# Appendix A

**Environmental Assessment Worksheets** 

# **Attachment A1**

Air Quality

#### Air Quality (CEST and EA)

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General Requirements	Legislation	Regulation								
The Clean Air Act is administered by the	Clean Air Act (42 USC	40 CFR Parts 6, 51								
U.S. Environmental Protection Agency	7401 et seq.) as	and 93								
(EPA), which sets national standards on	amended particularly									
ambient pollutants. In addition, the Clean	Section 176(c) and (d)									
Air Act is administered by States, which	(42 USC 7506(c) and (d))									
must develop State Implementation Plans										
(SIPs) to regulate their state air quality.										
Projects funded by HUD must demonstrate										
that they conform to the appropriate SIP.										
Re	eference									
https://www.hudexchange.info/environment	tal-review/air-quality									

#### Scope of Work

 development of public, commercial, or industrial facilities OR five or more dwelling units?
⊠ Yes
→ Continue to Question 2.
□ No
Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination.

1. Does your project include new construction or conversion of land use facilitating the

#### Air Quality Attainment Status of Project's County or Air Quality Management District

2. Is your project's air quality management district or county in non-attainment or maintenance status for any criteria pollutants?
Follow the link below to determine compliance status of project county or air quality

management district:

http://www.epa.gov/oaqps001/greenbk/

- ☐ No, project's county or air quality management district is in attainment status for all criteria pollutants
  - → Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination.
- ⊠ Yes, project's management district or county is in non-attainment or maintenance status for one or more criteria pollutants.

		The project is located within the Mountain Counties Air Basin, which is in nonattainment for the state standards for ozone (CARB 2017) and the 2015 federal standard for ozone (EPA 2018).
		→ Continue to Question 3.
3.	you att	termine the estimated emissions levels of your project for each of those criteria lutants that are in non-attainment or maintenance status on your project area. Will are project exceed any of the <i>de minimis or threshold</i> emissions levels of non-ainment and maintenance level pollutants or exceed the screening levels ablished by the state or air quality management district?  No, the project will not exceed <i>de minimis</i> or threshold emissions levels or screening levels  A Based on the response the review is in compliance with this section. Continue to the
		→ Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Explain how you determined that the project would not exceed de minimis or threshold emissions.
		Yes, the project exceeds de minimis emissions levels or screening levels.
		→ Continue to Question 4. Explain how you determined that the project would not exceed de minimis or threshold emissions in the Worksheet Summary.
4.	mu	the project to be brought into compliance with this section, all adverse impacts st be mitigated. Explain in detail the exact measures that must be implemented to igate for the impact or effect, including the timeline for implementation.

Describe the findings:

#### **Worksheet Summary**

#### **Compliance Determination**

Provide a clear description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your region

The project would result in minor and temporary construction-related air quality emissions (fugitive dust and vehicle exhaust). To ensure the project would not exceed the thresholds required for a conformity finding under the Clean Air Act, emissions modeling was conducted for construction activities associated with the community resilience center.

Based on modeling conducted, emissions would not exceed de minimis levels for any criteria air pollutant in nonattainment or maintenance within Tuolumne County. See attached emissions modeling and discussion.

Are formal compliance	steps or mitigation required?
☐ Yes	
⊠ No	

Ascent Environmental Air Quality Emissions Modeling

#### **AIR QUALITY EMISSIONS MODELING**

#### **Existing Environmental Setting**

The project site is located in Tuolumne County and in the Mountain Counties Air Basin (MCAB). The MCAB violates the state ozone standard due to transport (i.e., air migration across air district lines) from the Sacramento Valley, the San Joaquin Valley, and the San Francisco Bay Area. The region is in attainment for the federal 1-hour standard, except for the western portions of El Dorado and Placer counties, which are part of the Sacramento federal nonattainment area. Because the California Air Resources Board (CARB) has determined that the region's ozone violations are the result of transport of emissions into the MCAB (California Air Pollution Control Officers Association [CAPCOA] 2015), requirements in the California Clean Air Act (CCAA) that would affect the air quality planning process of the local air districts have not been triggered. Instead, the region will benefit principally from emission reductions in the upwind areas through the application of "all feasible measures" (CARB 2001).

The Tuolumne County Air Pollution Control District (TCAPCD) is responsible for implementing emissions standards and other requirements of federal and state laws regarding most types of stationary emission sources. CARB has determined that the ozone levels in Tuolumne County are caused by "overwhelming transport" of emissions into the air district (CAPCOA 2015). Therefore, TCAPCD is relieved from preparing an attainment plan for ozone, and no other criteria air pollutant levels are high enough to require an attainment plan. Although there are no required attainment plans, or other local plans specifically addressing air quality, Tuolumne County must conform to existing state and federal air quality standards.

If an area has not achieved the National Ambient Air Quality Standards (NAAQS) or the California Ambient Air Quality Standards (CAAQS) for any criteria pollutant, EPA and CARB classifies it as a nonattainment area for the respective criteria pollutant. The Tuolumne County portion of the MCAB is in nonattainment for the 2015 8-hour ozone (2015) standard. Ozone is generated from the combination of volatile organic gases (VOCs) and oxides of nitrogen (NOx). As such, these are the criteria air pollutants of concern when evaluating ozone. Attainment status of criteria air pollutants for Tuolumne County is shown below in Table 1.

Table 1	Attainment Status D	esignations 1	for Tuolumne County
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Pollutant	National Designation	State Designation			
Ozone	Nonattainment	Nonattainment			
PM <sub>10</sub>	Attainment	Unclassified			
PM <sub>2.5</sub>	Attainment	Unclassified			
СО	Attainment	Attainment			
NO <sub>2</sub>	Attainment	Attainment			
SO <sub>2</sub>	Attainment	Attainment			
Lead (Particulate)	Attainment	Attainment			

Notes: CO = carbon monoxide;  $NO_2$  = nitrogen dioxide;  $PM_{2.5}$  = fine particulate matter;  $PM_{10}$  = respirable particulate matter;  $SO_2$  = sulfur dioxide Source: CARB 2015 and EPA 2018

#### **Regulatory Setting**

EPA has been charged with implementing national air quality programs. EPA's air quality mandates are drawn primarily from the federal Clean Air Act (CAA), which was enacted in 1970. The most recent major amendments to the CAA were made by Congress were in 1990.

EPA promulgated the General Conformity Rule on November 30, 1993, in Volume 58 of the Federal Register (FR) Page 63214 (58 FR 63214) to implement the conformity provision of Title I, Section 176(c) of the

Air Quality Emissions Modeling Ascent Environmental

federal CAA (42 United States Code Section7506(c)). Section 176(c)(1) requires that the federal government not engage, support, or provide financial assistance for, permit or license, or approve any activity that fails to conform to an approved State Implementation Plan.

Under the General Conformity Rule, federal agencies must work with state, tribal, and local governments in a nonattainment or maintenance area to ensure that federal actions conform to the air quality plans established in the applicable state or tribal implementation plan. The primary functions of the General Conformity Rule are to:

- Ensure that federal activities do not cause or contribute to new violations of NAAQS;
- ▲ Ensure that actions do not cause additional or worsen existing violations of or contribute to new violations of the NAAQS; and
- Ensure that attainment of the NAAQSs is not delayed.

The General Conformity regulation contains *de minimis* levels that, below which, a project would not be considered to substantially interfere with attainment of NAAQS associated with air quality planning efforts. If a project would exceed the de minimis levels, the project would be subject to a General Conformity Determination. As summarized in Table 2, the project area is designated nonattainment for federal standard for ozone. *De minimis* levels are summarized in Table 2.

Table 2 General Conformity De Minimis Levels

Pollutant	Attainment Designation	De minimis level (tons/year)			
Ozone (ROG and NOx)	Nonattainment (Marginal)	100			

Notes:  $NO_X$  = oxides of nitrogen;  $PM_{2.5}$  = fine particulate matter;  $PM_{10}$  = respirable particulate matter; VOC = volatile organic compounds.

Sources: EPA 2014

#### **Environmental Effects and Minimization Measures**

Implementation of the proposed action would result in construction and operation of a 12,000 square foot community resilience center in Tuolumne County. Construction and operational emissions of NO<sub>x</sub> and ROG were modeled in accordance with industry-accepted methodologies using project specifications (e.g., construction schedule, and duration, land use, location), and default settings and parameters contained in the California Emissions Estimator Model (CalEEMod). Default data (e.g., emission factors) is built into the model and provided by the various California air districts to account for local conditions. Input parameters were based on project-specific information, default model settings, and reasonably conservative assumptions. The modeled construction emissions are summarized in Table 3.

Ascent Environmental Air Quality Emissions Modeling

#### Table 3 Summary of Modeled Emissions of Criteria Air Pollutants and Precursors

	ROG (Construction/Operation)	NO <sub>x</sub> (Construction/Operations)
Maximum Tons Per Year	<1/<1	1.6/1
De minimis levels (tons per year)	100	100

#### Notes:

ROG = reactive organic gases NO<sub>X</sub> = oxides of nitrogen

See Appendix A for detail on model inputs, assumptions, and project specific modeling parameters.

Source: Modeling Conducted by Ascent Environmental in 2018

As shown in Table 3, project construction and operation would not exceed federal *de minimis* levels. Thus, short-term construction-related and long-term operational emissions of criteria air pollutants would not have the potential to exceed applicable ambient air quality standards. Project-generated emissions would not violate or contribute substantially to an existing or projected air quality violation.

Air Quality Emissions Modeling Ascent Environmental

#### References

California Air Pollution Control Officer's Association. 2015. *California's Progress Toward Clean Air*. Available: https://www.co.shasta.ca.us/docs/libraries/resource-management-docs/aq-docs/progress\_report\_2015.pdf?sfvrsn=ca23ee89\_2. Accessed June 11, 2017.

California Air Resources Board. 2001. (April). *Ozone Transport: 2001 Review*. Available: https://www.arb.ca.gov/research/apr/reports/I3067.pdf. Accessed June 10, 2018.

——. 2015. Air Quality Standards and Area Designations: carbon monoxide, nitrogen dioxide, sulfur dioxide, PM<sub>10</sub>, PM<sub>2.5</sub>, and lead. Available: https://www.arb.ca.gov/desig/desig.htm. Accessed November 13, 2018.

U.S. Environmental Protection Agency. Green Book. 8-Hour Ozone (2015) Designated Area/State Information with Design Values. October 31, 2018. Accessed November 13, 2018.

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#### 1.0 Project Characteristics

#### 1.1 Land Usage

Land Uses	Land Uses Size		Lot Acreage	Floor Surface Area	Population	
Place of Worship	12.00	1000sqft	0.28	12,000.00	0	

#### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	66
Climate Zone	1			Operational Year	2022
Utility Company	Pacific Gas & Electric Co	mpany			
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

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Project Characteristics - Construction Run only.

Land Use -

Construction Phase - Anticipated construction duration is 14 months beginning in March 2021 and complete by May 2022

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - no saws would be used during grading plus hauling trucks would be used.

Off-road Equipment -

Trips and VMT - assumed 20 workers/day

Grading - approved grading plans indicate, 8000 cy of material would be excavated and removed

Vehicle Trips - construction run only

Energy Use - construction run only

Water And Wastewater - construction run only

Solid Waste - construction run only

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Table Name	Column Name	Default Value	New Value		
tblAreaCoating	Area_Nonresidential_Exterior	6000	0		
tblAreaCoating	Area_Nonresidential_Interior	18000	0		
tblConstructionPhase	NumDays	5.00	30.00		
tblConstructionPhase	NumDays	100.00	145.00		
tblConstructionPhase	NumDays	2.00	45.00		
tblConstructionPhase	NumDays	5.00	30.00		
tblConstructionPhase	NumDays	1.00	45.00		
tblEnergyUse	LightingElect	1.81	0.00		
tblEnergyUse	NT24E	1.85	0.00		
tblEnergyUse	NT24NG	0.31	0.00		
tblEnergyUse	T24E	0.62	0.00		
tblEnergyUse	T24NG	3.20	0.00		
tblGrading	MaterialExported	0.00	14,000.00		
tblGrading	MaterialExported	0.00	14,000.00		
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00		
tblSolidWaste	SolidWasteGenerationRate	68.40	0.00		
tblTripsAndVMT	WorkerTripNumber	5.00	40.00		
tblTripsAndVMT	WorkerTripNumber	13.00	40.00		
tblTripsAndVMT	WorkerTripNumber	5.00	40.00		
tblTripsAndVMT	WorkerTripNumber	18.00	40.00		
tblVehicleTrips	ST_TR	10.37	0.00		
tblVehicleTrips	SU_TR	36.63	0.00		
tblVehicleTrips	WD_TR	9.11	0.00		
tblWater	IndoorWaterUseRate	375,466.90	0.00		
tblWater	OutdoorWaterUseRate	587,268.74	0.00		

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### 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					ton	s/yr							МТ	-/yr		
2021	0.1492	1.5997	1.2001	3.3200e- 003	0.0934	0.0485	0.1420	0.0278	0.0448	0.0726	0.0000	303.0209	303.0209	0.0475	0.0000	304.2082
2022	0.1705	0.2081	0.2907	4.5000e- 004	8.9600e- 003	0.0104	0.0194	2.3900e- 003	9.7400e- 003	0.0121	0.0000	38.9570	38.9570	9.0300e- 003	0.0000	39.1827
Maximum	0.1705	1.5997	1.2001	3.3200e- 003	0.0934	0.0485	0.1420	0.0278	0.0448	0.0726	0.0000	303.0209	303.0209	0.0475	0.0000	304.2082

#### **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					ton	s/yr							MT	/yr		
2021	0.1492	1.5997	1.2001	3.3200e- 003	0.0934	0.0485	0.1420	0.0278	0.0448	0.0726	0.0000	303.0207	303.0207	0.0475	0.0000	304.2081
2022	0.1705	0.2081	0.2907	4.5000e- 004	8.9600e- 003	0.0104	0.0194	2.3900e- 003	9.7400e- 003	0.0121	0.0000	38.9570	38.9570	9.0300e- 003	0.0000	39.1826
Maximum	0.1705	1.5997	1.2001	3.3200e- 003	0.0934	0.0485	0.1420	0.0278	0.0448	0.0726	0.0000	303.0207	303.0207	0.0475	0.0000	304.2081

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	ROG	NOx	СО	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	3-1-2021	5-31-2021	0.6725	0.6725
2	6-1-2021	8-31-2021	0.6166	0.6166
3	9-1-2021	11-30-2021	0.3163	0.3163
4	12-1-2021	2-28-2022	0.2785	0.2785
5	3-1-2022	5-31-2022	0.2101	0.2101
		Highest	0.6725	0.6725

### 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					ton	s/yr							MT	/yr		
Area	0.0469	0.0000	1.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1000e- 004	2.1000e- 004	0.0000	0.0000	2.3000e- 004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0469	0.0000	1.1000e- 004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.1000e- 004	2.1000e- 004	0.0000	0.0000	2.3000e- 004

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#### 2.2 Overall Operational

#### **Mitigated Operational**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Area	0.0469	0.0000	1.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1000e- 004	2.1000e- 004	0.0000	0.0000	2.3000e- 004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0469	0.0000	1.1000e- 004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.1000e- 004	2.1000e- 004	0.0000	0.0000	2.3000e- 004

	ROG	NOx	СО	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**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/15/2021	5/14/2021	5	45	
2	Grading	Grading	5/15/2021	7/16/2021	5	45	
3	Building Construction	Building Construction	7/17/2021	2/4/2022	5	145	
4	Paving	Paving	2/5/2022	3/18/2022	5	30	
5	Architectural Coating	Architectural Coating	3/19/2022	4/29/2022	5	30	

Acres of Grading (Site Preparation Phase): 22.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 18,000; Non-Residential Outdoor: 6,000; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	0	8.00	81	0.73
Grading	Off-Highway Trucks	2	6.00	402	0.38
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

#### **Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	40.00	0.00	1,750.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	40.00	0.00	1,750.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	40.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	40.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

# **3.1 Mitigation Measures Construction**

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3.2 Site Preparation - 2021

<u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Fugitive Dust					0.0127	0.0000	0.0127	1.4100e- 003	0.0000	1.4100e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0144	0.1760	0.0906	2.2000e- 004		6.7400e- 003	6.7400e- 003		6.2000e- 003	6.2000e- 003	0.0000	19.2397	19.2397	6.2200e- 003	0.0000	19.3953
Total	0.0144	0.1760	0.0906	2.2000e- 004	0.0127	6.7400e- 003	0.0195	1.4100e- 003	6.2000e- 003	7.6100e- 003	0.0000	19.2397	19.2397	6.2200e- 003	0.0000	19.3953

#### **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					ton	s/yr							MT	<sup>-</sup> /yr		
Hauling	9.1400e- 003	0.3131	0.0862	7.4000e- 004	0.0145	1.3700e- 003	0.0159	3.9800e- 003	1.3100e- 003	5.2900e- 003	0.0000	69.7598	69.7598	1.4300e- 003	0.0000	69.7955
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.5200e- 003	6.5900e- 003	0.0614	7.0000e- 005	7.1000e- 003	8.0000e- 005	7.1800e- 003	1.8900e- 003	7.0000e- 005	1.9600e- 003	0.0000	6.5681	6.5681	5.5000e- 004	0.0000	6.5818
Total	0.0177	0.3196	0.1476	8.1000e- 004	0.0216	1.4500e- 003	0.0231	5.8700e- 003	1.3800e- 003	7.2500e- 003	0.0000	76.3278	76.3278	1.9800e- 003	0.0000	76.3774

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#### Tuolumne County Resilience Center\_Construction Only - Tuolumne County, Annual

3.2 Site Preparation - 2021 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					ton	s/yr							MT	/yr		
Fugitive Dust					0.0127	0.0000	0.0127	1.4100e- 003	0.0000	1.4100e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0144	0.1760	0.0906	2.2000e- 004		6.7400e- 003	6.7400e- 003		6.2000e- 003	6.2000e- 003	0.0000	19.2397	19.2397	6.2200e- 003	0.0000	19.3952
Total	0.0144	0.1760	0.0906	2.2000e- 004	0.0127	6.7400e- 003	0.0195	1.4100e- 003	6.2000e- 003	7.6100e- 003	0.0000	19.2397	19.2397	6.2200e- 003	0.0000	19.3952

#### **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					ton	s/yr							МТ	/yr		
Hauling	9.1400e- 003	0.3131	0.0862	7.4000e- 004	0.0145	1.3700e- 003	0.0159	3.9800e- 003	1.3100e- 003	5.2900e- 003	0.0000	69.7598	69.7598	1.4300e- 003	0.0000	69.7955
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.5200e- 003	6.5900e- 003	0.0614	7.0000e- 005	7.1000e- 003	8.0000e- 005	7.1800e- 003	1.8900e- 003	7.0000e- 005	1.9600e- 003	0.0000	6.5681	6.5681	5.5000e- 004	0.0000	6.5818
Total	0.0177	0.3196	0.1476	8.1000e- 004	0.0216	1.4500e- 003	0.0231	5.8700e- 003	1.3800e- 003	7.2500e- 003	0.0000	76.3278	76.3278	1.9800e- 003	0.0000	76.3774

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#### Tuolumne County Resilience Center\_Construction Only - Tuolumne County, Annual

3.3 Grading - 2021
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					ton	s/yr							MT	/yr		
Fugitive Dust					0.0177	0.0000	0.0177	9.4300e- 003	0.0000	9.4300e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0297	0.2725	0.2093	5.7000e- 004		0.0118	0.0118	i i	0.0108	0.0108	0.0000	50.4689	50.4689	0.0163	0.0000	50.8770
Total	0.0297	0.2725	0.2093	5.7000e- 004	0.0177	0.0118	0.0295	9.4300e- 003	0.0108	0.0203	0.0000	50.4689	50.4689	0.0163	0.0000	50.8770

#### **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					ton	s/yr							МТ	/yr		
	9.1400e- 003	0.3131	0.0862	7.4000e- 004	0.0145	1.3700e- 003	0.0159	3.9800e- 003	1.3100e- 003	5.2900e- 003	0.0000	69.7598	69.7598	1.4300e- 003	0.0000	69.7955
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.5200e- 003	6.5900e- 003	0.0614	7.0000e- 005	7.1000e- 003	8.0000e- 005	7.1800e- 003	1.8900e- 003	7.0000e- 005	1.9600e- 003	0.0000	6.5681	6.5681	5.5000e- 004	0.0000	6.5818
Total	0.0177	0.3196	0.1476	8.1000e- 004	0.0216	1.4500e- 003	0.0231	5.8700e- 003	1.3800e- 003	7.2500e- 003	0.0000	76.3278	76.3278	1.9800e- 003	0.0000	76.3774

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#### Tuolumne County Resilience Center\_Construction Only - Tuolumne County, Annual

3.3 Grading - 2021

<u>Mitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					0.0177	0.0000	0.0177	9.4300e- 003	0.0000	9.4300e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0297	0.2725	0.2093	5.7000e- 004		0.0118	0.0118	1 1 1	0.0108	0.0108	0.0000	50.4689	50.4689	0.0163	0.0000	50.8769
Total	0.0297	0.2725	0.2093	5.7000e- 004	0.0177	0.0118	0.0295	9.4300e- 003	0.0108	0.0203	0.0000	50.4689	50.4689	0.0163	0.0000	50.8769

#### **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					ton	s/yr							MT	/yr		
Hauling	9.1400e- 003	0.3131	0.0862	7.4000e- 004	0.0145	1.3700e- 003	0.0159	3.9800e- 003	1.3100e- 003	5.2900e- 003	0.0000	69.7598	69.7598	1.4300e- 003	0.0000	69.7955
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.5200e- 003	6.5900e- 003	0.0614	7.0000e- 005	7.1000e- 003	8.0000e- 005	7.1800e- 003	1.8900e- 003	7.0000e- 005	1.9600e- 003	0.0000	6.5681	6.5681	5.5000e- 004	0.0000	6.5818
Total	0.0177	0.3196	0.1476	8.1000e- 004	0.0216	1.4500e- 003	0.0231	5.8700e- 003	1.3800e- 003	7.2500e- 003	0.0000	76.3278	76.3278	1.9800e- 003	0.0000	76.3774

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# 3.4 Building Construction - 2021 Unmitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.0465	0.4791	0.4358	6.8000e- 004		0.0269	0.0269		0.0247	0.0247	0.0000	60.0492	60.0492	0.0194	0.0000	60.5348
Total	0.0465	0.4791	0.4358	6.8000e- 004		0.0269	0.0269		0.0247	0.0247	0.0000	60.0492	60.0492	0.0194	0.0000	60.5348

#### **Unmitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	5.9000e- 004	0.0153	5.4400e- 003	3.0000e- 005	7.8000e- 004	5.0000e- 005	8.3000e- 004	2.3000e- 004	5.0000e- 005	2.8000e- 004	0.0000	3.0926	3.0926	1.0000e- 004	0.0000	3.0949
Worker	0.0227	0.0176	0.1637	2.0000e- 004	0.0189	2.1000e- 004	0.0192	5.0400e- 003	2.0000e- 004	5.2400e- 003	0.0000	17.5148	17.5148	1.4700e- 003	0.0000	17.5516
Total	0.0233	0.0329	0.1692	2.3000e- 004	0.0197	2.6000e- 004	0.0200	5.2700e- 003	2.5000e- 004	5.5200e- 003	0.0000	20.6074	20.6074	1.5700e- 003	0.0000	20.6465

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# 3.4 Building Construction - 2021 Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
	0.0465	0.4791	0.4358	6.8000e- 004		0.0269	0.0269		0.0247	0.0247	0.0000	60.0492	60.0492	0.0194	0.0000	60.5347
Total	0.0465	0.4791	0.4358	6.8000e- 004		0.0269	0.0269		0.0247	0.0247	0.0000	60.0492	60.0492	0.0194	0.0000	60.5347

#### **Mitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	5.9000e- 004	0.0153	5.4400e- 003	3.0000e- 005	7.8000e- 004	5.0000e- 005	8.3000e- 004	2.3000e- 004	5.0000e- 005	2.8000e- 004	0.0000	3.0926	3.0926	1.0000e- 004	0.0000	3.0949
Worker	0.0227	0.0176	0.1637	2.0000e- 004	0.0189	2.1000e- 004	0.0192	5.0400e- 003	2.0000e- 004	5.2400e- 003	0.0000	17.5148	17.5148	1.4700e- 003	0.0000	17.5516
Total	0.0233	0.0329	0.1692	2.3000e- 004	0.0197	2.6000e- 004	0.0200	5.2700e- 003	2.5000e- 004	5.5200e- 003	0.0000	20.6074	20.6074	1.5700e- 003	0.0000	20.6465

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# 3.4 Building Construction - 2022 Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	-/yr		
1	8.5800e- 003	0.0878	0.0894	1.4000e- 004		4.6500e- 003	4.6500e- 003	 	4.2800e- 003	4.2800e- 003	0.0000	12.5185	12.5185	4.0500e- 003	0.0000	12.6197
Total	8.5800e- 003	0.0878	0.0894	1.4000e- 004		4.6500e- 003	4.6500e- 003		4.2800e- 003	4.2800e- 003	0.0000	12.5185	12.5185	4.0500e- 003	0.0000	12.6197

#### **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					ton	s/yr							МТ	/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	1.1000e- 004	3.0500e- 003	1.0200e- 003	1.0000e- 005	1.6000e- 004	1.0000e- 005	1.7000e- 004	5.0000e- 005	1.0000e- 005	6.0000e- 005	0.0000	0.6411	0.6411	2.0000e- 005	0.0000	0.6416
Worker	4.4600e- 003	3.3000e- 003	0.0303	4.0000e- 005	3.9500e- 003	4.0000e- 005	3.9900e- 003	1.0500e- 003	4.0000e- 005	1.0900e- 003	0.0000	3.5302	3.5302	2.7000e- 004	0.0000	3.5369
Total	4.5700e- 003	6.3500e- 003	0.0313	5.0000e- 005	4.1100e- 003	5.0000e- 005	4.1600e- 003	1.1000e- 003	5.0000e- 005	1.1500e- 003	0.0000	4.1713	4.1713	2.9000e- 004	0.0000	4.1785

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# 3.4 Building Construction - 2022 Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
1	8.5800e- 003	0.0878	0.0894	1.4000e- 004		4.6500e- 003	4.6500e- 003		4.2800e- 003	4.2800e- 003	0.0000	12.5185	12.5185	4.0500e- 003	0.0000	12.6197
Total	8.5800e- 003	0.0878	0.0894	1.4000e- 004		4.6500e- 003	4.6500e- 003		4.2800e- 003	4.2800e- 003	0.0000	12.5185	12.5185	4.0500e- 003	0.0000	12.6197

#### **Mitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/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	1.1000e- 004	3.0500e- 003	1.0200e- 003	1.0000e- 005	1.6000e- 004	1.0000e- 005	1.7000e- 004	5.0000e- 005	1.0000e- 005	6.0000e- 005	0.0000	0.6411	0.6411	2.0000e- 005	0.0000	0.6416
Worker	4.4600e- 003	3.3000e- 003	0.0303	4.0000e- 005	3.9500e- 003	4.0000e- 005	3.9900e- 003	1.0500e- 003	4.0000e- 005	1.0900e- 003	0.0000	3.5302	3.5302	2.7000e- 004	0.0000	3.5369
Total	4.5700e- 003	6.3500e- 003	0.0313	5.0000e- 005	4.1100e- 003	5.0000e- 005	4.1600e- 003	1.1000e- 003	5.0000e- 005	1.1500e- 003	0.0000	4.1713	4.1713	2.9000e- 004	0.0000	4.1785

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#### Tuolumne County Resilience Center\_Construction Only - Tuolumne County, Annual

3.5 Paving - 2022 Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	⁻/yr		
- Cir Road	9.7000e- 003	0.0888	0.1055	1.7000e- 004		4.4400e- 003	4.4400e- 003		4.1400e- 003	4.1400e- 003	0.0000	14.0953	14.0953	4.1100e- 003	0.0000	14.1979
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	9.7000e- 003	0.0888	0.1055	1.7000e- 004		4.4400e- 003	4.4400e- 003		4.1400e- 003	4.1400e- 003	0.0000	14.0953	14.0953	4.1100e- 003	0.0000	14.1979

#### **Unmitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.3500e- 003	3.9700e- 003	0.0364	5.0000e- 005	4.7400e- 003	5.0000e- 005	4.7900e- 003	1.2600e- 003	5.0000e- 005	1.3100e- 003	0.0000	4.2362	4.2362	3.3000e- 004	0.0000	4.2443
Total	5.3500e- 003	3.9700e- 003	0.0364	5.0000e- 005	4.7400e- 003	5.0000e- 005	4.7900e- 003	1.2600e- 003	5.0000e- 005	1.3100e- 003	0.0000	4.2362	4.2362	3.3000e- 004	0.0000	4.2443

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#### Tuolumne County Resilience Center\_Construction Only - Tuolumne County, Annual

3.5 Paving - 2022 <u>Mitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
On Road	9.7000e- 003	0.0888	0.1055	1.7000e- 004		4.4400e- 003	4.4400e- 003		4.1400e- 003	4.1400e- 003	0.0000	14.0953	14.0953	4.1100e- 003	0.0000	14.1979
	0.0000					0.0000	0.0000	       	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	9.7000e- 003	0.0888	0.1055	1.7000e- 004		4.4400e- 003	4.4400e- 003		4.1400e- 003	4.1400e- 003	0.0000	14.0953	14.0953	4.1100e- 003	0.0000	14.1979

#### **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					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.3500e- 003	3.9700e- 003	0.0364	5.0000e- 005	4.7400e- 003	5.0000e- 005	4.7900e- 003	1.2600e- 003	5.0000e- 005	1.3100e- 003	0.0000	4.2362	4.2362	3.3000e- 004	0.0000	4.2443
Total	5.3500e- 003	3.9700e- 003	0.0364	5.0000e- 005	4.7400e- 003	5.0000e- 005	4.7900e- 003	1.2600e- 003	5.0000e- 005	1.3100e- 003	0.0000	4.2362	4.2362	3.3000e- 004	0.0000	4.2443

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# 3.6 Architectural Coating - 2022 <u>Unmitigated Construction On-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Archit. Coating	0.1391					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0700e- 003	0.0211	0.0272	4.0000e- 005	 	1.2300e- 003	1.2300e- 003		1.2300e- 003	1.2300e- 003	0.0000	3.8299	3.8299	2.5000e- 004	0.0000	3.8361
Total	0.1421	0.0211	0.0272	4.0000e- 005		1.2300e- 003	1.2300e- 003		1.2300e- 003	1.2300e- 003	0.0000	3.8299	3.8299	2.5000e- 004	0.0000	3.8361

#### **Unmitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/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
	1.3000e- 004	1.0000e- 004	9.1000e- 004	0.0000	1.2000e- 004	0.0000	1.2000e- 004	3.0000e- 005	0.0000	3.0000e- 005	0.0000	0.1059	0.1059	1.0000e- 005	0.0000	0.1061
Total	1.3000e- 004	1.0000e- 004	9.1000e- 004	0.0000	1.2000e- 004	0.0000	1.2000e- 004	3.0000e- 005	0.0000	3.0000e- 005	0.0000	0.1059	0.1059	1.0000e- 005	0.0000	0.1061

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# 3.6 Architectural Coating - 2022 Mitigated Construction On-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Archit. Coating	0.1391					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0700e- 003	0.0211	0.0272	4.0000e- 005	 	1.2300e- 003	1.2300e- 003		1.2300e- 003	1.2300e- 003	0.0000	3.8299	3.8299	2.5000e- 004	0.0000	3.8361
Total	0.1421	0.0211	0.0272	4.0000e- 005		1.2300e- 003	1.2300e- 003		1.2300e- 003	1.2300e- 003	0.0000	3.8299	3.8299	2.5000e- 004	0.0000	3.8361

#### **Mitigated Construction Off-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e- 004	1.0000e- 004	9.1000e- 004	0.0000	1.2000e- 004	0.0000	1.2000e- 004	3.0000e- 005	0.0000	3.0000e- 005	0.0000	0.1059	0.1059	1.0000e- 005	0.0000	0.1061
Total	1.3000e- 004	1.0000e- 004	9.1000e- 004	0.0000	1.2000e- 004	0.0000	1.2000e- 004	3.0000e- 005	0.0000	3.0000e- 005	0.0000	0.1059	0.1059	1.0000e- 005	0.0000	0.1061

# 4.0 Operational Detail - Mobile

#### Tuolumne County Resilience Center\_Construction Only - Tuolumne County, Annual

#### **4.1 Mitigation Measures Mobile**

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

#### **4.2 Trip Summary Information**

	Aver	age Daily Trip Ra	ite	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Place of Worship	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

#### **4.3 Trip Type Information**

		Miles			Trip %			Trip Purpos	e %
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
Place of Worship	9.50	7.30	7.30	0.00	95.00	5.00	64	25	11

#### 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Place of Worship	0.483457	0.047842	0.208016	0.157307	0.049674	0.007506	0.019049	0.011796	0.003290	0.001259	0.006861	0.001784	0.002160

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#### Tuolumne County Resilience Center\_Construction Only - Tuolumne County, Annual

### 5.0 Energy Detail

Historical Energy Use: N

#### **5.1 Mitigation Measures Energy**

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

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# 5.2 Energy by Land Use - NaturalGas <u>Unmitigated</u>

	NaturalGa s 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					ton	s/yr							MT	/yr		
Place of Worship	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	1 1 1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

#### **Mitigated**

	NaturalGa s 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					ton	s/yr							MT	/yr		
Place of Worship	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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# 5.3 Energy by Land Use - Electricity Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		MT	/yr	
Place of Worship	0	. 0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

#### **Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		MT	/yr	
Place of Worship		0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

#### 6.0 Area Detail

### **6.1 Mitigation Measures Area**

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	ROG	NOx	СО	SO2	Fugitive 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	0.0469	0.0000	1.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1000e- 004	2.1000e- 004	0.0000	0.0000	2.3000e- 004
Unmitigated	0.0469	0.0000	1.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1000e- 004	2.1000e- 004	0.0000	0.0000	2.3000e- 004

# 6.2 Area by SubCategory Unmitigated

	ROG	NOx	СО	SO2	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					ton	s/yr							MT	<sup>7</sup> /yr		
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0469		1       			0.0000	0.0000	1   	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e- 005	0.0000	1.1000e- 004	0.0000		0.0000	0.0000	1       	0.0000	0.0000	0.0000	2.1000e- 004	2.1000e- 004	0.0000	0.0000	2.3000e- 004
Total	0.0469	0.0000	1.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1000e- 004	2.1000e- 004	0.0000	0.0000	2.3000e- 004

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# 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					ton	s/yr							МТ	/yr		
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0469			 		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e- 005	0.0000	1.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1000e- 004	2.1000e- 004	0.0000	0.0000	2.3000e- 004
Total	0.0469	0.0000	1.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1000e- 004	2.1000e- 004	0.0000	0.0000	2.3000e- 004

#### 7.0 Water Detail

#### 7.1 Mitigation Measures Water

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	Total CO2	CH4	N2O	CO2e
Category		МТ	-/yr	
ga.ca	i i	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

# 7.2 Water by Land Use <u>Unmitigated</u>

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		MT	/yr	
Place of Worship	0/0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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## 7.2 Water by Land Use

#### **Mitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Place of Worship	0/0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

## 8.0 Waste Detail

## 8.1 Mitigation Measures Waste

## Category/Year

	Total CO2	CH4	N2O	CO2e	
	MT/yr				
willigated	0.0000	0.0000	0.0000	0.0000	
Jgatea	0.0000	0.0000	0.0000	0.0000	

## Tuolumne County Resilience Center\_Construction Only - Tuolumne County, Annual

# 8.2 Waste by Land Use <u>Unmitigated</u>

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Place of Worship	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

## **Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Place of Worship	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

# 9.0 Operational Offroad

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

## Tuolumne County Resilience Center\_Construction Only - Tuolumne County, Annual

# 10.0 Stationary Equipment

## **Fire Pumps and Emergency Generators**

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

#### **Boilers**

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

## **User Defined Equipment**

Equipment Type	Number

# 11.0 Vegetation

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# Tuolumne County Reslience Center\_Operational Run Tuolumne County, Annual

## 1.0 Project Characteristics

## 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Place of Worship	12.00	1000sqft	0.28	12,000.00	0

## 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	66
Climate Zone	1			Operational Year	2022
Utility Company	Pacific Gas & Electric Co	mpany			
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

#### Tuolumne County Reslience Center\_Operational Run - Tuolumne County, Annual

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Project Characteristics -

Land Use -

Off-road Equipment - this run is for operations only

Off-road Equipment - this run is for operations only

Off-road Equipment - this run is for operations only

Off-road Equipment - this run is for operations only

Off-road Equipment - this run is for operations only

Off-road Equipment - this run is for operations only

Grading - this run is for operations only

Architectural Coating - this run is for operations only

Vehicle Trips - adjusted per VMT/trip rate provided by Wood Rodgers

**Energy Mitigation -**

Energy Use - Title 24-regulated energy reduced by 30% to adjust from 2016 to 2019 title 24

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	6,000.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	18,000.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	0.00
tblArchitecturalCoating	EF_Parking	250.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	0.00
tblEnergyUse	T24E	0.62	0.43
tblEnergyUse	T24NG	3.20	2.24
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblVehicleTrips	CC_TL	7.30	10.33
tblVehicleTrips	CC_TTP	95.00	100.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	5.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	DV_TP	25.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	64.00	100.00
tblVehicleTrips	ST_TR	10.37	28.82
tblVehicleTrips	SU_TR	36.63	28.82
tblVehicleTrips	WD_TR	9.11	28.82

# 2.0 Emissions Summary

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# Tuolumne County Reslience Center\_Operational Run - Tuolumne County, Annual

# 2.1 Overall Construction <u>Unmitigated Construction</u>

	ROG	NOx	СО	SO2	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					ton	s/yr							МТ	/yr		
2018	1.1400e- 003	5.7000e- 003	9.1100e- 003	1.0000e- 005	7.9000e- 004	7.0000e- 005	8.5000e- 004	2.1000e- 004	6.0000e- 005	2.8000e- 004	0.0000	1.3749	1.3749	1.0000e- 004	0.0000	1.3773
2019	2.4300e- 003	0.0124	0.0192	3.0000e- 005	1.8600e- 003	1.2000e- 004	1.9800e- 003	5.0000e- 004	1.1000e- 004	6.2000e- 004	0.0000	3.1869	3.1869	2.1000e- 004	0.0000	3.1920
Maximum	2.4300e- 003	0.0124	0.0192	3.0000e- 005	1.8600e- 003	1.2000e- 004	1.9800e- 003	5.0000e- 004	1.1000e- 004	6.2000e- 004	0.0000	3.1869	3.1869	2.1000e- 004	0.0000	3.1920

## **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					tor	ıs/yr							М	T/yr		
2010	1.1400e- 003	5.7000e- 003	9.1100e- 003	1.0000e- 005	7.9000e- 004	7.0000e- 005	8.5000e- 004	2.1000e- 004	6.0000e- 005	2.8000e- 004	0.0000	1.3749	1.3749	1.0000e- 004	0.0000	1.3773
2010	2.4300e- 003	0.0124	0.0192	3.0000e- 005	1.8600e- 003	1.2000e- 004	1.9800e- 003	5.0000e- 004	1.1000e- 004	6.2000e- 004	0.0000	3.1869	3.1869	2.1000e- 004	0.0000	3.1920
Maximum	2.4300e- 003	0.0124	0.0192	3.0000e- 005	1.8600e- 003	1.2000e- 004	1.9800e- 003	5.0000e- 004	1.1000e- 004	6.2000e- 004	0.0000	3.1869	3.1869	2.1000e- 004	0.0000	3.1920
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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## Tuolumne County Reslience Center\_Operational Run - Tuolumne County, Annual

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	11-1-2018	1-31-2019	0.0119	0.0119
2	2-1-2019	4-30-2019	0.0104	0.0104
		Highest	0.0119	0.0119

## 2.2 Overall Operational

## **Unmitigated Operational**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Area	0.0608	0.0000	1.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1000e- 004	2.1000e- 004	0.0000	0.0000	2.3000e- 004
Energy	1.7000e- 004	1.5000e- 003	1.2600e- 003	1.0000e- 005		1.1000e- 004	1.1000e- 004		1.1000e- 004	1.1000e- 004	0.0000	15.9109	15.9109	6.8000e- 004	1.6000e- 004	15.9765
Mobile	0.2481	0.9306	3.1323	5.9600e- 003	0.4850	7.6600e- 003	0.4927	0.1305	7.1900e- 003	0.1377	0.0000	540.9195	540.9195	0.0329	0.0000	541.7420
Waste						0.0000	0.0000		0.0000	0.0000	13.8846	0.0000	13.8846	0.8206	0.0000	34.3985
Water						0.0000	0.0000		0.0000	0.0000	0.1191	1.1890	1.3081	0.0123	3.0000e- 004	1.7047
Total	0.3091	0.9321	3.1336	5.9700e- 003	0.4850	7.7700e- 003	0.4928	0.1305	7.3000e- 003	0.1378	14.0037	558.0195	572.0232	0.8664	4.6000e- 004	593.8219

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# Tuolumne County Reslience Center\_Operational Run - Tuolumne County, Annual

## 2.2 Overall Operational

## **Mitigated Operational**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	-/yr		
Area	0.0608	0.0000	1.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1000e- 004	2.1000e- 004	0.0000	0.0000	2.3000e- 004
Energy	1.7000e- 004	1.5000e- 003	1.2600e- 003	1.0000e- 005		1.1000e- 004	1.1000e- 004	 	1.1000e- 004	1.1000e- 004	0.0000	15.9109	15.9109	6.8000e- 004	1.6000e- 004	15.9765
Mobile	0.2481	0.9306	3.1323	5.9600e- 003	0.4850	7.6600e- 003	0.4927	0.1305	7.1900e- 003	0.1377	0.0000	540.9195	540.9195	0.0329	0.0000	541.7420
Waste						0.0000	0.0000	 	0.0000	0.0000	13.8846	0.0000	13.8846	0.8206	0.0000	34.3985
Water	**************************************	! ! !	1 1			0.0000	0.0000	1   	0.0000	0.0000	0.1191	1.1890	1.3081	0.0123	3.0000e- 004	1.7047
Total	0.3091	0.9321	3.1336	5.9700e- 003	0.4850	7.7700e- 003	0.4928	0.1305	7.3000e- 003	0.1378	14.0037	558.0195	572.0232	0.8664	4.6000e- 004	593.8219

	ROG	NOx	СО	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**

#### Tuolumne County Reslience Center\_Operational Run - Tuolumne County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	11/1/2018	11/14/2018	5	10	
2	Site Preparation	Site Preparation	11/15/2018	11/15/2018	5	1	
3	Grading	Grading	11/16/2018	11/19/2018	5	2	
4	Building Construction	Building Construction	11/20/2018	4/8/2019	5	100	
5	Paving	Paving	4/9/2019	4/15/2019	5	5	
6	Architectural Coating	Architectural Coating	4/16/2019	4/22/2019	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

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## Tuolumne County Reslience Center\_Operational Run - Tuolumne County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Grading	Concrete/Industrial Saws	0	8.00	81	0.73
Building Construction	Cranes	0	4.00	231	0.29
Building Construction	Forklifts	0	6.00	89	0.20
Site Preparation	Graders	0	8.00	187	0.41
Paving	Pavers	0	7.00	130	0.42
Paving	Rollers	0	7.00	80	0.38
Demolition	Rubber Tired Dozers	0	1.00	247	0.40
Grading	Rubber Tired Dozers	0	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

## **Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00		10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	0	0.00	0.00		10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	0	0.00	0.00		10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	0	5.00	2.00		10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	0	0.00	0.00		10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	1.00	0.00	 	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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## Tuolumne County Reslience Center\_Operational Run - Tuolumne County, Annual

## **3.1 Mitigation Measures Construction**

#### 3.2 **Demolition - 2018**

**Unmitigated Construction On-Site** 

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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3.2 Demolition - 2018

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

## **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					ton	s/yr							MT	/yr		
- Cirrioda :	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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## Tuolumne County Reslience Center\_Operational Run - Tuolumne County, Annual

3.2 Demolition - 2018

<u>Mitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

## 3.3 Site Preparation - 2018

**Unmitigated Construction On-Site** 

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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3.3 Site Preparation - 2018

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

## **Mitigated Construction On-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust	 				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	 	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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3.3 Site Preparation - 2018

<u>Mitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

## 3.4 Grading - 2018

**Unmitigated Construction On-Site** 

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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3.4 Grading - 2018

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

## **Mitigated Construction On-Site**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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3.4 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

## 3.5 Building Construction - 2018

**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					ton	s/yr							MT	/yr		
- On reduce	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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# 3.5 Building Construction - 2018 <u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	2.7000e- 004	4.9600e- 003	2.1500e- 003	1.0000e- 005	2.0000e- 004	6.0000e- 005	2.5000e- 004	6.0000e- 005	5.0000e- 005	1.1000e- 004	0.0000	0.7788	0.7788	3.0000e- 005	0.0000	0.7797
Worker	8.6000e- 004	7.4000e- 004	6.9600e- 003	1.0000e- 005	5.9000e- 004	1.0000e- 005	6.0000e- 004	1.6000e- 004	1.0000e- 005	1.6000e- 004	0.0000	0.5961	0.5961	6.0000e- 005	0.0000	0.5976
Total	1.1300e- 003	5.7000e- 003	9.1100e- 003	2.0000e- 005	7.9000e- 004	7.0000e- 005	8.5000e- 004	2.2000e- 004	6.0000e- 005	2.7000e- 004	0.0000	1.3749	1.3749	9.0000e- 005	0.0000	1.3773

## **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					ton	s/yr							MT	/yr		
On reduce	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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# 3.5 Building Construction - 2018 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					ton	s/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	2.7000e- 004	4.9600e- 003	2.1500e- 003	1.0000e- 005	2.0000e- 004	6.0000e- 005	2.5000e- 004	6.0000e- 005	5.0000e- 005	1.1000e- 004	0.0000	0.7788	0.7788	3.0000e- 005	0.0000	0.7797
Worker	8.6000e- 004	7.4000e- 004	6.9600e- 003	1.0000e- 005	5.9000e- 004	1.0000e- 005	6.0000e- 004	1.6000e- 004	1.0000e- 005	1.6000e- 004	0.0000	0.5961	0.5961	6.0000e- 005	0.0000	0.5976
Total	1.1300e- 003	5.7000e- 003	9.1100e- 003	2.0000e- 005	7.9000e- 004	7.0000e- 005	8.5000e- 004	2.2000e- 004	6.0000e- 005	2.7000e- 004	0.0000	1.3749	1.3749	9.0000e- 005	0.0000	1.3773

# 3.5 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					ton	s/yr							MT	/yr		
- Cirrioda	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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# 3.5 Building Construction - 2019 <u>Unmitigated Construction Off-Site</u>

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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
1	5.3000e- 004	0.0109	4.2600e- 003	2.0000e- 005	4.6000e- 004	1.0000e- 004	5.6000e- 004	1.3000e- 004	1.0000e- 004	2.3000e- 004	0.0000	1.8127	1.8127	7.0000e- 005	0.0000	1.8145
Worker	1.8700e- 003	1.5600e- 003	0.0147	2.0000e- 005	1.3800e- 003	2.0000e- 005	1.4000e- 003	3.7000e- 004	2.0000e- 005	3.8000e- 004	0.0000	1.3548	1.3548	1.3000e- 004	0.0000	1.3581
Total	2.4000e- 003	0.0124	0.0190	4.0000e- 005	1.8400e- 003	1.2000e- 004	1.9600e- 003	5.0000e- 004	1.2000e- 004	6.1000e- 004	0.0000	3.1675	3.1675	2.0000e- 004	0.0000	3.1726

## **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					ton	s/yr							MT	/yr		
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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# 3.5 Building Construction - 2019 Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	5.3000e- 004	0.0109	4.2600e- 003	2.0000e- 005	4.6000e- 004	1.0000e- 004	5.6000e- 004	1.3000e- 004	1.0000e- 004	2.3000e- 004	0.0000	1.8127	1.8127	7.0000e- 005	0.0000	1.8145
Worker	1.8700e- 003	1.5600e- 003	0.0147	2.0000e- 005	1.3800e- 003	2.0000e- 005	1.4000e- 003	3.7000e- 004	2.0000e- 005	3.8000e- 004	0.0000	1.3548	1.3548	1.3000e- 004	0.0000	1.3581
Total	2.4000e- 003	0.0124	0.0190	4.0000e- 005	1.8400e- 003	1.2000e- 004	1.9600e- 003	5.0000e- 004	1.2000e- 004	6.1000e- 004	0.0000	3.1675	3.1675	2.0000e- 004	0.0000	3.1726

# 3.6 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					ton	s/yr							MT	/yr		
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000					0.0000	0.0000	 	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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3.6 Paving - 2019

<u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

## **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					ton	s/yr							MT	/yr		
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000					0.0000	0.0000	1 1 1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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3.6 Paving - 2019

<u>Mitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

# 3.7 Architectural Coating - 2019

**Unmitigated Construction On-Site** 

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Archit. Coating						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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# 3.7 Architectural Coating - 2019 <u>Unmitigated Construction Off-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	3.0000e- 005	2.0000e- 005	2.1000e- 004	0.0000	2.0000e- 005	0.0000	2.0000e- 005	1.0000e- 005	0.0000	1.0000e- 005	0.0000	0.0194	0.0194	0.0000	0.0000	0.0194
Total	3.0000e- 005	2.0000e- 005	2.1000e- 004	0.0000	2.0000e- 005	0.0000	2.0000e- 005	1.0000e- 005	0.0000	1.0000e- 005	0.0000	0.0194	0.0194	0.0000	0.0000	0.0194

## **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					ton	s/yr							MT	/yr		
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	     	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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# 3.7 Architectural Coating - 2019 Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/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	3.0000e- 005	2.0000e- 005	2.1000e- 004	0.0000	2.0000e- 005	0.0000	2.0000e- 005	1.0000e- 005	0.0000	1.0000e- 005	0.0000	0.0194	0.0194	0.0000	0.0000	0.0194
Total	3.0000e- 005	2.0000e- 005	2.1000e- 004	0.0000	2.0000e- 005	0.0000	2.0000e- 005	1.0000e- 005	0.0000	1.0000e- 005	0.0000	0.0194	0.0194	0.0000	0.0000	0.0194

# 4.0 Operational Detail - Mobile

# **4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Mitigated	0.2481	0.9306	3.1323	5.9600e- 003	0.4850	7.6600e- 003	0.4927	0.1305	7.1900e- 003	0.1377	0.0000	540.9195	540.9195	0.0329	0.0000	541.7420
Unmitigated	0.2481	0.9306	3.1323	5.9600e- 003	0.4850	7.6600e- 003	0.4927	0.1305	7.1900e- 003	0.1377	0.0000	540.9195	540.9195	0.0329	0.0000	541.7420

## **4.2 Trip Summary Information**

	Avei	rage Daily Trip Ra	nte	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Place of Worship	345.84	345.84	345.84	1,300,903	1,300,903
Total	345.84	345.84	345.84	1,300,903	1,300,903

## **4.3 Trip Type Information**

		Miles			Trip %			Trip Purpos	e %
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
Place of Worship	0.00	10.33	0.00	0.00	100.00	0.00	100	0	0

#### 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	МН
Place of Worship	0.483457	0.047842	0.208016	0.157307	0.049674	0.007506	0.019049	0.011796	0.003290	0.001259	0.006861	0.001784	0.002160

# 5.0 Energy Detail

Historical Energy Use: N

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## **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					ton	s/yr							MT	/yr		
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	14.2779	14.2779	6.5000e- 004	1.3000e- 004	14.3339
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	14.2779	14.2779	6.5000e- 004	1.3000e- 004	14.3339
NaturalGas Mitigated	1.7000e- 004	1.5000e- 003	1.2600e- 003	1.0000e- 005		1.1000e- 004	1.1000e- 004		1.1000e- 004	1.1000e- 004	0.0000	1.6329	1.6329	3.0000e- 005	3.0000e- 005	1.6426
NaturalGas Unmitigated	1.7000e- 004	1.5000e- 003	1.2600e- 003	1.0000e- 005		1.1000e- 004	1.1000e- 004		1.1000e- 004	1.1000e- 004	0.0000	1.6329	1.6329	3.0000e- 005	3.0000e- 005	1.6426

# 5.2 Energy by Land Use - NaturalGas <u>Unmitigated</u>

	NaturalGa s 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					ton	s/yr							MT	/yr		
Place of Worship	30600	1.7000e- 004	1.5000e- 003	1.2600e- 003	1.0000e- 005		1.1000e- 004	1.1000e- 004		1.1000e- 004	1.1000e- 004	0.0000	1.6329	1.6329	3.0000e- 005	3.0000e- 005	1.6426
Total		1.7000e- 004	1.5000e- 003	1.2600e- 003	1.0000e- 005		1.1000e- 004	1.1000e- 004		1.1000e- 004	1.1000e- 004	0.0000	1.6329	1.6329	3.0000e- 005	3.0000e- 005	1.6426

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# **5.2 Energy by Land Use - NaturalGas Mitigated**

	NaturalGa s 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					ton	s/yr							MT	/yr		
Place of Worship	30600	1.7000e- 004	1.5000e- 003	1.2600e- 003	1.0000e- 005		1.1000e- 004	1.1000e- 004		1.1000e- 004	1.1000e- 004	0.0000	1.6329	1.6329	3.0000e- 005	3.0000e- 005	1.6426
Total		1.7000e- 004	1.5000e- 003	1.2600e- 003	1.0000e- 005		1.1000e- 004	1.1000e- 004		1.1000e- 004	1.1000e- 004	0.0000	1.6329	1.6329	3.0000e- 005	3.0000e- 005	1.6426

# 5.3 Energy by Land Use - Electricity Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		MT	/yr	
Place of Worship	49080	14.2779	6.5000e- 004	1.3000e- 004	14.3339
Total		14.2779	6.5000e- 004	1.3000e- 004	14.3339

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# 5.3 Energy by Land Use - Electricity Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		MT	-/yr	
Place of Worship	49080	14.2779	6.5000e- 004	1.3000e- 004	14.3339
Total		14.2779	6.5000e- 004	1.3000e- 004	14.3339

## 6.0 Area Detail

# **6.1 Mitigation Measures Area**

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	<sup>-</sup> /yr		
Mitigated	0.0608	0.0000	1.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1000e- 004	2.1000e- 004	0.0000	0.0000	2.3000e- 004
Unmitigated	0.0608	0.0000	1.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1000e- 004	2.1000e- 004	0.0000	0.0000	2.3000e- 004

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## Tuolumne County Reslience Center\_Operational Run - Tuolumne County, Annual

# 6.2 Area by SubCategory <u>Unmitigated</u>

	ROG	NOx	СО	SO2	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					ton	s/yr							MT	/yr		
Architectural Coating	0.0139					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0469					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e- 005	0.0000	1.1000e- 004	0.0000		0.0000	0.0000	1       	0.0000	0.0000	0.0000	2.1000e- 004	2.1000e- 004	0.0000	0.0000	2.3000e- 004
Total	0.0608	0.0000	1.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1000e- 004	2.1000e- 004	0.0000	0.0000	2.3000e- 004

## **Mitigated**

	ROG	NOx	СО	SO2	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					ton	s/yr							МТ	<sup>-</sup> /yr		
Architectural Coating	0.0139					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0469					0.0000	0.0000	1       	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e- 005	0.0000	1.1000e- 004	0.0000		0.0000	0.0000	1       	0.0000	0.0000	0.0000	2.1000e- 004	2.1000e- 004	0.0000	0.0000	2.3000e- 004
Total	0.0608	0.0000	1.1000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1000e- 004	2.1000e- 004	0.0000	0.0000	2.3000e- 004

