementation: *During construction*

Monitoring/Enforcement: *City of Orland Planning Department*

CUL-2 If paleontological or other geologically sensitive resources are identified during any phase of project development, the construction manager shall cease operation at the site of the discovery and immediately notify the City of Orland. The Project applicant shall retain a qualified paleontologist to provide an evaluation of the find and to prescribe mitigation measures to reduce impacts to a less-than-significant level. In considering any suggested mitigation proposed by the consulting paleontologist, the City shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, land use assumptions, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while mitigation for paleontological resources is carried out.

Timing/Implementation: *During construction*

Monitoring/Enforcement: *City of Orland Planning Department*

Tribal Cultural Resources

Implement mitigation measure CUL-1.

CONTENTS

LIST OF TABLES

LIST OF FIGURES

ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
A.D.	Anno Domini
ADWF	Average dry weather flow
AF	Acre-feet
AMSL	Above mean sea level
APN	Accessor Parcel Number
ATV	All-Terrain Vehicle
AQMP	Air Quality Management Plan
BMPs	Best Management Practices
BRA	Biological Resource Assessment
C-2	Community Commercial
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CCTS	Central California Taxonomic System
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CGS	California Geological Society
CH_4	Methane
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
CRHR	California Register of Historic Places
CRPR	California Rare Plant Rank
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
dBA	A-weighted decibels
DEIR	Draft Environmental Impact Report
DOC	California Department of Conservation
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
ECHO	Enforcement and Compliance History Online
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map

ACRONYMS AND ABBREVIATIONS

FMMP	Farmland Mapping and Monitoring Program
GCAPCD	Glenn County Air Pollution Control District
GHGs	Greenhouse Gases
GICIMA	Groundwater Information Center Interactive Map Application
gpd	Gallons per day
I-5	Interstate Highway 5
I-H	Heavy Industrial
lbs./day	Pounds per day
L_{dn}/CNEL	Day Night Average Sound Level / Community Noise Equivalent Level
L_{eq}	Equivalent Continuous Sound Level
LOS	Level of Service
M	Industrial
MCAQMD	Mendocino County Air Quality Management District
mgd	Million gallons per day
M-H	Heavy Industrial
M-L	Light Industrial
MND	Mitigated Negative Declaration
MRZ	Mineral Resource Zones
MSL	Mean sea level
MTBA	Migratory Bird Treaty Act
NAHC	Native American Heritage Commission
NEIC	Northeastern Information Center
NESHAP	National Emission Standards for Hazardous Air Pollutants
ND	Negative Declaration
NPDES	National Pollutant Discharge Elimination System
N_2O	Nitrous Oxide
NO_x	Nitrogen Oxides
NOI	Notice of Intent
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSVAB	Northern Sacramento Valley Air Basin
OEHHA	Office of Environmental Health Hazard Assessment
OHP	California Office of Historic Preservation
OPD	Orland Police Department
OPR	California Office of Planning and Research
OUSD	Orland Unified School District
OVFD	Orland Volunteer Fire Department
PM_{10} and $PM_{2.5}$	Particulate Matter
R-1	Residential One-Family
RE-2	Residential Estate – 2-acre minimum

ACRONYMS AND ABBREVIATIONS

RE-5	Residential Estate – 5-acre minimum
ROG	Reactive Organic Gases
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
USACE	United States Army Corps of Engineers
SCH	State Clearinghouse
SDWA	Safe Drinking Water Act
SGMA	Sustainable Groundwater Management Act
SIP	State Implementation Plan
SMARA	Surface Mining and Reclamation Act of 1975
SR	State Route
SRA	Sensitive Receptor Area
SSC	Species of special concern
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
UCMP	California Museum of Paleontology
USGS	United States Geological Service
USFWS	United States Fish and Wildlife Service

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 1.0 BACKGROUND

1.1 Summary

Project Title:	Simplot Growers Facility Expansion Project
Lead Agency Name and Address:	City of Orland 815 Fourth Street
Contact Person and Phone Number:	Scott Friend, (530) 865 1608
Project Location:	City of Orland, at 1536 Railroad Avenue. Accessors Parcel Number(s): 046-260-002, 046-260-003, 046-260-006 and 046-260-048. The site is located in Section 27, Township 22 North, and Range 3 West of the Mount Diablo Base and Meridian. The approximate center of the site is located at latitude 39˚44'05" N and longitude 122˚44'44" W.
General Plan Designation:	Heavy Industrial (I-H)
Zoning:	Currently Light Industrial (M-L) for APNs 046-260-002, 046-260-003, and 046-260-048 which will be rezoned to Heavy Industrial (M-H) and a request for prezone of 046-260-006 to Heavy Industrial (M-H)

1.2 Introduction

The City of Orland is the Lead Agency for this Initial Study. The Initial Study has been prepared to identify and assess the anticipated environmental impacts of the Simplot Growers Facility Expansion Project (Project or Proposed Project). This document has been prepared to satisfy the California Environmental Quality Act (CEQA) (Pub. Res. Code, Section 21000 *et seq.*) and State CEQA Guidelines (14 CCR 15000 *et seq.*). CEQA requires that all state and local government agencies consider the environmental consequences of Projects over which they have discretionary authority before acting on those Projects. A CEQA Initial Study is generally used to determine which CEQA document is appropriate for a Project (Negative Declaration [ND], Mitigated Negative Declaration [MND], or Environmental Impact Report [EIR]).

1.3 Project Location

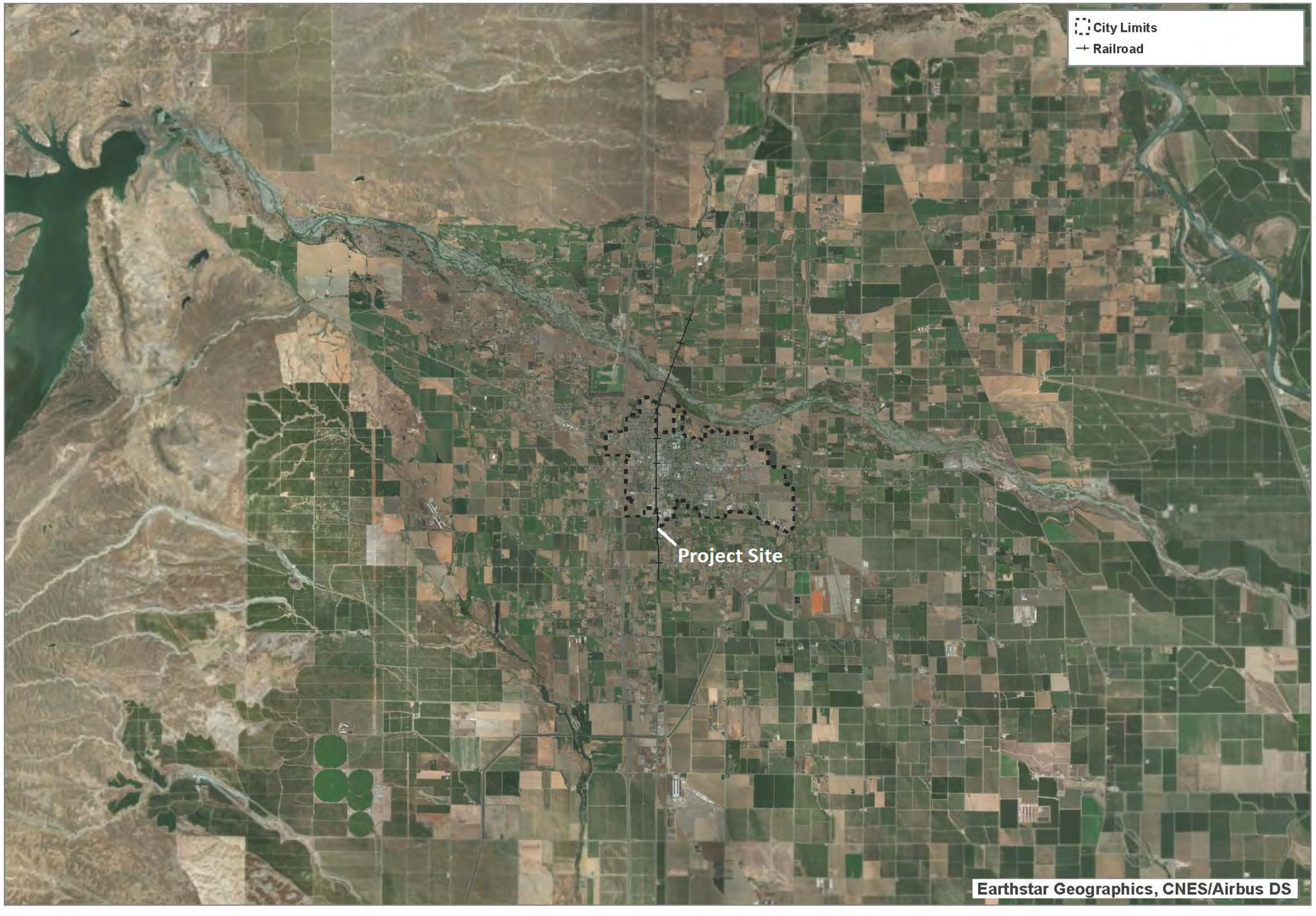
As illustrated in Figure 1. Project Vicinity and Figure 2. Site Location maps, the ±7.5-acre Proposed Project site is located at 1536 Railroad Avenue in the City of Orland.

1.4 Surrounding Land Uses/Environmental Setting

The Proposed Project is located in the southern portion of the City of Orland. The site is occupied by the existing Simplot Growers Facility (approximately 3.3 acres) and an adjacent 4.2-acre vacant parcel. The

vacant parcel is currently disturbed mowed grassland. South of the Project site is the Irvin Trucking commercial lot, rural residential, and agricultural uses. An agricultural canal (Canal #30) flows through the area south of the Project site. This area is in Glenn County jurisdiction and is zoned Rural Residential Estate (RE-2) and Industrial (M). West of the Project site are the railroad tracks of the California Northern Railroad, County Road 99W, agricultural land, industrial uses, and a mobile home park. This area is also within Glenn County jurisdiction and is zoned Industrial (M). North of the site is an almond processing plant, a trucking company, and a feed and grain store. The area north of the Project site is zoned Light Industrial (M-L) by the City. East of the site is Railroad Avenue, a trucking company lot, vacant land currently used for truck storage and rural residential uses. This area is currently within Glenn County jurisdiction and is zoned M and RE-5. Within the City boundary and also east of the Project site are rural residential uses, vacant land, and additional uses of the almond processing plant. This area is zoned Community Commercial (C-2), Residential One-Family (R-1) and M-L. See Figure 3. Aerial View.

City of Orland
Planning Information Lookup



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure 1. Project Vicinity
2018-087 Simplot Growers Facility

THIS PAGE INTENTIONALLY LEFT BLANK

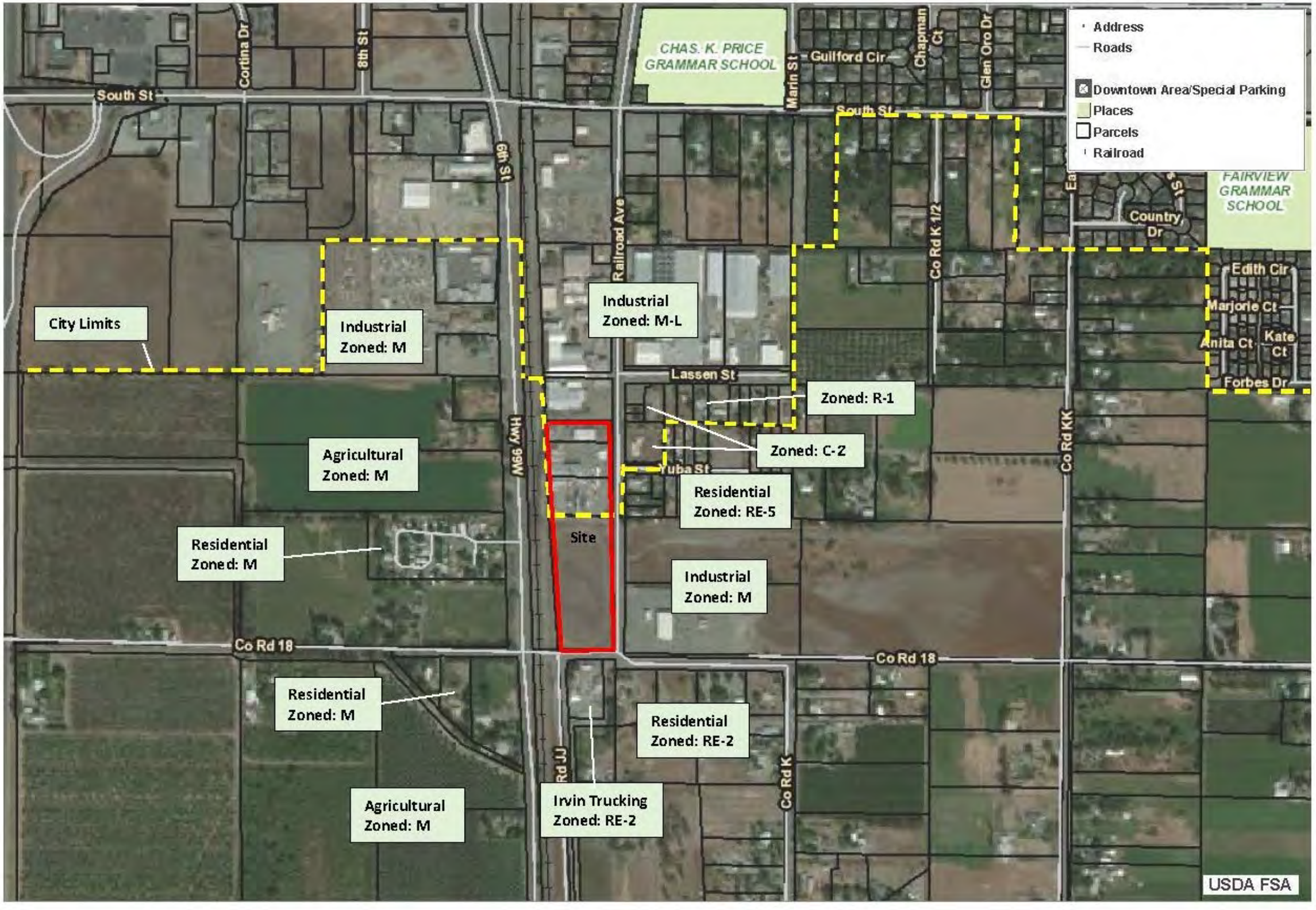
City of Orland
Planning Information Lookup

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure **2**. Project **Location**
2018-087 Simplot Growers Facility

THIS PAGE INTENTIONALLY LEFT BLANK

City of Orland
Planning Information Lookup



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure **3. Aerial**
2018-087 Simplot Growers Facility

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 2.0 PROJECT DESCRIPTION

2.1 Project Background

Simplot Grower Solutions is owned by the J.R. Simplot Company based in Boise, Idaho. J.R. Simplot is one of the largest privately owned food and agribusiness companies in the United States. The Orland location is a supplier and distributer of crop production fertilizers and chemicals. The facility distributes to farmers within an approximately 100-mile radius. The existing facility has operated at its current location for approximately 36 years. The Proposed Project is the expansion of these facilities on adjacent land south of the existing site.

2.2 Project Characteristics

The City of Orland has received a request for the expansion of the existing Simplot Grower Solutions facility. Development of the Project as proposed would include a site plan review, the annexation of one parcel to the City, a prezone, a rezone, and a lot line adjustment. Additionally, the Project would require the modification of an existing Conditional Use Permit to allow for expansion of the agricultural industrial use.

The Proposed Project is located on approximately ±7.5-acres of land, currently identified as four separate parcels (APNs 046-260-002, 046-260-003, 046-260-006 and 046-260-048). One of the parcels (APN 046-260-006) is currently outside of city boundaries and will require annexation by the City (see Figure 4. Parcel Map).

The Project site is within the City's I-H (Heavy Industrial) General Plan land use designation and the northern portion of the site is in the City and is zoned M-L (Light Industrial), while the parcel outside of the city boundaries is currently zoned M (Industrial) by Glenn County.

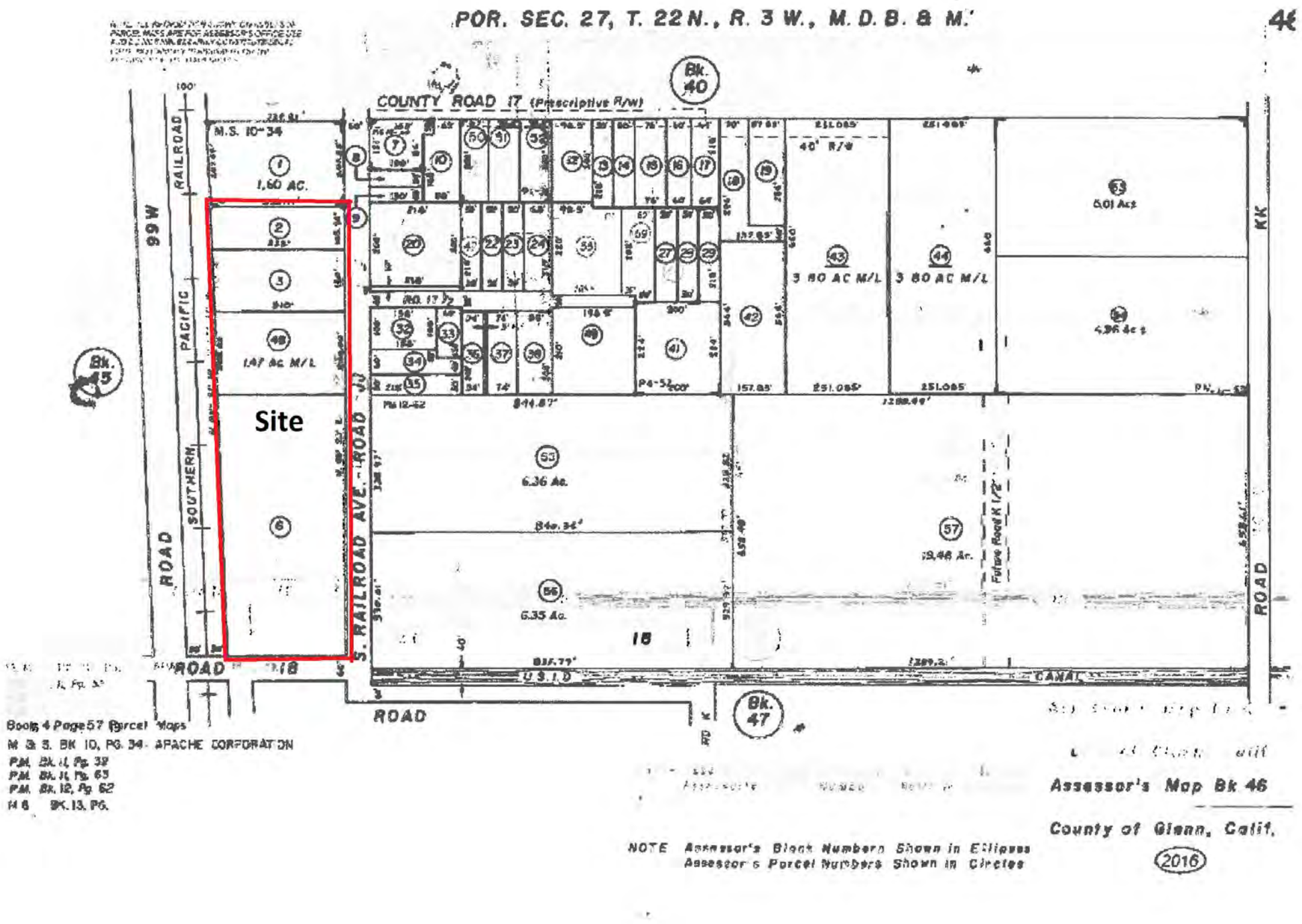
The topography of the site is flat with little elevation change, varying from approximately 247 feet to 249 feet above mean sea level (AMSL) over the ±7.5-acre site.

2.2.1 Existing Uses

The Simplot Grower Solutions existing facility includes a 5,000-sq. ft. chemical warehouse, a 15,000-sq. ft. dry plant, a 1,600-sq. ft. office, a truck scale, chemical storage tanks, and railroad spurs. The site also includes parking for the numerous company trucks and trailers used on a daily basis, as well as employee and visitor parking. The site is flat and open areas are either covered with gravel or paved. The site is surrounded by a six-foot chain link fence. Figure 5. Existing Uses shows the location of existing uses at the Project site and the new areas of the Proposed Project. Of the ±7.5-acre site, 3.3 acres are fully disturbed with exiting uses, while the remaining 4.19 acres are vacant land.

Operational hours are from 7:00 am to 5:00 pm, six days per week, twelve months per year. As of April 1, 2018, the facility had 14 full-time employees. The facility averages approximately 48 truck deliveries per day and receives on average 10 customers at the site per day.

THIS PAGE INTENTIIONALLY LEFT BLANK



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure **4. Parcel Map**
2018-087 Simplot Growers Facility

THIS PAGE INTENTIIONALLY LEFT BLANK

2.2.2 Proposed Development

The Project proposes the expansion of the existing agricultural fertilizer manufacturing use (see Figure 6a Concept Plan and Figure 6b Site Master Plan). The Project will include the expansion of the existing chemical warehouse and new uses as follows:

Use	Dimensions
Chemical Warehouse Expansion	50 ft. X 50 ft. (2,500 sq. ft.)
Cover Bulk Chemical Structure	15 ft. X 50 ft. (750 sq. ft.)
Three chemical storage tanks	10 ft. X 30 ft. (300 sq. ft.)
Future 3,000-Ton Dry Plant and Future Dry Load Out Building	120 ft. X 145 ft. (17,400 sq. ft.)
Blend Plant Building	
Blend Plant	50 ft. X 80 ft. (4,000 sq. ft.)
Liquid Receiving	20 ft. X 80 ft. (1,600 sq. ft.)
Liquid Load Out and	40 ft. X 80 ft. (3,200 sq. ft.)
Storage Tank areas	80 ft. X 80 ft. (6,400 sq. ft.) Three 7,500 gal tanks Twelve 30,000 gal tanks
Office Building	40 ft. X 100ft. (4,000 sq. ft.)
300K gal Tanks	Six proposed tanks, two future tanks
Wash Station	One
Visitor Parking Lot	11 stalls
Employee Parking Lot	32 stalls
Equipment Parking Areas	Two

With the addition of the new facilities, the Proposed Project anticipates between 15 and 20 total employees at the site or an increase of one to six new employees. In addition, the site will average approximately 13 customers per day. The Proposed Project anticipates 25 vehicles used for product delivery resulting in approximately 64 deliveries (128 trips, departure and return), which is an increase of 16 deliveries (32 trips) over existing conditions. These trips are as follows:

Type of Vehicle	Number on Site	Deliveries per Day per Vehicle	Total Deliveries	Total Trips (delivery and return)	Existing Trips (delivery and return)	Difference
Semi-Truck w/ Trailer	7	3	21	42	32	10
Ten-Wheeler Truck	1	3	3	6	4	2
2-Ton Truck	1	3	3	6	4	2
1-Ton Delivery Truck	3	3	9	18	14	4

Type of Vehicle	Number on Site	Deliveries per Day per Vehicle	Total Deliveries	Total Trips (delivery and return)	Existing Trips (delivery and return)	Difference
¾-Ton Service Truck	2	3	6	12	8	4
½-Ton Pickup truck	11	2	22	44	34	10
Total:	25	-	64	128	96	32

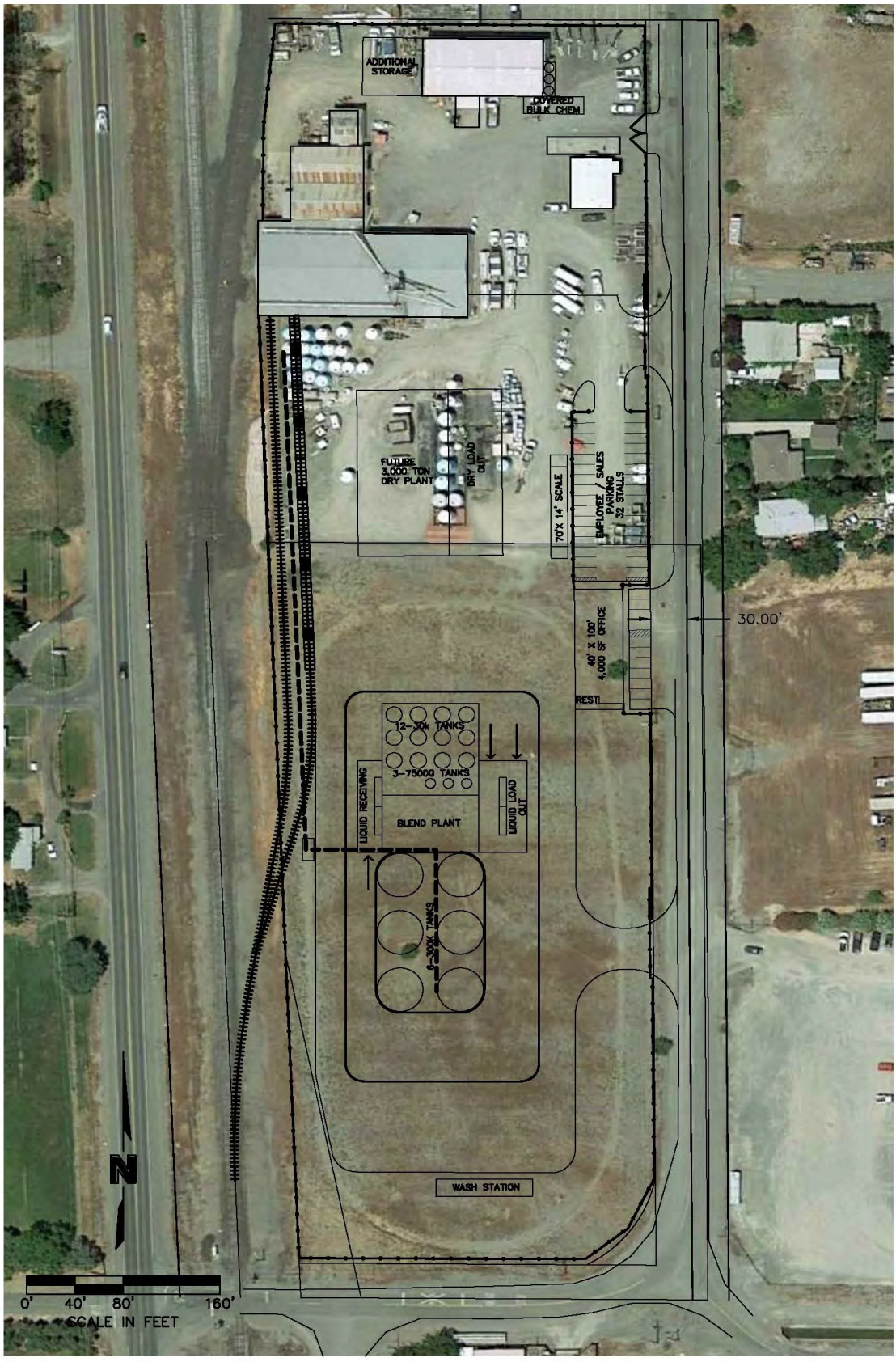
Potable water to the Project is supplied by the City and demand is expected to increase from 184,000 gallons annually to 368,000 gallons annually with the development of the Proposed Project. Peak monthly demand is expected to increase from 27,500 gallons to 55,000 gallons.

The Proposed Project includes a truck rinse pad, which is used to clean any fertilizer residue from the trucks and trailers prior to leaving the site. The rinse water is collected in a holding tank. When the tank is full, the rinse water is tested by a laboratory and then agronomically applied as part of a fertilization program to a farmer's crop located in the area.

Project Construction Timing, Stormwater, and Grading

Construction of the Proposed Project is anticipated to begin in 2019 and be completed by the fall of 2021. As shown below, the civil work, grading, and office construction are to be completed in 2019 while the tank farm and dry warehouse are to be completed during 2020 and 2021.

#	Project Description	Construction Year
1	Civil Work	2019
2	PGE Service	2019
3	Pond and Grading	2019
4	Utilities (Gas, Electric, Fire System, etc.)	2019
5	Office, Scale, Parking Lot	2019
6	Tank Farm and Equipment	2020
7	Dry Warehouse	2021



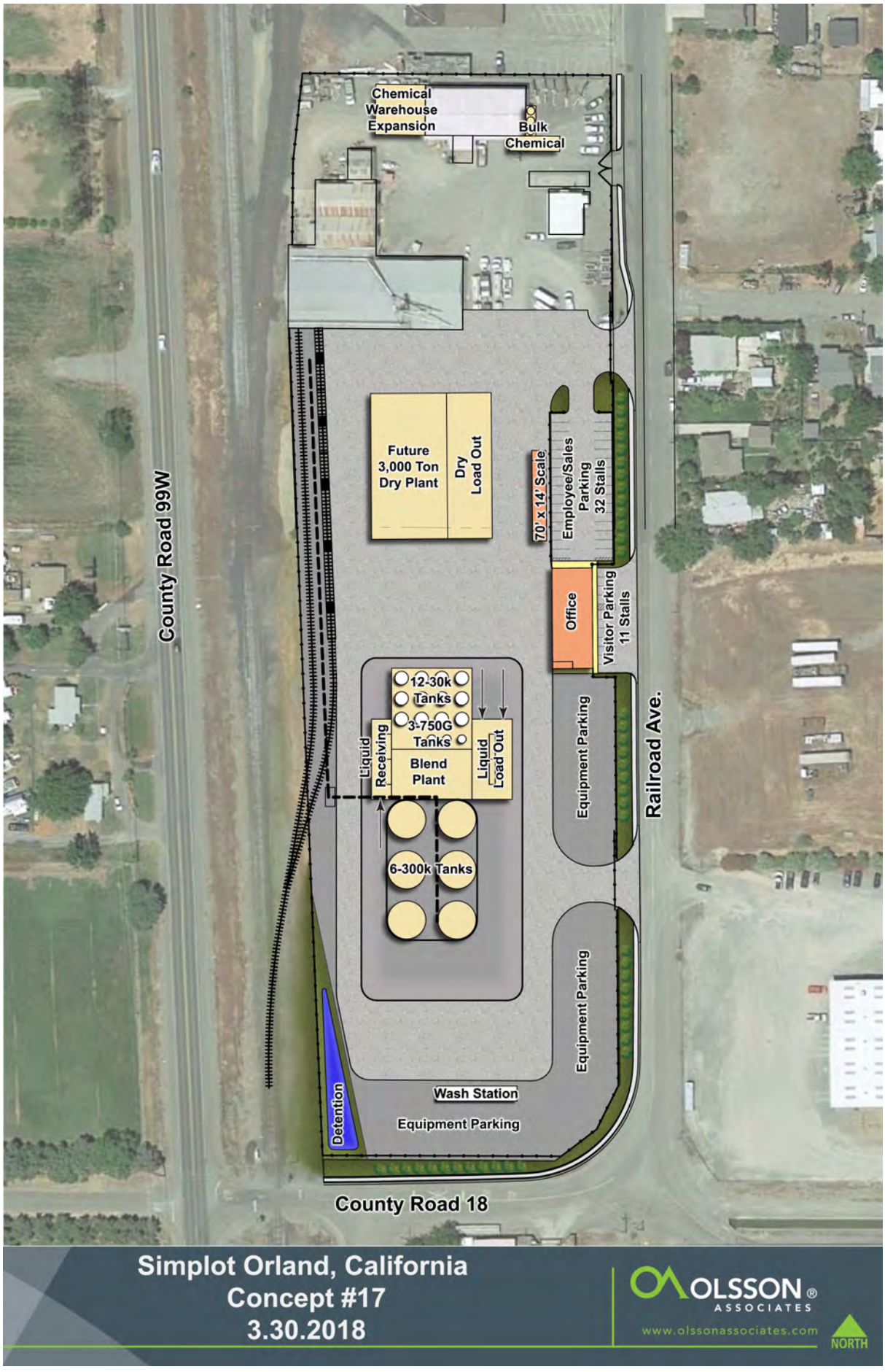
DWG: F:\2017\3001-3500\017-3398\40-Design\Graphics\Conceptual Plans\Orland\18-03-14_GNCV_Concept 16.dwg USER: mgreufe
DATE: Mar 14, 2018 9:55am XREFS: 73398_XBASE 3000 Ton Plant

PROJECT NO: 017-3398 DRAWN BY: MRG DATE: 03.14.18	SIMPLOT ORLAND, CA	OLSSON ASSOCIATES 601 P Street, Suite 200 P.O. Box 84608 Lincoln, NE 68508 TEL 402.474.6311 FAX 402.474.5160	EXHIBIT 1

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure 5. **Existing Uses**
2018-087 Simplot Growers Facility

THIS PAGE INTENTIONALLY LEFT BLANK

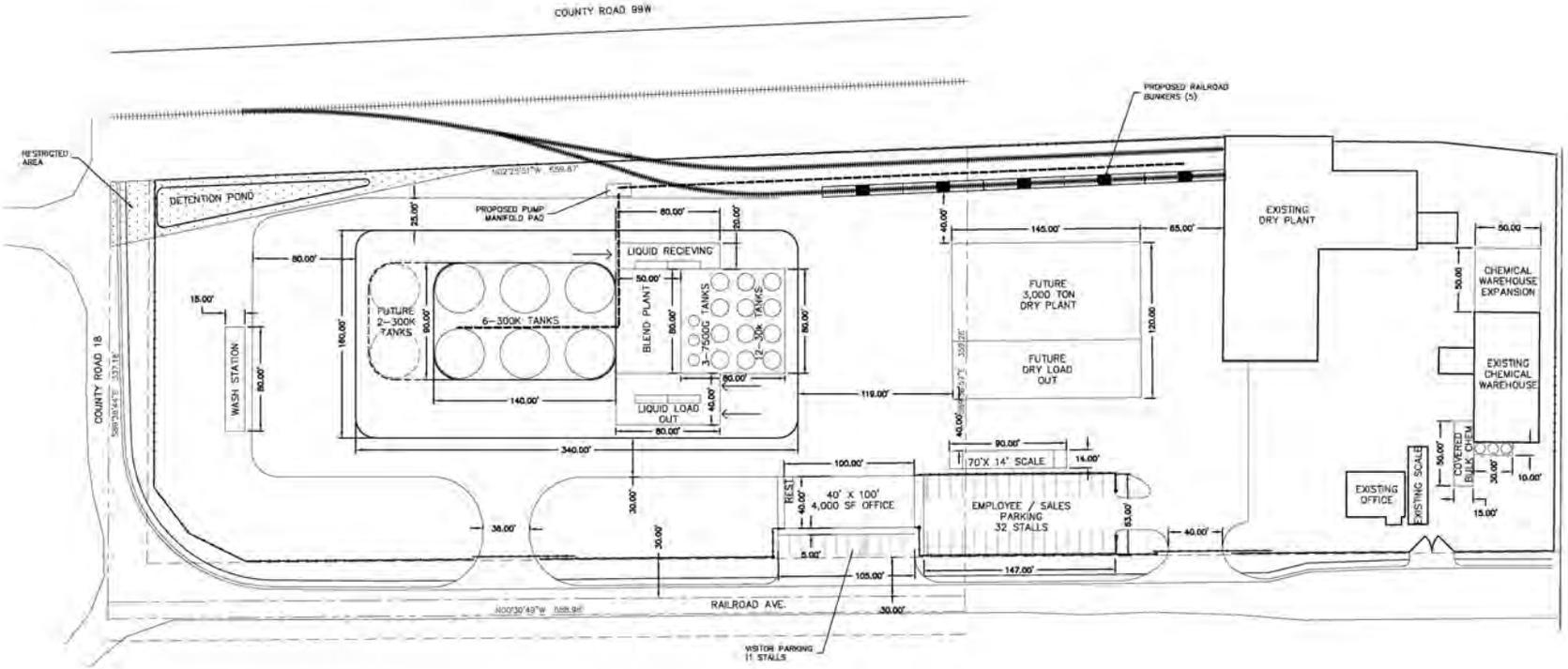


ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure **6a**. **Concept Plan**
2018-087 Simplot Growers Facility

THIS PAGE INTENTIONALLY LEFT BLANK

SITE MASTER PLAN
SIMPLOT



OLSSON ASSOCIATES

REVISIONS

SITE MASTER PLAN
SIMPLOT
ORLAND, CA
2018

SHEET 1 of 1

THIS PAGE INTENTIONALLY LEFT BLANK

The Proposed Project includes the development of a stormwater detention pond on the southwestern border of the Project site. This detention pond will be sized to accommodate the southern portion of the Project site's stormwater flows.