## 7.0 Water Detail

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## Tuolumne County Reslience Center\_Operational Run - Tuolumne County, Annual

# 7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category		MT	√yr	
Miligatod		0.0123	3.0000e- 004	1.7047
Unmitigated	1.3081	0.0123	3.0000e- 004	1.7047

# 7.2 Water by Land Use <u>Unmitigated</u>

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		МТ	√yr	
Place of Worship	0.375467 / 0.587269		0.0123	3.0000e- 004	1.7047
Total		1.3081	0.0123	3.0000e- 004	1.7047

CalEEMod Version: CalEEMod.2016.3.2 Page 30 of 33 Date: 11/1/2018 12:03 PM

## Tuolumne County Reslience Center\_Operational Run - Tuolumne County, Annual

## 7.2 Water by Land Use

#### **Mitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		МТ	-/yr	
Place of Worship	0.375467 / 0.587269	1.3081	0.0123	3.0000e- 004	1.7047
Total		1.3081	0.0123	3.0000e- 004	1.7047

## 8.0 Waste Detail

## 8.1 Mitigation Measures Waste

## Category/Year

	Total CO2	CH4	N2O	CO2e
		MT	-/yr	
Willigatod	13.8846	0.8206	0.0000	34.3985
Unmitigated	13.8846	0.8206	0.0000	34.3985

## Tuolumne County Reslience Center\_Operational Run - Tuolumne County, Annual

# 8.2 Waste by Land Use <u>Unmitigated</u>

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		МТ	-/yr	
Place of Worship	68.4	13.8846	0.8206	0.0000	34.3985
Total		13.8846	0.8206	0.0000	34.3985

## **Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		MT	-/yr	
Place of Worship	68.4	13.8846	0.8206	0.0000	34.3985
Total		13.8846	0.8206	0.0000	34.3985

# 9.0 Operational Offroad

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

## Tuolumne County Reslience Center\_Operational Run - Tuolumne County, Annual

# 10.0 Stationary Equipment

## **Fire Pumps and Emergency Generators**

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

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

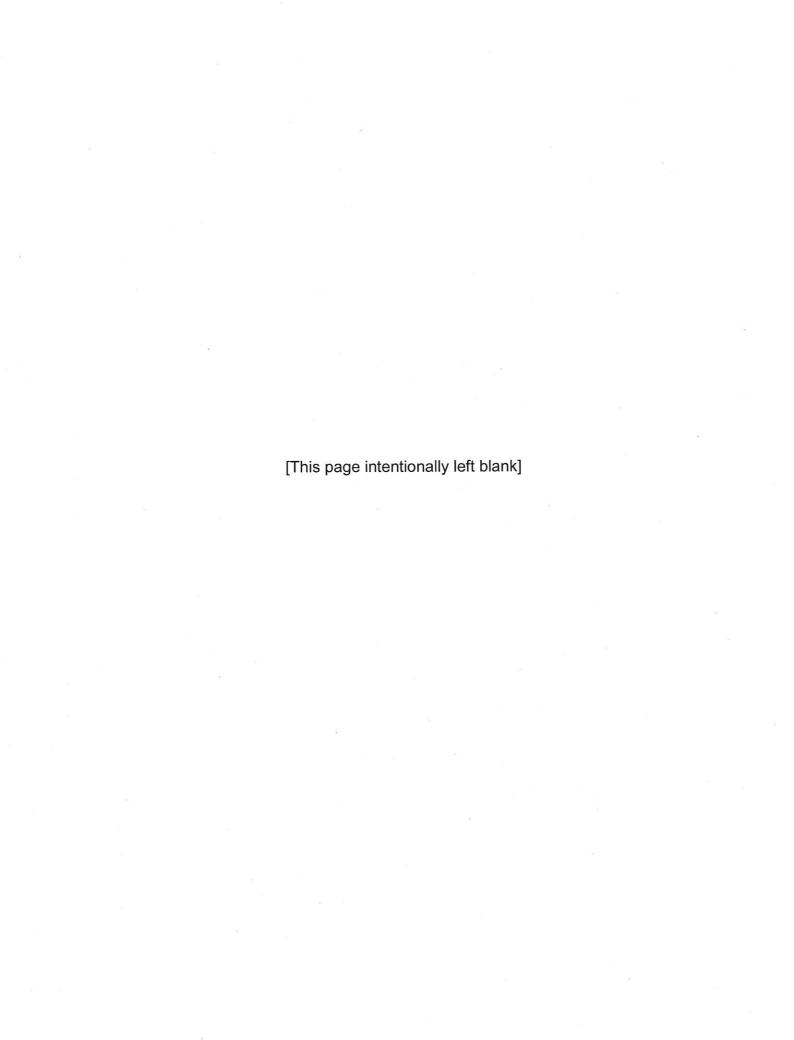
## **User Defined Equipment**

Equipment Type	Number

# 11.0 Vegetation

**Enclosure 1** 

**Staff Report** 



# California Air Resources Board Air Quality Planning and Science Division Air Quality Analysis Section

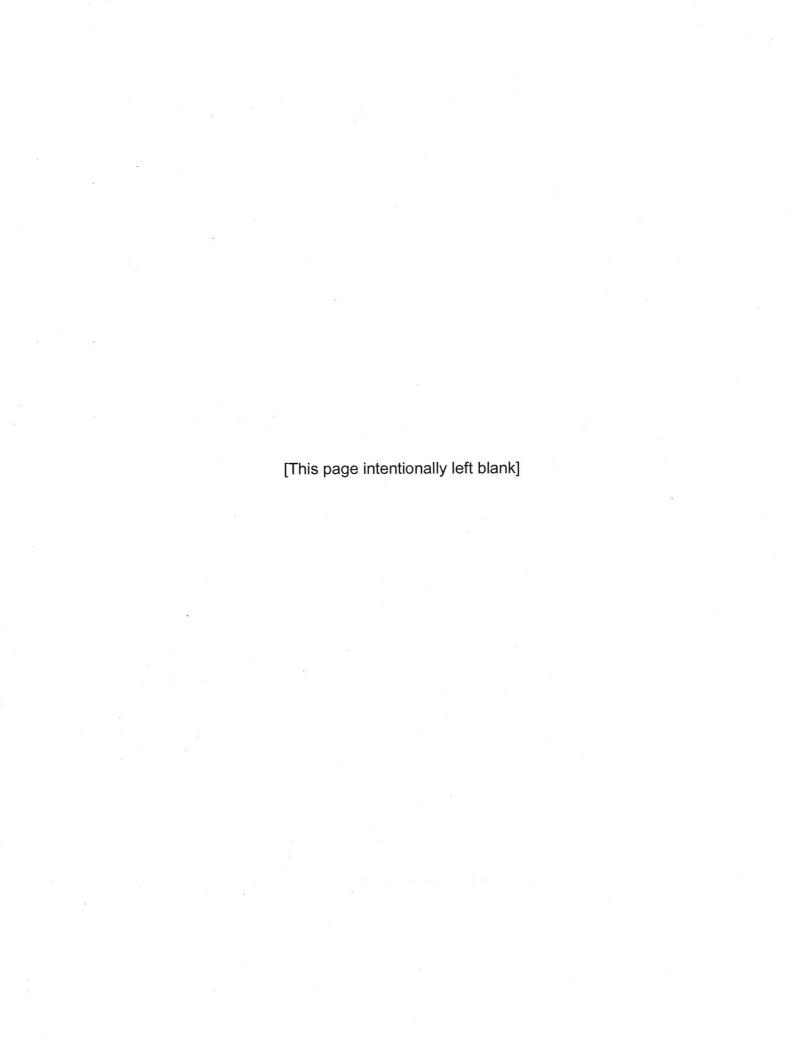
# RECOMMENDED AREA DESIGNATIONS FOR THE 0.070 PPM FEDERAL 8-HOUR OZONE STANDARD

**STAFF REPORT** 

September 2016

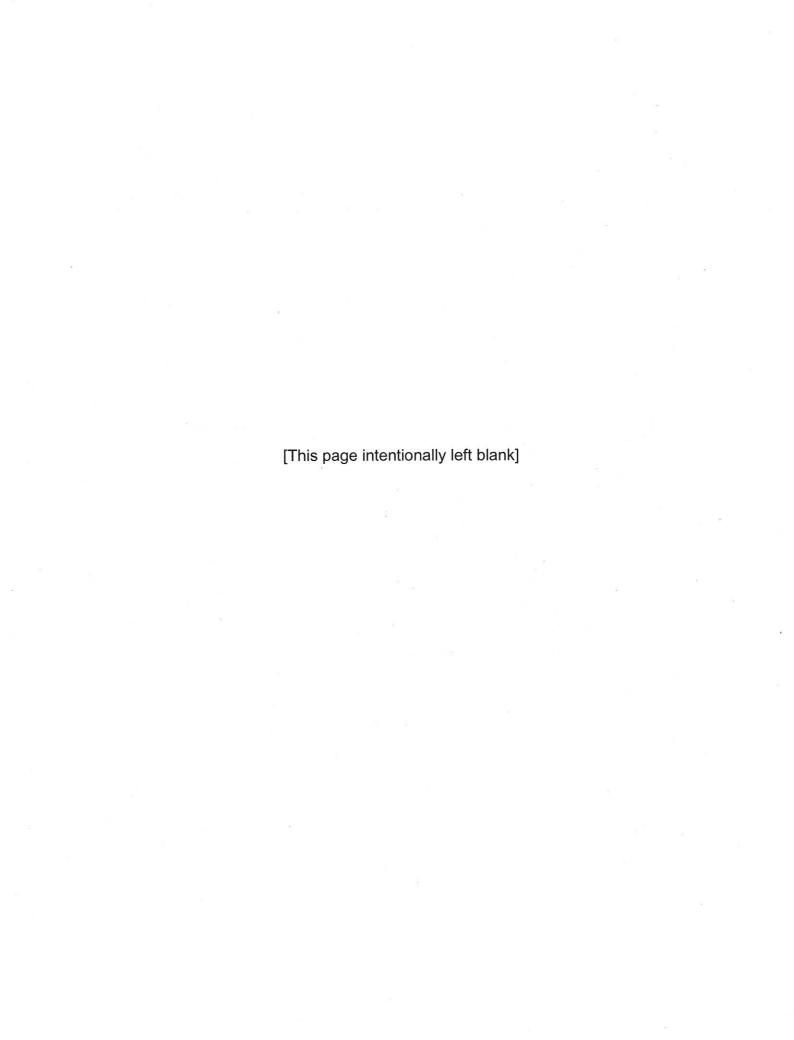
California Environmental Protection Agency

**O** Air Resources Board



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#### 1.0 Introduction

#### 1.1 Summary

On October 1, 2015, the U.S. Environmental Protection Agency (U.S. EPA) revised the federal 8-hour average ozone standard, lowering it from 0.075 parts per million (ppm) to 0.070 ppm (Federal Register 26594, October 26, 2015). By October 1, 2016, all states are required to submit to U.S. EPA recommendations for area designations, together with appropriate boundaries, for this standard. The purpose of this report is to share Air Resources Board (ARB) staff's technical analysis and initial recommendations to be sent to U.S. EPA. U.S. EPA is required to make final designations by October 1, 2017.

Section 107(d)(1)(A) of the federal Clean Air Act defines a nonattainment area as any area that does not meet, or that contributes to a nearby area not meeting, the ambient air quality standard. Additionally, any area not identified as nonattainment and that meets the standard will be designated attainment, while any area that cannot be designated on the basis of available information as meeting or not meeting the standard will be designated unclassifiable.

ARB staff has performed analysis to determine appropriate designation recommendations throughout the State using the criteria outlined in the U.S. EPA's guidance memorandum<sup>1</sup>. Based on ozone air quality monitoring data from the years 2013-2015, there are 19 areas that do not meet the 0.070 ppm standard. Sixteen of these areas are currently designated nonattainment for the 2008 federal 8-hour ozone standard of 0.075 ppm. The three remaining areas were attainment for the federal 8-hour ozone standard of 0.075 ppm, but were nonattainment for the previous 1997 federal 8-hour standard of 0.08 ppm. Staff is recommending that the boundaries for the 16 existing nonattainment areas remain the same as the boundaries for the 0.075 ppm standard. Similarly, the boundaries for the remaining three areas are consistent with the areas designated as nonattainment for the 0.08 ppm standard.

Additionally, the federal Clean Air Act allows for the designation of a Rural Transport Area if certain conditions based on emissions, population, and location exist for a nonattainment area. After evaluating each of the recommended nonattainment areas, ARB staff determined that only one area, the Tuscan Buttes nonattainment area, meets all of the criteria for a Rural Transport Area.

#### 1.2 Air Quality Analysis

ARB maintains one of the most comprehensive ozone monitoring networks in the world. Initial recommendations from ARB staff are based on ambient ozone concentrations measured during the years 2013, 2014, and 2015 by over 170 monitors located throughout the State that have been sited and operated in accordance with federal requirements. Designation status will be updated with 2016 ozone data when U.S. EPA promulgates final designations in 2017.

<sup>&</sup>lt;sup>1</sup> February 25, 2016, Area Designations for the 2015 Ozone National Ambient Air Quality Standards, Memorandum from Janet G. McCabe, Acting Assistant Administrator, Office of Air and Radiation to Regional Administrators, Regions 1-10.

One of the first steps to determining of attainment/nonattainment is to compare the ozone design value to the level of the standard. The design value reflects a three-year average of the fourth highest 8-hour average concentration at each monitoring site. If the design value is 0.071 ppm or greater, it violates the federal standard. These three-year average design values are updated once the monitoring data from each calendar year are reviewed and certified.

Ozone design values used by ARB staff in this analysis are based on a modified calculation procedure specified by U.S. EPA as part of the 0.070 ppm ozone standard. For the prior ozone standards, the daily maximum 8-hour average for each site is determined from all 24 of the rolling 8-hour averages calculated for each day, with 18 out of the 24 averages needed for data completeness. However, for the 0.070 ppm standard, the 8-hour averages calculated for hours 00 through 06 are no longer considered and the daily maximum is determined from the 8-hour averages for hours 07 through 23, with 13 out of the 17 averages needed for data completeness. The change in calculation method was made to eliminate the occurrence of multiple exceedances of the ozone standard in the middle of the night due to overlapping 8-hour periods on two consecutive days. The new method treats this situation as one exceedance of the ozone standard, rather than two exceedances. A reduction in the number of exceedance days has the potential to lower design values. Applying the new method to data for 2013-2015, a few design values decreased, but the changes do not impact the attainment/nonattainment status for any monitoring sites in California.

U.S. EPA's guidance memorandum also states that air quality monitoring data affected by exceptional events may be excluded from use in identifying a violation if certain criteria are met. The 2015 design values in this document do not reflect the exclusion of impacts from exceptional events, as ARB staff is not aware of any events that would have affected attainment status. If ARB becomes aware of any exceptional events before final designations are promulgated, ARB will work with U.S. EPA and the air districts with jurisdiction over the exceptional event area to submit all necessary documentation.

#### 1.3 Nonattainment Area Boundary Analysis

Ozone is not a directly emitted pollutant, but is formed in the atmosphere via photochemical reactions driven by sunlight. Because it takes time for these reactions to occur, high ozone concentrations are often found at downwind locations, sometimes far away from the initial ozone precursor emissions sources. Thus, the ozone problem is often regional in nature and encompasses many different areas, including highly populated urban areas to sparsely-populated, rural downwind areas impacted by transport.

In California, for regional pollutants, the primary considerations for air quality planning are the air basin and air district boundaries. Consistent with State law, California's air basin boundaries were established based on a scientific assessment of emissions, geography, and meteorology with a consideration of political jurisdictions. Basin boundaries are formally adopted by ARB in regulation. Local air districts have been established and their jurisdictions are defined in State law. ARB typically uses a

combination of air basin and air district boundaries to identify boundaries for areas that violate standards. However, California has several unique areas that are located far downwind of urban areas, in which cases boundaries smaller than air basin or District boundaries are warranted.

The U.S. EPA designations guidance memorandum prescribes that a five factor analysis be performed to determine nonattainment area boundaries, which includes evaluating:

- Air Quality Data
- 2. Emissions and Emissions-Related Data
- 3. Meteorology
- 4. Geography/Topography
- 5. Jurisdictional Boundaries

The first factor, Air Quality Data, involves the evaluation of ambient ozone air quality data collected by the monitors throughout the State and was briefly discussed in Section 1.2 above. In addition to the design value for each monitoring site, assessing the spatial variation in concentrations and the trends over recent years is helpful for determining nonattainment area boundaries.

The second factor, Emissions and Emission-Related Data, involves the analysis of stationary emission sources and locations, mobile sources and traffic patterns, and population within a region. Assessing the location and magnitude of emissions in neighboring regions is also essential for determining the potential impact of transport. Statewide and county-level emissions inventories prepared by ARB and U.S. EPA and model forecasts prepared by ARB support this analysis.

The third factor, Meteorology, involves the review of climatology, including wind flow patterns, diurnal and seasonal temperature variations, and large-scale weather patterns; assessing the impact of weather on pollutant levels within a region; and determining the types of large-scale and small-scale weather features that lead to pollutant transport between regions.

The fourth factor, Geography/Topography, involves the evaluation of the diverse terrain throughout the State and the potential impact on local weather patterns and the buildup and transport of pollutants. The mountains and valleys throughout California, combined with population centers, emissions source locations, and meteorology, were the primary factor in defining distinct air basins throughout the State. Understanding the terrain within California and its impact on ozone air quality is essential to determining nonattainment area boundaries.

The fifth factor, Jurisdictional Boundaries, involves the evaluation of existing boundaries such as counties, air districts, and metropolitan planning organizations within California when determining nonattainment boundaries. Considering existing jurisdictional features provides clear legal boundaries to reference, and incorporating the boundaries assists the State and local air quality agencies in air quality planning and enforcement activities.

The five factors have been analyzed for all areas of the State and a summary of ARB's recommendations are discussed below. The ozone nonattainment boundaries already in existence for the 2008 federal 8-hour ozone standard of 0.075 ppm are the result of extensive technical analysis and continue to appropriately reflect conditions under the revised ozone standard of 0.070 ppm.

#### 1.4 Designation Recommendations

After consideration of the five factors outlined in U.S. EPA guidance memorandum, ARB staff recommends that 19 areas in California be designated as nonattainment for the 0.070 ppm federal ozone standard. The 16 areas that are designated as nonattainment for the 0.075 ppm ozone standard would continue to be designated as nonattainment for the new standard. In addition, there are three areas that were attainment for the 0.075 ppm federal 8-hour ozone standard that violate the new standard and would also be designated nonattainment. These same three areas had previously been nonattainment for the 0.08 ppm federal 8-hour ozone standard before receiving attainment designations for the 0.075 ppm standard.

Figure 1 shows all of the areas in California that ARB is recommending for designations of Attainment, Nonattainment, and Unclassifiable. Table 1, also below, contains a listing of all the recommended nonattainment areas, the current design values based on 2013-2015 ozone data, and the geographic area covered by each nonattainment area.

#### 1.5 Ozone Classifications

Classifications are assigned to all ozone nonattainment areas by the U.S. EPA when designations are finalized. Classifications are based on the severity of the ozone problem and trigger associated regulatory and control requirements. U.S. EPA has stated that they will release a draft implementation rule and associated guidance later this year. This draft rule, which will be available for public comment, will also include a proposed classification scheme for determining which nonattainment areas are Marginal, Moderate, Serious, Severe-15, Severe-17, or Extreme. U.S EPA intends to finalize the draft rule prior to when, or at the same time, designations are made final. Because U.S. EPA has not released the draft implementation rule and classification scheme, no information is available at this time to enable ARB to provide information on classifications for the 0.070 ppm ozone standard.

Figure 1

Recommended Area Designations for the 0.070 ppm Federal
8-Hour Ozone Standard



Table 1

Recommended California Nonattainment Areas for the 0.070 ppm Federal 8-Hour
Ozone Standard (Based on 2013-2015 Ozone Air Quality Data)

	Recommended Nonattainment Area	Design Value (ppm)	Area Included
Designated	Amador County	0.071	Amador County
attainment for the 0.075 ppm	Sutter Buttes	0.072	Sutter Buttes in Sutter County above 2,000 feet
standard	Tuolumne County	0.073	Tuolumne County
	Calaveras County	0.073	Calaveras County
	Chico (Butte County)	0.074	Butte County
Designated	Mariposa County .	0.075	Mariposa County
nonattainment for the 0.075 ppm standard –	San Francisco Bay Area	0.073	Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties; southern Sonoma County; and western Solano County
and now meeting that standard	San Luis Obispo (Eastern San Luis Obispo County)	0.073	Eastern portion of San Luis Obispo County
	Tuscan Buttes	0.074	Tuscan Buttes in Tehama County above 1,800 feet
	Imperial County	0.078	Imperial County
vellav	Kern County (Eastern Kern)	0.083	Eastern portion of Kern County within the Mojave Desert Air Basin (excluding Indian Wells Valley)
Designated	Los Angeles-San Bernardino Counties (Western Mojave Desert)	0.090	Northeastern Los Angeles County and central San Bernardino County
nonattainment for the 0.075 ppm standard – and not yet	Los Angeles-South Coast Air Basin	0.102	Orange County; western Los Angeles County (including Catalina and San Clemente Islands); western Riverside County; and southwestern San Bernardino County
meeting that standard	Nevada County (Western Part)	0.081	Portion of Nevada County west of the crest of the Sierra Nevada Mountains
	Riverside County (Coachella Valley)	0.088	Central Riverside County
	Sacramento Metropolitan Area	0.081	Sacramento and Yolo counties; eastern Solano County; southern Sutter County; and portions of Placer and El Dorado counties west of the crest of the Sierra Nevada Mountains

	Recommended Nonattainment Area	Design Value (ppm)	Area Included
	San Diego County	0.079	San Diego County
SPT SE	San Joaquin Valley	0.093	Fresno, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare counties and western portion of Kern County within the San Joaquin Valley Air Basin
	Ventura County	0.077	Continental portion of Ventura County (excludes Anacapa and San Nicholas islands)

#### 2.0 Recommended Nonattainment Areas

#### 2.1 Amador County

Amador County is a small county in the western foothills of the Sierra Nevada Mountains that has limited population and is largely mountainous and forested. The County extends from the Central Valley floor in the west to the crest of the Sierra Nevada Mountains in the east and only has a few cities with more than 1,000 people and a limited number of small highways that inhibit vehicle miles travelled.

Amador County is bordered by the Sacramento Metropolitan nonattainment area to the north and west, the San Joaquin Valley nonattainment area to the southwest, and the Calaveras County nonattainment area to the south. Amador County was part of the Central Mountain Counties nonattainment area for the 1997 federal 8-hour ozone standard of 0.08 ppm, which also included Calaveras County. As a result of ongoing air quality improvement, by the time U.S. EPA finalized designations for the 2008 ozone standard of 0.075 ppm, Amador County met the more health-protective standard and was designated attainment. As a result, U.S. EPA eliminated the Central Mountain Counties nonattainment area and Calaveras County became its own nonattainment area.

Amador County's single ozone monitor is situated in Jackson, the second largest city in the county with approximately 4,500 people. At an elevation of about 1,250 feet and roughly in the middle of the county, this location enables the monitor to capture peak ozone concentrations from wind flows out of the north, west, and south and adequately represents air quality in a centralized and populated area of the county.

The design value for the county of 0.071 ppm is just above the new federal ozone standard. With ozone concentrations in the region trending lower over time, Amador County is expected to come into attainment within the next few years. In addition, because Amador County and Calaveras County have population centers that are fairly isolated from one another, do not have significant emissions sources that impact ozone concentrations in the neighboring county, and operate and manage separate air quality programs, ARB is recommending that Amador County be designated as a separate nonattainment area from the Calaveras County nonattainment area.

#### 2.2 Calaveras County

The Calaveras County nonattainment area will continue to include all of Calaveras County. The design value for Calaveras County is 0.073 ppm at the San Andreas-Gold Strike Road monitoring site.

# 2.3 Chico (Butte County)

The Chico (Butte County) nonattainment area would continue to comprise all of Butte County. There are two monitoring sites in Butte County, Chico-East Avenue and Paradise-4405 Airport Road. With a design value of 0.074 ppm, only the Paradise site in the eastern foothills portion of the county has a design value that violates the new ozone standard.

#### 2.4 Imperial County

The Imperial County nonattainment area would continue to include the entire county. The design value for Imperial County is 0.078 ppm at the El Centro-9th Street monitor.

#### 2.5 Kern County (Eastern Kern)

The Kern County (Eastern Kern) nonattainment area would continue to encompass almost all of Kern County within the Mojave Desert Air Basin and which falls under the jurisdiction of the Eastern Kern Air Pollution Control District. The nonattainment area would continue to exclude the Indian Wells Valley (defined as the Kern County portion of hydrologic unit 18090205), which is located in the northeastern portion of Kern County.

The Indian Wells Valley includes the town of Ridgecrest, which is located about 18 miles southwest of the Trona-Athol and Telegraph ozone monitor. The 2015 design value for the Trona monitor is 0.067 ppm and is considered more reflective of ozone concentrations in the Indian Wells Valley than the Mojave-923 Poole Street ozone monitor, located about 48 miles to the southwest of Ridgecrest.

The design value for the nonattainment area is 0.083 ppm at the Mojave-923 Poole Street monitoring site. As a result, ARB is recommending that the existing Kern County (Eastern Kern) ozone nonattainment area be designated nonattainment for the 0.070 ppm standard.

## 2.6 Los Angeles-San Bernardino Counties (Western Mojave Desert)

The Los Angeles-San Bernardino Counties (Western Mojave Desert) nonattainment area would continue to comprise the northeastern portion of Los Angeles County (all of the Antelope Valley) and the central portion of San Bernardino County located within the Mojave Desert Air Basin. Ozone concentrations at all monitoring sites within the nonattainment area exceed the 0.070 ppm federal 8-hour ozone standard. The design value for the nonattainment area is 0.090 ppm at the Lancaster 43301 Division Street monitor.

#### 2.7 Los Angeles-South Coast Air Basin

The Los Angeles-South Coast Air Basin nonattainment area would continue to include the South Coast Air Basin: western Los Angeles County (including Catalina and San Clemente Islands), Orange County, southwestern San Bernardino County, and western Riverside County. The design value for the nonattainment area is 0.102 ppm at the Crestline monitoring site.

#### 2.8 Mariposa County

The Mariposa County nonattainment area will continue to include all of Mariposa County. The design value for Mariposa County is 0.075 ppm at the Jerseydale-6440 Jerseydale Road monitoring site.

#### 2.9 Nevada County (Western Part)

This Nevada County (Western Part) nonattainment area will continue to comprise the portion of Nevada County from the western boundary with Yuba and Placer counties up to the crest of the Sierra Nevada Mountains. The current design value for Western Nevada County is 0.081 ppm at the Grass Valley-Litton Building monitoring site.

#### 2.10 Riverside County (Coachella Valley)

The Riverside County (Coachella Valley) ozone nonattainment area would continue to include the portion of Riverside County that is located in the Salton Sea Air Basin. The design value for this area is 0.088 ppm at the Palm Springs-Fire Station monitoring site.

#### 2.11 Sacramento Metropolitan Area

The Sacramento Metropolitan Area nonattainment area would continue to include all of Sacramento and Yolo counties, southern Sutter County, the Sacramento Valley Air Basin portion of Solano County, the Sacramento Valley and Mountain Counties Air Basin portions of Placer County, and the Mountain Counties Air Basin portion of El Dorado County. The design value for the nonattainment area is 0.081 ppm at the Placerville-Gold Nugget Way monitoring site.

#### 2.12 San Diego County

The San Diego County nonattainment area would continue to include San Diego County. The design value for the nonattainment area is 0.079 ppm at the Alpine-Victoria Drive monitoring site.

#### 2.13 San Francisco Bay Area

The San Francisco Bay Area nonattainment area would continue to comprise all of the San Francisco Bay Area Air Basin: Marin, Napa, Contra Costa, Alameda, Santa Clara, San Francisco, and San Mateo counties and the San Francisco Bay Area Air Basin portions of Solano and Sonoma counties. The design value for the nonattainment area is 0.073 ppm at the Livermore-793 Rincon Avenue ozone monitoring site in Alameda County.

# 2.14 San Joaquin Valley

The San Joaquin Valley nonattainment area would continue to comprise the entire San Joaquin Valley Air Basin: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and western Kern counties. The design value for the nonattainment area is 0.093 ppm at the Clovis-N Villa Avenue monitoring site in Fresno County.

# 2.15 San Luis Obispo (Eastern San Luis Obispo County)

The San Luis Obispo County nonattainment area would continue to include only the eastern half of San Luis Obispo County. The design value for the nonattainment area is 0.073 ppm at the Red Hills monitoring site.

#### 2.16 Sutter Buttes

The Sutter Buttes are a small, isolated area of steep-ridged mountains located in the center of the southern Sacramento Valley. Elevations of the Sutter Buttes extend up to about 2,120 feet above sea level and are completely surrounded by flat terrain at only 60-70 feet above sea level. The Sutter Buttes are roughly circular and only 11 miles across, making the topography of the area extremely unique. The Sutter Buttes are also unpopulated, have no emission sources, and do not have any significant roads crossing over them.

An ozone monitor is sited at the top of the Sutter Buttes. For the 0.08 ppm federal 8-hour zone standard, the Sutter Buttes were designated as their own nonattainment area and the area was limited to the portion of the Sutter Buttes above 2,000 feet. For the 0.075 ppm standard, similar to Amador County, ozone concentrations dropped below the attainment threshold by the time U.S. EPA finalized designations; therefore, the

Sutter Buttes nonattainment area was designated attainment. However, the 2015 design value for the Sutter Buttes is 0.072 ppm, which is slightly above the 0.070 ppm standard. As a result, ARB is recommending that the Sutter Buttes be designated as a separate nonattainment area and that the area be limited to the portion of the Sutter Buttes above 2,000 feet.

#### 2.17 Tuolumne County

Tuolumne County is very similar to Amador County discussed above in terms of geography, population, emission sources, and proximity to other larger nonattainment areas. Just as Amador County was combined with Calaveras County into a larger nonattainment area, Tuolumne County was grouped with Mariposa County to form the Southern Mountain Counties nonattainment area for the 0.08 ppm federal 8-hour ozone standard. For the 0.075 ppm standard, as with Amador County and the Sutter Buttes, by the time U.S. EPA finalized designations, ozone concentrations in Tuolumne County had dropped sufficiently to merit an attainment designation. As a result, U.S. EPA eliminated the Southern Mountain Counties nonattainment area and designated Mariposa County as a separate nonattainment area.

The design value for Tuolumne County of 0.073 ppm is slightly above the new federal ozone standard and, with ozone concentrations in the region trending lower over time, it is expected to meet the standard within the next few years. In addition, because Tuolumne County and Mariposa County are fairly isolated from one another; are impacted from ozone transport from different, upwind nonattainment areas; do not have significant emission sources that impact ozone concentrations in the neighboring county; and operate and manage separate air quality programs, ARB is recommending that Tuolumne County be designated as a separate nonattainment area from the Mariposa County nonattainment area.

#### 2.18 Tuscan Buttes

The Tuscan Buttes are located in Tehama County, which is in the northeastern portion of the Sacramento Valley. The Tuscan Buttes ozone monitor is located at an elevation of 1,844 feet and was sited to study high-elevation transport of pollutants from upwind urban areas into the upper-Sacramento Valley. Additionally, there are no emission sources or residents near the monitoring site and design values for low elevation sites in areas near the monitor are below the level of the standard, indicating that ozone concentrations on the Tuscan Buttes are isolated and unlike other monitors.

The Tuscan Buttes were designated nonattainment for the 0.075 ppm federal 8-hour ozone standard. Because of the high elevation location and a lack of population and emission sources in the vicinity of the monitor, the nonattainment area was limited to the portion of the Tuscan Buttes above 1,800 feet. The current design value for the Tuscan Buttes is 0.074 ppm; therefore, ARB is recommending that the Tuscan Buttes remain nonattainment and that the nonattainment area continue to be limited to the portion of the Tuscan Buttes above 1,800 feet. This approach is consistent with the approach U.S. EPA used in designating the Sutter Buttes ozone nonattainment area.

#### 2.19 Ventura County

The Ventura County nonattainment area would continue to include only the continental portion of Ventura County and exclude the two Channel Islands within the county: Anacapa Island and San Nicolas Island. The design value for the nonattainment area is 0.077 ppm at the Simi Valley-Cochran Street monitoring site.

# 3.0 Rural Transport Areas

The Clean Air Act allows for the designation of a Rural Transport Area based on the following two conditions:

- 1. The area does not contain emissions sources that make a significant contribution to monitored ozone concentrations in the area, or in other areas; and
- 2. The area does not include and is not adjacent to a Metropolitan Statistical Area (MSA)

Additionally, U.S. EPA's ozone guidance memorandum states that areas within a Micropolitan Statistical Area are eligible for consideration as Rural Transport Areas, provided that the two criteria listed about are also met. This is a change from previous guidance and prompted ARB to review all nonattainment areas in California. The Tuscan Buttes nonattainment area is the only nonattainment area in California that meets the conditions necessary for designation as a Rural Transport Area.

Because there are no VOC or NOx emission sources within the recommended Tuscan Buttes nonattainment area boundary and the recommended boundary is not within or adjacent to a MSA, ARB is requesting that the Tuscan Buttes nonattainment area be designated as a Rural Transport Area.

# 4.0 Attainment Areas

Ozone air quality monitoring in California indicates that many areas have design values that meet the 0.070 ppm federal 8-hour ozone standard. Table 2 below includes a listing of all the areas attaining the new standard, the peak design value in each area, and the geographical extent of each area.

Table 2

Recommended California Attainment Areas
for the 0.070 ppm Federal 8-Hour Ozone Standard
(Based on 2013-2015 Ozone Air Quality Data)

Attainment Area	Design Value (ppm)	Area Included
Colusa County	0.060	Colusa County
Eastern Riverside County	0.066	Eastern portion of Riverside County within the Mojave Desert Air Basin
Glenn County	0.065	Glenn County
Inyo County	0.069	Inyo County
Lake County	0.059	Lake County
North Central Coast Air Basin	0.068	Monterey, Santa Cruz, and San Benito counties
North Coast Air Basin	0.058	Del Norte, Humboldt, Mendocino, and Trinity counties and North Coast Air Basin portion of Sonoma County
Northeast Plateau Air Basin	0.061	Lassen, Modoc, and Siskiyou counties
Northeast San Bernardino County	0.067	Northern and eastern portions of San Bernardino County within the Mojave Desert Air Basin
Santa Barbara County	0.067	Continental portion of Santa Barbara County (excludes San Miguel, Santa Rosa, Santa Cruz, and Santa Barbara islands)
Shasta County	0.067	Shasta County
Sutter and Yuba Counties	0.064	Yuba County and portion of Sutter County outside of the Sacramento Metropolitan and Sutter Buttes nonattainment areas
Tehama County	0.067	Portion of Tehama County outside of the Tuscan Buttes nonattainment area
Western San Luis Obispo County	0.061	Portion of San Luis Obispo County to the west of the Eastern San Luis Obispo County nonattainment area

#### 5.0 Unclassifiable Areas

The areas listed in Table 3 have either no ozone monitoring data or the available monitoring data do not meet completeness criteria established by U.S. EPA; therefore, ARB recommends that the areas listed in Table 3 below be considered unclassifiable for the 0.070 ppm federal 8-hour ozone standard.

Four of the areas listed below (Eastern Nevada County, Northeastern Kern County, Northern Channel Islands, and Northern Mountain Counties) do not have any ozone monitoring. However, an ozone monitor began operating near the city of Bishop in Mono County at the beginning of 2015 and there will likely be two years of data available by the time U.S. EPA prepares the final designations. Based on the final 2015 data and preliminary 2016 data, it is expected that Mono County could be designated attainment.

Similarly, an ozone monitor in Tahoe City, within the Placer County portion of the Lake Tahoe Basin, began operation in November 2013. As a result, this monitor is expected to have three full years of data available by the time U.S. EPA prepares final designations and this area is expected to be in attainment of the 0.070 ppm federal 8-hour ozone standard as well.

Table 3

Recommended California Unclassifiable Areas for the 0.070 ppm Federal 8-Hour Ozone Standard

Unclassifiable Area	Area Included
Eastern Nevada County	Portion of Nevada County east of the crest of the Sierra Nevada Mountains
Northern Great Basin Valleys Air Basin	Alpine and Mono counties
Lake Tahoe Air Basin	Eastern portion of Placer and El Dorado counties within the Lake Tahoe Air Basin
Northeastern Kern County	Portion of Kern County within the Indian Wells Valley
Northern Channel Islands	The Channel Islands located in the South Central Coast Air Basin: Anacapa, San Miguel, San Nicholas, Santa Barbara, Santa Cruz, and Santa Rosa
Northern Mountain Counties	Plumas and Sierra counties

# 6.0 Environmental Analysis

#### 6.1 Introduction

This chapter provides the basis for ARB's determination that the proposed action is exempt from the requirements of the California Environmental Quality Act (CEQA). A brief explanation of this determination is provided in Section 6.2 below. ARB's regulatory program, which involves the adoption, approval, amendment, or repeal of standards, rules, regulations, or plans for the protection and enhancement of the State's ambient air quality, has been certified by the California Secretary for Natural Resources under Public Resources Code section 21080.5 of CEQA (14 CCR 15251(d)). Public agencies with certified regulatory programs are exempt from certain CEQA requirements, including but not limited to, preparing environmental impact reports, negative declarations, and initial studies. ARB, as a lead agency, prepares a substitute environmental document (referred to as an "Environmental Analysis" or "EA") as part of the Staff Report prepared for a proposed action to comply with CEQA (17 CCR 60000-60008). If the proposal is finalized, a Notice of Exemption will be filed with the State Clearinghouse for public inspection.

#### 6.2 Analysis

ARB has determined that the proposed action is exempt from CEQA under the general rule or "common sense" exemption (14 CCR 15061(b)(3)). CEQA Guidelines state "the activity is covered by the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA." The proposal is also categorically exempt from CEQA under the "Class 8" exemption (14 CCR 15308) because it is an action taken by a regulatory agency for the protection of the environment. By October 1, 2016, all states are required to submit to U.S. EPA recommendations for area designations, together with appropriate boundaries, for the updated federal 8-hour average ozone standard. ARB staff has performed analysis to determine appropriate designation recommendations throughout the State using the criteria outlined in the U.S. EPA's guidance memorandum<sup>2</sup>. The purpose of this report is to share ARB staff's technical analysis and initial recommendations to be sent to U.S. EPA. Based on ARB's review it can be seen with certainty that there is no possibility that the proposed action may result in a significant adverse impact on the environment. Further, the proposed action is designed to protect the environment and ARB found no substantial evidence indicating that submitting these area designation recommendations to U.S. EPA could adversely affect air quality or any other environmental resource area, or that any of the exceptions to the exemption applies (14 CCR 15300.2). Therefore, this activity is exempt from CEQA.

<sup>&</sup>lt;sup>2</sup> February 25, 2016, Area Designations for the 2015 Ozone National Ambient Air Quality Standards, Memorandum from Janet G. McCabe, Acting Assistant Administrator, Office of Air and Radiation to Regional Administrators, Regions 1-10.

# **Enclosure 2**

**Five Factor Analysis** 



#### **ENCLOSURE 2**

# FIVE FACTOR ANALYSIS FOR NEW NONATTAINMENT AREAS FOR THE 2015 FEDERAL 8-HOUR OZONE STANDARD

#### **CONTINUING NONATTAINMENT AREAS**

For the 2008 federal 8-hour ozone standard of 0.075 ppm, the U.S. Environmental Protection Agency (U.S. EPA) designated 16 areas in California as nonattainment. On October 1, 2015, U.S. EPA lowered the standard to 0.070 ppm. Based on design values calculated from ambient ozone air quality data collected between 2013 and 2015, all 16 areas previously designated as nonattainment would continue to be nonattainment for the new and more stringent standard. In addition, the nonattainment area boundaries designated for the previous standard remain relevant and accurately represent the areas of California with continuing ozone challenges. The factors that were evaluated when determining the current designations are still applicable and the U.S. EPA has consolidated those factors into the following five factors that were used to determine that the existing areas and boundaries should remain unchanged:

- 1. Air Quality Data
- 2. Emissions and Emissions-Related Data
- 3. Meteorology
- 4. Geography/Topography
- 5. Jurisdictional Boundaries

Each of these factors was defined in the ARB staff report "Recommended Area Designations for the 0.070 PPM Federal 8-Hour Ozone Standard" included in Enclosure 1.

Based on the factors above, ARB staff recommends retaining all 16 nonattainment areas and associated boundaries. Most of these areas are long-standing ozone planning areas that already have well-established air quality management programs and the regulations in place to quickly move forward with implementation of the 0.070 ppm ozone standard. A brief summary of the existing nonattainment areas and boundaries is provided below.

# Calaveras County

The Calaveras County nonattainment area would continue to include all of Calaveras County, which is under the jurisdiction of the Calaveras County Air Pollution Control District (APCD). The design value for Calaveras County is 0.073 ppm at the San Andreas-Gold Strike Road monitoring site and the five factors have not changed significantly enough to justify changing the nonattainment area boundary for the new ozone standard.

#### Chico (Butte County)

The Chico (Butte County) nonattainment area would continue to include all of Butte County, under the jurisdiction of the Butte County Air Quality Management District (AQMD). The design value for Butte County is 0.074 ppm at the Paradise-4405 Airport Road monitoring site, located in the eastern foothills of the county and the five factors have not changed significantly enough to justify changing the nonattainment area boundary for the new ozone standard.

In addition, the Butte County AQMD has also requested that the nonattainment area name be changed for the new standard to "Butte County" since the ozone monitor located in Chico is well below the standard, and including "Chico" in the nonattainment area name is not reflective of where the highest ozone concentrations are located. However, the nonattainment area should continue to include the entire county because the emissions from the Chico area do contribute to the ozone in the foothill portion of the nonattainment area, which is above the ozone standard.

#### **Imperial County**

The Imperial County nonattainment area would continue to include all of Imperial County, under the jurisdiction of the Imperial County APCD. The design value for Imperial County is 0.078 ppm at the El Centro-9th Street monitoring site and the five factors have not changed significantly enough to justify changing the nonattainment area boundary for the new ozone standard.

# Kern County (Eastern Kern)

The Kern County (Eastern Kern) nonattainment area would continue to include most of the eastern portion of Kern County within the Mojave Desert Air Basin that is under the jurisdiction of the Eastern Kern (APCD). The design value for the nonattainment area is 0.083 ppm at the Mojave-923 Poole Street monitoring site and the five factors have not changed significantly enough to justify changing the nonattainment area boundary for the new ozone standard.

# Los Angeles-San Bernardino Counties (Western Mojave Desert)

The Los Angeles-San Bernardino Counties (Western Mojave Desert) nonattainment area would continue to include the northeastern portion of Los Angeles County, under the jurisdiction of the Antelope Valley AQMD, and the central portion of San Bernardino County, under the jurisdiction of the Mojave Desert AQMD. Both portions of the counties comprising this nonattainment area are completely within the Mojave Desert Air Basin. The design value for the nonattainment area is 0.090 ppm at the Lancaster-43301 Division Street monitor in Los Angeles County and the five factors have not changed significantly enough to justify changing the nonattainment area boundary for the new ozone standard.

#### Los Angeles-South Coast Air Basin

The Los Angeles-South Coast Air Basin nonattainment area would continue to include all of Los Angeles County except for the northeastern portion in the Mojave Desert Air Basin, Orange County, southwestern San Bernardino County, and western Riverside County, all of which is under the jurisdiction of the South Coast AQMD. The design value for the nonattainment area is 0.102 ppm at the Crestline monitoring site in San Bernardino County and the five factors have not changed significantly enough to justify changing the nonattainment area boundary for the new ozone standard.

#### Mariposa County

The Mariposa County nonattainment area would continue to include all of Mariposa County, which is under the jurisdiction of the Maricopa County APCD. The design value for Mariposa County is 0.075 ppm at the Jerseydale-6440 Jerseydale Road monitoring site and the five factors have not changed significantly enough to justify changing the nonattainment area boundary for the new ozone standard.

#### Nevada County (Western Part)

The Nevada County (Western Part) nonattainment area would continue to include the portion of Nevada County from the western boundary with Yuba and Placer counties up to the crest of the Sierra Nevada Mountains in the east, which is under the jurisdiction of the Northern Sierra AQMD. The design value for the nonattainment area is 0.081 ppm at the Grass Valley-Litton Building monitoring site and the five factors have not changed significantly enough to justify changing the nonattainment area boundary for the new ozone standard.

# Riverside County (Coachella Valley)

The Riverside (Coachella Valley) nonattainment area would continue to include the central portion of Riverside County that is located within the Salton Sea Air Basin, which is under the jurisdiction of the South Coast AQMD. The design value for the Coachella Valley is 0.088 ppm at the Palm Springs-Fire Station monitoring site and the five factors have not changed significantly enough to justify changing the nonattainment area boundary for the new ozone standard.

#### Sacramento Metropolitan Area

The Sacramento Metropolitan nonattainment area would continue to include all of Sacramento and Yolo counties, southern Sutter County, the eastern half of Solano County within the Sacramento Valley Air Basin, the western portion of Placer County within the Sacramento Valley and Mountain Counties air basins, and the western portion of El Dorado County within the Mountain Counties Air Basin. The nonattainment area is under the jurisdiction of multiple air districts, including the Sacramento

Metropolitan AQMD, the Feather River AQMD, the Yolo-Solano AQMD, the El Dorado AQMD, and the Placer County APCD. The design value for the nonattainment area is 0.081 ppm at the Placerville-Gold Nugget Way monitoring site in Eldorado County and the five factors have not changed significantly enough to justify changing the nonattainment area boundary for the new ozone standard.

#### San Diego County

The San Diego County nonattainment area would continue to include all of San Diego, which is under the jurisdiction of the San Diego County APCD. The design value for San Diego County is 0.079 ppm at the Alpine-Victoria Drive monitoring site and the five factors have not changed significantly enough to justify changing the nonattainment area boundary for the new ozone standard.

## San Francisco Bay Area

The San Francisco Bay Area nonattainment area would continue to include Alameda, Contra Costa, Marin, Napa, Santa Clara, San Francisco, and San Mateo counties, as well as the western portion of Solano County and the southern portion of Sonoma County within the San Francisco Bay Area Air Basin, all of which is under the jurisdiction of the Bay Area AQMD. The design value for the nonattainment area is 0.073 ppm at the Livermore-793 Rincon Avenue ozone monitor in Alameda County and the five factors have not changed significantly enough to justify changing the nonattainment area boundary for the new ozone standard.

## San Joaquin Valley

The San Joaquin Valley nonattainment area would continue to include Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare counties, which is under the jurisdiction of the San Joaquin Valley APCD. The design value for the nonattainment area is 0.093 ppm at the Clovis-N Villa Avenue monitoring site in Fresno County and the five factors have not changed significantly enough to justify changing the nonattainment area boundary for the new ozone standard.

# San Luis Obispo (Eastern San Luis Obispo County)

The San Luis Obispo (Eastern San Luis Obispo County) nonattainment area would continue to include the eastern half of San Luis Obispo County, all of which is under the jurisdiction of the San Luis Obispo County APCD. The design value for nonattainment area is 0.073 ppm at the Red Hills monitoring site and the five factors have not changed significantly enough to justify changing the nonattainment area boundary for the new ozone standard.

#### Tuscan Buttes

The Tuscan Buttes nonattainment area would continue to include the portion of the Tuscan Buttes above an elevation of 1,800 feet. The Tuscan Buttes are located in Tehama County which is under the jurisdiction of the Tehama County APCD. The design value for the nonattainment area is 0.074 ppm at the Tuscan Butte monitoring site and the five factors have not changed significantly enough to justify changing the nonattainment area boundary for the new ozone standard.

#### Ventura County

The Ventura County nonattainment area would continue to include all of Ventura County, except the Channel Islands of Anacapa Island and San Nicolas Island. Ventura County is under the jurisdiction of the Ventura County APCD. The design value for the nonattainment area is 0.077 ppm at the Simi Valley-Cochran Street monitoring site and the five factors have not changed significantly enough to justify changing the nonattainment area boundary for the new ozone standard.

#### ADDITIONAL NONATTAINMENT AREAS

The following three areas are currently attainment for the 0.075 ppm federal 8-hour ozone standard, but were previously nonattainment for the 1997 federal 8-hour ozone standard of 0.08 ppm. Based on the five factor analysis discussed below, each area is recommended to be nonattainment for the 0.070 ppm federal 8-hour ozone standard. All three areas are rural in nature, have limited populations and emission sources, and are dominated by pollutant transport from neighboring urban areas, which makes them different from most of the existing nonattainment areas.

Justification for each of these additional nonattainment areas was determined using the criteria outlined in the U.S. EPA's guidance memorandum<sup>1</sup> and the five factors listed above.

#### Amador County

#### Air Quality Data

Ozone concentrations in Amador County are measured by a single monitor (Jackson-Clinton Road) in the city of Jackson. However, this monitor is located in an area with one of the largest populations in the county and where ozone concentrations would be expected to be the highest. The design value for this monitor is 0.071 ppm, which is only 0.001 ppm above the new standard and substantially lower than the design values in all of the nonattainment areas bordering Amador County. In addition,

<sup>&</sup>lt;sup>1</sup> February 25, 2016, Area Designations for the 2015 Ozone National Ambient Air Quality Standards, Memorandum from Janet G. McCabe, Acting Assistant Administrator, Office of Air and Radiation to Regional Administrators, Regions 1-10.

the design value at the Jackson monitor has steadily decreased at a rate of approximately 0.001 ppm per year over the past 20 years and so have the number of days above the standard, which decreased from 45 in 1999 to just two in 2015 (based on the 0.075 ppm federal 8-hour ozone standard).

Considering the steady improvement in ozone concentrations in Amador County and the small decrease needed to reach attainment of the 0.070 ppm federal standard relative to neighboring nonattainment areas, such as the Sacramento Metropolitan nonattainment area with a design value 0.081 ppm, ARB recommends that the nonattainment area be limited to the Amador County boundary.

#### Emissions and Emission-Related Data

The U.S. Census Bureau estimates a population of 37,001 people for Amador County in 2015, which was less than 1 percent of the total State population. From this limited population, ARB's California Emission Projection Analysis Model (CEPAM) for the 2016 Ozone SIP Baseline Emission Projection estimates that summertime NOx in Amador County is approximately 4.3 tons per day (tpd) and reactive organic gases (ROG) are 4.9 tpd. These quantities are very small when compared to the upwind urban area NOx amounts of 78 tpd from the Sacramento Metropolitan nonattainment area and 63 tpd from Stockton and Modesto areas in the northern portion of the San Joaquin Valley nonattainment area. Similarly, ROG emissions from the Sacramento area are approximately 96 tpd and the Stockton and Modesto areas are 80 tpd. Because ozone concentrations in Amador County are dominated by emissions and transport from metropolitan nonattainment areas to the west and northwest of Amador County, local emissions contribute very little to the ozone exceedance in Amador County. In addition, the local emissions do not significantly contribute to high ozone concentrations in neighboring counties. As a result, Amador County should be defined as a separate nonattainment area.

#### Meteorology

The foothills of Amador County allow air to flow easily into the region from the west under normal summertime Delta breeze conditions, but the rugged terrain on the eastern side of the County requires much stronger winds, associated with large-scale low pressure systems, to transport air over the crest of the Sierras. As a result, Amador County is typically just an eastward extension of the Sacramento Valley Air Basin under northwesterly wind conditions and the San Joaquin Valley Air Basin under westerly wind conditions. The County also experiences the daily recirculation of air up the slope during the day and back down the slope at night, especially between the Central Valley floor and Highway 49, which travels along the foothills from north to south at an elevation of about 1,000-2,000 feet.

Similar to most of inland California, the air in Amador County is typically dry, allowing for wide temperature ranges each day and the formation of a temperature inversion at night. During the summer ozone season, ozone can be transported up into the foothills

of Amador County and become trapped in mountain valleys, and with limited local emissions to react with and break down ozone in the atmosphere during the evening and overnight hours when sunlight is not available to drive ozone formation processes, ozone concentrations have the potential to remain high for as long as 24-48 hours in a row. Only a weather system with strong winds is able to vent the mountain valleys.

#### Geography/Topography

Amador County consists of gradual foothills rising out of California's Central Valley on the western side of the County that transition to steeper, more complex terrain with high mountain peaks and a broad range of valleys spanning the full north-south extent of the County on the eastern side. Elevation within Amador County ranges from as low as 250 feet above sea level on the western boundary of the basin to over 9,000 feet at the crest of the Sierra Nevada Mountains, with moderate sloping for the first 1,000-2,000 feet of rise and sharp mountain ridges from the foothills eastward. A map of the County with terrain is shown in Figure 1.



Figure 1 Amador County

The rugged terrain in Amador County largely limits population growth and inhibits the development of roads and vehicle traffic. The same terrain limits air flow as well, which is another factor supporting the designation of Amador County as a separate nonattainment area.

#### Jurisdictional Boundaries

The Amador County lines are the primary existing jurisdictional boundary and also form the boundary for the Amador County APCD. Air quality in Amador County is managed at the local level through air quality rules and regulations that address the requirements for federal and State air quality laws. In addition, the County is not part of a Metropolitan Planning Organization (MPO) and transportation conformity is handled at the District level. Because Amador County is very close to attaining the new 0.070 ppm standard and does not significantly contribute to exceedances of the standard in neighboring counties, it is most efficient to have the nonattainment boundary coincide with the existing jurisdictional boundaries; therefore, ARB recommends that Amador County be defined as a separate nonattainment area.

#### **Sutter Buttes**

#### Air Quality Data

ARB staff has reviewed ozone concentration data from the single monitor that operates on the Sutter Buttes (Sutter Buttes-South Sutter Butte) and the design value for 2015 was 0.072 ppm. This concentration is minimally above the federal standard and the trend over the past 20 years shows a reduction in the design value of slightly more than 0.001 ppm per year and a decrease in the number of exceedances of the previous 0.075 ppm standard from 54 in 1996 to just 1 in 2015. Based on these data, it is expected that the Sutter Buttes will attain the 0.070 ppm federal ozone standard within a few years.

#### Emissions and Emission-Related Data

The Sutter Buttes do not have any permanent residents or stationary emission sources. The only emissions within the recommended nonattainment area boundary are from vehicles during monitoring site visits by ARB technicians and quality assurance staff. As a result, the very limited emissions from within the nonattainment area are incapable of producing ozone concentrations above the federal standard or even contributing to increases in ozone concentrations transported into the nonattainment area from upwind urban areas.

# Meteorology

Similar to the rest of the Sacramento Valley, the Sutter Buttes experience dry, hot conditions throughout much of the summer ozone season due to broad upper-level high pressure systems over the Eastern Pacific Ocean and Western U.S. These large-scale

weather patterns tend to keep skies clear, limit wind speeds, and contribute to the formation of temperature inversions at around 1,000-2,000 feet above the ground, which limit vertical mixing in the lower atmosphere and can allow pollutant concentrations to build for several days at a time.

Part of the complexity for the Sutter Buttes is that the ozone monitor is often above the temperature inversion where, during stagnant weather, ozone and ozone precursors that transport over the Sutter Buttes from urban areas to the south and southwest can remain in place for many hours and have no fresh emissions from local sources to react with the ozone and break it down. As a result, once high ozone concentrations or ozone precursors move into the area, they react during the daytime hours to form additional ozone or linger at night for several hours, leading high 8-hour average concentrations both cases.

The predominant wind flow direction for the Sutter Buttes is from south to north during the summer months due to higher temperatures at the north end of the Sacramento Valley than the southern end, which is open to cooler ocean air to the west in the Delta region. These southerly winds are the primary mechanism for transporting ozone into the Sutter Buttes from neighboring metropolitan areas. The only other common, but less frequent, wind flow pattern involves wind moving from north to south down the Sacramento Valley. These winds are typically associated with transitional weather patterns behind storms that have moved through California and ahead of building high pressure. During these periods, winds are blowing from cleaner areas in the north toward the urban areas, the atmosphere is well-mixed, and pollutant concentrations are low; therefore, high ozone concentrations would not be expected during these periods.

Under either wind flow pattern discussed above, the Sutter Buttes could not contribute to increased ozone concentrations in any nearby areas because of the lack of emission sources. As a result, the Sutter Buttes should be a separate nonattainment area.

# Geography/Topography

While most of the central Sacramento Valley is flat and either populated or used for agriculture, the Sutter Buttes are a unique feature consisting of abrupt, steep slopes extending from the valley floor to over 2,000 feet (Figure 2). The Sutter Buttes are only 11 miles in diameter and comprise very little area of the Valley, but the air at the top of the Sutter Buttes is distinctly different from the air near the Valley floor because of the terrain. The ruggedness of the Sutter Buttes limits accessibility, leading to very few roads and limited population in the lower elevation areas surrounding the peaks. The topography sets the Sutter Buttes apart from the surrounding areas and further justifies that the Sutter Buttes should be treated as a separate and limited nonattainment area.

#### Jurisdictional Boundaries

The Sutter Buttes are located within Sutter County and under the jurisdiction of the Feather River AQMD. However, both of these boundaries are much broader than the

Sutter Buttes and most of the area within them exhibit very different characteristics with regard to ozone air quality, population, emissions, and topography than the Sutter Buttes. Because neither boundary is representative of the Sutter Buttes, they should not be used for defining the nonattainment area boundary. As a result, ARB is recommending that the Sutter Buttes nonattainment area be limited to the portion of Sutter Buttes above 2,000 feet, which is the same boundary previously designated by U.S. EPA for the 1997 federal 8-hour standard of 0.08 ppm.

Sutter Buttes-S Butte City Legend Sutter Buttes Air Basin es: Esti, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN County Esri Japan, METI Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Figure 2 Sutter Buttes

#### **Tuolumne County**

#### Air Quality Data

Ozone concentrations in Tuolumne County are measured by the Sonora-Barretta Street ozone monitor in the city of Sonora. This monitor is located in the only incorporated city in the county and where ozone concentrations would be expected to be the highest. The design value for this monitor is 0.073 ppm, which is only 0.003 ppm above the new standard and the same or lower than the design values for each of the nonattainment areas bordering Tuolumne County. In addition, the design value at the Sonora monitor has steadily decreased at a rate of approximately 0.001 ppm per year over the past 20 years and so have the number of days above the standard, which decreased from 57 in 1999 to just 4 in 2015 (based on the 0.075ppm federal 8-hour ozone standard).

Considering the steady improvement in ozone concentrations in Tuolumne County and the small decrease needed to reach attainment of the 0.070 ppm federal standard relative to neighboring nonattainment areas, such as the northern portion of the San Joaquin Valley nonattainment area with a design value 0.082 ppm, ARB recommends that the nonattainment area be limited to the Tuolumne County boundary.

#### Emissions and Emission-Related Data

The population of Tuolumne County in 2015 was estimated to be 53,709 by the U.S. Census Bureau, which was slightly more than one percent of the total State population. From this limited population, ARB's California Emission Projection Analysis Model (CEPAM) for the 2016 Ozone SIP Baseline Emission Projection estimates that summertime NOx in Tuolumne County is approximately 3.9 tpd and ROG are 8.8 tpd. These quantities are very small when compared to the upwind urban area NOx amounts of 63 tpd from Stockton and Modesto areas in the northern portion of the San Joaquin Valley nonattainment area. Similarly, ROG emissions from the Stockton and Modesto areas are 80 tpd. Because ozone concentrations in Tuolumne County are dominated by emissions and transport from metropolitan nonattainment areas to the west of Tuolumne County, local emissions contribute very little to the ozone exceedance in Tuolumne County. In addition, the local emissions do not significantly contribute to high ozone concentrations in neighboring counties. As a result, Tuolumne County should be defined as a separate nonattainment area.

# Meteorology

Similar to the rest of the Mountain Counties Air Basin, the foothills of Tuolumne County allow air to flow easily into the region from the west under normal summertime Delta breeze conditions, but the rugged terrain on the eastern side of the County requires much stronger winds, associated with large-scale low pressure systems, to transport air over the crest of the Sierras. As a result, Tuolumne County is typically just an eastward extension of the San Joaquin Valley Air Basin under the predominant west-northwesterly wind conditions. The County also experiences the daily recirculation

of air up the slope during the day and back down the slope at night, especially between the Central Valley floor and Highway 49, which travels along the foothills from north to south at an elevation of about 1,000-2,000 feet.

Additionally, the air in Tuolumne County is typically dry, allowing for wide temperature ranges each day and the formation of a temperature inversion at night. During the summer ozone season, ozone can be transported up into the foothills of Tuolumne County and become trapped in mountain valleys, and with limited local emissions to react with and break down ozone in the atmosphere during the evening and overnight hours when sunlight is not available to drive ozone formation processes, ozone concentrations have the potential to remain high for as long as 24-48 hours in a row. Only a weather system with strong winds is able to vent the mountain valleys.

#### Geography/Topography

Tuolumne County, like most of the counties on the western side of the Sierra Nevada Mountains, consists of gradual foothills rising out of California's Central Valley on the western side of the County that transition to steeper, more complex terrain with high mountain peaks and a broad range of valleys spanning the full north-south extent of the County on the eastern side. Elevation within Tuolumne County ranges from as low as 400 feet above sea level on the western boundary of the County to over 12,000 feet at the crest of the Sierra Nevada Mountains, with moderate sloping for the first 1,000-2,000 feet of rise and sharp mountain ridges from the foothills eastward. A map of Tuolumne County with terrain is shown in Figure 3.

The rugged terrain in Tuolumne County largely limits population growth and inhibits the development of roads and vehicle traffic. The same terrain limits air flow as well, which is another factor supporting the designation of Tuolumne County as a separate nonattainment area.

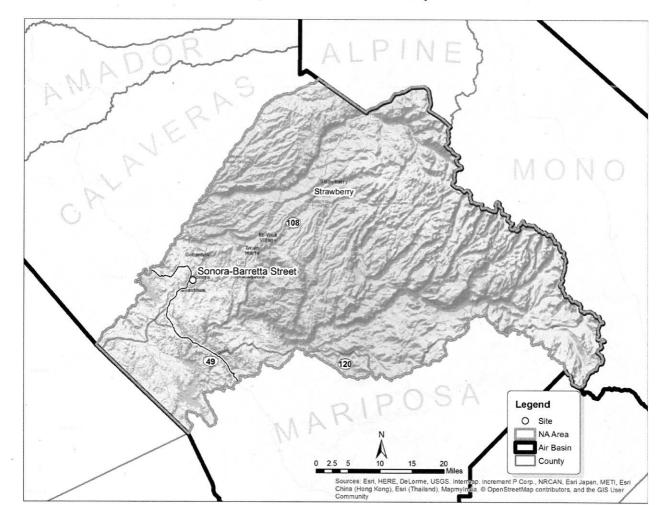


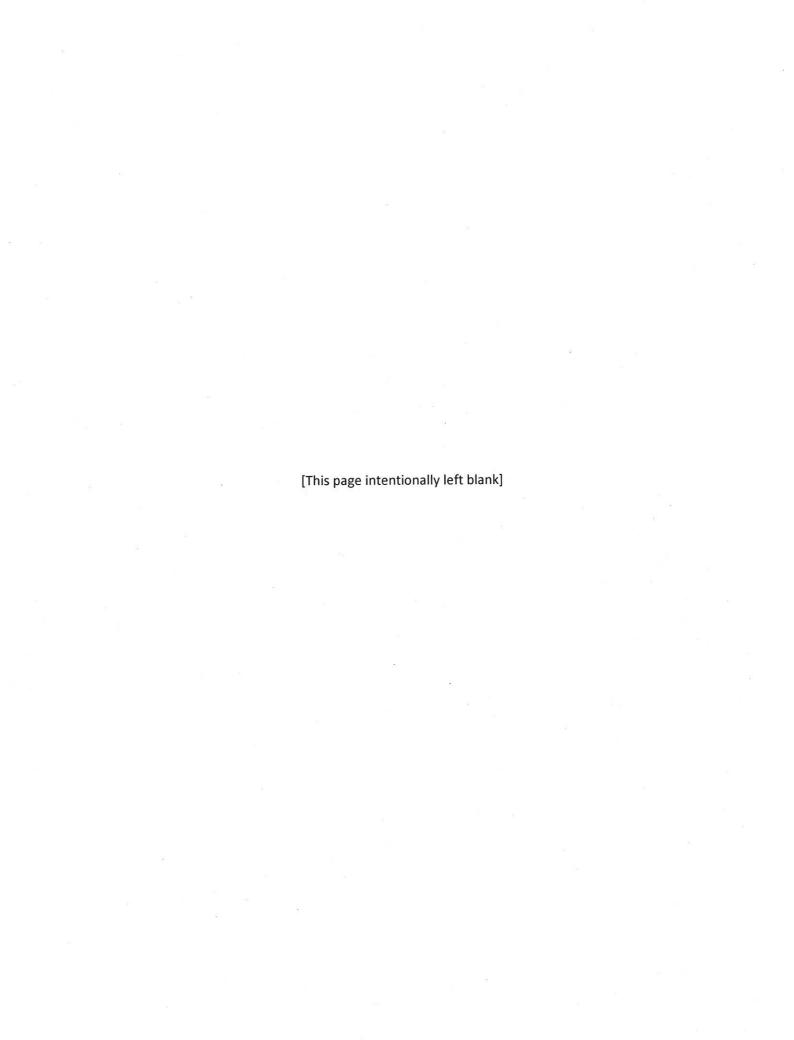
Figure 3 Tuolumne County

#### Jurisdictional Boundaries

The Tuolumne County lines are the primary existing jurisdictional boundary and also form the boundary for the Tuolumne County APCD. Air quality in Amador County is managed at the local level through air quality rules and regulations that address the requirements for federal and State air quality laws. In addition, the County is not part of a MPO and transportation conformity is handled at the District level. Because Tuolumne County is close to attaining the new 0.070 ppm standard and does not significantly contribute to exceedances of the standard in neighboring counties, it is most efficient to have the nonattainment boundary coincide with the existing jurisdictional boundaries; therefore, ARB recommends that Tuolumne County be defined as a separate nonattainment area.

# **Enclosure 3**

**Boundary Descriptions** 



#### **ENCLOSURE 3**

# BOUNDARY RECOMMENDATIONS FOR NEW NONATTAINMENT AREAS FOR THE 2015 FEDERAL 8-HOUR OZONE STANDARD

### **AMADOR COUNTY**

All of Amador County.

### **SUTTER BUTTES**

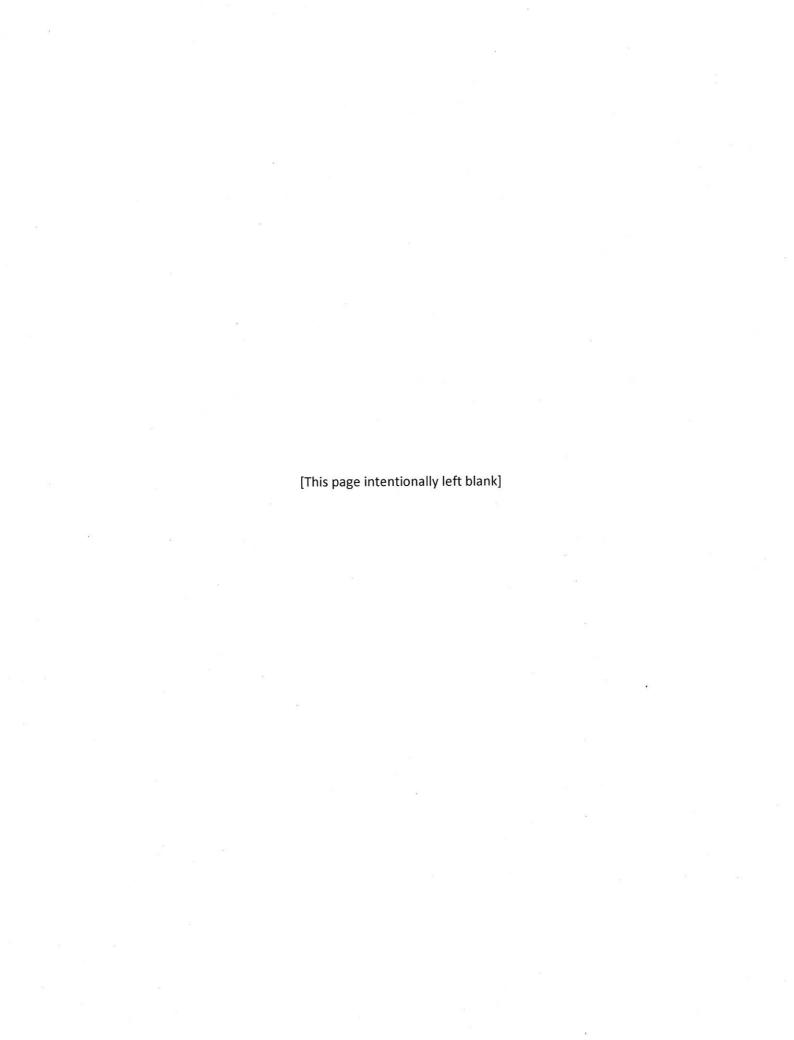
That portion of the immediate Sutter Buttes area at or above 2,000 feet in elevation.

### **TUOLUMNE COUNTY**

All of Tuolumne County.

# **Enclosure 4**

**Ozone Design Values** 



#### **ENCLOSURE 4**

## Summary of 4<sup>th</sup> Highest Concentrations and Federal 8-Hour Ozone Design Values for all California Ozone Monitoring Sites (Based on 2013-2015 Ozone Air Quality Data)<sup>1</sup>

					Year		
Air District	County	AQS ID	Site Name	2013 4 <sup>th</sup> High (ppm)	2014 4 <sup>th</sup> High (ppm)	2015 4 <sup>th</sup> High (ppm)	2015 Design Value (ppm)
Amador County APCD	Amador	060050002	Jackson-Clinton Road	0.066	0.074	0.074	0.071
Antelope Valley AQMD	Los Angeles	060379033	Lancaster-43301 Division Street	0.090	0.081	0.100	0.090
		060010007	Livermore-793 Rincon Avenue	0.069	0.076	0.074	0.073
	A11-	060010009	Oakland-9925 International Blvd	0.046	0.057	0.055	0.052
	Alameda	060010011	Oakland-West	0.044	0.051	0.052	0.049
		060012001	Hayward-La Mesa	0.059	0.072	0.064	0.065
		060012005	Livermore-13224 Patterson Pass Road			0.075	N/A
		060130002	Concord-2975 Treat Blvd	0.057	0.067	0.070	0.064
	Contra	060131002	Bethel Island Road	0.062	0.069	0.068	0.066
	Costa	060131004	San Pablo-Rumrill Blvd	0.052	0.055	0.059	0.055
		060132007	San Ramon-9885 Alcosta Bl	0.065	0.072	0.074	0.070
Bay Area AQMD	Marin	060410001	San Rafael	0.057	0.064	0.063	0.061
	Napa	060550003	Napa-Jefferson Avenue	0.055	0.062	0.066	0.061
	San Francisco	060750005	San Francisco-Arkansas Street	0.043	0.052	0.050	0.048
	San Mateo	060811001	Redwood City	0.056	0.064	0.059	0.059
	Santa Clara	060850002	Gilroy-9th Street	0.063	0.071	0.068	0.067
		060850005	San Jose-Jackson Street	0.060	0.065	0.065	0.063
		060851001	Los Gatos	0.062	0.069	0.072	0.067
	6	060852006	San Martin-Murphy Avenue	0.067	0.073	0.071	0.070
	Solano	060950004	Vallejo-304 Tuolumne Street	0.055	0.064	0.064	0.061
	Solario	060950005	Fairfield-Chadbourne Road	0.061	0.063	0.067	0.063
0.	Sonoma	060970004	Sebastopol-103 Morris Street		0.054	0.056	N/A
Butte County AQMD	Putto	060070007	Paradise-4405 Airport Road	0.073	0.074	0.075	0.074
Butte County AQIVID	Butte	060070008	Chico-East Avenue	0.065	0.066	0.067	0.066
Calaveras County APCD	Calaveras	060090001	San Andreas-Gold Strike Road	0.067	0.071	0.081	0.073
Colusa County APCD	Colusa	060111002	Colusa-Sunrise Blvd	0.056	0.061	0.064	0.060
Eastern Kern APCD	Kern	060290011	Mojave-923 Poole Street	0.081	0.089	0.080	0.083
W 60		060170010	Placerville-Gold Nugget Way	0.082	0.082	0.080	0.081
El Dorado County AQMD	El Dorado	060170012	Echo Summit	0.066	0.068	50 FRANCE (1 HONO)	N/A
		060170020	Cool-Highway 193	0.076	0.083	0.080	0.079
The training of the second	20.70		Yuba City-Almond Street	0.060	0.069	0.064	0.064
Feather River AQMD	Sutter		Sutter Buttes-S Butte	0.071	0.075	0.072	0.072
3	Yuba		The state of the s	Monitors		AMOUNT COM	

4							
Air District	County	AQS ID	Site Name	2013 4 <sup>th</sup> High (ppm)	2014 4 <sup>th</sup> High (ppm)	2015 4 <sup>th</sup> High (ppm)	2015 Design Value (ppm)
Glenn County APCD	Glenn	060210003	Willows-720 N Colusa Street	0.066	0.067	0.064	0.065
	Alpine		No	Monitors			
Great Basin Unified		060270002	Bishop-Line		1 14	0.062	N/A
APCD	Inyo	060270101	Death Valley Natl Monument	0.070	0.069	0.070	0.069
	Mono		No	Monitors			
·		060250005	Calexico-Ethel Street	0.078	0.078	0.077	0.077
Imporial County ABCD	Imporial	060251003	0251003 El Centro-9th Street		0.078	0.077	0.078
Imperial County APCD	Imperial	060254003	Westmorland-W 1st Street			0.057	N/A
		060254004	Niland-English Road	0.072	0.069	0.071	0.070
Lake County AQMD	Lake	060333001	Lakeport-Lakeport Blvd	0.059	0.060	0.058	0.059
Lassen County APCD	Lassen		No	Monitors	_	·	
Mariposa County APCD	Mariposa	060430003	Yosemite Natl Park- Turtleback Dome	0.073	0.077	0.073	0.074
	Mariposa	060430006	Jerseydale - 6440 Jerseydale	0.077	0.077	0.071	0.075
Mendocino County AQMD	Mendocino	060450008	kiah-E Gobbi Street		0.052	0.053	N/A
Modoc County APCD	Módoc		No	Monitors			
	Riverside	060659003	Blythe-445 West Murphy Street	0.057	0.078	0.063	0.066
	San Bernardino	060710001	Barstow	0.078	0.084	0.077	0.079
		060710012	Phelan-Beekley Road and Phelan Road	0.088	0.093	0.086	0.089
Mojave Desert AQMD		060710306	Victorville-14306 Park Avenue	0.090	0.084	0.093	0.089
		060711234	Trona-Athol and Telegraph	0.065	0.068	0.068	0.067
		060714001	Hesperia-Olive Street	0.083	0.087	0.093	0.087
	,	060719002	Joshua Tree-National Monument	0.085	0.090	0.085	0.086
		060530002	Carmel Valley-Ford Road	0.059	0.063	0.059	0.060
	Monterey	060530008	King City-415 Pearl Street	0.056	0.062	0.062	0.060
		060531003	Salinas-#3	0.051	0.059	0.055	0.055
Monterey Bay ARD		060690002	Hollister-Fairview Road	0.059	0.068	0.063	0.063
	San Benito	060690003	Pinnacles National Monument	0.071	0.069	0.066	0.068
	Santa Cruz	060870007	Santa Cruz-2544 Soquel Avenue	0.049	0.062	0.057	0.056
X 02.0	Del Norte		No	Monitors	T	T 3 20000	
North Coast Unified	Humboldt	060231004	Eureka-Jacobs	0.045	0.043	0.045	0.044
AQMD		060231005	Eureka-Humboldt Hill	0.046	0.041	0.047	0.044
	Trinity	λ,	No	Monitors			
	Nevada		Grass Valley-Litton Building	0.078	0.081	0.084	0.081
Northern Sierra AQMD	1000 CO	060570007	White Cloud Mountain	0.065	0.078	0.072	0.071
	Plumas			Monitors	14 91		
	Sierra		No	Monitors			
Northern Sonoma County APCD	Sonoma	060971003	Healdsburg-Municipal Airport	0.055	0.062	0.059	0.058

		й .						
Air District	County	AQS ID	Site Name	2013 4 <sup>th</sup> High (ppm)	ligh 4 <sup>th</sup> High 4 <sup>th</sup> High		2015 Design Value (ppm)	
		060610003	Auburn-11645 Atwood Road	0.073	0.081	0.085	0.079	
		060610004	Colfax-City Hall	0.071	0.073	0.075	0.073	
Placer County APCD	Placer	060610006	Roseville-N Sunrise Blvd	0.075	0.083	0.073	0.077	
riader deality / ii db	i laoci	060611004	Tahoe City-221 Fairway Drive		0.062	0.066	N/A	
84.0		060612002	Lincoln-1445 1st Street	0.066	0.070	0.071	0.069	
		060670002	North Highlands-Blackfoot Way	0.072	0.075	0.075	0.074	
		060670006	Sacramento-Del Paso Manor	0.075	0.075	0.079	0.076	
		060670010	Sacramento-T Street	0.063	0.070	0.071	0.068	
Sacramento Metropolitan AQMD	Sacramento	060670011	Elk Grove-Bruceville Road	0.062	0.069	0.069	0.066	
		060670012	Folsom-Natoma Street	0.079	0.081	0.081	0.080	
		060670014	Sacramento-Goldenland Court	0.068	0.070	0.071	0.069	
		060675003	Sloughhouse	0.073	0.076	0.079	0.076	
		060730003	El Cajon-Redwood Ave.	0.068	0.048		N/A	
a		060730001	Chula Vista	0.059	0.063	0.061	0.061	
		060731001	Del Mar-Mira Costa College	0.062	0.073	0.064	0.066	
		060731002	Escondido-E Valley Parkway	0.072	0.076	0.069	0.072	
		060731006	Alpine-Victoria Drive	0.078	0.080	0.079	0.079	
	=	060731008	Camp Pendleton	0.062	0.071	0.068	0.067	
San Diego County APCD	San Diego	060731010	San Diego-1110 Beardsley Street	0.052	0.068	0.061	0.060	
		060731014	Otay Mesa-Donovan		0.063	0.069	N/A	
× .		060731016	San Diego-Kearny Villa Road	0.066	0.071	0.067	0.068	
		060731018	El Cajon-Floyd Smith Drive		0.067	0.065	N/A	
			El Cajon-Combined	0.068	0.067	0.065	0.066	
	90	060732007	Otay Mesa-Paseo International	0.059	0.049		N/A	
			Otay Mesa-Combined	0.059	0.063	0.069	0.063	
		060190007	Fresno-Drummond Street	0.086	0.084	0.088	0.086	
	*:	060190011	Fresno-Garland	0.084	0.090	0.087	0.087	
	V11 - 100	060190242	Fresno-Sierra Skypark #2	0.085	0.091	0.084	0.086	
*	Fresno	060192009	Tranquility-32650 West Adams Avenue	0.075	0.075	0.077	0.075	
		060194001	Parlier	0.095	0.087	0.093	0.091	
		060195001	Clovis-N Villa Avenue	0.091	0.097	0.093	0.093	
San Joaquin Valley		060290007	Edison	0.079	0.085	0.090	0.084	
APCD		060290008	Maricopa-Stanislaus Street	0.078	0.078	0.083	0.079	
	Korn	060290014	Bakersfield-5558 California Avenue	0.084	0.084	0.088	0.085	
	Kern	060290232	Oildale-3311 Manor Street	0.078	0.078	0.082	0.079	
			Bakersfield-Municipal Airport	0.087	0.087	0.097	0.090	
		060295002	Arvin-Di Giorgio	0.087	0.088	0.087	0.087	
		060296001	Shafter-Walker Street	0.079	0.081	0.082	0.080	
14	Kings	060311004	Hanford-S Irwin Street	0.085	0.086	0.085	0.085	

Air District	County	AQS ID	Site Name	2013 4 <sup>th</sup> High (ppm)	2014 4 <sup>th</sup> High (ppm)	2015 4 <sup>th</sup> High (ppm)	2015 Design Value (ppm)
,		060390004	Madera-Pump Yard	0.079	0.088	0.080	0.082
	Madera	060392010	Madera-28261 Avenue 14	0.085	0.082	0.083	0.083
	Merced		Merced-S Coffee Avenue	0.083	0.082	0.083	0.082
	12.1 12 12 12 12 12 12 12 12 12 12 12 12 12	060771002	Stockton-Hazelton Street	0.064	0.071	0.069	0.068
	San Joaquin	060773005	Tracy-Airport	0.073	0.080	0.077	0.076
Can Jacquin Valley	Otavialana	060990005	Modesto-14th Street	0.075	0.081	0.083	0.079
San Joaquin Valley APCD (continued)	Stanislaus	060990006	Turlock-S Minaret Street	0.080	0.081	0.085	0.082
		061070006	Sequoia Natl Park-Lower Kaweah	0.087	0.084	0.083	0.084
	Tulare	061070009	Sequoia and Kings Canyon Natl Park	0.090	0.089	0.088	0.089
		061072002	Visalia-N Church Street	0.074	0.078	0.087	0.079
		061072010	Porterville-1839 Newcomb Street	0.084	0.073	0.086	0.081
		060790005	Paso Robles-Santa Fe Avenue	0.061	0.058	0.065	0.061
		060792006	San Luis Obispo-3220 South Higuera St	0.050	0.062	0.057	0.056
		060793001	Morro Bay	0.050	0.060	0.052	0.054
San Luis Obispo County	San Luis	060794002	Nipomo-Regional Park	0.056	0.066	0.060	0.060
APCD	Obispo	060798001	Atascadero-Lewis Avenue	0.059	0.063		N/A
		060798002	Atascadero-Lift Station #5			0.064	N/A
			Atascadero-Combined	0.059	0.063	0.064	0.062
		060798005	Red Hills	0.074	0.073	0.072	0.073
		060798006	Carrizo Plains School	0.067	0.068	0.068	0.067
		060830008	El Capitan Beach	0.057	0.065	0.057	0.059
		060830011	Santa Barbara-700 East Canon Perdido	0.055	0.066	0.061	0.060
		060831008	Santa Maria-906 S Broadway	0.048	0.058	0.053	0.053
		060831013	Lompoc-HSandP	0.062	0.068	0.059	0.063
		060831014	Paradise Road-Los Padres National Forest	0.065	0.065	0.063	0.064
Santa Barbara County	Santa	060831018	Gaviota-GTC Site B	0.056	0.064	0.060	0.060
APCD	Barbara	060831021	Carpinteria-Gobernador Road	0.065	0.076	0.060	0.067
		060831025	Las Flores Canyon #1	0.059	0.070	0.067	0.065
		060832004	Lompoc-S H Street	0.054	0.063	0.053	0.056
			Goleta-Fairview	0.059	0.069	0.061	0.063
		060833001	Santa Ynez-Airport Road	0.057	0.063	0.062	0.060
		060834003	Vandenberg Air Force Base- STS Power	0.058	0.069	0.056	0.061
		060890004	Redding-Health Dept Roof	0.050	0.072	0.066	0.062
		060890007	Anderson-North Street	0.064	0.071	0.068	0.067
Shasta County AQMD	Shasta	060890009	Shasta Lake-13791 Lake Blvd	0.068	0.057	0.072	0.065
		060893003	Lassen Volcanic Natl Park- Manzanita Lake	0.068	0.065	0.066	0.066

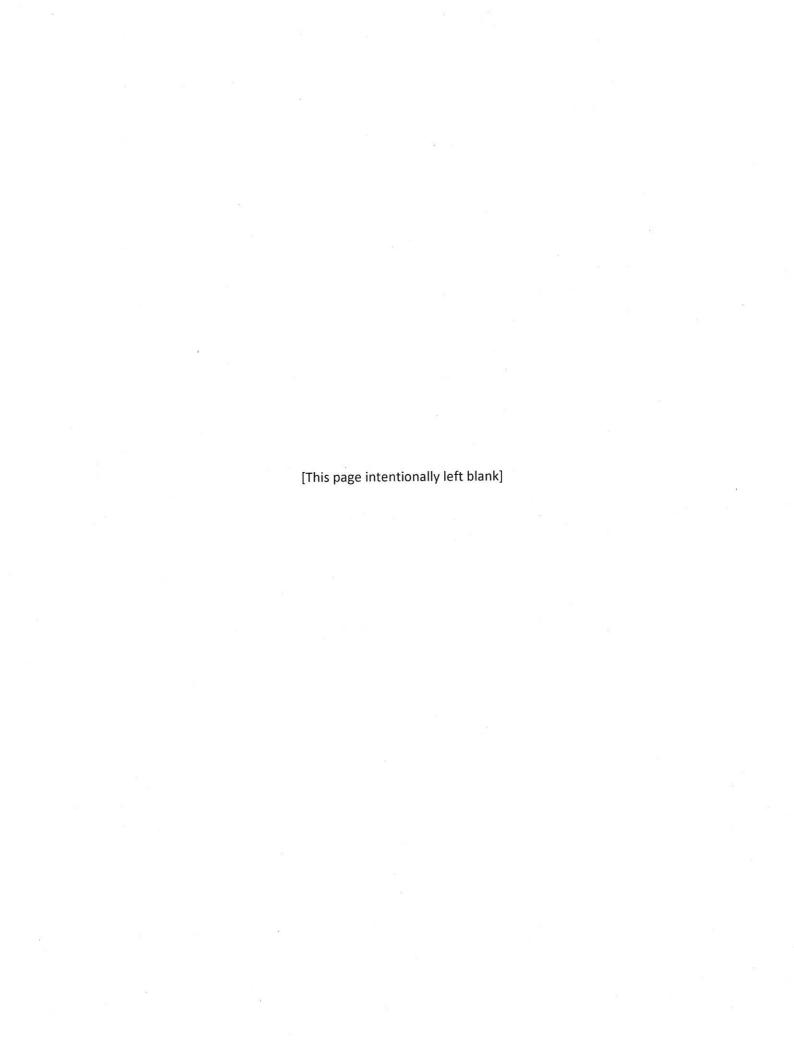
					Year		
Air District	County	AQS ID	Site Name	2013 4 <sup>th</sup> High (ppm)	2014 4 <sup>th</sup> High (ppm)	2015 4 <sup>th</sup> High (ppm)	2015 Design Value (ppm)
Siskiyou County APCD	Siskiyou	060932001	Yreka-Foothill Drive	0.063	0.061	0.061	0.061
		060370002	Azusa	0.080	0.081	0.088	0.083
		060370016	Glendora-Laurel	0.088	0.096	0.095	0.093
		060370113	West Los Angeles-VA Hospital	0.059	0.077	0.069	0.068
		060371103	Los Angeles-North Main Street	0.060	0.072	0.072	0.068
		060371201	Reseda	0.084	0.083	0.087	0.084
	Los Angeles	060371302	Compton-700 North Bullis Road	0.063	0.073	0.065	0.067
	Los Angeles	060371602	Pico Rivera-4144 San Gabriel	0.070	0.079	0.075	0.074
		060371701	Pomona	0.085	0.090	0.094	0.089
		060372005	Pasadena-S Wilson Avenue	0.070	0.086	0.082	0.079
		060374006	Long Beach-2425 Webster Street	0.057	0.061	0.056	0.058
	П	060375005	Los Angeles-Westchester Parkway	0.060	0.075	0.069	0.068
		060376012	Santa Clarita	0.094	0.097	0.091	0.094
	Orange	060590007	Anaheim-Pampas Lane	0.063	0.076	0.065	0.068
South Coast AQMD		060591003	Costa Mesa-Mesa Verde Drive	0.065	0.076	0.068	0.069
		060592022	Mission Viejo-26081 Via Pera	0.074	0.078	0.075	0.075
		060595001	La Habra	0.066	0.075	0.073	0.071
		060650008	Joshua Tree National Park- Cottonwood	0.077	0.091	0.074	0.080
		060650012	Banning Airport	0.091	0.094	0.091	0.092
		060650016	Winchester-33700 Borel Road	0.074	0.077	0.079	0.076
	Riverside	060652002	Indio-Jackson Street	0.085	0.084	0.079	0.082
		060655001	Palm Springs-Fire Station	0.090	0.089	0.086	0.088
		060656001		0.088	0.089	0.094	0.090
		060658001	Riverside-Rubidoux	0.094	0.091	0.096	0.093
			Mira Loma Van Buren	0.092	0.087	0.093	0.090
		060659001	Lake Elsinore-W Flint Street	0.081	0.079	0.093	0.084
		060710005		0.099	0.102	0.107	0.102
	San	060711004		0.095	0.093	0.101	0.096
	Bernardino		Fontana-Arrow Highway	0.100	0.093	0.100	0.097
			Redlands-Dearborn	0.104	0.099	0.102	0.101
			San Bernardino-4th Street	0.097	0.095	0.105	0.099
			Tuscan Butte	0.072	0.076	0.076	0.074
Tehama County APCD	Tehama		Red Bluff-Oak Street	0.072	0.068		N/A
		061030007	Red Bluff-1834 Walnut Street			0.063	N/A
			Red Bluff-Merged	0.072	0.068	0.063	0.067
Tuolumne County APCD	Tuolumne	061090005	Sonora-Barretta Street	0.070	0.075	0.076	0.073

Air District		ay AQS ID			Year		
	County		Site Name	2013 4 <sup>th</sup> High (ppm)	2014 4 <sup>th</sup> High (ppm)	2015 4 <sup>th</sup> High (ppm)	2015 Design Value (ppm)
	ounty APCD Ventura	061110007	Thousand Oaks-Moorpark Road	0.062	0.074	0.066	0.067
		061110009	Piru-3301 Pacific Avenue	0.069	0.079	0.072	0.073
Ventura County APCD		061111004	Ojai-Ojai Avenue	0.072	0.077	0.072	0.073
		061112002	Simi Valley-Cochran Street	0.077	0.081	0.074	0.077
		061113001	El Rio-Rio Mesa School #2	0.059	0.067	0.060	0.062
	Solano	060953003	Vacaville-Ulatis Drive	0.064	0.066	0.068	0.066
Yolo-Solano AQMD	Yolo	061130004	Davis-UCD Campus	0.058	0.065	0.065	0.062
		061131003	Woodland-Gibson Road	0.065	0.066	0.070	0.067

<sup>&</sup>lt;sup>1</sup> Daily maximum 8-hour average ozone concentrations for 2013 through 2015 were determined using the new method specified for the 0.070 ppm federal ozone standard, which excludes the 8-hour average concentrations calculated each day for hours 00 through 06. The fourth highest concentrations and design values shown in the table above account for this change in method.

# **Enclosure 5**

**Board Resolution** 



# State of California AIR RESOURCES BOARD

# OZONE DESIGNATION RECOMMENDATIONS FOR THE REVISED NATIONAL OZONE STANDARD OF 70 PARTS PER BILLION

Resolution 16-11

### **September 22, 2016**

Agenda Item No.: 16-8-1

WHEREAS, the Legislature in Health and Safety Code section 39602 has designated the State Air Resources Board (ARB or Board) as the air pollution control agency for all purposes set forth in federal law;

WHEREAS, section 109(b)(1) of the Clean Air Act requires the United States Environmental Protection Agency (U.S. EPA) to set primary air quality standards at levels that protect public health with an adequate margin of safety;

WHEREAS, section 109(b)(2) of the Clean Air Act requires U.S. EPA to set secondary air quality standards at levels requisite to protect public welfare;

WHEREAS, on October 1, 2015, the U.S. EPA promulgated a revised primary eight-hour ozone standard and an identical secondary eight-hour ozone standard at a level of 0.070 parts per million, based on the need to protect against daylong exposures to lower levels of ozone;

WHEREAS, section 107(d)(1)(A) of the Clean Air Act requires states to submit to U.S. EPA a list designating areas as nonattainment, attainment, or unclassifiable for a new or revised national ambient air quality standard (NAAQS) no later than one year after the promulgation of the standard and requires U.S. EPA to finalize the designations within two years of the promulgation of the new or revised standard;

WHEREAS, section 107(d)(1)(A)(i) of the Clean Air Act provides that any area that does not meet, or that contributes to ambient air quality in a nearby area that does not meet, the NAAQS for a pollutant shall be designated nonattainment:

WHEREAS, section 107(d)(1)(A)(ii) of the Clean Air Act also provides that any area (other than an area identified as nonattainment under section 107(d)(1)(A)(i)) that meets the NAAQS for the pollutant shall be designated attainment;

WHEREAS, section 107(d)(1)(A)(iii) of the Clean Air Act provides that any area that cannot be classified on the basis of available information as meeting or not meeting the NAAQS for the pollutant shall be designated unclassifiable;

WHEREAS, ARB has developed recommendations for area designations and boundaries in consultation with local air districts and U.S. EPA;

WHEREAS, a Staff Report titled *Recommended Area Designations for the 0.070 ppm Federal 8-hour Ozone Standard* which lists recommendations for area designations and nonattainment area boundaries for the federal 0.070 ppm eight-hour average ozone standard has been prepared;

WHEREAS, Attachment A to this Resolution lists recommendations for nonattainment, attainment, and unclassifiable area designations and boundaries for each area for the 0.070 ppm federal eight-hour average ozone standard;

WHEREAS, the recommendations are based on ozone data from 2013 to 2015, the most recent data available;

WHEREAS, U.S. EPA will base the final designations on ozone data from 2014 to 2016;

WHEREAS, ARB's regulatory program that involves the adoption, approval, amendment, or repeal of standards, rules, regulations, or plans has been certified by the Secretary for Natural Resources under Public Resources Code section 21080.5 of the California Environmental Quality Act (CEQA; California Code of Regulations, title 14, section 15251(d)), and ARB conducts its CEQA review according to this certified program (California Code of Regulations, title 17, sections 60000-60007);

WHEREAS, staff has determined that the proposed recommendations are exempt from CEQA under California Code of Regulations, title 14, section 15061(b)(3) ("common sense" exemption) and section 15308 ("Class 8" exemption: Actions Taken by Regulatory Agencies for Protection of the Environment) because the record evidence shows with certainty that the proposed recommendations will enhance the environment by better protecting the public from health impacts associated with exposure to ozone, and there is no possibility that the proposed activity may result in a significant adverse impact on the environment, as described in Chapter 6 of the Staff Report;

NOW, THEREFORE, BE IT RESOLVED that the Board directs the Executive Officer to forward the recommended area designations and nonattainment boundaries for the federal 0.070 ppm eight-hour average ozone standard to U.S. EPA and to work with U.S. EPA to resolve any issues that may arise regarding the recommendations.

I hereby certify that the above is a true and correct copy of Resolution 16-11 as adopted by the Air Resources Board.

Tracy Jensen, Clerk of the Board

### Resolution 16-11

## September 22, 2016

Attachment A:

Recommended Nonattainment, Attainment and Unclassifiable Designations for the 0.070 parts per million Federal 8-Hour Ozone Standard

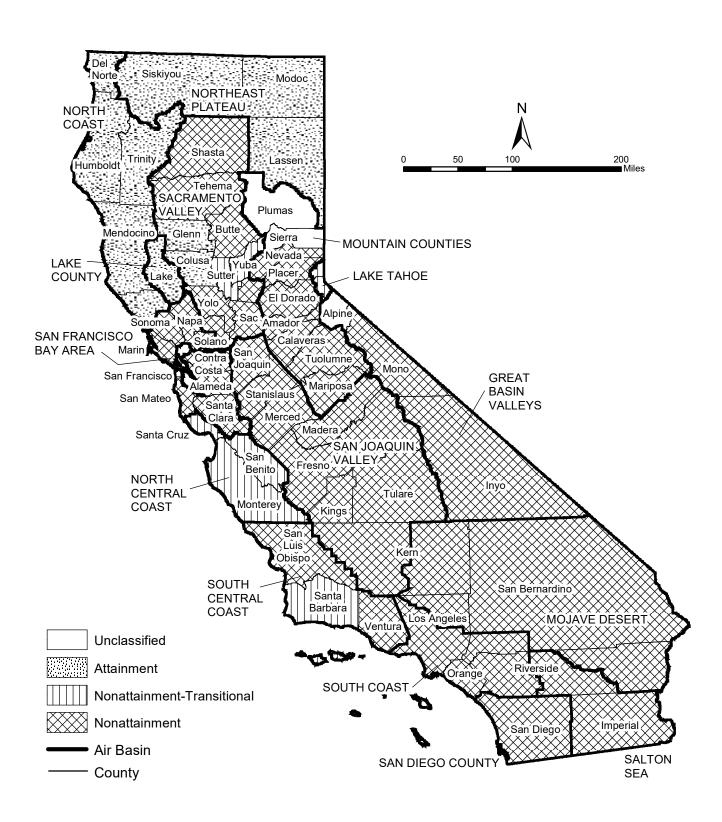
# Recommended Nonattainment, Attainment and Unclassifiable Designations for the 0.070 parts per million Federal 8-Hour Ozone Standard

Designation Area	Description	Recommended Designation
Amador County	Amador County	Nonattainment
Calaveras County	Calaveras County	Nonattainment
Chico (Butte County)	Butte County	Nonattainment
mperial County	Imperial County	Nonattainment
Kern County (Eastern Kern)	Eastern half of Kern County within the Mojave Desert Air Basin portion (excluding Indian Wells Valley)	Nonattainment
os Angeles-San Bernardino Counties (Western Mojave Desert)	Northeastern Los Angeles County and central San Bernardino County	Nonattainment
Los Angeles-South Coast Air Basin	Orange County; western Los Angeles County (including Catalina and San Clemente Islands); western Riverside County; and southwestern San Bernardino County	Nonattainment
Mariposa County	Mariposa County	Nonattainment
Nevada County (Western portion)	Portion of Nevada County west of the crest of the Sierra Nevada Mountains	Nonattainment
Riverside County (Coachella Valley)	Central Riverside County	Nonattainment
Sacramento Metropolitan Area	Sacramento and Yolo counties; eastern Solano County; southern Sutter County; and portions of Placer and El Dorado counties west of the crest of the Sierra Nevada Mountains	Nonattainment
San Diego County	San Diego County	Nonattainment
San Francisco Bay Area	Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties; southern Sonoma County; and western Solano County	Nonattainment
San Joaquin Valley	Fresno, Madera, Merced, San Joaquin Stanislaus, and Tulare counties and the western portion of Kern County within the San Joaquin Valley Air Basin	Nonattainment
San Luis Obispo (Eastern San Luis Obispo County)	Eastern portion of San Luis Obispo County	Nonattainment
Sutter Buttes	Sutter Buttes in Sutter County above 2,000 feet	Nonattainment
Tuolumne County	Tuolumne County	Nonattainment
Tuscan Buttes	Tuscan Buttes in Tehama County above 1,800 feet	Nonattainment
Ventura County	Continential portion of Ventura County	Nonattainment

Designation Area	Description	Recommended Designation
Colusa County	Colusa County	Attainment
Eastern Riverside County	Eastern portion of Riverside County within the Mojave Desert Air Basin	Attainment
Glenn County	Glenn County	Attainment
Inyo County	Inyo County	Attainment
Lake County	Lake County	Attainment
North Central Coast Air Basin	Monterey, Santa Cruz, and San Benito counties	Attainment
North Coast Air Basin	Del Norte, Humboldt, Mendocino, and Trinity counties and North Coast Air Basin portion of Sonoma County	Attainment
Northeast Plateau Air Basin	Lassen, Modoc and Siskiyou counties	Attainment
Northeast San Bernardino County	Northern and eastern portions of San Bernardino County within the Mojave Desert Air Basin	Attainment
Santa Barbara County	Continental portion of Santa Barbara County	Attainment
Shasta County	Shasta County	Attainment
Sutter and Yuba Counties	Yuba County and portion of Sutter County outside of Sacramento Metropolitan and Sutter Buttes nonattainment areas	Attainment
Tehama County	Portion of Tehama County outside of the Tuscan Buttes nonattainment area	Attainment
Western San Luis Obispo County	Portion of San Luis Obispo County to the west of the Eastern San Luis Obispo County nonattainment area	Attainment
Eastern Nevada County	Portion of Nevada County east of the crest of the Sierra Nevada Mountains	Unclassifiable
Lake Tahoe Air Basin	Eastern portion of Placer and El Dorado counties within the Lake Tahoe Air Basin	Unclassifiable
Northeastern Kern County	Portion of Kern County within the Indian Wells Valley	Unclassifiable
Northern Channel Islands	The Channel Islands located in the South Central Coast Air Basin: Anacapa, San Miguel, San Nicholas, Santa Barbara, Santa Cruz and Santa Rosa islands	Unclassifiable
Northern Great Basin Valleys Air Basin	Alpine and Mono counties	Unclassifiable
Northern Mountain Counties	Plumas and Sierra counties	Unclassifiable

# Area Designations for State Ambient Air Quality Standards

## **OZONE**





You are here: EPA Home > Green Book > 8-Hour Ozone (2015) Designated Area/State Information with Design Values

## 8-Hour Ozone (2015) Designated Area/State Information with Design Values

Data is current as of October 31, 2018

Design Values in ppm. "Current Design Values" are current as of the posted Green Book date. Check the Air Quality Design Value site for design value updates.

<b>Display</b> : O Nonat	ttainm	ent and Mainter	nance Areas   Nonattai			1aintenance	Area	s	
Click underlin	ed col	umn heading to	change report order	at th	gn Values e Time of signation				
Area Name ▲	State	Current Status		Design Values	Monitoring Years	Meets NAAQS Determin. <sup>1</sup>	No. Ctys	2010 Population	EPA Region
click area name for state/county list		Status	click for classification history		icars	Determin.			Region
Allegan County, MI		Nonattainment		0.075	2014-2016	No	1	46,615	05
Amador County, CA		Nonattainment		0.073	2014-2016	No	1	38,091	09
Atlanta, GA		Nonattainment		0.075	2014-2016	No	7	3,669,376	04
Baltimore, MD	MD	Nonattainment	Marginal	0.073	2014-2016	No	6	2,662,691	03
Berrien County, MI	MI	Nonattainment	Marginal	0.074	2014-2016	No	1	156,813	05
Butte County, CA	CA	Nonattainment	Marginal	0.075	2014-2016	No	1	220,000	09
Calaveras County, CA	CA	Nonattainment	Marginal	0.076	2014-2016	No	1	45,578	09
Chicago, IL-IN-WI	IL	Nonattainment	Marginal	0.077	2014-2016	No	7	8,076,475	05
Chicago, IL-IN-WI	IN	Nonattainment	Marginal	0.077	2014-2016	No	1	421,162	05
Chicago, IL-IN-WI	WI	Nonattainment	Marginal	0.077	2014-2016	No	1	116,383	05
Cincinnati, OH-KY	KY	Nonattainment		0.072	2014-2016	No	3	347,968	04
Cincinnati, OH-KY		Nonattainment		0.072	2014-2016	No	4	1,580,560	05
Cleveland, OH	ОН	Nonattainment	Marginal	0.075	2014-2016	No	7	2,780,440	05
Columbus, OH		Nonattainment	Marginal	0.071	2014-2016	No	4	1,650,276	05
Dallas-Fort Worth, TX		Nonattainment	Marginal	0.08	2014-2016	No	9	6,202,076	06
Denver Metro/North Front Range, CO	СО	Nonattainment	Marginal	0.08	2014-2016	No	9	3,329,773	08
Detroit, MI	MI	Nonattainment	Marginal	0.073	2014-2016	No	7	4,704,743	05
Dona Ana County (Sunland Park Area), NM		Nonattainment	Marginal	0.072	2014-2016	No	1	12,675	06
Door County, WI	WI	Nonattainment	Marginal (Rural Transport)	0.072	2014-2016	No	1	31	05
Greater Connecticut, CT		Nonattainment	Marginal	0.074	2014-2016	No	5	1,629,115	01
Houston-Galveston- Brazoria, TX	TX	Nonattainment	Marginal	0.079	2014-2016	No	6	5,773,151	06
Imperial County, CA	CA	Nonattainment	Marginal	0.076	2014-2016	No	1	174,528	09
Kern County (Eastern Kern), CA	CA	Nonattainment	Moderate	0.084	2014-2016	No	1	95,066	09
Las Vegas, NV	NV	Nonattainment	Marginal	0.074	2014-2016	No	1	1,892,250	09
Los Angeles-San Bernardino Counties (West Mojave Desert), CA		Nonattainment	Severe-15	0.091	2014-2016	No	2	866,960	09
Los Angeles-South Coast Air Basin, CA	CA	Nonattainment	Extreme	0.108	2014-2016	No	4	15,702,771	09
Louisville, KY-IN		Nonattainment	Marginal	0.074	2014-2016	No	2	184,810	05
Louisville, KY-IN	KY	Nonattainment		0.074	2014-2016	No	3	875,731	04
	-								Total

Click underlined		d column heading to change report order			gn Values e Time of signation				
Area Name ▲  click area name for state/county list	State	Current Status -	Current Classification or at Redesignation click for classification history	Design Values	Monitoring Years	Meets NAAQS Determin. <sup>1</sup>	No. Ctys	2010 Population	EPA Region
Manitowoc County,	WI	Nonattainment	Marginal	0.072	2014-2016	No	1	48,956	05
WI Mariposa County,		Nonattainment	Marginal	0.075	2014-2016	No	1	18,251	09
CA Morongo Band of	$C_{\Lambda}$	Nonattainment	Serious	0.097	2014-2016	No	1	932	09
Mission Indians, CA Muskegon County,		Nonattainment	Marginal	0.075	2014-2016	No	1	146,852	
MI Nevada County		Nonattainment	Moderate	0.083	2014-2016	No	1	82,042	
Western part), CA New York-Northern New Jersey-Long sland, NY-NJ-CT		Nonattainment	Moderate	0.083	2014-2016	No	3	1,944,982	
New York-Northern New Jersey-Long sland, NY-NJ-CT	NJ	Nonattainment	Moderate	0.083	2014-2016	No	12	6,003,340	02
New York-Northern New Jersey-Long Island, NY-NJ-CT	NY	Nonattainment	Moderate	0.083	2014-2016	No	9	12,268,815	02
Northern Milwaukee/Ozaukee Shoreline, WI	WI	Nonattainment	Marginal	0.073	2014-2016	No	2	69,817	05
Northern Wasatch Front, UT	UT	Nonattainment	Marginal	0.075	2014-2016	No	4	1,615,574	08
Pechanga Band of Luiseno Mission Indians of the Pechanga Reservation	СА	Nonattainment	Marginal	0.071	2014-2016		2	652	09
Philadelphia- Wilmington- Atlantic City, PA- NJ-MD-DE	DE	Nonattainment	Marginal	0.077	2014-2016	No	1	538,479	03
Philadelphia- Wilmington- Atlantic City, PA- NJ-MD-DE	MD	Nonattainment	Marginal	0.077	2014-2016	No	1	101,108	03
Philadelphia- Wilmington- Atlantic City, PA- NJ-MD-DE	NJ	Nonattainment	Marginal	0.077	2014-2016	No	9	2,788,554	02
Philadelphia- Wilmington- Atlantic City, PA- NJ-MD-DE	PA	Nonattainment	Marginal	0.077	2014-2016	No	5	4,008,994	03
Phoenix-Mesa, AZ Riverside County	ΑZ	Nonattainment	Marginal	0.077	2014-2016	No	3	3,945,140	09
Coachella Valley),	CA	Nonattainment	Severe-15	0.087	2014-2016	No	1	425,029	09
Sacramento Metro,	CA	Nonattainment	Moderate	0.085	2014-2016	No	6	2,240,448	09
San Antonio, TX	TX	Nonattainment	Marginal	0.074	2015-2017	No	1	1,714,773	06
San Diego County, CA		Nonattainment	Moderate	0.081	2014-2016	No	1	3,077,287	
San Francisco Bay Area, CA	CA	Nonattainment	Marginal	0.074	2014-2016	No	9	6,969,365	
						Total Areas		Total Ctys	Total Populati (2010)

	Total	Total	Population
	Areas	Ctys	(2010)
Nonattainment	52	201	124,069,378
Maintenance	0	0	0
Nonattainment and Maintenance	52	201	124,069,378

Click underlin	Click underlined column heading to change report order  Current								
Area Name ▲ click area name for	State	Current Status	Current Classification or at Redesignation click for	Design Values	Monitoring Years	Meets NAAQS Determin. <sup>1</sup>	No. Ctys	2010 Population	EPA Region
state/county list			classification history						
San Joaquin Valley, CA	CA	Nonattainment	Extreme	0.094	2014-2016	No	8	3,841,897	09
San Luis Obispo (Eastern part), CA	CA	Nonattainment	Marginal	0.073	2014-2016	No	1	1,290	09
Sheboygan County, WI	WI	Nonattainment	Marginal	0.079	2014-2016	No	1	61,656	05
Southern Wasatch Front, UT	UT	Nonattainment	Marginal	0.073	2014-2016	No	1	515,895	
St. Louis, MO-IL	IL	Nonattainment	Marginal	0.072	2014-2016	No	2	539,338	
St. Louis, MO-IL	MO	Nonattainment	Marginal	0.072	2014-2016	No	4	1,696,841	07
Sutter Buttes, CA	CA	Nonattainment	Marginal	0.075	2014-2016	No	1	3	09
Tuolumne County, CA	CA	Nonattainment	Marginal	0.079	2014-2016	No	1	55,365	09
Tuscan Buttes, CA	CA	Nonattainment	Marginal (Rural Transport)		2014-2016	No	1	0	٧,
Uinta Basin, UT		Nonattainment	Marginal	0.08	2014-2016	No	2	47,317	
Ventura County, CA	CA	Nonattainment	Serious	0.077	2014-2016	No	1	820,808	09
Washington, DC- MD-VA	DC	Nonattainment	Marginal	0.072	2014-2016	No	1	601,723	03
Washington, DC- MD-VA	MD	Nonattainment	Marginal	0.072	2014-2016	No	5	2,303,870	03
Washington, DC- MD-VA	VA	Nonattainment	Marginal	0.072	2014-2016	No	9	2,230,623	03
Yuma, AZ	ΑZ	Nonattainment	Marginal	0.074	2014-2016	No	1	87,254	09
						Total Areas		Total Ctys	Total Population (2010)
Nonattainment						52		201	124,069,378
Maintenance						0 52		0	0
Nonattainment and	onattainment and Maintenance							201	124,069,378

<sup>&</sup>lt;sup>1</sup> See the Air Quality Design Value site spreadsheet footnotes for information about "Insufficient Data" Meets NAAQS Determinations.

Design Values in ppm. "Current Design Values" are current as of the posted Green Book date. Check the Air Quality Design Value site for design value updates.