As previously stated, the topography of the site is flat with little elevation change, varying from approximately 247 feet to 249 feet AMSL over the ±7.5-acre site. The proposed finish grade for the Project is 248 feet AMSL. As a result, the Project will require minor grading with a slight slope to the south for the southern portion of the Project site to allow rainwater to flow into the proposed stormwater detention pond. The northern portion of the site will be graded to allow stormwater to flow to the east into existing and proposed inlets into the City's existing storm drain system.

2.3 Regulatory Requirements, Permits, and Approvals

The following approvals and regulatory permits would be required for implementation of the Proposed Project.

2.3.1 Lead Agency Approval

As the lead agency, the City of Orland has the ultimate authority for project approval or denial. The Proposed Project may require the following discretionary approvals and permits by the City for actions proposed as part of the Project:

- Adoption of the Initial Study/Mitigated Negative Declaration
- Approval of Annexation
- Approval of project site prezone to M-H, Heavy Industrial
- Approval of project site rezone to M-H, Heavy Industrial
- Approval of architectural designs and landscape plans
- Approval of Lot Line Adjustment/Merger
- Grading and building permits
- Site Plan approval
- Approval of Use Permit

In addition to the above City actions, the Project may require approvals, permits, and entitlements from other public agencies for which this Initial Study may be used, including, without limitation, the following:

- California Department of Fish and Wildlife, Region 2
- California Department of Transportation, District 3
- Regional Water Quality Control Board, Central Valley Region (Region 5)
- Glenn County Air Pollution Control District

- Glenn County Environmental Health
- Glenn County Local Agency Formation Commission
- State Water Resources Control Board
- U.S. Fish and Wildlife Service

2.4 Relationship of Project to Other Plans and Projects

2.4.1 City of Orland General Plan

California state law requires cities and counties to prepare a general plan describing the location and types of desired land uses and other physical attributes in the city or county. General plans are required to address land use, circulation, housing, conservation, open space, noise, and safety. The Orland General Plan is the City's basic planning document and provides a comprehensive, long-term plan for physical development in the city. As previously stated, the City General Plan designates the Project site as Heavy Industrial. The City established the Heavy Industrial land use designation to allow up to 70 percent building coverage and up to 100 percent paved coverage for parking and storage. Typical uses would include warehousing, technical support offices, fabrication, combustion turbine technology power plants (natural gas power plants), and assembly uses. Other uses would be appropriate pending discretionary review and application of performance standards to determine compatibility with existing industrial uses (City of Orland 2010a).

2.4.2 Zoning Ordinance

The Zoning Ordinance implements the policies of the General Plan by classifying and regulating the land uses and associated development standards in the city. The Project site currently within the City boundaries is zoned Light Industrial (M-L). However, approval of the Project by the City Council would result in the annexation by the City of one parcel and a rezone of the entire Project site to Heavy Industrial (M-H).

2.5 Consultation with California Native American Tribe(s)

No California Native American tribes traditionally and culturally affiliated with the Project area have submitted written requests to receive notification of the City of Orland's projects pursuant to Public Resources Code section 21080.3.1. Further information on potential Tribal Cultural Resources in the Project area is provided in Section 4.18 of this Initial Study.

SECTION 3.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED AND DETERMINATION

3.1 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Hazards/Hazardous Materials	☐ Public Services
☐ Agriculture and Forestry Resources	☐ Hydrology/Water Quality	☐ Recreation
☐ Air Quality	☐ Land Use and Planning	☐ Transportation/Traffic
☒ Biological Resources	☐ Mineral Resources	☒ Tribal Cultural Resources
☒ Cultural Resources	☐ Noise	☐ Utilities and Service Systems
☐ Geology and Soils	☐ Paleontological Resources	☐ Mandatory Findings of Significance
☐ Greenhouse Gas Emissions	☐ Population and Housing	

Determination

On the basis of this initial evaluation:

I find that the Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared. ☐

I find that although the Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Project have been made by or agreed to by the Project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared. ☒

I find that the Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required. ☐

I find that the Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed. ☐

I find that although the Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the Project, nothing further is required. ☐

[signature] on behalf of — 7/6/18

Peter R. Carr
City Manager

Date

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 4.0 ENVIRONMENTAL CHECKLIST AND DISCUSSION

4.1 Aesthetics

4.1.1 Environmental Setting

Scenic views available from the Project site include the Coast Range to the west, and on clear days the Cascade and Sierra Nevada mountains and foothills to the east and northeast.

Regional Setting

The City's General Plan Draft Environmental Impact Report (DEIR) (2010b) identifies views of the Coast Range and the Black Butte Recreation Area, Mount Lassen and the Cascade and Sierra mountains, and Stony Creek, as the most significant natural scenic resource within the Planning Area of the City. The General Plan does not include any policies for the protection of views or identify any viewsheds, or scenic vistas that should be protected.

State Scenic Highways

The intent of the California Scenic Highway Program is to protect and enhance the scenic beauty of California's highways and adjacent corridors. A highway can be designated as scenic based on how much natural beauty can be seen by users of the highway, the quality of the scenic landscape, and if development impacts the enjoyment of the view. No officially designated scenic highways are located within the vicinity of the Project site (Caltrans 2018).

Visual Character of the Project Site

The topography of the Project is flat, with elevations ranging from 247 to 249 feet AMSL. Approximately 40 percent of the Project site is currently occupied by the existing facilities of the Simplot Grower Solutions enterprise. The 4.19 acres of unoccupied vacant land is composed of annual grassland. This area has been disturbed and used for motorcycle and ATV riding in the recent past and remains of a dirt track can be seen on the site.

Lighting

Individuals have a range of reactions to the perceived effects of lighting on the environment. As such, whether light is obtrusive is generally based on perception, but is also a function of the actual amount of light emitted from a source. The following are examples of light levels, expressed in foot-candles:[1]

- Direct sunlight - 10,000
- Full daylight - 1,000

[1] Foot-candle (fc): A unit of measure of the intensity of light falling on a surface, equal to one lumen per square foot and originally defined with reference to a standardized candle burning at one foot from a given surface. One fc = 0.01609696 watts. Source of examples: Source: Engineering Toolbox, n.d.

- Twilight - 1
- Full moon - 0.1
- Covered parking lot - 5
- Gas station canopy - 12.5
- Department store - 40
- Grocery store – 50

Typical nighttime street lighting requirements are 1- to 3 foot-candles, which is generally considered to be unobtrusive. Glare created by sports-lighting systems can be measured for impairment of view. A typical example of glare effects is the car headlight. When viewed directly in front of a vehicle with the headlights on full beam, vision is impaired, resulting in disabling glare. However, when viewed from the side, the same headlights would not impair vision.

Spill Light—Spill light or light trespass is the light that illuminates surfaces beyond the property line. Typically, spill lighting is from a more horizontal source such as streetlights and way-finding/security lighting than sky glow, which emanates from a more vertical source into the atmosphere. Spill light can be accurately calculated and the effects of spill light can be measured for general understanding and comparison. However, light that is considered to be obtrusive is a subject of debate. A spill light impact is generally considered significant if the increase in spill lighting would exceed one foot-candle at the property line of the nearest sensitive receptor, sky glow is perceptibly increased, or glare is at a level such that it impairs vision.

Sky Glow—Sky glow is the light that illuminates the sky above the horizon and reflects off moisture and other tiny particles in the atmosphere. Sky glow would be considered a significant impact if it were a permanent addition to the environment. Additionally, in the case of the Proposed Project, a significant impact could occur if the proposed field lighting were uncontrolled and would significantly increase sky glow. Control features are available on the light sources to reduce sky glow and glare from nighttime lighting. These control features direct light downward, thereby reducing the spill of light that causes sky glow, and reducing glare.

Glare—Glare can be described as direct or reflected light, which can then result in discomfort or disability. A well-designed lighting system controls light to provide maximum useful on-field illumination with minimal destructive offsite glare.

4.1.2 Aesthetics (I) Environmental Checklist and Discussion

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒

While the City's General Plan DEIR identifies views of the Coast Range and the Black Butte Recreation Area, Mount Lassen and the Cascade and Sierra mountains, and Stony Creek, the General Plan does not include any policies for the protection of views or identify any viewsheds, or scenic vistas that should be protected. Distant views of the Coast Range can be seen from the Project site and surrounding area. However, these views are fragmented by existing development and natural features such as trees and hills.

The Orland General Plan does not identify any areas considered to be scenic vistas that need to be protected and preserved in the city. Additionally, the Project site is not considered to be in an area of significant visual qualities, nor do these areas have any significant visual features. Therefore, The Proposed Project would have no impact on scenic vistas.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒

The Proposed Project is not located within the vicinity of an officially designated scenic highway. No impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐

With full implementation of the Proposed Project, the visual character of the ±7.5-acre site would change from industrial uses and vacant land to a fully developed industrial site. The Project site is located in the southern portion of the city and is bounded by a combination of industrial uses to the north, the Irvin Trucking commercial lot, rural residential, and agricultural uses to the south, the railroad tracks, County Road 99W, agricultural land, industrial uses, and a mobile home park to the west and Railroad Avenue, a trucking company lot, vacant land currently used for truck storage, and rural residential uses to the east.

The Orland General Plan land use diagram identifies the site to be used for Heavy Industrial. While expansion of the Simplot Grower Solutions facility would increase the intensity of use on the site and in the area, this use in not out of character with those intended Heavy Industrial uses identified in the General Plan for the area. As such, the Proposed Project would not substantially degrade existing visual character or quality of the site and its surroundings and therefore, would have a less than significant impact.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d)	Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Construction Lighting

No new light or glare sources visible beyond the Project site would be introduced during construction of the Proposed Project. All construction work will be performed during normal daylight construction hours, thereby eliminating any need for temporary light sources necessary for nighttime work.

Project Operational Lighting and Glare

The Proposed Project may result in a moderate increase of artificial light and glare into the existing environment. Potential sources of light and glare include external building lighting, parking lot lighting, security lighting, building windows, and reflective building materials. The introduction of new sources of light and glare may contribute to nighttime light pollution and result in impacts to nighttime views in the area.

All development of the Proposed Project would be subject to Orland Municipal Code Section 17.44.110, which requires the shielding of lighting to prevent illumination of the adjacent properties and to prevent glare or direct illumination of public streets, highways, and Interstate 5 (I-5), limits the height of light poles to the height of the main building, and requires suitable lights to properly illuminate any parking area.

Therefore, the Proposed Project would have a less than significant impact on aesthetics.

4.2 Agriculture and Forestry Resources

4.2.1 Environmental Setting

The California Department of Conservation (DOC) manages the Farmland Mapping and Monitoring Program (FMMP), which identifies and maps significant farmland. Farmland is classified using a system of five categories including Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Grazing Land. The classification of farmland as Prime Farmland, Unique Farmland, and Farmland of Statewide Importance is based on the suitability of soils for agricultural production, as determined by a soil survey conducted by the Natural Resources Conservation Service (NRCS). The DOC manages an interactive website, the California Important Farmland Finder. This website program identifies the Project site as being Urban and Built-Up Land (DOC 2018). The site is not subject to a Williamson Act contract (DOC 2016), and the site is zoned M-L in the City of Orland Zoning Ordinance. This zoning district is not intended for agricultural cultivation. The Project site contains no forest or timber resources, is not zoned for forestland protection or timber production. The entirety of the Project would occur on the existing ±7.5-acre site.

4.2.2 Agriculture and Forestry Resources (II) Environmental Checklist and Discussion

Would the Project:		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

The DOC (2018) identifies the Project site as Urban and Built-Up Land. The Project would have no impact in this area.

Would the Project:		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒

This site is not subject to a Williamson Act contract, and the site is zoned M-L in the City of Orland Zoning Ordinance and M in the Glenn County Zoning Ordinance. There are no Williamson Act contract lands within the vicinity of the Project site (DOC 2016). The Project would have no impact in this area.

Would the Project:		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
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))?	☐	☐	☐	☒

No forest lands exist on the Project site or within the vicinity of the Project. The Project would have no impact in this area.

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒

No forest lands exist on the Project site or within the vicinity of the Project. The Project would have no impact in this area.

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

There are agricultural uses adjacent to the site to the west across the California Northern railroad tracks and County Road 99W. However, the Project does not propose the extension of water and sewer facilities or other urban related uses such as roads or residential development that could lead to the conversion of agricultural land into urban uses. Additionally, the existing Simplot Growers Facility has been at the current location for 36 years and has not resulted in the loss of agricultural uses in the area. The Project would have no impact in this area.

4.2.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.3 Air Quality

4.3.1 Environmental Setting

The Proposed Project is located in Glenn County, which is in the Northern Sacramento Valley Air Basin (NSVAB). The NSVAB consists of a total of seven counties: Sutter, Yuba, Colusa, Butte, Glenn, Tehama, and Shasta. The NSVAB is bounded on the north and west by the Coastal Mountain Range and on the east by the southern portion of the Cascade Mountain Range and the northern portion of the Sierra Nevada range. These mountain ranges reach heights in excess of 6,000 feet AMSL, with individual peaks rising much higher. The mountains form a substantial physical barrier to locally created pollution as well as that transported northward on prevailing winds from the Sacramento metropolitan area.

Both the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) have established ambient air quality standards for common pollutants. These ambient air quality standards are levels of contaminants representing safe levels that avoid specific adverse health effects associated with

each pollutant. The ambient air quality standards cover what are called "criteria" pollutants because the health and other effects of each pollutant are described in criteria documents. The six criteria pollutants are ozone, carbon monoxide (CO), particulate matter (PM), nitrogen oxides (NOx), sulfur dioxide (SO2), and lead. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. Glenn County has been designated an attainment or unclassified (data insufficient to support any designation) area for all federal ambient air quality standards (CARB 2016). However, the county is designated a nonattainment area for state particulate matter less than 10 microns (PM10) standards (CARB 2016). The county is designated an attainment or unclassified area for all other state ambient air quality standards (CARB 2016).

The regional air quality regulating authority is the Glenn County Air Pollution Control District (GCAPCD). The GCAPCD monitors air quality in the county, and serves as the lead agency responsible for implementing and enforcing federal, state, and Glenn County air quality regulations. Air pollution sources in the county include seasonal burning of agricultural fields, dust from agricultural operations, and motor vehicle emissions.

4.3.2 Air Quality (III) Environmental Checklist and Discussion

Would the Project:		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒

As part of its enforcement responsibilities, the EPA requires each state with nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. Similarly, under state law, the California Clean Air Act requires an air quality attainment plan (AQAP) to be prepared for areas designated as nonattainment with regard to the federal and state ambient air quality standards. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

The North Sacramento Valley Planning Area (NSVPA) 2015 Air Quality Attainment Plan is the most recent air quality planning document covering Glenn County. SIPs are a compilation of new and previously submitted plans, programs (such as monitoring, modeling, and permitting), district rules, state regulations, and federal controls describing how the state will attain ambient air quality standards for ozone and particulate matter. State law makes CARB the lead agency for all purposes related to the SIP. Local air districts prepare SIP elements and submit them to CARB for review and approval. The NSVPA 2015 Air Quality Attainment Plan includes forecast reactive organic gases (ROG) and nitrogen oxides (NO_x) emissions (ozone precursors) for the entire NSVPA region through the year 2020. These emissions are not appropriated by county or municipality.

Criteria for determining consistency with the 2015 Air Quality Attainment Plan (AQAP) are defined by the following indicators:

- Consistency Criterion No. 1: The proposed project would not result in an increase in the frequency or severity of existing air quality violations, or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQAP.
- Consistency Criterion No. 2: The proposed project would not exceed the assumptions in the AQAP or increments based on the years of the project buildout phase.

The Project site is within the City's I-H (Heavy Industrial) General Plan land use designation and the northern portion of the site is in the City and is zoned M-L (Light Industrial), while the parcel outside of the city boundaries is currently zoned M (Industrial) by Glenn County. Therefore, the Project is consistent with the City and County General Plans' site designation and is consistent with the regional growth anticipated by the AQAP. Further, as discussed under Impact b), below, construction and operation emissions for particulate matter would not exceed the MCAQMD thresholds. As a result, the Project would not result in violations or affect air quality attainment status. The Project would not hinder implementation of any NSVPA Air Quality Attainment Plan control measures. No impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐

Implementation of the Proposed Project could result in air quality impacts during construction and operation. The GCAPCD has no established air pollutant emission thresholds under CEQA for the assessment of air quality impacts. Therefore, the Proposed Project will be compared to the significance thresholds established by the Mendocino County Air Quality Management District (MCAQMD), which were established under CEQA for the assessment of air quality impacts. While air quality standards established in Mendocino County are not binding on Glenn County, they are instructive for comparison purposes. The MCAQMD thresholds are consistent with the California Clean Air Act. The thresholds of significance are summarized in Table 4.3-1.

Table 4.3-1. Mendocino County APCD Thresholds of Significance (Pounds per Day)

Threshold	ROG	NOx	PM_{10}	$PM_{2.5}$
Construction	54	54	82	54
Operational	180	42	82	54

Source: MCAQMD 2010

Construction Impacts

Construction associated with the proposed Project would generate short-term emissions of criteria air pollutants. The criteria pollutants of primary concern within the Project area include ozone-precursor pollutants (i.e., reactive organic gas [ROG] and nitrogen oxide [NO_X]) and PM_{10} and $PM_{2.5}$. Construction-generated emissions are short term and of temporary duration, lasting only as long as construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the MCAQMD's CEQA-related thresholds of significance.

Construction results in the temporary generation of emissions resulting from site excavation, building construction, and paving. Motor vehicle exhaust is associated with construction equipment and worker trips. Particulate matter is associated with the movement of construction equipment, especially on unpaved surfaces. Emissions of airborne particulate matter are largely dependent on the amount of ground disturbance associated with site preparation activities as well as weather conditions and the appropriate application of water.

Predicted maximum daily construction-generated emissions for the proposed Project are summarized in Table 4.3-2.

Table 4.3-2. Construction-Related Emissions

Construction Year	Pollutant (maximum pounds per day)					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Year 2019	8.50	45.64	36.02	0.06	20.61	12.17
Year 2020	8.10	36.17	35.39	0.06	2.41	1.98
MCAQMD Potentially Significant Impact Threshold	*54*	*54*	*None*	*None*	*82*	*54*
Exceed MCAQMD Threshold?	No	No	No	No	No	No

Source: CalEEMod version 2016.3.2. Refer to Appendix A for Model Data Outputs.
Notes: Building construction, paving, and architectural coating assumed to occur simultaneously. **Bolded** results represent greatest daily emissions for each pollutant.

As shown in Table 4.3-2, all criteria pollutant emissions would remain below their respective thresholds during Project construction. Therefore, criteria pollutant emissions generated during Project construction would not result in a violation of air quality standards.

Long-Term Operational Impacts

Implementation of the Project would result in long-term operational emissions of criteria air pollutants such as PM_{10}, $PM_{2.5}$, CO, and SO_2 as well as ozone precursors such as ROG and NO_X. Project-generated increases in emissions would be predominantly associated with motor vehicle use. Long-term operational emissions attributable to the proposed Project are summarized in Table 4.3-3.

Table 4.3-3. Operational-Related Emissions

Source	Pollutant (maximum pounds per day)					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Summer Emissions	1.31	5.56	1.21	0.02	0.37	0.12
Winter Emissions	1.32	5.59	1.36	0.01	0.37	0.12
MCAQMD Potentially Significant Impact Threshold	*180*	*42*	*None*	*None*	*82*	*54*
Exceed MCAQMD Threshold?	No	No	No	No	No	No

Source: CalEEMod version 2016.3.2. Refer to Appendix A for Model Data Outputs.

As shown in Table 4.3-3, the Project's emissions would not exceed MCAQMD thresholds for any criteria air pollutant. Therefore, operations emissions would result in a less than significant long-term air quality impact.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐

Glenn County is currently in nonattainment for state PM_{10} standards. Due to the region's nonattainment status, if project-generated emissions of PM_{10} exceed the long-term thresholds, then the project's cumulative impacts would be considered significant. As discussed in Impact b), operational significance thresholds would not be surpassed; this results in operational air quality impacts that are considered less than significant. Therefore, cumulative impacts would also be considered less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐

Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. The CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory

diseases such as asthma, emphysema, and bronchitis. Sensitive receptors closest to the Project site include residences located approximately 50 feet from the Project site.

Construction

Construction-related activities would result in temporary, short-term, Project-generated emissions of diesel particulate matter (DPM) from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., clearing, grading), soil hauling truck traffic, paving, application of architectural coatings, and other miscellaneous activities.

For construction activity, DPM is the primary toxic air contaminant (TAC) of concern. Particulate exhaust emissions from diesel-fueled engines (i.e., DPM) were identified as a TAC by the CARB in 1998 (CARB 2005). The potential cancer risk from the inhalation of DPM, as discussed below, outweighs the potential for all other health impacts (i.e., non-cancer chronic risk, short-term acute risk) and health impacts from other TACs. Accordingly, DPM is the focus of this discussion.

Based on the emission modeling conducted, the maximum construction-related daily emissions of $PM_{2.5}$ exhaust, considered a surrogate for DPM, would be 2.20 pounds per day during construction activities (See Appendix A). ($PM_{2.5}$ exhaust is considered a surrogate for DPM because more than 90 percent of DPM is less than 1 microgram in diameter and therefore is a subset of particulate matter under 2.5 microns in diameter (i.e., $PM_{2.5}$), according to CARB. Most $PM_{2.5}$ exhaust derives from combustion, such as use of gasoline and diesel fuels by motor vehicles. Furthermore, even during the most intense month of construction, emissions of DPM would be generated from different locations on the Project site, rather than a single location, because different types of construction activities (e.g., site preparation, building construction) would not occur at the same place at the same time.

The dose to which receptors are exposed is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for any exposed receptor. Thus, the risks estimated for an exposed individual are higher if a fixed exposure occurs over a longer period of time.

According to the Office of Environmental Health Hazard Assessment (OEHHA), health risk assessments, which determine the exposure of sensitive receptors to TAC emissions, should be based on a 70- or 30-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the proposed Project. Consequently, an important consideration is that the use of off-road heavy-duty diesel equipment would be limited to the periods of construction, for which most diesel-powered off-road equipment use is estimated to occur over a period of two years. Considering the relatively low mass of DPM emissions that would be generated during even the most intense season of construction, the relatively short duration of construction activities seasonally, and the highly dispersive properties of DPM, construction-related TAC emissions would not expose sensitive receptors to substantial amounts of air toxics.

Operations

The Project would include the expansion of the existing chemical warehouse and a new office, dry barn, tank farm, wash station, and a blend plant. If applicable, the Project would be required to comply with National Emission Standards for Hazardous Air Pollutants (NESHAP) for chemical manufacturing area sources. This rule establishes emission standards in the form of management practices for each chemical manufacturing process unit as well as emission limits for certain subcategories of process vents and storage tanks. Additionally, the rule establishes management practices and other emission reduction requirements for subcategories of wastewater systems and heat exchange systems. With adherence to this rule, the impact is less than significant.

Furthermore, according to the California Air Pollution Control Officers Association's (CAPCOA's) Health Risk Assessments for Proposed Land Use Projects (2009), operations that require more than 100 heavy-duty delivery trucks daily are considered a potential health risk from diesel particulate matter. The proposed Project would not accommodate 100 heavy-duty trucks daily.

For these reasons, the Project would not be a source of TACs and there would be a less than significant as a result of the Project during operations.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals have the ability to smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable to another. It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration

decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

Construction

During construction, the proposed Project presents the potential for generation of objectionable odors in the form of diesel exhaust in the immediate vicinity of the site. However, these emissions are short-term in nature and will rapidly dissipate and be diluted by the atmosphere downwind of the emission sources. Additionally, odors would be localized and generally confined to the construction area. Therefore, under CEQA, construction odors would result in a less than significant impact related to odor emissions.

Operations

The land uses generally identified as sources of odors include wastewater treatment plants, wastewater pumping facilities, sanitary landfills, transfer stations, composting facilities, petroleum refineries, asphalt batch plants, chemical manufacturing and fiberglass manufacturing facilities, painting/coating operations, rendering plants, coffee roasters, food processing facilities, confined animal facilities, feedlots, dairies, green waste and recycling operations, and metal smelting plants. If a source of odors is proposed to be located near existing or planned sensitive receptors, this could have the potential to cause operational-related odor impacts.

The Project would include the expansion of the existing chemical warehouse and a new office, dry barn, tank farm, wash station, and a blend plant. Proposed onsite activities are similar to existing activities; thus, it is not expected that there will be a significant increase in odors over existing conditions.

4.3.3 Mitigation Measures

No significant impacts were identified and no mitigation measures are required.

4.4 Biological Resources

The following information was provided by the Biological Resource Assessment (BRA) completed by ECORP Consulting, Inc (ECORP). This document is included as Appendix B of this Initial Study.

4.4.1 Environmental Setting

The Project site is a rectangular plot with the existing Simplot business occupying the northern portion of the Project, and the southern portion made up of an idle undeveloped field. The undeveloped southern portion of the site is a weedy field made up of loose, gravelly soil dominated by nonnative plant species with an abundance of vehicular tracks and evidence of historic disturbance. There are no trees onsite, except for three small almond (*Prunus dulcis*) shrubs/trees.

The Project site is surrounded by industrial-commercial businesses, rural residences, a mobile home and recreational vehicle park, and a railroad along the western boundary.

Vegetation Communities

There is one vegetation community that occurs within the proposed Project site: ruderal weedy field. The undeveloped southern portion of the site is made up entirely of the ruderal weedy field community. There is little to no vegetation associated with the developed portion of the Project, so it is not discussed in this section.

The ruderal weedy field is represented by wild oats (*Avena fatua*), filaree (*Erodium botrys*), field mustard (*Brassica rapa*), puncture vine (*Tribulus terrestris*), gumplant (*Grindelia camporum*), tumble weed (*Amaranthus albus*), reticulate seeded spurge (*Euphorbia spathulata*), and Russian thistle (*Salsola tragus*). Vegetation is distributed in patches with unvegetated areas of exposed gravel or dirt.

Soils

According to the *Web Soil Survey* (NRCS 2018*)*, two soil units, or types, have been mapped within the Project site (see Table 4.6-1). These are: (CzT) Cortina very gravelly sandy loam, moderately deep and (Ta) Tehama loam, moderately deep over gravel, 0 to 2 percent slopes. CzT-Cortina very gravelly sandy loam, moderately deep contains unnamed hydric components in fan landforms (NRCS 2018).

4.4.2 Biological Resources (IV) Environmental Checklist and Discussion

	Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐

4.4.3 Site Evaluation

Special-Status Species

According to the CNDDB, there are no previously documented occurrences of special-status species within the Project site (CDFW 2018). However, several special-status species occurrences have been documented within an approximate five-mile radius of the Project site. Species that are tracked in the CNDDB that do not have any state or federal status or protection were not included in the evaluation. For a complete list of special-status species, including those that would not occur in the Proposed Project area, refer to the Biological Resource's Assessment completed by ECORP (2018a) in Appendix B.

The biological resources assessment for the Proposed Project identified that here are no special-status species, special-status species' habitat, or sensitive natural communities present on the site. However, the Project site does support potential nesting habitat for birds protected under the Migratory Bird Treaty Act (MBTA) as discussed below

MBTA-Protected Birds

Seven special-status bird species were identified as having the potential to occur within the Project site based on the literature review. However, upon further analysis, all seven species were determined to be absent from the Project site due to the lack of suitable habitat.

While not considered "special status" as defined above, most naturally occurring birds and their active nests are protected under the federal MBTA. These include common species found nesting within developed areas and human habitations. The almond trees and existing buildings present within the Project could support nests of species protected under the MBTA. All native birds, including raptors, are protected under the California Fish and Game Code and the federal MBTA. As such, to ensure that there are no impacts to protected active nests, as such, implementation of mitigation measure BIO-1 is required.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒

No creeks, streams, or rivers exist on the Project site. No riparian habitats or other sensitive natural communities identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS) have been identified on the Project site. The Project would have no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒

There are no previously mapped aquatic features onsite according to the California Aquatic Resources Inventory (CARI, San Francisco Estuary Institute [SFEI] 2017). However, there is one previously mapped CARI "fluvial unnatural" feature located between the Project and the railroad tracks (Figure 7. California Aquatic Resources Inventory). No aquatic features were found within the Project site during the May 21, 2018 site visit. Therefore, there are no potential Waters of the U.S. present onsite.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒

The Project site is surrounded by existing development areas and roadways. There are no nearby areas with native habitat that can support large concentrations of wildlife. Therefore, the Project site does not function as a wildlife corridor.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒

There are currently no adopted or proposed local policies or ordinances that affect the Proposed Project. Therefore, no impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

There are no adopted habitat conservation plans, natural community conservation plans, or any adopted biological resources recovery or conservation plans in the Proposed Project area. As such, no impact would occur.

Figure 7.
California Aquatic Resource Inventory

Map Features

- Approximate Boundary - 7.57 acres
- 500' Buffer

CARI Streams (December 2017)

- Fluvial Unnatural

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Location: N:\2018\2018-087 Orland Simplot Expansion Project\MAPS\Jurisdictional_Delineation\CARI\v1\OSEP_CARI_20180529.mxd (CCH)-chinkelman 5/31/2018

2018-087 Orland Simplot Expansion Project

Scale in Feet
0 400

Photo Source: Digital Globe, 2015

Map Date: 5/31/2018

THIS PAGE INTENTIONALLY LEFT BLANK

4.4.4 Mitigation Measures

BIO-1: A certified biologist shall conduct a preconstruction nesting bird survey of all suitable habitat on the project within 14 days of the commencement of construction during the nesting season (February 1 - August 31). Surveys should be conducted within 300 feet of the Project for nesting raptors, and 100 feet of the Project for nesting songbirds. If active nests are found, a no-disturbance buffer around the nest shall be established. The buffer distance shall be established by a biologist in consultation with CDFW or the CEQA lead agency. The buffer shall be maintained until the fledglings are capable of flight and become independent of the nest tree, to be determined by a qualified biologist. Once the young are independent of the nest, no further measures are necessary. Preconstruction nesting surveys are not required for construction activity outside the nesting season.

Timing/Implementation: *Within 14 days prior to grading and construction activities occurring during nesting season (February 1 through August 31)*

Monitoring/Enforcement: *City of Orland*

4.5 Cultural Resources

4.5.1 Cultural Resources Records Search and Literature Review

ECORP prepared a Cultural Resources Records Search and Literature Review (ECORP 2018b) for the Proposed Project to determine if cultural resources were present in or adjacent to the Project area and assess the sensitivity of the Project area for undiscovered or buried cultural resources. See Appendix C. The analysis of cultural resources was based on a records and literature search conducted at the Northeastern Information Center (NEIC) at California State University-Chico on May 10, 2018.

Previous Research

The literature search included the results of previous surveys within a 0.5-mile (800 meters) radius of the Proposed Project location. While two previous studies were performed within 0.5 mile of the Project site, the results of the records search indicate that the property has not been previously surveyed for cultural resources by a professional archaeologist. No previously recorded resources are located within the Project site. The records search also determined that no previously recorded historic-period or prehistoric cultural resources are located within 0.5 mile of the Project site.

Literature Review

A search of the NAHC's Sacred Lands File failed to indicate the presence of Native American cultural resources in the Project Area. The NAHC provided a list of Native American contacts and recommends that these individuals be contacted for additional information. ECORP did not carry out any follow-up coordination.

A letter was sent to the Orland Historical & Cultural Society on May 10, 2018 to solicit comments or obtain historical information that the repository might have regarding events, people, or resources of

historical significance in the area. The Society responded stating "I can think of no conflict with possible cultural properties/impact on this property" (Russel 2018).