County subtotals and grand totals may not equal sum of the counties. Part counties are only counted one time within groupings. Multi-state nonattainment areas are counted in totals as maintenance areas when all states in the area have been redesignated. Multi-state areas are counted only once in area totals.

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2018-10-31

# Attachment A2

Airport Hazards

## **Airport Hazards (CEST and EA)**

Legislation	Regulation	
	24 CFR Part 51 Subpart D	
References		
https://www.hudexchange.info/environmental-review/airport-hazards		
<ol> <li>To ensure compatible land use development, you must determine your site's proximity to civil and military airports. Is your project within 15,000 feet of a military airport or 2,500 feet of a civilian airport?</li> </ol> \[		
,	nmental-review/airport-haz	

1.	To ensure	compatible land use development, you must determine your site's proximity to		
	civil and military airports. Is your project within 15,000 feet of a military airport or 2,500			
	feet of a c	ivilian airport?		
	⊠No →	Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide a map showing that the site is not within the applicable distances to a military or civilian airport.		
	□Yes →	Continue to Question 2.		
2.		oject located within a Runway Potential Zone/Clear Zone (RPZ/CZ) or Accident Zone (APZ)?		
	□Yes, pro	oject is in an APZ → Continue to Question 3.		
	□Yes, pro	oject is an RPZ/CZ $\rightarrow$ Project cannot proceed at this location.		
	⊠No, pro	ject is not within an APZ or RPZ/CZ		
		sed on the response, the review is in compliance with this section. Continue to the orksheet Summary below. Provide a map showing that the site is not within either zone.		
3.	Is the pro	ject in conformance with DOD guidelines for APZ?		
	□Yes, pro	ject is consistent with DOD guidelines without further action.		
	Explain	how you determined that the project is consistent:		

Yes, project is consistent with DOD guidelines without further action.

Explain how you determined that the project is consistent:

<sup>→</sup> Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documentation supporting this determination.

No, the project cannot be brought into conformance with DOD guidelines and has not been approved.   Project cannot proceed at this location.
Project is not consistent with DOD guidelines, but it has been approved by Certifying
Officer or HUD Approving Official.
Explain approval process:
If mitigation measures have been or will be taken, explain in detail the proposed measures that must be implemented to mitigate for the impact or effect, including the timeline for implementation.
→ Based on the response, the review is in compliance with this section. Continue to the

#### **Worksheet Summary**

#### **Compliance Determination**

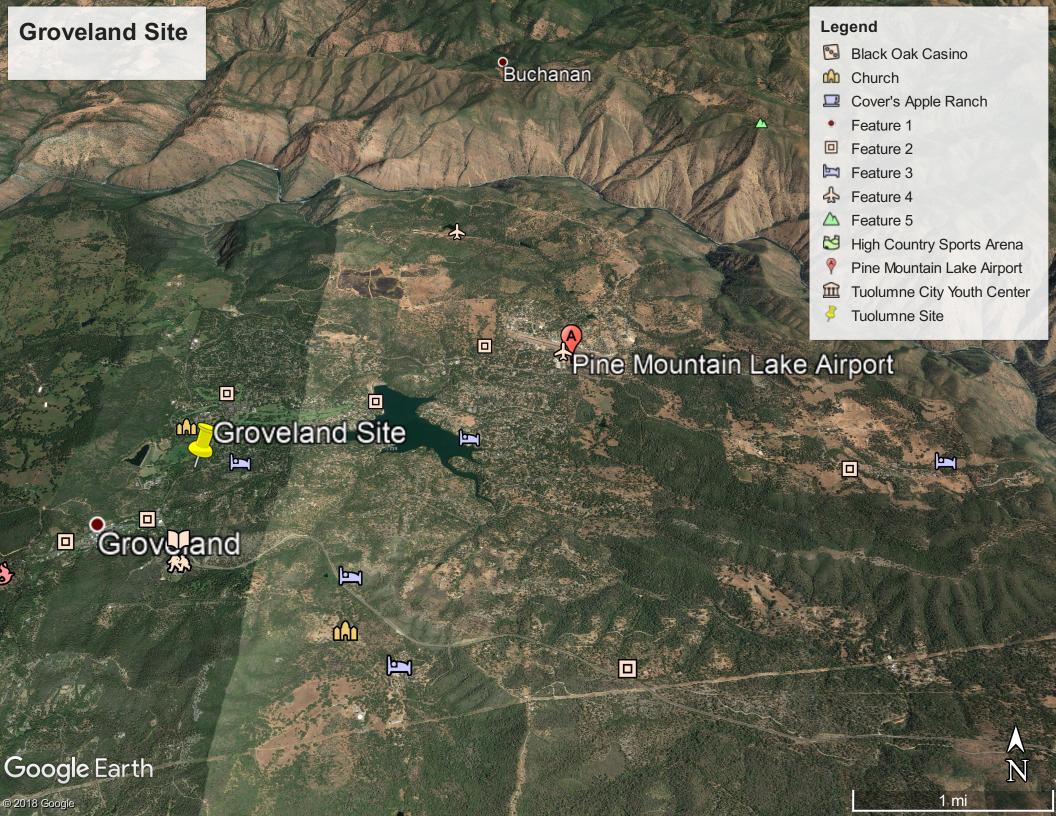
Provide a clear description of your determination and a synopsis of the information that it was based on, such as:

Worksheet Summary below. Provide any documentation supporting this determination.

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your region

The nearest airport to the project is the Pine Mountain Lake Airport is located approximately 2.75 miles west of the project site. The project would be located at a distance far enough from the airstrip and would not create a unique safety hazard for people residing or working within the project area. See attached map of the project's location in proximity to the Pine Mountain Lake Airport.

Are formal compliance	steps or mitigation required?
☐ Yes	
⊠ No	



# Attachment A3

Coastal Barrier and Coastal Zone Management Act

### **Coastal Barrier Resources (CEST and EA)**

General requirements	Legislation	Regulation
HUD financial assistance may not be	Coastal Barrier Resources Act	
used for most activities in units of	(CBRA) of 1982, as amended	
the Coastal Barrier Resources	by the Coastal Barrier	
System (CBRS). See 16 USC 3504 for	Improvement Act of 1990 (16	
limitations on federal expenditures	USC 3501)	
affecting the CBRS.		
	References	
https://www.hudexchange.info/environmental-review/coastal-barrier-resources		

Projects located in the following states must complete this form.

Alabama	Georgia	Massachusetts	New Jersey	Puerto Rico	Virgin Islands
Connecticut	Louisiana	Michigan	New York	Rhode Island	Virginia
Delaware	Maine	Minnesota	North Carolina	South Carolina	Wisconsin
Florida	Maryland	Mississippi	Ohio	Texas	

### 1. Is the project located in a CBRS Unit?

- Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide a map showing that the site is not within a CBRS Unit.
- $\square$ Yes  $\rightarrow$  Continue to Question 2.

<u>Federal assistance for most activities may not be used at this location.</u>

<u>You must either choose an alternate site or cancel the project.</u> In very rare cases, federal monies can be spent within CBRS units for certain exempted activities (e.g., a nature trail), after consultation with the Fish and Wildlife Service (FWS) (see <u>16 USC 3505</u> for exceptions to limitations on expenditures).

#### 2. Indicate your selected course of action.

Project cannot proceed at this location.

$\square$ After consultation with the F	WS the project was given approval to continue
$\rightarrow$ Based on the respon	se, the review is in compliance with this section. Continue to the
Worksheet Summary	below. Provide a map and documentation of a FWS approval.
☐ Project was not given approv	val

### **Worksheet Summary**

## **Compliance Determination**

Provide a clear description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your region

The project is located within Tuolumne County, California. See the attached map.
A se formula a serilla a serilla a serilla della constitución della della constitución della della constitución della constituc
Are formal compliance steps or mitigation required?
☐ Yes
⊠ No

**Coastal Zone Management Act (CEST and EA)** 

General requirements	Legislation	Regulation
Federal assistance to applicant	Coastal Zone Management	15 CFR Part 930
agencies for activities affecting	Act (16 USC 1451-1464),	
any coastal use or resource is	particularly section 307(c) and	
granted only when such	(d) (16 USC 1456(c) and (d))	
activities are consistent with		
federally approved State Coastal		
Zone Management Act Plans.		
References		
https://www.onecpd.info/environmental-review/coastal-zone-management		

Projects located in the following states must complete this form.

 $\square$ Yes  $\rightarrow$  Continue to Question 2.

make your determination.

Alabama	Florida	Louisiana	Mississippi	Ohio	Texas
Alaska	Georgia	Maine	New Hampshire	Oregon	Virgin Islands
American	Guam	Maryland	New Jersey	Pennsylvania	Virginia
Samona					
California	Hawaii	Massachusetts	New York	Puerto Rico	Washington
Connecticut	Illinois	Michigan	North Carolina	Rhode Island	Wisconsin
Delaware	Indiana	Minnesota	Northern	South Carolina	
			Mariana Islands		

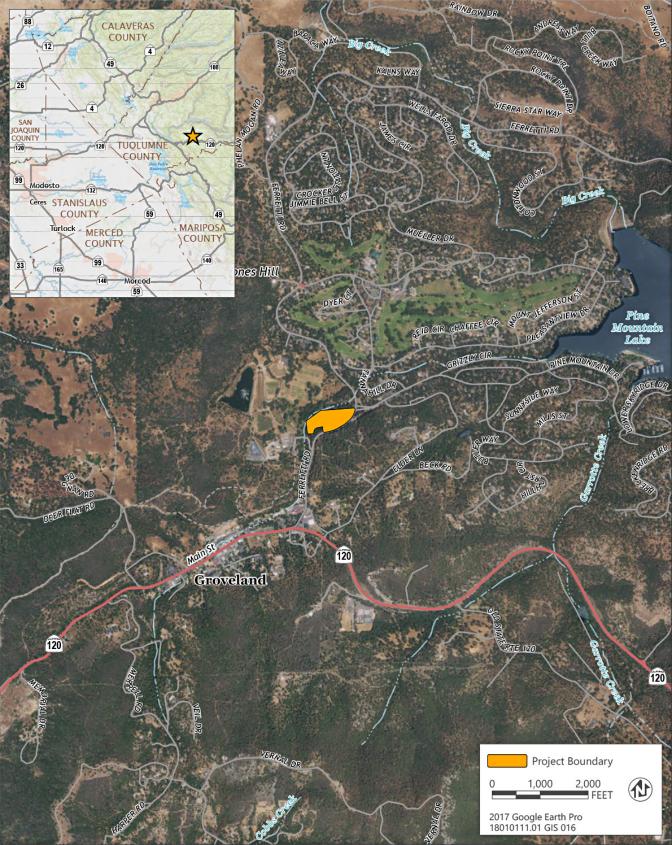
1.	Is the project located in, or does it affect, a Coastal Zone as defined in your state Coastal
	Management Plan?

$\boxtimes$ No $\rightarrow$	Based on the response, the review is in compliance with this section. Continue to the
	Worksheet Summary below. Provide a map showing that the site is not within a Coasta
	Zone.

2.

2. Does this project include activities that are subject to state review?				
	□Yes →	Continue to Question 3.		
	□No →	Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide documentation used to make your determination.		
3.	Has this project been determined to be consistent with the State Coastal Management Program?			
	☐Yes, wit	h mitigation. → Continue to Question 4.		
	•	thout mitigation. $\rightarrow$ Based on the response, the review is in compliance with this. Continue to the Worksheet Summary below. Provide documentation used to		

	$\square$ No, project must be canceled.		
	Project cannot proceed at this location.		
4.	Explain in detail the proposed measures that must be implemented to mitigate for the impact or effect, including the timeline for implementation.		
	→ Continue to the Worksheet Summary below. Provide documentation of the consultation (including the State Coastal Management Program letter of consistency) and any other documentation used to make your determination.		
<b>Co</b> Pro	orksheet Summary Impliance Determination Ovide a clear description of your determination and a synopsis of the information that it was sed on, such as:  Map panel numbers and dates  Names of all consulted parties and relevant consultation dates  Names of plans or reports and relevant page numbers  Any additional requirements specific to your region		
Т	he project location is 125 miles from the coast. See attached map.		
Ar	e formal compliance steps or mitigation required?  ☐ Yes ☑ No		



# Attachment A4

**Endangered Species and Wetlands** 

### **Endangered Species Act (CEST and EA)**

General requirements	ESA Legislation	Regulations				
Section 7 of the Endangered Species Act (ESA)	The Endangered	50 CFR Part				
mandates that federal agencies ensure that	Species Act of 1973 (16	402				
actions that they authorize, fund, or carry out	U.S.C. 1531 et seq.);					
shall not jeopardize the continued existence of	particularly section 7					
federally listed plants and animals or result in	(16 USC 1536).					
the adverse modification or destruction of						
designated critical habitat. Where their actions						
may affect resources protected by the ESA,						
agencies must consult with the Fish and Wildlife						
Service and/or the National Marine Fisheries						
Service ("FWS" and "NMFS" or "the Services").						
References						
https://www.hudexchange.info/environmental-review/endangered-species						

1.	Does the project involve any	activities that have the poten	tial to affect species or habitats
----	------------------------------	--------------------------------	------------------------------------

- ⊠No, the project will have No Effect due to the nature of the activities involved in the project.
  - → Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination.

agre	the project will have No Effect based on a letter of understanding, memorandum eement, programmatic agreement, or checklist provided by local HUD office. Explain your determination:	n of

- → Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination.
- $\boxtimes$ Yes, the activities involved in the project have the potential to affect species and/or habitats.  $\rightarrow$  Continue to Question 2.
- 2. Are federally listed species or designated critical habitats present in the action area? Obtain a list of protected species from the Services. This information is available on the <u>FWS</u> <u>Website</u> or you may contact your <u>local FWS</u> and/or <u>NMFS</u> offices directly.

⊠No, the project will have No Effect due to the absence of federally listed species and designated critical habitat.

→ Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination. Documentation

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Exception: If finding was made based on procedures provided by a letter of understanding, memorandum of agreement, programmatic agreement, or checklist provided by local HUD office, provide whatever documentation is mandated by that agreement.

	$\square$ No, the Service(s) did not concur with the finding. $\rightarrow$ Continue to Question 5.
5.	Formal consultation is required  Section 7 of ESA (16 USC 1536) mandates consultation to resolve potential impacts to federally listed endangered and threatened species and critical habitats. If a HUD assisted project may affect any endangered or threatened species or critical habitat, then compliance is required with Section 7. See 50 CFR Part 402 Subpart B Consultation Procedures.
	→ Once consultation is complete, the review is in compliance with this section. Continue to Question 6 and provide the following:
	(1) A biological assessment, evaluation, or equivalent document
	(2) Biological opinion(s) issued by FWS and/or NMFS
	(3) Any other documentation of formal consultation
6.	For the project to be brought into compliance with this section, all adverse impacts must be mitigated. Explain in detail the proposed measures that will be implemented to mitigate for the impact or effect, including the timeline for implementation.  Mitigation as follows will be implemented:
	□ No mitigation is necessary.  Explain why mitigation will not be made here:
Со	orksheet Summary  mpliance Determination  ovide a clear description of your determination and a synopsis of the information that it was

Provide a clear description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your region

A Biological Constraints Analysis was conducted for this project and the complete report is included in Attachment A4 of Appendix A. To conduct the constraints analysis, a reconnaissance-level survey was conducted on August 27, 2018. In addition, information on sensitive biological resources previously recorded at the project sites was collected through review of U.S. Fish and Wildlife Service (USFWS), USFWS National Wetlands Inventory, California Native Plant (CNPS) Inventory of Rare Endangered Plants; and review of the *Tuolumne County Wildlife Handbook* (Tuolumne County 1987).

Based on the site visit and literature review, the project site does not provide suitable habitat for California red-legged frog (*Rana draytonii*) or foothill yellow-legged frog (*Rana boylii*), is outside of the currently known delta smelt (*Hypomesus traspacificus*) range, and is not within designated critical habitat for any federally listed species; therefore, these species and critical habitat would not be affected. Refer to attached report for additional information.

Are formal com	pliance steps or mitigation required?
☐ Yes	
⊠ No	

#### Wetlands (CEST and EA)

General requirements Legislation Regulation						
General requirements	Legisiation	Regulation				
Executive Order 11990 discourages that direct or	Executive Order	24 CFR 55.20 can				
indirect support of new construction impacting	11990	be used for				
wetlands wherever there is a practicable		general guidance				
alternative. The Fish and Wildlife Service's National		regarding the 8				
Wetlands Inventory can be used as a primary		Step Process.				
screening tool, but observed or known wetlands						
not indicated on NWI maps must also be						
processed. Off-site impacts that result in draining,						
impounding, or destroying wetlands must also be						
processed.						
References						
https://www.hudexchange.info/environmental-review/wetlands-protection						

1. Does this project involve new construction as defined in Executive Order 11990, expansion of a building's footprint, or ground disturbance?

The term "new construction" shall include draining, dredging, channelizing, filling, diking, impounding, and related activities and any structures or facilities begun or authorized after the effective date of the Order.

- □ No → Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below.
- $\boxtimes$  Yes  $\rightarrow$  Continue to Question 2.

## 2. Will the new construction or other ground disturbance impact an on- or off-site wetland?

The term "wetlands" means those areas that are inundated by surface or ground water with a frequency sufficient to support, and under normal circumstances does or would support, a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds. Wetlands under E.O. 11990 include isolated and non-jurisdictional wetlands.

- ⋈ No, a wetland will not be impacted in terms of E.O. 11990's definition of new construction.
  - → Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide a map or any other relevant documentation to explain your determination.

Yes, there is a wetland that be impacted in terms of E.O. 11990's definition	of
new construction.	

	Provide a completed 8-Step Process as well as all documents used to make your determination, including a map. Be sure to include the early public notice and the final notice with your documentation.  Continue to Question 3.
3.	For the project to be brought into compliance with this section, all adverse impacts must be mitigated. Explain in detail the exact measures that must be implemented to mitigate for the impact or effect, including the timeline for implementation.
	Which of the following mitigation actions have been or will be taken? Select all that
	apply:
	□ Permeable surfaces
	<ul> <li>Natural landscape enhancements that maintain or restore natural hydrology through infiltration</li> </ul>
	☐ Native plant species
	☐ Bioswales
	☐ Evapotranspiration
	☐ Stormwater capture and reuse
	$\square$ Green or vegetative roofs with drainage provisions
	☐ Natural Resources Conservation Service conservation easements
	☐ Compensatory mitigation

→You must determine that there are no practicable alternatives to wetlands

development by completing the 8-Step Process.

#### **Worksheet Summary**

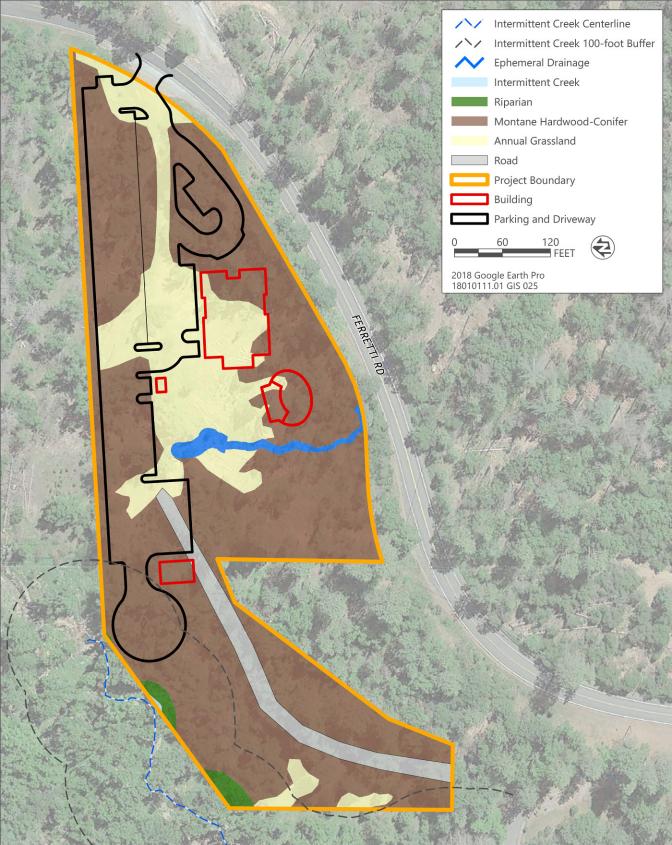
#### **Compliance Determination**

Provide a clear description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your region

Based on the site visit, aquatic resources delineation, and online searches conducted for the biological analysis, there is an ephemeral drainage that conveys water from the existing onsite road and the south side of Ferretti Road onto the parcel and eventually drains into the unnamed intermittent creek. High water flows have created a gully, but no wetland vegetation was observed within the drainage. The bed and bank dissipate and water overflows as evident by bent grasses and debris flow. Because this drainage drains into the intermittent creek, this drainage may also be considered a water of the United States. However, construction of project facilities would avoid this feature. No impact would occur. See
Attachments.

Are form	nal compliance steps or mitigation required?
[	□ Yes
	⊠ No



## Biological Constraints Analysis for the

# **Tuolumne County Community Resilience Center Projects (Tuolumne and Groveland)**

#### PREPARED BY:

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September 2018

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### **ACRONYMS AND ABBREVIATIONS**

AG Agriculture ASP Aspen Grove

bop Blue Oak-bull pine woodland

bow Blue oak woodland

BRCH Biological Resources Conservation Handbook

BTF Big Trees Forest

CDFW California Department of Fish and Wildlife
CEQA California Environmental Quality Act
CESA California Endangered Species Act

chc Chamise chaparral

CLF Cliff

CNDDB California Natural Diversity Database

CNPS California Native Plant Society

CVRWQCB Central Valley Regional Water Quality Control Board

dbh diameter at breast height

DFW California Department of Fish and Wildlife

ESA Endangered Species Act
GAB Gabbrodioritic soils

jpn Jeffrey pine

lowLive oak woodlandlpnLodgepole pinemchMixed chaparralmcpMontane chaparral

mhc Montane hardwood-conifer

mhw Montane hardwood NGS Native Grasslands

NMFS National Marine Fisheries Service

NPDES National Pollution Discharge Elimination System

OGC Old Growth Coniferous Forest

OGO Old Growth Oak

PGS Native Perennial Grasslands

ppn Ponderosa pine

rfr Red Fir

scnSubalpine coniferSERSerpentine SoilssmcSierran mixed conifer

SWRCB State Water Resources Control Board TCWH Tuolumne County Wildlife Handbook

TPZ Timberland Production Zone
USFWS U.S. Fish and Wildlife Service
USGS United States Geological Survey

VOW Valley Oak Woodland

wfr White fir

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### 1 INTRODUCTION

This report presents the results of a biological constraints analysis for the Tuolumne Resilience Center Project located in Tuolumne and Groveland, California. The Tuolumne site consists of a parcel that would be located northeast of the intersection of Cherry Valley Boulevard and Bay Ave (APN 626702300) and a parcel located south of the intersection of Cherry Valley Boulevard and Bay Ave (APN 626702800) in the Tuolumne USGS 7.5-minute quadrangle (Exhibit 1). The Groveland site would be located on sections of two parcels located west of the intersection of Ferretti Road and Pine Mountain Drive (APNs 660306300 and 660903200) in the Groveland USGS 7.5-minute quadrangle (Exhibit 1). The proposed project would construct and operate Tuolumne County Resilience Centers at both locations. The purpose of this analysis is to identify the potential for sensitive biological resources to occur on the sites and recommend measures to avoid affecting sensitive biological resources.

### 2 METHODS

Potential biological constraints were evaluated by Ascent wildlife biologist Carlos Alvarado during a reconnaissance-level survey on the project sites on August 27, 2018. Information on sensitive biological resources previously recorded in the project sites was collected through review of U.S. Fish and Wildlife Service (USFWS) species lists, a search of the California Natural Diversity Database (CNDDB), and other existing documentation pertaining to biological resources in the region. Resources and data reviewed included the following:

- ▲ CNDDB record 5-mile search for the project sites California Department of Fish and Wildlife (CNDDB 2018);
- USFWS Information for Planning and Consultation (IPaC) automatically generated list of Federal Endangered and Threatened Species that occur in or may occur within the Tuolumne and Groveland sites;
- USFWS National Wetlands Inventory (http://www.fws.gov/wetlands/index.html). Updated June 2018;
- ▲ California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (online edition, v8-03). Accessed on August 23, 2018; and
- Tuolumne County Wildlife Handbook (Tuolumne County 1987).

Based on the literature review and field site visit, the project sites do not provide suitable habitat for the California red-legged frog (*Rana draytonii*), are outside of the currently known of delta smelt (*Hypomesus traspacificus*) range, and are not within designated critical habitat for any federally listed species; therefore, these species and critical habitat are not discussed further in this report.

Tuolumne County adopted the Tuolumne County Wildlife Handbook (TCWH) in 1987 (Tuolumne County 1987). The TCHW and its associated maps detail the distribution of various habitat types throughout the county, evaluate their relative biological value, and established Tuolumne County's standards and thresholds for evaluating potential effects on biological resources pursuant to CEQA. The wildlife maps also provide some limited species information from local sources. The analysis in this report uses the TCWH as a guideline for evaluating potential impacts pursuant to CEQA. Where the TCWH does not provide guidance, prevailing state and/or federal regulations are used. A draft Biological Resources Review Guide was prepared in 2011 but has not been adopted and is not used in this report.

The TCWH wildlife maps were not immediately available and contain older information, and thus the CalFire's Fire Resources Assessment Program (FRAP), which uses the California Wildlife Habitat Relationship System (CWHR) classifications, were consulted to identify the habitat classification on both sites. FRAP only identified Annual Grassland habitat within the Tuolumne site, and Montane Hardwood and Ponderosa habitats in the Groveland site. Field survey observations were used to refine the habitats presented in Table 1 and Exhibit 2 and Exhibit 3 and follows the CHWR classification system.

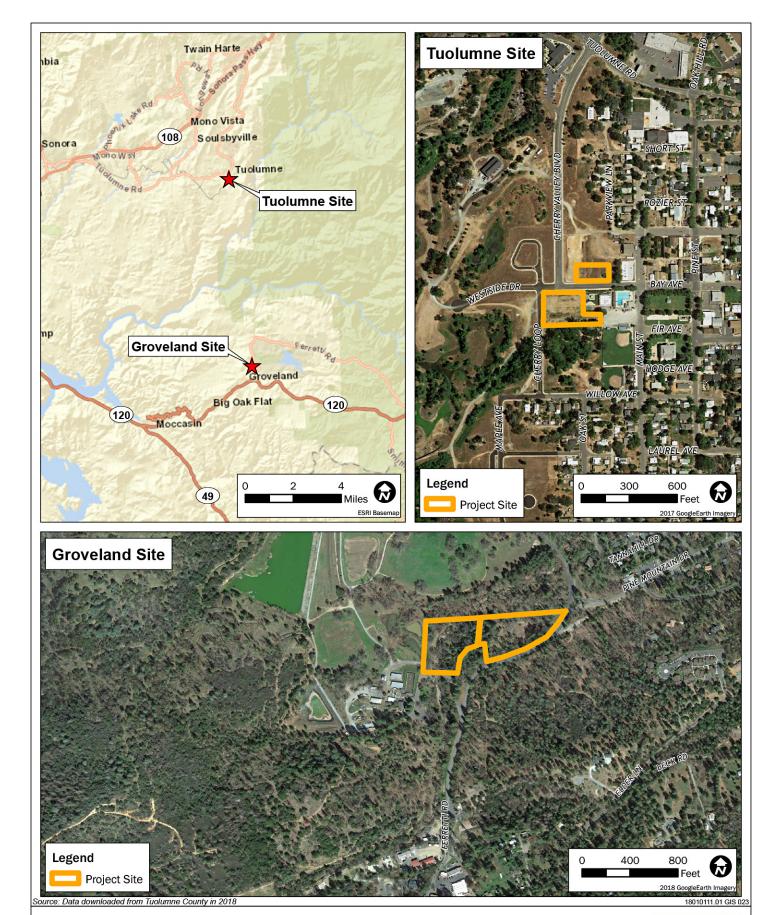


Exhibit 1 Project Site



## 3 REGULATORY SETTING

Biological resources in California are protected and/or regulated by a variety of federal and state laws and policies. Key statutes and regulations applicable to the proposed project are discussed below.

#### 3.1 FEDERAL REGULATIONS

## 3.1.1 Federal Endangered Species Act

Pursuant to the Endangered Species Act (ESA), USFWS and National Marine Fisheries Service (NMFS) have authority over projects that may affect the continued existence of federally listed (threatened or endangered) species. Section 9 of ESA prohibits any person from "taking" an endangered or threatened fish or wildlife species or removing, damaging, or destroying a listed plant species on federal land or where the taking of the plant is prohibited by state law. Take is defined under ESA, in part, as killing, harming, or harassing. Under federal regulations, take is further defined to include habitat modification or degradation where it results in death or injury to wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering.

If a proposed project would result in take of a federally listed species, the project applicant must consult with USFWS or NMFS before the take occurs under Section 10(a) of ESA or Section 7 of ESA if another federal agency is involved in the action. Conservation measures to minimize or compensate for the take are typically required.

#### 3.1.2 Clean Water Act

Section 404 of the Clean Water Act (CWA) requires project proponents to obtain a permit from the U.S. Army Corps of Engineers (USACE) before performing any activity that involves any discharge of dredged or fill material into waters of the United States, including wetlands. Waters of the United States include navigable waters of the United States, interstate waters, tidally influenced waters, and all other waters where the use, degradation, or destruction of the waters could affect interstate or foreign commerce, tributaries to any of these waters, and wetlands that meet any of these criteria or that are adjacent to any of these waters or their tributaries. Many surface waters and wetlands in California meet the criteria for waters of the United States.

In accordance with Section 401 of the CWA, projects that apply for a USACE permit for discharge of dredged or fill material must obtain water quality certification from the appropriate regional water quality control board (RWQCB) indicating that the action would uphold state water quality standards.

#### 3.2 STATE REGULATIONS

## 3.2.1 California Endangered Species Act

Pursuant to the California Endangered Species Act (CESA), a permit from the California Department of Fish and Wildlife (DFW) is required for projects that could "take" a species state listed as threatened or endangered. Section 2080 of CESA prohibits take of state listed species. Under CESA, take is defined as any activity that would directly or indirectly kill an individual of a species. The definition does not include "harm" or "harass" like the federal act. As a result, the threshold for take under CESA is higher than under ESA (i.e., habitat modification is not necessarily considered take under CESA). Authorization for take of state-listed

species can be obtained through a California Fish and Game Code Section 2081 incidental take permit. California Fish and Game Code.

The California Fish and Game Code identifies Fully Protected Species in Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code. These statutes prohibit take or possession of fully protected species and do not provide for authorization of incidental take. DFW has informed nonfederal agencies and private parties that their actions must avoid take of any fully protected species.

In addition, Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptors (e.g., hawks, owls, eagles, and falcons), including their nests or eggs.

## 3.2.2 California Environmental Quality Act

CEQA applies to projects proposed to be undertaken or requiring approval by state and local governmental agencies. "Projects" are public agency actions with potential to have an impact on the physical environment. Once an activity is determined to be a "project" under CEQA, the lead agency must decide whether it is categorically or statutorily exempt. If it is not exempt, the lead agency must assess the potential for significant environmental effects to occur as a result of the project. For this analysis, thresholds of significance related to biological resources, as described below, are used to determine if a significant impact may occur. The significance criteria are based on applicable parts of Appendix G of the State CEQA Guidelines.

The project would have a significant impact on biological resources if it would:

- 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 DFW or USFWS;
- ▲ have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by DFW or USFWS;
- ▲ have a substantial adverse effect on federally-protected wetlands, as defined by Section 404 of the Clean Water Act, through direct removal, filling, hydrological interruption, or other means;
- 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;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or State conservation plan.

#### California Fish and Game Code Sections 3503 and 3503.5

Section 3503 of the Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 of the California Fish and Game Code states that it is unlawful to take, possess, or destroy any raptors (i.e., species in the orders *Falconiformes* and *Strigiformes*), including their nests or eggs. Typical violations include destruction of active nests as a result of tree removal or disturbance caused by project construction or other activities that cause the adults to abandon the nest, resulting in loss of eggs and/or young.

#### California Fish and Game Code Section 1602—Streambed Alteration

All diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California that supports wildlife resources are subject to regulation by CDFW under Section 1602 of the California Fish and Game Code. Under Section 1602, it is unlawful for any person, governmental agency, or public utility to do the following without first notifying CDFW:

- substantially divert or obstruct the natural flow of, or substantially change or use any material from, the bed, channel, or bank of any river, stream, or lake; or
- deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

The regulatory definition of a stream is a body of water that flows at least periodically or intermittently through a bed or channel that has banks and supports fish or other aquatic life. This definition includes watercourses with a surface or subsurface flow that supports or has supported riparian vegetation. CDFW's jurisdiction within altered or artificial waterways is based on the value of those waterways to fish and wildlife. A CDFW streambed alteration agreement must be obtained for any action that would result in an impact on a river, stream, or lake.

## 3.2.3 Regional Water Quality Control Board

The State Water Resources Control Board (SWRCB) and each of nine local RWQCBs has jurisdiction over "waters of the State" pursuant to the Porter-Cologne Water Quality Control Act, Water Code Section 13000 et seq., which are defined as any surface water or groundwater, including saline waters, within the boundaries of the State. The SWRCB has issued general Waste Discharge Requirements regarding discharges to "isolated" waters of the State (Water Quality Order No. 2004-0004-DWQ, Statewide General Waste Discharge Requirements for Dredged or Fill Discharges to Waters Deemed by the U.S. Army Corps of Engineers to be Outside of Federal Jurisdiction). The local RWQCB enforces actions under this general order for isolated waters not subject to federal jurisdiction and is also responsible for the issuance of water quality certifications pursuant to Section 401 of the CWA for waters subject to federal jurisdiction.

## 3.2.4 Oak Woodlands Conservation Act and California Senate Bill 1334/Public Resources Code Section 21083.4

In 2001, the California legislature enacted the Oak Woodlands Conservation Act (Assembly Bill 242), which established requirements for the preservation and protection of oak woodlands and trees, and allocated funding managed by the Wildlife Conservation Board. To qualify to use these funds, counties and cities must adopt an oak conservation management plan. In 2004, to expand these conservation efforts, the legislature passed Senate Bill 1334 (*Oak Woodlands Conservation: Environmental Quality*), which added Section 21083.4 to the Public Resources Code. This statute requires that a county must determine whether a project would result in a significant impact on oak woodlands and, if it is determined that a project may result in a significant impact on oak woodlands, then the County shall require one or more of the following mitigation measures:

- conserve oak woodlands through the use of conservation easements;
- plant an appropriate number of trees, including maintenance of plantings and replacement of failed plantings;
- contribute funds to the Oak Woodlands Conservation Fund for the purpose of purchasing oak woodlands conservation easements; or

other mitigation measures developed by the county.

#### 3.3 LOCAL REGULATIONS

## 3.3.1 Tuolumne County General Plan

The existing Tuolumne County General Plan was adopted on December 26, 1996. It has a planning horizon of 25 years. The Conservation and Open Space element contains goals and policies related to the protection of biological resources and water resources relevant to the project.

#### **BIOLOGICAL RESOURCES**

**GOAL 4.J:** Employ a proactive planning approach to conserve biological resources by adopting predictable and consistent evaluation and mitigation standards.

#### **Policies**

- 4.J.1: Recognize that agricultural and timberlands of 37 acres or larger provide open areas and habitat for wildlife and that most agricultural and timber management land uses are compatible with the conservation of biological resources.
- 4.J.2: Maintain a biological resources conservation program to facilitate a consistent, fair and cost-effective approach to biological resource mitigation and provides for permit streamlining while conserving important biological resources and protecting the private property rights of the individual property owners while fulfilling all State and Federal mandates.
- 4.J.3: Recognize that Tuolumne County contains a large percentage of publicly owned lands that provide open space for use by wildlife in formulating a biological resources conservation program for mitigation of impacts associated with discretionary entitlements subject to the California Environmental Quality Act (CEQA) on biological resources.
- 4.J.4: Maintain an updated biological resources database to help eliminate redundant and costly biological studies.
- 4.J.5: Comply with the "no net loss" policy, and any changes thereto, for wetland areas regulated by the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, and the California Department of Fish and Game by requiring new development which is subject to review under the California Environmental Quality Act (CEQA) to achieve "no net loss" of wetland habitat values through avoidance or appropriate mitigation in accordance with the County's Biological Resources Conservation Program referenced in Implementation Program 4.J.a and through the CEQA process.
- 4.J.6: Require new development which is subject to review under the California Environmental Quality Act (CEQA) to achieve "no net loss" of habitat values for Valley Oak Woodland (VOW), Serpentine Soils (SER), Old Growth Coniferous Forest (OGC), Big Trees Forest (BTF), Old Growth Oak (OGO), Aspen Grove (ASP), Native Perennial Grasslands (PGS), Native Grasslands (NGS), and Cliff (CLF) habitats through avoidance or appropriate mitigation in accordance with the County's Biological Resources Conservation Program referenced in Implementation Program 4.J.a and through the CEQA process.
- 4.J.7: Recognize that wildlife, fish and their habitats are important resources, which are valued by the County=s citizens for recreational nature study, hunting and fishing, scientific research, education, shade, beauty, and open space. These resources enhance property value and attract visitors, a major source of revenue for the local economy. [Resolution 41-98 adopted March 24, 1998]

#### **Implementation Programs**

#### ▲ 4.J.a: Maintain a Biological Resources Conservation Program

Maintain a Biological Resources Conservation Program which requires a land owner and/or applicant requesting a discretionary entitlement subject to the California Environmental Quality Act (CEQA) to mitigate impacts to biological resources in the manner set forth in the Tuolumne County Biological Resources Conservation Handbook (BRCH). This Handbook will be updated periodically as necessary to reflect changes in State and Federal laws or County ordinances. The adoption of the Tuolumne County Biological Conservation Handbook by the Board of Supervisors will supersede the Tuolumne County wildlife Handbook adopted by the Board of supervisors through Resolution 230-96 on December 26, 1996, to serve as the interim biological Resources Conservation Handbook.

The Tuolumne County Biological Resources Conservation Handbook shall be prepared in coordination with the State and Federal agencies having jurisdiction over such resources and the purpose of the Handbook shall be to provide a consistent, fair and cost effective approach to biological resource mitigation and conservation while providing for streamlining of the land use permitting process.

The Tuolumne County Biological Resources Conservation Handbook shall be implemented to mitigate impacts associated with a discretionary entitlement subject to the California Environmental Quality Act (CEQA). The Biological Resources Conservation Handbook shall provide an applicant the same or similar optional methodology for identifying impacts to biological resources and selecting mitigation measures for those impacts as contained in the Tuolumne County Wildlife Handbook. The Biological Resources Conservation Handbook and its associated site evaluations, aerial photographs, Geographic Information System biological resources inventory and database and the biological resources maps shall not be utilized to designate areas as Open Space on the General Plan land use maps. Zoning of land to Open Space to mitigate impacts on biological resources on private property shall only be accomplished in conjunction with a discretionary entitlement subject to CEQA and as agreed to by the property owner and/or applicant of the entitlement who has selected the Biological Resources Conservation Handbook option for such mitigation.

The Tuolumne County Biological Resources Conservation Handbook shall articulate the role and duties of the Planning Department relative to its implementation.

The Tuolumne County Biological Resources Conservation Handbook shall, at a minimum, address: a priority system of evaluating relative values of wildlife habitats on private lands, mitigation measures for listed threatened and endangered species and other special status species; avoidance of Second Priority habitats including setbacks from wetland areas; guidelines for determining the necessity for biological studies for special status species and habitats; mitigation for Third Priority habitats to avoid cumulative adverse impacts to those habitats; mitigation for offsetting impacts to habitats and species including avoidance, conservation easements, mitigation banks, enhancements and restoration of on-site and offsite properties to mitigate on-site impacts.

In formulating the Biological Resources Conservation Handbook, coordinate with the U.S. Fish and Wildlife Service, California Department of Fish and Game and other governmental agencies having jurisdiction over biological resources to develop and implement the following to mitigate cumulative impacts on biological resources:

- 1. Guidelines for determining when surveys for rare, threatened and endangered species shall be required on private lands in conjunction with land development applications.
- 2. Inventory and map of Gabbrodioritic soils (GAB), assessment of potential impacts to that habitat type and mitigation program for potential impacts.
- 3. Map of, and mitigation measures for impacts to, important deer migration corridors through the following Third Priority habitats: Ponderosa pine (ppn), Sierran mixed conifer (smc), Red Fir (rfr),

Lodgepole pine (lpn), White fir (wfr), Subalpine conifer (scn), and Jeffrey pine (jpn) located above 3.000 feet in elevation.

- 4. Minimum acreage preservation standards for the following third priority habitats: Blue oak woodland (bow), Blue Oak-bull pine woodland (bop), Chamise chaparral (chc), Mixed chaparral (mch), Montane chaparral (mcp), Montane hardwood (mhw), and Montane hardwood-conifer (mhc) and, if so determined by the California Department of Fish and Game, Live oak woodland (low) habitat.
- 5. Map of the distribution of the Live oak woodland (low) habitat, assessment of impacts to that habitat and mitigation program for potential impacts.
- 6. Minimum criteria for establishing and/or preserving existing species movement corridors between communities and buffers along riparian corridors to maintain the ability of wildlife to move to and from various habitats.

The Tuolumne County Biological Resources Conservation Handbook shall be updated at least once every five years to reflect new technical information and, if necessary, changes in local resource conditions. [Resolution 261-97 adopted December 2, 1997)]

#### ▲ 4.J.b: Recognize Open Space Value of Agricultural and Timber Lands

Recognize the open space provided by agricultural and timberlands by exempting lands designated on the General Plan land use maps as Timberland Production Zone (TPZ), or Agriculture (AG) when the parcel is 37 acres or larger and supports an agricultural or residential land use or is vacant, from the County's programs for conserving non-targeted biological resources. [Resolution 41-98 adopted March 24, 1998]

#### ■ 4.J.c: No Net Loss of Wetland Habitat

Coordinate with the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, and the California Department of Fish and Game and any other governmental agency having jurisdiction over wetlands to comply with applicable Federal and State laws concerning "no net loss" of wetland areas. Develop, in coordination with these agencies, programs for mitigating impacts to wetlands that prioritize avoidance, on-site or off-site protection, and existing wetland acquisition higher than creation of new wetlands and include the programs in the County's Biological Resources Conservation Handbook referenced in Implementation Program 4.J.a and coordinate with these agencies at all levels of review of land development applications requiring a discretionary entitlement subject to the California Environmental Quality Act which do not utilize the County's Biological Resources Conservation Handbook to identify appropriate mitigation measures and to address Federal and State wetland laws. [Resolution 41-98 adopted March 24, 1998]

#### ▲ 4.J.d: No Net Loss of Second Priority Habitat Values

Require new development which is subject to review under the California Environmental Quality Act (CEQA) to achieve "no net loss" of habitat values for Valley Oak Woodland (VOW), Serpentine Soils (SER), Old Growth Coniferous Forest (OGC), Big Trees Forest (BTF), Old Growth Oak (OGO), Aspen Grove (ASP), Native Perennial Grasslands (PGS), Native Grasslands (NGS), and Cliff (CLF) habitats through avoidance or appropriate mitigation in accordance with the County's Biological Resources Conservation Program referenced in Implementation Program 4.J.a and through the CEQA process. Develop, in coordination with Federal and State agencies with jurisdiction over these habitats, programs for mitigating impacts to such habitats for inclusion in the County's Biological Resources Conservation Handbook referenced in Implementation Program 4.J.a and coordinate with these agencies at all levels of review of land development applications requiring a discretionary entitlement subject to the California Environmental Quality Act which do not utilize the County's Biological Resources Conservation Handbook to identify appropriate mitigation measures and to address Federal and State policies relative to these habitats.

▲ 4.J.e: Minimize Conflicts Between Wildlife and Vehicular Traffic

Work with the California Department of Fish and Game, the California Highway Patrol and other resource and public safety officials to address the impacts associated with, and identify mitigation for, the inherent conflicts between wildlife and roadways.

#### WATER RESOURCES

**GOAL 4.L:** Conserve the quality and quantity of the County's water resources, while protecting the rights of the land owner.

#### **Policies**

- 4.L.1: Protect the quality of the County's water resources. Prevent surface water and groundwater contamination by insuring Tuolumne County development standards are adequate to protect water resources. [Resolution 41-98 adopted March 24, 1998]
- **4.L.2:** Require new urbanization to locate in areas where public water and sewer services are available or can be developed. [Resolution 41-98 adopted March 24, 1998]
- 4.L.3: Support the efforts of the local water agencies in identifying and procuring new water resources to meet projected future demands from growth in the County, including the use of reclaimed water for non-potable uses.
- 4.L.4: Encourage the conservation of water resources in a systematic manner that is sensitive to the maintenance of water quality, natural capacities, ecological values, and consideration of the many water related needs of the County.
- 4.L.5: Require new development to connect to public water and public sewer where harmful areawide impacts to groundwater exist based on known hazard areas. [Resolution 41-98 adopted March 24, 1998]
- 4.L.6: Recognize that the decisions made by the County of Tuolumne concerning water resources has an effect on the State of California's ability to meet its water supply needs for all beneficial uses of water, including urban, agricultural, environmental and other uses, such as recreation and power generation and that Tuolumne County has an important stakeholder interest in the success of the State's water management efforts.
- 4.L.7: Support the State's efforts to implement the Water Resources and Delta Restoration Clean, Safe, Reliable Water Supply for Cities, Farms, and the Environment Act of 1996 by encouraging water conservation and watershed rehabilitation programs initiated by water agencies, other public agencies and private entities.
- 4.L.8: Participate in the State and Federal sponsored CAL-FED program to develop comprehensive and long-term solutions to the problems of the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (bay-delta) which is nationally recognized as both an important feature of the State's environment and an important component of the State's water supply system by promoting improved management of watersheds in Tuolumne County to contribute to long-term bay-delta recovery and protection.
- 4.L.9: Recognize that clean water is essential to the public health, safety and welfare; fosters economic development and job creation; protects the environment; maintains fish and wildlife; and supports recreation.
- **4.L.10:** Encourage water resources to be protected from pollution, conserved, and recycled whenever possible to provide for continued economic, community, and social growth.

■ 4.L.11: Promote improved watershed health and improved water quality and water quantity yields of the watersheds in Tuolumne County.

#### **Implementation Programs**

#### ▲ 4.L.a: Develop Conservation Program for Water Resources

Develop a conservation program for important water resources in conjunction with the County's biological resources conservation program which has been sanctioned by the Federal and State agencies having jurisdiction over such resources to facilitate a consistent, fair and cost-effective approach to water resource mitigation and encourages and supports the restoration of degraded riparian areas through public education programs demonstrating the value of healthy riparian habitats in protecting water quality, and provide for permit streamlining while conserving important water resources. Applicants seeking discretionary entitlements subject to the California Environmental Quality Act shall have the option of using the County's water resource conservation program to mitigate impacts from their projects on such resources or pursue a project specific mitigation program to comply with environmental regulations in effect at that time. They shall also be entitled to mitigation credits for restoration projects in degraded riparian areas as provided in the County=s water resources conservation program. Important water resource areas include reservoirs, lakes, ponds, marshes, springs, vernal pools, wetlands, rivers, water supply ditches, and perennial and intermittent streams as identified on the United States Geological Survey (USGS) maps. The water conservation program shall address the following minimum standards:

- 1. Provision for the continued implementation of the National Pollution Discharge Elimination System (NPDES) permitting program enforced by the Central Valley Regional Water Quality Control Board (CVRWQCB).
- 2. Maintaining vegetative filters and/or buffers adjacent to water resources to assist in reducing the introduction of sediments and pollutants into surface water resources.
- 3. Best Management Practices for grading on steep slopes, maintaining sediments on- site, preserving adjacent parcel owner property values by avoiding or reducing substantial runoff over neighboring properties and revegetating and/or terracing on large cut and fill slopes.
- 4. Flexible development standards for reducing grading, where appropriate.
- 5. Methods for avoiding and maintaining water resources which are to be avoided during construction and maintained on-site.
- 6. Assignment of responsibility for the maintenance of sedimentation control facilities on and revegetating graded areas that are abandoned during construction. [Resolution 41-98 adopted March 24, 1998]

#### ■ 4.L.b: Land Uses Adjacent to Public Drinking Water Reservoirs

Participate in the State Source Water Assessment Program. Amend Tuolumne County Ordinance Codes to provide for local source water protection and wellhead protection programs to protect the sources of drinking water supplies in compliance with the State Source Water Assessment Program. In the interim, require new areas proposed for urban land uses (HDR, MDR, LDR, NC, GC, HC, and MU) and industrial land uses (BP, LI, and HI) on the General Plan maps to avoid being located above public drinking water reservoirs and open (uncovered or unpiped) public drinking water conveyances (ditches, flumes, and canals) where discharge or contamination is likely to occur, unless public water and sewer are available or can be developed, or impacts can be mitigated. [Resolution 41-98 adopted March 24, 1998]

#### ▲ 4.L.c: Landscaping Standards

Promote the use of xeriscape landscaping plants and materials to conserve water, the use of water conserving irrigation systems for landscaping, and the use of reclaimed or reuse water for irrigation.

#### ▲ 4.L.d: Provide for Graywater Irrigation

Allow the subsurface irrigation of non-food plants from sinks, showers, washing machines, car washing bays and other non-sewage sources, and educate property owners in the proper use of graywater systems.

#### **▲** 4.L.e: Consider Regulating Groundwater Exportation

Consider regulating the exportation of groundwater to preserve the County's limited groundwater reserves for use by its residents and businesses.

#### ▲ 4.L.f: Require Confirmation of Water Availability for New Development

Continue to require new urban development needing discretionary entitlements to secure a letter from the jurisdictional public water agency stating that the proposed project can be served by that agency and that there is an available water supply.

#### ▲ 4.L.g: Require Connection to Public Sewer

Continue to require new urban residential development with a density of three dwelling units per acre, or greater, and commercial development, except that on land designated Special Commercial (SC) by the General Plan, to connect to public sewer.

#### ▲ 4.L.h: Require Connection to Public Water

Continue to require all new urban development, except on land designated as Special Commercial (SC) by the General Plan land use maps, to be served with public water.

#### ▲ 4.L.i: Create and Update Septic System Hazard Maps

Create and update, as needed, Septic System Hazard Maps indicating areas of high ground water, impervious soils, limestone or other hazards which, either by themselves or in combination, create potentially serious health conditions due to failing septic systems or which are inappropriate for on-site sewage treatment and disposal on an areawide basis.

#### ▲ 4.L.j: Address Septic System Hazard Areas

Continue to develop and evaluate criteria to allow development to occur in septic system hazard areas without degrading the water resources.

#### ▲ 4.L.k: Provide Grading and Surface Runoff Standards

Provide grading and surface runoff standards necessary to protect water resources in compliance with State and Federal water quality regulations and with the County's water conservation program referenced in Implementation Program 4.L.a.

#### ▲ 4.L.I: Expand List of Permitted Uses in Open Space-1 Zoning District

Expand the list of permitted uses in the O-1 (Open Space-1) zoning district in Title 17 of the Tuolumne County Ordinance Code for the conservation and utilization of the County's water resources to include such uses as water monitoring installations excluding wells; improvements to aquatic, plant and wildlife habitat; erosion control projects; and vegetation removal for flood control.

#### ▲ 4.L.m: Address Water Supply Sources for Anticipated Growth

Continue to coordinate the County's long range land use planning program with local public water agencies to determine that water supplies and delivery systems can meet the demands of the anticipated new development and population growth of the County. Prepare and maintain a water supply and demand chart summarizing projected water needs based on growth projections and anticipated supply levels from the Tuolumne Utilities District, Tuolumne County Water District #1, Groveland Community Services District, Lake Don Pedro Community Services District and other local public water agencies. In accordance with Section 65352.5 of the California Government Code, the General Plan Land Use Diagrams were formulated in coordination with the applicable urban water plans from these agencies and any amendments to those diagrams shall be reviewed in coordination with the respective public water agency serving the parcel or parcels affected by the proposed amendment.

#### ▲ 4.L.n: Watershed Rehabilitation Projects

Promote the development of plans for watershed rehabilitation projects which provide for such watershed improvements as:

- 1. A reduction in the presence of contaminants in drinking water by addressing the origins of the contaminants, including, to the maximum extent practicable, the specific activities that affect the drinking water supply of a community or communities.
- 2. An increase in the quantity of water available from the watershed.
- 3. The improvement, restoration, or enhancement of fisheries habitat, including riparian habitat, in and along streams and watercourses in the watershed. These projects may address factors which increase sedimentation in streams and watercourses in the watershed.
- 4. The improvement of overall forest health, including the reduction of factors which may contribute to the severity of wildfires in the watershed.

#### ■ 4.L.o: Formulation of Watershed Rehabilitation Plans

Initiate or assist in the formulation of plans for watershed rehabilitation projects by serving as the coordinating agency for the various stakeholders in such a plan, such as property owners, water agencies, other public agencies, private industry, recreational facility providers and other interested groups and organizations. Provide technical assistance in the development of plans for watershed rehabilitation projects through such means as data sharing.

#### ▲ 4.L.p: Funding for Watershed Improvement

Submit applications for grants from the CAL-FED and other programs which become available for funding for County initiated or sponsored watershed rehabilitation projects and support the efforts of other public agencies, water agencies, such as the Tuolumne County Water Agency, and other entities in their efforts to seek funding for their respective watershed projects. This support may manifest itself in such ways as adopting a resolution of support or co-sponsoring an application for funding for a watershed project.

#### ▲ 4.L.q: Coordination Among Agencies

Cooperate and coordinate with Federal, State and local agencies, such as the Tuolumne County Water Agency, in promoting the stewardship of the watersheds within the County. Coordinate with these agencies to avoid duplication of effort and to maximize use of public resources in working towards a common goal of improving the watersheds within Tuolumne County which will, in turn, contribute to the State and Federal objective of providing long-term bay-delta recovery and protection.

## 3.3.2 Tuolumne County Ordinance Code

#### **CHAPTER 9.24 PREMATURE REMOVAL OF NATIVE OAK TREES**

This ordinance provides protection for premature removal of native oak trees (native to California), oak woodlands, individual valley oaks measuring 5 inches or greater in diameter at breast height (dbh), and/or removal of any old growth oak tree (defined as any native oak tree that is 24 inches or greater in dbh). Premature removal of native oak trees is defined as removal of native oaks tree, oak woodland from a project site within the five (5) years preceding the submittal of an application for a discretionary entitlement from the County of Tuolumne for a land development project on that site.

#### **CHAPTER 16.24 PARCEL MAPS**

#### Section 16.24.180 Drainage Easements

- A. Where a land division is traversed by a watercourse, drainageway, channel or stream, there shall be provided a storm water easement or drainage right-of-way fifteen feet in width along the centerline of ephemeral drainages, thirty feet in width along the centerline of intermittent drainages and fifty feet along the centerline of perennial streams conforming substantially to the lines of such watercourse. Wherever safe and feasible, as determined by the director, it is desirable that the drainage be maintained by an open channel with landscaped banks and adequate width for maximum potential volume of flow.
- B. Where topography or other conditions are such as to make impractical the inclusion of drainage facilities within road rights-of-way, perpetual unobstructed easements at least fifteen feet in width for such drainage facilities shall be provided across the subject property outside the road lines and with satisfactory access to the road. Easements shall be indicated and dedicated on the map but shall not be accepted for maintenance by the county. Only those drainageways lying adjacent to or beneath county-maintained roads, and within dedicated road easements, shall be maintained by the county. Drainage easements shall be carried from the road to a natural watercourse or to other drainage facilities.
- C. When a proposed drainage system will carry water across private land outside the subdivision, appropriate drainage rights must be secured and indicated on the final map. The applicant shall dedicate a drainage easement along both sides of existing watercourses, of a width to be determined by the director. (Ord. 2864 §24, 2007; Ord. 1562 §2 (part), 1987).

## 3.3.3 Tuolumne County Wildlife Handbook

Tuolumne County adopted the Tuolumne County Wildlife Handbook (TCWH) in 1987 (Tuolumne County, 1987). The TCWH and its associated maps detail the distribution of various habitat types countywide, evaluate their relative biological value, and establish Tuolumne County's standards and thresholds for evaluating the potential biological impacts pursuant to CEQA. The avoidance and mitigation measures provided in the TCWH are intended to facilitate a consistent, fair, and cost-effective approach to wildlife mitigation that provides the greatest protection for the most sensitive resources. The TCWH requires that all first and second priority habitats be avoided and protected through Open Space zoning to minimize potential impacts to these habitats pursuant to CEQA. Per the TCWH, third priority habitats should be included in Open Space only where protection of first and second priority does not already total 20% of the project site.

## 4 EXISTING CONDITIONS AND SITE SURVEY FINDINGS

A site reconnaissance was conducted on August 27, 2018 at each of the project sites. A description of existing conditions that were observed is provided below for each site. In addition, a description of existing vegetation, animal species observed, and water features identified are included.

## 4.1 TUOLUMNE SITE EXISTING CONDITIONS

As mentioned previously, the Tuolumne site consists of two urban parcels across each other along Bay Street in Tuolumne, California. The north parcel is bounded to the north by an undeveloped lot, to the east by sycamore trees and the West Side Lumber Company building, to the south by Bay Street, and to the west by an undeveloped lot. The south parcel is bounded to the north by Bay Street, to the east by a toddler play area and a horseshoe game pit area, to the south by undeveloped riparian area and to the west by Cherry Valley Boulevard South. The two parcels have been historically disturbed. Both parcels have sloped trenches associated with

previous disturbance and installation of storm drainage culverts. Both parcels support annual grassland consisting of mostly ruderal (weedy) vegetation with both parcels supporting similar plant composition (Exhibit 2). (See Attachment 2 - Photo 1 and Photo 2). The south parcel also includes a parking area, which is under construction just south of the Tuolumne City Library and swimming pool.

Observed plants include typical weedy plants associated with disturbed sites: yellow star thistle (*Centaurea solstitialis*), ripgut brome (*Bromus diandrus*), bermuda grass (*Cynodon dactylon*), dogtail grass (*Cynosurus echinatus*), wild oats (*Avena fatua*), wild radish (*Raphanus raphanistrum*), sweet pea (*Lathyrus latifolius*), English plantain (*Plantago lancelota*), nutsedge (*Cyperus sp.*), curly dock (*Rumex crispus*), Himalayan blackberry (*Rubus armeniacus*), chicory (*Cichorium intybus*), field vetch (*Vicia villosa*). Interior live oak (*Quercus wislizenii*), black oak (*Quercus kelloggii*), pine (Pinus sp.), and cypress (*Cupressus sp.*) were observed growing along Bay Street for the north parcel. Only a willow (*Salix sp.*) was observed growing along Bay Street for the south parcel. Approximately eight cottonwood (*Populus sp.*) saplings are also growing within the south parcel adjacent to a depression left by previous ground disturbance north of the riparian area associated with a historical drainage.

The south parcel of the Tuolumne site is located west of a toddler play area and a horseshoe game pit area, which are irrigated. Due to the slope and drain patters, the irrigation drains onto the parcel and has created a seasonal wetland where wetland vegetation such as nutsedge, curly dock, and cocklebur (*Xanthium strumarium*) are growing (See Attachment 2 - Photo 3).

A larger seasonal wetland was also observed within the south parcel. Removal of old railroad tracks, and improper grading resulted in a low spot where cocklebur and cottonwood saplings were observed (See Attachment 2 - Photo 4). The south parcel is bounded to the south by a riparian area associated with a storm drainage area that eventually drains into Turnback Creek.

Wildlife observed in the Tuolumne project site include species associated with urban environments such as feral cat (Felis silvestris), house sparrow (Passer domesticus), lesser goldfinch (Spinus psaltria), house finch (Carpodacus mexicanus), California scrub-jay (Aphelocoma californica), Anna's hummingbird (Calypte anna), western fence lizard (Sceloporus occidentalis), and desert cottontail (Sylvilagus audobonii).

#### 4.2 GROVELAND SITE EXISTING CONDITIONS

The Groveland site also consists of adjacent portions within two parcels that are undeveloped. The parcels are bounded to the north by undeveloped forested land, to the east by Ferretii Road and the Pine Mountain Lake Association, south by Ferretti Road and the driveway to the Groveland Community Service District, and west by the Groveland Community Service District waste water treatment plant evaporation ponds. The west parcel has an intermittent creek that drains into Pine Mountain Lake. The east parcel has an ephemeral drainage that drains into the intermittent creek (Exhibit 3).

The Groveland site supports montane hardwood-conifer habitat and includes foothill pine (*Pinus sabiniana*), ponderosa pine (*Pinus ponderosa*), incense cedar (*Calocedrus decurrens*), black oak, interior live oak, California black walnut (*Juglans californica*), willow (*Salix* sp.), and manzanita (*Arctostaphylos* sp.) (See Attachment 2 - Photo 5). Understory vegetation varies in density and consists of native and weedy species such as ripgut brome, dogtail grass, starthistle, deergrass (*Muhlenbergia rigens*), little rattlesnake grass (*Briza minor*), hairgrass (*Aira caryophyllea*), wild pea, long trefoil (*Acmispon* spp.), woolly mullein (*Verbascum thapsus*), dove weed (*Croton setiger*), poison oak (*Toxicodendron diversilobum*), Himalayan blackberry, vinegar weed (*Trichostema lanceolatum*), tarplant (*Holocarpha virgata*), and navarretia (*Navarretia* sp.).

The west parcel supports riparian vegetation associated with the intermittent creek; willows, interior live oak, black oak, California walnut, and incense cedar form the canopy and the understory is composed of blackberry, perennial pepperweed (*Lepidium latifolium*), medusa head grass (*Taeniathrerum caput-medusae*), cocklebur, bedstraw, dove weed, curly dock, stinging nettle (*Urtica dioica*), and poison oak.

The east parcel supports an ephemeral drainage that conveys water from the road and the south side of Ferretti Road onto the parcel and eventually drains into the intermittent creek. The ephemeral drainage supports vegetation associated with the montane hardwood-conifer habitat described above and most of the vegetation observed consisted of upland vegetation. Due to scouring experienced during rain events, some root exposure of the oaks and pines has occurred.

Areas of pine trees were recently removed from the Groveland site because of pine bark beetle infestation (Frank, pers. comm., 2018) and thus, the site has openings within the montane hardwood-conifer habitat canopy, The openings are categorized as annual grassland supporting ruderal (weedy) plants (See Attachment 2 - Photo 6). The annual grassland supports ruderal (weedy) species such as ripgut brome, dogtail grass, starthistle, deergrass, little rattlesnake grass, hairgrass, wild pea, long trefoil, woolly mullein, dove weed, poison oak, Himalayan blackberry, vinegar weed, tarplant, and navarretia and it is associated with disturbed areas in both the east and west parcel.

Wildlife observed within the Groveland site include mule deer (*Odocoileus hemionus*), western gray squirrel (*Sciurus griseus*), coyote (*Canis latrans*), red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), lesser goldfinch, western fence lizard, acorn woodpecker (*Melanerpes formicivorus*), white-breasted nuthatch (*Sitta carolinensis*), bushtit (*Psaltriparus minimus*), California quail (*Callipepla californica*), Steller's jay (*Cyanocitta stelleri*), brown creeper (*Certhia americana*), band-tailed pigeon (*Patagioenas fasciata*), and spotted towhee (*Pipilo maculatus*).

All of the wildlife species observed are common wildlife species expected to occur in urban and semi-rural environments.



Exhibit 2 Tuolumne Site Land Cover



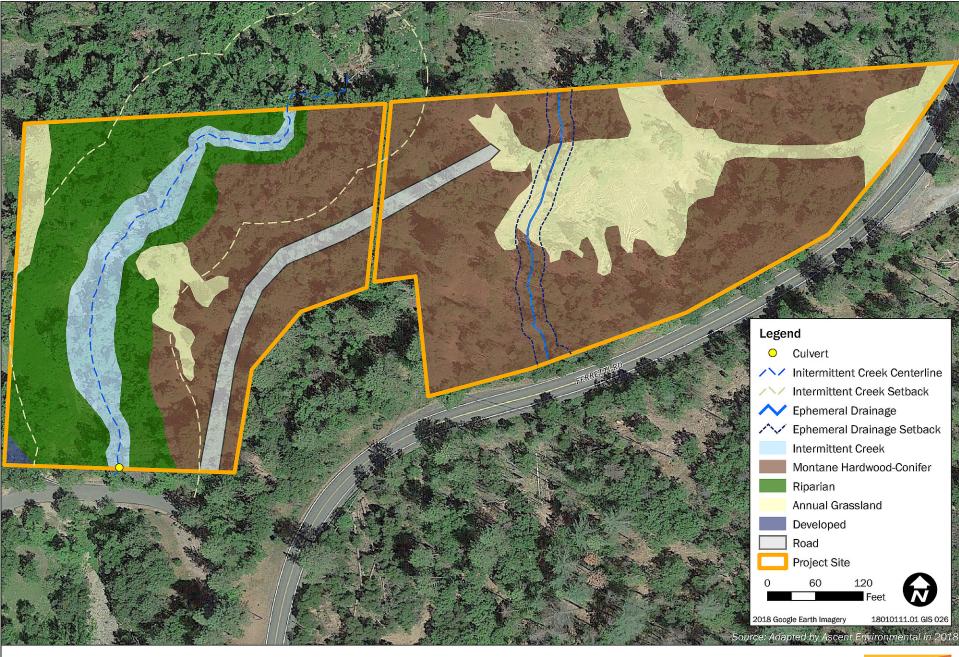


Exhibit 3

**Groveland Site Land Cover** 



#### 4.3 SPECIAL-STATUS SPECIES

Special-status species are plants and animals in the following categories:

- ✓ listed or proposed for listing as threatened or endangered under federal ESA or candidates for possible future listing;
- listed or candidates for listing by the State of California as threatened or endangered under CESA;
- listed as Fully Protected under the California Fish and Game Code;
- animals identified by DFW as species of special concern;
- plants considered by DFW to be "rare, threatened or endangered in California" (California Rare Plant Ranks of 1A, presumed extinct in California; 1B, considered rare or endangered in California and elsewhere; and 2, considered rare or endangered in California but more common elsewhere). Note, that while these ranking do not afford the same type of legal protection as ESA or CESA, the uniqueness of these species requires special consideration under CEQA;
- considered a locally significant species, that is, a species that is not rare from a statewide perspective
  but is rare or uncommon in a local context such as within a county or region (CEQA §15125 (c)) or is so
  designated in local or regional plans, policies, or ordinances (CEQA Guidelines, Appendix G); or
- otherwise meets the definition of rare or endangered under CEQA § 15380(b) and (d).

#### 4.3.1 Tuolumne Site

No special-status plant or wildlife species are expected to occupy the Tuolumne project site because of a lack of suitable habitat and disturbed nature of the site.

#### 4.3.2 Groveland Site

No special-status plant species are expected to occupy the Groveland project site because of a lack of suitable habitat Three special-status wildlife species, western pond turtle, pallid bat, and western mastiff bat have the potential to be present in the Groveland site or to use it occasionally and are discussed in more detail below. See Attachment 1 for USFWS, CNDDB, and CNPS records within 5 miles of the project sites.

#### **WESTERN POND TURTLE**

Western pond turtle is a California species of special concern. Western pond turtles are generally associated with permanent or near-permanent aquatic habitats, such as lakes, ponds, streams, freshwater marshes, and agricultural ditches. They require still or slow-moving water with emergent woody debris, rocks, or similar features for basking sites. Pond turtles are highly aquatic but can venture far from water to lay eggs. Nests are typically located on unshaded upland slopes in dry substrates with clay or silt soils. Pond turtles can overwinter in upland sites.

Western pond turtles have been known to utilize waste water ponds and could seasonally utilize the intermittent stream at the Groveland site during the wet season to move between the waste water treatment plant ponds and Pine Mountain Lake. Due to the closed canopy within the riparian area, the project site does

not provide suitable basking areas for the western pond turtle. The upland area in the Groveland site does not provide suitable nesting habitat for the turtle because of its closed canopy and the north aspect of the upland area of the stream.

#### PALLID BAT

Pallid bat is a California species of special concern. Pallid bat typically occupies a wide variety of habitats, including grasslands, shrublands, woodlands, and forest from sea level up through mixed conifer forests. This bat is most common in open, dry habitats with rocky areas for roosting. Day roosts are in caves, crevices, mines, and occasionally in hollow trees and buildings. Roosts must protect bats from high temperatures. Bats move deeper into cover if temperatures rise. Night roosts may be in more open sites, such as porches and open buildings. Few hibernation sites are known, but the bat probably uses rock crevices. There are no caves, rock crevices, mines or buildings within the project sites that could provide roosting habitat for this species, however, some of the large oaks with hollows or pines with exfoliating bark at the Groveland site may provide suitable roosting habitat for this species.

#### **WESTERN MASTIFF BAT**

Western mastiff bat is a California species of special concern. Western mastiff bat typically occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban habitats. Roosts in crevices in cliff faces, high buildings, trees, and tunnels are required for roosting. There are no rock crevices, high buildings, or tunnels within the project sites that could provide roosting habitat for this species; however, some of the large oaks with hollows or pines with exfoliating bark at the Groveland site provide suitable roosting habitat for this species.

## 4.4 WETLANDS, RIPARIAN HABITAT, AND OTHER SENSITIVE NATURAL COMMUNITIES

#### 4.4.1 Tuolumne Site

The two parcels have drainage ditches that help drain upland areas. The north parcel has a drainage ditch that did not support wetlands plants or other indicators. The south parcel also has drainage ditch which receives water from the north parcel through a culvert, no wetland vegetation or other wetland indicators were observed within this ditch either. A culvert directs the water from this ditch south and the culvert daylights just on the other side of a gravel driveway on uplands at which point another culvert drains from the parcel southwest of the intersection between Cherry Valley Boulevard N and Bay Street.

The east boundary of the south parcel received runoff from the toddler play area, as well as from the horseshoe game pit area creating a seasonal wetland. Runoff from these areas accumulates on a low spot and wetland vegetation such as curly dock, plantain, nutsedge, and rush (*Eleocharis* sp.) were observed within the moist soil (See Attachment 2 - Photo 3). A larger seasonal wetland is also present within the Tuolumne south parcel and support wetland vegetation. These two seasonal wetlands may be waters of the United States due to potential connectivity with the adjacent riparian area.

#### 4.4.2 Groveland Site

The Groveland west parcel at this site supports an intermittent creek that drains into Pine Mountain Lake and supports riparian vegetation along its banks (See Attachment 2 - Photo 11 and Photo 12). This creek would likely be considered a water of the United States. Similarly, the riparian area surrounding this creek

would be subject to regulation by the California Department of Fish and Wildlife under the Fish and Game Code because of its value to fish and wildlife species.

An ephemeral drainage is also present on the Groveland east parcel. This feature drains roadway storm water onto the site. High water flows have created a gully, but no wetland vegetation was observed within the drainage, the bed and bank dissipate and water overflows as evident by bent grasses and debris flow. Because this drainage drains into the intermittent creek, this drainage may also be considered a water of the United States (See Attachment 2 - Photo 7 and Photo 8).

#### 4.5 NESTING BIRDS

#### 4.5.1 Tuolumne Site

The Tuolumne site does not provide suitable habitat for nesting birds due to sparse vegetation and does not provide adequate nesting substrate. Although the Tuolumne site does not provide suitable nesting habitat, the cottonwood trees in the riparian area of the adjacent lot provide suitable habitat for raptors.

#### 4.5.2 Groveland Site

The Groveland site provides suitable nesting habitat for ground and shrub/tree nesting birds. No nesting birds were observed during the field surveys; however, the surveys were conducted during the end of the nesting season. The Groveland site provides suitable nesting habitat for ground nesting birds such as the California quail (*Callipepla californica*), spotted towhee, mallard duck (*Anas platyrhynchos*), and wild turkey (*Meleagris gallopavo*). The shrubs, pines, and oak trees also provide suitable nesting habitat for shrub/tree nesting birds and raptors.

#### 4.6 WILDLIFE MOVEMENT

Wildlife corridors are features that provide connections between two or more areas of habitat that would otherwise be isolated and unusable. Often drainages, creeks, or riparian areas are used by wildlife as movement corridors as these features can provide cover and access across a landscape.

#### 4.6.1 Tuolumne Site

The Tuolumne site does not support a wildlife movement corridor because it is within the urban area of Tuolumne.

#### 4.6.2 Groveland Site

Although a portion of the Groveland site supports an intermittent creek and riparian area, it does not contain an important regional wildlife corridor because the creek connects the developed areas of Groveland with the Pine Mountain Lake community and does not provide connectivity to larger patches of natural habitat on the landscape. Since the project would need to observe a 100-foot setback from the centerline of the creek (see discussion below), the riparian corridor would be protected, and the existing vegetation would act as a buffer so any local wildlife movement (e.g., skunk, raccoon) could still occur.

#### 4.7 TUOLUMNE COUNTY WILDLIFE HANDBOOK

According to the TCWH, all target habitats (first and second priority) shall be protected through Open Space zoning to minimize potential impacts to these habitats pursuant to CEQA. Per the TCWH third priority habitat are to be included within Open Space only where protection of first and second priority habitats does not already total 20 percent of the project site.

#### 4.7.1 Tuolumne Site

The majority of the Tuolumne site is annual grassland, which is a fourth priority habitat. The seasonal wetlands, which are a second priority habitat, occupy approximately 4 percent of the site (Table 1). Conversion of these habitat types, if they cannot be avoided, would require permitting and mitigation.

#### 4.7.2 Groveland Site

The Groveland site contains intermittent creek and riparian habitat, which are second priority habitats, and montane conifer hardwood, which is a third priority habitat. The remainder of the site is annual grassland or developed, which are fourth priority habitat types, or ephemeral drainage, which does not have a prioritization category (Table 1).

Table 1 Land Cover Types

Project Site	Land Cover Type <sup>1</sup>	Habitat Value per TCHW	Approximate Acreage	Percentage of Project Site
Tuolumne North Parcel	Annual grassland - ruderal	Fourth	0.47	100
	Tuolumne North Parcel Total		0.47	100
Tuolumne South Parcel	Annual grassland - ruderal	Fourth	1.25	69.06
Tuolumne South Parcel	Seasonal Wetland	Second	0.08	4.42
Tuolumne South Parcel	Urban/Developed	Fourth	0.48	26.52
	Tuolumne South Parcel Total		1.81	100
Groveland East	Ephemeral drainage	N/A	0.02	0.48
Groveland East	Montane hardwood-conifer	Third	2.96	70.64
Groveland East	Annual grassland - ruderal	Fourth	1.14	27.21
Groveland East	Urban/Developed	Fourth	0.07	1.67
	Groveland East Total		4.19	100
Groveland West	Intermittent creek	Second	0.55	14.10
Groveland West	Montane riparian woodland	Second	1.50	38.46
Groveland West	Montane hardwood-conifer	Third	1.34	34.36
Groveland West	Urban/Developed	Fourth	0.22	5.90
Groveland West	Annual grassland - ruderal	Fourth	0.28	7.10
	Groveland West Total		3.9	100

Notes: Ascent Environmental 2018 Field Surveys and Tuolumne County Wildlife Handbook.

<sup>&</sup>lt;sup>1</sup> See Locations on Exhibit 2 and Exhibit 3

The 100-foot buffer from the centerline of the intermittent creek, protects both the creek and the riparian habitat (both second priority habitats) totaling 52.56 percent of the total Groveland west site. This setback also protects 0.69 acre of montane hardwood-conifer, totaling 17.69 percent of the total Groveland west site. Similarly, the ephemeral drainage 15-foot buffer from the centerline of the drainage protects the entire ephemeral drainage (0.48 percent of the total acreage of the Groveland east parcel and 3.58 percent of montane hardwood-conifer (a third priority habitat) of the Groveland east parcel. These buffers meet the 20 percent protection of second priority habitat and third priority habitat, and together with the recommended measures would reduce effects on the intermittent creek, riparian corridor, and ephemeral drainage.

If these buffers cannot be implemented, the TCWH allows for other mitigation that can include creating, protecting, or improving habitats as similar as possible to those being disturbed by the project. This replacement habitat should be located adjacent to the project site or where most advantageous to wildlife of the County (TCWH Mitigation Measure HH).

### 4.8 CONFLICT WITH LOCAL POLICIES OR ORDINANCES

Construction in both sites could result in encroachment to potential wetlands. If these wetlands are not avoided and the loss of wetlands is not mitigated, the proposed project would conflict with Tuolumne County General Plan Policy 4.J.5 No Net Loss of Wetland Habitat.

Construction in the Groveland site could result in encroachment into the creek and/or drainage areas. The Tuolumne County Ordinance Code 16.24.180 Drainage Easements requires that fifteen feet in width drainage right-of-way be provided along the centerline of ephemeral drainages and thirty feet along the centerline of intermittent drainages. Constructing the proposed project within these drainage setbacks would conflict with Tuolumne County Ordinance Code.

Construction could result in the removal of montane hardwood conifer habitat which is designated as a third priority habitat. As such the project would need to observe a minimum acreage preservation of habitat (It should be noted that the Tuolumne County Wildlife Handbook states that Third Priority Habitat should be 20 percent of the site but setbacks around Second Priority Habitats [i.e., creeks, riparian areas] can count towards this 20 percent.) Constructing the project without minimizing impacts to montane hardwood conifer or observing a minimum acreage preservation would conflict with General Plan Implementation Program 4.J.a-4.

#### 4.9 CONFLICT WITH ADOPTED HABITAT CONSERVATION PLANS

The Tuolumne and Groveland sites are not within an adopted Habitat Conservation Plan area, as such, construction of the project would not conflict with the provisions of an adopted Habitat Conservation Plan, or other approved conservation plan in the area.

## 5 SUMMARY

#### 5.1 TUOLUMNE SITE

- ▲ The Tuolumne site is disturbed. Two seasonal wetlands are present within the south parcel, these wetlands may be waters of the United States.
- Due to its disturbed nature, the Tuolumne site does not provide suitable habitat for special-status plants or wildlife.

- ▲ Although not proposed for disturbance, the riparian area is immediately south of the Tuolumne project site, and the dripline of these trees encroach into the project site.
- ▲ The Tuolumne Site is not within an adopted habitat conservation plan area and does not provide an important wildlife movement corridor.

#### 5.2 GROVELAND SITE

- ▲ The Groveland site is forested, but has had recent disturbance due to pine bark beetle tree management
- ▲ The Groveland east parcel supports an ephemeral drainage and the Groveland west parcel supports an intermittent creek and associated riparian area and an ephemeral drainage. The ephemeral drainage and the intermittent creek may be waters of the United States.
- ✓ The forested portions of the Groveland site provide suitable habitat for nesting birds and two specialstatus bat species. The intermittent creek area provides marginal habitat for western pond turtle.
- ▲ The riparian area within the Groveland site does not represent an important wildlife corridor since it connects two urban areas.
- ▲ The TCWH requires that all second priority habitats (i.e., intermittent creek, riparian area) be preserved with Open Space zoning, furthermore third priority habitat are to be included within Open Space only where protection of first and/or second priority habitats does not already total 20 percent of the project site, however, the setback already protects 52.56 percent of the Groveland west parcel.
- Potential conflicts with Tuolumne County General Plan and Code of Ordinance could occur if wetlands are not avoided or if drainage setbacks are not implemented.
- ▲ The Groveland site is not within an adopted habitat conservation plan area.

#### 5.3 RECOMMENDATIONS

## 5.3.1 Aquatic Resources

The Tuolumne site supports two seasonal wetlands and the Groveland Site supports an intermittent creek and an ephemeral drainage. It is recommended that these features be avoided. In the event that these features cannot be avoided, an aquatic resources delineation would need to be conducted and submitted to the U.S. Army Corps of Engineers (USACE) for verification.

#### PROTECTIVE MEASURES

There are a number of available measures that the County could consider to avoid impacts to waters of the U.S. and waters of the State. These are listed below.

#### **TUOLUMNE SITE**

- ✓ On the Tuolumne site, it is recommended that the seasonal wetland adjacent to the toddler playing area and the horseshow pit area and the larger seasonal wetland be avoided entirely.
- Although the riparian area adjacent to the Tuolumne site is not proposed for disturbance, the dripline of some of these riparian trees encroach onto the Tuolumne project site area. To ensure that no impacts to

the riparian area occur, all project activities should avoid the dripline of the riparian trees. If the dripline of these trees cannot be avoided, an arborist should evaluate if there would be an impact to the health and survival of the trees.

## **GROVELAND SITE**

- On the Groveland site, to comply with the TCWH, the required O (Open Space) zoning for the riparian area should be adopted before issuance of a grading permit or building permit for project construction. Note that the County may determine that methods of perpetual open-space conservation other than zoning (i.e., conservation easements) would be consistent with the intent of the TCWH.
- Similarly, all construction elements within the Groveland site should be constructed at least 100-feet from the centerline of the unnamed intermittent creek, and at least 15-feet from the centerline of the ephemeral drainage. The 100-feet buffer is recommended to fully protect existing riparian vegetation along the unnamed intermittent drainage. All construction within the Tuolumne site should avoid the identified boundaries of the seasonal wetlands.

### FOR BOTH LOCATIONS

- ▲ All areas to be avoided during construction activities should be fenced or flagged as close to construction limits as possible.
- Where wetlands or other waters cannot be avoided by project-related activities, a preliminary wetland delineation should be conducted and submitted to USACE for verification. The aquatic resources may also be subject to RWQCB, and DFW regulation under Section 1602 of the Fish and Game Code. No grading, fill, vegetation removal, or other ground disturbing activities should occur within these features until all required permits, regulatory approvals, and permit conditions for effects on aquatic resources are secured.
- For those wetlands that cannot be avoided, Tuolumne County should commit to replace, restore, or enhance on a "no net loss" basis (in accordance with USACE, RWQCB, and DFW). Wetland habitat should be restored, enhanced, and/or replaced at an acreage and location and by methods agreeable to USACE, RWQCB, and DFW, as appropriate, depending on agency jurisdiction, and as determined during the permitting processes. This measure would be consistent with TCWH mitigation.

## 5.3.2 Western Pond Turtle

## **GROVELAND SITE**

Due to the proximity of wastewater treatment ponds and the presence of the intermittent creek, there is a moderate to low potential for western pond turtle to occur within the Groveland site. To avoid injury or mortality of western pond turtle the following protective measures are provided.

## PROTECTIVE MEASURES

- Before ground disturbance, the County or its contractor should identify the limits of construction, access route and avoidance areas.
- A pre-construction survey for western pond turtle should be conducted by a qualified biologist within 24 hours before the commencement of ground disturbance activities. Surveys should be conducted within the project disturbance areas and all access routes to avoid and minimize injury or mortality of western pond turtle. If a western pond turtle is found within the work areas, exclusion fencing should be installed surrounding the construction areas and the western pond turtle should be allowed to move outside of

the construction area on its own volition. If this is not feasible, the turtle(s) should be captured by a qualified biologist and relocated out of the construction area to suitable habitat at least 100 feet from the work area.

## 5.3.3 Occupied Roosting Bats

#### **GROVELAND SITE**

The forested habitat within the Groveland site would require some tree removal. Some of these trees could provide suitable day roosts, maternity colony roosts, and/or hibernation roosts for bats. Special-status bats that could roost on site include pallid bat and western mastiff bat.

Removal of roosting trees, or other construction activities that cause noise, vibration, or physical disturbance to these trees, could affect the survival of adult or young bats if they are present within the trees identified for removal at the time of the activity.

## PROTECTIVE MEASURES

Surveys for roosting bats on the project site should be conducted by a qualified biologist. Surveys should consist of a daytime pedestrian survey looking for evidence of bat use (e.g., guano) and/or an evening emergence survey to note the presence or absence of bats. The type of survey would depend on the condition of the trees to be removed. If no bat roosts are found, then no further study would be required. If evidence of bat use is observed, the number and species of bats using the roost should be determined.

If roosts of pallid, and/or western mastiff bats are determined to be present and must be removed, the bats should be excluded from the roosting site before the tree is removed. A program addressing compensation, exclusion methods, and roost removal procedures should be developed in consultation with DFW before implementation. Exclusion methods may include use of one-way doors at roost entrances (bats may leave but not reenter) or sealing roost entrances when the site can be confirmed to contain no bats. Exclusion efforts may be restricted during periods of sensitive activity (e.g., during hibernation or while females in maternity colonies are nursing young). The loss of each roost (if any) should be replaced in consultation with DFW and may include salvaging of the roost tree and securing it to a tree within the Open space zone area or construction and installation of bat boxes suitable to the bat species and colony size excluded from the original roosting site. Roost replacement should be implemented before bats are excluded from the original roost sites. Once the replacement roosts are constructed and it is confirmed that bats are not present in the original roost site, the trees may be removed or sealed.

## 5.3.4 Nesting Birds

#### **BOTH SITES**

To minimize potential disturbance to nesting birds, project activities, including vegetation removal and grading, should occur during the non-breeding season (September 1 – February 1) unless it is not feasible to do so, in which case the following measures should applied. Although the Tuolumne site does not provide suitable nesting habitat, the adjacent riparian area may provide suitable nesting habitat and activities within the project site may affect nesting birds if present.

- Removal of trees greater than 5 inches diameter at breast height should be limited to the greatest degree possible.
- ✓ If construction activity is scheduled to occur during the nesting season (February 14 to September 14), a qualified biologist should conduct preconstruction surveys to identify active nests on and within 500 feet

- of the project site that could be affected by project construction. The surveys should be conducted before the approval of grading and/or improvement plans (as applicable) and no less than 14 days and no more than 30 days before the beginning of construction in a particular area. If no nests are found, no further mitigation is required.
- ✓ If active nests are found, impacts on nesting native birds should be avoided by establishment of appropriate buffers around the nests. No project activity should commence within the buffer area until a qualified biologist confirms that any young have fledged, or the nest is no longer active. A 500-foot buffer around raptor nests and a 35-foot buffer around other native bird nests are generally adequate to protect them from disturbance, but the size of the buffer may be adjusted by a qualified biologist in consultation with DFW depending on species and site-specific conditions. If construction cannot be delayed within the buffer area, monitoring of the nest by a qualified biologist during construction activities should be required if the activity has potential to adversely affect the nest.

## 6 REFERENCES

- California Natural Diversity Database. 2018. Geographic Information System database search for 5- mile radius of the Tuolumne and Groveland sites. Biogeographic Data Branch, California Department of Fish and Game, Sacramento, California. August 23, 2018.
- California Native Plant Society, Rare Plant Program. 2018. Inventory of Rare and Endangered Plants (online edition, v8-03). California Native Plant Society, Sacramento, CA. Website http://www.rareplants.cnps.org [accessed August 23, 2018].
- CNDDB. See California Natural Diversity Database.
- CNPS. See California Native Plant Society, Rare Plant Program.
- Frank, Maureen. Deputy County Administrator, Tuolumne County. August 27, 2018—spoke with Carlos Alvarado of Ascent Environmental regarding the two project locations and trees removed at the Groveland site due to pine bark beetle infestation. Sonora, CA.
- Tuolumne County. 1996. *Tuolumne County General Plan.* Website https://www.tuolumnecounty.ca.gov/185/General-Plan-Policy [accessed September 5, 2018]
- Tuolumne County. 1987. Tuolumne County Wildlife Handbook. Tuolumne County Planning Department. Sonora CA.
- U.S. Fish and Wildlife Service. 2018. Information for Planning and Consultation Resource List for the Tuolumne and Groveland Sites.
  - https://ecos.fws.gov/ipac/location/CIXVK4MFFNDZTEJATDNQIWOJE4/resources and https://ecos.fws.gov/ipac/location/NF3MIPPLUZB2ZF3SNDUT2ZWKRA/resources. Accessed August 23, 2018.
- USFWS. See U.S. Fish and Wildlife Service.

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# **Attachment 1**

**Database Queries** 

IPaC Information for Planning and Consultation u.s. Fish & Wildlife Service

## IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as trust resources) under the U.S. Fish and Wildlife Service's (USFWS) Jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

#### Location

Tuolumne County, California



## Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species doubt be indirectly affected by activities in that area (e.g., placing a dam upsuceam of a fish population, even if that for does not occur at the dams ite, may indirectly impact the species by reducing or eliminating water flow downs useam). Because species can make, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potentially flows to species, additionals lies pecific and projects pecific in formation is often required.

Section 7 of the Endangered Species Act requires Federal agencies to "request of the Secretary information whether any species which is listed on proposed to be listed may be present in the area of such proposed action." In any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and as pecies list which fulfills this requirement can only be obtained by requesting an official species list from either the Regulatory Review section in Pacifice directions below) or from the local field office directly.

For projectional uniting that require LISPAS concurrence/review, please return to the IPaC website and requestion of icials pecies libit by doing the following.

- 1. Draw the project location and click CONTINUE.
- 2. Click DEFINE PROJECT.
- 3. Log in (if directed to do so).
- 4. Provide a name and description for your project.
- 5. Click REQUEST SPECIES LIST.

Listed species<sup>1</sup> and their critical habitats are managed by the <u>Ecological Service Program</u> of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries 4).

Species and critical habitats under the sale responsibility of NOAA Fisheries are not shown on this fact. Please contact <u>NOAA Fisheries, for species under their</u> purisdiction.

- 1. Species listed under the <u>Endangered Species Act</u> are threatened or endangered, IPaC also shows species that are candidates, or proposed, for listing. See the <u>listing status page</u> for more information.
- 2. NOAA Figures, also known as the National Marine Figures Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location.

#### **Amphibians**

нош}		~()'	Status
California Red-legged Frag. Ran There is treater total nation for https://deca.it/s.stu//ecu/istocie	this species. Your location is out	tsile the critical habitat.	Thica izned
Fishes	CO,		STATUS
De lia Smelli. Hypomesus i lars p There is tradicitical natitat for https://doos/tradicitical	tink species. Your location is out	table the critical napitat.	Three sened

#### Critical habitats

Patentiale Next, to critical habita (s) in this location must be analyzed along with the endangered species themselves.

THIRLARI HO CRITE AL HABITATS AT THIS LOCATION.

## Migratory birds

Certain Birds are protected under the Migratory Bird Treaty Act4 and the Balb and Golden Eagle Protection Act4.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described <u>below</u>.

- 1. The <u>Migratory Birds Treaty Act</u> of 1918.
- 2. The Bald and Galden Eagle Projection Act of 1940.

Additional information can be found using the following lints.

- Birds of Conservation Concern <a href="http://www.fvs.com/birds/management/managed-species/">http://www.fvs.com/birds/management/managed-species/</a>
   Birds-of-conservation-concernation
- Measures for avoiding and minimizing impacts to Birds <a href="https://www.lws.gov/birds/managemenv/project-assess-ment-toolb-and-goridance/conservation-measures.go/pg">https://www.lws.gov/birds/managemenv/project-assess-ment-toolb-and-goridance/conservation-measures.go/pg</a>

https://ecos.nlws.gou/pac/location/CIXVKAMFFNDZTEJATDNQIWOJE4/esources#wettands

2/4

Nationwide conservation measures for Birds have //www.krs.sqr/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

FINER ARE NO MIGRATORY BIRDS OF CONSERVATION CONCERN EXPECTED TO OCCURATE FINIS LOCATION.

Telline more apout conservation measures lican implement to avoid or minimize impacts to migratory bilds.

Nationable Concerns by Measures describes measures that can neigh avoid and minimbe impacts to all binds at any beation year round. Implementation of these measures is particularly important when binds are most likely to occur in the project area. When binds may be preeding first the area, identifying the locations of any active neces and avoiding their description is a very neight ill impact minimbation measure. To see when binds are most likely to occur and be preeding in your project area, view the Propositify of Presence Sum mary. Additional impassings and/or gentle, may be additable depending on they perform any care conducting and they per of infragrounders or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified boation?

The Migratory Bird Resource List is comprised of uSPMS <u>Birds of Consensation Concern (BCC)</u> and other species that may warrant special latteration in your project ideation.

The migratory old list generated for your project is derived from data provided by the <u>Avan Chowledge Newwort (ACM)</u>. The ACM data is based on a growing collection of <u>survey panding and of their ectence datasets</u> and is queried and 4 benedito returns list of those plades occurring in the 10 thing add cell(s) which your project intersects, and that have been identified as we can interpreted intervalon because they are a BDC species in that area an eagle (<u>laste Act</u> equilements may apply), or a species that has a particular valines a filty to offence and this or development.

Again, the Migratory Bird Resource ist includes only a subset of birds that may occur in your project alea, it is not representative of all birds that may occur in your project alea. To get a list of all birds potent birg present in your project alea, please visit the February Data Tool.

What does IPaC use to generate the propability of presence graphs for the migrationy birds potentially occurring in my specified boation?

The propagality of pesence graphs associated with your migratory old list are based on data provided by the <u>Avibin Chowledge Network (ACN)</u>. This data is derived from a growing collection of survey, pandlish and of the national educations.

Proposity of pesencedata is continuously being updated as newand better information becomes are label. To be in more about now the propositived presence graphs are produced and now to interpret them, got ne Propositived Presence Summary and then cibit on the "Tell meabout these graphs". In t.

How do I wrow II a pind is preeding withtering migrating or present year-round in my project area?

To see what part of a particular bird's range your project area talls within (i.e. breeding, wintering, migrating or your may refer to the following resources: The Connell Lab of Ornitrophys Birds Bird Guide, or (i) you are unaccessful in locating the bird of line est the ref. the Connell Lab of Ornitrophys Reproduct Birds guide, if a bird on your migratory birds has a preeding season associated within, if that bird does occur in your project area, there may be nests present at some point within the timefalmes petitled. If it is easily elements by the birds and then ne bird likely does not preed in your project area, there may be nests present at some point within the timefalmes petitled. If it is easily elements by the birds and the birds are the

What are the levels of concern for migratory birds?

Migratory pirds delikered through IPaC tall into the following distinct categories of concern:

- 1.1 800 Rangewide' birds are <u>Birds of Consequence Concern</u> (800) that are of concerns noughout their range anywhere withins ne us6 (including wave it the Pac Rollshinds, Puerto Rico, and the Virgin Islands)
- 2.1800 BCR ibirds are BCCs that a relot concern only in paid bullar Bird Conservation Regions (BCRs) intraccontinental uSA, and
- 3. Non-BCC Yuline a bid larks are not BCC species in your project area, our appear on your list either because of the <u>large Act</u> equilements (for eagles) or (for non-eagles) potential susceptibilities in offenore areas from certain types of development or arothelia (e.g. offsnore energy development or largine fishing).

Although it is important to try to avoid and minimize impacts to all picts, efforts should be made, in particular, to avoid and minimize impacts to the picts of this list, especibility eagles and BOC specibility angles of a ngovide concern. For more information on conservation measures you can implement to nel pavoid and minimize migratory pild impacts and equilements for eagles, please seet ne MQs for these topics.

Details about pirds that are potentially affected by offshore projects

For additional details about the relative obtuinence and abundance of both includual bild specks and groups of birds pecks within your project alrea off the Walant E Coast, please visit the <u>Mannests Ocean Data Bonasi</u>. The Portal also offeredate and information about or retrata besides birds that may be nelligible you in your project, review. Attendaryly, you may download the bild model results files underlying the portal maps through the <u>MOCOS Integrable Statistical Modeling and Predix to Mangling of Marine Bird Distributions and Abundance on the Walant rick Owner Confidence (See Epidemiologies).</u>

Bird teaching data can also provide additional details about occurrence and napitat user noughout the year, including migration, whole's relying on survey data may not include this information. For additional information on market bird tracting data, see the <u>Diving Bird Study</u> and the <u>nanoser studies</u> or contact <u>Calen Solewij</u>or <u>Parm to the</u>.

What I I have eagles on my list?

if your project has the potential to disturb on till leagles, you may need to <u>open his permit</u> to avoid vibilating the Eagle Act should such Impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not all birds in your project alea, only a subset of birds of priority concern. To baim more about now your list is generated, and see options for identifying what other high group birds potentially occurring in myspecified location. Please be asset on this report provides melty of presence of the list of the grid cell(g)t nat overlap your project, not your exact project footprint. On the grap provided, please as lack lock calculity at resumely effort (indicated by the bibbt worklad barr) and for melectatemes of the high data? Indicated is all, high survey effort is the cry component. If the survey effort is ingly, then the probability of presences one can be vibred as more depends bit. Indoor, est, a low-survey effort barr on o data barr means a lact or data and, therefore, a lact of denaling about presence of the especies. This list is not perfect, it is simply a saw ring point for identifying what birds of concern have the potential to be hydror project, and, when they might bet nevel, and if they might be revealing (which means neast might be pessent). The list helps you those what to bot for o confirm presence and helps guide you in now-ing when to implement conservation measures to avoid or minimite potential impacts from your project at list is should presence be confirmed. To be in more about conservation measures, within measures it can implement coavoid or minimite impacts to migratory birds at the bottomory your migratory birds has resourced page.

## **Facilities**

Wildlife refuges and fish hatcheries

https://ecos.nlws.gou/pac/location/CIXVKAMFFNDZTEJATDNQIWOJE4/esources#wettands

3/4

REFUGE AND ESH HATCHERY INFORMATION IS NOT AVAILABLE AT THE TIME

## Wetlands in the National Wetlands Inventory

Impacts to h<u>WW wedands</u> and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Action other State/Federal statutes.

For more information please contact the Regulatory Program of the local <u>H.S. Army Court of Engineers District.</u>

THERE ARE NO KNOWN WELLANDS AT THE LOCATION.

#### Date Horizothor

The Service's objective of mapping wet binds and deepwater napitats is to produce reconnaissance level information ontine location, type and steed these resources. The maps are prepared from the analysis of high altitude imagely. We lands are identified based on vegetation, visible hydrology and geography. A margin of error is innerent in the use of imagely, thus, detailed on the ground inspection of any park bulanske may result in evision of the vectand boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the image y, the experience of the image analysis, the amount and quality of the collaborations and the amount of ground that her Postion work conducted. Metadata should be consulted to determine the date of the source image y used and any mapping problems.

Week inds or other mapped features may have one nged shoether disclottine imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

#### Data exclusions

Gerta in westand halphase re-excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect westands. These halphase include seagrasses or submerged aquatib vegetation that are found in the Intervidal and subtitial from sortest airlies and near shore-coastal vesters. Some deepwater west communities (coasion tuberfield worm reets) have also been excluded from the Inventory. These halphase, because of their depth, go undetected by a erial limagery.

#### Date precaution

Federal, state, and local egulatory agencies with jurisdict bin one-reveal and any define and describe vectands in a different manner train that used in this Inventory, to define the lith is of proprieta by jurisdiction of any Federal state, or local government of catabilish the geographical scope of the regulatory programs of government agencies. Persons intending to engage inactivities involving modifications adjacent covertands reas smould seet the advice of a perophitic state of the proprietal state, or both lagencies concerning specified agency egulatory programs and proprieta syjurisdictions risk may affect such activities.

#### IPaC Information for Planning and Consultation u.s. Fish & Wildlife Service

## IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as trust resources) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

#### Location

Tuolumne County, California



#### Local office

Sacramento Fish And Wildlife Office

## Endangered species

This resource list is far informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species doublibe indirectly affected by activities in that real(e.g., placing a dam upsuream of a fish population, even if that fish does not occur at the dam site, may indirectly impact thespecies by reducing or eliminating water flow downs weam). Becauses pecies can make, and site conditions can change, the species on not bits are not guaranteed to be found on or near the project area. To fully determine any potential effects, to species, additional sites pecific and project specific information is of ten required.

Section 7 of the Endangered Species Act requires Federal agencies to frequest of the Secretary information whether any species which is listed or proposed to be fixed may be present in the area of such proposed action? For any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can only be obtained by requesting and fixeit species list from either the Regulatory Review section in Pacifice directions below for from the local field office directly.

For projectional uniting that require LISPAS concurrence/review, please return to the IPaC website and requestion of icials pecies libit by doing the following.

- 1. Draw the project location and click CONTINUE.
- 2. Click DEFINE PROJECT.
- 3. Log in (if directed to do so).
- 4. Provide a name and description for your project.
- 5. Click REQUEST SPECIES LIST.

Listed's pecies-land their critical habitats are managed by the <u>Ecological Services Program</u> of the U.S. Fish and Wildlife Service (USPWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries-4).

Species and critical habitats under the sale responsibility of NOAA Fisheries are not shown on this list. Please contact <u>NOAA Fisheries</u> for <u>species under their</u> purisdiction.

- 1. Species listed under the <u>Endangered Species Act</u> are threatened or endangered, IPaC also shows species that are candidates, or proposed, for listing. See the <u>listing status page</u> for more information.
- 2. NOAA Figure is about nown as the National Marine Figure is Service (NMFS) is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location.

#### **Amphibians**

ном}	~ \ / '	516105	
California Red-legged Frog. Rana disyronii There isti ratioristat haptar for rib species. Your location https://doos.ibus.atv/eco/species/2891	b outside the critical nankat.	Threatened	
Fishes		STATUS	
De lia Sme It. Hypomesius crans pac Fous. There is tradicitated napitat for this species. Your location interprises the smaller between SM.	b outside the critical habitat.	Threatened	

#### Critical habitats

Patentiale Next, to critical habita (s) in this location must be analyzed along with the endangered species themselves.

THIRLARI HO CRITEAL HABITATS AT THIS LOCATION.

## Migratory birds

Certain Birds are protected under the Migratory Bird Treaty Act4 and the Balb and Golden Eagle Protection Act4.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described <u>below</u>.

- 1. The Migratory Birds Treaty Act of 1918.
- 2. The Bald and Galden Eagle Projection Act of 1940.

Additional information can be found using the following lints.

- Birds of Conservation Concern <a href="http://www.fvs.com/birds/management/managed-species/">http://www.fvs.com/birds/management/managed-species/</a>
   Birds-of-conservation-concernation
- Measures for avoiding and minimizing impacts to Birds <a href="https://www.lvs.gov/Birds/managemen.vbrogecr-assess-men.-podb-and-guidance/consensation-measures.ghg">https://www.lvs.gov/Birds/managemen.vbrogecr-assess-men.-podb-and-guidance/consensation-measures.ghg</a>

https://ecos.nlws.gou/lpac/location/NF3MIPPLUZ82ZF3SNDUT2ZI/VKRA/lesources#wettands

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Nationwide conservation measures for Birds <u>true //www.krs.son/migratoryBirds/od f/manage ment/nationwidestandardsonservationmeasures.od f</u>

The birds listed below are birds of particular concern either because they occur on the <u>HSPVS Birds of Conservation Concern (BCC)</u> list or warrants pecial attention in your project location. To be in more about the levels of concern for birds on your list and how this fact is generated, see the FAQ <u>below.</u> This is not a list of fevery bird you may find in this location, not a guarantee that every bird on this fact will be bound in your project area. To see exact locations of where birders and the general public haves gived birds in and around your project area, this for this data manping tool (Tip, enter your location, desired date arrange and aspecties on your list, for projects that occurrence and adultional maps and models detailing the relative occurrence and abundance of birds pecies on your list are are lable. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your fall click on the PROBABILITY OF PRESENCE SUMMARY at the top of your fall to see when these birds are most likely to be present and breeding in your project area.

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR 151, THE BIRD WAY BREED IN YOUR PROJECTIVE SOMETIME WENNER HE FIMELEROME SPECIFIED, WHICH IS A VERY LIBERAL ISTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. BREEDS FISTWHERE INDEATES CHAFTER BIRD DOES HOT I KHIY BRHD INYOUR PROJECT ARIA) Baki Eagle, Haliage, us leur oce phalus Breeds Jan 1 to Aug 31 This is not all Bird of Conservation Concern (BCC) Intinibialies, but warrants attention because of the Eagle Action to potential susceptibilities in offendie areas from certain types of development or activities. nates / fecos five gov/ equ/stecles/1626 Breeds May 20 to Jul 31 Common Yellowi Nidau Geoth lypis trichas sinuosa This bia Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) intraccontinental nttes/fecce five gov/equ/stecles/2084 Golden Eagle Aquila (hiysaeas eeds jan 1 in Aug 31 This is not a Bird of Conservation Concern (BCC) Intinitiallies, but we wants attention pecalise of the largib Action for potential susceptibilities in offshore areas from certain types of development or activities. nates/fecos/tvs/gov/ects/stecles/1680 Lawrence's Goldfinch, Cardivelis lawrencei Breeds Mar 20 to Selp 20 This is a Bird of Conservation Concern (BCC) throughout its range in the continental uSA and Alasta https://ecos/ws/stw/eco/species/9464 Nucually Woodpecker Pindides nucuallii Breeds April 1 to full 20. This bia. Bird of Conservation Concern (800) only in particular Bird Conservation Regions (80%) intraccontinental retraviacos in a environdes de la company de Oak Tiumouse, Bæolophus incrnatus Breeds Mar 15 to jul 15 This is a Bird of Conservation Concern (BCC) throughout its range in the continental uSA and Alaska. ntte://ecos/ws.gov/ecu/stecles/9666 Rufaus Hummingbird selespharus rulus Breeds ebewhere This is a Bird of Conservation Concern (BCC) throughout its range in the continental uSA and Alasta. nmed/ecos/tvs/gov/ecp/stecles/8002 Soing Sparrow: We bapital melodia.
This bia Bird of Conservation Concern (BCC) only in pair, bular Bird Conservation Regions (BCRs) in the continental Breeds Fe 0.20 to Sep 5 Spaced Towneel Pipilo maculatus dementae Breeds April 15 to Jul 20 This bia. Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) Intraccontinental https://ecos/lvs.stw/ect/species/4243 White Headed Woodpecter, Picoides albolarvalus Breeds May 1 to Aug 15 This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) intracontinental us.4 https://ecos/lvs.stw/eco/species/94LL Wienii: Chamaea lasciala Breeds Mar 15 to Aug 10 This is a Bird of Conservation Concern (BCC) throughout its range in the continental uSA and Alasta.

Probability of Presence Summary

https://ecos.nlws.gou/lpac/location/NF3MIPPLUZ82ZF3SNDUT2ZI/VKRA/lesources#wettands

The graphs below provide our Destructions and inglof when birds of concernate most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please mate sure you read and understand the FAQ\*Proper Interpretation and this of Your Migratory Bird Report\* Defore using or attempting to interpretation in separation.

#### Probability of Presence (iii)

Each green dan represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (Alyear is represented as 12.4-week months.) A taller dan indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding surveye flort is also high.

How is, the probability of presence score calculated? The calculation is done in three steps.

- 1. The probability of presence for each week is calbulated as the number of survey events in the week where the species was detected divided by the total number of survey events and the Spotted Towhee was found in 5 of the my the probability of presence of the Spotted Towhee in week 12 is 0.25.
- 2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weets. For example, imagine the probability of presence in weet 20 for the Spotted Townee is 0.05, and that the probability of presence at weet 12 (0.25) is the maximum of any weet of the year. The relative probability of presence on weet 12 is 0.25/0.25 = 1, at weet 20 it is 0.05/0.25 = 0.2.
- 3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a Dark probability of presence score, simply hover your mouse cursor over the Dark

#### Breeding Season (II)

Yellow Bars denote a very liberal estimate of the time frame inside which the Bird Breeds across its entire range. If there are no yellow bars shown for a Bird, it does not breed in your project area.

#### Survey Effort (f)

Vertical black lines super imposed on probability of presence bars indicate the number of surveys performed for that species in the 10 kmg rid cells) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a Bar's survey efforth arge, simply have your mouse cursor over the Bar.

#### No Bata/⊒

A week is marked as having no data if there were no surreyerents for that week.

#### Survey Time frame

Surveys from only the last 10 years are used in order to ensure delivery of our ently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is our rently much more sparse.

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Telline more about conservation measures I can implement to avoid or minimize impacts to migratory bilds.

Nationwide Conserver by Measures describes measures that can help avoid and minimbe impacts to all binds at any beation year round. Implementation of these measures is paintuit vig important when bilds are most likely to occur in the project area. When bilds may be breeding intrinearea, identifying the locations of any active ness and avoiding their destruction is a very neight illimpact minimbat by measure. To see when bilds are most likely to occur and be breeding in your project area, views the Propositity of Presence Sum mary.

Additional impassives and/or termits may be advisable depending on the type of activity you are conducting and neighbor of infrastructure or bild species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified boation?

The Migratory Bird Resource List is comprised of uSPWS <u>Birds of Conservation Concern (BCC)</u> and other species that may we want special latter thin in your project boation.

The migratory pild list generated for your project is derived from data provided by the <u>Avian Cnowledge Network (ACN).</u> The ACN data is based on algowing collection of <u>suncey panding and others science datasets and is queried and 4 breadto returns</u> list of those pilds reported as occurring in the 10 thingrid cell(s) which your project intersects, and that have been identified as war or ming special attention because they are a BOC species in that area, an eagle (<u>last), for</u> equilements may apply, or a special attention because they are a BOC species in that area, an eagle (<u>last), for</u> equilements may apply, or a special attention because they are a BOC species in that area, an eagle (<u>last), for</u> equilements may apply, or a special attention to the special attention because they are a BOC species in that area, an eagle (<u>last), for</u> equilements may apply, or a special attention to the special attention and the special attention of the special attention and the special attention at the special attention of the special attention of the special attention of the special attention at the special attention at the special attention attention at the special attention attention at the special attention attention at the special attention attention attention at the special attention

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project alea . It is not representative of all birds that may occur in your project alea . Toget a list of all birds potentially present in your project area, please visit the Folid Explore Data Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in myspecified boation?

The proparality of pesence graphs associated with your migratory old lattiale based on data provided by the <u>Avian Cnowledge Network (ACN)</u>. This data is derived from a growing collection of <u>survey panding and of then science datasets</u>.

Proposity of pesence data is continuously being updated as new and better information pecomes are labb. To be in more about now the propositity of presence graphs are produced and now to interpret them, go the Propositity of Presence Summary and then clict on the "Tell me about these graphs" line.

How do I wrow I a pird is preeding wirepring migrating or present year-round in my project area?

To see what part of a particular olidis range your project area talls within (i.e. preeding wintering intigrating or your project area to its within (i.e. preeding wintering intigrating or your may refer to the following resources: <u>The Connell Landor Lando</u>

What are the levels of concern for migratory pinds?

Migratory pixes delike ed through IPaC tall into the following distinct categories of concern:

- 1." BCC Rangewide' birds are <u>Birds of Conservation Concern</u> (BCC) that are of concerns noughout their range anywhere withins ne us6 (including wave it the Pac Ric Islands, Puerto Rico, and the Virgin Islands)
- 2 1900 BCR birdsaire BCCst hat a relot concern only in paik bular Bird Conservation Regions (BCRs) inthe continental uSA, and
- 3. Non-800 Vulnerable lairds are not 800 species in your project area, but appear on your list either because of the <u>family Any</u> equilements (for eagles) or (for non-eagles) potential susceptibilities in offshore a reas from certain types of development or architels (e.g. offshore energy development or longine fishing).