The Office of Historic Preservation's (OHP's) Directory of Properties, Historic Property Data File for Glenn County (dated May 10, 2012) did not include any resources within the Project Area (OHP 2012).

The *National Register of Historic Places* (National Park Service 2018) failed to reveal any significant properties within the Project Area. The closest significant property is the Gianella Bridge (ID #8224614) constructed in the early 1900s and located 9.5 miles east of the Project location in Hamilton, California.

A review of *California Historical Landmarks* (OHP 1996) lists the closest historical landmark as #345 – The Granville P. Swift Adobe, located approximately two miles north of the Project vicinity. Granville P. Swift built the first house in Glenn County, an adobe constructed of clay that served as the center of a large cattle ranch with Native American ranch hands [OHP 2018]. The OHP website (OHP 2018) was viewed in May 2018 and failed to list any updated Historic Landmarks in the Project vicinity.

A review of *Historic Spots in California* (Kyle 2002) notes that Orland developed as a railroad shipping point for grain. Kyle notes the Granville P. Swift adobe and also mentions that a regional irrigation system was developed around Orland and that it was the pilot project for the extensive Central Valley Irrigation Project.

Historic GLO land patent records (BLM 2018) revealed that the Central Pacific Railroad Company was issued a patent in 1875 for the parcel on the west side of the Project Area that was part of a larger 330,754.51-acre area given to the railroad to finance railroad construction (Table 2).

A RealQuest property search for all four APNs (046-260-002-0, 046-260-003-0, 046-260-048-0 and 046-260-006-0, listed from north to south) revealed that three of the four properties are zoned for commercial use, except for 046-260-0048-0, which is listed as agricultural. No additional information on the property history was available.

The Project site falls within the ethnographic territory of the Nomlaki. The *Handbook of North American Indians, Volume 8*, lists the closest Native American Village as *Sômpôn*. The village is located approximately five miles northwest of the Project vicinity, close to Grindstone Creek and present-day Black Butte Lake.

The Caltrans Bridge Inventory (accessed May 2018) did not list any historic bridges in the Project area. (Caltrans 2018a, b)

4.5.2 4.5.2 Cultural Resources

Environmental Setting

The Project area is located within what is historically documented as Central Wintun (Nomlaki) territory. There were two major divisions of Nomlaki Indians in California: Hill Nomlaki and the River Nomlaki. The Hill Nomlaki are identified as the Paskenta Band of Nomlaki Indians. It is this group that has ancestral ties to the Orland area, which includes the Project area.

Euro-American contact with Native American groups living in the Central Valley of California began during the last half of the eighteenth century. At this time, the attention of Spanish missionaries shifted away from the coast, and its dwindling Native American population, to the conversion and missionization of interior populations.

Following Euro-American contact, the land was bought to farm; the advent of a canal system and a railroad hub nearby made the land particularly attractive. The population of California was growing and food producers were needed. The Orland area was particularly suited for fruit and nut trees. At the turn of the previous century, alfalfa, sugar beets, and grains were the more common crops produced in the irrigated fields (NCRC 2015).

Paleontological Resources

A paleontological records search was requested from the University of California Museum of Paleontology (UCMP) on May 29, 2018. The search included a review of the institution's paleontology specimen collection records for Glenn County, including the Project area and vicinity. The purpose of the assessment was to determine the sensitivity of the Project area, whether known occurrences of paleontological resources are present within or immediately adjacent to the Project area, and whether implementation of the Project could result in significant impacts to paleontological resources. Paleontological resources include mineralized (fossilized) or un-mineralized bones, teeth, soft tissues, shells, wood, leaf impressions, footprints, burrows, and microscopic remains.

The results of the search of the UCMP indicated that 239 paleontological specimens were recorded from 27 identified localities and 76 unidentified localities in Glenn County. Paleontological resources include fossilized remains of birds, mammals, reptiles and amphibians. No paleontological resources have been previously recorded within or near the Proposed Project site (UCMP 2018).

4.5.3 4.5.3 Cultural Resources (V) Environmental Checklist and Discussion

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☒	☐	☐

The Cultural Resources Records Search and Literature Review researched the available historical resources information to determine the potential for historical resources that may be located on the Project site or nearby resources that may be affected by development of the Project.

The Cultural Resources Records Search and Literature Review concluded that based on the results of the records search and literature review, the Project Area has not been surveyed for cultural resources and very little of the Project vicinity has been surveyed. Therefore, the potential for the presence of historic cultural resources on this property is unknown. Historic maps and aerial photos indicate there are, or

were, buildings of historic age on the property. As such, mitigation measure CUL-1 is required to reduce potential historic resource impacts to the less than significant level.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐

The Cultural Resources Records Search and Literature Review did not identify any archaeological resources on the site or surrounding area. While no known archaeological resources were found during the analysis, there always remains the potential for ground-disturbing activities to expose previously unrecorded archaeological resources. As such, mitigation measure CUL-1 is required to reduce potential historic resource impacts to the less than significant level.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

A search of the UCMP failed to indicate the presence of paleontological resources in the Project area. Although paleontological resources sites were not identified in the Project area, there is a possibility that unanticipated paleontological resources will be encountered during ground-disturbing, Project-related activities. Therefore, impacts to unknown paleontological resources would be less than significant with incorporation of mitigation measure CUL-2.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

A search of the Sacred Lands File by the Native American Heritage Commission (NAHC) failed to indicate the presence of Native American cultural resources in the Project area. Although Native American burial sites were not identified in the Project area, there is a possibility that unanticipated human remains will be encountered during ground-disturbing, Project-related activities. Therefore, impacts to unknown human remains would be less than significant with incorporation of mitigation measure CUL-1.

4.5.4 4.5.4 Mitigation Measures

CUL-1: If subsurface deposits believed to be cultural or human in origin are discovered during grading and construction activities, all work must halt within a 100-foot radius of the discovery and the construction manager shall immediately notify the City of Orland. The Project applicant shall retain a qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:

- If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately and no agency notifications are required.
- If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, he or she shall immediately notify the lead agency and applicable landowner. The agencies shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be eligible for inclusion in the NRHP or CRHR. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: 1) is not eligible for the NRHP or CRHR; or 2) that the treatment measures have been completed to their satisfaction.
- If the find includes human remains, or remains that are potentially human, he or she shall ensure reasonable protection measures are taken to protect the discovery from disturbance (Assembly Bill [AB] 2641). The archaeologist shall notify the Placer County Coroner (as per § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California Public Resources Code, and AB 2641 will be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the Project (§ 5097.98 of the Public Resources Code). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (§ 5097.94 of the Public Resources Code). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the Public Resources Code). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

Timing/Implementation: *During construction*

Monitoring/Enforcement: *City of Orland Planning Department*

CUL-2 If paleontological or other geologically sensitive resources are identified during any phase of project development, the construction manager shall cease operation at the site of the discovery and immediately notify the City of Orland. The Project applicant shall retain a qualified paleontologist to provide an evaluation of the find and to prescribe mitigation measures to reduce impacts to a less-than-significant level. In considering any suggested mitigation proposed by the consulting paleontologist, the City shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, land use assumptions, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while mitigation for paleontological resources is carried out.

Timing/Implementation: *During construction*

Monitoring/Enforcement: *City of Orland Planning Department*

4.6 Geology and Soils

4.6.1 Environmental Setting

Geomorphic Setting

The Project site is located in the north-central portion of the Great Valley geomorphic province of California. The Great Valley province is an alluvial plain about 50 miles wide and 400 miles long in the central part of California. Its northern part is the Sacramento Valley, drained by the Sacramento River and its southern part is the San Joaquin Valley drained by the San Joaquin River. The Great Valley is a trough in which sediments have been deposited almost continuously since the Jurassic Period (about 160 million years ago). Great oil fields have been found in southernmost San Joaquin Valley and along anticlinal uplifts on its southwestern margin. In the Sacramento Valley, the Sutter Buttes, the remnants of an isolated Pliocene volcano, rise above the valley floor (CGS 2002).

Site Geology

According to the California Geological Survey (CGS, 1960), the Project site is underlain by what is termed Fan and Basin deposits, stratified deposits of gravel, sand, silt, clay, or other debris, moved by streams from higher to lower ground (USGS 2018a).

Site Soils

According to the Natural Resources Conservation Service (NRCS) through the Web Soil Survey database, the Project site is composed of two soil units as shown in Table 4.6-1 below. Among many soil related attributes, the Web Soil Survey identifies drainage, flooding, erosion, runoff, and the linear extensibility potential for the Project soils. According to this survey, approximately 86.2 percent of the Project soils are somewhat excessively drained to well drained but have a low runoff potential. The Project site soils have a slight erosion potential and a low linear extensibility (shrink-swell) (NRCS 2018).

Regional Seismicity and Fault Zones

In California, special definitions for active faults were devised to implement the Alquist-Priolo Earthquake Fault Zoning Act of 1972, which regulates development and construction in order to avoid the hazard of surface fault rupture. The State Mining and Geology Board established policies and criteria in accordance with the act. The Board defined an active fault as one which has had surface displacement within Holocene time (about the last 11,000 years). A potentially active fault was considered to be any fault that showed evidence of surface displacement during Quaternary time (last 1.6 million years). Because of the large number of potentially active faults in California, the State Geologist adopted additional definitions and criteria to limit zoning to only those faults with a relatively high potential for surface rupture. Thus, the term "sufficiently active" was defined as a fault for which there was evidence of Holocene surface displacement. This term was used in conjunction with the term "well-defined," which relates to the ability to locate a Holocene fault as a surface or near-surface feature (CGS 2010).

According to the Orland General Plan Update EIR (2010b), the primary seismic hazard associated with the Orland planning area is minor ground shaking. The planning area is not located within an Alquist-Priolo earthquake hazard zone. The closest active fault system is the 40-mile-long Willows fault, located about 10 miles west of the city.

Table 4.6-1. Project Area Soil Characteristics

Soil	Percentage of Site	Drainage	Flooding Frequency Class	Erosion Hazard[1]	Runoff Potential[2]	Linear Extensibility (Rating)[3]	Plasticity (Rating)	Frost Action[4]
Cortina very gravelly sandy loam, moderately deep	86.2%	Somewhat excessively drained	Occasional	Slight	A (low)	1.5%	1.6%	None
Tehama loam, moderately deep over gravel, 0 to 2 percent slopes	13.8%	Well drained	None	Slight	C (high)	2.7%	7.7%	None

Source: NRCS 2018

Notes:

1. The ratings are both verbal and numerical. The hazard is described as "slight," "moderate," "severe," or "very severe." A rating of "slight" indicates that erosion is unlikely under ordinary climatic conditions; "moderate" indicates that some erosion is likely and that erosion-control measures may be needed; "severe" indicates that erosion is very likely and that erosion-control measures, including revegetation of bare areas, are advised; and "very severe" indicates that significant erosion is expected, loss of soil productivity and offsite damage are likely, and erosion-control measures are costly and generally impractical.
2. Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation. Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. Group B. Soils having a moderate infiltration rate when thoroughly wet. Group C. Soils having a slow infiltration rate when thoroughly wet. Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet.
3. Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent, moderate if 3 to 6 percent, high if 6 to 9 percent, and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.
4. Potential for frost action is the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses (frost heave) and the subsequent collapse of the soil and loss of strength on thawing. Frost action occurs when moisture moves into the freezing zone of the soil. Frost heave and low soil strength during thawing cause damage to pavements and other rigid structures.

4.6.2 Geology and Soils (VI) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☒	☐
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒

i) The Proposed Project site is not located within an Alquist-Priolo Earthquake Zone (CGS 2010, 2015). There would be no impact related to fault rupture.

ii) According to CGS's Earthquake Shaking Potential for California mapping, the Proposed Project site is located in an area which is distant from known, active faults and will experience lower levels of ground shaking less frequently. In most earthquakes, only weaker masonry buildings would be damaged. However, very infrequent earthquakes could still cause strong shaking in the area (CGS 2016). The Proposed Project includes the construction of buildings, light poles, parking lots, bleachers, and other school related facilities, which may be affected by a seismic event. However, all structures would be required to comply with the 2016 California Building Code, including the required seismic mitigation standards. Because of the required compliance with the California Building Code seismic mitigation standards and the distance from active faults, the Proposed Project would have a less than significant impact related to strong ground shaking.

Iii) Liquefaction occurs when loose sand and silt that is saturated with water behaves like a liquid when shaken by an earthquake. Liquefaction can result in the following types of seismic-related ground failure:

- Loss of bearing strength – soils liquefy and lose the ability to support structures
- Lateral spreading – soils slide down gentle slopes or toward stream banks
- Flow failures – soils move down steep slopes with large displacement

- Ground oscillation – surface soils, riding on a buried liquefied layer, are thrown back and forth by shaking
- Flotation – floating of light buried structures to the surface
- Settlement – settling of ground surface as soils reconsolidate
- Subsidence – compaction of soil and sediment

Three factors are required for liquefaction to occur: (1) loose, granular sediment; (2) saturation of the sediment by groundwater; and (3) strong shaking. Because the Proposed Project site is located in an area determined to have a low chance of seismic hazard and all projects in Orland are required to comply with the seismic building standards of the California Building Code, the potential for impacts resulting from liquefaction is considered less than significant.

iv. The project site has flat topography, indicating no potential for landslides. As such, the Proposed Project would have no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐

As shown in Table 4.6-1, the Project soils have a slight to moderate erosion potential. A rating of "slight" indicates that erosion is unlikely under ordinary climatic conditions.

Future grading and site preparation activities associated with Project development would remove topsoil on the vacant parcel, disturbing and potentially exposing the underlying soils to erosion from a variety of sources, including wind and water. However, the Project site is flat, which would reduce the potential for substantial erosion. Because construction and the resulting potential erosion may affect water quality, any development involving clearing, grading, or excavation that causes soil disturbance on one or more acres is subject to a National Pollutant Discharge Elimination System (NPDES) General Construction Stormwater Permit. The Proposed Project would also be required to prepare and comply with an approved stormwater pollution prevention plan. The flat topography of the site and compliance with this requirement would reduce potential erosion impacts to a less than significant level.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☒	☐

As discussed previously, the Project site has no potential for landslides due to the flat topography of the site.

Lateral spreading is a form of horizontal displacement of soil toward an open channel or other "free" face, such as an excavation boundary. Lateral spreading can result from either the slump of low cohesion and unconsolidated material or, more commonly, by liquefaction of either the soil layer or a subsurface layer underlying soil material on a slope, resulting in gravitationally driven movement. One indicator of potential lateral expansion is frost action. Potential for frost action is the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses (frost heave) and the subsequent collapse of the soil and loss of strength on thawing (NRCS 2018). As indicated in Table 4.6-1, the Web Soil Survey identifies the Project site as having soils with no frost action potential. As such, the potential for impacts due to lateral spreading would be less than significant.

With the withdrawal of fluids, the pore spaces within the soils decrease, leading to a volumetric reduction. If that reduction is significant enough over an appropriately thick sequence of sediments, then regional ground subsidence can occur. This typically only occurs within poorly lithified sediments and not within competent rock.[2] No oil, gas, or high-volume water extraction wells are known to be present in the Project area. According to the United States Geological Service (USGS), the Project site is not located in an area of land subsidence (USGS 2018b). As such, the potential for impacts due to subsidence would be less than significant.

Collapse occurs when water is introduced to poorly cemented soils, resulting in the dissolution of the soil cementation and the volumetric collapse of the soil. In most cases, the soils are cemented with weak clay (argillic) sediments or soluble precipitates. This phenomenon generally occurs in granular sediments situated within arid environments. Collapsible soils will settle without any additional applied pressure when sufficient water becomes available to the soil. Water weakens or destroys bonding material between particles that can severely reduce the bearing capacity of the original soil. The collapse potential of these soils must be determined for consideration in the foundation design.

The City has adopted the 2016 California Building Code. The California Building Code includes common engineering practices requiring special design and construction methods that reduce or eliminate potential soil-related impacts. As such, the potential for impacts due to collapse would be less than significant.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐

[2] The processes by which loose sediment is hardened to rock are collectively called lithification.

Expansive soils are types of soil that shrink or swell as the moisture content decreases or increases. Structures built on these soils may experience shifting, cracking, and breaking damage as soils shrink and subside or expand. Expansive soils can be determined by a soil's linear extensibility. There is a direct relationship between linear extensibility of a soil and the potential for expansive behavior, with expansive soil generally having a high linear extensibility. Thus, granular soils typically have a low potential to be expansive, whereas clay-rich soils can have a low to high potential to be expansive.

According to the NRCS, linear extensibility values for the site range from about 1.5 percent to 2.7 percent. Soils with linear extensibility in that range correlate to soils having a low expansion potential, as noted in Table 4.6-1. The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent, moderate if 3 to 6 percent, high if 6 to 9 percent, and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. As shown in Table 4.6-1, 100 percent of the Project site soils have a low shrink-swell potential. As such, the Project would have a less than significant impact in this area.

	Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

The Project would connect to the City of Orland's wastewater collection and treatment plant. The Proposed Project would not use a septic system or other wastewater disposal system.

4.6.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.7 Greenhouse Gas Emissions

4.7.1 Environmental Setting

Greenhouse gases (GHGs) are released as byproducts of fossil fuel combustion, waste disposal, energy use, land use changes, and other human activities. This release of gases, such as carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and chlorofluorocarbons, creates a blanket around the earth that allows light to pass through but traps heat at the surface, preventing its escape into space. While this is a naturally occurring process known as the greenhouse effect, human activities have accelerated the generation of GHGs beyond natural levels. The overabundance of GHGs in the atmosphere has led to an unexpected warming of the earth and has the potential to severely impact the earth's climate system.

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. CH_4 traps approximately 25 times more heat per molecule than CO_2, and N_2O absorbs 298 times more heat per molecule than CO_2 (IPCC 2014). Often, estimates of GHG

emissions are presented in carbon dioxide equivalents (CO_2e). Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted.

4.7.2 Greenhouse Gas Emissions (VII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐

GHG emissions contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change. No single project could generate enough GHG emissions to noticeably change the global average temperature. The combination of GHG emissions from past, present, and future projects contributes substantially to the phenomenon of global climate change and its associated environmental impacts and as such is addressed only as a cumulative impact.

Thresholds of significance illustrate the extent of an impact and are a basis from which to apply mitigation measures. Significance thresholds for GHG emissions resulting from land use development projects have not been established in Glenn County. In the absence of any GHG emission significance thresholds, the projected emissions are compared to MCAQMD's recommended threshold of 1,100 metric tons of CO_2e annually. While significance thresholds used in Mendocino County are not binding in Glenn County or Orland, they are instructive for comparison purposes. The Project would be considered to have a significant impact if the projected emissions would surpass 1,100 metric tons of CO_2e annually.

Projected GHGs from construction have been quantified and amortized over the life of the Proposed Project (amortized over 30 years). The amortized construction emissions are added to the annual average operational emissions. Table 4.7-1 summarizes the direct and indirect annual GHG emissions level associated with the Proposed Project.

Table 4.7-1. Construction and Operational-Related Greenhouse Gas Emissions

Emissions Source	CO_2e (metric tons per year)
Construction (amortized over 30 years)	22
Area Source (landscaping, hearth)	0
Energy	150
Mobile	240
Waste	25
Water	1
Total:	438

Table 4.7-1. Construction and Operational-Related Greenhouse Gas Emissions	
Emissions Source	CO_2e (metric tons per year)
MCAQMD Potentially Significant Impact Threshold	1,100
Exceed MCAQMD Threshold?	No

Source: CalEEMod version 2016.3.2. Refer to Appendix D for Model Data Outputs.

As shown in Table 4.7-1, estimated GHG emissions resulting from both construction and operations of the Proposed Project would total 438 metric tons of CO_2e per year, which is less than the GHG threshold of 1,100 metric tons of CO_2e per year. Therefore, a less than significant impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

The City of Orland does not currently have an applicable plan, policy, or regulation adopted for reducing GHG emissions. The Proposed Project would not conflict with any adopted plans, policies, or regulations adopted for reducing GHG emissions. As identified under Impact a), Project-generated GHG emissions would not surpass GHG significance thresholds, which were prepared to comply with California GHG reduction goals. Therefore, the proposed Project would not conflict with California GHG reduction goals. No impact would occur.

4.7.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.8 Hazards and Hazardous Materials

4.8.1 Environmental Setting

A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency or if it has characteristics defined as hazardous by such an agency. A hazardous material is defined by the California Health and Safety Code, Section 25501 as follows:

> "Hazardous material" means any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

A hazardous material is defined in Title 22, Section 662601.10, of the California Code of Regulations as follows:

> A substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed.

The release of hazardous materials into the environment could potentially contaminate soils, surface water, and groundwater supplies.

Glenn County Air Pollution Control District is the Administering Agency and the Certified Unified Program Agency (CUPA) for Glenn County with responsibility for regulating hazardous materials handlers, hazardous waste generators, underground storage tank facilities, above ground storage tanks, and stationary sources handling regulated substances. A Hazardous Materials Business Plan is required of businesses in Glenn County that handle, use, generate, or store hazardous materials. The primary purpose of this plan is to provide readily available information regarding the location, type and health risks of hazardous materials to emergency response personnel, authorized government officials, and the public. Large cases of hazardous materials contamination or violations are referred to the Central Valley Regional Water Quality Control Board (RWQCB) and the California Department of Toxic Substances Control (DTSC). It is not uncommon for other agencies to become involved when issues of hazardous materials arise, such as the federal and state Occupational Safety and Health Administrations.

In addition to the local agencies, state and federal agencies regulate various hazardous materials. Table 4.8-1 lists federal and state regulatory agencies that oversee hazardous materials handling and hazardous waste management, and the statutes and regulations that they administer.

Table 4.8-1. Hazardous Materials Regulatory Authority

Regulatory Agency	Authority
Federal Agencies	
Department of Transportation (DOT)	Hazardous Materials Transport Act - Code of Federal Regulations (CFR) 49
Environmental Protection Agency (EPA)	Federal Water Pollution Control Act Clean Air Act Resource Conservation and Recovery Act (RCRA) Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Superfund Amendments and Reauthorization Act (SARA) Federal Insecticide, Fungicide and Rodenticide Act
Occupational Safety and Health Administration (OSHA)	Occupational Safety and Health Act and CFR 29
State Agencies	
Department of Toxic Substances Control (DTSC)	California Code of Regulations
Department of Industrial Relations (CAL-OSHA)	California Occupational Safety and Health Act, CCR Title 8

Table 4.8-1. Hazardous Materials Regulatory Authority

Regulatory Agency	Authority
State Water Resources Control Board and Regional Water Quality Control Board	Porter-Cologne Water Quality Act Underground Storage Tank Law
Health and Welfare Agency	Safe Drinking Water and Toxic Enforcement Act
Air Resources Board and Air Pollution Control District	Air Resources Act
Office of Emergency Services	Hazardous Materials Release Response Plans/Inventory Law
Department of Food and Agriculture	Food and Agriculture Code
State Fire Marshal	Uniform Fire Code, CR Title 19

Source: Orland 2010b

Under Government Code Section 65962.5, both the DTSC and the State Water Resources Control Board (SWRCB) are required to maintain lists of sites known to have hazardous substances present in the environment. Both agencies maintain up-to-date lists on their websites. A search of the DTSC (2018) and SWRCB (2018) lists identified no open cases of hazardous waste violations within 0.75 mile of the Project site.

The EPA maintains the Enforcement and Compliance History Online (ECHO) program. The ECHO website provides environmental regulatory compliance and enforcement information for approximately 800,000 regulated facilities nationwide. The ECHO website includes environmental permit, inspection, violation, enforcement action, and penalty information about EPA-regulated facilities. Facilities included on the site are Clean Air Act (CAA) stationary sources; Clean Water Act (CWA) facilities with direct discharge permits, under the National Pollutant Discharge Elimination System; generators and handlers of hazardous waste, regulated under the Resource Conservation and Recovery Act (RCRA); and public drinking water systems, regulated under the Safe Drinking Water Act (SDWA). ECHO also includes information about EPA cases under other environmental statutes. When available, information is provided on surrounding demographics, and ECHO includes other EPA environmental data sets to provide additional context for analyses, such as Toxics Release Inventory data. According to the ECHO program, the Project site is not listed as having a hazardous materials violation (EPA 2018).

4.8.2 Hazards and Hazardous Materials (VIII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐

Businesses that store hazardous materials are subject to the Hazardous Material Business Plan program, which is regulated by the Glenn County Air Pollution Control District of the Glenn County Agriculture

Department as part of the Certified Unified Program. The program requires the preparation of a document that provides an inventory of hazardous materials onsite, emergency plans and procedures in the event of an accidental release, and training for employees on safety procedures for handling hazardous materials and in the event of a release or threatened release. These plans are routine documents that are intended to disclose the presence of hazardous materials and provide information on what to do if materials are inadvertently released.

Project operation would involve the routine transport, use, or disposal of hazardous materials in quantities as they relate to the agricultural pesticides and other chemical produced at the facility. These materials are regulated by a number of different state and federal agencies and safety regulations are in place to limit the potential for accidental release. All hazardous materials on the site would be handled in accordance with city, state, and federal regulations. Therefore, the impact is less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☒	☐

As discussed in Issue a), the Project would not result in the routine transport, use, disposal, handling, or emission of any hazardous materials that would create a significant hazard to the public or the environment. Potential construction-related hazards could be created during the course of Project construction at the site, given that construction activities involve the use of heavy equipment, which uses small and incidental amounts of oils and fuels and other potentially flammable substances. The level of risk associated with the accidental release of hazardous substances is not considered significant due to the small volume and low concentration of hazardous materials used during construction. The construction contractor would be required to use standard construction controls and safety procedures that would avoid and minimize the potential for accidental release of such substances into the environment. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by local, state, and federal law.

Project operation would involve the routine transport, use, or disposal of hazardous materials in quantities as they relate to the agricultural pesticides and other chemical produced at the facility. All hazardous materials on the site would be handled in accordance with city, state and federal regulations. Because any hazardous materials used for operations would be in small quantities, long-term impacts associated with handling, storing, and disposing of hazardous materials from Project operation would be less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒

The nearest public school to the Project site is C. K. Price Middle School, approximately 0.4 miles from the Project site. The Project would have no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

Under Government Code Section 65962.5, both the DTSC and the SWRCB are required to maintain lists of sites known to have hazardous substances present in the environment. Both agencies maintain up-to-date lists on their websites. A search of the DTSC and SWRCB lists identified no open cases of hazardous waste violations on the Project site. Therefore, the Project site and the Proposed Project are not on a parcel included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (DTSC 2018; SWRCB 2018). As a result, this would not create a significant hazard to the public or to the environment and would have no impact.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

The Project site is not located within an airport land use plan or within 2 miles of a public airport or private use airport. The closest airport, Haigh Field, is located approximately 2 ¾ miles southeast of the Project site. The Project site is not located in the airport's safety areas as shown on Map 2 of the Comprehensive Airport Land Use Plan for the Orland Haigh Field Airport (Glenn County 1991). Thus, no impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
f) Within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒

The Proposed Project site is not located within the vicinity of a private airstrip and would not result in a safety hazard for people residing or working in the Project area. Therefore, no impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒

Standard evacuation routes have not been designated in Glenn County or Orland. However, the Glenn County Sheriff's Office, Office of Emergency Services, has an online link to an emergency preparedness web page stating that in the event of mandatory evacuation, residents will be advised of safe routes to follow, locations of shelters, and other actions that may need to be taken.

According to the Orland General Plan DEIR, it is likely that Caltrans facilities such as State Route 32 and I-5 would be used to evacuate the community in an emergency. Major county roads such as Sixth Street (County Road 99W) and South Street are also suited to evacuation, depending on the location of the emergency (City of Orland 2010b).

The Proposed Project does not include any actions that would impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. All construction activities would occur onsite and not impede the use of surrounding roadways in an emergency evacuation. The Project involves the expansion of an existing facility and would not interfere with any emergency response or evacuation plans. Implementation of the Proposed Project would result in no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☒	☐

The Project site is not in an area designated by CAL FIRE (2007) as a Fire Hazard Severity Zone. Furthermore, no Very High Fire Hazard Severity Zones are located nearby. Finally, the location of the

Project makes it readily accessible by emergency personnel and vehicles in the event of a wildland fire. For these reasons, this impact would be less than significant.

4.8.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.9 Hydrology and Water Quality

4.9.1 Environmental Setting

Regional Hydrology

Surface Water

The City of Orland is located in the greater Sacramento River hydrologic region. The Sacramento River hydrologic region covers approximately 17.4 million acres (27,200 square miles). The region includes all or large portions of Modoc, Siskiyou, Lassen, Shasta, Tehama, Glenn, Plumas, Butte, Colusa, Sutter, Yuba, Sierra, Nevada, Placer, Sacramento, El Dorado, Yolo, Solano, Lake, and Napa counties. Small areas of Alpine and Amador counties are also within the region. Geographically, the region extends south from the Modoc Plateau and Cascade Range at the Oregon border, to the Sacramento-San Joaquin Delta (DWR 2003).

The City of Orland and the Project site are located within boundaries of the Stony Creek watershed. The Stony Creek watershed encompasses approximately 700 square miles and is the second largest Sacramento River tributary on the west side of the Sacramento Valley (Orland, 2010b). There are three major impoundments on Stony Creek: Black Butte, Stony Gorge, and East Park reservoirs.

Groundwater

The Project site is underlain by the Sacramento Valley Groundwater Basin and the Colusa Subbasin. The City of Orland uses groundwater as the source for potable water in the city. This groundwater is extracted from the Colusa Groundwater Subbasin. According to the California Department of Water Resources 9DWR), the Colusa Subbasin covers an area of approximately 1,434 square miles (918,380 acres) (DWR 2006). The storage capacity of the subbasin was projected based on estimates of specific yield for the Sacramento Valley as developed in DWR Bulletin 118 (DWR 2006). The estimated storage capacity to a depth of 200 feet is approximately 13,025,887 acre-feet. Estimates of groundwater extraction for the Colusa Subbasin are based on surveys conducted by the California Department of Water Resources during 1993, 1994, and 1999. Surveys included land use and sources of water. Estimates of groundwater extraction for agricultural, municipal and industrial, and environmental wetland uses are 310,000; 14,000; and 22,000 acre-feet, respectively. Deep percolation from applied water is estimated to be 64,000 acre-feet. The Department of Water Resources has not identified the Colusa Subbasin as overdrafted in its DWR Bulletin 118. Also, there has been no indication of any existing or anticipated overdraft condition in studies prepared by other entities (DWR 2006).

The DWR Groundwater Information Center Interactive Map Application (GICIMA) provides groundwater levels through the state. Among other things, this interactive on-line tool can illustrate the change in groundwater depth of a certain time period for a particular location, such as the City of Orland. According to the GICIMA information, the change from groundwater to ground surface in the Project area has increase by approximately 30 feet between the fall of 2007 and the fall of 2017. In other words, the groundwater water surface was 60 feet below ground surface 2007 and was 90 feet below ground surface in 2017 (DWR 2018a).

The Sustainable Groundwater Management Act (SGMA) directs (DWR to identify groundwater basins and subbasins in conditions of critical overdraft. As defined in the SGMA, "A basin is subject to critical overdraft when continuation of present water management practices would probably result in significant adverse overdraft-related environmental, social, or economic impacts." The Colusa groundwater subbasin is not listed as a critically overdrafted basin (DWR 2018b). DWR is currently working on an update to the Bulletin 118 groundwater report. However, more up to date information of the Colusa subbasin in not available at this time.

Project Site Hydrology and Onsite Drainage

The are no existing natural hydrological features on the Project site. The Proposed Project includes the development of a stormwater detention pond on the southwestern border of the Project site. This detention pond will be sized to accommodate the southern portion of the Project site's stormwater flows.

The topography of the site is flat with little elevation change, varying from approximately 247 feet to 249 feet AMSL over the ±7.5-acre site. The proposed finish grade for the Project is 248 feet AMSL. As a result, the Project will require minor grading with a slight slope to the south for the southern portion of the Project site to allow rainwater to flow into the proposed stormwater detention pond. The northern portion of the site will be graded to allow stormwater to flow to the east into existing and proposed inlets into the City's existing storm drain system.

Orland experiences extreme seasonal variation in monthly rainfall. The rainy period of the year lasts for 8.9 months, from September 17 to June 15, with a sliding 31-day rainfall of at least 0.5 inches. The most rain falls during the 31 days centered around February 16, with an average total accumulation of 5.9 inches. The rainless period of the year lasts for 3.1 months, from June 15 to September 17. The least rain falls around July 31, with an average total accumulation of 0.0 inches (Weatherspark 2018).

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map for the Project area (Map No. 06021C0400D) shows that the Project site is in unshaded Zone X, meaning that the area is outside of the 0.2 percent annual chance (500-year) floodplain [FEMA 1998].

4.9.2 Hydrology and Water Quality (IX) Environmental Checklist and Discussion

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐

All Project wastewater would be collected and treated by the City of Orland through their wastewater collection system and wastewater treatment plant. The Proposed Project would not violate any wastewater discharge requirements. No onsite collection and treatment would occur with implementation of the Proposed Project.

Additionally, in accordance with NPDES regulations, the State of California requires that any construction activity affecting 1 acre or more obtain a General Construction Activity Stormwater Permit (General Permit) to minimize the potential effects of construction runoff on receiving water quality. Performance standards for obtaining and complying with the General Permit are described in NPDES General Permit No. CAS000002, Waste Discharge Requirements, Order No. 2009-0009-DWQ.

General Permit applicants are required to submit to the appropriate regional board Permit Registration Documents for the Project, which include a Notice of Intent (NOI), risk assessment, site map, signed certification statement, an annual fee, and a SWPPP. The SWPPP includes pollution prevention measures (erosion and sediment control measures and measures to control non-stormwater discharges and hazardous spills), demonstration of compliance with all applicable local and regional erosion and sediment control standards, identification of responsible parties, and a detailed construction timeline. The SWPPP must also include implementation of BMPs to reduce construction effects on receiving water quality by implementing erosion control measures and reducing or eliminating non-stormwater discharges.