Aknough it is important to try to avoid and minimize impacts to all olds, efforts should be made, in particular, to avoid and minimize impacts to the olds on this list, especibility eagles and BOC specibility and growlde concern. For more information on conservation measures you can implement to nel pavoid and minimize migratory old impacts and equilements for eagles, please seet ne MQs for these topics.

Details about pirds triat are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bild species and groups of birds pecies within your project area office Atlantic Coast, please visit the <u>Morrows Occurrence Points</u>. The Portal also offeredate and information about other cata besides birds nationally be neligibility you in your project review. Attendately, you may download the bild model results files underlying the portal maps through the <u>MOCAS Intervative Statistical Modellins and Predictive Mappins of Mainteen Rel of Distributions and Abundance on the Atlantic Output Continental Shell project Vegosiase.</u>

Bird reacting data can also provide additional data its about occurrence and naplast user noughout the year, including migration. Models relying on survey data may not include this information. For additional information

What I Trave eagles on my list

flyour project has the potential to disturb or tilleagies, you may need to <u>obtain a bermit</u> to avoid whilating the Bagle Actishould such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory old list generated is not all olds inyour project area, only a subset of birds of priority concern. To learn more about now your list is generated, and see options for Benefitying what other birds on any be in your project area, please seet he RQ "What does PaC uset ogenerate the migratory birds potentially occurring in my specified location".

Please be awaret his report provides the "probability of presence" of birds within the LO thing riddel(s) that one risp your project, not your exact project footprint. On the graphs

https://ecos.nlus.gou/pac/location/NF3MIPPLUZB2ZF3SNDUT2ZI/UKRA/lesources#wettands

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provided, please also look calefully at the suney effork (Indicated by the labor vertical bar) and for the existence of the "no data" indicator (aired norbons I bar). A high survey effort is the toy component. It nessurely effort is not not the population of the properties of the survey effort is not not the population. It nessurely effort is not not the population of data and therefore, a lact of certainty about presence of the species. This lat is not perfect, it is shiply a starting point for the notifying what olds of concern have the potential to be in your project area, when they highs be there, and it ney highs be beeding (within means ness highs be present). The lat helps you chowwhat to look for coording presence and helps guidely you in thousing when no hiplement conservation measures to avoid or minimize potential impacts from your project archit by a noutil presence be confirmed. To learn more about conservation measures, with the MQ "Tell meabout conservation measures is an implement to avoid or minimize impacts to migratory bright at the bottom of your highestory pind that resources page.

#### **Facilities**

#### National Wildlife Refuge lands

Any activity proposed on lands managed by the <u>National Wild life Refuge</u> system must undergo a Yompatibility Determination conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE IANDS AT THIS LOCATION.

#### Fish hatcheries

THIRL ARE NO LEH HATCHERINS AT THE LOCATION.

## Wetlands in the National Wetlands Inventory

Impacts to NVI westands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local <u>U.S. Army Corp. of Engineers District.</u>

Please nate that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you werify these results with as its visit to determine the actual extent of we dands on site.

This location overlaps the following wetlands:

#### RMFRMF

R4SBC

A full description for each welland code can be found as the <u>National Wellands Inventory website</u>

#### Data Ilmhatbrs

The Service's expective of mapping was binds and deepwater habitats is to produce reconnaissance level information on the location, type and she of these resources. The maps are prepared from the analysis of high altitude imagery. We clands also identified based on vegetation, visible hydrology and geography, Almargin of error is innerent in the use of imagery, thus, detailed on the ground inspection of any pair, but arise may result in levision of the vectand boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the image y, the experience of the image analysis, the amount and quality of the collisional data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source image y used and any mapping problems.

Wertlands or other mapped features may have changed shoether disterof the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

#### Data exclusions

Certain vectand na obtassa re-excluded from the National mapping program occuses of the limitations of aerial imagery as the primary data source used to detect vectainds. These halo base includes sargrasses or submerged a quarity vegetar by that are found in the intervibal and subtibilities of earlies and healence coastal veters. Some deepwater leef communities (coallor cube field worm reefs) have also been excluded from the inventory. These halo base is cause of their depth, go undetected by a efail limagely.

#### Data precautions

Federal, state, and local egulatory agencies with jurisditt bin overweckinds may define and describe weckinds in a different mainter than that used in this inventory. There is no attempt, in either the design or poducts of this inventory to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent tower bind areas should seet the advice of appropriate federal, state, or local lagencies concerning specified agency regulatory programs and proprietary jurisdict bins that may affect such activities.

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## Selected Elements by Scientific Name

## California Department of Fish and Wildlife California Natural Diversity Database



Query Criteria: BIOS selection

Groveland Site

Charles	Flamout Code	Federal Status	State Status	Clahal Dank	State Bank	Rare Plant Rank/CDFW
Allium tuolumnense	Element Code PMLIL022W0	Federal Status None	State Status None	Global Rank G2	State Rank S2	SSC or FP
Rawhide Hill onion	PIVILILO22VVO	MOHE	None	G2	32	10.2
Antrozous pallidus	AMACC10010	None	None	G5	S3	SSC
pallid bat	AMAGGIOOTO	None	None	00	00	000
Banksula tuolumne	ILARA14090	None	None	G1	S1	
Tuolumne cave harvestman	12/10/14000	140110	Ttoric	0.	01	
Clarkia biloba ssp. australis	PDONA05051	None	None	G4G5T3	S3	1B.2
Mariposa clarkia				0.00.0		
Corynorhinus townsendii	AMACC08010	None	None	G3G4	S2	SSC
Townsend's big-eared bat						
Cryptantha spithamaea	PDBOR0A2M2	None	None	G2	S2	1B.3
Red Hills cryptantha						
Diplacus pulchellus	PDSCR1B280	None	None	G2	S2	1B.2
yellow-lip pansy monkeyflower						
Emys marmorata	ARAAD02030	None	None	G3G4	S3	SSC
western pond turtle						
Eryngium pinnatisectum	PDAPI0Z0P0	None	None	G2	S2	1B.2
Tuolumne button-celery						
Erythranthe filicaulis	PDSCR1B150	None	None	G2	S2	1B.2
slender-stemmed monkeyflower						
Erythronium tuolumnense	PMLIL0U0H0	None	None	G2G3	S2S3	1B.2
Tuolumne fawn lily						
Eumops perotis californicus	AMACD02011	None	None	G5T4	S3S4	SSC
western mastiff bat						
Lasiurus blossevillii	AMACC05060	None	None	G5	S3	SSC
western red bat						
Lasiurus cinereus	AMACC05030	None	None	G5	S4	
hoary bat						
Monadenia circumcarinata	IMGASC7020	None	None	G1	S1	
keeled sideband						
Myotis yumanensis	AMACC01020	None	None	G5	S4	
Yuma myotis						
Rana boylii	AAABH01050	None	Candidate Threatened	G3	S3	SSC
foothill yellow-legged frog			rmeatened			
Strix nebulosa	ABNSB12040	None	Endangered	G5	S1	
great gray owl						
Stygobromus harai	ICMAL05470	None	None	G1G2	S1S2	
Hara's Cave amphipod						

Record Count: 19

Commercial Version -- Dated August, 3 2018 -- Biogeographic Data Branch Report Printed on Thursday, August 23, 2018

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Information Expires 2/3/2019



## Selected Elements by Scientific Name

## California Department of Fish and Wildlife California Natural Diversity Database



Query Criteria: BIOS selection

Tuolumne Site

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Clarkia australis	PDONA05040	None	None	G2	S2	1B.2
Small's southern clarkia						
Clarkia biloba ssp. australis	PDONA05051	None	None	G4G5T3	S3	1B.2
Mariposa clarkia						
Corynorhinus townsendii	AMACC08010	None	None	G3G4	S2	SSC
Townsend's big-eared bat						
Desmocerus californicus dimorphus	IICOL48011	Threatened	None	G3T2	S2	
valley elderberry longhorn beetle						
Diplacus pulchellus	PDSCR1B280	None	None	G2	S2	1B.2
yellow-lip pansy monkeyflower						
Erethizon dorsatum	AMAFJ01010	None	None	G5	S3	
North American porcupine						
Eryngium pinnatisectum	PDAPI0Z0P0	None	None	G2	S2	1B.2
Tuolumne button-celery						
Erythronium tuolumnense	PMLIL0U0H0	None	None	G2G3	S2S3	1B.2
Tuolumne fawn lily						
Euderma maculatum	AMACC07010	None	None	G4	S3	SSC
spotted bat						
Eumops perotis californicus	AMACD02011	None	None	G5T4	S3S4	SSC
western mastiff bat						
Lasiurus cinereus	AMACC05030	None	None	G5	S4	
hoary bat						
Lavinia symmetricus ssp. 1	AFCJB19021	None	None	G4T3Q	S3	SSC
San Joaquin roach						
Lomatium stebbinsii	PDAPI1B1V0	None	None	G2	S2	1B.1
Stebbins' lomatium						
Margaritifera falcata	IMBIV27020	None	None	G4G5	S1S2	
western pearlshell						
Monadenia circumcarinata	IMGASC7020	None	None	G1	S1	
keeled sideband						
Monadenia mormonum buttoni	IMGASC7071	None	None	G2T1	S1S2	
Button's Sierra sideband						
Monadenia tuolumneana	IMGASC7100	None	None	G1	S1	
Tuolumne sideband						
Rana boylii	AAABH01050	None	Candidate	G3	S3	SSC
foothill yellow-legged frog			Threatened			

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Page 1 of 1

Information Expires 2/3/2019

Record Count: 18

## CNPS Cabifornia Native Plant Society Inventory of Rare and Endangered Plants

#### Plant List

15 matches found. Click on scientific name for details

#### Search Criteria

California Rare Plant Rank is one of [1A, 1B, 2A, 2B, 3], Found in Quads 3712082, 3712083 3712073 and 3712072;

Q Modify Search Criteria MExport to Excel Modify Columns \$↑ Modify Sort Display Photos

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Allium jepsonii	Jepson's onion	Alliaceae	perennial bulbiferous herb	Apr-Aug	1B.2	82	G2
Allium tuolumnense	Rawhide Hill onion	Alliaceae	perennial bulbiferous herb	Mar-May	1B.2	S2	G2
Clarkia australis	Small's southern clarkia	Onagraceae	annual herb	May-Aug	1B.2	S2	G2
Clarkia biloba ssp. australis	Mariposa clarkia	Onagraceae	annual herb	Apr-Jul	1B.2	8283	G4G5T2T3
Clarkia rostrata	beaked clarkia	Onagraceae	annual herb	Apr-May	1B.3	S2S3	G2G3
Cryptantha spithamaea	Red Hills cryptantha	Boraginaceae	annual herb	Apr-May	1B.3	S2	G2
Diplacus pulchellus	yellow-lip pansy monkeyflower	Phrymaceae	annual herb	Apr-Jul	1B.2	82	G2
Eryngium pinnatisectum	Tuolumne button-celery	Apiaceae	annual / perennial herb	May-Aug	1B.2	S2	G2
Erythranthe filicaulis	slender-stemmed monkeyflower	Phrymaceae	annual herb	Apr-Aug	18.2	S2	G2
Erythronium tuolumnense	Tuolumne fawn lily	Liliaceae	perennial bulbiferous herb	Mar-Jun	1B.2	8283	G2G3
Lomatium congdonii	Congdon's lomatium	Apiaceae	perennial herb	Mar-Jun	1B.2	S2	G2
<u>Lupinus spectabilis</u>	shaggyhair lupine	Fabaceae	annual herb	Apr-May	1B.2	82	G2
<u>Packera layneae</u>	Layne's ragwort	Asteraceae	perennial herb	Apr-Aug	1B.2	82	G2
Pseudobahia bahiifolia	Hartweg's golden sunburst	Asteraceae	annual herb	Mar-Apr	1B.1	82	G2
Senecio clevelandii var. heterophyllus	Red Hills ragwort	Asteraceae	perennial herb	May-Jul	1B.2	S2	G4?T2Q

#### Suggested Citation

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Questions and Comments

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# **Attachment 2**

**Photographs** 



Photo 1. Representative view of Tuolumne south parcel.



Photo 2. Representative view of Tuolumne south parcel.



Photo 3. Tuolumne south parcel - Representative photograph of wetland plants growing adjacent to eastern boundary with toddler play area.



Photo 4. Tuolumne south parcel - Representative photograph of human-created wetland outside of the south parcel.



Photo 5. Groveland east parcel - Representative view of the montane hardwood-conifer habitat.



Photo 6. Groveland east parcel - pine removal due for pine beetle control.



Photo 7. Groveland east parcel - Representative view of ephemeral drainage.



Photo 8. Groveland east parcel - ephemeral drainage within pine removal area.



Photo 9. Groveland east parcel - representative view of electric utility corridor.



Photo 10. Groveland site - representative view of existing access road connecting the east and west parcels.



Photo 11. Groveland west parcel -representative view of intermittent creek and riparian area.



Photo 12. Groveland west parcel - Culvert under the Groveland Community Service District access road showing scouring pool.



Photo 13. Groveland west parcel – representative view of montane hardwood-conifer habitat.



Photo 14. Groveland west parcel – representative view of unknown wells.

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## Memo



Date: January 10, 2019

To: Tuolumne County

From: Ascent Environmental, Inc.

Subject: Aquatic Resources Delineation Summary for the Tuolumne County Resilience Center Project

## INTRODUCTION

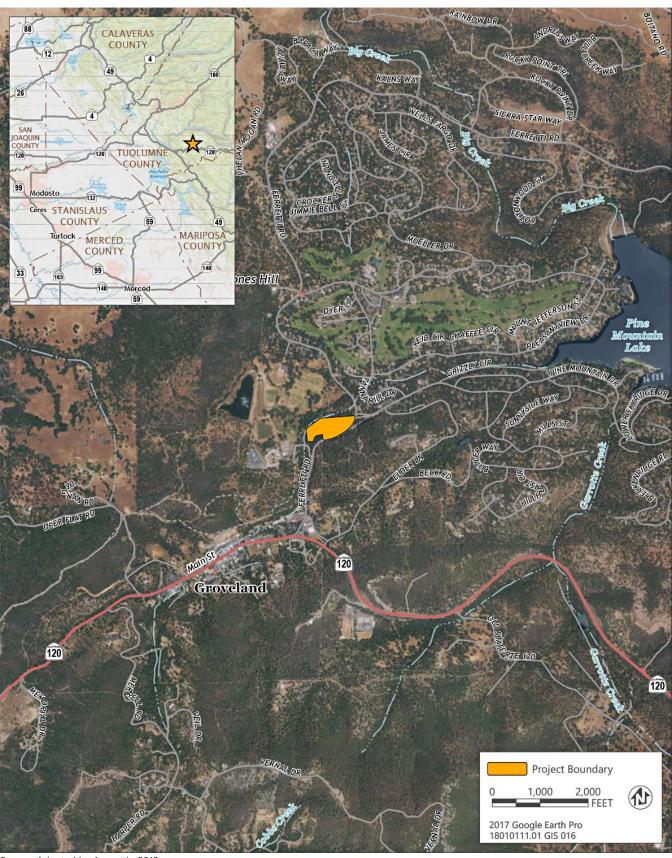
This memo describes the methods and results of the aquatic resources delineation of potential United States Army Corps of Engineers (USACE) jurisdictional aquatic resources on the Groveland project site for the Tuolumne County Resilience Center Project (project). This memo also includes recommendations for avoidance of aquatic resources.

## PROJECT DESCRIPTION AND STUDY AREA

The project site is located on sections of two parcels located west of the intersection of Ferretti Road and Pine Mountain Drive (Accessors Parcel Number [APN] 660306300 and 660903200) in Groveland, Tuolumne County (Figure 1). The proposed project would construct and operate a Community Resilience Center. The aquatic resources delineation study area includes the project site and extends to the intermittent drainage floodplain north and west of the project site to assess hydrological connectivity to that feature.

## **METHODS**

Before conducting the field delineation of the study area, an Ascent biologist reviewed color aerial imagery of the project site on Google Earth, National Wetlands Inventory (NWI) data, and the Natural Resources Conservation Service's (NRCS) Web Soil Survey of Central Sierra Foothills Area, California, Parts of Calaveras and Tuolumne Counties (NRCS 2018a) to determine areas of potential USACE jurisdiction. The field delineation was conducted in the study area on December 13, 2018 by Ascent biologist Pamela Brillante and wetland ecologist Shannon Hickey.



Source: Adapted by Ascent in 2018

Figure 1 Groveland Project Location

The USACE 1987 wetlands delineation manual (Environmental Laboratory 1987) and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast (WMVC) Region* (Environmental Laboratory 2010) were used to delineate wetlands potentially subject to USACE jurisdiction under Section 404 of the CWA. The 1987 manual and 2010 *WMVC Supplement* provide technical guidelines and methods for the three-parameter approach to determining the location and boundaries of jurisdictional wetlands. This approach requires that an area support positive indicators of 1) hydrophytic vegetation, 2) hydric soils, and 3) wetland hydrology to be considered a jurisdictional wetland. Potentially jurisdictional features were identified and mapped in the field and were later imported onto an electronic version of the aerial photograph. Sample point locations were also recorded in the field digitally using a global positioning system (GPS) data logger (iGage LT500T L1 GNSS Handheld Receiver) and were imported onto the aerial photograph. GPS data were recorded in North American Datum of 1983. Wetland Determination and Ordinary High Water Mark (OHWM) datasheets were completed during this delineation field survey. Methods used to determine presence of the three-parameter wetland criteria are described below.

## Hydrophytic Vegetation

To determine whether the area at a sample point was dominated by hydrophytic vegetation, plant species at each sample site were recorded and the wetland indicator status was recorded for the dominant species using USACE's National Wetlands Plant List for the WMVC Region (Lichvar et al. 2016). A species is considered dominant when that species—individually or collectively—accounts for 50 percent of the total absolute cover in a vegetation stratum. Additional codominant species are identified if those species account for at least 20 percent of the absolute cover in a designated vegetation stratum (Environmental Laboratory 2010).

Hydrophytic species include those listed as obligate (OBL), facultative wetland (FACW), or facultative (FAC) species, which correspond to a given species frequency of occurrence in wetlands. The plant indicator categories are defined as:

- OBL—greater than 99 percent occurrence in wetlands,
- ▲ FACW—between 66 percent and 99 percent occurrence in wetlands, and
- ▲ FAC—between 33 percent and 66 percent occurrence in wetlands.

For purposes of this delineation, a sample site was considered to have hydrophytic vegetation if greater than 50 percent of the dominant species had an indicator status of FAC or wetter. This report uses the following indicators to identify species not considered hydrophytic:

- ▲ Facultative upland (FACU)—species that usually occur in nonwetlands (67 percent-99 percent estimated probability) but are occasionally found in wetlands (1 percent-33 percent estimated probability),
- Obligate upland (UPL)—species that may occur in wetlands in another region, but almost always (greater than 99 percent) occur in nonwetlands in California (Region 0) under natural conditions,
- No indicator (NI)—species for which insufficient information was available to determine an indicator status, and
- Not listed (NL)—species not listed in National Wetland Plant List (Lichvar et. al. 2016).

Standard protocol states that a species with an NL designation should be considered UPL when the delineator completes the "Prevalence Index Worksheet" portion of the wetland delineation data form (Environmental Laboratory 2010). Botanical nomenclature follows The Jepson Manual: Vascular Plants of California, Second Edition (Baldwin et al. 2012).

## Hydric Soils

The soil survey of Central Sierra Foothills Area, California, Parts of Calaveras and Tuolumne Counties (NRCS 2018a) was consulted to identify soil units mapped on the project site by the Natural Resources Conservation Service, and these soils were cross referenced to *The National Hydric Soils List* (NRCS 2018b) to determine if any of the mapped soil units are listed as hydric. Per delineation protocol, soils were examined by digging soil test pits to determine whether hydric soils exist in a sampling location. Soils were described in terms of depth, matrix color, moisture status, and other diagnostic features indicative of hydric soils. Hydric soil indicators are based on those provided in the 1987 USACE manual, 2010 regional supplement, *Field Indicators of Hydric Soils in the United States: A Guide for Identifying and Delineating Hydric Soils* (NRCS 2018c), and *Redoximorphic Features for Identifying Aquic Conditions* (Vepraskas 1994).

## Wetland Hydrology

Wetland hydrology was assessed by recording observations such as saturation, inundation, oxidized rhizospheres along living root channels, and sediment deposits.

## Delineation

Waters of the United States were delineated based on the OHWM, using the OHWM field guide (Mersel and Lichvar 2014). A drainage feature's OHWM typically corresponds with characteristics such as shelving, scour lines, and other natural linear features which define the bed and bank portion of the channel that floods under normal conditions (USACE 2005).

Potentially jurisdictional areas were all evaluated in terms of their status as a navigable waterway or their adjacency or hydrological connection to a navigable waterway. The "Clean Water Rule: Definition of Waters of the United States (Final Rule)" was also consulted to aid the preliminary determination that an area would be subject to USACE jurisdiction under CWA Section 404 (80 Federal Register [FR] 37054, June 29, 2015). The conclusions of this memo are also consistent with the Final Rule.

An aquatic resources map depicting sites qualifying as aquatic resources according to Section 404 of the CWA and sample point (SP) locations is provided as Figure 2. Representative wetland determination and OHWM datasheets were completed for the representative sample points taken during the survey and are provided in Attachment 1.

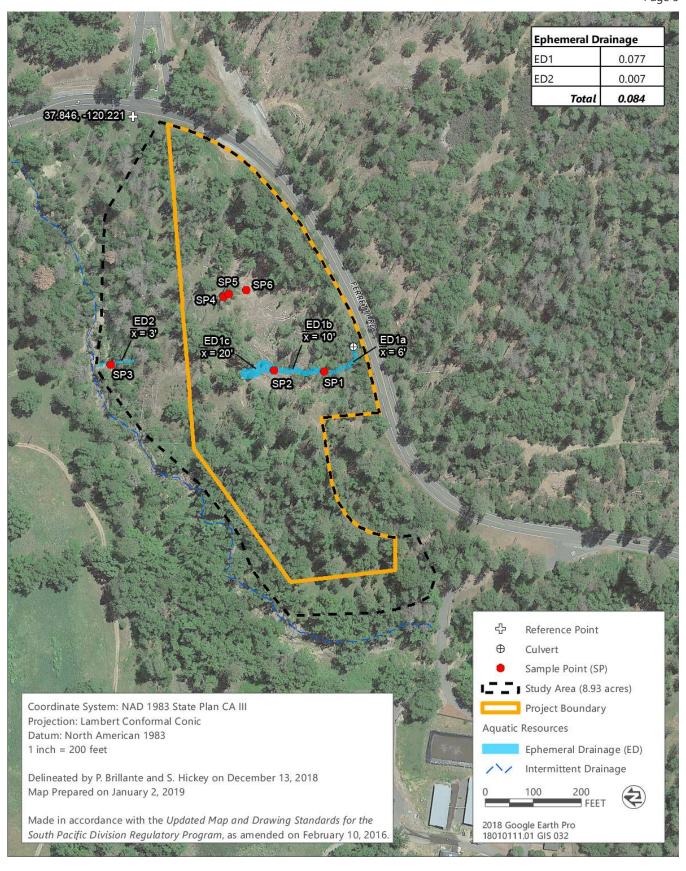


Figure 2

# SOIL SURVEY RESULTS

According to the regional soil survey, the soil underlying the project site is Nedsgulch-Wayhill complex, 3 to 15 percent slopes, which is not a hydric soil based on *The National Hydric Soils List* (NRCS 2018b) for the state of California (Table 1).

Table 1 Soil map units that occur in the project site according to the Soil Survey of Central Sierra Foothills Area, California, Parts of Calaveras and Tuolumne Counties

Name	Map Unit	Soil Series	Taxonomic Class	Description	Hydric?
		Nedsgulch	Fine-loamy, mixed, semiactive, mesic Ultic Palexeralfs	Very deep, well drained soils formed in colluvium and residuum from schist. Found on backslopes and side slopes of high hills and mountain. These soils have a xeric soil moisture regime and the soil moisture control section is dry in all parts from about June to October.	No
Nedsgulch- Wallyhill complex, 3 to 15 percent slopes	8171	Wallyhill	Fine-loamy, mixed, semiactive, mesic Ultic Haploxeralfs	Moderately deep, well drained soils formed in residuum weathered from schist. Found on high hills and mountain slopes of the Sierra Nevada Mountains. These soils have a xeric soil moisture regime and the soil moisture control section is dry in all parts from about July to October.	No
		Fricot	Loamy-skeletal, mixed, active, mesic, shallow Ultic Haploxeralfs	Shallow, well drained soils formed in colluvium and residuum derived from phyllite, schist, and other metasedimentary rocks. Found on crests of high hills and ridges. These soils have a xeric soil moisture regime and the soil moisture control section is dry in all parts from about June to October.	No

Source: NRCS 2018a, 2018b

# **AQUATIC RESOURCES**

A total of 0.084 acre (409.2 linear feet) of potentially jurisdictional waters of the United States, consisting of two ephemeral drainages (ED), were mapped within the study area (Table 2). ED1 is within the project site and ED2 is outside of the project site, as shown in Figure 2.

Table 2 Aquatic Resources in the Study Area

	Aquatic Re	esources Classification	Aquatic Resource Size	Aquatic Resource Size	
Aquatic Resource Name	Cowardin Code <sup>1</sup>	Location (lat/long)	(acre)	(linear feet)	
Other Waters					
ED1a	R4SB	37.845760, -120.222939	0.016	119.8	
ED1b	R4SB	37.846019, -120.222990	0.026	114.8	
ED1c	R4SB	37.846253, -120.222982	0.036	76.8	
ED2	R4SB	37.847071, -120.222930	0.007	97.9	
Total Other Waters			0.084	409.2	

<sup>1.</sup> R4SB = Streambed, Intermittent, Riverine

The 0.077-acre ephemeral drainage (ED1) enters the study area from the south through a culvert under Ferretti Road. The culvert appears to have been placed east of the natural stream channel and redirects flow for roughly 20 feet. Water flows out of the culvert and downslope (as evidenced by erosion on the hillslope) to the west until it meets the natural stream channel. The drainage continues downslope (north) until its terminus at a dirt road. The ephemeral drainage was mapped as three segments due to varying average OHWM. The upstream (southern) segment averages approximately 6 feet in width at the OHWM and bed substrate is dominated by clay/silt with some sand, gravel, and cobble. This segment contains incense cedar (Calocedrus decurrens) (UPL) trees both above and below the OHWM. The middle segment averages approximately 10 feet in width at the OHWM. The downstream (northern) segment averages approximately 20 feet in width at the OHWM. This segment contains a large pile of woody debris at its terminus just south of the dirt road. The drainage widens in this segment and this could be due to several factors, including topography, the dirt road, or the debris pile acting as a dam. The substrate in this segment is dominated by sand and gravel and there are no trees above or below the OHWM. However, there are tree stumps above and below the OHWM and the woody debris pile likely includes some of the cut trees. Data forms 1 and 2 in Attachment 1 describe ED1 in the study area and the locations of SP1 and SP2, respectively, are depicted in Figure 2. ED1 was delineated based on OHWM using break in slope, change in vegetation, change in sediment texture, drift deposits, and undercut banks as indicators.

There is no evidence of water flow across the dirt road and there are no OHWM indicators or evidence of a bed and bank downstream of the dirt road. However, evidence of erosion and sheet flow is visible further downstream. Another large woody debris pile intersects the sheet flow further downstream. The sheet flow continues downslope and eventually forms a narrow channel with a bed and bank and OHWM that connects with the floodplain of an intermittent stream that parallels the northern boundary of the project site. Data form 3 in Attachment 1 describes ED2 in the study area and the location of SP3 is depicted in Figure 2. The 0.007-acre ephemeral drainage (ED2) averages approximately 3 feet in width at the OHWM and was delineated based on OHWM using break in slope, change in vegetation, change in sediment texture, and drift deposits as indicators.

### Conclusion

The ephemeral drainages in the study area were delineated as ephemeral features potentially subject to USACE jurisdiction under Section 404 of the CWA because they have a bed and bank and OHWM and contribute flow to the unnamed intermittent stream floodplain, which has a direct hydrological surface connection to a traditional navigable water (TNW), the Tuolumne River. Although there is a break in the ephemeral drainage that separates ED1 and ED2, the USACE definition of a tributary states that a water that otherwise qualifies as a tributary does not lose its status as a tributary if, for any length, there are one or more constructed breaks (such as bridges, culverts, pipes, or dams), or one or more natural breaks (such as wetlands along the run of a stream, debris piles, boulder fields, or a stream that flows underground) so long as a bed and banks and ordinary high water mark can be identified upstream of the break (80 FR 37106, September 28, 2015). The ephemeral drainages only flow in response to direct precipitation and do not support continuous flow at least seasonally.

In addition, an area within the study area was investigated to determine if it fit the three-parameter criteria of a wetland. The area in question and two adjacent areas with different vegetation composition were sampled, including digging soil pits and completing wetland determination data forms. Sample point locations SP4, SP5, and SP6 are depicted on Figure 2. Hydrophytic vegetation was found to likely be dominant. One dominant plant (*Navarretia* sp.) could only be narrowed down to two possible species and could not be definitively identified to species due to the time of year (no flowers were present to allow a positive identification to the

species level). However, one of the two possible species has a strong affinity for serpentine soils, which are not found on the site, and therefore this species can likely be ruled out. The area displayed hydrological indicators but did not contain hydric soil. Therefore, the area in question did not satisfy the three-parameter approach and was determined to not be a wetland. Wetland determination data forms in Attachment 1 provide information on the three sampling locations, including the area in question.

### RECOMMENDATIONS

It is recommended that the ephemeral drainages be avoided. Based on the site plan dated October 19, 2018, the parking lot and driveway would need to be shifted north to avoid the downstream (north) end of one of the ephemeral drainages (ED1). Alternatively, the ephemeral drainage could be spanned. The bridge abutments and all construction activities associated with the span would need to be outside of the bed and bank and OHWM of the ephemeral drainage. Top of bank width is roughly 25 feet at the north end of ED1. The boundaries of the drainage should be clearly delineated in the field with fencing or brightly-colored flagging prior to start of construction. If the ephemeral drainage cannot be avoided by project-related activities, an aquatic resources delineation report should be prepared according to USACE standards and submitted to USACE for a preliminary jurisdictional determination. The ephemeral drainage may also be subject to Regional Water Quality Control Board and California Department of Fish Wildlife regulation under Section 1602 of the Fish and Game Code. No grading, fill, vegetation removal, or other ground disturbing activities should occur within the ephemeral drainage until all required permits, regulatory approvals, and permit conditions for effects on the aquatic resource are secured. The other ephemeral drainage (ED2) is outside of the project site and therefore will be avoided.

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North Carolina Agricultural Research Service, North Carolina State University. Raleigh, NC.

# Attachment 1

**Data Forms** 

#1	OHWM Delineation Cover Sheet	Page of 2
Project: Tuolomne Co Re	esilience Conter Date: 12/13/18	
Location: Groveland	Investigator(s): P. Brillan	te, S. Hickey
Project Description:		/
	dition (disturbances, in-stream structures, etc.):	
no 9	isturbance in this segment	
Off-site Information		
	1? Yes No [If yes, attach image(s) to data any other features of interest on the image(s); describ	
3		
Hydrologic/hydraulic information below.] Description:	acquired? Yes No [If yes, attach information	ation to datasheet(s) and describe
List and describe any other suppor	ting information received/acquired:	
	NA NA	
characteristics of the OHWM along some	d one or more datasheets for each project site. Each datashe length of a given stream. Complete enough datasheets to adors, stream conditions, etc. Transect locations can be market	equately document up- and/or

Datasheet #		OHW	M Delineation I	Datasheet		Page 2 of 2
						haracteristics over of transect length)
	OHWMX		XOHWM	χ=	6	
Prook in Slone at	OHWM. S	'Sharp (> 60°)   [	Moderate (30-	-60°) │ □ Gen	tle (< 30°)   [	□ None
Notes/Description:		Sharp (> 00 )   [	Moderate (50-	-00 )   El Gen	me ( 30 )   L	None
Sediment Texture	e: Estimate perc	entages to describ	e the general sed	iment texture abo	ove and below t	he OHWM
	Clay/Silt <0.05mm	Sand 0.05 – 2mm	Gravel 2mm – 1cm	Cobbles 1 – 10cm	Boulders >10cm	Developed Soil Horizons (Y/N)
Above OHWM	40.05hiiii	40	Ø	Ø	Ø	1101120113 (1711
Below OHWM	78	10	10	9	Ø	
Vegetation: Estir	nate absolute per	rcent cover to desc	cribe general veg	etation character		l below the OHWN
Above OHWM	60	Ø	100	Ø	¥1	
Below OHWM	15	Ø	10	90		
Notes/Description	List/describe an	y additional field rcut bank	evidence and/or 1 8 4 drift	lines of reasoning deposits	g used to suppo	rt your delineation

#2	0	HWM Delineation Cover Sheet	Page \_ of 2
Project:	Tuolumne Co Resilience Co	enter Date: 12/13/18	
Location:	Groveland	Investigator(s): P. Billante,	S. Hickey
Dualant Da	a a vintia n		
Project Des	scription:		
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Describe in		sturbances, in-stream structures, etc.):  Ly debris within oxwm	
		alate and the last	L. M. com
	drainage stops at	on of crosion across the road	s it through
	Sheet flow evider	dirt road 4 no culvert carriers of erosion across the road int downslope of road (evosional cand of others) until sheet flow	al feature with
	no clear bed/ban	le and othern) until sheet flow bed/bank and othern (see dat	arheet 3)
Off-site Inf	into channel w	bed bank and ottom (see and	
		<b>—</b>	
		s No [If yes, attach image(s) to datasheet features of interest on the image(s); describe below.	
iocutions of	transcots, O11 W W1, and any other r	toatures of interest on the image(s), describe ber	ow] Description.
Hydralagic	/hydraulic information acquired	? Yes No [If yes, attach information t	o datasheet(s) and describe
below.] Des		. I res I ro [ii yes, attach information i	o datasneet(s) and describe
~			
List and de	scribe any other supporting info		
	Ν'	A A	
Instructions:	Complete one cover sheet and one or m	ore datasheets for each project site. Each datasheet sho	uld capture the dominant
haracteristics	s of the OHWM along some length of a	ore datasheets for each project site. Each datasheet sho given stream. Complete enough datasheets to adequate conditions, etc. Transect locations can be marked on a	ly document up- and/or

Datasheet # 2		OHW	M Delineation	Datasheet	F	Page 2 of
Transect (cross-sec some distance; labe						
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				-ac pi	le debrist	
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	( )			gain	row self	
				*	•	
			igi			
Break in Slope at (	OHWM: ⊠	Sharp (> 60°)	Moderate (30	–60°)   🔲 Gen	tle (< 30°)   🔲	None
Notes/Description:	2	ast bank	west ban			
			west ban	L		
Sediment Texture:	Estimate perce	entages to describ	e the general sed	iment texture abo	ove and below th	e OHWM
	Clay/Silt	Sand	Gravel	Cobbles	Boulders	Developed Soi
	<0.05mm	0.05 – 2mm	2mm – 1cm	1 – 10cm	>10cm	Horizons (Y/N
Above OHWM	60	40	Ø	Ø	Ø	1
		,	/	/-	7-	<u> </u>
Below OHWM Notes/Description:	14	50	30	5	Ĩ	10
Notes/Description:			30	5	1	below the OHW
Notes/Description:			30	5	istics above and l	below the OHW
Notes/Description:	ate absolute per	cent cover to desc	30 cribe general veg Herb (%)	etation character	istics above and l	below the OHW
Notes/Description:  Vegetation: Estim	ate absolute per	cent cover to desc	30	etation characteri Bare (%	istics above and l	below the OHW
Vegetation: Estim Above OHWM Below OHWM	ate absolute per Tree (%)	cent cover to desc Shrub (%)	cribe general veg Herb (%)	etation characteri Bare (%	istics above and l	
Vegetation: Estim Above OHWM Below OHWM	ate absolute per	cent cover to desc Shrub (%)	cribe general veg Herb (%) 85 5	etation characteri Bare (%	istics above and l	
Notes/Description:  Vegetation: Estim  Above OHWM	ate absolute per Tree (%)	cent cover to desc Shrub (%)	cribe general veg Herb (%)	etation characteri Bare (%	istics above and l	
Vegetation: Estim Above OHWM Below OHWM	ate absolute per Tree (%)	cent cover to desc Shrub (%)	cribe general veg Herb (%) 85 5	etation characteri Bare (%	istics above and l	
Notes/Description:  Vegetation: Estim  Above OHWM  Below OHWM  Notes/Description:	ate absolute per Tree (%)	cent cover to desc Shrub (%)	cribe general veg Herb (%) 85 5 6 4 below	etation character  Bare (% 13 95 0HWM c.A	istics above and I	
Notes/Description:  Vegetation: Estim  Above OHWM  Below OHWM  Notes/Description:	ate absolute per Tree (%)	cent cover to desc Shrub (%)	rribe general veg Herb (%) 85 5 4 below main	etation character  Bare (%  13  95  OHWM CA	istics above and I	your delineation
Notes/Description:  Vegetation: Estim  Above OHWM  Below OHWM  Notes/Description:	ate absolute per Tree (%)	cent cover to desc Shrub (%)  2  Arees about the strongs read the strongs read the strongs read the strongs read the strongs additional field debris de	cribe general veg Herb (%) 85 5 e d below main evidence and/or punslope po	etation character  Bare (%  13  95  OHWM cot	down, only	your delineation
Notes/Description:  Vegetation: Estim  Above OHWM  Below OHWM  Notes/Description:	ate absolute per Tree (%)	cent cover to desc Shrub (%)	cribe general veg Herb (%) 85 5 e d below main evidence and/or punslope po	etation character  Bare (%  13  95  OHWM cot	down, only	your delineation
Notes/Description:  Vegetation: Estim  Above OHWM  Below OHWM	ate absolute per Tree (%)	cent cover to desc Shrub (%)  2  Arees about the strongs read the strongs read the strongs read the strongs read the strongs additional field debris de	cribe general veg Herb (%) 85 5 e d below main evidence and/or punslope po	etation character  Bare (%  13  95  OHWM cot	down, only	your delineation
Notes/Description:  Vegetation: Estim  Above OHWM  Below OHWM  Notes/Description:	ate absolute per Tree (%)	cent cover to desc Shrub (%)  2  Arees about the strongs read the strongs read the strongs read the strongs read the strongs additional field debris de	cribe general veg Herb (%) 85 5 e d below main evidence and/or punslope po	etation character  Bare (%  13  95  OHWM cot	down, only	your delineation
Notes/Description:  Vegetation: Estim  Above OHWM  Below OHWM  Notes/Description:	ate absolute per Tree (%)	cent cover to desc Shrub (%)  2  Arees about the strongs read the strongs read the strongs read the strongs read the strongs additional field debris de	cribe general veg Herb (%) 85 5 e d below main evidence and/or punslope po	etation character  Bare (%  13  95  OHWM cot	down, only	your delineation
Notes/Description:  Vegetation: Estim  Above OHWM  Below OHWM  Notes/Description:	ate absolute per Tree (%)	cent cover to desc Shrub (%)  2  Arees about the strongs read the strongs read the strongs read the strongs read the strongs additional field debris de	cribe general veg Herb (%) 85 5 e d below main evidence and/or punslope po	etation character  Bare (%  13  95  OHWM cot	down, only	your delineation
Notes/Description:  Vegetation: Estim  Above OHWM  Below OHWM  Notes/Description:	ate absolute per Tree (%)	cent cover to desc Shrub (%)  2  Arees about the strongs read the strongs read the strongs read the strongs read the strongs additional field debris de	cribe general veg Herb (%) 85 5 e d below main evidence and/or punslope po	etation character  Bare (%  13  95  OHWM cot	down, only	your delineation

#3	OHWM Delineation Cover Sheet	Page \_ of Z
Project: Twolomne Co Resil	ience Center Date: 12/13/18	
Location: Groveland	Investigator(s): P. Billante,	S. Hickey
Project Description:		,
Describe the river or stream's conditi	ion (disturbances, in-stream structures, etc.):	\ + Cl-2.
narrow channel and carries it of intermitten	concentrates water from upslope to downstope to	s floodplain
large washe debris biles	s and grassy areas upclope to d	int road
no defined bed and be but connects flow from	s and grassy areas upclope to d ank or indicators of oteum in a upstream drainage south of dirt	upslope section
Off-site Information		
	Yes No [If yes, attach image(s) to datashed other features of interest on the image(s); describe be	
,,,,,,,,	<b>3</b> -(-),	39
Hydrologic/hydraulic information according below.] Description:	quired?  Yes  No [If yes, attach information	to datasheet(s) and describe
		27
List and describe any other supporting	ng information received/acquired:	
• ••	NA	
	N <sup>e</sup> T	表
		18 21
characteristics of the OHWM along some leng	one or more datasheets for each project site. Each datasheet sl gth of a given stream. Complete enough datasheets to adequa , stream conditions, etc. Transect locations can be marked on	ntely document up- and/or

		Olivi	M Delineation I	Jatasneet —————		Page <u>2</u> of <u>2</u>	
Transect (cross-section) drawing: (choose a location that is representative of the dominant stream characteristics over some distance; label the OHWM and other features of interest along the transect; include an estimate of transect length)							
>	712			_			
~			_	X=3			
	OHWIN	X OH W	Jm				
Break in Slope at C	OHWM:	Sharp (> 60°)   [	Moderate (30-	-60°)   🔲 Gent	le (< 30°)	] None	
Notes/Description:	_	/ [ -	` `	· 🚉) 💳	, ,, _	-	
•							
Sediment Texture:	Estimate per					he OHWM	
sediment Texture.	Clay/Silt	Sand	Gravel	Cobbles	Boulders	Developed Soi	
	<0.05mm	0.05 – 2mm	2mm – 1cm	1 – 10cm	>10cm	Horizons (Y/N	
Above OHWM	.60	40	Ø	Ø	Ø		
Below OHWM	59	30	5	5	1		
Vegetation: Estima	ate absolute per	cent cover to desc	ribe general veg	etation characteri	stics above and	below the OHW	
	Tree (%)	Shrub (%)	Herb (%)	Bare (%)			
Above OHWM	30	10	75	5			
Below OHWM	Ø	2	10	88			
Notes/Description:							
Other Evidence: I	_ist/describe an	y additional field	evidence and/or l	ines of reasoning	used to suppor	t your delineation	
		ft deposits					
124	311	( ) cop o					
				ł)			
				*			

# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Tuolumne Co Resilience	Center	City/County: Grove	land, Tuolumne Sampling Date: 12/13/18
Applicant/Owner: Tuolumne County			
Investigator(s): P. Brillante, S. Hickey			
Landform (hillslope, terrace, etc.): terrace			
			Long: -120.222472 Datum: NAD83
Soil Map Unit Name: Nedsaylch-Wallyhill Cample			
· · · · · · · · · · · · · · · · · · ·		•	
Are climatic / hydrologic conditions on the site typical for			
Are Vegetation, Soil, or Hydrology			"Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology	_ ,,	•	eeded, explain any answers in Remarks.)
		sampling point l	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes		is the Sampled	1 Area
Hydric Soil Present? Yes Wetland Hydrology Present? Yes	No	within a Wetlan	nd? Yes No
Describer		1.0	
upland pant -	terrace	with slope	e above and below
adjacent to	girt	road	
VEGETATION – Use scientific names of pl	ants.		
		Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Species? Status	Number of Dominant Species
1		<del>/</del>	That Are OBL, FACW, or FAC: (A)
3.		<u></u>	Total Number of Dominant
4.	_/_		Species Across All Strata: (B)
		= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size:			Prevalence index worksheet:
1			Total % Cover of: Multiply by:
		0.55	OBL species x 1 =
3			FACW species x 2 =
5.			FAC species x 3 =
		= Total Cover	FACU species x 4 =
Herb Stratum (Plot size: 5×5 )			UPL species x 5 =
1. Cynosurus echinatus	30	Y UPL	Column Totals: (A) (B)
	25	7 1,01	Prevalence Index = B/A =
3. Tonlis arvensis	<u> 10</u>	N UPL	Hydrophytic Vegetation Indicators:
4. Arra caryophyllea 5. Elymus alaucus	$-\frac{3}{3}$	N FACU	1 - Rapid Test for Hydrophytic Vegetation
6. Ranunculus muricatus	<del></del>	N FACW	2 - Dominance Test is >50%
7. Rumex acetosilla		N FACU	3 - Prevalence Index is <3.01
8		10 11100	4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
9.			5 - Wetland Non-Vascular Plants <sup>1</sup>
10.			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
11			¹indicators of hydric soil and wetland hydrology must
	74	= Total Cover	be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)			
1.	<del></del>		Hydrophytic
2		- Tatal Cauca	Vegetation Present? Yes No
% Bare Ground in Herb Stratum		= Total Cover	
Remarks: Poa could not be dete	mined	to species	due to time of year.
		y Landautic w	egetation could not be determined
Therefore commonly	x of n	7 STOPTING OF	encionisti conta noi ne determina

OIL					
rofile Description: (Describe	to the depth	needed to document the indicato	r or confirm	the absence of	findicators.)
Depth Matrix		Redox Features			_ **.
inches) Color (moist)		Color (moist) % Type	Loc	Texture	Remarks
0-16 104R 3/3	100			sandy 100	um
					<u> </u>
	- <del></del> -				
					<del></del>
			_		
Type: C=Concentration, D=De	pletion, RM=Re	educed Matrix, CS=Covered or Coa	ated Sand Gra	ains. <sup>2</sup> Loçat	tion: PL=Pore Lining, M=Matrix
lydric Soil Indicators: (Applie	cable to all LR	Rs, unless otherwise noted.)		Indicators	for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)		_ Sandy Redox (S5)		_	Muck (A10)
Histic Epipedon (A2)	_	_ Stripped Matrix (S6)			arent Material (TF2)
Black Histic (A3)		Loamy Mucky Mineral (F1) (exce	ept MLRA 1)		Shallow Dark Surface (TF12)
<ul> <li>Hydrogen Sulfide (A4)</li> <li>Depleted Below Dark Surfa</li> </ul>	(A11)	Loamy Gleyed Matrix (F2) Depleted Matrix (F3)		Other	(Explain in Remarks)
Thick Dark Surface (A12)		_ Redox Dark Surface (F6)		3Indicators	of hydrophytic vegetation and
Sandy Mucky Mineral (S1)		Depleted Dark Surface (F7)			I hydrology must be present,
Sandy Gleyed Matrix (S4)		Redox Depressions (F8)		unless	disturbed or problematic.
Restrictive Layer (if present):					
Туре:		_			
Depth (inches):				Hydric Soil P	resent? Yes No 🗸
Remarks:					
YDROLOGY					
YDROLOGY Wetland Hydrology Indicators		check all that apply)	-	Second	ary indicators (2 or more required)
YDROLOGY Wetland Hydrology Indicators Primary Indicators (minimum of			(except		lary indicators (2 or more required)
YDROLOGY  Wetland Hydrology Indicators  Primary Indicators (minimum of  Surface Water (A1)		Water-Stained Leaves (B9)		Wa	ter-Stained Leaves (B9) (MLRA 1,
YDROLOGY  Wetland Hydrology Indicators  Primary Indicators (minimum of  Surface Water (A1)  High Water Table (A2)		Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B		Wa	tter-Stained Leaves (B9) (MLRA 1, 4A, and 4B)
YDROLOGY  Wetland Hydrology Indicators  Primary Indicators (minimum of  Surface Water (A1)  High Water Table (A2)  Saturation (A3)		Water-Stained Leaves (B9)  MLRA 1, 2, 4A, and 4B  Salt Crust (B11)	)	Wa	ter-Stained Leaves (B9) (MLRA 1,
YDROLOGY  Wetland Hydrology Indicators  Primary Indicators (minimum of  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)		Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B13)	)	Wa Dra Dry	ter-Stained Leaves (B9) (MLRA 1, 4A, and 4B) sinage Patterns (B10) v-Season Water Table (C2)
YDROLOGY  Wetland Hydrology Indicators  Primary Indicators (minimum of  Surface Water (A1)  High Water Table (A2)  Saturation (A3)		Water-Stained Leaves (B9)  MLRA 1, 2, 4A, and 4B  Salt Crust (B11)	) ) )	Wa Dra Dra Sa	ter-Stained Leaves (B9) (MLRA 1, 4A, and 4B) sinage Patterns (B10) v-Season Water Table (C2)
YDROLOGY  Wetland Hydrology Indicators  Primary Indicators (minimum of  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)		Water-Stained Leaves (B9)     MLRA 1, 2, 4A, and 4B     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)	) ) ng Living Roo	Wa Dra Dry Sal ats (C3) Ge	iter-Stained Leaves (B9) (MLRA 1, 4A, and 4B) iinage Patterns (B10) r-Season Water Table (C2) turation Visible on Aerial Imagery (
YDROLOGY  Wetland Hydrology Indicators  Primary Indicators (minimum of  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)		Water-Stained Leaves (B9)  MLRA 1, 2, 4A, and 4B  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1  Oxidized Rhizospheres alor	) ) ng Living Roo (C4)	Wa Dra Dry Sal ts (C3) Ge	ter-Stained Leaves (B9) (MLRA 1, 4A, and 4B) sinage Patterns (B10) r-Season Water Table (C2) turation Visible on Aerial Imagery (Comorphic Position (D2)
YDROLOGY  Wetland Hydrology Indicators  Primary Indicators (minimum of  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)		Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor	) ) ng Living Roo (C4) illed Soils (C6	Wa Dra Dry Sai ts (C3) Ge Sh.	ter-Stained Leaves (B9) (MLRA 1, 4A, and 4B) sinage Patterns (B10) r-Season Water Table (C2) turation Visible on Aerial Imagery (Gomorphic Position (D2) allow Aquitard (D3)
YDROLOGY  Netland Hydrology Indicators  Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aeria	one required; o	Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Presence of Reduced Iron of Recent Iron Reduction in Ti	) ) ng Living Roo (C4) illed Soils (C6 (D1) (LRR A	Wa Dray Sai ats (C3) Ge Shi b) FA ) Ra	ter-Stained Leaves (B9) (MLRA 1, 4A, and 4B) sinage Patterns (B10) r-Season Water Table (C2) turation Visible on Aerial Imagery (Comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5)
YDROLOGY  Wetland Hydrology Indicators  Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aeria Sparsely Vegetated Conca	one required; o	Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Presence of Reduced Iron of Recent Iron Reduction in Ti	) ) ng Living Roo (C4) illed Soils (C6 (D1) (LRR A	Wa Dray Sai ats (C3) Ge Shi b) FA ) Ra	ter-Stained Leaves (B9) (MLRA 1, 4A, and 4B) sinage Patterns (B10) r-Season Water Table (C2) turation Visible on Aerial Imagery (Comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A)
YDROLOGY  Netland Hydrology Indicators  Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aeria Sparsely Vegetated Conca	one required; of the second of	Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Presence of Reduced Iron ( Recent Iron Reduction in Ti Stunted or Stressed Plants Other (Explain in Remarks)	) ) ng Living Roo (C4) illed Soils (C6 (D1) (LRR A)	Wa Dray Sai ats (C3) Ge Shi b) FA ) Ra	ter-Stained Leaves (B9) (MLRA 1, 4A, and 4B) sinage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery (Comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A)
YDROLOGY  Netland Hydrology Indicators  Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aeria Sparsely Vegetated Conca  Field Observations: Surface Water Present?	I Imagery (B7) ve Surface (B8	Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Presence of Reduced Iron of Recent Iron Reduction in Ti Stunted or Stressed Plants Other (Explain in Remarks)	) ng Living Roo (C4) illed Soils (C6 (D1) (LRR A)	Wa Dray Sai ats (C3) Ge Shi b) FA ) Ra	ter-Stained Leaves (B9) (MLRA 1, 4A, and 4B) sinage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery (Comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A)
YDROLOGY  Netland Hydrology Indicators  Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aeria Sparsely Vegetated Conca  Field Observations: Surface Water Present?  Water Table Present?	I Imagery (B7) ve Surface (B8 Yes No	Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Presence of Reduced Iron of Recent Iron Reduction in Ti Stunted or Stressed Plants Other (Explain in Remarks)  Depth (inches):	) ) ng Living Roo (C4) illed Soils (C6 (D1) (LRR A)	Wa Dray Sai ats (C3) Ge Sh FA Fro	ter-Stained Leaves (B9) (MLRA 1, 4A, and 4B) sinage Patterns (B10) v-Season Water Table (C2) turation Visible on Aerial Imagery (Comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A) pst-Heave Hummocks (D7)
YDROLOGY  Netland Hydrology Indicators  Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aeria Sparsely Vegetated Conca  Field Observations: Surface Water Present?  Water Table Present?  Saturation Present?	I Imagery (B7) ve Surface (B8 Yes No	Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Presence of Reduced Iron of Recent Iron Reduction in Ti Stunted or Stressed Plants Other (Explain in Remarks)	) ) ng Living Roo (C4) illed Soils (C6 (D1) (LRR A)	Wa Dray Sai ats (C3) Ge Sh FA Fro	ter-Stained Leaves (B9) (MLRA 1, 4A, and 4B) sinage Patterns (B10) r-Season Water Table (C2) turation Visible on Aerial Imagery (Comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
YDROLOGY  Netland Hydrology Indicators  Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aeria Sparsely Vegetated Conca  Field Observations: Surface Water Present?  Water Table Present?  Saturation Present?  (Includes capillary fringe)	I Imagery (B7) ve Surface (B8 Yes No Yes No	Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Presence of Reduced Iron of Recent Iron Reduction in Ti Stunted or Stressed Plants Other (Explain in Remarks)  Depth (inches):	) ng Living Roo (C4) iilled Soils (C6 (D1) (LRR A)	Wa Dra Dry Sai Stai Sh FA FA From	ter-Stained Leaves (B9) (MLRA 1, 4A, and 4B) sinage Patterns (B10) r-Season Water Table (C2) turation Visible on Aerial Imagery (Comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
YDROLOGY  Netland Hydrology Indicators  Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aeria Sparsely Vegetated Conca  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (strea	I Imagery (B7) ve Surface (B8 Yes No Yes No	Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Presence of Reduced Iron Recent Iron Reduction in Ti Stunted or Stressed Plants Other (Explain in Remarks)  Depth (inches): Depth (inches):	) ng Living Roo (C4) iilled Soils (C6 (D1) (LRR A)	Wa Dra Dry Sai Stai Sh FA FA From	ter-Stained Leaves (B9) (MLRA 1, 44, and 4B) sinage Patterns (B10) r-Season Water Table (C2) turation Visible on Aerial Imagery (Comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A)
YDROLOGY  Netland Hydrology Indicators  Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aeria Sparsely Vegetated Conca  Field Observations: Surface Water Present?  Water Table Present?  Saturation Present?  (Includes capillary fringe)	I Imagery (B7) ve Surface (B8 Yes No Yes No	Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Presence of Reduced Iron Recent Iron Reduction in Ti Stunted or Stressed Plants Other (Explain in Remarks)  Depth (inches): Depth (inches):	) ng Living Roo (C4) iilled Soils (C6 (D1) (LRR A)	Wa Dra Dry Sai Stai Sh FA FA From	ter-Stained Leaves (B9) (MLRA 1, 44, and 4B) sinage Patterns (B10) r-Season Water Table (C2) turation Visible on Aerial Imagery (Comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A) pst-Heave Hummocks (D7)
YDROLOGY  Netland Hydrology Indicators  Primary Indicators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aeria Sparsely Vegetated Conca  Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (strea	I Imagery (B7) ve Surface (B8 Yes No Yes No	Water-Stained Leaves (B9) MLRA 1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Presence of Reduced Iron Recent Iron Reduction in Ti Stunted or Stressed Plants Other (Explain in Remarks)  Depth (inches): Depth (inches):	) ng Living Roo (C4) iilled Soils (C6 (D1) (LRR A)	Wa Dra Dry Sai ts (C3) Ge Sh. S) FA ) From	ter-Stained Leaves (B9) (MLRA 1, 4A, and 4B) sinage Patterns (B10) r-Season Water Table (C2) turation Visible on Aerial Imagery (Comorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) ised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)

# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

		Groveland Tudlumne Sampling Date: 12/13/18
Applicant/Owner: Tuolunne County		State: <u>CA</u> Sampling Point: <u>5</u>
Investigator(s): P. Brillante, S. Hickey		
		concave, convex, none): CONCAVE Slope (%): O
Subregion (LRR): D	Lat: 37.846422	Long: -120.22245 Datum: NAO83
Soil Map Unit Name: Nedsquich-Wallyhill com	lex 3-15% slope	S NWI classification: NONL
Are climatic / hydrologic conditions on the site typical for the		T. I.
Are Vegetation, Soil, or Hydrology	gnificantly disturbed?	Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology	aturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing sampling	point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	D	
Hydric Soil Present? Yes	Is the	Sampled Area a Wetland? Yes No
Wetland Hydrology Present? Yes	, <u></u>	
Remarks: Shallow depression	within dirt 1	road between sample point 4 4 6
		, ,
VEGETATION - Use scientific names of pla	s.	
T 0 1 (D) 1 (D)	Absolute Dominant In	
Tree Stratum (Plot size:)	% Cover Species? 5	indifiber of Dominant Species
1. 2.	<del></del>	That Are OBL, FACW, or FAC: (A)
3	<del>/</del>	Total Number of Dominant
4		Species Across All Strata: (B)
	= Total Cove	Percent of Dominant Species That Are OBL, FACW, or FAC:(A/B)
Sapling/Shrub Stratum (Plot size:)		Prevalence Index worksheet:
1		
2		OBL species x 1 =
3		FACW species x 2 =
4		FAC species x 3 =
5		FACU species x 4 =
Herb Stratum (Plot size: 5 × 5 )	= Total Cove	UPL species x 5 =
1. Briza Minor	2 4 1	AC   Column Totals: (A) (B)
2. Cynosurus echinatus	2 4	UPL Brownlance Index - B/A -
3. Poa sp.	21 4	Prevalence Index = B/A =  Hydrophytic Vegetation Indicators:
4. Centromadia Etchii		ACU 1 - Rapid Test for Hydrophytic Vegetation
5. Navarreta intertexta	<u> </u>	FACW 2 - Dominance Test is >50%
6. Holcus lanatus	<1 N F	A C 3 - Prevalence Index is ≤3.01
7. Juneus bufonius		4 - Morphological Adaptations (Provide supporting
8. Torilis arvensis	<1 N 1	data in Remarks or on a separate sheet)
9		5 - Wetland Non-Vascular Plants <sup>1</sup>
10.		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
11.		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)	= Total Cover	
1		Hydrophytic
2		Vegetation
9/ Page County in the Charter	92 = Total Cover	Present? Yes No
% Bare Ground in Herb Stratum		
Too could not be deter	nined to spec	ies due to time of year,
therefore dominance of	hydrophytic	vegetation could not be determined
	• •	*

Depth 🗀	Matrix		Redox Features	n the absence o	
(inches)	Color (moist)	%	Color (moist) % Type¹ Loc²	Texture	Remarks
0-5	104R 3/3	100			
	-				
		M6			
Tues C-Co	acontration D=Dor		educed Matrix, CS=Covered or Coated Sand G	roins <sup>2</sup> l os	ation: PL=Pore Lining, M=Matrix.
			RRs, unless otherwise noted.)		s for Problematic Hydric Soils <sup>3</sup> :
Histosol (			Sandy Redox (S5)		Muck (A10)
	pedon (A2)		Stripped Matrix (S6)	_	Parent Material (TF2)
Black His		_	Loamy Mucky Mineral (F1) (except MLRA 1)	) Very	Shallow Dark Surface (TF12)
	Sulfide (A4)	_	_ Loamy Gleyed Matrix (F2)	Othe	r (Explain in Remarks)
	Below Dark Surface	e (A11) _	_ Depleted Matrix (F3)	3,	
	k Surface (A12)	_	Redox Dark Surface (F6)		s of hydrophytic vegetation and nd hydrology must be present,
	ucky Mineral (S1) eyed Matrix (S4)	_	_ Depleted Dark Surface (F7) _ Redox Depressions (F8)		s disturbed or problematic.
	ayer (if present):		_ reduce Depressions (i b)	1	
	ayo. ( p. caa).				
Type: Depth (incl	hes):	ig deep	er - restricted layer	Hydric Soil	Present? Yes No
Type: Depth (incl	hes):	ig deep	er - restricted layer		Present? Yes No
Type: Depth (incl Remarks:	condut d	ig deep	er - restricted layer		Present? Yes No
Type: Depth (incl Remarks:  YDROLOG Wetland Hyd	nes):	:		,	
Type: Depth (incl Remarks:  YDROLOG Wetland Hyd Primary Indica	nes):	:	check all that apply)	Secon	dary Indicators (2 or more required)
Type: Depth (incl Remarks:  YDROLOG Wetland Hyd Primary Indica Surface W	Onland of Mater (A1)	:	check all that apply) Water-Stained Leaves (B9) (except	Secon	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1,
Type: Depth (incl Remarks:  YDROLOG Wetland Hyd Primary Indica Surface W High Wat	Trology Indicators ators (minimum of Mater (A1) ter Table (A2)	:	check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	Secon	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 4A, and 4B)
Type: Depth (incl Remarks:  YDROLOG Wetland Hyd Primary Indica Surface W High Wat Saturatio	Trology Indicators ators (minimum of Mater (A1) ter Table (A2) n (A3)	:	check all that apply) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Salt Crust (B11)	Secon	dary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 4A, and 4B) rainage Patterns (B10)
Type: Depth (incl Remarks:  YDROLOG Wetland Hyd Primary Indics Surface W High Wat Saturatio Water Ma	Trology Indicators ators (minimum of Mater (A1) ter Table (A2) n (A3) arks (B1)	:	check all that apply)  Water-Stained Leaves (B9) (except	Secon W Di	dary Indicators (2 or more required) ater-Stained Leaves (89) (MLRA 1, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2)
Type: Depth (incl Remarks:  YDROLOG Wetland Hyd Primary Indica Surface W High Wat Saturatio Water Ma Sediment	Trology Indicators ators (minimum of Mater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2)	:	check all that apply)  Water-Stained Leaves (B9) (except	Secon W Di Si	dary Indicators (2 or more required) fater-Stained Leaves (B9) (MLRA 1, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C
Type: Depth (incl Remarks:  YDROLOG Wetland Hyd Primary Indice Surface V High Wat Saturatio Water Ma Sediment Drift Dep	rology Indicators ators (minimum of of Nater (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3)	:	check all that apply)  Water-Stained Leaves (B9) (except	Secon  — W  — Di  — Di  — Si  pots (C3) <u>√</u> G	dary Indicators (2 or more required) (ater-Stained Leaves (B9) (MLRA 1, 4A, and 4B) (rainage Patterns (B10) (ry-Season Water Table (C2) (aturation Visible on Aerial Imagery (Ce) (comorphic Position (D2)
Type: Depth (incl Remarks:  YDROLOG Wetland Hyd Primary Indics Surface W High Wat Saturatio Water Ma Sediment Drift Depo	rology Indicators ators (minimum of Mater (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4)	:	check all that apply)  Water-Stained Leaves (B9) (except	Secon  W Di Si pots (C3) S	dary Indicators (2 or more required) fater-Stained Leaves (B9) (MLRA 1, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Ceomorphic Position (D2) hallow Aquitard (D3)
Type: Depth (incl Remarks:  YDROLOG Wetland Hyd Primary Indics Surface V High Wat Saturatio Water Ma Sediment Drift Depty Algal Mat Iron Depty	rology Indicators ators (minimum of Mater (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5)	:	check all that apply)  Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C	Secon  W  D  Soots (C3)   S  Soots (C3)   F  S  S  S  S  S  S  S  S  S  S  S  S	dary Indicators (2 or more required) fater-Stained Leaves (B9) (MLRA 1, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Ce) eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5)
Type: Depth (incl Remarks:  YDROLOG Wetland Hyd Primary Indics Surface V High Wat Saturatio Water Ma Sediment Drift Dept Algal Mat Iron Dept Surface S	rology Indicators ators (minimum of Mater (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6)	: one required;	check all that apply)  Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roll Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C	Secon  W  Di  Si  Soots (C3)   Si  Si  Si  Si  Si  Si  Si  Si  Si  S	dary Indicators (2 or more required) fater-Stained Leaves (B9) (MLRA 1, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Ce) eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Type: Depth (incl Remarks:  YDROLOG Wetland Hyd Primary Indics Surface V High Wat Saturatio Water Ma Sediment Drift Depth Algal Mat Iron Depth Surface S Inundation	rology Indicators ators (minimum of Mater (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial	: one required;	check all that apply)  Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Role Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C)  Stunted or Stressed Plants (D1) (LRR A)  Other (Explain in Remarks)	Secon  W  Di  Si  Soots (C3)   Si  Si  Si  Si  Si  Si  Si  Si  Si  S	dary Indicators (2 or more required) fater-Stained Leaves (B9) (MLRA 1, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Ce) eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5)
Type: Depth (incl Remarks:  YDROLOG Wetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Depth Algal Mat Iron Depth Surface S Inundatio Sparsely	rology Indicators ators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial Vegetated Concav	: one required;	check all that apply)  Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Role Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C)  Stunted or Stressed Plants (D1) (LRR A)  Other (Explain in Remarks)	Secon  W  Di  Si  Soots (C3)   Si  Si  Si  Si  Si  Si  Si  Si  Si  S	dary Indicators (2 or more required) fater-Stained Leaves (B9) (MLRA 1, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Ce) eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Type: Depth (incl Remarks:  YDROLOG Wetland Hyd Primary Indics Surface V High Wat Saturatio Water Ma Sediment Drift Depth Iron Depth Surface S Inundatio Sparsely Field Observe	rology Indicators ators (minimum of Mater (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial Vegetated Concaviations:	: one required; Imagery (87) re Surface (88)	check all that apply)  Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Role Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR A Other (Explain in Remarks)	Secon  W  Di  Si  Soots (C3)   Si  Si  Si  Si  Si  Si  Si  Si  Si  S	dary Indicators (2 or more required) fater-Stained Leaves (B9) (MLRA 1, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Ce) eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Type: Depth (incl Remarks:  YDROLOG Wetland Hyd Primary Indics Surface V High Water Ma Sediment Drift Depth Algal Mater Iron Depth Surface S Inundation Sparsely Field Observ Surface Water	rology Indicators ators (minimum of Mater (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial Vegetated Concaviations:	: one required; Imagery (87) ve Surface (88)	check all that apply)  Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roman Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (Called Stunted or Stressed Plants (D1) (LRR 20)  Other (Explain in Remarks)	Secon  W  Di  Si  Soots (C3)   Si  Si  Si  Si  Si  Si  Si  Si  Si  S	dary Indicators (2 or more required) fater-Stained Leaves (B9) (MLRA 1, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Ce) eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Type: Depth (incl Remarks:  YDROLOG Wetland Hyd Primary Indics Surface V High Wat Saturatio Water Ma Sediment Drift Depth Iron Depth Surface S Inundatio Sparsely Field Observe	rology Indicators ators (minimum of Mater (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial Vegetated Concaviations:	: one required; Imagery (87) ve Surface (80) Yes N Yes N	check all that apply)  Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Ro  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C  Stunted or Stressed Plants (D1) (LRR A  Other (Explain in Remarks)  Depth (inches):	Secon  W  D  Soots (C3)   S  OS  R  F  A)   R	dary Indicators (2 or more required) fater-Stained Leaves (B9) (MLRA 1, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (Ce) eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)

# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/site: Tuolumne Co Resilience	Center City/County: Grovel	and Tuolumne Sampling Date: 12/13/18
Applicant/Owner: Tuolumne County	•	State: CA Sampling Point:
Investigator(s): P. Brillante, S. Hickey		
Landform (hillslope, terrace, etc.): terrace		
		Long: -120.222425 Datum: NAD83
Soil Map Unit Name: Nedsgulch - Wallyhill con		
Are climatic / hydrologic conditions on the site typical for the	• /	
		(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology		"Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology		eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing sampling point l	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	No	
Hydric Soil Present? Yes i	No Is the Sample	d Area nd? YesNo√
Wetland Hydrology Present? Yes		
Remarks: very shallow depression within +	terrace-collects shee	t flow from upslope
VEGETATION – Use scientific names of plan		
Tree Stratum (Plot size:)	Absolute Dominant Indicator % Cover Species? Status	Dominance Test worksheet:
1	JOUNT OPECIES: OLARDS	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2.		
3.		Total Number of Dominant Species Across All Strata:  (B)
1		
	= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size:)		Prevalence Index worksheet:
1		Total % Cover of: Multiply by:
2		OBL species x 1 =
3		FACW species x 2 =
5.		FAC species x 3 =
N.	= Total Cover	FACU species x 4 =
Herb Stratum (Plot size: $5 \times 5'$ )		UPL species x 5 =
1. Juneus bufonius	25 Y FACW	Column Totals: (A) (B)
2. Navarretia intertextat	8 Y FACW	Prevalence Index = B/A =
3. Centromada fitchii	5 N FACU	Hydrophytic Vegetation Indicators:
4. Poa sp.		1 - Rapid Test for Hydrophytic Vegetation
5. Croton Setiger	1 N UPL	2 - Dominance Test is >50%
6. Plagiobothys so. 7. Epilobium brachycarpum	- <1 N UPL	3 - Prevalence Index is ≤3.0¹
7. Epilobium brachycarpum 8	21 10 012	4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
9		5 - Wetland Non-Vascular Plants <sup>1</sup>
10		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
11.		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
	42 = Total Cover	be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)		
1		Hydrophytic
2	= Total Cover	Vegetation Present? Yes No
% Bare Ground in Herb Stratum	= Total Cover	
Remarks: Navarretia is either Wavarretia	intertexta (FACW)	or N- paradoxiclara (UPL), but
because of time of year, a	definite identification	on cannot be made. Because
N. paradoxiclara is found on	n sementine coils lu	which the site does not contain),
US Army Corps of Engineers	a source to be iv.	Western Mountains, Valleys, and Coast – Version 2.0

Depth 5	iption: (Describe Matrix			Pade	x Feature	•				•	
inches)	Color (moist)	%	Color	(moist)	<u>%</u>		Loc²	Texture		Remar	rks
0-1	organic m	atter									
1 - 13	10 YR 313		5YR	416	<1		$\overline{M}$	Sand	loam		
1_10	10 11 013		<u> </u>	174					1 100011		
	= +"								_		
										_	
					-						
										<del></del>	
	ncentration, D=Dep						ed Sand Gra			PL=Pore Linin	ig, M=Matrix. Iydric Soils <sup>3</sup> :
•	ndicators: (Applic	able to all L				ea.)			cm Muck		tyuric soils .
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# **Attachment A5**

**Farmlands Protection** 

# **Farmlands Protection (CEST and EA)**

General requirements	Legislation	Regulation		
The Farmland Protection Policy Act (FPPA) discourages federal activities that would convert farmland to nonagricultural purposes.	Farmland Protection Policy Act of 1981 (7 U.S.C. 4201 et seq.)	7 CFR Part 658		
Reference				
https://www.hudexchange.info	/environmental-review/farmlar	nds-protection		

	Reference
ht	tps://www.hudexchange.info/environmental-review/farmlands-protection
1.	undeveloped land or conversion, that could convert agricultural land to a non-agricultural use?  □Yes → Continue to Question 2.  ⊠No
	Explain how you determined that agricultural land would not be converted:  Available data for designated Farmland is provided by the California Department of Conservation. There is no existing data available at this time for land within Tuolumne County. However, based on the general plan land use designations the project site is not within an agriculture land use designation.
	→ Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documentation supporting your determination.
2.	Does "important farmland," including prime farmland, unique farmland, or farmland of statewide or local importance regulated under the Farmland Protection Policy Act, occur on the project site?  You may use the links below to determine important farmland occurs on the project site:
	<ul> <li>Utilize USDA Natural Resources Conservation Service's (NRCS) Web Soil Survey <a href="http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm">http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm</a></li> <li>Check with your city or county's planning department and ask them to document if the project is on land regulated by the FPPA (zoning important farmland as non-agricultural does not exempt it from FPPA requirements)</li> <li>Contact NRCS at the local USDA service center</li> </ul>

□ No → Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination.
 □ Yes → Continue to Question 3.

scientist <a href="http://soils.usda.gov/contact/state">http://soils.usda.gov/contact/state</a> offices/ for assistance

- 3. Consider alternatives to completing the project on important farmland and means of avoiding impacts to important farmland.
  - Complete form AD-1006, "Farmland Conversion Impact Rating" <a href="http://www.nrcs.usda.gov/Internet/FSE\_DOCUMENTS/stelprdb1045394.pdf">http://www.nrcs.usda.gov/Internet/FSE\_DOCUMENTS/stelprdb1045394.pdf</a> and contact the state soil scientist before sending it to the local NRCS District Conservationist.
    - (NOTE: for corridor type projects, use instead form **NRCS-CPA-106**, "Farmland Conversion Impact Rating for Corridor Type Projects: <a href="http://www.nrcs.usda.gov/Internet/FSE">http://www.nrcs.usda.gov/Internet/FSE</a> DOCUMENTS/stelprdb1045395.pdf.)
  - Work with NRCS to minimize the impact of the project on the protected farmland. When you have finished with your analysis, return a copy of form AD-1006 (or form NRCS-CPA-106 if applicable) to the USDA-NRCS State Soil Scientist or his/her designee informing them of your determination.

Docume	ent your conclusion:
□Proje	ct will proceed with mitigation.
Expl	ain in detail the proposed measures that must be implemented to mitigate for the
impa	act or effect, including the timeline for implementation.
<b>→</b>	Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide form AD-1006 and all other documents used to make your determination.
□Proje	ct will proceed without mitigation.
Expl	ain why mitigation will not be made here:

Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide form AD-1006 and all other documents used to

 $\rightarrow$ 

make your determination.

# **Worksheet Summary**

## **Compliance Determination**

Provide a clear description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your region

There are no areas designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance within the project site or project vicinity. Further, the project site is not currently designated or zoned for farmland uses. The project would not convert Farmland to a nonagricultural use.
Are formal compliance steps or mitigation required?
☐ Yes
⊠ No



<u>Home</u> | <u>DLRP</u> | <u>Farmland Mapping and Monitoring Program</u> | Search for Maps, Reports, and Data

# Search for Maps, Reports, and Data

The links below provide FMMP information; some older information types may only be available in hardcopy format. Base year mapping for most counties is 1984.

#### COUNTY DATA:

#### Available information includes:

- GIS data and metadata-Note: Beginning with the 2014 update cycle, FMMP GIS data is posted in NAD83 (older GIS data, 1984-2012, remains in NAD 27)
- Biennial land use conversion tables
- · Historic data summaries
- Field analyst reports
- Soil units qualifying for Prime Farmland or Farmland of Statewide Importance

<u>Alameda</u>	Los Angeles	<u>Riverside</u>	Sierra Valley
<u>Amador</u>	<u>Madera</u>	Sacramento	<u>Siskiyou</u>
<u>Butte</u>	<u>Marin</u>	San Benito	<u>Solano</u>
<u>Colusa</u>	<u>Mariposa</u>	San Bernardino	<u>Sonoma</u>
Contra Costa	<u>Mendocino</u>	San Diego	<u>Stanislaus</u>
El Dorado	Merced	San Joaquin	Sutter
<u>Fresno</u>	Modoc	San Luis Obispo	<u>Tehama</u>
Glenn	Monterey	San Mateo	<u>Tulare</u>
<u>Imperial</u>	<u>Napa</u>	Santa Barbara	<u>Ventura</u>
<u>Kern</u>	<u>Nevada</u>	Santa Clara	<u>Yolo</u>
<u>Kings</u>	<u>Orange</u>	Santa Cruz	<u>Yuba</u>
Lake	Placer	Shasta	

Full size county PDF maps are available, beginning with 2006 data. These large maps are formatted to print on 36" plotters, or zoom in to your area of interest for greater detail. Individual counties may consist of one to three map sheets; PDF files may be up to 7 MB in size. Files are <u>posted on our FTP site</u> as they become available. Please see the <u>FTP Readme page</u> for more information.

#### REGIONAL AND STATEWIDE INFORMATION:

#### Available information includes:

- The California Farmland Conversion Reports- PDF versions are available starting with the 1992-1994 update cycle.
- Regional tables are comprised of three worksheets with information on:
- 1. The sources of urban land,
- 2. Irrigated farmland changes aside from urbanization, and
- 3. Net change in irrigated land
- Biennial Statewide Conversion table

1992-1994: Regional Tables and Statewide Table 1994-1996: Regional Tables and Statewide Table 1996-1998: Regional Tables and Statewide Table 1998-2000: Regional Tables and Statewide Table

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2000-2002: Regional Tables and Statewide Table 2002-2004: Regional Tables and Statewide Table 2004-2006: Regional Tables and Statewide Table 2006-2008: Regional Tables and Statewide Table 2008-2010: Regional Tables and Statewide Table 2010-2012: Regional Tables and Statewide Table

Note: Some files on this site are in Adobe Acrobat (PDF) or compressed (ZIP) format. Utilities to read both are freely available on the internet. Spreadsheet information is formatted in Excel 2000 for Windows. Geographic information on the FTP site is posted in ESRI Shape File (SHP) format, with metadata in HTML format.

Please contact us via  $\underline{\text{email}}$  or at 916-324-0850 if you have additional questions.

#### FMMP Data Links

**FMMP Home** 

Reports and Statistics

Contact Us

#### FARMLAND MAPPING AND MONITORING PROGRAM MENU

About DOC	Data &	Maps	Site Resources
	Information		
> Mission & Vision		> Earthquake Zone	> Conditions of Use
> Meet DOC	> Public Records Act	App (EQ Zapp)	> Privacy Policy
Leadership	Requests	> CGS Regulatory	> Accessibility
> Upcoming Meetings	> WellSTAR	Maps	> Disclaimer
& Events	> Aliso Canyon	> Well Finder	> Register to Vote
> Contact Us	Testing	> Geologic Map of	Register to vote
> Sitemap	> Farmland Mapping	California	
	and Monitoring	> Fault Activity Map	
	> Earthquake	of California	
	Preparation		

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# Attachment A6

Floodplains

### Flood Insurance (CEST and EA)

General requirements	Legislation	Regulation		
Certain types of federal financial assistance may	Flood Disaster	24 CFR 50.4(b)(1)		
not be used in floodplains unless the community	Protection Act of	and 24 CFR		
participates in National Flood Insurance Program	1973 as amended	58.6(a) and (b);		
and flood insurance is both obtained and	(42 USC 4001-4128)	24 CFR 55.1(b).		
maintained.				
Reference				
https://www.hudexchange.info/environmental-review	ew/flood-insurance			

1. Does this project involve financial assistance for construction, rehabilitation, or acquisition of a mobile home, building, or insurable personal property?

⊠ No. This project does not require flood insurance or is excepted from flood insurance. → *Continue to the Worksheet Summary.* 

 $\square$  Yes  $\rightarrow$  Continue to Question 2.

2. Provide a FEMA/FIRM map showing the site.

The Federal Emergency Management Agency (FEMA) designates floodplains. The <u>FEMA Map Service Center</u> provides this information in the form of FEMA Flood Insurance Rate Maps (FIRMs). For projects in areas not mapped by FEMA, use the best available information to determine floodplain information. Include documentation, including a discussion of why this is the best available information for the site. Provide FEMA/FIRM floodplain zone designation, panel number, and date within your documentation.

Is the structure, part of the structure, or insurable property located in a FEMA-designated Special Flood Hazard Area?

 $\boxtimes$  No  $\rightarrow$  Continue to the Worksheet Summary.

 $\square$ Yes  $\rightarrow$  Continue to Question 3.

3. Is the community participating in the National Flood Insurance Program *or* has less than one year passed since FEMA notification of Special Flood Hazards?

We the community is portional to the Netheral Flood Incommunity

Ш	res, the community is participating in the National Flood Insurance Program.
	For loans, loan insurance or loan guarantees, flood insurance coverage must be
	continued for the term of the loan. For grants and other non-loan forms of financia
	assistance, flood insurance coverage must be continued for the life of the building
	irrespective of the transfer of ownership. The amount of coverage must equal the tota
	project cost or the maximum coverage limit of the National Flood Insurance Program
	whichever is less

Provide a copy of the flood insurance policy declaration or a paid receipt for the current annual flood insurance premium and a copy of the application for flood insurance.   → Continue to the Worksheet Summary.
<ul> <li>☐Yes, less than one year has passed since FEMA notification of Special Flood Hazards.</li> <li>If less than one year has passed since notification of Special Flood Hazards, no flood Insurance is required.</li> <li>→ Continue to the Worksheet Summary.</li> </ul>
☐ No. The community is not participating, or its participation has been suspended.  Federal assistance may not be used at this location. Cancel the project at this location.
Worksheet Summary Compliance Determination Provide a clear description of your determination and a synopsis of the information that it was based on, such as:  • Map panel numbers and dates • Names of all consulted parties and relevant consultation dates • Names of plans or reports and relevant page numbers • Any additional requirements specific to your region
The Federal Emergency Management Agency (FEMA) publishes Flood Insurance Rate Maps (FIRM) delineating flood hazard zones for communities. The project site is located within an area identified on the FEMA FIRM Panel Number 06109C0900C (dated October 2017) as "Zone X," an area of minimal flood hazard and is not within the 100-year floodplain (See attached map). The proposed project would not have any effect on the location of habitable structures, nor locate any people or habitable structures within any areas prone to flood. The project would not result in increased flood risk to people.
Are formal compliance steps or mitigation required?  ☐ Yes ☐ No

# Floodplain Management (CEST and EA)

General Requirements	Legislation	Regulation	
Executive Order 11988,	Executive Order 11988	24 CFR 55	
Floodplain Management,			
requires Federal activities to			
avoid impacts to floodplains			
and to avoid direct and			
indirect support of floodplain			
development to the extent			
practicable.			
Reference			
https://www.hudexchange.info/environmental-review/floodplain-management			

1.	Does 24 CFR 55.12(c) exempt this project from compliance with HUD's floodplain management regulations in Part 55?  ☐ Yes  Provide the applicable citation at 24 CFR 55.12(c) here. If project is exempt under 55.12(c)(7) or (8), provide supporting documentation.
	→ Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below.
	$\boxtimes$ No $\rightarrow$ Continue to Question 2.
2.	Provide a FEMA/FIRM or ABFE map showing the site.  The Federal Emergency Management Agency (FEMA) designates floodplains. The FEMA Map Service Center provides this information in the form of FEMA Flood Insurance Rate Maps (FIRMs) or Advisory Base Flood Elevations (ABFEs). For projects in areas not mapped by FEMA, use the best available information to determine floodplain information. Include documentation, including a discussion of why this is the best available information for the site.
	<ul> <li>Does your project occur in a floodplain?</li> <li>☑ No → Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below.</li> </ul>
	□ Yes
	Select the applicable floodplain using the FEMA map or the best available information:  □ Floodway → Continue to Question 3. Floodways

	□ Coastal High Hazard Area (V Zone) → Continue to Question 4, Coastal High Hazard Areas
	□ 500-year floodplain (B Zone or shaded X Zone) → Continue to Question 5, 500-year Floodplains
	☐ 100-year floodplain (A Zone) → The 8-Step Process is required. Continue to Question 6, 8-Step Process
3.	Floodways Is this a functionally dependent use?  ☐ Yes
	The 8-Step Process is required. Work with your HUD FEO to determine a way to satisfactorily continue with this project. Provide a completed 8-Step Process, including the early public notice and the final notice.  → Continue to Question 6, 8-Step Process
	☐ No  Federal assistance may not be used at this location unless a 55.12(c) exception applies.  You must either choose an alternate site or cancel the project at this location.
4.	Coastal High Hazard Area  Is this a critical action?  ☐ Yes  Critical actions are prohibited in coastal high hazard areas. Federal assistance may not
	be used at this location. Unless the action is excepted at 24 CFR 55.12(c), you must either choose an alternate site or cancel the project.
	<ul> <li>□ No</li> <li>Does this action include construction that is not a functionally dependent use, existing construction (including improvements), or reconstruction following destruction caused by a disaster?</li> <li>□ Yes, there is new construction.</li> <li>New construction is prohibited in V Zones ((24 CFR 55.1(c)(3)).</li> </ul>
	<ul> <li>□ No, this action concerns only a functionally dependent use, existing construction(including improvements), or reconstruction following destruction caused by a disaster.</li> <li>This construction must have met FEMA elevation and construction standards for a coastal high hazard area or other standards applicable at the time of construction.</li> </ul>

# → Continue to Question 6, 8-Step Process

5.	500-year Floodplain
	Is this a critical action?
	$\square$ No $\rightarrow$ Based on the response, the review is in compliance with this section. Continue to
	the Worksheet Summary below.
	□Yes → Continue to Question 6, 8-Step Process
6.	8-Step Process.
	Does the 8-Step Process apply? Select one of the following options:
	8-Step Process applies.
	Provide a completed 8-Step Process, including the early public notice and the final notice.
	→ Continue to Question 7, Mitigation
	☐ 5-Step Process is applicable per 55.12(a)(1-3).
	Provide documentation of 5-Step Process.
	Select the applicable citation:
	$\square$ 55.12(a)(1) HUD actions involving the disposition of HUD-acquired multifamily
	housing projects or "bulk sales" of HUD-acquired one- to four-family properties
	in communities that are in the Regular Program of the National Flood Insurance
	Program (NFIP) and in good standing (i.e., not suspended from program eligibility
	or placed on probation under 44 CFR 59.24).
	$\square$ 55.12(a)(2) HUD's actions under the National Housing Act (12 U.S.C. 1701) for the
	purchase or refinancing of existing multifamily housing projects, hospitals,
	nursing homes, assisted living facilities, board and care facilities, and
	intermediate care facilities, in communities that are in good standing under the
	NFIP.
	$\Box$ 55.12(a)(3) HUD's or the recipient's actions under any HUD program involving the
	repair, rehabilitation, modernization, weatherization, or improvement of existing
	multifamily housing projects, hospitals, nursing homes, assisted living facilities,
	board and care facilities, intermediate care facilities, and one- to four-family
	properties, in communities that are in the Regular Program of the National Flood
	Insurance Program (NFIP) and are in good standing, provided that the number of
	units is not increased more than 20 percent, the action does not involve a
	conversion from nonresidential to residential land use, the action does not meet
	the thresholds for "substantial improvement" under § 55.2(b)(10), and the
	footprint of the structure and paved areas is not significantly increased.
	$\Box$ 55.12(a)(4) HUD's (or the recipient's) actions under any HUD program involving
	the repair, rehabilitation, modernization, weatherization, or improvement of
	existing nonresidential huildings and structures in communities that are in the

Regular Program of the NFIP and are in good standing, provided that the action does not meet the thresholds for "substantial improvement" under § 55.2(b)(10) and that the footprint of the structure and paved areas is not significantly increased.

→ Continue to Question 7, Mitigation
□ 8-Step Process is inapplicable per 55.12(b)(1-4).
Select the applicable citation:
□ 55.12(b)(1) HUD's mortgage insurance actions and other financial assistance for the purchasing, mortgaging or refinancing of existing one- to four-family properties in communities that are in the Regular Program of the National Flood Insurance Program (NFIP) and in good standing (i.e., not suspended from program eligibility or placed on probation under 44 CFR 59.24), where the action is not a critical action and the property is not located in a floodway or coastal high hazard area.
$\Box$ 55.12(b)(2) Financial assistance for minor repairs or improvements on one- to
four-family properties that do not meet the thresholds for "substantial improvement" under § 55.2(b)(10)
$\Box$ 55.12(b)(3) HUD actions involving the disposition of individual HUD-acquired, oneto four-family properties.
□ 55.12(b)(4) HUD guarantees under the Loan Guarantee Recovery Fund Program (24 CFR part 573) of loans that refinance existing loans and mortgages, where any new construction or rehabilitation financed by the existing loan or mortgage has been completed prior to the filing of an application under the program, and the refinancing will not allow further construction or rehabilitation, nor result in any physical impacts or changes except for routine maintenance.
$\Box$ 55.12(b)(5) The approval of financial assistance to lease an existing structure
located within the floodplain, but only if—
(i) The structure is located outside the floodway or Coastal High Hazard
Area, and is in a community that is in the Regular Program of the NFIP
and in good standing (i.e., not suspended from program eligibility or

→ Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below.

maximum under the NFIP for at least the term of the lease.

(iii) The entire structure is or will be fully insured or insured to the

(ii) The project is not a critical action; and

#### 7. Mitigation

For the project to be brought into compliance with this section, all adverse impacts must be mitigated. Explain in detail the exact measures that must be implemented to mitigate for the impact or effect, including the timeline for implementation.

Which of the following mitigation/minimization measures have been identified for this project in the 8-Step or 5-Step Process? Select all that apply.
☐ Permeable surfaces
<ul> <li>Natural landscape enhancements that maintain or restore natural hydrology</li> </ul>
☐ Planting or restoring native plant species
☐ Bioswales
Evapotranspiration     Stormwater capture and rouse
<ul><li>☐ Stormwater capture and reuse</li><li>☐ Green or vegetative roofs with drainage provisions</li></ul>
☐ Natural Resources Conservation Service conservation easements or similar
easements
☐ Floodproofing of structures
$\square$ Elevating structures including freeboarding above the required base flood
elevations
☐ Other
→ Based on the response, the review is in compliance with this section. Continue to the
Worksheet Summary below.
Worksheet Summary
Compliance Determination
Provide a clear description of your determination and a synopsis of the information that it was
<ul><li>based on, such as:</li><li>Map panel numbers and dates</li></ul>
<ul> <li>Names of all consulted parties and relevant consultation dates</li> </ul>
<ul> <li>Names of plans or reports and relevant page numbers</li> </ul>
Any additional requirements specific to your region
The project location is outside the 100-year floodplain. See attached map.

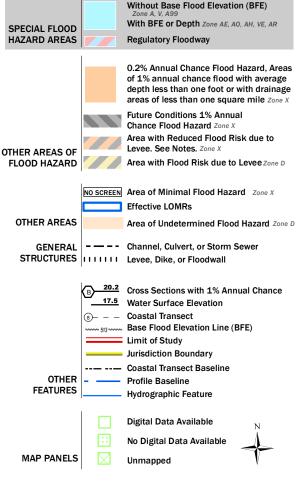
Are form	nal compliance steps or mitigation required?
[	□ Yes
	☑ No

# National Flood Hazard Layer FIRMette



#### Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 10/31/2018 at 5:37:50 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



# Attachment A7

Historic Preservation and Section 106

# **Historic Preservation (CEST and EA)**

General requirements	Legislation	Regulation			
Regulations under Section 106 of	Section 106 of the	36 CFR 800 "Protection of			
the National Historic Preservation	National Historic	Historic Properties"			
Act (NHPA) require a consultative	Preservation Act				
process to identify historic	(16 U.S.C. 470f)				
properties, assess project impacts					
on them, and avoid, minimize, or					
mitigate adverse effects					
References					
https://www.hudexchange.info/environmental-review/historic-preservation					

### **Threshold**

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IS	Section	TOP	review	required	TOT '	vour	proi	ect	[:

	No, because the project consists solely of activities listed as exempt in a Programmati
	Agreement (PA). (See the <u>PA Database</u> to find applicable PAs.)
	Either provide the PA itself or a link to it here. Mark the applicable exemptions or
	include the text here:
_	Continue to the Worksheet Summary.
	No, because the project consists solely of activities included in a No Potential to Cause
	Effects memo or other determination [36 CFR 800.3(a)(1)].
	Either provide the memo itself or a link to it here. Explain and justify the other
	determination here:
	Continue to the Worksheet Summary

 $\ensuremath{\boxtimes}$  Yes, because the project includes activities with potential to cause effects (direct or indirect).  $\rightarrow$  Continue to Step 1.

#### **The Section 106 Process**

After determining the need to do a Section 106 review, initiate consultation with regulatory and other interested parties, identify and evaluate historic properties, assess effects of the project on properties listed on or eligible for the National Register of Historic Places, and resolve any adverse effects through project design modifications or mitigation.

Note that consultation continues through all phases of the review.

Step 1: Initiate consultation

Step 2: Identify and evaluate historic properties

Step 3: Assess effects of the project on historic properties

Step 4: Resolve any adverse effects

#### **Step 1 - Initiate Consultation**

The following parties are entitled to participate in Section 106 reviews: Advisory Council on Historic Preservation; State Historic Preservation Officers (SHPOs); federally recognized Indian tribes/Tribal Historic Preservation Officers (THPOs); Native Hawaiian Organizations (NHOs); local governments; and project grantees. The general public and individuals and organizations with a demonstrated interest in a project may participate as consulting parties at the discretion of the RE or HUD official. Participation varies with the nature and scope of a project. Refer to HUD's website for guidance on consultation, including the required timeframes for response. Consultation should begin early to enable full consideration of preservation options.

Use the When To Consult With Tribes checklist within Notice CPD-12-006: Process for Tribal Consultation to determine if you should invite tribes to consult on a particular project. Use the Tribal Directory Assessment Tool (TDAT) to identify tribes that may have an interest in the area where the project is located. Note that consultants may not initiate consultation with Tribes.

#### Select all consulting parties below (check all that apply):

List all tribes that were consulted here and their status of consultation:
☐ Hawaiian Organizations (NHOs)
oxtimes Indian Tribes, including Tribal Historic Preservation Officers (THPOs) or Native
☐ Advisory Council on Historic Preservation
⊠State Historic Preservation Officer (SHPO)

On October 15, 2018, voice mail messages were left for Lloyd Mathiesen, Chairperson of the Chicken Ranch Rancheria of Me-Wuk Indians, and Kevin Day, Chairperson of the Tuolumne Band of Me-Wuk Indians. Responses have not been received from either tribe. Records searches and a site visit were conducted and there were not significant findings. A letter was sent to SHPO on November 14, 2018

seeking concurrence. All documentation is provided in the attached cultural report.

**⊠Other Consulting Parties** 

List all consulting parties that were consulted here and their status of consultation:

#### Describe the process of selecting consulting parties and initiating consultation here:

Natural Investigations Company contacted the Native American Heritage Commission (NAHC), requesting a search of their Sacred Lands File for traditional cultural resources within or near the project site. By letters dated September 4 and 28, 2018, Natural Investigations Company contacted each of the two Native American tribes provided by the NAHC, requesting any information regarding sacred lands or other heritage sites that might be affected by the project. A letter was sent to SHPO on November 14, 2018 seeking concurrence. All documentation is provided in the attached cultural report

Provide all correspondence, notices, and notes (including comments and objections received) and continue to Step 2.

#### **Step 2 - Identify and Evaluate Historic Properties**

Define the Area of Potential Effect (APE), either by entering the address(es) or providing a map depicting the APE. Attach an additional page if necessary.

See attached report		

Gather information about known historic properties in the APE. Historic buildings, districts and archeological sites may have been identified in local, state, and national surveys and registers, local historic districts, municipal plans, town and county histories, and local history websites. If not already listed on the National Register of Historic Places, identified properties are then evaluated to see if they are eligible for the National Register.

Refer to HUD's website for guidance on identifying and evaluating historic properties.

#### In the space below, list historic properties identified and evaluated in the APE.

Every historic property that may be affected by the project should be listed. For each historic property or district, include the National Register status, whether the SHPO has concurred with the finding, and whether information on the site is sensitive. Attach an additional page if necessary.

none			

Provide the documentation (survey forms, Register nominations, concurrence(s) and/or objection(s), notes, and photos) that justify your National Register Status determination.

Was a survey of historic buildings and/or archeological sites done as part of the project?

If the APE contains previously unsurveyed buildings or structures over 50 years old, or there is a likely presence of previously unsurveyed archeological sites, a survey may be necessary. For Archeological surveys, refer to HP Fact Sheet #6, Guidance on Archeological Investigations in **HUD Projects.** 

	ovide survey(s) and report(s) and continue to Step 3.  al notes:
See atta	ched report
$\square$ No $\rightarrow$ Co	ntinue to Step 3.
Step 3 - Assess Effe	ects of the Project on Historic Properties
further considerati	at are listed on or eligible for the National Register of Historic Places receive on under Section 106. Assess the effect(s) of the project by applying the Effect. (36 CFR 800.5)] Consider direct and indirect effects as applicable as
	e findings below - No Historic Properties Affected, No Adverse Effect, or diseek concurrence from consulting parties.
	ric Properties Affected
⊠ No h	nt reason for finding: istoric properties present. → Provide concurrence(s) or objection(s) and nue to the Worksheet Summary.
	ric properties present, but project will have no effect upon them. $\Rightarrow$ Provide urrence(s) or objection(s) and continue to the Worksheet Summary.
	Iting parties concur or fail to respond to user's request for concurrence, is in compliance with this section. No further review is required.

consulting parties object, refer to (36 CFR 800.4(d)(1)) and consult further to try to

resolve objection(s).

□ No Adverse Effect  Document reason for finding:	
Does the No Adverse Effect finding contain conditions?	
Check all that apply: (check all that apply)	
☐ Avoidance	
$\square$ Modification of project $\square$ Other	
□ Other	
Describe conditions here:	
$\rightarrow$ Monitor satisfactory implementation of conditions. Provide concurrence(s or objection(s) and continue to the Worksheet Summary.	;)
$\square$ No $\Rightarrow$ Provide concurrence(s) or objection(s) and continue to the Workshee Summary.	rt
If consulting parties concur or fail to respond to user's request for concurrence project is in compliance with this section. No further review is required. consulting parties object, refer to (36 CFR 800.5(c)(2)) and consult further to tr to resolve objection(s).	lf
☐ Adverse Effect	
Document reason for finding:  Copy and paste applicable Criteria into text box with summary and justification.	
Criteria of Adverse Effect: 36 CFR 800.5	

Notify the Advisory Council on Historic Preservation of the Adverse Effect and provide the documentation outlined in <u>36 CFR 800.11(e)</u>. The Council has 15 days to decide whether to enter the consultation (Not required for projects covered by a Programmatic Agreement).

→ Continue to Step 4.

#### **Step 4 - Resolve Adverse Effects**

Work with consulting parties to try to avoid, minimize or mitigate adverse effects. Refer to HUD guidance and <u>36 CFR 800.6 and 800.7</u>.

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must be mit	tigated. Explain ii	n detail the exa	ce with this section ct measures that g the timeline for	must be imp
must be mit	tigated. Explain ii	n detail the exa	ct measures that	must be imp
must be mit	tigated. Explain ii	n detail the exa	ct measures that	must be imp

<sup>→</sup> Provide signed Memorandum of Agreement (MOA) or Standard Mitigation Measures Agreement (SMMA). Continue to the Worksheet Summary.

				// L L C	. "	
						approves it. E
						at this location
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•	on by the A	dvisory Co	ouncil on	Historic Pre	eservation	and "Head of
gency":						
			litions or	measures th	nat must l	aa implamanta
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→ Provide correspondence, comments, documentation of decision, and "Head of Agency" approval. Continue to the Worksheet Summary.

#### **Worksheet Summary**

#### **Compliance Determination**

Provide a clear description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your region

	HCD, as the responsible entity under NEPA, has determined that no historic properties will be affected by the proposed action. No documented archaeological or built environmental resources are known to be present within the area of potential effects (APE) for the project. See attached report for additional information, results of the site survey, searches, and consultation efforts.
4	Are formal compliance steps or mitigation required?
	☐ Yes
	⊠ No

#### NATIVE AMERICAN HERITAGE COMMISSION

Environmental and Cultural Department 1550 Harbor Bivd., Suite 100 West Sacramento, CA 95691 (916) 373-3710



August 30, 2018

Cindy Arrington Natural Investigations

Sent by Email: cindy@naturalinvestigations.com

Number of Pages: 2

RE: Tuolumne NDRC Project 609, Tuolumne and Groveland, Tuolumne County

Dear Ms. Arrington:

A record search of the Native American Heritage Commission (NAHC) *Sacred Lands File* was completed for the area of potential project effect (APE) referenced above with negative results. Please note that the absence of specific site information in the *Sacred Lands File* does not indicate the absence of Native American cultural resources in any APE.

I suggest you contact all of those listed, if they cannot supply information, they might recommend others with specific knowledge. The list should provide a starting place to locate areas of potential adverse impact within the APE. By contacting all those on the list, your organization will be better able to respond to claims of failure to consult. If a response has not been received within two weeks of notification, the NAHC requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact via email: Sharaya.Souza@nahc.ca.gov.

Sincerely,

Sharaya Souza Staff Services Analyst

(916) 573-0168

#### Native American Heritage Commission Native American Consultation List 8/28/2018

Chicken Ranch Rancheria of Me-Wuk Indians Lloyd Mathiesen, Chairperson

P.O. Box 1159

Miwok - Me-wuk

Jamestown

, CA 95327

mralston@crtribal.com

(209) 984-9066

(209) 984-9269

Tuolumne Band of Me-Wuk Indians

Kevin Day, Chairperson

P.O. Box 699

Me-Wuk - Miwok

Tuolumne

, CA 95379

receptionist@mewuk.com

(209) 928-5300 Office

(209) 928-1677 Fax

This list is current only as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Code, or Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American Tribes for the proposed: Tuolumne NDRC Project 609, Tuolumne and Groveland, Tuolumne County.



September 28, 2018

Tuolumne Band of Me-Wuk Indians Kevin Day, Chairperson P.O. Box 699 Tuolumne, CA 95379

Dear Mr. Day:

Natural Investigations Company, Inc. (Natural Investigations) was retained to provide cultural resources services for the Tuolumne County National Disaster Resilience Competition (NDRC) project in Tuolumne County. The Rim Fire in 2013, made possible a NDRC grant that allows Tuolumne County to design and construct community resilience centers to help rebuild and increase the community resilience for future disasters. The County selected two areas in which to review for the construction of the resilience centers. One in Groveland, near Ferretti Road and another in Tuolumne, near Bay Avenue.

Figures 1 shows the location of the proposed Groveland Community Resilience Center in Sections 16 and 21 of Township 1 South, Range 16 East, as depicted on the 2001 Groveland USGS 7.5-minute topographic map (Mount Diablo Base and Meridian). Figures 2 shows the location of the proposed Tuolumne Community Resilience Center in Section 8 of Township 1 North, Range 16 East, as depicted on the 2001 Tuolumne USGS 7.5-minute topographic map (Mount Diablo Base and Meridian).

The Native American Heritage Commission (NAHC) responded on August 30, 2018 to a request for a search of their Sacred Lands File, stating that their search does not indicate the presence of Native American cultural resources in the immediate vicinity of the project. The NAHC also provided a list of tribes and individuals that may have knowledge of traditional lands or cultural places located within or near the project, and recommended that we contact you, among others.

We would appreciate you providing any comments, issues, or concerns relating to cultural resources in the project area or regarding the project. All information provided regarding specific sites or tribal cultural resources will remain confidential. Please contact me by phone (916-765-9381) or email (cindy@naturalinvestigations.com). Your response within two weeks of receipt of this letter will be appreciated. Thank you for your assistance.

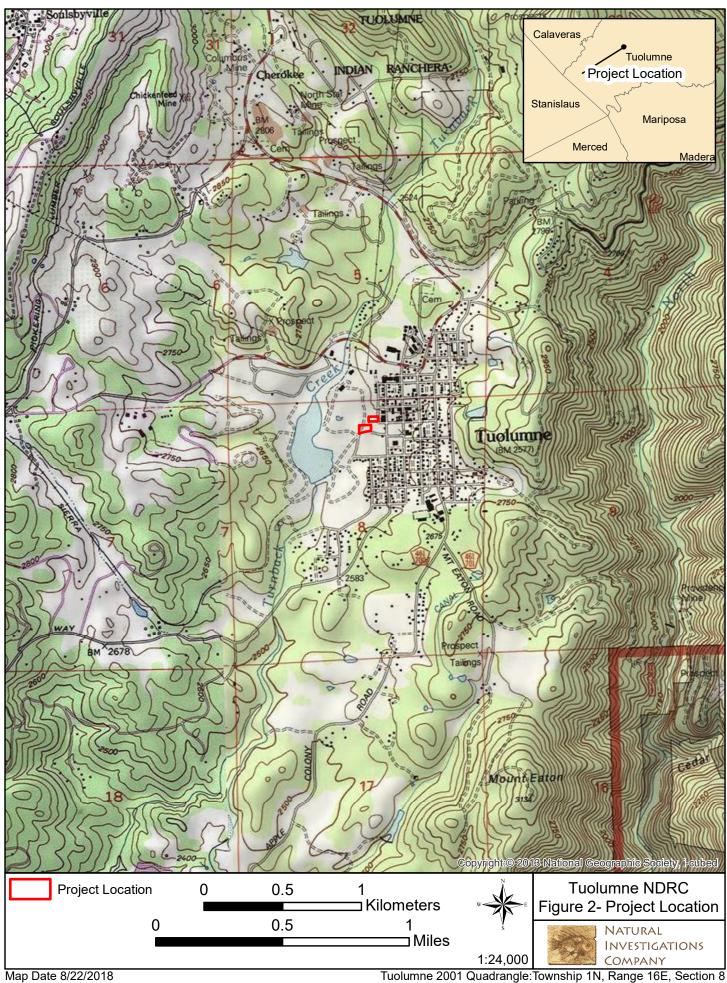
Respectfully submitted,

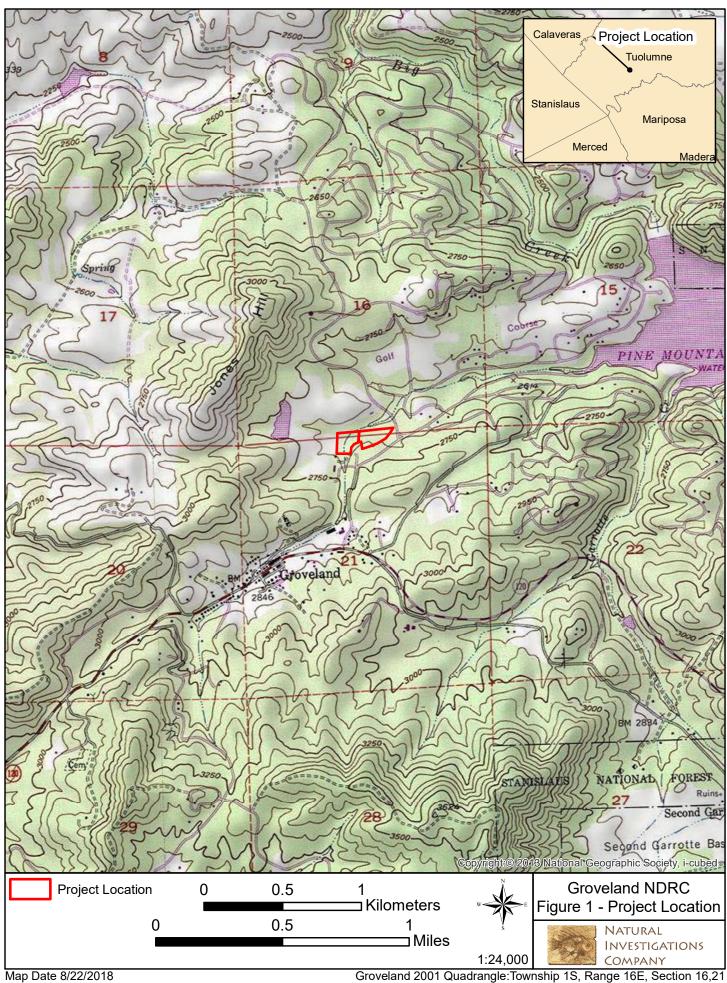
Cindy Arrington, M.S., RPA

Principal

**Natural Investigations Company** 

Attachment: Figure 1 & 2







September 28, 2018

Chicken Ranch Rancheria of Me-Wuk Indians Lloyd Mathiesen, Chairperson P.O. Box 1159 Jamestown, CA 95327

Dear Mr. Mathiesen:

Natural Investigations Company, Inc. (Natural Investigations) was retained to provide cultural resources services for the Tuolumne County National Disaster Resilience Competition (NDRC) project in Tuolumne County. The Rim Fire in 2013, made possible a NDRC grant that allows Tuolumne County to design and construct community resilience centers to help rebuild and increase the community resilience for future disasters. The County selected two areas in which to review for the construction of the resilience centers. One in Groveland, near Ferretti Road and another in Tuolumne, near Bay Avenue.

Figures 1 shows the location of the proposed Groveland Community Resilience Center in Sections 16 and 21 of Township 1 South, Range 16 East, as depicted on the 2001 Groveland USGS 7.5-minute topographic map (Mount Diablo Base and Meridian). Figures 2 shows the location of the proposed Tuolumne Community Resilience Center in Section 8 of Township 1 North, Range 16 East, as depicted on the 2001 Tuolumne USGS 7.5-minute topographic map (Mount Diablo Base and Meridian).

The Native American Heritage Commission (NAHC) responded on August 30, 2018 to a request for a search of their Sacred Lands File, stating that their search does not indicate the presence of Native American cultural resources in the immediate vicinity of the project. The NAHC also provided a list of tribes and individuals that may have knowledge of traditional lands or cultural places located within or near the project, and recommended that we contact you, among others.

We would appreciate you providing any comments, issues, or concerns relating to cultural resources in the project area or regarding the project. All information provided regarding specific sites or tribal cultural resources will remain confidential. Please contact me by phone (916-765-9381) or email (cindy@naturalinvestigations.com). Your response within two weeks of receipt of this letter will be appreciated. Thank you for your assistance.