Examples of typical construction best management practices included in SWPPPs include, but are not limited to, using temporary mulching, seeding, or other suitable stabilization measures to protect uncovered soils; storing materials and equipment to ensure that spills or leaks cannot enter the storm drain system or surface water; developing and implementing a spill prevention and cleanup plan; and installing sediment control devices such as gravel bags, inlet filters, fiber rolls, or silt fences to reduce or eliminate sediment and other pollutants from discharging to the drainage system or receiving waters. Stormwater pollution prevention plan BMPs are recognized as effective methods to prevent or minimize the potential releases of pollutants into drainages, surface water, or groundwater. Strict SWPPP compliance, coupled with the use of appropriate BMPs, would reduce potential water quality impacts during construction activities.

Implementation of best management practices required as part of the SWPPP would ensure that the Proposed Project would not create or contribute to any violations of water quality standards or waste discharge requirements. There would be a less than significant impact.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐

The City of Orland uses groundwater as the source for potable water in the city. This groundwater is extracted from the Colusa Groundwater Subbasin, part of the Sacramento Valley Groundwater Basin. The City's water supply is provided by groundwater.

Potable water to the Project is supplied by the City and demand to the Project site is expected to double from 184,000 gallons annually to 368,000 gallons annually with the development of the Proposed Project, a difference of 184,000 gallons or 0.56 acre-feet[3] of water.

As discussed previously, the Colusa Subbasin total groundwater in storage is estimated to be 13 million AF. The Project's water demand represents 0.000004 percent[4] of the groundwater storage capacity in the Colusa Subbasin. Therefore, the Proposed Project would not substantially deplete groundwater supplies and would have a less than significant impact in this area.

New impervious surfaces on the Project site would include buildings, parking lots and other hard surfaces. Approximately 16 percent of the ±7.5-acre developed site would be covered with these new impervious surfaces including 40,150 square feet of buildings or other hard structures such as storage tanks and approximately 11,000 sq. ft. of parking lots, sidewalks and other concrete surfaces.

As shown in Table 4.6-1, the Project site soils are well drained and therefore offer a high infiltration potential. The majority of the site will be covered with permeable surfaces such as gravel or landscaping that would allow for surface water infiltration. Future runoff from the Project site from newly developed impervious areas would be directed into the onsite stormwater detention pond and into the city's storm drainage.

Because the majority of the Project site would allow for the infiltration of surface water into the groundwater basin and the 51,150 square feet (1.18 acres) of impervious surfaces would represent

[3] There are 325,851 gallons of water in an acre-foot. 184,000 gallons / 325,851 gallons = 0.56 acre-feet of water.

[4] 0.56 AF / 13,000,000 AF = 0.000004%

0.00013 percent[5] of the total Colusa Groundwater Subbasin area, the Project would have a less than significant impact to groundwater recharge.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐

No creeks, streams or rivers exist on the Project site. The Project includes the development of a detention pond to assist in stormwater control during operation of the Proposed Project. All stormwater would flow into either this pond or the City stormwater drainage system. The proposed site improvements would not substantially alter the existing drainage pattern of the Project site in such a way to result in substantial erosion or siltation onsite or offsite.

The Project construction activities would result in soil disturbances of at least one acre of total land area. As such, an NPDES Construction General Permit would be required prior to the start of construction.

Required elements of a SWPPP include (1) site description addressing the elements and characteristics specific to the site; (2) descriptions of BMPs for erosion and sediment controls; (3) BMPs for construction waste handling and disposal; (4) implementation of approved local plans; (5) proposed post-construction controls, including a description of local post-construction erosion and sediment control requirements; and (6) non-stormwater management.

Excavation and grading activities associated with the Proposed Project will reduce vegetative cover and expose bare soil surfaces making these surfaces more susceptible to erosion and sediment transport. To comply with the requirements of the NPDES Construction General Permit AWA will be required to file a Notice of Intent (NOI) with the State of California and submit a SWPPP defining BMPs for construction and post-construction related control of the Proposed Project site runoff and sediment transport. Requirements for the SWPPP include incorporation of both erosion and sediment control BMPs. SWPPP generally include the following applicable elements:

- diversion of offsite run-off away from the construction area;
- prompt revegetation of proposed landscaped areas;
- perimeter straw wattles or silt fences and/or temporary basins to trap sediment before it leaves the site;

[5] The Colusa Groundwater Subbasin in 918,380 acres in size. 1.18 acres of Project impervious surfaces / 918,380 acres X 100 = 0.00013%.

- regular sprinkling of exposed soils to control dust during construction during the dry season;
- installation of a minor retention basin(s) to alleviate discharge of increased flows;
- specifications for construction waste handling and disposal;
- erosion control measures maintained throughout the construction period;
- preparation of stabilized construction entrances to avoid trucks from imprinting debris on city roadways;
- contained wash out and vehicle maintenance areas;
- training of subcontractors on general construction area housekeeping;
- construction scheduling to minimize soil disturbance during the wet weather season; and
- regular maintenance and storm event monitoring.

Note that the SWPPP is a "live" document and should be kept current by the person responsible for its implementation. Preparation of, and compliance with a required SWPPP would effectively prevent Proposed Project onsite erosion and sediment transport offsite. This will reduce potential runoff, erosion, and siltation associated with construction and operation of the Proposed Project. The effects of the Proposed Project on onsite and offsite erosion and siltation, therefore, would be less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☐	☒	☐

As stated previously, there are no creeks, streams or rivers on the Project site. Therefore, implementation of the Proposed Project would not result in the alteration of the course of a natural waterway nor substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite. The Proposed Project would involve changes to the amount of onsite impervious surfaces because of the impervious new structures. However, any stormwater flowing from these structures would be routed into Project drainage facilities and the City's stormwater drainage system. As such, the drainage pattern at the Project site, as well as surface runoff conditions after implementation of the Proposed Project, would not result in onsite or offsite flooding. Therefore, the Proposed Project would have a less than significant impact on causing flooding onsite or offsite.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e)	Create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐

See discussion of Issues a) and c), above. The Proposed Project would involve changes to the amount of onsite impervious surfaces potentially increasing the amount of onsite runoff. However, any stormwater flowing from these structures would be routed into Project drainage facilities and the City's stormwater drainage system. Onsite drainage systems would be designed to control the amount and flow of stormwater and negate the potential to exceed the City's existing storm drainage capacity.

Polluted runoff from the Project site during construction and operation could include sediment from soil disturbances, oil and grease from construction equipment, and gross pollutants such as trash and debris. Compliance with NPDES permit requirements would ensure that BMPs would be implemented during the construction phase to effectively minimize excessive soil erosion and sedimentation and eliminate non-stormwater discharge offsite. As required by law, BMPs would be included as part of The Proposed Project to ensure that potentially significant impacts are reduced to less than significant levels. Therefore, impacts associated with stormwater volumes and polluted runoff during the construction of the Proposed Project would be less than significant.

Activities associated with operation of the Proposed Project are not expected to generate substances that can degrade the quality of water runoff. The Proposed Project includes a truck rinse pad which is used to clean any fertilizer residue from the trucks and trailers prior to leaving the site. The rinse water is collected in a holding tank. When the tank is full, the rinse water is tested by a laboratory and then agronomically applied as part of a fertility program to a farmer's crop located in the area. Proper operation of this facility would remove the potential for offsite water quality contamination from the site operations. Therefore, impacts during operation would be considered less than significant.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
f)	Otherwise substantially degrade water quality?	☐	☐	☒	☐

The Proposed Project would not otherwise result in degradation of water quality. Compliance with NPDES permit requirements, including SWPPP implementation, would ensure that potential water quality impacts are less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒

No housing is proposed for the Project. There would be no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	☒

According to FEMA flood hazard maps (Map No. 06021C0400D), the Project site is not located within a flood zone. Therefore, implementation of the Proposed Project will not have an impact related to flooding.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐

The Project site is not protected by levees from any flood hazard. Prior to the terrorist attacks of September 11, 2001, public information was available that provided structural ratings for dams throughout the country. Since that time, this information, as well as dam inundation areas have been classified and data is not readily available. Dams are regulated by the Division of Safety of Dams of the DWR and are routinely inspected during their impoundment life, which includes monitoring for compliance with seismic stability standards.

The Orland General Plan EIR identifies that the City has the potential to be inundated with flood waters due to dam failure of the Black Butte Dam (Orland 2010b). While the Orland planning area has been identified as having the potential for dam inundation, the required compliance and inspection by the Division of Safety of Dams mitigates the potential for dam failure. Thus, dam failure is not considered a reasonably foreseeable event, and the Proposed Project would not affect dam operations. As such, the Proposed Project would have a less than significant impact from dam or levee failure.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
j)	Be subject to inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

No large bodies of water exist near the Proposed Project site. The Project site is not located within a potential tsunami or seiche inundation area. Damage to the Project site due to a seiche, a seismic-induced wave generated in a restricted body of water, would not occur. Additionally, the Project site is located in an area that is flat with little elevation gain. Therefore, no mudflows are anticipated at the site. No impact would occur.

4.9.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.10 Land Use and Planning

4.10.1 Environmental Setting

The City of Orland General Plan identifies the Project site as being within the I-H (Heavy Industrial) land use designation. The Heavy Industrial land use designation allows up to 70 percent building coverage and up to 100 percent paved coverage for parking and storage. Typical uses would include warehousing, technical support offices, fabrication, and assembly uses. Other uses would be appropriate pending discretionary review and application of performance standards to determine compatibility with existing industrial uses (City of Orland 2010a).

The Zoning Ordinance implements the policies of the General Plan by classifying and regulating the land uses and associated development standards in the city. The northern portion of the site is in the City and is zoned M-L (Light Industrial), while the parcel outside of the city boundaries is currently zoned M (Industrial) by Glenn County. However, approval of the Project by the City Council would result in the annexation by the City of one parcel and a rezone of the entire Project site to Heavy Industrial (M-H).

Orland Municipal Code Section 17.52.101 describes the M-H zoning district as an area devoted to normal operations of industries, subject only to such regulations as are needed to control nuisances and protect surrounding areas. The use of the Project site as an agricultural chemical supply is consistent with the uses allowed for both the I-H land use designation and the M-H zoning district with the approval of a Conditional Use Permit by the City.

4.10.2 Land Use and Planning (X) Environmental Checklist and Discussion

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Physically divide an established community?	☐	☐	☐	☒

The Proposed Project is located in an area with a variety of land uses. South of the Project site is the Irvin Trucking commercial lot, rural residential and agricultural uses. West of the Project site are agricultural land, industrial uses, and a mobile home park. North of the site is an almond processing plant, a trucking company and a feed and grain store. East of the site is a trucking company lot, vacant land currently used for truck storage, rural residential uses and additional uses of the almond processing plant. Development of the Project would not divide an established community as the expansion of Project of an existing use that would not create uses that would result in a change in the uses in the area nor impede the ability to travel from one location to another. As such, the proposed Project would have no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

The City of Orland General Plan identifies the site as being within land use designation I-H. With approval of the proposed rezone from M-I to M-H zoning district, the Project's proposed uses would be consistent with these land use designations. As such, the Proposed Project would not conflict with applicable land use plans, policies, or regulations, and no impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

The Project site is not located in an adopted habitat conservation plan, natural community conservation plan, or other approved habitat conservation plan. Thus, no impacts would occur.

4.10.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.11 Mineral Resources

4.11.1 Environmental Setting

The state-mandated Surface Mining and Reclamation Act of 1975 (SMARA) requires the identification and classification of mineral resources in areas within the State subject to urban development or other irreversible land uses that could otherwise prevent the extraction of mineral resources. These designations categorize land as Mineral Resource Zones (MRZ-1 through MRZ-4).

Stony Creek is located on the northern border of the City. Lower Stony Creek traverses its alluvial fan from Black Butte Dam to the Sacramento River, following one of three major fingers of gravelly soil that represent former channel courses. In-stream gravel mining has been particularly intensive in Lower Stony Creek. Generally, Stony Creek aggregates consist of stream channel deposits, including flood and overbank deposits in the upper reaches, and are classified as MRZ-2a (marginal reserves) (Orland 2010b). However, there is currently no mining activity occurring within, nor is it allowed in, the proposed Planning Area. Furthermore, neither the Orland General Plan nor the Glenn County General Plan identify any mineral resource zones within the City of Orland or the Planning Area (Orland 2010a; Glenn County 1993).

4.11.2 Mineral Resources (XI) Environmental Checklist and Discussion

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

As discussed above, neither the City's existing General Plan nor the Glenn County General Plan identifies any mineral resources in the planning area. Therefore, no impacts would occur to mineral resources.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

The Project site is not identified as a mineral resource recovery site in the Orland General Plan. There would be no impact in this area.

4.11.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.12 Noise

4.12.1 Environmental Setting

Noise Fundamentals

Noise is generally defined as sound that is loud, disagreeable, or unexpected. The selection of a proper noise descriptor for a specific source is dependent on the spatial and temporal distribution, duration, and fluctuation of the noise. The noise descriptors most often encountered when dealing with traffic,

community, and environmental noise include the average hourly noise level (in L_{eq}) and the average daily noise levels (in L_{dn}/CNEL).

Noise can be generated by a number of sources, including mobile sources, such as automobiles, trucks, and airplanes, and stationary sources, such as construction sites, machinery, and industrial operations. The rate depends on the ground surface and the number or type of objects between the noise source and the receiver. Mobile transportation sources, such as highways, and hard and flat surfaces, such as concrete or asphalt, have an attenuation rate of 3.0 dBA per doubling of distance. Soft surfaces, such as uneven or vegetated terrain, have an attenuation rate of about 4.5 dBA per doubling of distance from the source. Noise generated by stationary sources typically attenuates at a rate of approximately 6.0 to 7.5 dBA per doubling of distance from the source (EPA 1971).

Sound levels can be reduced by placing barriers between the noise source and the receiver. In general, barriers contribute to decreasing noise levels only when the structure breaks the "line of sight" between the source and the receiver. Buildings, concrete walls, and berms can all act as effective noise barriers. Wooden fences or broad areas of dense foliage can also reduce noise, but are less effective than solid barriers.

Vibration

Ground vibration can be measured several ways to quantify the amplitude of vibration produced. This can be through peak particle velocity or root mean square velocity. These velocity measurements measure maximum particle at one point or the average of the squared amplitude of the signal, respectively. Vibration impacts on people can be described as the level of annoyance and can vary depending on an individual's sensitivity. Generally, low-level vibrations may cause window rattling but do not pose any threats to the integrity of buildings or structures.

Existing Ambient Noise Measurements

To quantify existing ambient noise levels in the Project area, ECORP conducted three short-term noise measurements on November 28, 2017 (see Appendix E). The noise measurement sites were representative of typical existing noise exposure within and immediately adjacent to the Project site. The 10-minute measurements were taken between 4:00 and 5:00 p.m. Short-term (L_{eq}) measurements are considered representative of the noise levels throughout the day. The average noise levels measured at each location are listed in Table 4.12-1. Noise monitoring equipment used for the ambient noise survey consisted of a Larson Davis LxT SE Sound Level Meter equipped with a 377B02 microphone and a PRMLxT1L preamplifier. The monitoring equipment complies with applicable requirements of the American National Standards Institute (ANSI) for Type I (precision) sound level meters.

Table 4.12-1. Existing Noise Measurements

Site No.	Location	L_{eq} (dBA)	L_{min} (dBA)	L_{max} (dBA)	Time
1	Along Hwy 99W, adjacent to Orland Mobile Home & RV Park entrance	73.9	41.4	97.0	1:36 p.m.
2	Along County Road 18, between Hwy 99W and Railroad Avenue	58.4	39.7	78.0	1:56 p.m.
3	Along Railroad Avenue, adjacent to houses south of Yuba Street	61.6	36.7	85.0	2:13 p.m.

See Appendix E for noise measurement outputs.

As shown, the ambient recorded noise levels near the Project site ranged from 58.4 dBA to 73.9 dBA L_{eq}. The most common noise in the Project vicinity is produced by automotive vehicles (cars, trucks, buses, motorcycles). Traffic moving along streets and freeways produces a sound level that remains relatively constant and is part of the city's minimum ambient noise level. Vehicular noise varies with the volume, speed, and type of traffic. Slower traffic produces less noise than fast-moving traffic. Trucks typically generate more noise than cars. Infrequent or intermittent noise also is associated with vehicles, including sirens, vehicle alarms, slamming of doors, garbage and construction vehicle activity, and honking of horns. These noises add to urban noise and are regulated by a variety of agencies.

4.12.2 Noise (XII.) Environmental Checklist and Discussion

		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐

Construction Impacts

Construction of the Proposed Project would result in a temporary short-term increase of noise levels in the Project vicinity. The noise levels generated by construction equipment would vary greatly depending upon factors such as the type and specific model of the equipment, the operation being performed, the condition of the equipment and the prevailing wind direction. The noise levels for various types of construction equipment that could be required during construction of the Proposed Project are provided in Table 4.12-2.

Table 4.12-2. Typical Noise Levels from Construction Equipment

Equipment	Typical Noise Level (dBA) at 50 Feet from Source	
	L_{max}	L_{eq}
Air Compressor	80	76
Backhoe/Front End Loader	80	76
Compactor (Ground)	80	73
Concrete Mixer Truck	85	81
Concrete Mixer (Vibratory)	80	73
Concrete Pump Truck	82	75
Concrete Saw	90	83
Crane	85	77
Dozer/Grader/Excavator/Scraper	85	81
Drill Rig Truck	84	77
Generator	82	79
Gradall	85	81
Hydraulic Break Ram	90	80
Jackhammer	85	78
Impact Hammer/Hoe Ram (Mounted)	90	83
Pavement Scarifier/Roller	85	78
Paver	85	82
Pneumatic Tools	85	82
Pumps	77	74
Truck (Dump/Flat Bed)	84	80

Source: FTA 2006

During the construction phase of the Project, exterior noise levels resulting from construction could affect nearby sensitive receivers. As shown in Table 4.12-2, L_{eq} noise levels associated with individual construction equipment used for typical construction projects can reach levels of up to approximately 83 dBA L_{eq} at a distance of 50 feet. Construction noise levels drop off at a rate of about six dBA per doubling of distance between the noise source and the receptor. Since the nearest sensitive receptor is a residence 50 feet to the east of the Project site, maximum noise levels are expected to be 90 dBA L_{eq}.

General Plan Noise Element Policy 5.1.J states that noise associated with construction activities is exempt from all noise level standards, though Policy 5.1.K limits construction activities to the hours between 7:00 AM and 5:00 PM unless an exemption is received from the City to cover special circumstances. Because

construction noise is exempt from the City's noise standards, the Proposed Project would have no impact in this area.

Long-Term Operational Impacts

The Project proposes the expansion of the existing agricultural fertilizer manufacturing use. The Project would include the expansion of the existing chemical warehouse and a new office, dry barn, tank farm, wash station, and a blend plant. With the addition of the new facilities, the Proposed Project anticipates between one and six additional employees at the site. In addition, the site will average approximately three new visitors per day. The Proposed Project anticipates 32 new truck trips for product delivery. Operational hours will be from 7:00 am to 5:00 pm, six days per week, 12 months per year.

Transportation Noise

Existing noise levels in the Project vicinity ranged from 58.4 dBA to 73.9 dBA (see Table 4.12-1). Per the City's General Plan, the noise standard for uses affected by transportation noise is 60-65 dBA for residences and 65 dBA for industrial uses. Per Program 5.1F.2 of Policy 5.1.F of the City's General Plan, if the existing ambient noise level exceeds the City's noise standards, the noise level standards shall be increased at increments of five dB to encompass the ambient noise. Since the ambient noise level is above the City's standards, the five-dB increment standard is used.

Arterial streets connect with Collector streets and some Local streets. Arterials carry the greatest traffic volumes and are primarily intended to provide mobility through the community. As stated in the City's General Plan, I-5, SR 32, South Street, and Sixth Street comprise the City's Arterial system. Since Sixth Street is immediately west of the Project site, it can be assumed large volumes of vehicles currently travel on this road.

According to the 2013 Caltrans Technical Noise Supplement to the Traffic Noise Analysis Protocol, doubling of traffic on a roadway would result in an increase of 3 dBA. The Project's 50 daily trips (12 employees, six visitors, and 32 delivery) would be nominal compared to the vehicle capacity of Sixth Street, and thus, would not result in an increase of three dBA. Therefore, the traffic related noise levels will not exceed the City's noise standards. A less than significant impact would occur.

Non-Transportation Noise

Per the City's General Plan, the maximum allowable noise exposure for residential uses affected by non-transportation noise is 50 dBA during daytime hours and 45 during nighttime hours. The maximum allowable noise exposure for industrial uses affected by non-transportation noise is 65 dBA during both daytime and nighttime hours.

Project would include the expansion of the existing chemical warehouse and a new office, dry barn, tank farm, wash station, and a blend plant. Proposed onsite activities are similar to existing activities; thus, it is not expected that there will be a significant increase in noise levels over existing conditions.

		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
b)	Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒

Construction Impacts

Construction operations have the potential to result in varying degrees of temporary ground vibration, depending on the specific construction equipment used and operations involved. The ground vibration levels associated with various types of construction equipment are summarized in Table 4.12-3. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. The effects of ground vibration may be imperceptible at the lowest levels, low rumbling sounds and detectable vibrations at moderate levels, and slight damage to nearby structures at the highest levels.

Table 4.12-3. Typical Construction Equipment Vibration Levels

Equipment Type	Peak Particle Velocity at 25 Feet (inches per second)
Large Bulldozer	0.089
Loaded Trucks	0.076
Jackhammer	0.035

Source: FTA 2006; Caltrans 2004

It is acknowledged that construction activities would occur throughout the Project site and would not be concentrated at the point closest to the nearest structure. The nearest offsite structure to any of the construction areas is a building approximately 50 feet to the north. Based on the vibration levels presented in Table 4.12-3, ground vibration generated by heavy-duty equipment would not be anticipated to exceed approximately 0.031 inches per second peak particle velocity at 50 feet. This vibration level is below Caltrans's (2004) recommended standard of 0.2 inches per second peak particle velocity with respect to the prevention of structural damage for older residential buildings. This is also the level at which vibrations may begin to annoy people in buildings. Therefore, since predicted vibration levels at the nearest structures would not exceed recommended criteria and because the City does not regulate vibration associated with construction, there is no impact.

Long-Term Operational Impacts

Once operational, the Project would not be a source of groundborne vibration. Additionally, the City does not regulate vibration associated with operations. For these reasons, there is no impact.

		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
c)	Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐

Onsite Operations

The Project would include the expansion of the existing chemical warehouse and a new office, dry barn, tank farm, wash station, and a blend plant. Proposed onsite activities are similar to existing activities; thus, it is not expected that there will be a significant increase in noise levels over existing conditions. A less than significant impact would occur.

Offsite Traffic

Arterial streets connect with Collector streets and some Local streets. Arterials carry the greatest traffic volumes and are primarily intended to provide mobility through the community. As stated in the City's General Plan, Interstate 5, SR 32, South Street and Sixth Street comprise the City's Arterial system. Since Sixth Street is immediately west of the Project site, it can be assumed large volumes of vehicles currently travel on this road.

According to the 2013 Caltrans Technical Noise Supplement to the Traffic Noise Analysis Protocol, doubling of traffic on a roadway would result in an increase of 3 dB (a barely perceptible increase). The Project's 50 daily trips (12 employees, 6 visitors, and 32 delivery) would be nominal compared to the vehicle capacity of Sixth Street, and thus, would not result in a perceptible increase traffic noise levels. A less than significant impact would occur.

		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
d)	Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐

Noise associated with the construction of the Proposed Project will result in short-term and intermittent noise. As discussed in Impact a) *Construction Impacts*, the Proposed Project will abide by Policy 5.1.K of the General Plan Noise Element limiting construction activities to the hours between 7:00 AM and 5:00 PM unless an exemption is received from the City to cover special circumstances. Therefore, the Proposed Project would result in a less than significant impact related to a substantial temporary or periodic increase in ambient noise levels.

		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the Project Area to excessive noise levels?	☐	☐	☐	☒

The nearest airport to the Project site is the Orland Regional Airport, located approximately 2.3 miles northwest of the Project site. The Project site is not located within an area covered by an airport land use plan or within two miles of a public or public use airport. Thus, no impact would occur with implementation of the Proposed Project.

		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
f)	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the Project Area to excessive noise levels?	☐	☐	☐	☒

There are no private airstrips located within the vicinity of the Project site. No impact would occur.

4.12.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.13 Population and Housing

4.13.1 Environmental Setting

According to the California Department of Finance (DOF), which provides estimated population and housing unit demographics by year throughout the State, the City's population increased 7.6 percent between 2010 and 2018, from 7,291 to 7,844 (DOF 2017, 2018). While the 2018 housing estimates are not currently available, DOF estimates that there were 2,908 total housing units in the City, and a 6.7% vacancy rate as of January 1, 2017. The average household size was estimated to be 2.88 persons per household during the same time period. (DOF 2017).

4.13.2 Population and Housing (XIII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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)?	☐	☐	☐	☒

The Project site is located within a developed area and no new roads or extensions of existing roads are proposed. The Project does not include the construction of any new homes. Construction of the Project is expected to increase employment at the site adding one to six new employees. However, this slight increase in employment would not result in a substantial increase in population growth to the City or surrounding area. Therefore, direct or indirect increases in population growth would not occur as a result of the Proposed Project.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

No residences would be displaced or removed as a result of the Proposed Project, and the Project would have no impact on existing housing.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

As discussed under Issue b), the Project would not involve the removal or relocation of any housing and would therefore not displace any people or necessitate the construction of any replacement housing.

4.13.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.14 Public Services

4.14.1 Environmental Setting

Public services include fire protection, police protection, parks and recreation, and schools. Generally, impacts in these areas are related to an increase in population from a residential development. Levels of service are generally based on a service to population ratio, except for fire protection, which is usually based on a response time. For example, the Orland General Plan Policy PFS-8.11 provides a Police Department staffing ratio of 1.9 officers per 1,000 population. Further, in 2003, the Orland City Council set the park dedication standard at 8.4 acres per 1,000 residents. Finally, the average response time for fire protection and emergency medical services in Orland is three to five minutes for arrival at the station, approximately one minute to prepare and leave the station, and an additional two to three minutes to the actual call site (Orland 2010b).

Police Services

The Orland Police Department (OPD) provides law enforcement services to the Project site. OPD reported total calls for service increased to 2,937 (30%) in 2017 (Orland 2018) The OPD has patrol service 24 hours a day. The K-9 program had 54 deployments in 2017. The Police Department also offer the following services: certified child seat installer, free bike helmets, Alice Training (Active Shooter Training), and Volunteers in Polices Services (VIPs) Program. The OPD personnel plan for the future is to hire two additional patrol officers, a community service officer, lieutenant or additional sergeant position and a full-time detective position (Orland 2018a). The City's police station is located at 817 Fourth Street, approximately 0.7 miles north of the Project site.

Fire Services

The City of Orland Volunteer Fire Department (OVFD) provides fire protection and emergency medical services to the Project site. OVFD responds to various emergency and non-emergency incidents including, but not limited to, all types of fire; medical emergencies; public assists and hazardous situations. As of January 2018, there are 45 active volunteers in the OVFD. There were 736 calls in 2017 (397 city calls and 339 rural calls). Medical calls (292) have increased within the City in the past three years (Orland 2018a). The City's Fire Station is located at 810 Fifth Street, approximately 0.7 miles north of the Project site.

Schools

The Orland Unified School District (OUSD) provides educational services for the City of Orland. The District has two elementary schools (one for grades K-2 and one for grades K-5), one middle schools (grades 6-8), one high school (grades 9-12), and one continuation high school, one community day school (OUSD 2018a). The District had 2,210 students in the 2016-2017 school year (OUSD 2018b). According to the California Department of Education, (DOE), the City also has one private school, the Providence Christian School (DOE 2017).

Parks

The City of Orland has six parks ranging in size from 0.26 acres to 23 acres for a total acreage of 47.16 acres (Orland 2018b). Based on the DOF 2018 estimated City population of 7,844, the City's parkland to population ratio is six acres of parks/1,000 population[6].

4.14.2 Public Services (XIV) Environmental Checklist and Discussion

	Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	☐	☐	☒	☐
	Fire Protection?	☐	☐	☒	☐
	Police Protection?	☐	☐	☒	☐
	Schools?	☐	☐	☐	☒
	Parks?	☐	☐	☐	☒
	Other Public Facilities?	☐	☐	☐	☒

Fire Protection

The Project site is located approximately 0.7 miles from the City's fire station. The Project site is currently served by the City for fire protection and the expansion of the existing Simplot facility would not increase the response time required for the OVFD. As such, the Project would not require additional fire facilities to serve the Project. The Proposed Project would not require any additional OVFD facilities and is not anticipated to create an additional burden on exiting fire facilities. Therefore, the Project would have a less than significant impact in this area.

Police Services

The Proposed Project would not result in a significant increase in demand for police protection resulting in new or expanded police facilities. Police facilities and the need for expanded facilities are based on the staffing levels these facilities must accommodate. Police staffing levels are generally based on the

[6] 47.16 acres of parks / (7,844 / 1,000) population = 6.0 acres of parks / 1,000 population.

population/police officer ratio, and an increase in population is usually the result of an increase in housing or employment. Because the Proposed Project would not increase the population of Orland, the Project would not result in the need for increase in police protection or police facilities. Therefore, the Proposed Project would have a less than significant impact in this area.

Schools

The purpose of the Proposed Project is the expansion of an existing facility. This development will not result in an increase of student population in Orland. The Proposed Project does not result in an increase in housing or population in the city which would require additional educational facilities. Therefore, the Proposed Project would have no impact in this area.

Parks

As stated previously, the need for additional parkland is primarily based on an increase in population to an area. Given that the Proposed Project would not increase the City's population, the Project would not burden any parks in the surrounding area beyond capacity by generating additional recreational users. Therefore, the Proposed Project would not require the construction or expansion of park and recreational facilities and would also not result in an increase in demand for parks and recreation facilities in the surrounding area. There would be no impact to parks from construction of the Proposed Project.

Other Public Facilities

The Proposed Project does not result in an increase in housing or population in the city resulting in an increased use of other public facilities such as the Orland Free Library or City Hall. Therefore, the Project would have no impacts on other public facilities.

4.14.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.15 Recreation

4.15.1 Environmental Setting

The City has approximately 47.16 acres of parkland. Additionally, the City also provides recreational facilities, such as adult and youth sports leagues for the enjoyment of city residents.

4.15.2 Recreation (XV) Materials Checklist

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) 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?	☐	☐	☐	☒

As stated previously, the need for additional parkland is primarily based on an increase in population to an area. Given that the Proposed Project would not increase the City's population, the Project would not burden any parks in the surrounding area beyond capacity by generating additional recreational users. Therefore, the Proposed Project would not increase the use of park and recreational facilities resulting in substantial physical deterioration of the facility. There would be no impact to recreational facilities from construction of the Proposed Project.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☒	☐

The Proposed Project would not result in additional athletic amenities or require the construction or expansion of additional recreational facilities. As such, the Proposed Project would have a less than significant impact in this issue area.

4.15.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.16 Transportation/Traffic

4.16.1 Environmental Setting

Regional access to the Project site is provided by 1-5 and SR 32, which link the site with other northern California communities to the north and south. Local access to the Project site is provided via Railroad Avenue and County Road 18/Eucalyptus. Railroad Avenue from Yolo Street to County Road 18 is identified in the Orland General Plan Background Report with the roadway classification of minor collector. Minor collectors are defined as the primary non-local road type in the City and feed traffic from residential areas to major collectors or arterials (Orland 2010c). The section of roadway is also an identified truck route in the General Plan Background Report. General Plan Policy 3.3.A defines the Level of Service (LOS) for roadways in the City. Policy 3.3.A is as follows:

> "Policy 3.3.A: Construct street and highway improvements to maintain an overall daily roadway Level of Service of "C" with an a.m. and p.m. peak-hour roadway and intersection Level of Service of "D" or better, unless other public health, safety, or welfare factors determine otherwise."

The LOS C for minor collectors is between 5,601 and 6,400 daily trips. According to the Background Report, the LOS for Railroad Avenue, north of South Street, which is 0.33 mile north of the Project site, the average daily traffic count in 2010 was 1,983 trips. This resulted in a LOS A.

Presently, there are no formally designated bicycle lanes or bicycle facilities in Orland. However, the City understands the need to move people through the community. The City is planning multi-use pathways

along Stony Creek, as well as multi-use pathways within the rights-of-way of undergrounded canals. Additionally, street widths can accommodate bicycle traffic in some areas and bicycle racks are available at schools and parks.

Bus service is provided to the City of Orland through Glenn Ride, which is a transit service provided by Glenn County. It is a fixed-route bus system with seven round trips every weekday and three round trips on Saturday from Willows to Chico. There are currently nine bus stops in Orland. The stops closest to the Proposed Project are at the 8th St./Mill St. intersection or the E. Yolo St./East St. intersection, both less than one mile from the site.

4.16.2 Transportation/Traffic (XVII.) Environmental Checklist and Discussion

Would the Project:		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐

As discussed in Section 2.0 Project Description, completion of the Proposed Project is estimated to increase the number of employees by six or 12 trips (counting to and from the site), an increase in the number of visitors per day by three or six trips and the number of product delivery trips per day by 32. This would result in an average of 50 new vehicle trips on Railroad Avenue in the 7:00 am to 5:00 pm time period or an average of five per hour.

As discussed previously, Railroad Avenue, north of South Street had an average daily traffic count of 1,983 trips in 2010. This resulted in a LOS A. An unacceptable LOS for this roadway would be more than 6,400 daily trips per General Plan Policy 3.3.A. While the City's population has increased by 553 persons since 2010 (see Subsection 4.13), the area surrounding the Project site has seen little development since 2010. As such, the current traffic counts on Railroad Avenue would be similar to those trips identified in 2010. Therefore, the addition of 50 daily trips from the Proposed Project would not increase the traffic on Railroad Avenue or surrounding roadways beyond the City's LOS standards. This impact would be less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐

The City of Orland is part of the Glenn County 2015 Regional Transportation Plan (RTP). The 2015 RTP serves as the planning blueprint to guide transportation investments in Glenn County involving local, state, and federal funding over the next 20 years. Transportation improvements in the RTP are identified as short-term (2025) or long-term (2035) (GCTC 2015).

The Project does not propose new roads or extensions of existing roads. The Project does not include the construction of any new homes or businesses. The Proposed Project is the expansion of an existing facility and would not increase population to the area. Therefore, the Proposed Project would not conflict with the 2015 RTP. As such, the Project would not be inconsistent with any adopted local or regional transportation plans and would have a less than significant impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
c) Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒

The Proposed Project is the expansion of an existing industrial use. The Project does not include the construction of any new homes or businesses. Development of this Project would not increase population to the area. Because the Proposed Project would not directly or indirectly result in an increase in population to the area, the Project would not increase air traffic levels. Therefore, the Project would have no impact in this area.

The closest airport, Haigh Field, is located approximately 2.75 miles southeast of the Project site. The Project site is not located in the airport's safety areas as shown on Map 2 of the Comprehensive Airport Land Use Plan for the Orland Haigh Field Airport (Glenn County 1991). Therefore, the Project would have no impact in this area.

Would the Project:		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
d)	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐

No modifications to roadway features are proposed as part of the Project. The Project would construct two new driveways connecting the Project site to Railroad Avenue. These driveway/roadway interfaces would be required to be located and constructed according to City of Orland roadway standards. Therefore, the Project would have a less than significant impact in this area.

Would the Project:		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
e)	Result in inadequate emergency access?	☐	☐	☒	☐

The Project design provides three access points to the site from Railroad Avenue. Therefore, the Project would have a less than significant impact regarding emergency access.

Would the Project:		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
f)	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities or otherwise decrease the performance or safety of such facilities?	☐	☐	☒	☐

Currently, the City does not have a bicycle or trails plan. All bicycle and pedestrian facilities are guided by policies and programs in the General Plan. For example, Policy 2.7.A requires adequate sidewalks to be constructed in connection with street construction work in the city. Policy 2.7.6 requires subdivisions to include designs that promote pedestrian circulation in a safe and efficient manner, and Policy 2.7.0 requires bicycle lanes to be established where feasible along major and minor collectors in newly developing areas.

The Proposed Project is adjacent to Railroad Avenue and County Road 18. For those areas of the site that directly border these streets, the Project is generally required to add curbs, gutters, and sidewalks. These improvements assist in the creation of pedestrian pathways adjacent to the site.

Bus service is provided to the City of Orland through Glenn Ride. This system provides seven round trips every weekday and three round trips on Saturday from Willows to Chico. There are currently nine bus

stops in Orland. The Project would not interfere with the ability of Glenn Ride to continue service to the area nor conflict with any policies, plans, or programs for bus service in the County or City.

These transit options would remain intact and not otherwise be affected by the Project. Therefore, impacts related to existing alternative transportation would not result from the Project, and the Proposed Project would not conflict with adopted policies, plans, or programs supporting alternative transportation.

4.16.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.17 Tribal Cultural Resources

4.17.1 Environmental Setting

Prior to the arrival of Euro-Americans in the region, California was inhabited by groups of Native Americans speaking more than 100 different languages and occupying a variety of ecological settings. Kroeber (1925, 1936) subdivided California into four subculture areas, Northwestern, Northeastern, Southern, and Central. Orland is in Kroeber‟s Central Area within Nomlaki territory. Nomlaki, a division of the Wintu, occupied a territory that extended from the vicinity of Cottonwood Creek in the north to Glenn County in the south and from the crest of the Coast Range in the west past the Sacramento River in the east (Goldschmidt, 1978). There were two distinct divisions of Nomlaki: the Hill Nomlaki and the River Nomlaki. The Hill Nomlaki occupied the areas to the west and south in the foothills (Orland 2010b).

The Nomlaki were divided into local groups centered in a village or *kewel*. A typical village consisted of a chieftain's house, family houses surrounding the chieftain's house, a dance house, and a menstrual hut that was placed on the side of the village opposite the water source. Population size varied among villages ranging from 25 inhabitants to over 200 occupying 5 to 50 family houses. Group activities included smoking, storytelling, dancing, and gambling. The position of chieftain (*cabatu)* was hereditary, although men in a village could voice an opinion regarding a change in succession of a chieftain. The chief's status derived from his personal qualifications and from his wealth. His position also exempted him from strenuous manual labor (DuBois, 1935). Villages were commonly located near springs or along creeks. Many villages also claimed territory at higher elevations that could be occupied during hot summer months (Orland 2010b).

Trade among Nomlaki was common and integral to their survival. They primarily engaged in three exchange systems: internal or trading between neighbors, east-west trading, and north-south trading. Internal trading included families exchanging utilitarian items. This economic activity occurred as required by individuals in a village and was conducted in a rather casual manner. In addition, the chief could facilitate the supply of utilitarian items by acquiring them and selling them, as necessary, to village inhabitants (Orland 2010b).

The second exchange system, east-west trade, was conducted between Hill Nomlaki and River Nomlaki. These two groups exchanged resources easily accessible to each group for resources that could not be easily obtained in their respective territories. For example, River Nomlaki traded riverine resources such as salmon for acorns and other resources more common in Hill Nomlaki territory. The primary medium of

exchange in these transactions appears to be shell money and/or other valuable items. East-west economic exchanges also included trading with Yuki for salt (Orland 2010b).

The third exchange system, north-south trade, was extensive, ranging from San Francisco Bay to Shasta Wintu territory. Clamshell disks moved from the south to the north, and obsidian, animal pelts, and yew wood moved from the north to the south. Nomlaki contributed salt and magnesite beads to this exchange system. Magnesite beads were used by all Wintu groups and were greatly valued. Regardless of the items contributed to the exchange system by Nomlaki, they primarily profited by being located in the middle of the system. Nomlaki acted as middlemen in the exchange system and could affect the supply of goods flowing in either direction. Nomlaki would also convert raw materials from the north or south into usable or more valuable items and take a profit from the groups to whom they were trading the items. Consequently, participation in and continuation of the north-south exchange system was an important and lucrative economic activity among Nomlaki (Orland 2010b).

Nomlaki usually buried their dead in areas approximately 1,000 to 1,200 feet from a village. Nomlaki cemeteries were occasionally shared by more than one village. Circular graves were dug to a depth of three to four feet using a mahogany stick. The body of the deceased individual was tightly flexed, pushing the head between the knees and folding the hands at the sides. Next, the body was bound tightly with sinew rope and wrapped in black bear hide, which was highly prized for this purpose, whenever possible. Finally, a net was wrapped around the bundle and the individual was placed in the grave. Most of the personal belongings of the deceased were burned, but items such as beads and ornaments could be buried with an individual. Burials were usually accompanied by wailing and mourning (Orland 2010b).

4.17.2 Tribal Consultation

ECORP contacted the California NAHC on May 8, 2018 to request a search of the Sacred Lands File for the APE. This search can determine whether Sacred Lands have been recorded by California Native American tribes within the APE, because the Sacred Lands File is populated by members of the Native American community who have knowledge about the locations of tribal resources. In requesting a search of the Sacred Lands File, ECORP solicited information from the Native American community regarding tribal cultural resources. The search of the Sacred Lands File by the NAHC failed to indicate the presence of Native American cultural resources in the Project area (ECORP 2018b).

Assembly Bill 52 (AB 52) requires *that* prior to the release of a CEQA document for a project, an agency begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if: (1) the California Native American tribe requested to the lead agency, in writing, to be informed by the lead agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe and (2) the California Native American tribe responds, in writing, within 30 days of receipt of the formal notification, and requests the consultation. The City of Orland has not received any formal notification requests by any California Native American tribes. As such, the consultation responsibilities required by AB 52 have been met by the WPUSD for the Proposed Project.

4.17.3 Tribal Cultural Resources (XVII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	☐	☒	☐
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.	☐	☒	☐	☐

No known cultural resources or significant archaeological resources have been identified within the Project area. The site has not been identified as either a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American tribe. However, unanticipated and accidental discovery of California Native American tribal cultural resources are possible during project implementation, especially during excavation, and have the potential to impact unique cultural resources. As such, mitigation measure CUL-1 has been included to reduce the potential for impacts to tribal cultural resources to a less than significant level.

4.17.4 Mitigation Measures

Implement mitigation measure CUL-1.

4.18 Utilities and Service Systems

4.18.1 Environmental Setting

The City of Orland Public Works Department is responsible for water, wastewater, and storm drainage for the city. The City contracts with Waste Management to provide solid waste collection services in the city.

Water Service

The City of Orland currently provides water service to the Existing Simplot Growers Facility. There are existing water lines located in Railroad Avenue. The source of water supply for Orland is groundwater pumped from six wells that produce between 350 to 1,090 gallons per minute (gpm). The wells are located throughout the City and range in depth from 150 feet to 400 feet. Gravity flow from an 80,000-gallon elevated storage tank provides the water pressure in the city. The water transmission and distribution systems consist of approximately 34 miles of pipeline ranging in diameter from 4 inches to 10 inches. The water system is operated at 50 to 65 pounds per square inch (psi) pressure under normal demand. The six wells are capable of producing 5,130 gallons per minute at 55 psi system pressure. (Orland 2014)

Wastewater

All sewage is collected and processed by the Orland Wastewater Facility. The facility utilizes a primary treatment process consisting of a bar-screen located at the headworks building with screened effluent disposed into a rotating series of four sewage disposal ponds located west of the airport. These four primary settling ponds, along with two specially lined and isolated brine ponds, are located on a 50-acre, City-owned parcel of land.

The wastewater facility is currently operating under Waste Discharge Requirements Order No. 96-129, which was adopted by the Central Valley Regional Water Quality Control Board on May 3, 1996. The City's Waste Discharge Requirements indicate that the design capacity in 1996 for the four stabilization ponds and disposal field was 2.1 million gallons per day (mgd), with an average domestic wastewater flow of 1.3 mgd (Orland 2010b). The City has recently updated the wastewater facility by adding the Blue Frog Aeration System to the facility's aeration ponds. The addition of the Blue Frog Aeration System allows for better processing of the wastewater.

According to the City's Public Works Department, the City's wastewater facility currently has an average flow of about 1.0 mgd. The capacity of the collection system is 3.4 mgd (based on peak flow) and the facility's capacity is 2.1 mgd (based on average flows). Based on these numbers, the system is operating at approximately 50 percent of capacity (Orland 2018c). The City's current population is estimated to be 7,844 by the DOF. The wastewater facility can support a population of approximately 12,000 (Orland 2010b).

Storm Drainage

The City of Orland stormwater drainage system consists primarily of surface water conveyance utilizing curbs and gutters which lead to underground drainage pipes that eventually discharge into the Lely Aquatic Pond, the Stony Creek Basin Tributary Area, or onsite retention basin and leach field systems.

Approximately 80 percent of the City's area is served by, and discharges into, the Lely Aquatic Pond. The City Engineer estimates that this pond is capable of accommodating all storm events up to and including a 50-year storm (Orland 2010b). Storm events which exceed this return interval will cause some localized ponding of runoff throughout the City within street roadbeds. Should the groundwater table become elevated due to cumulative stormwater runoff and percolation (likely occurring in late winter through early spring), the Lely Aquatic Pond capacity decreases, thereby resulting in a situation where larger storm events may cause the pond to exceed its capacity. When this occurs, runoff flows southeasterly along East South Street (County Road 200) until it reaches the Tehama-Colusa Canal, which thereafter becomes a dike preventing further street flow (Orland 2010b).

Solid Waste

The City of Orland is a member of the Glenn County Waste Management Regional Agency. The California Department of Resources Recycling and Recovery (CalRecycle) provides solid waste disposal and recycling information for jurisdictions in the state, including the Glenn County Waste Management Regional Agency.

As shown in Table 4.18-1, the majority of the Agency's solid waste is disposed of at the Glenn County Landfill. According to the figures published by the CalRecycle (2018a), in 2016, the Glenn County Landfill received approximately 97.5 percent of the Agency's solid waste, or 21,186 tons (CalRecycle 2018a).

Table 4.18-1. Solid Waste Disposal Facilities Used by the Glenn County Waste Management Regional Agency

Destination Facility	Solid Waste Disposal (tons/year)			Landfill Information		
	2014	2015	2016	Remaining Capacity (cubic yards)	Remaining Capacity Date	Cease Operation Date
Altamont Landfill and Resource Recovery	27	4	-			
Anderson Landfill, Inc	483	10	10	51,512,201	9/30/12	1/1/2045
Forward Landfill, Inc.	33	9	10	22,100,000	12/31/2012	1/1/2020
Glenn County Landfill	19,506	19,956	21,186	866,521	2/28/2015	7/1/2016
Neal Road Recycling and Waste Facility	181	33	53	20,847,970	7/1/2009	1/1/2033
North County Landfill & Recycling	-	-	2	35,400,000	12/31/2009	12/31/2048
Potrero Hills Landfill		16	174	13,872,000	1/1/2006	2/14/2048
Recology Hay Road	7	6	161	30,433,000	7/28/2010	1/1/2077

Table 4.18-1. Solid Waste Disposal Facilities Used by the Glenn County Waste Management Regional Agency

Destination Facility	Solid Waste Disposal (tons/year)			Landfill Information		
	2014	2015	2016	Remaining Capacity (cubic yards)	Remaining Capacity Date	Cease Operation Date
Recology Ostrom Road LF Inc.	-	1	18	39,223,000	6/1/2007	12/31/2066
Vasco Road Sanitary Landfill	-	1	-	7,379,000	10/31/2016	12/31/2023
Yolo County Central Landfill	-	-	110	n/a	n/a	1/1/2081
Yearly Total	20,236	20,038	21,724			
Average per Resident (lbs./day)	3.9	3.8	4.2			
Average per Employee (lbs./day)	13.1	12.6	13.4			

Source: CalRecycle 2018a, 2018b, and 2018c

4.18.2 Utilities and Service Systems (XVIII) Environmental Checklist and Discussion

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒

The Proposed Project would connect to the City of Orland's existing wastewater collection treatment system, which includes the Orland Wastewater Facility. The wastewater facility is currently in compliance with all wastewater standards and treatment requirements of the Central Valley RWQCB. The Proposed Project would not result in an increase of wastewater generation, to the point of requiring new wastewater facilities or the exceedance of existing treatment requirements. See discussion under Item b) below. As such, the development of the Proposed Project would not result in the city or the wastewater facility exceeding the wastewater standards of the Central Valley RWQCB and would have no impact in this area.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b)	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐

Water

Development of the Project would increase the demand for water in the city. The Proposed Project's estimated annual water demand is 184,000 gallons (504 gallons per day [gpd]) over existing demand. The City's six wells are capable of producing 5,130 gallons per minute (gpm) at 55 psi system pressure (approximately 7.38 million gpd). The City's Water System Capacity Study (2014) identified a 2014 maximum daily demand of approximately 5,400 gpm and a combined maximum daily demand plus fire flow demand of approximately 7,900 gpm. Since that time, the City has developed the Eva Drive well, which is anticipated to produce between 1,000 gpm and 1,250 gpm of water. Generally, the City operates only two of the wells during the low water demand months and up to five during the high demand summer months, all running at about 60 percent capacity (Orland 2018c).

There is an eight-inch water transmission line located in Railroad Avenue adjacent to the Project site and currently serves the existing facility. Additionally, there is a six-inch line that extends to the annexation parcel (Orland 2014). All onsite water infrastructure would be installed by the Proposed Project.

Therefore, the Project would have a less than significant impact to the city's and PCWA's water treatment or conveyance facilities.

Wastewater

The Proposed Project would result in one to six new employees. The wastewater facility can support a population of approximately 12,000 (Orland 2010b). The City's current population is estimated to be 7,844 by the DOF. The addition of one to six new employees would not increase the city's population to a point of exceeding the wastewater facility treatment capacity. Therefore, the Project would have a less than significant impact to the city's wastewater treatment facilities.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐

The Proposed Project includes the development of a stormwater detention pond on the southwestern border of the Project site. This detention pond will be sized to accommodate the southern portion of the Project site's stormwater flows.

As previously stated, the topography of the site is flat with little elevation change, varying from approximately 247 feet to 249 feet AMSL over the ±7.5-acre site. The proposed finish grade for the Project is 248 feet AMSL. As a result, the Project will require minor grading with a slight slope to the south for the southern portion of the Project site to allow rainwater to flow into the proposed stormwater detention pond. The northern portion of the site will be graded to allow stormwater to flow to the east into existing and proposed inlets into the City's existing storm drain system.

All proposed drainage improvements would be constructed on the Project site. As such, impacts related to their construction are considered throughout this document as part of the Proposed Project and mitigated when applicable. Therefore, this impact would be less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐

Development of the Project would increase the demand for water in the city. The Proposed Project's estimated annual water demand is 184,000 gallons (504 gallons per day (gpd)) over existing demand. The City's six wells are capable of producing 5,130 gallons per minute (gpm) at 55 psi system pressure (approximately 7.38 million gpd). The City's source for water is from groundwater from the Colusa Groundwater Subbasin as discussed in subsection 4.9 Hydrology and Water Quality. At this time, the amount of groundwater available to be drawn from this subbasin by specific entity is not apportioned nor limited. As such, the City available water supply is not limited by groundwater entitlements. Therefore, the Proposed Project would not result in the exceedance of an allotted water supply for the City and the Project would have a less than significant impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐

Wastewater collection and treatment for the Project would be provided by the City of Orland. The wastewater facility can support a population of approximately 12,000 (Orland 2010b). The City's current population is estimated to be 7,844 by the DOF. The addition of one to six new employees would not increase the city's population to a point of exceeding the wastewater facility treatment capacity. As such, the City would have adequate wastewater capacity to serve the Project. The Project would have a less than significant impact in this area.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
f)	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐

According to CalRecycle (2018b), the estimated solid waste generation rate per employee in 2016 was 13.4 pounds per day. Based on this information and an anticipated increase in the number of employees to be between one and six for the expanded facility, the Project would produce approximately 13.4 to 80.4 pounds per day (lbs./day) or 2.4 to 14.7 tons annually.

As shown in Table 4.18-1, the Glenn County Landfill, which is the City's main disposal site for solid waste disposal, has a cease operation date of July 1, 2016. This date has been extended until completion of the County's new solid waste transfer station, which is planned to be operational by January 2019 (Grove 2018). Once this facility is closed, the City will have to find an alternative disposal site. However, the Proposed Project would not substantially increase solid waste in the city and existing landfills have sufficient capacity to accommodate the relatively minor amounts of waste that would be generated by the Proposed Project. This is a less than significant impact.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
g)	Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

The Proposed Project is required to comply with all state and federal statutes regarding solid waste. This impact is considered less than significant.

4.18.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.19 Mandatory Findings of Significance

4.19.1 Mandatory Findings of Significance (XIX.) Environmental Checklist and Discussion

Does the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐

As discussed in Sections 4.4 Biological Resources and 4.5 Cultural Resources, the Proposed Project would have potential impacts to these resources. However, with implementation of mitigation measures proposed in the relevant sections of this Initial Study, these potential impacts would be reduced to a level that is considered less than significant.

Does the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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)?	☐	☒	☐	☐

Implementation of the Proposed Project, in conjunction with other approved or pending projects in the region, has the potential to result in cumulatively considerable impacts to the physical environment. However, with implementation of mitigation measures proposed in the relevant subsections of this Initial Study, these potential impacts would be reduced to a level that is considered less than significant.

Does the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Direct and indirect impacts to human beings would not occur as a result of implementation of the Proposed Project. The Project would have a less than significant impact.

SECTION 5.0 LIST OF PREPARERS

5.1 City of Orland

Lead Agency

Peter Carr, City Manager

Scott Friend, City Planner

5.2 ECORP Consulting, Inc.

CEQA Documentation/Air Quality/Biological Resources/Cultural Resources/Greenhouse Gas/Noise

Mike Martin, CEQA Project Manager

Seth Myers, Air Quality/GHG & Noise Director

Roger Mason, Director Emeritus of Cultural Resources

Shane Meston, Associate Archaeologist

Brian Fedrow, Production Manager, Technical Editor

Lourdes Gonzalez-Peralta, Natural Resources Manager

Keith Kwan, Senior Biologist

Lindsay Taylor, Associate Environmental Planner

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 6.0 BIBLIOGRAPHY

[BLM] Bureau of Land Management

2018 Bureau of Land Management, General Land Office Records. Electronic document, http://www.glorecords.blm.gov/, accessed May 9, 2018.

[CAL FIRE] California Department of Forestry and Fire protection

2007 Fire Hazard Severity Zones in SRA. Adopted November 7, 2007. http://frap.fire.ca.gov/webdata/maps/glenn/fhszs_map.11.pdf.

[CalRecycle] California Department of Resources Recycling and Recovery

2018a. Disposal Reporting System (DRS): Jurisdiction Disposal and Alternative Daily Cover (ADC) Tons by Facility. http://www.calrecycle.ca.gov/LGCentral/Reports/DRS/Destination/JurDspFa.aspx.

2018b Jurisdiction Diversion/Disposal Rate Summary. http://www.calrecycle.ca.gov/LGCentral/reports/diversionprogram/JurisdictionDiversionPost2006.aspx.

2018c SWIS Facility/Site Search. http://www.calrecycle.ca.gov/SWFacilities/Directory/Search.aspx.

2018d Estimated Solid Waste Generation Rates. https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates.

[Caltrans] California Department of Transportation

2004 Transportation- and Construction-Induced Vibration Guidance Manual.

2013 Technical Noise Supplement to the Traffic Noise Analysis Protocol. September 2013. http://www.dot.ca.gov/env/noise/docs/tens-sep2013.pdf

2018a Structure and Maintenance & Investigations, Historical Significance–Local Agency Bridges Database November 2015, accessed 9 May 9, 2018.

2018b. Structure and Maintenance & Investigations, Historical Significance–State Agency Bridges Database November 2015, accessed May 9, 2018.

2018 California Scenic Highway Mapping System. http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm. Accessed: May 10, 2018.

[CAPCOA] California Air Pollution Control Officers Association

2009 Health Risk Assessments for Proposed Land Use Projects.

[CARB] California Air Resources Board

2016 State and Federal Area Designation Maps. http://www.arb.ca.gov/desig/adm /adm.htm.

2005 California Almanac of Emissions and Air Quality.

CGS (California Department of Conservation, California Geological Survey).

1960 Geologic Atlas of California – Ukiah Sheet http://www.quake.ca.gov/gmaps/GAM/ukiah/ukiah.html.

2002 California Geomorphic Provinces. http://www.conservation.ca.gov/cgs/information/publications/cgs_notes/note_36/Documents/note_36.pdf.

2010 An Explanatory Text to Accompany the Fault Activity Map of California. http://www.conservation.ca.gov/cgs/cgs_history/Documents/FAM_phamplet.pdf.

2015 CGS Information Warehouse: Regulatory Maps. http://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=regulatorymaps.

2016 Earthquake Shaking Potential for California [map]. ftp://ftp.conservation.ca.gov/pub/dmg/pubs/ms/048/MS_048_revised_2016.pdf.

[DOC] California Department of Conservation, Division of Land Resource Protection

2016 Glenn County Williamson Act FY 2015/2016. Available at: ftp://ftp.consrv.ca.gov/pub/dlrp/wa/Glenn_15_16_WA.pdf. Accessed: May 10, 2018.

2018 Important Farmland Finder. Available at: http://maps.conservation.ca.gov/ciff/ciff.html. Accessed: May 10, 2018.

[DOE] California Department of Education

2017 2016 - 2017 Private School Directory. https://www.cde.ca.gov/ds/si/ps/index.asp.

[DOF] California Department of Finance

2017 E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2017 with 2010 Census Benchmark. http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/.

2018 E-1 Population Estimates for Cities, Counties and the State – January 1, 2017 and 2018. http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-1/.

[DTSC] California Department of Toxic Substances Control

2018 Hazardous Waste and Substance Site List http://www.envirostor.dtsc.ca.gov/public/. Accessed May 11, 2018.

[DWR] California Department of Water Resources

2006 California's Groundwater Bulletin 118 – Update 2006. https://www.water.ca.gov/LegacyFiles/pubs/groundwater/bulletin_118/basindescriptions/5-21.52.pdf.

2018a Groundwater Information Center Interactive Map Application. https://gis.water.ca.gov/app/gicima/#bookmark_DepthBelowGroundSurface.

2018b. Groundwater Basins Subject to Critical Conditions of Overdraft. https://www.water.ca.gov/Programs/Groundwater-Management/Bulletin-118/Critically-Overdrafted-Basins.

[ECORP] ECORP Consulting, Inc.

2018a Biological Resources Assessment for the Orland Simplot Expansion Project, Glenn County, California.

2018b Cultural Resources Records Search and Literature Review for the Orland Simplot Expansion Project, Glenn County, California T 22 North, R 3 West, Section 27 (ECORP Project No 2018-087). May 2018.

Engineering Toolbox

n.d. Illuminance – Recommend Light Levels. http://www.engineeringtoolbox.com/light-level-rooms-d_708.html.

[EPA] United States Environmental Protection Agency

1971 Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances.

2018 Enforcement and Compliance History Online (ECHO) program. https://echo.epa.gov/.

[FEMA] Federal Emergency Management Agency

1998 FIRM Flood Insurance Rate Map. Map No. 06021C0400D. Effective Date June 8, 1998.

[FTA] Federal Transit Administration

2006 Transit Noise and Vibration Impact Assessment.

Glenn County

1991 Comprehensive Airport Land Use Plan Orland Haigh Field Airport. http://www.countyofglenn.net/sites/default/files/Airports/Orland_Airport_Land_Use_Plan-1991.pdf.

1993. General Plan. June 1993. http://www.countyofglenn.net/dept/planning-community-development-services/planning/resources

Goldschmidt, W. R.

1978 "Nomlaki." In California, edited by Robert F. Heizer, pp. 341-349. Handbook of North American Indians, William C. Sturtevant, general editor, vol. 8. Smithsonian Institution, Washington, D.C.

Grove, Cole

2018 Glenn County Public Works Department. Personal communication. May 16, 2018.

Intergovernmental Panel on Climate Change [IPCC]

2014. Climate Change 2014 Synthesis Report: Approved Summary for Policymakers. http://www.ipcc.ch/.

Kyle, Douglas

2002 Historic Spots in California. Stanford University Press. Stanford, California.

Kroeber, A. L.

1925 Handbook of the Indians of California. Bureau of American Ethnology Bulletin 78. Washington.

1936 Culture Element Distributions: III, Area and Climax. University of California Publications in American Archaeology and Ethnology 37(3): 101-116, Berkeley, California.

[MCAQMD] Mendocino County Air Quality Management District

2010 CEQA Criteria and GHG Thresholds. http://www.co.mendocino.ca.us/aqmd/ceqa.html.

[NCRC] Northern California Resource Center

2015 Archaeological Resource Survey Report for the Proposed Pilot Flying J Travel Center Project.

[NCRS] Natural Resources Conservation Service

2018. Web Soil Survey. Available online at http://websoilsurvey.nrcs.usda.gov/. Accessed May 10, 2018.

[NSVPA] North Sacramento Valley Planning Area

2015 Northern Sacramento Valley Planning Area 2015 Triennial Air Quality Attainment Plan, Sacramento Valley Basinwide Air Pollution Control Council, 2015.

[NPS] National Park Service

2018 National Register Information System Website. Electronic document, http://www.nr.nps.gov/nrloc1.htm, accessed May 9, 2018.

[OHP] Office of Historic Preservation

2018 Office of Historic Preservation California Historical Landmarks Website, Electronic document. http://ohp.parks.ca.gov/?page_id=21387, accessed May 9, 2018.

2012 Directory of Properties in the Historic Property Data File for Glenn County. On file at NEIC, California State University, Chico, California.

1996 California Historical Landmarks. California Department of Parks and Recreation, Sacramento, California.

Orland, City of

2009. City of Orland Sewer Master Plan. http://cityoforland.com/_documents/SEWERMASTERPLAN.pdf.

2010a. City of Orland General Plan 2008-2028. http://www.cityoforland.com/govt/dept/planning/forms.asp.

2010b. General Plan Update Draft Environmental Impact Report, SCH No. 2008102073. http://www.cityoforland.com/_documents/OrlandGeneralPlanDEIR27-0153_FINAL6-25.pdf.

2010c General Plan Background Report.

2014. Water System Capacity Study.

2018a Orland City Council Minutes – Presentations, January 22, 2018. http://www.cityoforland.com/govt/dept/administration/ArchivedMinutesAgendas.asp.

2018b Orland Park Guide. http://cityoforland.com/govt/dept/recreation/parks.asp.

2018c. Personal communication with the Public Works Department.

[OUSD] Orland Unified School District

2018a OUSD web site - Orland Schools. http://www.orlandusd.net/Schools/Orland-Schools/index.html.

2018a OUSD web site – Accountability – 2017 SARC Report. http://www.orlandusd.net/Schools/Accountability/index.html

Russel, Gene H. Ed.D.

2018 Email to Shane Meston. Dated May 24, 2018.

[SWRCB] State Water Resources Control Board

2010. Storm Water Program, 2009-0009-DWQ Construction General Permit. http://www.swrcb.ca.gov/water_issues/programs/stormwater/constpermits.shtml.

2018. Geotracker. Accessed May 11, 2018. http://geotracker.waterboards.ca.gov.

[UCMP] University of California Museum of Paleontology

2018 UCMP Locality Search – Glenn County. https://ucmpdb.berkeley.edu/loc.html

[USGS] U.S. Geological Survey

2018a Alluvial Deposits. https://geomaps.wr.usgs.gov/archive/scamp/html/scg_surf_alluv.html.

2018b Areas of Land Subsidence in California. https://ca.water.usgs.gov/land_subsidence/california-subsidence-areas.html. Accessed May 10, 2018.

Weatherspark

2018 Average Weather in Orland California, United States. https://weatherspark.com/y/650/Average-Weather-in-Orland-California-United-States-Year-Round.

SECTION 7.0 LIST OF APPENDICES

Appendix A – Air Quality Emissions Modeling

Appendix B – Biological Resources Assessment

Appendix C – Cultural Resources Records Search and Literature Review

Appendix D - Greenhouse Gas Emissions Modeling

Appendix E – Noise Assessment

APPENDIX A

Air Quality Emissions Modeling

Simplot Growers Facility Expansion Project

Glenn County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	40.15	1000sqft	7.15	40,150.00	0
Parking Lot	43.00	Space	0.39	17,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	61
Climate Zone	3			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Adjusted acreage per Project Description.

Construction Phase - Construction, paving, and architectural coating assumed to occur simultaneously.

Water And Wastewater - Adjusted water useage per Project Description.

Vehicle Trips - Adjusted per Project Description.

Fleet Mix - Adjusted per Project Description (18 passenger vehicles and 32 delivery trucks).

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	230.00
tblConstructionPhase	NumDays	20.00	230.00
tblConstructionPhase	PhaseEndDate	5/21/2020	3/26/2020
tblConstructionPhase	PhaseEndDate	4/23/2020	3/26/2020
tblConstructionPhase	PhaseStartDate	4/24/2020	5/10/2019
tblConstructionPhase	PhaseStartDate	3/27/2020	5/10/2019
tblFleetMix	HHD	0.07	0.64
tblFleetMix	LDA	0.55	0.36
tblFleetMix	LDT1	0.03	0.00
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	7.2760e-003	0.00
tblFleetMix	MCY	4.7390e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	8.5800e-004	0.00
tblFleetMix	MHD	9.8790e-003	0.00
tblFleetMix	OBUS	1.0780e-003	0.00
tblFleetMix	SBUS	8.0100e-004	0.00
tblFleetMix	UBUS	1.6470e-003	0.00
tblLandUse	LotAcreage	0.92	7.15
tblVehicleTrips	ST_TR	1.32	1.25
tblVehicleTrips	SU_TR	0.68	1.25
tblVehicleTrips	WD_TR	6.97	1.25
tblWater	IndoorWaterUseRate	9,284,687.50	184,000.00

2.0 Emissions Summary

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					
2019	8.4975	45.6389	36.0237	0.0594	18.2141	2.3915	20.6056	9.9699	2.2002	12.1701	0.0000	5,807.5440	5,807.5440	1.4056	0.0000	5,842.6849
2020	8.0965	36.1708	35.3881	0.0592	0.4225	1.9900	2.4125	0.1134	1.8626	1.9760	0.0000	5,706.0159	5,706.0159	1.3913	0.0000	5,740.7981
Maximum	**8.4975**	**45.6389**	**36.0237**	**0.0594**	**18.2141**	**2.3915**	**20.6056**	**9.9699**	**2.2002**	**12.1701**	**0.0000**	**5,807.5440**	**5,807.5440**	**1.4056**	**0.0000**	**5,842.6849**

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					
2019	8.4975	45.6389	36.0237	0.0594	18.2141	2.3915	20.6056	9.9699	2.2002	12.1701	0.0000	5,807.5440	5,807.5440	1.4056	0.0000	5,842.6849
2020	8.0965	36.1708	35.3881	0.0592	0.4225	1.9900	2.4125	0.1134	1.8626	1.9760	0.0000	5,706.0159	5,706.0159	1.3913	0.0000	5,740.7981
Maximum	**8.4975**	**45.6389**	**36.0237**	**0.0594**	**18.2141**	**2.3915**	**20.6056**	**9.9699**	**2.2002**	**12.1701**	**0.0000**	**5,807.5440**	**5,807.5440**	**1.4056**	**0.0000**	**5,842.6849**

	ROG	NOx	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**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.1243	8.0000e-005	8.5200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0182	0.0182	5.0000e-005		0.0194
Energy	0.0248	0.2251	0.1891	1.3500e-003		0.0171	0.0171		0.0171	0.0171		270.0824	270.0824	5.1800e-003	4.9500e-003	271.6873
Mobile	0.1658	5.3357	1.0122	0.0143	0.3356	0.0149	0.3505	0.0910	0.0142	0.1052		1,491.2009	1,491.2009	0.1158		1,494.0949
Total	**1.3149**	**5.5608**	**1.2097**	**0.0156**	**0.3356**	**0.0320**	**0.3676**	**0.0910**	**0.0314**	**0.1224**		**1,761.3014**	**1,761.3014**	**0.1210**	**4.9500e-003**	**1,765.8016**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.1243	8.0000e-005	8.5200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0182	0.0182	5.0000e-005		0.0194
Energy	0.0248	0.2251	0.1891	1.3500e-003		0.0171	0.0171		0.0171	0.0171		270.0824	270.0824	5.1800e-003	4.9500e-003	271.6873
Mobile	0.1658	5.3357	1.0122	0.0143	0.3356	0.0149	0.3505	0.0910	0.0142	0.1052		1,491.2009	1,491.2009	0.1158		1,494.0949
Total	**1.3149**	**5.5608**	**1.2097**	**0.0156**	**0.3356**	**0.0320**	**0.3676**	**0.0910**	**0.0314**	**0.1224**		**1,761.3014**	**1,761.3014**	**0.1210**	**4.9500e-003**	**1,765.8016**

	ROG	NOx	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	3/29/2019	4/11/2019	5	10	
2	Grading	Grading	4/12/2019	5/9/2019	5	20	
3	Building Construction	Building Construction	5/10/2019	3/26/2020	5	230	
4	Paving	Paving	5/10/2019	3/26/2020	5	230	
5	Architectural Coating	Architectural Coating	5/10/2019	3/26/2020	5	230	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0.39

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 60,225; Non-Residential Outdoor: 20,075; Striped Parking Area: 1,032 (Architectural Coating – sqft)

OffRoad Equipment

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	24.00	9.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

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	0.1038	0.0662	0.8072	1.6300e-003	0.1479	1.1400e-003	0.1490	0.0392	1.0500e-003	0.0403		162.3378	162.3378	7.1200e-003		162.5158
Total	**0.1038**	**0.0662**	**0.8072**	**1.6300e-003**	**0.1479**	**1.1400e-003**	**0.1490**	**0.0392**	**1.0500e-003**	**0.0403**		**162.3378**	**162.3378**	**7.1200e-003**		**162.5158**

3.2 Site Preparation - 2019

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

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	0.1038	0.0662	0.8072	1.6300e-003	0.1479	1.1400e-003	0.1490	0.0392	1.0500e-003	0.0403		162.3378	162.3378	7.1200e-003		162.5158
Total	**0.1038**	**0.0662**	**0.8072**	**1.6300e-003**	**0.1479**	**1.1400e-003**	**0.1490**	**0.0392**	**1.0500e-003**	**0.0403**		**162.3378**	**162.3378**	**7.1200e-003**		**162.5158**

3.3 Grading - 2019

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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856		2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**6.5523**	**1.3974**	**7.9497**	**3.3675**	**1.2856**	**4.6531**		**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

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	0.0865	0.0552	0.6726	1.3600e-003	0.1232	9.5000e-004	0.1242	0.0327	8.8000e-004	0.0336		135.2815	135.2815	5.9400e-003		135.4299
Total	**0.0865**	**0.0552**	**0.6726**	**1.3600e-003**	**0.1232**	**9.5000e-004**	**0.1242**	**0.0327**	**8.8000e-004**	**0.0336**		**135.2815**	**135.2815**	**5.9400e-003**		**135.4299**

3.3 Grading - 2019

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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856	0.0000	2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**6.5523**	**1.3974**	**7.9497**	**3.3675**	**1.2856**	**4.6531**	**0.0000**	**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

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	0.0865	0.0552	0.6726	1.3600e-003	0.1232	9.5000e-004	0.1242	0.0327	8.8000e-004	0.0336		135.2815	135.2815	5.9400e-003		135.4299
Total	**0.0865**	**0.0552**	**0.6726**	**1.3600e-003**	**0.1232**	**9.5000e-004**	**0.1242**	**0.0327**	**8.8000e-004**	**0.0336**		**135.2815**	**135.2815**	**5.9400e-003**		**135.4299**

3.4 Building Construction - 2019

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	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

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	0.0598	1.1909	0.3807	2.6900e-003	0.0610	9.7000e-003	0.0707	0.0176	9.2800e-003	0.0269		280.6876	280.6876	0.0190		281.1634
Worker	0.1384	0.0883	1.0762	2.1800e-003	0.1972	1.5200e-003	0.1987	0.0523	1.4100e-003	0.0537		216.4504	216.4504	9.5000e-003		216.6878
Total	**0.1982**	**1.2792**	**1.4569**	**4.8700e-003**	**0.2582**	**0.0112**	**0.2694**	**0.0699**	**0.0107**	**0.0806**		**497.1380**	**497.1380**	**0.0285**		**497.8511**

3.4 Building Construction - 2019

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	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

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	0.0598	1.1909	0.3807	2.6900e-003	0.0610	9.7000e-003	0.0707	0.0176	9.2800e-003	0.0269		280.6876	280.6876	0.0190		281.1634
Worker	0.1384	0.0883	1.0762	2.1800e-003	0.1972	1.5200e-003	0.1987	0.0523	1.4100e-003	0.0537		216.4504	216.4504	9.5000e-003		216.6878
Total	**0.1982**	**1.2792**	**1.4569**	**4.8700e-003**	**0.2582**	**0.0112**	**0.2694**	**0.0699**	**0.0107**	**0.0806**		**497.1380**	**497.1380**	**0.0285**		**497.8511**

3.4 Building Construction - 2020

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	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

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	0.0484	1.0939	0.3193	2.6800e-003	0.0610	6.5400e-003	0.0676	0.0176	6.2600e-003	0.0238		279.3298	279.3298	0.0177		279.7721
Worker	0.1241	0.0771	0.9473	2.1100e-003	0.1972	1.4600e-003	0.1986	0.0523	1.3500e-003	0.0536		209.6954	209.6954	8.1400e-003		209.8989
Total	**0.1725**	**1.1711**	**1.2666**	**4.7900e-003**	**0.2582**	**8.0000e-003**	**0.2662**	**0.0699**	**7.6100e-003**	**0.0775**		**489.0252**	**489.0252**	**0.0258**		**489.6710**

3.4 Building Construction - 2020

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	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**	**0.0000**	**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

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	0.0484	1.0939	0.3193	2.6800e-003	0.0610	6.5400e-003	0.0676	0.0176	6.2600e-003	0.0238		279.3298	279.3298	0.0177		279.7721
Worker	0.1241	0.0771	0.9473	2.1100e-003	0.1972	1.4600e-003	0.1986	0.0523	1.3500e-003	0.0536		209.6954	209.6954	8.1400e-003		209.8989
Total	**0.1725**	**1.1711**	**1.2666**	**4.7900e-003**	**0.2582**	**8.0000e-003**	**0.2662**	**0.0699**	**7.6100e-003**	**0.0775**		**489.0252**	**489.0252**	**0.0258**		**489.6710**

3.5 Paving - 2019

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	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586		2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	4.4400e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4589**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**		**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

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	0.0865	0.0552	0.6726	1.3600e-003	0.1232	9.5000e-004	0.1242	0.0327	8.8000e-004	0.0336		135.2815	135.2815	5.9400e-003		135.4299
Total	**0.0865**	**0.0552**	**0.6726**	**1.3600e-003**	**0.1232**	**9.5000e-004**	**0.1242**	**0.0327**	**8.8000e-004**	**0.0336**		**135.2815**	**135.2815**	**5.9400e-003**		**135.4299**

3.5 Paving - 2019

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	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586	0.0000	2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	4.4400e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4589**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**	**0.0000**	**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

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	0.0865	0.0552	0.6726	1.3600e-003	0.1232	9.5000e-004	0.1242	0.0327	8.8000e-004	0.0336		135.2815	135.2815	5.9400e-003		135.4299
Total	**0.0865**	**0.0552**	**0.6726**	**1.3600e-003**	**0.1232**	**9.5000e-004**	**0.1242**	**0.0327**	**8.8000e-004**	**0.0336**		**135.2815**	**135.2815**	**5.9400e-003**		**135.4299**

3.5 Paving - 2020

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	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	4.4400e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3610**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**		**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

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	0.0776	0.0482	0.5921	1.3200e-003	0.1232	9.2000e-004	0.1241	0.0327	8.4000e-004	0.0335		131.0596	131.0596	5.0900e-003		131.1868
Total	**0.0776**	**0.0482**	**0.5921**	**1.3200e-003**	**0.1232**	**9.2000e-004**	**0.1241**	**0.0327**	**8.4000e-004**	**0.0335**		**131.0596**	**131.0596**	**5.0900e-003**		**131.1868**

3.5 Paving - 2020

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	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	4.4400e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3610**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**	**0.0000**	**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

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	0.0776	0.0482	0.5921	1.3200e-003	0.1232	9.2000e-004	0.1241	0.0327	8.4000e-004	0.0335		131.0596	131.0596	5.0900e-003		131.1868
Total	**0.0776**	**0.0482**	**0.5921**	**1.3200e-003**	**0.1232**	**9.2000e-004**	**0.1241**	**0.0327**	**8.4000e-004**	**0.0335**		**131.0596**	**131.0596**	**5.0900e-003**		**131.1868**

3.6 Architectural Coating - 2019

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	4.0975					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**4.3640**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

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	0.0288	0.0184	0.2242	4.5000e-004	0.0411	3.2000e-004	0.0414	0.0109	2.9000e-004	0.0112		45.0938	45.0938	1.9800e-003		45.1433
Total	**0.0288**	**0.0184**	**0.2242**	**4.5000e-004**	**0.0411**	**3.2000e-004**	**0.0414**	**0.0109**	**2.9000e-004**	**0.0112**		**45.0938**	**45.0938**	**1.9800e-003**		**45.1433**

3.6 Architectural Coating - 2019

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	4.0975					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**4.3640**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

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	0.0288	0.0184	0.2242	4.5000e-004	0.0411	3.2000e-004	0.0414	0.0109	2.9000e-004	0.0112		45.0938	45.0938	1.9800e-003		45.1433
Total	**0.0288**	**0.0184**	**0.2242**	**4.5000e-004**	**0.0411**	**3.2000e-004**	**0.0414**	**0.0109**	**2.9000e-004**	**0.0112**		**45.0938**	**45.0938**	**1.9800e-003**		**45.1433**

3.6 Architectural Coating - 2020

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	4.0975					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**4.3397**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

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	0.0259	0.0161	0.1974	4.4000e-004	0.0411	3.1000e-004	0.0414	0.0109	2.8000e-004	0.0112		43.6866	43.6866	1.7000e-003		43.7289
Total	**0.0259**	**0.0161**	**0.1974**	**4.4000e-004**	**0.0411**	**3.1000e-004**	**0.0414**	**0.0109**	**2.8000e-004**	**0.0112**		**43.6866**	**43.6866**	**1.7000e-003**		**43.7289**

3.6 Architectural Coating - 2020

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	4.0975					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**4.3397**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

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	0.0259	0.0161	0.1974	4.4000e-004	0.0411	3.1000e-004	0.0414	0.0109	2.8000e-004	0.0112		43.6866	43.6866	1.7000e-003		43.7289
Total	**0.0259**	**0.0161**	**0.1974**	**4.4000e-004**	**0.0411**	**3.1000e-004**	**0.0414**	**0.0109**	**2.8000e-004**	**0.0112**		**43.6866**	**43.6866**	**1.7000e-003**		**43.7289**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1658	5.3357	1.0122	0.0143	0.3356	0.0149	0.3505	0.0910	0.0142	0.1052		1,491.2009	1,491.2009	0.1158		1,494.0949
Unmitigated	0.1658	5.3357	1.0122	0.0143	0.3356	0.0149	0.3505	0.0910	0.0142	0.1052		1,491.2009	1,491.2009	0.1158		1,494.0949

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	50.19	50.19	50.19	146,523	146,523
Parking Lot	0.00	0.00	0.00		
Total	50.19	50.19	50.19	146,523	146,523

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
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.360000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.640000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.549294	0.032492	0.169090	0.120716	0.031218	0.007276	0.009879	0.070912	0.001078	0.001647	0.004739	0.000801	0.000858

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	0.0248	0.2251	0.1891	1.3500e-003		0.0171	0.0171		0.0171	0.0171		270.0824	270.0824	5.1800e-003	4.9500e-003	271.6873
NaturalGas Unmitigated	0.0248	0.2251	0.1891	1.3500e-003		0.0171	0.0171		0.0171	0.0171		270.0824	270.0824	5.1800e-003	4.9500e-003	271.6873

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					
General Light Industry	2295.7	0.0248	0.2251	0.1891	1.3500e-003		0.0171	0.0171		0.0171	0.0171		270.0824	270.0824	5.1800e-003	4.9500e-003	271.6873
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		**0.0248**	**0.2251**	**0.1891**	**1.3500e-003**		**0.0171**	**0.0171**		**0.0171**	**0.0171**		**270.0824**	**270.0824**	**5.1800e-003**	**4.9500e-003**	**271.6873**

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					
General Light Industry	2.2957	0.0248	0.2251	0.1891	1.3500e-003		0.0171	0.0171		0.0171	0.0171		270.0824	270.0824	5.1800e-003	4.9500e-003	271.6873
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		**0.0248**	**0.2251**	**0.1891**	**1.3500e-003**		**0.0171**	**0.0171**		**0.0171**	**0.0171**		**270.0824**	**270.0824**	**5.1800e-003**	**4.9500e-003**	**271.6873**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.1243	8.0000e-005	8.5200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0182	0.0182	5.0000e-005		0.0194
Unmitigated	1.1243	8.0000e-005	8.5200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0182	0.0182	5.0000e-005		0.0194

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2582					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8653					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.0000e-004	8.0000e-005	8.5200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0182	0.0182	5.0000e-005		0.0194
Total	**1.1243**	**8.0000e-005**	**8.5200e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0182**	**0.0182**	**5.0000e-005**		**0.0194**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2582					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8653					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.0000e-004	8.0000e-005	8.5200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0182	0.0182	5.0000e-005		0.0194
Total	**1.1243**	**8.0000e-005**	**8.5200e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0182**	**0.0182**	**5.0000e-005**		**0.0194**

7.0 Water Detail

7.1 Mitigation Measures Water

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

Simplot Growers Facility Expansion Project

Glenn County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	40.15	1000sqft	7.15	40,150.00	0
Parking Lot	43.00	Space	0.39	17,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	61
Climate Zone	3			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Adjusted acreage per Project Description.

Construction Phase - Construction, paving, and architectural coating assumed to occur simultaneously.

Water And Wastewater - Adjusted water useage per Project Description.

Vehicle Trips - Adjusted per Project Description.

Fleet Mix - Adjusted per Project Description (18 passenger vehicles and 32 delivery trucks).

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	230.00
tblConstructionPhase	NumDays	20.00	230.00
tblConstructionPhase	PhaseEndDate	5/21/2020	3/26/2020
tblConstructionPhase	PhaseEndDate	4/23/2020	3/26/2020
tblConstructionPhase	PhaseStartDate	4/24/2020	5/10/2019
tblConstructionPhase	PhaseStartDate	3/27/2020	5/10/2019
tblFleetMix	HHD	0.07	0.64
tblFleetMix	LDA	0.55	0.36
tblFleetMix	LDT1	0.03	0.00
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	7.2760e-003	0.00
tblFleetMix	MCY	4.7390e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	8.5800e-004	0.00
tblFleetMix	MHD	9.8790e-003	0.00
tblFleetMix	OBUS	1.0780e-003	0.00
tblFleetMix	SBUS	8.0100e-004	0.00
tblFleetMix	UBUS	1.6470e-003	0.00
tblLandUse	LotAcreage	0.92	7.15
tblVehicleTrips	ST_TR	1.32	1.25
tblVehicleTrips	SU_TR	0.68	1.25
tblVehicleTrips	WD_TR	6.97	1.25
tblWater	IndoorWaterUseRate	9,284,687.50	184,000.00

2.0 Emissions Summary

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					
2019	8.4796	45.6552	35.8422	0.0588	18.2141	2.3915	20.6056	9.9699	2.2002	12.1701	0.0000	5,748.8764	5,748.8764	1.4059	0.0000	5,784.0250
2020	8.0804	36.2310	35.2183	0.0587	0.4225	1.9902	2.4127	0.1134	1.8627	1.9762	0.0000	5,648.7169	5,648.7169	1.3917	0.0000	5,683.5092
Maximum	**8.4796**	**45.6552**	**35.8422**	**0.0588**	**18.2141**	**2.3915**	**20.6056**	**9.9699**	**2.2002**	**12.1701**	**0.0000**	**5,748.8764**	**5,748.8764**	**1.4059**	**0.0000**	**5,784.0250**

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					
2019	8.4796	45.6552	35.8422	0.0588	18.2141	2.3915	20.6056	9.9699	2.2002	12.1701	0.0000	5,748.8764	5,748.8764	1.4059	0.0000	5,784.0250
2020	8.0804	36.2310	35.2183	0.0587	0.4225	1.9902	2.4127	0.1134	1.8627	1.9762	0.0000	5,648.7169	5,648.7169	1.3917	0.0000	5,683.5092
Maximum	**8.4796**	**45.6552**	**35.8422**	**0.0588**	**18.2141**	**2.3915**	**20.6056**	**9.9699**	**2.2002**	**12.1701**	**0.0000**	**5,748.8764**	**5,748.8764**	**1.4059**	**0.0000**	**5,784.0250**

	ROG	NOx	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**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.1243	8.0000e-005	8.5200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0182	0.0182	5.0000e-005		0.0194
Energy	0.0248	0.2251	0.1891	1.3500e-003		0.0171	0.0171		0.0171	0.0171		270.0824	270.0824	5.1800e-003	4.9500e-003	271.6873
Mobile	0.1675	5.3612	1.1583	0.0135	0.3356	0.0159	0.3515	0.0910	0.0152	0.1062		1,412.5863	1,412.5863	0.1312		1,415.8656
Total	**1.3166**	**5.5863**	**1.3559**	**0.0149**	**0.3356**	**0.0330**	**0.3686**	**0.0910**	**0.0323**	**0.1233**		**1,682.6868**	**1,682.6868**	**0.1364**	**4.9500e-003**	**1,687.5723**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.1243	8.0000e-005	8.5200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0182	0.0182	5.0000e-005		0.0194
Energy	0.0248	0.2251	0.1891	1.3500e-003		0.0171	0.0171		0.0171	0.0171		270.0824	270.0824	5.1800e-003	4.9500e-003	271.6873
Mobile	0.1675	5.3612	1.1583	0.0135	0.3356	0.0159	0.3515	0.0910	0.0152	0.1062		1,412.5863	1,412.5863	0.1312		1,415.8656
Total	**1.3166**	**5.5863**	**1.3559**	**0.0149**	**0.3356**	**0.0330**	**0.3686**	**0.0910**	**0.0323**	**0.1233**		**1,682.6868**	**1,682.6868**	**0.1364**	**4.9500e-003**	**1,687.5723**

	ROG	NOx	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	3/29/2019	4/11/2019	5	10	
2	Grading	Grading	4/12/2019	5/9/2019	5	20	
3	Building Construction	Building Construction	5/10/2019	3/26/2020	5	230	
4	Paving	Paving	5/10/2019	3/26/2020	5	230	
5	Architectural Coating	Architectural Coating	5/10/2019	3/26/2020	5	230	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0.39

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 60,225; Non-Residential Outdoor: 20,075; Striped Parking Area: 1,032 (Architectural Coating – sqft)

OffRoad Equipment

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	24.00	9.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

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	0.0953	0.0825	0.7083	1.4300e-003	0.1479	1.1400e-003	0.1490	0.0392	1.0500e-003	0.0403		142.1344	142.1344	6.3300e-003		142.2925
Total	**0.0953**	**0.0825**	**0.7083**	**1.4300e-003**	**0.1479**	**1.1400e-003**	**0.1490**	**0.0392**	**1.0500e-003**	**0.0403**		**142.1344**	**142.1344**	**6.3300e-003**		**142.2925**

3.2 Site Preparation - 2019

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

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	0.0953	0.0825	0.7083	1.4300e-003	0.1479	1.1400e-003	0.1490	0.0392	1.0500e-003	0.0403		142.1344	142.1344	6.3300e-003		142.2925
Total	**0.0953**	**0.0825**	**0.7083**	**1.4300e-003**	**0.1479**	**1.1400e-003**	**0.1490**	**0.0392**	**1.0500e-003**	**0.0403**		**142.1344**	**142.1344**	**6.3300e-003**		**142.2925**

3.3 Grading - 2019

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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856		2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**6.5523**	**1.3974**	**7.9497**	**3.3675**	**1.2856**	**4.6531**		**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

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	0.0794	0.0688	0.5903	1.1900e-003	0.1232	9.5000e-004	0.1242	0.0327	8.8000e-004	0.0336		118.4453	118.4453	5.2700e-003		118.5771
Total	**0.0794**	**0.0688**	**0.5903**	**1.1900e-003**	**0.1232**	**9.5000e-004**	**0.1242**	**0.0327**	**8.8000e-004**	**0.0336**		**118.4453**	**118.4453**	**5.2700e-003**		**118.5771**

3.3 Grading - 2019

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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856	0.0000	2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**6.5523**	**1.3974**	**7.9497**	**3.3675**	**1.2856**	**4.6531**	**0.0000**	**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

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	0.0794	0.0688	0.5903	1.1900e-003	0.1232	9.5000e-004	0.1242	0.0327	8.8000e-004	0.0336		118.4453	118.4453	5.2700e-003		118.5771
Total	**0.0794**	**0.0688**	**0.5903**	**1.1900e-003**	**0.1232**	**9.5000e-004**	**0.1242**	**0.0327**	**8.8000e-004**	**0.0336**		**118.4453**	**118.4453**	**5.2700e-003**		**118.5771**

3.4 Building Construction - 2019

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	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

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	0.0628	1.2231	0.4408	2.6000e-003	0.0610	9.9200e-003	0.0709	0.0176	9.4900e-003	0.0271		271.4062	271.4062	0.0213		271.9383
Worker	0.1270	0.1100	0.9444	1.9100e-003	0.1972	1.5200e-003	0.1987	0.0523	1.4100e-003	0.0537		189.5125	189.5125	8.4300e-003		189.7233
Total	**0.1898**	**1.3331**	**1.3853**	**4.5100e-003**	**0.2582**	**0.0114**	**0.2696**	**0.0699**	**0.0109**	**0.0808**		**460.9186**	**460.9186**	**0.0297**		**461.6616**

3.4 Building Construction - 2019

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	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

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	0.0628	1.2231	0.4408	2.6000e-003	0.0610	9.9200e-003	0.0709	0.0176	9.4900e-003	0.0271		271.4062	271.4062	0.0213		271.9383
Worker	0.1270	0.1100	0.9444	1.9100e-003	0.1972	1.5200e-003	0.1987	0.0523	1.4100e-003	0.0537		189.5125	189.5125	8.4300e-003		189.7233
Total	**0.1898**	**1.3331**	**1.3853**	**4.5100e-003**	**0.2582**	**0.0114**	**0.2696**	**0.0699**	**0.0109**	**0.0808**		**460.9186**	**460.9186**	**0.0297**		**461.6616**

3.4 Building Construction - 2020

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	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

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	0.0510	1.1195	0.3736	2.5900e-003	0.0610	6.7100e-003	0.0677	0.0176	6.4200e-003	0.0240		269.9244	269.9244	0.0199		270.4214
Worker	0.1139	0.0960	0.8251	1.8500e-003	0.1972	1.4600e-003	0.1986	0.0523	1.3500e-003	0.0536		183.5716	183.5716	7.1700e-003		183.7508
Total	**0.1649**	**1.2155**	**1.1987**	**4.4400e-003**	**0.2582**	**8.1700e-003**	**0.2664**	**0.0699**	**7.7700e-003**	**0.0776**		**453.4960**	**453.4960**	**0.0271**		**454.1722**

3.4 Building Construction - 2020

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	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**	**0.0000**	**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

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	0.0510	1.1195	0.3736	2.5900e-003	0.0610	6.7100e-003	0.0677	0.0176	6.4200e-003	0.0240		269.9244	269.9244	0.0199		270.4214
Worker	0.1139	0.0960	0.8251	1.8500e-003	0.1972	1.4600e-003	0.1986	0.0523	1.3500e-003	0.0536		183.5716	183.5716	7.1700e-003		183.7508
Total	**0.1649**	**1.2155**	**1.1987**	**4.4400e-003**	**0.2582**	**8.1700e-003**	**0.2664**	**0.0699**	**7.7700e-003**	**0.0776**		**453.4960**	**453.4960**	**0.0271**		**454.1722**

3.5 Paving - 2019

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	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586		2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	4.4400e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4589**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**		**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

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	0.0794	0.0688	0.5903	1.1900e-003	0.1232	9.5000e-004	0.1242	0.0327	8.8000e-004	0.0336		118.4453	118.4453	5.2700e-003		118.5771
Total	**0.0794**	**0.0688**	**0.5903**	**1.1900e-003**	**0.1232**	**9.5000e-004**	**0.1242**	**0.0327**	**8.8000e-004**	**0.0336**		**118.4453**	**118.4453**	**5.2700e-003**		**118.5771**

3.5 Paving - 2019

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	1.4544	15.2441	14.6648	0.0228		0.8246	0.8246		0.7586	0.7586	0.0000	2,257.0025	2,257.0025	0.7141		2,274.8548
Paving	4.4400e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.4589**	**15.2441**	**14.6648**	**0.0228**		**0.8246**	**0.8246**		**0.7586**	**0.7586**	**0.0000**	**2,257.0025**	**2,257.0025**	**0.7141**		**2,274.8548**

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	0.0794	0.0688	0.5903	1.1900e-003	0.1232	9.5000e-004	0.1242	0.0327	8.8000e-004	0.0336		118.4453	118.4453	5.2700e-003		118.5771
Total	**0.0794**	**0.0688**	**0.5903**	**1.1900e-003**	**0.1232**	**9.5000e-004**	**0.1242**	**0.0327**	**8.8000e-004**	**0.0336**		**118.4453**	**118.4453**	**5.2700e-003**		**118.5771**

3.5 Paving - 2020

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	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	4.4400e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3610**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**		**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

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	0.0712	0.0600	0.5157	1.1500e-003	0.1232	9.2000e-004	0.1241	0.0327	8.4000e-004	0.0335		114.7322	114.7322	4.4800e-003		114.8443
Total	**0.0712**	**0.0600**	**0.5157**	**1.1500e-003**	**0.1232**	**9.2000e-004**	**0.1241**	**0.0327**	**8.4000e-004**	**0.0335**		**114.7322**	**114.7322**	**4.4800e-003**		**114.8443**

3.5 Paving - 2020

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	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	4.4400e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3610**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**	**0.0000**	**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

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	0.0712	0.0600	0.5157	1.1500e-003	0.1232	9.2000e-004	0.1241	0.0327	8.4000e-004	0.0335		114.7322	114.7322	4.4800e-003		114.8443
Total	**0.0712**	**0.0600**	**0.5157**	**1.1500e-003**	**0.1232**	**9.2000e-004**	**0.1241**	**0.0327**	**8.4000e-004**	**0.0335**		**114.7322**	**114.7322**	**4.4800e-003**		**114.8443**

3.6 Architectural Coating - 2019

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	4.0975					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**4.3640**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

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	0.0265	0.0229	0.1968	4.0000e-004	0.0411	3.2000e-004	0.0414	0.0109	2.9000e-004	0.0112		39.4818	39.4818	1.7600e-003		39.5257
Total	**0.0265**	**0.0229**	**0.1968**	**4.0000e-004**	**0.0411**	**3.2000e-004**	**0.0414**	**0.0109**	**2.9000e-004**	**0.0112**		**39.4818**	**39.4818**	**1.7600e-003**		**39.5257**

3.6 Architectural Coating - 2019

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	4.0975					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**4.3640**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

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	0.0265	0.0229	0.1968	4.0000e-004	0.0411	3.2000e-004	0.0414	0.0109	2.9000e-004	0.0112		39.4818	39.4818	1.7600e-003		39.5257
Total	**0.0265**	**0.0229**	**0.1968**	**4.0000e-004**	**0.0411**	**3.2000e-004**	**0.0414**	**0.0109**	**2.9000e-004**	**0.0112**		**39.4818**	**39.4818**	**1.7600e-003**		**39.5257**

3.6 Architectural Coating - 2020

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	4.0975					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**4.3397**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

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	0.0237	0.0200	0.1719	3.8000e-004	0.0411	3.1000e-004	0.0414	0.0109	2.8000e-004	0.0112		38.2441	38.2441	1.4900e-003		38.2814
Total	**0.0237**	**0.0200**	**0.1719**	**3.8000e-004**	**0.0411**	**3.1000e-004**	**0.0414**	**0.0109**	**2.8000e-004**	**0.0112**		**38.2441**	**38.2441**	**1.4900e-003**		**38.2814**

3.6 Architectural Coating - 2020

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	4.0975					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**4.3397**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

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	0.0237	0.0200	0.1719	3.8000e-004	0.0411	3.1000e-004	0.0414	0.0109	2.8000e-004	0.0112		38.2441	38.2441	1.4900e-003		38.2814
Total	**0.0237**	**0.0200**	**0.1719**	**3.8000e-004**	**0.0411**	**3.1000e-004**	**0.0414**	**0.0109**	**2.8000e-004**	**0.0112**		**38.2441**	**38.2441**	**1.4900e-003**		**38.2814**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1675	5.3612	1.1583	0.0135	0.3356	0.0159	0.3515	0.0910	0.0152	0.1062		1,412.5863	1,412.5863	0.1312		1,415.8656
Unmitigated	0.1675	5.3612	1.1583	0.0135	0.3356	0.0159	0.3515	0.0910	0.0152	0.1062		1,412.5863	1,412.5863	0.1312		1,415.8656

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	50.19	50.19	50.19	146,523	146,523
Parking Lot	0.00	0.00	0.00		
Total	50.19	50.19	50.19	146,523	146,523

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
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.360000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.640000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.549294	0.032492	0.169090	0.120716	0.031218	0.007276	0.009879	0.070912	0.001078	0.001647	0.004739	0.000801	0.000858

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	0.0248	0.2251	0.1891	1.3500e-003		0.0171	0.0171		0.0171	0.0171		270.0824	270.0824	5.1800e-003	4.9500e-003	271.6873
NaturalGas Unmitigated	0.0248	0.2251	0.1891	1.3500e-003		0.0171	0.0171		0.0171	0.0171		270.0824	270.0824	5.1800e-003	4.9500e-003	271.6873

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					
General Light Industry	2295.7	0.0248	0.2251	0.1891	1.3500e-003		0.0171	0.0171		0.0171	0.0171		270.0824	270.0824	5.1800e-003	4.9500e-003	271.6873
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		**0.0248**	**0.2251**	**0.1891**	**1.3500e-003**		**0.0171**	**0.0171**		**0.0171**	**0.0171**		**270.0824**	**270.0824**	**5.1800e-003**	**4.9500e-003**	**271.6873**

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					
General Light Industry	2.2957	0.0248	0.2251	0.1891	1.3500e-003		0.0171	0.0171		0.0171	0.0171		270.0824	270.0824	5.1800e-003	4.9500e-003	271.6873
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		**0.0248**	**0.2251**	**0.1891**	**1.3500e-003**		**0.0171**	**0.0171**		**0.0171**	**0.0171**		**270.0824**	**270.0824**	**5.1800e-003**	**4.9500e-003**	**271.6873**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.1243	8.0000e-005	8.5200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0182	0.0182	5.0000e-005		0.0194
Unmitigated	1.1243	8.0000e-005	8.5200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0182	0.0182	5.0000e-005		0.0194

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2582					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8653					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.0000e-004	8.0000e-005	8.5200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0182	0.0182	5.0000e-005		0.0194
Total	**1.1243**	**8.0000e-005**	**8.5200e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0182**	**0.0182**	**5.0000e-005**		**0.0194**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2582					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8653					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.0000e-004	8.0000e-005	8.5200e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0182	0.0182	5.0000e-005		0.0194
Total	**1.1243**	**8.0000e-005**	**8.5200e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0182**	**0.0182**	**5.0000e-005**		**0.0194**

7.0 Water Detail

7.1 Mitigation Measures Water

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

APPENDIX B

Biological Resources Assessment

DRAFT

Peter Carr
City Manager
City of Orland
815 Fourth Street
Orland, California 95963

Re: Biological Resources Assessment for the Orland Simplot Expansion Project, Glenn County, California

At the request of the City of Orland, ECORP Consulting, Inc. has conducted a biological resources assessment (BRA) for the proposed Orland Simplot Expansion Project (Project) located in Glenn County, California. The purpose of the assessment is to collect information on the biological resources present within the Project site, and to determine any potential biological constraints to Project activities.

The Project includes the expansion of an existing fertilizer business, including a new office, dry barn, chemical warehouse expansion, tank farm, wash-station, and blend plant.

1.1 Project Location

The ±7.6-acre Project site is located at 1536 Railroad Avenue, Orland, California. The Project site corresponds to a portion of Section 27, Township 22 North, and Range 3 West (Mount Diablo Base and Meridian) of the "Orland, California" 7.5-minute quadrangle (U.S. Geological Survey [USGS] 1951, photorevised 1978) (Figure 1. *Project Location and Vicinity*, Figure 2. *Project Location*). The approximate center of the Project site is located at latitude 39.734556˚ and longitude -122.195762˚ within the Sacramento-Stone Corral Watershed (Hydrologic Unit Code #18020104, Natural Resources Conservation Service [NRCS], USGS, and Environmental Protection Agency [USEPA] 2017). The Project site is situated at approximately 245 feet above mean sea level.

1.2 Purpose of this Biological Resources Assessment

The purpose of this BRA is to assess the potential for occurrence of special-status plant and animal species or their habitat, and sensitive habitats such as wetlands within the Project site.

For the purposes of this assessment, special-status species are defined as plants or animals that meet the following criteria:

- Are listed, proposed for listing, or candidates for future listing as threatened or endangered under the federal Endangered Species Act (ESA);
- Are listed or candidates for future listing as threatened or endangered under the California ESA;

2525 Warren Drive • Rocklin, CA 95677 • Tel: (916) 782-9100 • Fax: (916) 782-9134 • Web: www.ecorpconsulting.com

- Meet the definitions of endangered or rare under Section 15380 of the California Environmental Quality Act (CEQA) Guidelines;
- Are identified as a species of special concern by the California Department of Fish and Wildlife (CDFW);
- Are birds identified as birds of conservation concern by the U.S. Fish and Wildlife Service (USFWS, 2008);
- Are plants considered by the California Native Plant Society (CNPS) to be "rare, threatened, or endangered in California" (California Rare Plant Rank [CRPR] 1 and 2);
- Are plants listed by CNPS as species about which more information is needed to determine their status (CRPR 3), and plants of limited distribution (CRPR 4);
- Are plants listed as rare under the California Native Plant Protection Act (NPPA, Fish and Game Code of California, Section 1900 et seq.); or
- Are fully protected in California in accordance with the California Fish and Game Code, Sections 3511 (birds), 4700 (mammals), 5050 (amphibians and reptiles), and 5515 (fishes).

While other species are sometimes found in database searches or within the literature, these were not included within this analysis.

This assessment does not include determinate field surveys conducted according to agency-promulgated protocols and is not intended to support consultation pursuant to the ESA. The conclusions and recommendations presented in this report are based upon a review of the available literature and limited site reconnaissance.

2.0 METHODS

2.1 Literature Review

The following species lists were queried to determine the special-status species that have been documented within or in the vicinity of the site:

- California Natural Diversity Database (CNDDB) for the nine USGS topographic quadrangles centered on the "Yreka, California" 7.5-minute USGS topographic quadrangle (CDFW 2018).
- USFWS Federal Endangered and Threatened Species list for the Project site (USFWS 2018).
- CNPS electronic *Inventory of Rare and Endangered Plants of California* for the nine USGS topographic quadrangles centered on the "Yreka, California" 7.5-minute USGS topographic quadrangle (CNPS 2018).

2.2 Special-Status Species Considered for the Project

Based on species occurrence information from the literature review, the expert opinions of ECORP biologists, and existing conditions observed onsite on May 21, 2018, a list of special-status species that

have the potential to occur within the Project site was generated. Each of these species' potential to occur onsite was assessed based on the following criteria:

- **Present** - Species is known to occur within the Project site based on documented occurrences within the CNDDB or other literature
- **Potential to Occur** - Habitat (including soils and elevation requirements) for the species occurs within the Project site
- **Low Potential to Occur** - Marginal or limited amounts of habitat occurs and/or the species is not known to occur within the vicinity of the Project site based on CNDDB records and other available literature
- **Absent** - No suitable habitat (including soils and elevation requirements) and/or the species is not known to occur within the vicinity of the Project site based on CNDDB records and other literature

3.0 RESULTS

3.1 Site Characteristics and Surrounding Land Use

The Project site is a rectangular plot with the existing Simplot business occupying the northern portion of the Project, and the southern portion made up of an idle undeveloped field. The undeveloped southern portion of the site is a weedy field made up of loose gravelly soil dominated by nonnative plant species with an abundance of vehicular tracks and evidence of historic disturbance. There are no trees onsite, except for three small almond (*Prunus dulcis*) shrubs/trees.

The Project site is surrounded by industrial-commercial businesses, rural residences, a mobile home and recreational vehicle park, and a railroad along the western boundary.

3.2 Vegetation Communities

There is one vegetation community that occurs within the proposed Project site: ruderal weedy field. The undeveloped southern portion of the site is made up entirely of the ruderal weedy field community. There is little to no vegetation associated with the developed portion of the Project, so it is not discussed in this section.

3.2.1 Ruderal Weedy Field

The ruderal weedy field is represented by wild oats (*Avena fatua*), filaree (*Erodium botrys*), field mustard (*Brassica rapa*), puncture vine (*Tribulus terrestris*), gumplant (*Grindelia camporum*), tumble weed (*Amaranthus albus*), reticulate seeded spurge (*Euphorbia spathulata*), and Russian thistle (*Salsola tragus*). Vegetation is distributed in patches with unvegetated areas of exposed gravel or dirt.

3.3 Soils

According to the *Web Soil Survey* (NRCS 2018*)*, two soil units, or types, have been mapped within the Project site (Figure 3. *Natural Resources Conservation Service Soil Units*). These are: (CzT) Cortina very

gravelly sandy loam, moderately deep and (Ta) Tehama loam, moderately deep over gravel, 0 to 2 percent slopes. CzT-Cortina very gravelly sandy loam, moderately deep contains unnamed hydric components in fan landforms (NRCS 2017).

3.4 Potential Waters of the U.S.

There are no previously mapped aquatic features onsite according to the California Aquatic Resources Inventory (CARI, San Francisco Estuary Institute [SFEI] 2017). However, there is one previously mapped CARI "fluvial unnatural" feature located between the project and the railroad tracks (Figure 4. *California Aquatic Resources Inventory*). No aquatic features were found within the Project site during the May 21, 2018 site visit. Therefore, there are no potential Waters of the U.S. present onsite.

3.5 Evaluation of Species Identified in the Literature Search

According to the CNDDB, there are no previously documented occurrences of special-status species within the Project site (CDFW 2018). However, several special-status species occurrences have been documented within an approximate five-mile radius of the Project site. Species that are tracked in the CNDDB that do not have any State or federal status or protection were not included in the evaluation.

Table 1 lists all of the plant and wildlife species identified in the literature search as potentially occurring within the Project site. Included are the listing status for each species, a brief habitat description, and a determination on the potential to occur within the Project site.

Table 1. Potentially Occurring Special-Status Species

Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur On-Site
	ESA	CESA/ NPPA	Other			
Plants						
Brittlescale *(Atriplex depressa)*	-	-	1B.2	Alkaline, clay soils within chenopod scrub, meadows and seeps, playas, valley and foothill grasslands, and vernal pools (3' – 1,050').	April – October	Absent – no suitable habitat present.
Pink cream sacs *(Castilleja rubicundula* var. *rubicundula)*	-	-	1B.2	Serpentinite substrates in chaparral openings, cismontane woodland, meadows and seeps, and valley and foothill grassland (66' – 2,986').	April – June	Absent – no suitable habitat present.

Table 1. Potentially Occurring Special-Status Species

Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur On-Site
	ESA	CESA/ NPPA	Other			
Dwarf downingia *(Downingia pusilla)*	-	-	2B.2	Mesic areas in valley and foothill grassland, and vernal pools. Species appears to have an affinity for slight disturbance (i.e., scraped depressions, ditches, etc.) (Baldwin et al. 2012, CDFW 2018) (3' – 1,460').	March – May	Absent – no suitable habitat present.
Stony Creek spurge (*Euphorbia ocellata ssp. rattanii*)	-	-	1B.2	Chaparral, riparian scrub (streambank), valley/foothill grassland (sandy or rocky) (213' – 2,625').	May – October	Absent – no suitable habitat present.
San Joaquin spearscale *(Extriplex joaquinana)*	-	-	1B.2	Alkaline soils within chenopod scrub, meadows and seeps, playas, and valley and foothill grassland (3' – 2,740).	April – October	Absent – no suitable habitat present.
Adobe-lily *(Fritillaria pluriflora)*	-	-	1B.2	Chaparral, cismontane woodland, valley/foothill grasslands (often adobe) (197' – 2,313').	February – April	Absent – no suitable habitat present.
Red Bluff dwarf rush (*Juncus leiospermus* var. *leiospermus)*	-	-	1B.1	Vernally mesic areas in chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, and vernal pools (115' – 4,101').	March – June	Absent – no suitable habitat present.
Baker's navarretia *(Navarretia leucocephala* ssp. *bakeri)*	-	-	1B.1	Vernal pools and mesic areas within cismontane woodlands, lower montane coniferous forests, meadows and seeps, and valley and foothill grasslands (15' – 5,709').	April – July	Absent – no suitable habitat present.
Ahart's paronychia (*Paronychia ahartii*)	-	-	1B.1	Cismontane woodland; valley and foothill grasslands; vernal pools (98' – 1,673').	February – June	Absent – no suitable habitat present.

Table 1. Potentially Occurring Special-Status Species

Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur On-Site
	ESA	CESA/ NPPA	Other			
Caper-fruited tropidocarpum *(Tropidocarpum capparideum)*	-	-	1B.1	Alkaline hills in valley and foothill grassland (3' – 1,493').	March – April	Absent – no suitable habitat present.
Brazilian watermeal *(Wolffia brasiliensis)*	-	-	2B.3	Assorted shallow freshwater marshes and swamps (66' – 328').	April – December	Absent – no suitable habitat present.
Invertebrates						
Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*)	FT	-	-	Elderberry shrubs.	Any season	Absent – no suitable habitat present.
Conservancy fairy shrimp (*Branchinecta conservatio)*	FE	-	-	Vernal pools/wetlands.	November-April	Absent – no suitable habitat present.
Vernal pool fairy shrimp (*Branchinecta lynchi*)	FT	-	-	Vernal pools/wetlands.	November-April	Absent – no suitable habitat present.
Vernal pool tadpole shrimp (*Lepidurus packardi*)	FE	-	-	Vernal pools/wetlands.	November-April	Absent – no suitable habitat present.
Fish						
Delta smelt (*Hypomesus transpacificus*)	FT	CE	-	Sacramento-San Joaquin delta.	N/A	Absent – no suitable habitat present.
Steelhead (CA Central Valley DPS) (*Oncorhynchus mykiss*)	FT	-	-	Undammed rivers, streams, creeks.	N/A	Absent – no suitable habitat present.
Amphibians						
California red-legged frog (*Rana draytonii*)	FT	-	SSC	Lowlands or foothills at waters with dense shrubby or emergent riparian vegetation. Adults must have aestivation habitat to endure summer dry down.	May 1-November 1	Absent – No suitable habitat present.

Table 1. Potentially Occurring Special-Status Species

Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur On-Site
	ESA	CESA/ NPPA	Other			
Western spadefoot (*Spea hammondii*)	-	-	SSC	California endemic species of vernal pools, swales, wetlands and adjacent grasslands throughout the Central Valley.	March-May	Absent – No suitable habitat present.
Reptiles						
Giant garter snake (*Thamnophis gigas*)	FT	CT	-	Freshwater ditches, sloughs, and marshes in the Central Valley. Almost extirpated from the southern parts of its range.	April-October	Absent – no suitable habitat present.
Birds						
Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)	FT	CE	BCC	Nests in low to moderate elevation riparian woodlands with native broadleaf trees and shrubs of at least 50 acres in extent within arid to semiarid landscapes. Winters in South America.	June 15-August 15	Absent – no suitable habitat present.
Mountain plover (*Charadrius montanus*)	-	-	BCC, SSC	Breeds in the Great Plains/Midwestern US; winters in California, Arizona, Texas, and Mexico; wintering habitat in California includes tilled fields, heavily grazed open grassland, burned fields, and alfalfa fields.	September-March (wintering)	Absent – no suitable habitat present.
Osprey *(Pandion haliaetus)*	-	-	CDFW WL	Nesting habitat requires close proximity to accessible fish, open nest site free of mammalian predators, and extended ice-free season. The nest in large trees, snags, cliffs, transmission/communication towers, artificial nest platforms, channel markers/buoys.	March-September	Absent – no suitable habitat present.

Table 1. Potentially Occurring Special-Status Species

Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur On-Site
	ESA	CESA/ NPPA	Other			
Swainson's hawk (*Buteo swainsoni*)	-	CT	BCC	Nesting occurs in trees in agricultural, riparian, oak woodland, scrub, and urban landscapes. Forages over grassland, agricultural lands, particularly during disking/harvesting, irrigated pastures	March-August	Absent – no suitable habitat present.
Burrowing owl *(Athene cunicularia)*	-	-	BCC, SSC	Nests in burrows or burrow surrogates in open, treeless, areas within grassland, steppe, and desert biomes. Often with other burrowing mammals (e.g., prairie dogs, California ground squirrels). May also use human-made habitat such as agricultural fields, golf courses, cemeteries, roadside, airports, vacant urban lots, and fairgrounds.	February-August	Absent – no suitable habitat present.
Bank swallow (*Riparia riparia*)	-	CT	-	Nests colonially along coasts, rivers, streams, lakes, reservoirs, and wetlands in vertical banks, cliffs, and bluffs in alluvial, friable soils. May also nest in sand, gravel quarries and road cuts. In California, breeding range includes northern and central California.	May-July	Absent – no suitable habitat present.
Tricolored blackbird (*Agelaius tricolor*)	-	CT	BCC, SSC	Nests colonially in freshwater marsh, blackberry bramble, milk thistle, triticale fields, weedy (mustard, mallow) fields, giant cane, safflower, stinging nettles, tamarisk, riparian scrublands and forests, fiddleneck and fava bean fields.	March-August	Absent – no suitable habitat present.

Table 1. Potentially Occurring Special-Status Species

Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur On-Site
	ESA	CESA/ NPPA	Other			
Mammals						
American badger *(Taxidea taxus)*	-	-	SSC	Drier open stages of most shrub, forest, and herbaceous habitats with friable soils.	Any season	Absent – no suitable habitat present.

Status Codes:

FESA	Federal Endangered Species Act
CESA	California Endangered Species Act
FE	ESA listed, Endangered.
FT	ESA listed, Threatened.
BCC	USFWS Bird of Conservation Concern (USFWS 2008).
CE	CESA- or NPPA- listed, Endangered.
CT	CESA- or NPPA-listed, Threatened.
CDFW WL	CDFW Watch List
SSC	CDFW Species of Special Concern (CDFW, updated December 2016).
1B	CRPR /Rare or Endangered in California and elsewhere.
2B	Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
0.1	Threat Rank/Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
0.2	Threat Rank/Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
0.3	Threat Rank/Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

3.5.1 Plants

Eleven special-status plant species were identified as having the potential to occur within the Project site based on the literature review (Table 1). However, upon further analysis, all of these species were determined to be absent from the Project site due to the lack of suitable habitat or because the Project site is outside of the known range for the species. No further discussion of these species is provided in this analysis.

3.5.2 Invertebrates

Four special-status invertebrate species were identified as having the potential to occur within the Project site based on the literature review (Table 1). However, upon further analysis, all four species were determined to be absent from the Project site due to the lack of suitable habitat. No further discussion of these species is provided in this analysis.

3.5.3 Fish

Tw special-status fish species were identified as having the potential to occur within the Project site based on the literature review (Table 1). However, upon further analysis both of these species were determined to be absent from the Project site due to the lack of suitable habitat. No further discussion of these species is provided in this analysis.

3.5.4 Amphibians

Two special-status amphibian species were identified as having the potential to occur within the Project site based on the literature review (Table 1). However, upon further analysis both species were determined to be absent from the Project site due to the lack of suitable habitat. No further discussion of these species is provided in this analysis.

3.5.5 Reptiles

One special-status reptile species was identified as having the potential to occur within the Project site based on the literature review (Table 1). However, upon further analysis this species was determined to be absent from the Project site due to the lack of suitable habitat. No further discussion of this species is provided in this analysis.

3.5.6 Birds

Seven special-status bird species were identified as having the potential to occur within the Project site based on the literature review (Table 1). However, upon further analysis, all seven species were determined to be absent from the Project site due to the lack of suitable habitat. No further discussion of these species is provided in this analysis.

While not considered "special status" as defined above, most naturally occurring birds and their active nests are protected under the federal Migratory Bird Treaty Act (MBTA). These include common species found nesting within developed areas and human habitations. The almond trees and existing buildings present within the Project could support nests of species protected under the MBTA.

3.5.7 Mammals

One special-status mammal species was identified as having the potential to occur within the Project site based on the literature review (Table 1). However, upon further analysis, this species was determined to be absent from the Project site due to the lack of suitable habitat. No further discussion of this species is provided in this analysis.

3.5.8 Wildlife Movement/Corridors

The Project site is surrounding by existing development areas and roadways. There are no nearby areas with native habitat that can support large concentrations of wildlife. Therefore, the Project Site does not function as a wildlife corridor.

4.0 RECOMMENDATIONS

4.1 MBTA-Protected Birds

All native birds, including raptors, are protected under the California Fish and Game Code and the federal MBTA. As such, to ensure that there are no impacts to protected active nests, the following mitigation measures are recommended:

- Conduct a preconstruction nesting bird survey of all suitable habitat on the project within 14 days of the commencement of construction during the nesting season (February 1 - August 31). Surveys should be conducted within 300 feet of the Project for nesting raptors, and 100 feet of the Project for nesting songbirds. If active nests are found, a no-disturbance buffer around the nest shall be established. The buffer distance shall be established by a biologist in consultation with CDFW or the CEQA lead agency. The buffer shall be maintained until the fledglings are capable of flight and become independent of the nest tree, to be determined by a qualified biologist. Once the young are independent of the nest, no further measures are necessary. Preconstruction nesting surveys are not required for construction activity outside the nesting season.

5.0 CONCLUSION

We have conducted a biological resources assessment for the proposed Simplot Expansion Project in Orland, California. There are no potential Waters of the U.S., special-status species, special-status species' habitat, or sensitive natural communities present. However, the project supports potential nesting habitat for birds protected under the MBTA. As such, recommendations to address possible impacts to protected birds and their nests have been provided.

Please feel free to call me if you have any questions regarding this issue.

Sincerely,

DRAFT

Keith Kwan
Senior Biologist

6.0 REFERENCES

Baldwin, B. G., Goldman G. H., Keil D. J., Patterson R., Rosatti T. J., Wilken D. H. 2012. *The Jepson Manual; Vascular Plants of California*, Second Edition. Berkeley, CA: University of California Press.

CDFW. 2018. Rarefind 5. Online Version, commercial version. California Natural Diversity Database. The Resources Agency, Sacramento. Accessed May 2018.

CNPS. 2018. Inventory of Rare and Endangered Plants in California (online edition, v8-02). California Native Plant Society. Sacramento, CA. Available online: http://cnps.site.aplus.net/cgi-bin/inv/inventory.cgi. Accessed May 2018.

NRCS. 2018. The Gridded Soil Survey Geographic (gSSURGO) Database for California. U.S. Department of Agriculture. Available Online: https://gdg.sc.egov.usda.gov/.

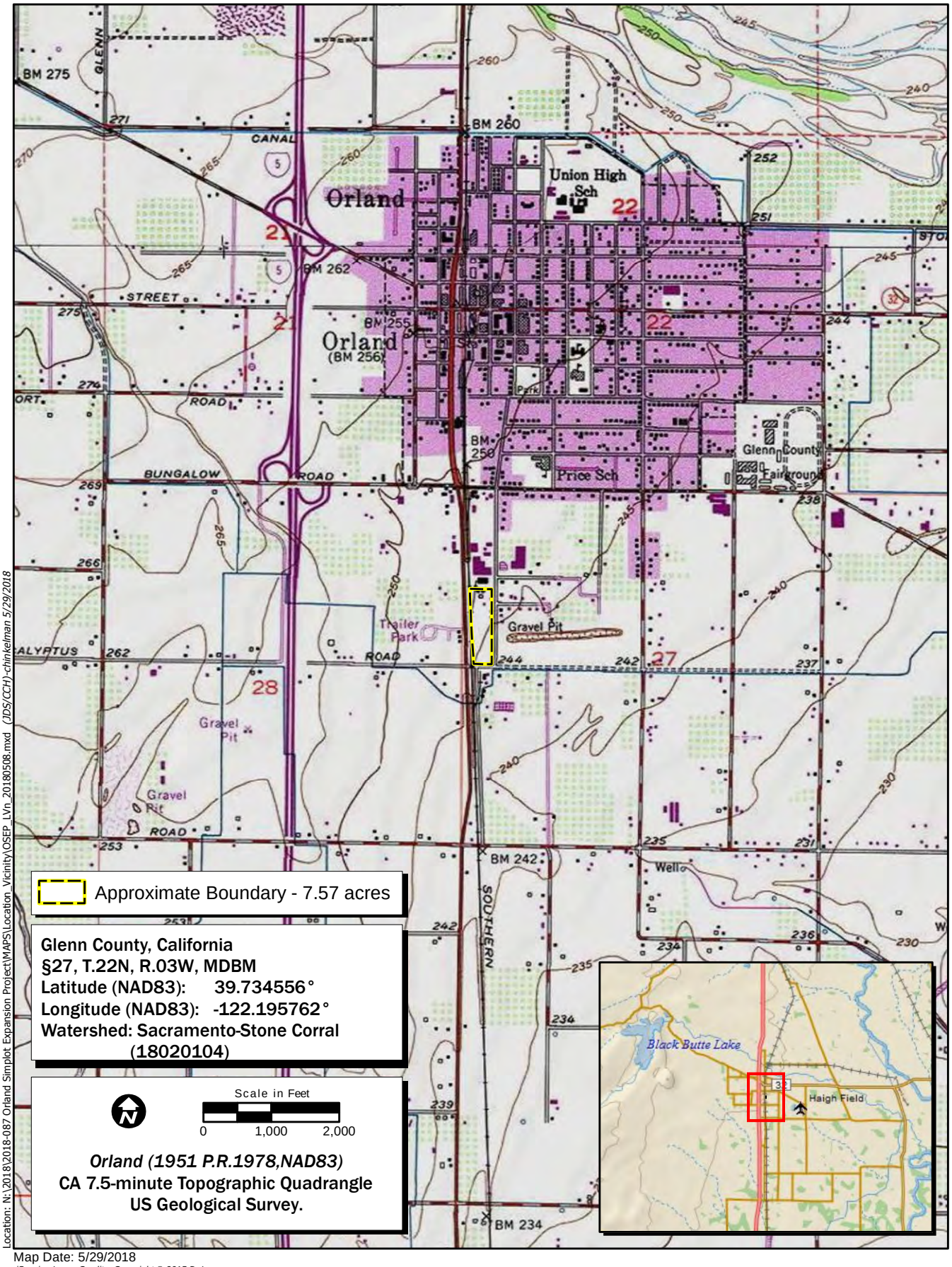
_____. 2017. National Hydric Soils List. Available Online: http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/. Accessed May 2018.

NRCS, USGS, and USEPA. 20178. Watershed Boundary Dataset for California. Available online: http://datageteway.nrcs.usda.gov [Accessed May 2018].

SFEI. 2017. "California Aquatic Resource Inventory (CARI) version 0.3." Accessed 01/05/2018. Available online: http://www.sfei.org/data/california-aquatic-resource-inventory-cari-version-03-gis-data#sthash.0SjnlwfO.dpbs.

USFWS. 2018. Species Lists. Available by request online: https://ecos.f ws.gov/ipac/.

USGS. 1951. Photorevised 1978 "Orland, California" 7.5-minute Quadrangle. Geological Survey. Denver, Colorado.



Location: N:\2018\2018-087 Orland Simplot Expansion Project\MAPS\Location_Vicinity\OSEP_LVn_20180508.mxd (JDS/CCH)-chinkelman 5/29/2018

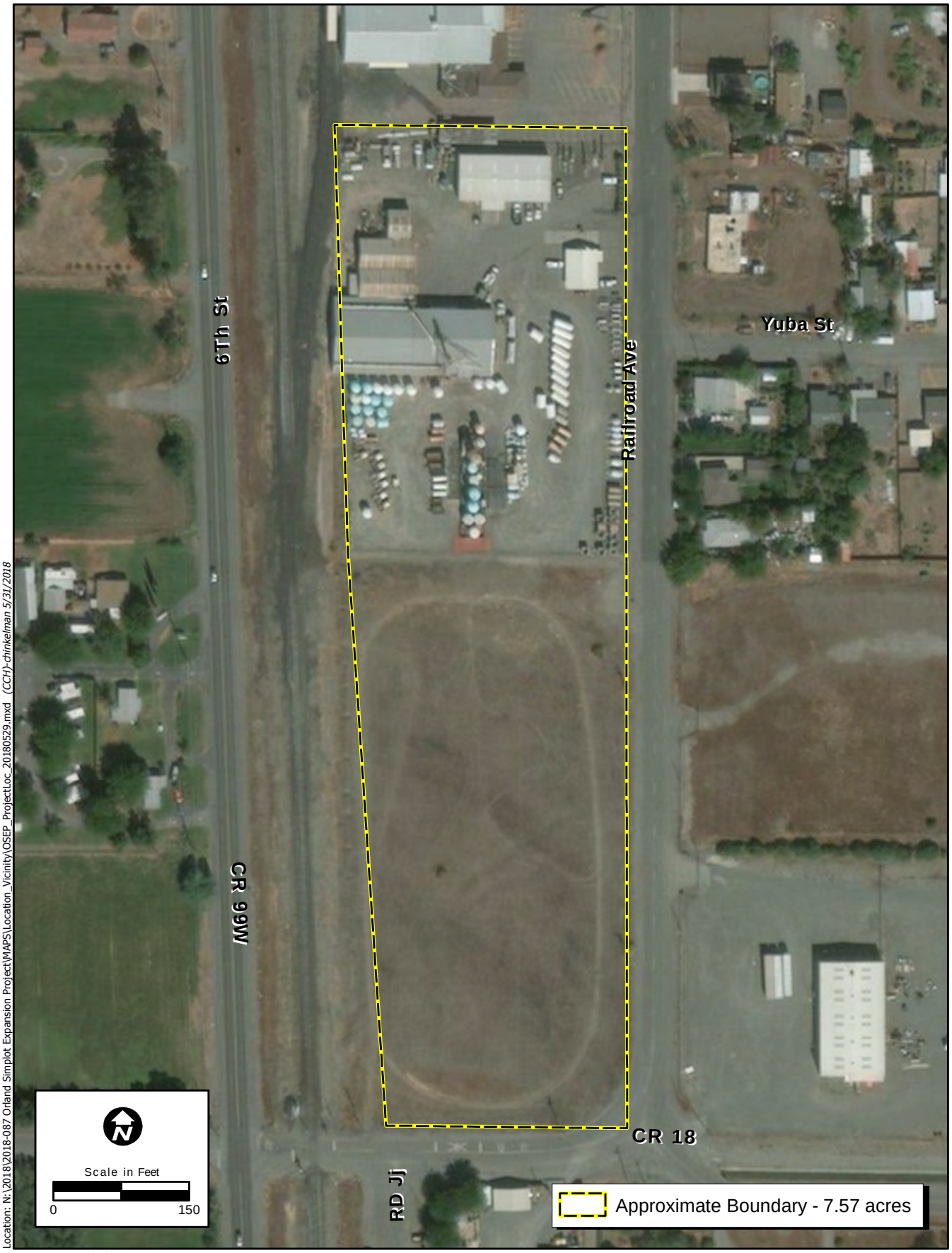
Map Date: 5/29/2018

DRAFT

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure 1. Project Location and Vicinity

2018-087 Orland Simplot Expansion Project



Location: N:\2018\2018-087 Orland Simplot Expansion Project\MAPS\Location_Vicinity\OSEP_ProjectLoc_20180529.mxd (CCH)-dhinkelman 5/31/2018

Map Date: 5/31/2018
Base Source: Digital Globe, 2015

DRAFT

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure 2. Project Location

2018-087 Orland Simplot Expansion Project

Map Date: 5/31/2018
Photo (or Base) Source: Digital Globe, 2015

DRAFT

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure 3. Natural Resources Conservation Service Soils Units

2018-087 Orland Simplot Expansion Project

Figure 4.
California Aquatic Resource Inventory

Map Features

- Approximate Boundary - 7.57 acres
- 500' Buffer

CARI Streams (December 2017)

- Fluvial Unnatural

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Location: N:\2018\2018-087 Orland Simplot Expansion Project\MAPS\Jurisdictional_Delineation\CARI\v1\OSEP_CARI_20180529.mxd (CCH)-chinkelman 5/31/2018

2018-087 Orland Simplot Expansion Project

Scale in Feet
0 400

DRAFT

Photo Source: Digital Globe, 2015

Map Date: 5/31/2018

APPENDIX C

Cultural Resources Records Search and Literature Review

APPENDIX D

GHG Emissions Modeling

Simplot Growers Facility Expansion Project

Glenn County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	40.15	1000sqft	7.15	40,150.00	0
Parking Lot	43.00	Space	0.39	17,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	61
Climate Zone	3			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Adjusted acreage per Project Description.

Construction Phase - Construction, paving, and architectural coating assumed to occur simultaneously.

Water And Wastewater - Adjusted water useage per Project Description.

Vehicle Trips - Adjusted per Project Description.

Fleet Mix - Adjusted per Project Description (18 passenger vehicles and 32 delivery trucks).

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	230.00
tblConstructionPhase	NumDays	20.00	230.00
tblConstructionPhase	PhaseEndDate	5/21/2020	3/26/2020
tblConstructionPhase	PhaseEndDate	4/23/2020	3/26/2020
tblConstructionPhase	PhaseStartDate	4/24/2020	5/10/2019
tblConstructionPhase	PhaseStartDate	3/27/2020	5/10/2019
tblFleetMix	HHD	0.07	0.64
tblFleetMix	LDA	0.55	0.36
tblFleetMix	LDT1	0.03	0.00
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	7.2760e-003	0.00
tblFleetMix	MCY	4.7390e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	8.5800e-004	0.00
tblFleetMix	MHD	9.8790e-003	0.00
tblFleetMix	OBUS	1.0780e-003	0.00
tblFleetMix	SBUS	8.0100e-004	0.00
tblFleetMix	UBUS	1.6470e-003	0.00
tblLandUse	LotAcreage	0.92	7.15
tblVehicleTrips	ST_TR	1.32	1.25
tblVehicleTrips	SU_TR	0.68	1.25
tblVehicleTrips	WD_TR	6.97	1.25
tblWater	IndoorWaterUseRate	9,284,687.50	184,000.00

2.0 Emissions Summary

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					
2019	0.7598	3.8352	3.2882	5.4600e-003	0.1920	0.2154	0.4074	0.0931	0.2013	0.2943	0.0000	484.9277	484.9277	0.1210	0.0000	487.9516
2020	0.2501	1.1225	1.0903	1.8200e-003	0.0126	0.0617	0.0743	3.4000e-003	0.0577	0.0611	0.0000	159.3424	159.3424	0.0391	0.0000	160.3201
Maximum	**0.7598**	**3.8352**	**3.2882**	**5.4600e-003**	**0.1920**	**0.2154**	**0.4074**	**0.0931**	**0.2013**	**0.2943**	**0.0000**	**484.9277**	**484.9277**	**0.1210**	**0.0000**	**487.9516**

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					
2019	0.7598	3.8351	3.2882	5.4600e-003	0.1920	0.2154	0.4074	0.0931	0.2013	0.2943	0.0000	484.9272	484.9272	0.1210	0.0000	487.9511
2020	0.2501	1.1225	1.0903	1.8200e-003	0.0126	0.0617	0.0743	3.4000e-003	0.0577	0.0611	0.0000	159.3423	159.3423	0.0391	0.0000	160.3200
Maximum	**0.7598**	**3.8351**	**3.2882**	**5.4600e-003**	**0.1920**	**0.2154**	**0.4074**	**0.0931**	**0.2013**	**0.2943**	**0.0000**	**484.9272**	**484.9272**	**0.1210**	**0.0000**	**487.9511**

	ROG	NOx	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	3-1-2019	5-31-2019	0.9383	0.9383
2	6-1-2019	8-31-2019	1.5774	1.5774
3	9-1-2019	11-30-2019	1.5615	1.5615
4	12-1-2019	2-29-2020	1.4817	1.4817
5	3-1-2020	5-31-2020	0.4115	0.4115
		Highest	1.5774	1.5774

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2051	1.0000e-005	7.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4900e-003	1.4900e-003	0.0000	0.0000	1.5800e-003
Energy	4.5200e-003	0.0411	0.0345	2.5000e-004		3.1200e-003	3.1200e-003		3.1200e-003	3.1200e-003	0.0000	149.4849	149.4849	5.5900e-003	1.8000e-003	150.1611
Mobile	0.0298	0.9808	0.1900	2.5300e-003	0.0591	2.7800e-003	0.0618	0.0161	2.6500e-003	0.0187	0.0000	239.7917	239.7917	0.0201	0.0000	240.2949
Waste						0.0000	0.0000		0.0000	0.0000	10.1069	0.0000	10.1069	0.5973	0.0000	25.0395
Water						0.0000	0.0000		0.0000	0.0000	0.0584	0.2896	0.3480	6.0100e-003	1.4000e-004	0.5412
Total	**0.2394**	**1.0219**	**0.2253**	**2.7800e-003**	**0.0591**	**5.9000e-003**	**0.0650**	**0.0161**	**5.7700e-003**	**0.0218**	**10.1653**	**389.5677**	**399.7330**	**0.6290**	**1.9400e-003**	**416.0383**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2051	1.0000e-005	7.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4900e-003	1.4900e-003	0.0000	0.0000	1.5800e-003
Energy	4.5200e-003	0.0411	0.0345	2.5000e-004		3.1200e-003	3.1200e-003		3.1200e-003	3.1200e-003	0.0000	149.4849	149.4849	5.5900e-003	1.8000e-003	150.1611
Mobile	0.0298	0.9808	0.1900	2.5300e-003	0.0591	2.7800e-003	0.0618	0.0161	2.6500e-003	0.0187	0.0000	239.7917	239.7917	0.0201	0.0000	240.2949
Waste						0.0000	0.0000		0.0000	0.0000	10.1069	0.0000	10.1069	0.5973	0.0000	25.0395
Water						0.0000	0.0000		0.0000	0.0000	0.0584	0.2896	0.3480	6.0100e-003	1.4000e-004	0.5412
Total	**0.2394**	**1.0219**	**0.2253**	**2.7800e-003**	**0.0591**	**5.9000e-003**	**0.0650**	**0.0161**	**5.7700e-003**	**0.0218**	**10.1653**	**389.5677**	**399.7330**	**0.6290**	**1.9400e-003**	**416.0383**

	ROG	NOx	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	3/29/2019	4/11/2019	5	10	
2	Grading	Grading	4/12/2019	5/9/2019	5	20	
3	Building Construction	Building Construction	5/10/2019	3/26/2020	5	230	
4	Paving	Paving	5/10/2019	3/26/2020	5	230	
5	Architectural Coating	Architectural Coating	5/10/2019	3/26/2020	5	230	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0.39

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 60,225; Non-Residential Outdoor: 20,075; Striped Parking Area: 1,032 (Architectural Coating – sqft)

OffRoad Equipment

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	24.00	9.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	**0.0217**	**0.2279**	**0.1103**	**1.9000e-004**	**0.0903**	**0.0120**	**0.1023**	**0.0497**	**0.0110**	**0.0607**	**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

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	4.5000e-004	3.7000e-004	3.4900e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	1.9000e-004	0.0000	0.6673	0.6673	3.0000e-005	0.0000	0.6680
Total	**4.5000e-004**	**3.7000e-004**	**3.4900e-003**	**1.0000e-005**	**7.1000e-004**	**1.0000e-005**	**7.2000e-004**	**1.9000e-004**	**1.0000e-005**	**1.9000e-004**	**0.0000**	**0.6673**	**0.6673**	**3.0000e-005**	**0.0000**	**0.6680**

3.2 Site Preparation - 2019

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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110	0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total	**0.0217**	**0.2279**	**0.1103**	**1.9000e-004**	**0.0903**	**0.0120**	**0.1023**	**0.0497**	**0.0110**	**0.0607**	**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

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	4.5000e-004	3.7000e-004	3.4900e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	1.9000e-004	0.0000	0.6673	0.6673	3.0000e-005	0.0000	0.6680
Total	**4.5000e-004**	**3.7000e-004**	**3.4900e-003**	**1.0000e-005**	**7.1000e-004**	**1.0000e-005**	**7.2000e-004**	**1.9000e-004**	**1.0000e-005**	**1.9000e-004**	**0.0000**	**0.6673**	**0.6673**	**3.0000e-005**	**0.0000**	**0.6680**

3.3 Grading - 2019

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					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0258	0.2835	0.1629	3.0000e-004		0.0140	0.0140		0.0129	0.0129	0.0000	26.6423	26.6423	8.4300e-003	0.0000	26.8530
Total	**0.0258**	**0.2835**	**0.1629**	**3.0000e-004**	**0.0655**	**0.0140**	**0.0795**	**0.0337**	**0.0129**	**0.0465**	**0.0000**	**26.6423**	**26.6423**	**8.4300e-003**	**0.0000**	**26.8530**

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	7.5000e-004	6.1000e-004	5.8200e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.1121	1.1121	5.0000e-005	0.0000	1.1133
Total	**7.5000e-004**	**6.1000e-004**	**5.8200e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.1121**	**1.1121**	**5.0000e-005**	**0.0000**	**1.1133**

3.3 Grading - 2019

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					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0258	0.2835	0.1629	3.0000e-004		0.0140	0.0140		0.0129	0.0129	0.0000	26.6422	26.6422	8.4300e-003	0.0000	26.8530
Total	**0.0258**	**0.2835**	**0.1629**	**3.0000e-004**	**0.0655**	**0.0140**	**0.0795**	**0.0337**	**0.0129**	**0.0465**	**0.0000**	**26.6422**	**26.6422**	**8.4300e-003**	**0.0000**	**26.8530**

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	7.5000e-004	6.1000e-004	5.8200e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.1121	1.1121	5.0000e-005	0.0000	1.1133
Total	**7.5000e-004**	**6.1000e-004**	**5.8200e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.1121**	**1.1121**	**5.0000e-005**	**0.0000**	**1.1133**

3.4 Building Construction - 2019

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	0.1983	1.7706	1.4418	2.2600e-003		0.1084	0.1084		0.1019	0.1019	0.0000	197.4875	197.4875	0.0481	0.0000	198.6903
Total	**0.1983**	**1.7706**	**1.4418**	**2.2600e-003**		**0.1084**	**0.1084**		**0.1019**	**0.1019**	**0.0000**	**197.4875**	**197.4875**	**0.0481**	**0.0000**	**198.6903**

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	5.0700e-003	0.1025	0.0338	2.2000e-004	4.9700e-003	8.2000e-004	5.7900e-003	1.4400e-003	7.9000e-004	2.2200e-003	0.0000	21.0922	21.0922	1.5200e-003	0.0000	21.1302
Worker	0.0101	8.2100e-003	0.0783	1.7000e-004	0.0160	1.3000e-004	0.0161	4.2500e-003	1.2000e-004	4.3600e-003	0.0000	14.9471	14.9471	6.5000e-004	0.0000	14.9634
Total	**0.0152**	**0.1107**	**0.1121**	**3.9000e-004**	**0.0209**	**9.5000e-004**	**0.0219**	**5.6900e-003**	**9.1000e-004**	**6.5800e-003**	**0.0000**	**36.0393**	**36.0393**	**2.1700e-003**	**0.0000**	**36.0935**

3.4 Building Construction - 2019

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	0.1983	1.7706	1.4418	2.2600e-003		0.1084	0.1084		0.1019	0.1019	0.0000	197.4873	197.4873	0.0481	0.0000	198.6900
Total	**0.1983**	**1.7706**	**1.4418**	**2.2600e-003**		**0.1084**	**0.1084**		**0.1019**	**0.1019**	**0.0000**	**197.4873**	**197.4873**	**0.0481**	**0.0000**	**198.6900**

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	5.0700e-003	0.1025	0.0338	2.2000e-004	4.9700e-003	8.2000e-004	5.7900e-003	1.4400e-003	7.9000e-004	2.2200e-003	0.0000	21.0922	21.0922	1.5200e-003	0.0000	21.1302
Worker	0.0101	8.2100e-003	0.0783	1.7000e-004	0.0160	1.3000e-004	0.0161	4.2500e-003	1.2000e-004	4.3600e-003	0.0000	14.9471	14.9471	6.5000e-004	0.0000	14.9634
Total	**0.0152**	**0.1107**	**0.1121**	**3.9000e-004**	**0.0209**	**9.5000e-004**	**0.0219**	**5.6900e-003**	**9.1000e-004**	**6.5800e-003**	**0.0000**	**36.0393**	**36.0393**	**2.1700e-003**	**0.0000**	**36.0935**

3.4 Building Construction - 2020

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	0.0657	0.5948	0.5223	8.3000e-004		0.0346	0.0346		0.0326	0.0326	0.0000	71.7991	71.7991	0.0175	0.0000	72.2370
Total	**0.0657**	**0.5948**	**0.5223**	**8.3000e-004**		**0.0346**	**0.0346**		**0.0326**	**0.0326**	**0.0000**	**71.7991**	**71.7991**	**0.0175**	**0.0000**	**72.2370**

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	1.5200e-003	0.0347	0.0106	8.0000e-005	1.8400e-003	2.1000e-004	2.0400e-003	5.3000e-004	2.0000e-004	7.3000e-004	0.0000	7.7444	7.7444	5.2000e-004	0.0000	7.7574
Worker	3.3500e-003	2.6400e-003	0.0253	6.0000e-005	5.8900e-003	5.0000e-005	5.9400e-003	1.5700e-003	4.0000e-005	1.6100e-003	0.0000	5.3435	5.3435	2.0000e-004	0.0000	5.3486
Total	**4.8700e-003**	**0.0373**	**0.0359**	**1.4000e-004**	**7.7300e-003**	**2.6000e-004**	**7.9800e-003**	**2.1000e-003**	**2.4000e-004**	**2.3400e-003**	**0.0000**	**13.0879**	**13.0879**	**7.2000e-004**	**0.0000**	**13.1061**

3.4 Building Construction - 2020

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	0.0657	0.5948	0.5223	8.3000e-004		0.0346	0.0346		0.0326	0.0326	0.0000	71.7990	71.7990	0.0175	0.0000	72.2369
Total	**0.0657**	**0.5948**	**0.5223**	**8.3000e-004**		**0.0346**	**0.0346**		**0.0326**	**0.0326**	**0.0000**	**71.7990**	**71.7990**	**0.0175**	**0.0000**	**72.2369**

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	1.5200e-003	0.0347	0.0106	8.0000e-005	1.8400e-003	2.1000e-004	2.0400e-003	5.3000e-004	2.0000e-004	7.3000e-004	0.0000	7.7444	7.7444	5.2000e-004	0.0000	7.7574
Worker	3.3500e-003	2.6400e-003	0.0253	6.0000e-005	5.8900e-003	5.0000e-005	5.9400e-003	1.5700e-003	4.0000e-005	1.6100e-003	0.0000	5.3435	5.3435	2.0000e-004	0.0000	5.3486
Total	**4.8700e-003**	**0.0373**	**0.0359**	**1.4000e-004**	**7.7300e-003**	**2.6000e-004**	**7.9800e-003**	**2.1000e-003**	**2.4000e-004**	**2.3400e-003**	**0.0000**	**13.0879**	**13.0879**	**7.2000e-004**	**0.0000**	**13.1061**

3.5 Paving - 2019

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	0.1222	1.2805	1.2319	1.9200e-003		0.0693	0.0693		0.0637	0.0637	0.0000	171.9915	171.9915	0.0544	0.0000	173.3519
Paving	3.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1225**	**1.2805**	**1.2319**	**1.9200e-003**		**0.0693**	**0.0693**		**0.0637**	**0.0637**	**0.0000**	**171.9915**	**171.9915**	**0.0544**	**0.0000**	**173.3519**

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	6.3300e-003	5.1300e-003	0.0489	1.0000e-004	9.9700e-003	8.0000e-005	0.0101	2.6500e-003	7.0000e-005	2.7300e-003	0.0000	9.3420	9.3420	4.1000e-004	0.0000	9.3521
Total	**6.3300e-003**	**5.1300e-003**	**0.0489**	**1.0000e-004**	**9.9700e-003**	**8.0000e-005**	**0.0101**	**2.6500e-003**	**7.0000e-005**	**2.7300e-003**	**0.0000**	**9.3420**	**9.3420**	**4.1000e-004**	**0.0000**	**9.3521**

3.5 Paving - 2019

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	0.1222	1.2805	1.2318	1.9200e-003		0.0693	0.0693		0.0637	0.0637	0.0000	171.9913	171.9913	0.0544	0.0000	173.3517
Paving	3.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1225**	**1.2805**	**1.2318**	**1.9200e-003**		**0.0693**	**0.0693**		**0.0637**	**0.0637**	**0.0000**	**171.9913**	**171.9913**	**0.0544**	**0.0000**	**173.3517**

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	6.3300e-003	5.1300e-003	0.0489	1.0000e-004	9.9700e-003	8.0000e-005	0.0101	2.6500e-003	7.0000e-005	2.7300e-003	0.0000	9.3420	9.3420	4.1000e-004	0.0000	9.3521
Total	**6.3300e-003**	**5.1300e-003**	**0.0489**	**1.0000e-004**	**9.9700e-003**	**8.0000e-005**	**0.0101**	**2.6500e-003**	**7.0000e-005**	**2.7300e-003**	**0.0000**	**9.3420**	**9.3420**	**4.1000e-004**	**0.0000**	**9.3521**

3.5 Paving - 2020

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	0.0421	0.4360	0.4542	7.1000e-004		0.0233	0.0233		0.0215	0.0215	0.0000	62.0875	62.0875	0.0201	0.0000	62.5895
Paving	1.4000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0422**	**0.4360**	**0.4542**	**7.1000e-004**		**0.0233**	**0.0233**		**0.0215**	**0.0215**	**0.0000**	**62.0875**	**62.0875**	**0.0201**	**0.0000**	**62.5895**

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	2.1000e-003	1.6500e-003	0.0158	4.0000e-005	3.6800e-003	3.0000e-005	3.7100e-003	9.8000e-004	3.0000e-005	1.0100e-003	0.0000	3.3397	3.3397	1.3000e-004	0.0000	3.3429
Total	**2.1000e-003**	**1.6500e-003**	**0.0158**	**4.0000e-005**	**3.6800e-003**	**3.0000e-005**	**3.7100e-003**	**9.8000e-004**	**3.0000e-005**	**1.0100e-003**	**0.0000**	**3.3397**	**3.3397**	**1.3000e-004**	**0.0000**	**3.3429**

3.5 Paving - 2020

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	0.0421	0.4360	0.4542	7.1000e-004		0.0233	0.0233		0.0215	0.0215	0.0000	62.0874	62.0874	0.0201	0.0000	62.5894
Paving	1.4000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0422**	**0.4360**	**0.4542**	**7.1000e-004**		**0.0233**	**0.0233**		**0.0215**	**0.0215**	**0.0000**	**62.0874**	**62.0874**	**0.0201**	**0.0000**	**62.5894**

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	2.1000e-003	1.6500e-003	0.0158	4.0000e-005	3.6800e-003	3.0000e-005	3.7100e-003	9.8000e-004	3.0000e-005	1.0100e-003	0.0000	3.3397	3.3397	1.3000e-004	0.0000	3.3429
Total	**2.1000e-003**	**1.6500e-003**	**0.0158**	**4.0000e-005**	**3.6800e-003**	**3.0000e-005**	**3.7100e-003**	**9.8000e-004**	**3.0000e-005**	**1.0100e-003**	**0.0000**	**3.3397**	**3.3397**	**1.3000e-004**	**0.0000**	**3.3429**

3.6 Architectural Coating - 2019

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	0.3442					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0224	0.1542	0.1547	2.5000e-004		0.0108	0.0108		0.0108	0.0108	0.0000	21.4473	21.4473	1.8100e-003	0.0000	21.4926
Total	**0.3666**	**0.1542**	**0.1547**	**2.5000e-004**		**0.0108**	**0.0108**		**0.0108**	**0.0108**	**0.0000**	**21.4473**	**21.4473**	**1.8100e-003**	**0.0000**	**21.4926**

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	2.1100e-003	1.7100e-003	0.0163	3.0000e-005	3.3200e-003	3.0000e-005	3.3500e-003	8.8000e-004	2.0000e-005	9.1000e-004	0.0000	3.1140	3.1140	1.4000e-004	0.0000	3.1174
Total	**2.1100e-003**	**1.7100e-003**	**0.0163**	**3.0000e-005**	**3.3200e-003**	**3.0000e-005**	**3.3500e-003**	**8.8000e-004**	**2.0000e-005**	**9.1000e-004**	**0.0000**	**3.1140**	**3.1140**	**1.4000e-004**	**0.0000**	**3.1174**

3.6 Architectural Coating - 2019

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	0.3442					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0224	0.1542	0.1547	2.5000e-004		0.0108	0.0108		0.0108	0.0108	0.0000	21.4473	21.4473	1.8100e-003	0.0000	21.4926
Total	**0.3666**	**0.1542**	**0.1547**	**2.5000e-004**		**0.0108**	**0.0108**		**0.0108**	**0.0108**	**0.0000**	**21.4473**	**21.4473**	**1.8100e-003**	**0.0000**	**21.4926**

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	2.1100e-003	1.7100e-003	0.0163	3.0000e-005	3.3200e-003	3.0000e-005	3.3500e-003	8.8000e-004	2.0000e-005	9.1000e-004	0.0000	3.1140	3.1140	1.4000e-004	0.0000	3.1174
Total	**2.1100e-003**	**1.7100e-003**	**0.0163**	**3.0000e-005**	**3.3200e-003**	**3.0000e-005**	**3.3500e-003**	**8.8000e-004**	**2.0000e-005**	**9.1000e-004**	**0.0000**	**3.1140**	**3.1140**	**1.4000e-004**	**0.0000**	**3.1174**

3.6 Architectural Coating - 2020

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	0.1270					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.5100e-003	0.0522	0.0568	9.0000e-005		3.4400e-003	3.4400e-003		3.4400e-003	3.4400e-003	0.0000	7.9151	7.9151	6.1000e-004	0.0000	7.9304
Total	**0.1345**	**0.0522**	**0.0568**	**9.0000e-005**		**3.4400e-003**	**3.4400e-003**		**3.4400e-003**	**3.4400e-003**	**0.0000**	**7.9151**	**7.9151**	**6.1000e-004**	**0.0000**	**7.9304**

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	7.0000e-004	5.5000e-004	5.2800e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1132	1.1132	4.0000e-005	0.0000	1.1143
Total	**7.0000e-004**	**5.5000e-004**	**5.2800e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.1132**	**1.1132**	**4.0000e-005**	**0.0000**	**1.1143**

3.6 Architectural Coating - 2020

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	0.1270					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.5100e-003	0.0522	0.0568	9.0000e-005		3.4400e-003	3.4400e-003		3.4400e-003	3.4400e-003	0.0000	7.9151	7.9151	6.1000e-004	0.0000	7.9304
Total	**0.1345**	**0.0522**	**0.0568**	**9.0000e-005**		**3.4400e-003**	**3.4400e-003**		**3.4400e-003**	**3.4400e-003**	**0.0000**	**7.9151**	**7.9151**	**6.1000e-004**	**0.0000**	**7.9304**

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	7.0000e-004	5.5000e-004	5.2800e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1132	1.1132	4.0000e-005	0.0000	1.1143
Total	**7.0000e-004**	**5.5000e-004**	**5.2800e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.1132**	**1.1132**	**4.0000e-005**	**0.0000**	**1.1143**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0298	0.9808	0.1900	2.5300e-003	0.0591	2.7800e-003	0.0618	0.0161	2.6500e-003	0.0187	0.0000	239.7917	239.7917	0.0201	0.0000	240.2949
Unmitigated	0.0298	0.9808	0.1900	2.5300e-003	0.0591	2.7800e-003	0.0618	0.0161	2.6500e-003	0.0187	0.0000	239.7917	239.7917	0.0201	0.0000	240.2949

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	50.19	50.19	50.19	146,523	146,523
Parking Lot	0.00	0.00	0.00		
Total	50.19	50.19	50.19	146,523	146,523

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
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.360000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.640000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.549294	0.032492	0.169090	0.120716	0.031218	0.007276	0.009879	0.070912	0.001078	0.001647	0.004739	0.000801	0.000858

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	104.7697	104.7697	4.7400e-003	9.8000e-004	105.1803
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	104.7697	104.7697	4.7400e-003	9.8000e-004	105.1803
NaturalGas Mitigated	4.5200e-003	0.0411	0.0345	2.5000e-004		3.1200e-003	3.1200e-003		3.1200e-003	3.1200e-003	0.0000	44.7152	44.7152	8.6000e-004	8.2000e-004	44.9809
NaturalGas Unmitigated	4.5200e-003	0.0411	0.0345	2.5000e-004		3.1200e-003	3.1200e-003		3.1200e-003	3.1200e-003	0.0000	44.7152	44.7152	8.6000e-004	8.2000e-004	44.9809

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					
General Light Industry	837931	4.5200e-003	0.0411	0.0345	2.5000e-004		3.1200e-003	3.1200e-003		3.1200e-003	3.1200e-003	0.0000	44.7152	44.7152	8.6000e-004	8.2000e-004	44.9809
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		**4.5200e-003**	**0.0411**	**0.0345**	**2.5000e-004**		**3.1200e-003**	**3.1200e-003**		**3.1200e-003**	**3.1200e-003**	**0.0000**	**44.7152**	**44.7152**	**8.6000e-004**	**8.2000e-004**	**44.9809**

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					
General Light Industry	837931	4.5200e-003	0.0411	0.0345	2.5000e-004		3.1200e-003	3.1200e-003		3.1200e-003	3.1200e-003	0.0000	44.7152	44.7152	8.6000e-004	8.2000e-004	44.9809
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		**4.5200e-003**	**0.0411**	**0.0345**	**2.5000e-004**		**3.1200e-003**	**3.1200e-003**		**3.1200e-003**	**3.1200e-003**	**0.0000**	**44.7152**	**44.7152**	**8.6000e-004**	**8.2000e-004**	**44.9809**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	354123	103.0184	4.6600e-003	9.6000e-004	103.4221
Parking Lot	6020	1.7513	8.0000e-005	2.0000e-005	1.7582
Total		**104.7697**	**4.7400e-003**	**9.8000e-004**	**105.1803**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	354123	103.0184	4.6600e-003	9.6000e-004	103.4221
Parking Lot	6020	1.7513	8.0000e-005	2.0000e-005	1.7582
Total		**104.7697**	**4.7400e-003**	**9.8000e-004**	**105.1803**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2051	1.0000e-005	7.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4900e-003	1.4900e-003	0.0000	0.0000	1.5800e-003
Unmitigated	0.2051	1.0000e-005	7.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4900e-003	1.4900e-003	0.0000	0.0000	1.5800e-003

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	0.0471					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1579					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.0000e-005	1.0000e-005	7.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4900e-003	1.4900e-003	0.0000	0.0000	1.5800e-003
Total	**0.2051**	**1.0000e-005**	**7.7000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.4900e-003**	**1.4900e-003**	**0.0000**	**0.0000**	**1.5800e-003**

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	0.0471					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1579					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.0000e-005	1.0000e-005	7.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4900e-003	1.4900e-003	0.0000	0.0000	1.5800e-003
Total	**0.2051**	**1.0000e-005**	**7.7000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.4900e-003**	**1.4900e-003**	**0.0000**	**0.0000**	**1.5800e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.3480	6.0100e-003	1.4000e-004	0.5412
Unmitigated	0.3480	6.0100e-003	1.4000e-004	0.5412

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.184 / 0	0.3480	6.0100e-003	1.4000e-004	0.5412
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.3480**	**6.0100e-003**	**1.4000e-004**	**0.5412**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.184 / 0	0.3480	6.0100e-003	1.4000e-004	0.5412
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.3480**	**6.0100e-003**	**1.4000e-004**	**0.5412**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	10.1069	0.5973	0.0000	25.0395
Unmitigated	10.1069	0.5973	0.0000	25.0395

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	49.79	10.1069	0.5973	0.0000	25.0395
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**10.1069**	**0.5973**	**0.0000**	**25.0395**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	49.79	10.1069	0.5973	0.0000	25.0395
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**10.1069**	**0.5973**	**0.0000**	**25.0395**

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

APPENDIX E

Noise Assessment

Site Number: 1			
Recorded By: Lindsay Taylor			
Job Number: 2018-087			
Date: 5/17/2018			
Time: 1:36 p.m.			
Location: Along Hwy 99W, adjacent to Orland Mobile Home & RV Park entrance			
Source of Peak Noise: vehicular traffic			
Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
73.9	41.4	97.0	113.4

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Larson Davis	LxT SE	0005120	6/27/2017	
	Microphone	Larson Davis	377B02	174464	5/19/2017	
	Preamp	Larson Davis	PRMLxT1L	042852	6/1/2017	
	Calibrator	Larson Davis	CAL200	14105	6/13/2017	

Weather Data			
Est.	Duration: 15 minutes		Sky: clear
	Note: dBA Offset = 0.11		Sensor Height (ft): 5 ft
	Wind Ave Speed (mph)	Temperature (degrees Fahrenheit)	Barometer Pressure (hPa)
	5 mph	78 F	30 inHg

Photo of Measurement Location

Site Number: 2			
Recorded By: Lindsay Taylor			
Job Number: 2018-087			
Date: 5/17/2018			
Time: 1:56 p.m.			
Location: Along County Road 18, between Hwy 99W and Railroad Avenue			
Source of Peak Noise: vehicular traffic			
Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
58.4	39.7	78.0	97.7

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Larson Davis	LxT SE	0005120	6/27/2017	
	Microphone	Larson Davis	377B02	174464	5/19/2017	
	Preamp	Larson Davis	PRMLxT1L	042852	6/1/2017	
	Calibrator	Larson Davis	CAL200	14105	6/13/2017	

Weather Data			
Est.	Duration: 15 minutes		Sky: clear
	Note: dBA Offset = 0.11		Sensor Height (ft): 5 ft
	Wind Ave Speed (mph)	Temperature (degrees Fahrenheit)	Barometer Pressure (hPa)
	5 mph	78 F	30 inHg

Photo of Measurement Location

Site Number: 3	
Recorded By: Lindsay Taylor	
Job Number: 2018-087	
Date: 5/17/2018	
Time: 2:13 p.m.	
Location: Along Railroad Avenue, adjacent to houses south of Yuba Street	
Source of Peak Noise: vehicular traffic	

Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
61.6	36.7	85.0	110.7

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Larson Davis	LxT SE	0005120	6/27/2017	
	Microphone	Larson Davis	377B02	174464	5/19/2017	
	Preamp	Larson Davis	PRMLxT1L	042852	6/1/2017	
	Calibrator	Larson Davis	CAL200	14105	6/13/2017	

Weather Data			
Est.	Duration: 15 minutes		Sky: clear
	Note: dBA Offset = 0.11		Sensor Height (ft): 5 ft
	Wind Ave Speed (mph)	Temperature (degrees Fahrenheit)	Barometer Pressure (hPa)
	5 mph	78 F	30 inHg

Photo of Measurement Location


Simplot Growers Facility Expansion Project
Noise Measurement Locations
Legend
Site
Railroad Ave
Rd 17 1/2
Site 3
Hwy 99W
Site 1
99W
5
Site 2
Eucalyptus
18
K
Rd 18
Co Rd J
Google Earth
©2018 Google
N
600 ft

Summary

File Name on Meter	LxT_Data.051
File Name on PC	SLM_0005120_LxT_Data_051.01.ldbin
Serial Number	0005120
Model	SoundExpert® LxT
Firmware Version	2.301
User	Lindsay Taylor
Location	Site 1
Job Description	2018-087
Note	

Measurement

Description	
Start	2018-05-17 13:36:14
Stop	2018-05-17 13:51:14
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre Calibration	2018-05-17 13:34:05
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Fast
Preamp	PRMLxT1L
Microphone Correction	Off
Integration Method	Linear
OBA Range	Low
OBA Bandwidth	1/1 and 1/3
OBA Freq. Weighting	Z Weighting
OBA Max Spectrum	Bin Max

Overload	122.6 dB		
	A	**C**	**Z**
Under Range Peak	78.9	75.9	**80.9** dB
Under Range Limit	**25.5**	25.5	30.5 dB
Noise Floor	16.2	16.4	21.3 dB

Results

LAeq	73.9 dB		
LAE	103.4 dB		
EA	2.436 mPa²h		
LZpeak (max)	2018-05-17 13:39:05	113.4 dB	
LAFmax	2018-05-17 13:39:05	97.0 dB	
LAFmin	2018-05-17 13:38:07	41.4 dB	
SEA	-99.9 dB		
LAF > 85.0 dB (Exceedance Counts / Duration)	22	16.8 s	
LAF > 115.0 dB (Exceedance Counts / Duration)	0	0.0 s	
LZpeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s	
LZpeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s	
LZpeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s	

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**
	73.9	73.9	-99.9	73.9

LCeq	77.2 dB		
LAeq	73.9 dB		
LCeq - LAeq	3.4 dB		
LAIeq	77.6 dB		
LAeq	73.9 dB		
LAIeq - LAeq	3.7 dB		

	A		**C**	
	dB	**Time Stamp**	**dB**	**Time Stamp**
Leq	73.9		77.2	
LF(max)	97.0	2018/05/17 13:39:05		

$L_{F(min)}$	41.4	2018/05/17 13:38:07		
$L_{Peak(max)}$				

# Overloads	0
Overload Duration	0.0 s
# OBA Overloads	64.0
OBA Overload Duration	221.6 s

Statistics

LAF5.00	80.8 dB
LAF10.00	77.9 dB
LAF33.30	67.3 dB
LAF50.00	60.4 dB
LAF66.60	54.9 dB
LAF90.00	47.0 dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**	**6.3**
PRMLxT1L	2018-05-17 13:34:01	-29.0	37.7
PRMLxT1L	2018-05-07 08:56:36	-28.9	48.5
PRMLxT1L	2018-01-04 11:12:52	-28.8	59.4
PRMLxT1L	2017-12-28 10:24:59	-28.8	42.5
PRMLxT1L	2017-12-07 13:40:48	-28.8	63.7
PRMLxT1L	2017-11-28 15:19:48	-28.9	43.5
PRMLxT1L	2017-11-28 15:19:30	-28.9	32.1
PRMLxT1L	2017-11-28 15:19:12	-28.9	42.8
PRMLxT1L	2017-11-02 13:52:42	-28.8	53.5
PRMLxT1L	2017-10-11 10:26:19	-28.6	59.8
PRMLxT1L	2017-09-29 11:52:59	-28.7	52.4

Summary

File Name on Meter	LxT_Data.052
File Name on PC	SLM_0005120_LxT_Data_052.01.ldbin
Serial Number	0005120
Model	SoundExpert® LxT
Firmware Version	2.301
User	Lindsay Taylor
Location	Site 2
Job Description	2018-087
Note	

Measurement

Description	
Start	2018-05-17 13:56:23
Stop	2018-05-17 14:11:23
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre Calibration	2018-05-17 13:34:01
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Fast
Preamp	PRMLxT1L
Microphone Correction	Off
Integration Method	Linear
OBA Range	Low
OBA Bandwidth	1/1 and 1/3
OBA Freq. Weighting	Z Weighting
OBA Max Spectrum	Bin Max

Overload	122.6 dB		
	A	**C**	**Z**
Under Range Peak	78.9	75.9	**80.9** dB
Under Range Limit	**25.5**	25.5	30.5 dB
Noise Floor	16.2	16.4	21.3 dB

Results

L_{Aeq}	58.4 dB		
LAE	87.9 dB		
EA	68.617 µPa²h		
$L_{Zpeak\ (max)}$	2018-05-17 14:04:12	97.7 dB	
L_{AFmax}	2018-05-17 13:56:29	78.0 dB	
L_{AFmin}	2018-05-17 14:00:54	39.7 dB	
SEA	-99.9 dB		
LAF > 85.0 dB (Exceedance Counts / Duration)	0	0.0 s	
LAF > 115.0 dB (Exceedance Counts / Duration)	0	0.0 s	
L_{Zpeak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s	
L_{Zpeak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s	
L_{Zpeak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s	

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**
	58.4	58.4	-99.9	58.4

L_{Ceq}	67.3 dB	
L_{Aeq}	58.4 dB	
L_{Ceq} - L_{Aeq}	8.9 dB	
L_{AIeq}	59.7 dB	
L_{Aeq}	58.4 dB	
L_{AIeq} - L_{Aeq}	1.3 dB	

	A		**C**	
	dB	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	58.4		67.3	
$L_{F(max)}$	78.0	2018/05/17 13:56:29		

$L_{F(min)}$	39.7	2018/05/17 14:00:54		
$L_{Peak(max)}$				

# Overloads	0
Overload Duration	0.0 s
# OBA Overloads	2.0
OBA Overload Duration	8.5 s

Statistics

LAF5.00	61.1 dB
LAF10.00	56.0 dB
LAF33.30	49.7 dB
LAF50.00	47.7 dB
LAF66.60	46.0 dB
LAF90.00	42.5 dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**	**6.3**
PRMLxT1L	2018-05-17 13:34:01	-29.0	37.7
PRMLxT1L	2018-05-07 08:56:36	-28.9	48.5
PRMLxT1L	2018-01-04 11:12:52	-28.8	59.4
PRMLxT1L	2017-12-28 10:24:59	-28.8	42.5
PRMLxT1L	2017-12-07 13:40:48	-28.8	63.7
PRMLxT1L	2017-11-28 15:19:48	-28.9	43.5
PRMLxT1L	2017-11-28 15:19:30	-28.9	32.1
PRMLxT1L	2017-11-28 15:19:12	-28.9	42.8
PRMLxT1L	2017-11-02 13:52:42	-28.8	53.5
PRMLxT1L	2017-10-11 10:26:19	-28.6	59.8
PRMLxT1L	2017-09-29 11:52:59	-28.7	52.4

Summary

File Name on Meter	LxT_Data.053
File Name on PC	SLM_0005120_LxT_Data_053.01.ldbin
Serial Number	0005120
Model	SoundExpert® LxT
Firmware Version	2.301
User	Lindsay Taylor
Location	Site 3
Job Description	2018-087
Note	

Measurement

Description	
Start	2018-05-17 14:13:22
Stop	2018-05-17 14:28:22
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre Calibration	2018-05-17 13:34:01
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Fast
Preamp	PRMLxT1L
Microphone Correction	Off
Integration Method	Linear
OBA Range	Low
OBA Bandwidth	1/1 and 1/3
OBA Freq. Weighting	Z Weighting
OBA Max Spectrum	Bin Max

Overload	122.6 dB		
	A	**C**	**Z**
Under Range Peak	78.9	75.9	**80.9** dB
Under Range Limit	**25.5**	25.5	30.5 dB
Noise Floor	16.2	16.4	21.3 dB

Results

LAeq	61.6 dB		
LAE	91.1 dB		
EA	143.657 µPa²h		
LZpeak (max)	2018-05-17 14:18:17	110.7 dB	
LAFmax	2018-05-17 14:23:00	85.0 dB	
LAFmin	2018-05-17 14:20:25	36.7 dB	
SEA	-99.9 dB		
LAF > 85.0 dB (Exceedance Counts / Duration)	0	0.0 s	
LAF > 115.0 dB (Exceedance Counts / Duration)	0	0.0 s	
LZpeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s	
LZpeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s	
LZpeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s	

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**
	61.6	61.6	-99.9	61.6

LCeq	68.1 dB		
LAeq	61.6 dB		
LCeq - LAeq	6.6 dB		
LAIeq	65.6 dB		
LAeq	61.6 dB		
LAIeq - LAeq	4.1 dB		

	A		**C**	
	dB	**Time Stamp**	**dB**	**Time Stamp**
Leq	61.6		68.1	
LF(max)	85.0	2018/05/17 14:23:00		

$L_{F(min)}$	36.7	2018/05/17 14:20:25		
$L_{Peak(max)}$				

# Overloads	0
Overload Duration	0.0 s
# OBA Overloads	16.0
OBA Overload Duration	56.5 s

Statistics

LAF5.00	63.6 dB
LAF10.00	56.4 dB
LAF33.30	45.6 dB
LAF50.00	43.8 dB
LAF66.60	42.6 dB
LAF90.00	41.0 dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**	**6.3**
PRMLxT1L	2018-05-17 13:34:01	-29.0	37.7
PRMLxT1L	2018-05-07 08:56:36	-28.9	48.5
PRMLxT1L	2018-01-04 11:12:52	-28.8	59.4
PRMLxT1L	2017-12-28 10:24:59	-28.8	42.5
PRMLxT1L	2017-12-07 13:40:48	-28.8	63.7
PRMLxT1L	2017-11-28 15:19:48	-28.9	43.5
PRMLxT1L	2017-11-28 15:19:30	-28.9	32.1
PRMLxT1L	2017-11-28 15:19:12	-28.9	42.8
PRMLxT1L	2017-11-02 13:52:42	-28.8	53.5
PRMLxT1L	2017-10-11 10:26:19	-28.6	59.8
PRMLxT1L	2017-09-29 11:52:59	-28.7	52.4

www.ecorpconsulting.com

ROCKLIN, CA
(916) 782-9100

REDLANDS, CA
(909) 307-0046

SANTA ANA, CA
(714) 648-0630

SAN DIEGO, CA
(858) 279-4040

CHICO, CA
(530) 809-2585

SANTA FE, NM
(714) 222-5932