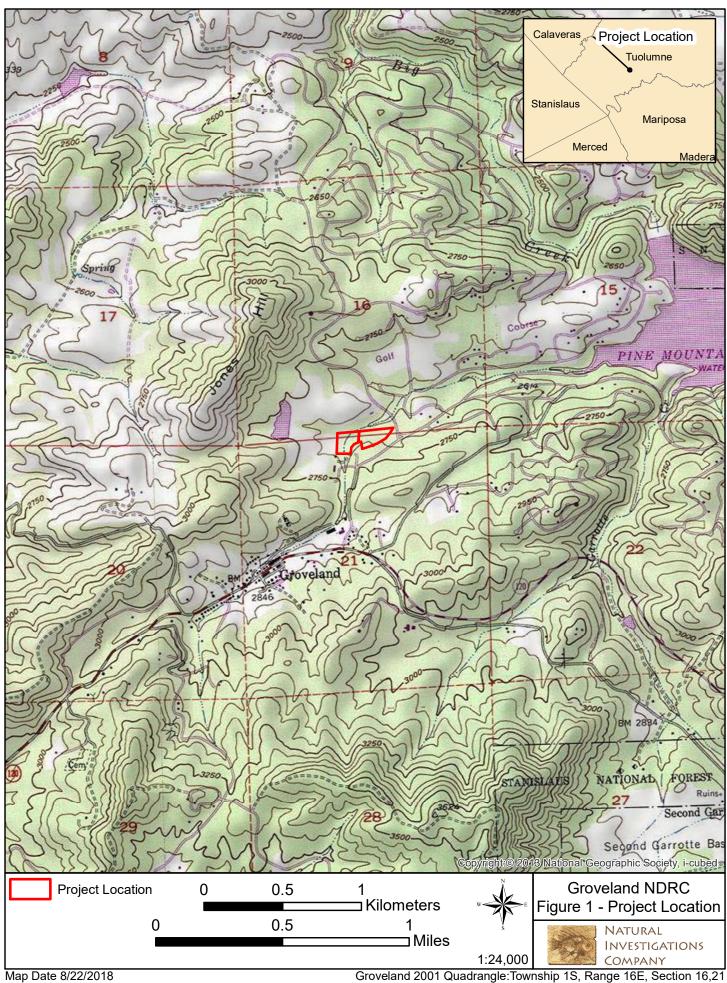
Respectfully submitted,

Cindy Arrington, M.S., RPA

Principal

**Natural Investigations Company** 

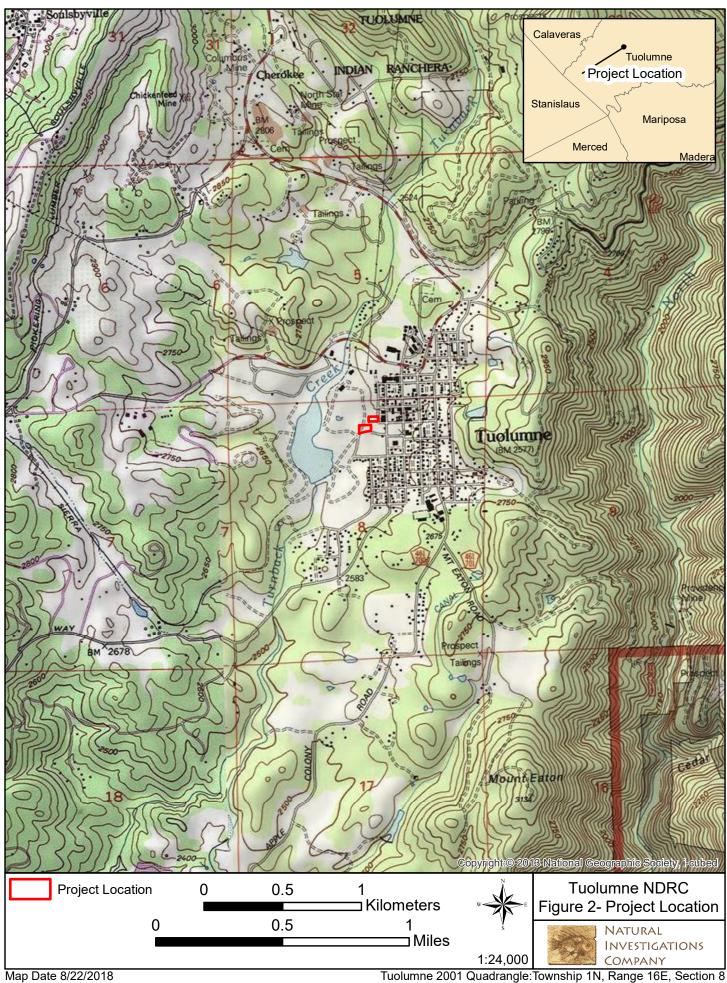
Attachment: Figure 1 & 2





#### Native American Contact Tracking Sheet Tuolumne County NDRC Project Tuolumne County, CA

Contact Name	Date Letter Sent	Date of Follow Up	Comments/Concerns/ Recommendations
Chicken Ranch Rancheria of Me- Wuk Indians Lloyd Mathiesen, Chairperson P.O. Box 1159 Jamestown, CA 95327 209-984-9066	9-4-2018	9-20-2018	Mr. Mathiesen was not available. A voice message was left asking if the Tribe had any questions or concerns regarding the project and if so, to please contact Natural Investigations.
		9-28-2018	At the request of the County, the information letters and map were sent to Mr. Mathiesen via certified mail.
		10-1-2018	The certified letter was received and signed for by Carmel Poff at 12:53 PM on October 1, 2018.
		10-15-2018	Mr. Mathiesen was not available. A voice message was left asking if the Tribe had any questions or concerns regarding the project and if so, to please contact Natural Investigations.
		10-26-2018	After the initial call/voicemail no response has been received.
Tuolumne Band of Me-Wuk Indians Kevin Day, Chairperson P.O. Box 699 Tuolumne, CA 95379 209-928-5300	9-4-2018	9-20-2018	Mr. Day was not available. A voice message was left asking if the Tribe had any questions or concerns regarding the project and if so, to please contact Natural Investigations.
207-728-3300		9-28-2018	At the request of the County, the information letters and map were sent to Mr. Day via certified mail.
		10-1-2018	The certified letter was received and signed for by Paula Gaisen at 11:16 AM on October 1, 2018.
		10-15-2018	Mr. Day was not available. A voice message was left asking if the Tribe had any questions or concerns regarding the project and if so, to please contact Natural Investigations.
		10-26-2018	After the initial call/voicemail no response has been received.









October 1, 2018

**Dear Cindy Arrington:** 

The following is in response to your request for proof of delivery on your item with the tracking number: **7018 1130 0000 7150 0602**.

#### Item Details

Status: Delivered

Status Date / Time: October 1, 2018, 12:53 pm Location: JAMESTOWN, CA 95327

Postal Product: First-Class Mail<sup>®</sup>
Extra Services: Certified Mail<sup>™</sup>

Return Receipt Electronic

Carma Pof!

Shipment Details

Weight: 1.0oz

#### Recipient Signature

Signature of Recipient:

Address of Recipient:

Note: Scanned image may reflect a different destination address due to Intended Recipient's delivery instructions on file.

Thank you for selecting the United States Postal Service® for your mailing needs. If you require additional assistance, please contact your local Post Office™ or a Postal representative at 1-800-222-1811.

Sincerely, United States Postal Service® 475 L'Enfant Plaza SW Washington, D.C. 20260-0004



October 1, 2018

Dear Clndy Arrington:

The following is in response to your request for proof of delivery on your item with the tracking number: **7018 1130 0000 7150 0619**.

#### Item Details

Status: Delivered

Status Date / Time:October 1, 2018, 11:16 amLocation:TUOLUMNE, CA 95379

Postal Product: First-Class Mail<sup>®</sup>
Extra Services: Certified Mail<sup>™</sup>

Return Receipt Electronic

Shipment Details

Weight: 1.0oz

#### Recipient Signature

Signature of Recipient:

Address of Recipient:

Note: Scanned image may reflect a different destination address due to Intended Recipient's delivery instructions on file.

Thank you for selecting the United States Postal Service® for your mailing needs. If you require additional assistance, please contact your local Post Office™ or a Postal representative at 1-800-222-1811.

Sincerely, United States Postal Service® 475 L'Enfant Plaza SW Washington, D.C. 20260-0004

# Attachment A8

**Sole Source Aquifers** 

## **Sole Source Aquifers (CEST and EA)**

General requirements	Legislation	Regulation			
The Safe Drinking Water Act of 1974	Safe Drinking Water	40 CFR Part 149			
protects drinking water systems	Act of 1974 (42 U.S.C.				
which are the sole or principal	201, 300f et seq., and				
drinking water source for an area and	21 U.S.C. 349)				
which, if contaminated, would create					
a significant hazard to public health.					
Reference					
https://www.hudexchange.info/environmental-review/sole-source-aquifers					

project consist solely of acquisition, leasing, or rehabilitation of an existing
)?
Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below.
Continue to Question 2.
ect located on a sole source aquifer (SSA)1?
Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide documentation used to make your determination, such as a map of your project (or jurisdiction, if appropriate) in relation to the nearest SSA and its source area.
Continue to Question 3.
r region have a memorandum of understanding (MOU) or other working twith EPA for HUD projects impacting a sole source aquifer? Our Field or Regional Environmental Officer or visit the HUD webpage at the link
letermine if an MOU or agreement exists in your area.
Provide the MOU or agreement as part of your supporting documentation. Continue to Question 4.
Continue to Question 5.
MOU or working agreement exclude your project from further review?

<sup>&</sup>lt;sup>1</sup> A sole source aquifer is defined as an aquifer that supplies at least 50 percent of the drinking water consumed in the area overlying the aquifer. This includes streamflow source areas, which are upstream areas of losing streams that flow into the recharge area.

	⊔No →	Continue to Question 5.
5.	Will the prohealth?	oposed project contaminate the aquifer and create a significant hazard to public
	information streamflow water at the Regional E	th your Regional EPA Office. Your consultation request should include detailed a about your proposed project and its relationship to the aquifer and associated source area. EPA will also want to know about water, storm water and waste proposed project. Follow your MOU or working agreement or contact your PA office for specific information you may need to provide. EPA may request information if impacts to the aquifer are questionable after this information is for review.
	□No→	Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide your correspondence with the EPA and all documents used to make your determination.
	□Yes →	Work with EPA to develop mitigation measures. If mitigation measures are approved, attach correspondence with EPA and include the mitigation measures in your environmental review documents and project contracts. If EPA determines that the project continues to pose a significant risk to the aquifer, federal financial assistance must be denied. Continue to Question 6.
6.	be approve	continue with the project, any threat must be mitigated, and all mitigation must ed by the EPA. Explain in detail the proposed measures that can be implemented for the impact or effect, including the timeline for implementation.
	$\rightarrow$	Continue to the Worksheet Summary below. Provide documentation of the consultation

(including the Managing Agency's concurrence) and any other documentation used to

make your determination.

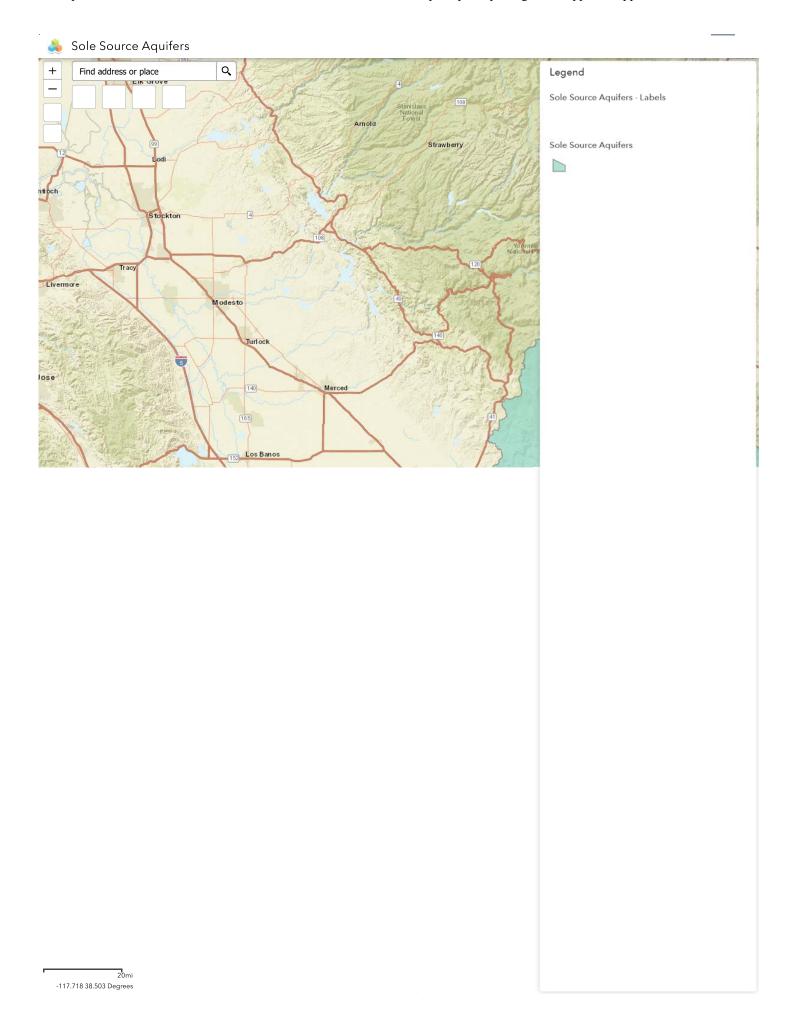
#### **Worksheet Summary**

#### **Compliance Determination**

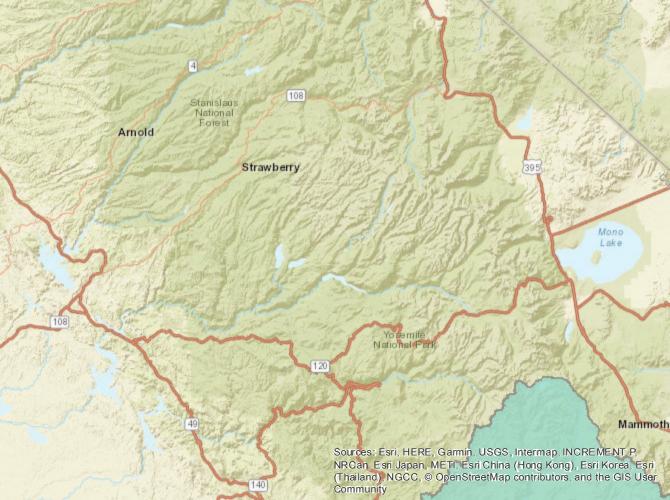
Provide a clear description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your region

There are no sole source aquifers located in Tuolumne County. See attached map.			
Are formal compliance steps or mitigation required?			
☐ Yes			
⊠ No			



1 of 1 11/6/2018, 12:31 PM



# Attachment A9

Wild and Scenic Rivers

#### Wild and Scenic Rivers (CEST and EA)

General requirements	Legislation	Regulation	
The Wild and Scenic Rivers Act	The Wild and Scenic Rivers	36 CFR Part 297	
provides federal protection for	Act (16 U.S.C. 1271-1287),		
certain free-flowing, wild, scenic	particularly section 7(b) and		
and recreational rivers designated	(c) (16 U.S.C. 1278(b) and (c))		
as components or potential			
components of the National Wild			
and Scenic Rivers System (NWSRS)			
from the effects of construction or			
development.			
References			
https://www.hudexchange.info/environmental-review/wild-and-scenic-rivers			

#### 1. Is your project within proximity of a NWSRS river as defined below?

**Wild & Scenic Rivers:** These rivers or river segments have been designated by Congress or by states (with the concurrence of the Secretary of the Interior) as wild, scenic, or recreational

<u>Study Rivers:</u> These rivers or river segments are being studied as a potential component of the Wild & Scenic River system.

<u>Nationwide Rivers Inventory (NRI):</u> The National Park Service has compiled and maintains the NRI, a register of river segments that potentially qualify as national wild, scenic, or recreational river areas

	N	O

- → Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide documentation used to make your determination, such as a map identifying the project site and its surrounding area or a list of rivers in your region in the Screen Summary at the conclusion of this screen.
- ☑ Yes, the project is in proximity of a Nationwide Rivers Inventory (NRI) River.
- → Continue to Question 2.

#### 2. Could the project do any of the following?

- Have a direct and adverse effect within Wild and Scenic River Boundaries,
- Invade the area or unreasonably diminish the river outside Wild and Scenic River Boundaries, or
- Have an adverse effect on the natural, cultural, and/or recreational values of a NRI segment.

Consultation with the appropriate federal/state/local/tribal Managing Agency(s) is required, pursuant to Section 7 of the Act, to determine if the proposed project may have an adverse effect on a Wild & Scenic River or a Study River and, if so, to determine the appropriate avoidance or mitigation measures.

<u>Note</u>: Concurrence may be assumed if the Managing Agency does not respond within 30 days; however, you are still obligated to avoid or mitigate adverse effects on the rivers identified in the NWSRS

ide	ntified in the NWSRS
	No, the Managing Agency has concurred that the proposed project will not alter, directly, or indirectly, any of the characteristics that qualifies or potentially qualifies the river for inclusion in the NWSRS.
	Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide documentation of the consultation (including the Managing Agency's concurrence) and any other documentation used to make your determination.
	Yes, the Managing Agency was consulted and the proposed project may alter, directly, or indirectly, any of the characteristics that qualifies or potentially qualifies the river for inclusion in the NWSRS.  Continue to Question 3.
m in	or the project to be brought into compliance with this section, all adverse impacts tust be mitigated. Explain in detail the proposed measures that must be applemented to mitigate for the impact or effect, including the timeline for applementation.

3.

<sup>→</sup> Continue to the Worksheet Summary below. Provide documentation of the consultation (including the Managing Agency's concurrence) and any other documentation used to make your determination.

#### **Worksheet Summary**

#### **Compliance Determination**

Provide a clear description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your region

The project involves construction and operation of a resilience center located approximately 3.5 miles south of the Tuolumne River, but would not disturb existing river resources or obscure sights of the rivers in any way. See attached for additional information.
Are formal compliance steps or mitigation required?
☐ Yes
⊠ No



NATIONAL SYSTEM MANAGEMENT RESOURCES PUBLICATIONS CONTACT US 50 YEARS SITE INDEX

## TUOLUMNE RIVER, CALIFORNIA Choose A State Go Choose A River Go While progress should never come to a halt, there are many places it should never come to at all. — Paul Newman Legend 7 + View larger map Managing Agency: Bureau of Land Management, Mother Lode Field Office National Park Service, Yosemite National Park U.S. Forest Service, Stanislaus National Forest Designated Reach: September 28, 1984. The main stem from its source to the Don Pedro Reservoir. Classification/Mileage: Wild — 47.0 miles; Scenic — 23.0 miles; Recreational — 13.0 miles; Total — 83.0 miles. RELATED LINKS Yosemite National Park (National Park Service) Tuolumne River (U.S. Forest Tuolumne River Management Photo Credit: Michael Carl

1 of 2

**Tuolumne River** 

The Tuolumne River, designated in 1984, originates high in the Sierra Nevada on the eastern side of Yosemite National Park and flows westward for 62 miles before it continues into Stanislaus National Forest. The river has two principal sources: 1) the Dana Fork, which drains the west-facing slopes of Mount Dana; and 2) the Lyell Fork, which begins at the base of the glacier on Mount Lyell. The two forks converge at the eastern end of Tuolumne Meadows, one of the largest subalpine meadows in the Sierra Nevada. The Tuolumne River meanders through Tuolumne Meadows and then cascades through the Grand Canyon of the Tuolumne before it enters the eastern end of Hetch Hetchy Reservoir (still within the park, but not part of the National Wild and Scenic Rivers System). Below O'Shaughnessy Dam, the river again is included in the National Wild and Scenic Rivers System as it continues through a low-elevation meadow and rocky gorge.

#### Outstandingly Remarkable Values

#### Cultural & Historic

The rich archeological landscape along the Tuolumne River reflects thousands of years of travel, settlement and trade. Parsons Memorial Lodge, a national historic landmark sited near the Tuolumne River, commemorates the significance of this free-flowing segment of the river in inspiring conservation activism and protection of the natural world on a national scale.

#### Fisheries & Wildlife Habitat

In Tuolumne Meadows, Dana Meadows and along the Lyell Fork, the Tuolumne River sustains one of the most extensive Sierra Nevada complexes of subalpine meadows and riparian habitats with relatively high biological integrity. Poopenaut Valley contains a type of low-elevation riparian and wetland habitat that is rare in the Sierra Nevada.

#### Geologic

Rock types of the upper Tuolumne River are chiefly granites; three major intrusive periods in the development of the Sierra Nevada have contributed different granitic varieties. Metamorphic remnants occur at higher elevations, such as the slate of Mt. Lyell and the limestone of Mt. Dana. Visitors can witness volcanic rocks at Tuolumne Meadows and glacial deposits at Lumsden Campground. Below Early Intake, granites have weathered, and at the South Fork confluence, they give way to Calaveras Formation metasedimentary rock. Schists and slates with limestone bands characterize the rocks of the lower Tuolumne River, and gold occurs in this metamorphic belt, as well.

#### Recreational

The unique recreational feature of the Lower Tuolumne is whitewater boating. The section from Lumsden Bridge to Wards Ferry provides one of the finest boating experiences in the nation. It combines a series of demanding rapids spaced at close intervals with the power and waves of larger rivers and requires no portages during the 18-mile run.

#### Scenic

Lyell Canyon offers remarkable and varied views of lush meadows, a meandering river, a U-shaped glacially carved canyon and surrounding peaks. The Grand Canyon of the Tuolumne offers views of a deep, rugged canyon with vast escarpments of granite, hanging valleys and long cascades of falling water.

NATIONWIDE RIVERS INVENTORY | CONTACT US | PRIVACY NOTICE | Q & A SEARCH ENGINE | SITE MAP

flickr

Designated Rivers	National System	River Management	Resources
About WSR Act	WSR Table	Council	Q & A Search
State Listings	Study Rivers	Agencies	Bibliography
Profile Pages	Stewardship WSR Legislation	Management Plans River Mgt. Society GIS Mapping	Publications GIS Mapping Logo & Sign Standards

2 of 2

# Attachment A10

**Environmental Justice** 

### **Environmental Justice (CEST and EA)**

**General requirements** 

Delegation of the service to service	5 1' - O 12000	inegulation	
Determine if the project creates	Executive Order 12898		
adverse environmental impacts			
upon a low-income or minority			
community. If it does, engage			
the community in meaningful			
participation about mitigating			
the impacts or move the			
project.			
project.	References		
https://www.hudexchange.info/e		onmental-justice	
ittps.//www.nddexchange.imo/	environmental-review/envir	Offinental-justice	
HUD strongly encourages starting the Environmental Justice analysis only after all other laws and authorities, including Environmental Assessment factors if necessary, have been completed.			
Were any adverse environs     portion of this project's total	•	in any other compliance review	
$\Box Yes \rightarrow Continue to Question$			
☐ Yes → Continue to Question	2.		
MNo A Broad on the respon		so with this soction. Continue to the	
Worksheet Summar	•	ce with this section. Continue to the	
2. Were these adverse environmental and/or minority communities	•	ortionately high for low-income	
□Yes			
Explain:			
→ Continue to Question 3. Provide any supporting documentation.			
□No			
Explain:			
Expidiii.			

Legislation

Regulation

 $\rightarrow$  Continue to the Worksheet Summary and provide any supporting documentation.

3.	All adverse impacts should be mitigated. Explain in detail the proposed measures that must be implemented to mitigate for the impact or effect, including the timeline for implementation.
	→ Continue to Question 4.
	□ No mitigation is necessary.  Explain why mitigation will not be made here:
4.	→ Continue to Question 4.  Describe how the affected low-income or minority community was engaged or meaningfully involved in the decision on what mitigation actions, if any, will be taken.

ightarrow Continue to the Worksheet Summary and provide any supporting documentation.

#### **Worksheet Summary**

#### **Compliance Determination**

Provide a clear description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your region

The project provides a community center with various amenities including education facilities, meeting and storage space, shelter space, and outdoor activity area. The community center would be available to the public to serve the surrounding community. No adverse environmental impacts were identified in the project's total environmental review that could expose any existing community to adverse environmental conditions (e.g., pollution, hazards). The project is in compliance with Executive Order 12898.

# Are formal compliance steps or mitigation required? ☐ Yes ☒ No

# Attachment A11

Explosive and Flammable Facilities

## **Explosive and Flammable Hazards (CEST and EA)**

General requirements	Legislation	Regulation	
HUD-assisted projects must meet	N/A	24 CFR Part 51	
Acceptable Separation Distance (ASD)		Subpart C	
requirements to protect them from			
explosive and flammable hazards.			
Reference			
https://www.hudexchange.info/environmental-review/explosive-and-flammable-facilities			

explosive ar	nd flammable hazards.		
	R	eference	
https://ww	w.hudexchange.info/environme	ntal-review/explosive-and-f	lammable-facilities
mainly fuel sto	the proposed HUD-assisted prostores, handles or processes prage facilities and refineries)?  No  Continue to Question 2.	_	
	□ Yes Explain:		
-	→ Continue to Question 5.		
rehabil D	this project include any of the litation that will increase reside No  Based on the response, the roughly the Worksheet Summary below	ential densities, or conversion	on?
	☐ Yes → Continue to Question 3.		
aboveg • (	1 mile of the project site ground storage containers:  Of more than 100 gallon capacit  Of any capacity, containing haz industrial fuels?	y, containing common liquic	l industrial fuels OR

4.	Is the Separation Distance from the project acceptable based on standards in the Regulation?  Please visit HUD's website for information on calculating Acceptable Separation Distance.
	→ Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide map(s) showing the location of the project site relative to any tanks and your separation distance calculations. If the map identifies more than one tank, please identify the tank you have chosen as the "assessed tank."
	<ul> <li>No</li> <li>→ Provide map(s) showing the location of the project site relative to any tanks and your separation distance calculations. If the map identifies more than one tank, please identify the tank you have chosen as the "assessed tank." Continue to Question 6.</li> </ul>
5.	Is the hazardous facility located at an acceptable separation distance from residences and any other facility or area where people may congregate or be present?  Please visit HUD's website for information on calculating Acceptable Separation Distance.
	→ Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide map(s) showing the location of the project site relative to residences and any other facility or area where people congregate or are present and your separation distance calculations.
	<ul> <li>No</li> <li>→ Provide map(s) showing the location of the project site relative to residences and any other facility or area where people congregate or are present and your separation distance calculations.</li> <li>Continue to Question 6.</li> </ul>
_	

6. For the project to be brought into compliance with this section, all adverse impacts must be mitigated. Explain in detail the exact measures that must be implemented to make the Separation Distance acceptable, including the timeline for implementation. If negative effects cannot be mitigated, cancel the project at this location.
Note that only licensed professional engineers should design and implement blast barriers. If a barrier will be used or the project will be modified to compensate for an

	unacceptable engineer.	separation	distance,	provide	approval	from a	licensed	professional
Morksh	oot Summary							
	<u>eet Summary</u> ance Determina	tion						
	a clear descri		r determir	nation and	d a synons	is of the in	nformatio	n that it was
	on, such as:	ption or you	· determin	iacion an	а а зупорз	15 01 1110 11		Tractic Was
	Map panel nui	mbers and d	ates					
	Names of all c			elevant co	nsultation	dates		
	Names of plan	•				dates		
	Any additional	•						
within remov 20; Ca	oject location is the project area red and disposed lifornia Adminis ials; 29 Code of ng.	a or in the vic d of in accorda tration Code,	inity. If any ance with C Title 22, rel	hazardous alifornia H lating to H	material wealth and S andling, Sto	vere discove afety Code orage, and I	ered it wou , Chapter 6 Treatment	uld be 5.5, Division of Hazardous
Are forr	mal compliance ☐ Yes  ☑ No	steps or mitiį	gation requ	iired?				

# **Attachment A12**

Noise Abatement and Control

### Noise (EA Level Reviews)

control

General requirements	Legislation	Regulation
HUD's noise regulations protect	Noise Control Act of 1972	Title 24 CFR 51
residential properties from		Subpart B
excessive noise exposure. HUD	General Services Administration	
encourages mitigation as	Federal Management Circular 75-	
appropriate.	2: "Compatible Land Uses at	
	Federal Airfields"	
	References	
https://www.hudexchange.info/pro	grams/environmental-review/noise-	abatement-and-

### 1. What activities does your project involve? Check all that apply:

☐ New construction for residential use NOTE: HUD assistance to new construction projects is generally prohibited if they are located in an Unacceptable zone, and HUD discourages assistance for new construction projects in Normally Unacceptable zones. See 24 CFR 51.101(a)(3) for further details.

→ Continue to Question 2.

☐ Rehabilitation of an existing residential property

NOTE: For major or substantial rehabilitation in Normally Unacceptable zones, HUD encourages mitigation to reduce levels to acceptable compliance standards. For major rehabilitation in Unacceptable zones, HUD strongly encourages mitigation to reduce levels to acceptable compliance standards. See 24 CFR 51 Subpart B for further details.

→ Continue to Question 2.

☐ A research demonstration project which does not result in new construction or reconstruction, interstate, land sales registration, or any timely emergency assistance under disaster assistance provisions or appropriations which are provided to save lives, protect property, protect public health and safety, remove debris and wreckage, or assistance that has the effect of restoring facilities substantially as they existed prior to the disaster

→ Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below.

■ None of the above

→ Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below.

2.	
	vicinity (1000' from a major road, 3000' from a railroad, or 15 miles from an airport).
	Indicate the findings of the Preliminary Screening below:
	☐ There are no noise generators found within the threshold distances above.
	→ Based on the response, the review is in compliance with this section. Continue
	to the Worksheet Summary below. Provide a map showing the location of the project relative to any noise generators.
	project relative to any noise generators.
	$\square$ Noise generators were found within the threshold distances.
	→ Continue to Question 3.
3.	Complete the Noise Assessment Guidelines to quantify the noise exposure. Indicate
	the findings of the Noise Assessment below:
	$\square$ Acceptable: (65 decibels or less; the ceiling may be shifted to 70 decibels in
	circumstances described in §24 CFR 51.105(a))
	Indicate noise level here:
	maleute noise level here.
	ightarrow Based on the response, the review is in compliance with this section. Continue
	to the Worksheet Summary below. Provide noise analysis, including noise level
	and data used to complete the analysis.
	$\square$ Normally Unacceptable: (Above 65 decibels but not exceeding 75 decibels;
	the floor may be shifted to 70 decibels in circumstances described in 24 CFR
	51.105(a))
	Indicate noise level here:
	multate noise level here.
	If project is rehabilitation:
	ightarrow Continue to Question 4. Provide noise analysis, including noise level and
	data used to complete the analysis.
	If project is new construction:
	Is the project in a largely undeveloped area <sup>1</sup> ?
	□ No
	Continue to Question 4. Provide noise analysis, including noise level
	and data used to complete the analysis, and any other relevant information.
	injorniation.

<sup>&</sup>lt;sup>1</sup> A largely undeveloped area means the area within 2 miles of the project site is less than 50 percent developed with urban uses and does not have water and sewer capacity to serve the project.

<del>)</del> St	Yes  Your project requires completion of an Environmental Impact atement (EIS) pursuant to 51.104(b)(1)(i). Elevate this review to an EISvel review.
☐ Unacce	eptable: (Above 75 decibels)
Indicate r	noise level here:
HUD st compa resider → an	ect is rehabilitation: crongly encourages conversion of noise-exposed sites to land uses tible with high noise levels. Consider converting this property to a non- ntial use compatible with high noise levels. Continue to Question 4. Provide noise analysis, including noise level nd data used to complete the analysis, and any other relevant formation.
Your pa (EIS) pa a waiv	ect is new construction: roject requires completion of an Environmental Impact Statement ursuant to 51.104(b)(1)(i). You may either complete an EIS or provide eer signed by the appropriate authority. Indicate your choice:  Convert to an EIS Provide noise analysis, including noise level and data used to complete
th	e analysis. Ontinue to Question 4.
→ Of De lev	Provide waiver Provide an Environmental Impact Statement waiver from the Certifying ficer or the Assistant Secretary for Community Planning and evelopment per 24 CFR 51.104(b)(2) and noise analysis, including noise wel and data used to complete the analysis.

4. HUD strongly encourages mitigation be used to eliminate adverse noise impacts. Explain in detail the exact measures that must be implemented to mitigate for the impact or effect, including the timeline for implementation. This information will be automatically included in the Mitigation summary for the environmental review.

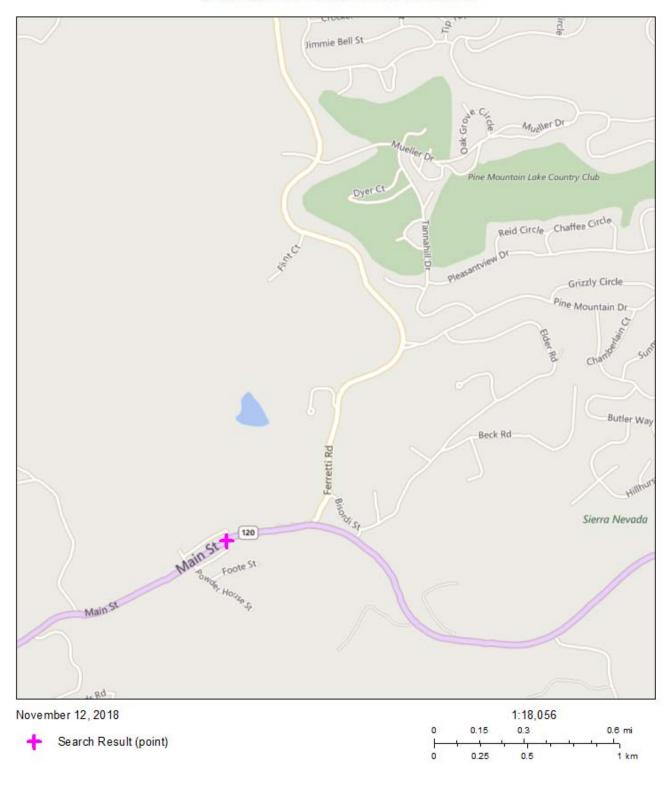
$\square$ Mitigation as follows will be implemented:
→ Provide drawings, specifications, and other materials as needed to describe the project's noise mitigation measures. Continue to the Worksheet Summary.
$\square$ No mitigation is necessary.
Explain why mitigation will not be made here:
→ Continue to the Worksheet Summary.  Worksheet Summary
Compliance Determination
Provide a clear description of your determination and a synopsis of the information that it was
<ul><li>based on, such as:</li><li>Map panel numbers and dates</li></ul>
<ul> <li>Names of all consulted parties and relevant consultation dates</li> </ul>
<ul> <li>Names of plans or reports and relevant page numbers</li> </ul>
Any additional requirements specific to your region
HUD does not address construction noise but does encourage the use of quieter construction equipment and methods in population centers. In addition, HUD noise regulations are intended to protect new residential properties from being placed in areas that could result in excessive noise exposure. As discussed in the Environmental Assessment, project construction would occur during the less sensitive daytime hours. Further, the project does not propose residential land uses or the rehabilitation of an existing residential property. The project would construct and operate a community resilience center in a commercial zone. In times of emergency, people could potentially use the building and associated space for temporary shelter. However, the primary use would not be residential, and emergencies are temporary. Therefore, the project would not result in the placement of any new residences in Unacceptable zones. No mitigation is necessary.
Are formal compliance steps or mitigation required?

 $\boxtimes$  No

# Appendix B

Contamination and Toxic Substances

### Groveland Site: EPA Facilities



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### **Detailed Facility Report**

### **Facility Summary**

## TUOLUMNE CNTY BIG OAK FLAT LAN

END OF MERRELL RD, GROVELAND, CA 95321 ①

FRS (Facility Registry Service) ID: 110070089042

EPA Region: 09 Latitude: 37.82408 Longitude: -120.2506

Locational Data Source: NPDES

Industry: Refuse Systems

Indian Country: N

### Enforcement and Compliance Summary A

Statute	Insp (5 Years)	Date of Last Inspection	Compliance Status	Qtrs with NC (Noncompliance) (of 12)	Qtrs with Significant Violation	Informal Enforcement Actions (5 years)	Formal Enforcement Actions (5 years)	Penalties from Formal Enforcement Actions (5 years)	EPA Cases (5 years)	Penalties from EPA Cases (5 years)
10000000			The second second second		1792					
CWA		-	No Violation	0	0	**	**	***		

### **Regulatory Information**

Clean Air Act (CAA): No Information Clean Water Act (CWA): Minor, Permit Terminated; Compliance Tracking Off (CAZ202784)

### **Other Regulatory Reports**

Air Emissions Inventory (EIS): No Information Greenhouse Gas Emissions (eGGRT): No Information Toxic Releases (TRI): No Information Compliance and Emissions Data Reporting Interface (CEDRI):

1 of 5

Detailed Facility Report | ECHO | US EPA

No Information

Resource Conservation and Recovery Act

(RCRA): No Information

# Safe Drinking Water Act (SDWA): No Facility/System Characteristics

### Facility/System Characteristics

System	Statute	Identifier	Universe	Status	Areas	Permit Expiration Date	Indian Country	Latitude	Longitude
FRS		110070089042					N	37.82408	-120.2506
ICP	CWA	CAZ202784	Minor: General Permit Covered Facility	Terminated; Compliance Tracking Off	Storm Water Industrial	06/30/2020	N	37.82408	-120.2506

### **Facility Address**

I	System	Statute	Identifier	Facility Name	Facility Address
	FRS		110070089042	TUOLUMNE CNTY BIG OAK FLAT LAN	END OF MERRELL RD, GROVELAND, CA 95321
	ICP	CWA	CAZ202784	TUOLUMNE CNTY BIG OAK FLAT LAN	END OF MERRELL RD, GROVELAND, CA 95321

### Facility SIC (Standard Industrial Classification) Codes

System	Identifier	SIC Code	SIC Desc	
ICP	CAZ202784	4953	Refuse Systems	

### Facility NAICS (North American Industry Classification System) Codes

	System	Identifier	NAICS Code	NAICS Description
No data records returned				

### **Facility Tribe Information**

Reservation Name	Tribe Name	EPA Tribal ID	Distance to Tribe (miles
Chicken Ranch Off-Reservation Trust Land	Chicken Ranch Rancheria of Me-Wuk Indians of California	100000042	12.83
Chicken Ranch Rancheria	Chicken Ranch Rancheria of Me-Wuk Indians of California	100000042	13.08
Tuolumne Rancheria	Tuolumne Band of Me-Wuk Indians of the Tuolumne Rancheria of California	100000310	9.98

### **Enforcement and Compliance**

### **Compliance Monitoring History (5 years)**

Inspection Type Lead Agency Finding

11/13/2018, 1:18 PM 2 of 5

Statute Source ID System Inspection Type Lead Agency Date Finding

No data records returned

Entries in italics are not considered inspections in official counts.

### Compliance Summary Data

Statute	Source ID	Current SNC (Significant Noncompliance) HPV (High Priority Violation)	Current As Of	Qtrs with NC. (Noncompliance) (of 12)	Data Last Refreshed
CWA	CAZ202784	No	06/30/2018	0	11/09/2018

### Three-Year Compliance History by Quarter

Statut	e Program/Pollutant/Violation Type	QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12	QTR 13+
	CWA (Source ID: CAZ202784)	07/01-09/30/15	10/01-12/31/15	01/01-03/31/16	04/01-06/30/16	07/01-09/30/16	10/01-12/31/16	01/01-03/31/17	04/01-06/30/17	07/01-09/30/17	10/01-12/31/17	01/01-03/31/18	04/01-06/30/18	07/01-11/09/18
	Facility-Level Status	No Violation	Und											
	SNC (Significant Non-compliance)/RNC (Reportable Non-Compliance) History													

### **Informal Enforcement Actions (5 Years)**

Statute	System	Source ID	Type of Action	Lead Agency	Date
			No data records returned		

### **Formal Enforcement Actions (5 Years)**

Statute System Law/Section Source ID	Action Type Case No. Lead Agency Case Name Issued/I	iled Date Settlements/Actions Settlement/Action Date	Federal Penalty State/Local Penalty S	EP Cost Comp Action Cost
		No data records returned		

### **Environmental Conditions**

### **Water Quality**

Permit ID	Combined Sewer	Number of CSO (Combined Sewer	12-Digit WBD (Watershed Boundary Dataset) HUC (RAD	WBD (Watershed Boundary Dataset) Subwatershed Name	State Waterbody Name (ICIS (Integrated	Impaired	Impaired	Causes of Impairment(s) by	Watershed with ESA (Endangered Species Act)-
	System?	Overflow) Outfalls	(Reach Address Database))	(RAD (Reach Address Database))	Compliance Information System))	Waters	Class	Group(s)	listed Aquatic Species?
CAZ202784			180400091201	Big Jackass Creek		No			Yes

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### Waterbody Designated Uses

Reach Code	Waterbody Name	Exceptional Use	Recreational Use	Aquatic Life Use	Shellfish Use	Beach Closure Within Last Year	Beach Closure Within Last Two Years
18040009001595		No	No	No	No	No	No

### Air Quality

Nonattainment Area?	Pollutant(s)	Applicable Nonattainment Standard(s)
Yes	Ozone	8-Hour Ozone (1997), 8-Hour Ozone (2015)
No	Lead	
No	Particulate Matter	
No	Carbon Monoxide	
No	Nitrogen Dioxide	
No	Sulfur Dioxide	

### **Pollutants**

Toxics Release Inventory History of Reported Chemicals Released in Pounds per Year at Site ①

TRI Facility ID	Year	Total Air Emissions	Surface Water Discharges	Off-Site Transfers to POTWs (Publicly Owned Treatment Works)	Underground Injections	Releases to Land	Total On-site Releases	Total Off-site Releases
				No data records returned				

Toxics Release Inventory Total Releases and Transfers in Pounds by Chemical and Year ①

Chemical Name	
No data records retu:	nied

## **Demographic Profile**

Demographic Profile of Surrounding Area (3 Miles)

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This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2010 US Census and American Community Survey data, and are accurate to the extent that the facility latitude and longitude listed below are correct. The latitude and longitude are obtained from the EPA Locational Reference Table (LRT) when available.

Radius of Area:	3	Land Area:	100%	Households in Area:	684	
Center Latitude:	37.82408	Water Area:	0%	Housing Units in Area:	1,301	
Center Longitude:	-120.2506	Population Density:	51/sq.mi.	Households on Public Assistance:	27	
Total Persons:	1,438	Percent Minority:	14%	Persons Below Poverty Level:	260	
Race Breakdown		Persons (%)	1	Age Breakdown	Persons (%)	
White:		1,303 (91%)	Child	5 years and younger:	50 (3%)	
African-American:		11 (1%)	Minors	17 years and younger:	214 (15%)	
Hispanic-Origin;		115 (8%)	Adult	s 18 years and older:	1,224 (85%)	
Asian/Pacific Islander	t	25 (2%)	Senior	rs 65 years and older:	389 (27%)	
American Indian:		13 (1%)				
Other/Multiracial:		87 (6%)				
Educa	tion Level (Persons 25 & older)		Persons (%)	Income Breakdown	Households (%)	
	Less than 9th Grade:		10 (.96%)	Less than \$15,000:	51 (8.57%)	
	9th through 12th Grade:	12th Grade: 97 (9.32%)		\$15,000 - \$25,000:	100 (16.81%)	
	High School Diploma:		253 (24,3%) \$25,000 - \$50,000:		163 (27.39%)	
	Some College/2-yr:		428 (41.11%) \$50,000 - \$75,000:		130 (21.85%)	
	B.S./B.A. or More:		253 (24.3%)	Greater than \$75,000:	151 (25.38%)	

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# Appendix C

Hazards and Nuisances



 $\underline{\mathsf{Home}} \;\; | \;\; \underline{\mathsf{CGS}} \;\; | \;\; \mathsf{Alquist\text{-}Priolo} \; \mathsf{Earthquake} \; \mathsf{Fault} \; \mathsf{Zones}$ 

# Alquist-Priolo Earthquake Fault Zones

#### Table 4.

Cities and Counties Affected by Alquist-Priolo Earthquake Fault Zones as of January 2010

This is an updated version of Table 4 from the 2007 edition of Special Publication 42 (Fault-Rupture Hazard Zones in California, by William A. Bryant and Earl W. Hart)\*. The list is current as of January 2010. However, additional cities may be affected by the zones as new cities are created, city boundaries are expanded, or new zones are established.

	CITIES (105):	**
American Canyon	Highland	San Bernardino
Arcadia	Hollister	San Bruno
Arcata	Huntington Beach	San Diego
Bakersfield	Indio	San Fernando
Banning	Inglewood	San Jacinto
Barstow	La Habra	San Jose
Beaumont	La Habra Heights Lake Elsinore	San Juan Bautista
Benicia	Livermore	San Leandro
Berkeley	Loma Linda	San Luis Obispo
Bishop	Long Beach	San Marino
Brea	Los Angeles	San Pablo
Calimesa	Malibu	San Ramon
Camarillo	Mammoth Lakes	Santa Clarita
Carson	Milpitas	Santa Rosa
Cathedral City	Monrovia	Seal Beach
Chino Hills	Moorpark Moreno Valley	Signal Hill
Coachella	Morgan Hill	Simi Valley
Colton	Murrieta	South Pasadena
Compton	Oakland	South San Francisco
Concord	Pacifica	Temecula
Corona	Palmdale	Trinidad
Coronado	Palm Springs	Twentynine Palms
Culver City	Palo Alto	Union City
Daly City	Pasadena	Upland
Dany City Danville	Petaluma	·
	Pleasanton Portola Valley	Ventura (San Buenaventura) Walnut Creek
Desert Hot Springs Dublin	Rancho Cucamonga	Whittier
Dublin El Cerrito	Redlands	
	Rialto	Wildomar
Fairfield	Richmond	Willits
Fontana -	Ridgecrest	Windsor
Fortuna -	Rosemead	Woodside
Fremont		Yorba Linda
Gardena		Yucaipa
Glendale		Yucca Valley
Hayward		
Hemet		
	COUNTIES (3	36)

1 of 2

Alameda	Napa
Alpine	Orange
Butte	Riverside
Contra Costa	San Benito
Fresno	San Bernardino
Humboldt	San Diego
Imperial	San Luis Obispo
Inyo	San Mateo
Kern	Santa Barbara
Lake	Santa Clara
Lassen	Santa Cruz
Los Angeles	Shasta
Marin	Siskiyou
Mendocino	Solano
Merced	Sonoma
Modoc	Stanislaus
Mono	Ventura
Monterey	Yolo
* To inquire about local ac	overnment policies and regulations you will need

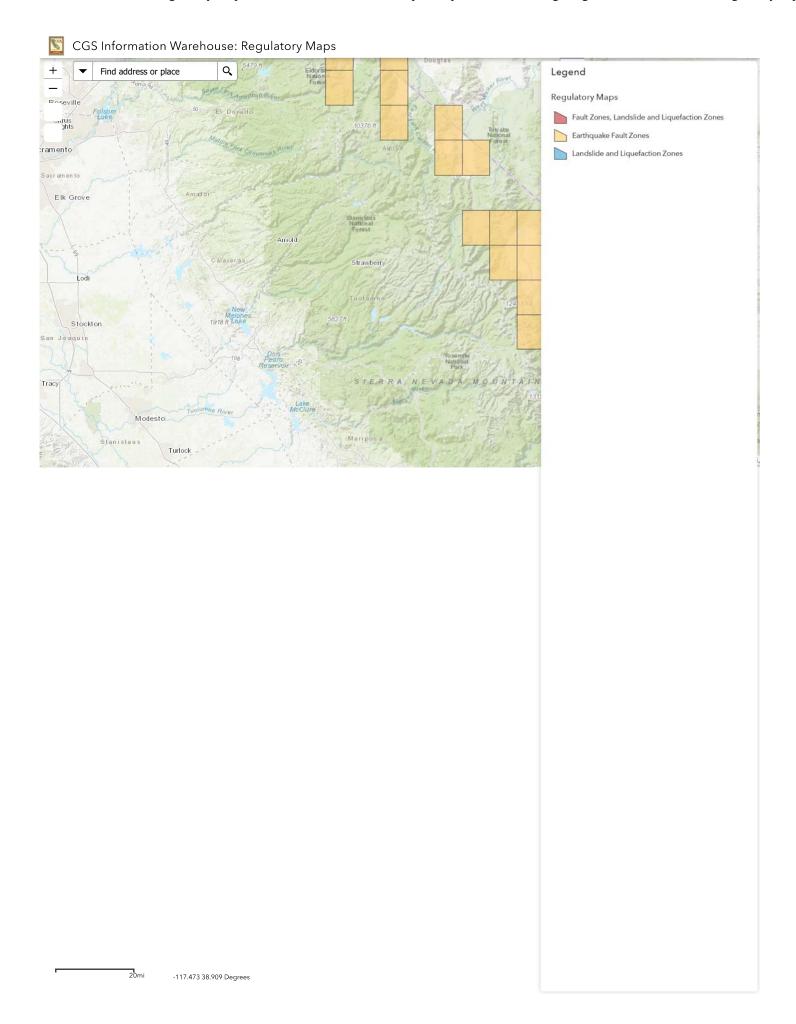
<sup>\*</sup> To inquire about local government policies and regulations you will need to address the Planning Director of each county or city. Some jurisdictions have replotted the Earthquake Fault Zone boundaries on large-scale parcel maps.

CGS MENU

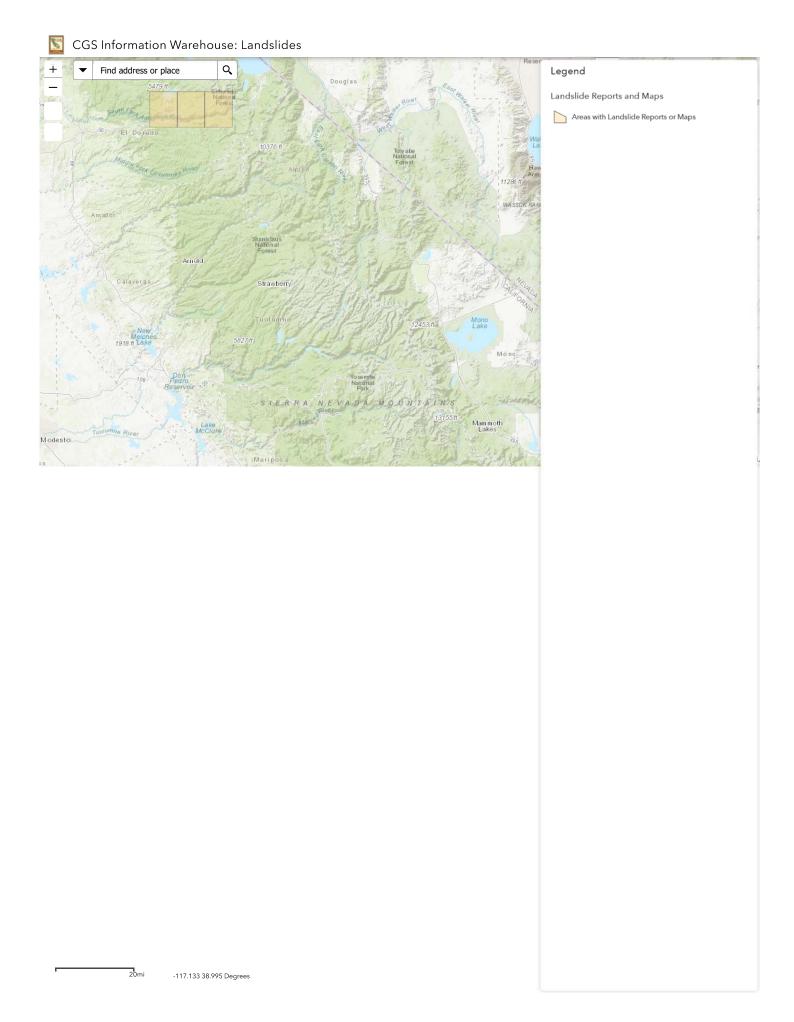
About DOC	Data & Information	Maps	Site Resources
> Mission & Vision		> Earthquake Zone	> Conditions of Use
> Meet DOC	> Public Records Act	App (EQ Zapp)	> Privacy Policy
Leadership	Requests	> CGS Regulatory	> Accessibility
> Upcoming Meetings	> WellSTAR	Maps	> Disclaimer
& Events	> Aliso Canyon	> Well Finder	210014111101
> Contact Us	Testing	> Geologic Map of	> Register to Vote
> Sitemap	> Farmland Mapping	California	
	and Monitoring	> Fault Activity Map	
	> Earthquake	of California	
	Preparation		



<sup>\*\*</sup> Additional cities may be affected by the zones as new cities are created, city boundaries are expanded, or new zones are established.



1 of 1

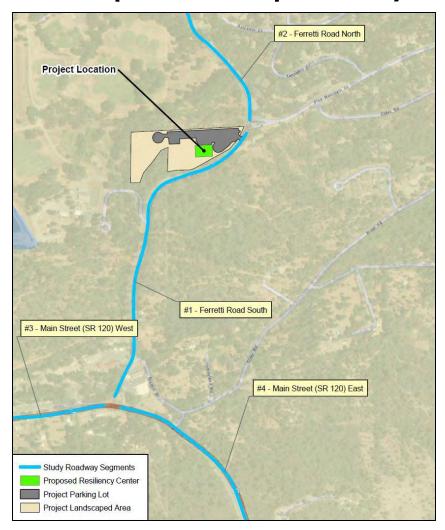


1 of 1

# Appendix D

Traffic Impact Study

# Groveland Community Resiliency Center Groveland, Tuolumne County, CA Transportation Impact Study



Final Report

Prepared For:

Ascent Environmental, Inc.

March 2019

Prepared By:

Pr

# **Groveland Community Resiliency Center Groveland, Tuolumne County, CA**

### TRANSPORTATION IMPACT STUDY

### **FINAL REPORT**

# Prepared For: Ascent Environmental, Inc.

### **Prepared By**



3301 C Street, Building 100-B Sacramento, CA 95816 (916) 341-7760

March 2019

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### **EXECUTIVE SUMMARY**

This report has been prepared to present the results of a Transportation Impact Study (TIS) performed by Wood Rodgers, Inc. for a proposed Community Resiliency Center (Project) in the census-designated place of Groveland, California. This analysis has been performed to determine any impacts the proposed Project may have on surrounding transportation facilities and potential mitigation measures that could be implemented to address any significant impacts. This TIS report was prepared in accordance with Tuolumne County, California Environmental Quality Act (CEQA), and National Environmental Policy Act (NEPA) requirements and guidelines.

### **PROJECT SITE DESCRIPTION**

The Project envisions development of a currently vacant parcel located on the southwest quadrant of the Ferretti Road / Pine Mountain Drive intersection in Groveland, CA. An approximately 12,000 square foot Community Resiliency Center building and adjacent parking lot are planned. The Project site would gain access to the surrounding roadway network via a proposed driveway on Ferretti Road south of Pine Mountain Drive.

### **PROJECT GENERATED TRIPS**

New trips generated by the proposed Project were estimated using rates from the *Institute of Transportation Engineers Trip Generation Manual, 10<sup>th</sup> Edition.* The proposed Project is anticipated to generate a total of 346 daily trips, 22 new AM peak hour (15 inbound, 7 outbound), and 28 new PM peak hour (13 inbound, 15 outbound) trips under typical annual average traffic demand conditions.

### ROADWAY SEGMENTS OPERATIONS, IMPACTS, AND MITIGATION MEASURES

This TIS report analyzed four (4) study roadway segments under "Existing", "Existing plus Project", "Near-term No Project", "Near-term plus Project", "Cumulative (long-term) No Project", and "Cumulative (long-term) plus Project" weekday daily conditions. Study roadway segments were chosen based on projected travel patterns of Project site trips, knowledge of the area, and engineering judgement. Average Daily Traffic (ADT)-based Level of Service (LOS) standards and significant impact criteria used in this TIS were based on the Tuolumne County Transportation Council (TCTC) Roadway ADT LOS Lookup Table shown in **Table 1**.

All study roadway segments are projected to operate at acceptable LOS "D" or better under "Existing", "Existing plus Project", "Near-term No Project", "Near-term plus Project", "Cumulative (long-term) No Project", and "Cumulative (long-term) plus Project" weekday daily conditions.

The Project would generate approximately 3,564 daily Vehicle Miles Traveled (VMT) in Tuolumne County.

### **PROJECT DRIVEWAY SIGHT DISTANCE ANALYSIS**

Driveway sight distances for the Project were analyzed against sight distance requirements for commercial roads/driveways contained in the *Tuolumne County Community Resources Agency Roads Division Encroachment Permit Information Packet* (Tuolumne County, 2014). The distances between the proposed Project driveway and the nearest approaches were also analyzed against the minimum recommended distances between a commercial approach and any other approach contained in the *County Encroachment Permit Information Packet*. The proposed Project driveway is projected to meet the County's distance between approaches requirements. The proposed Project driveway is projected to



meet the County's sight distance requirements only if all existing trees located within the sight distance triangles shown in **Appendix C** are removed/cleared by the County. This study recommends the County remove all trees located within the sight distance triangles shown in **Appendix C**.

### I. INTRODUCTION

This report has been prepared to present the results of a TIS performed by Wood Rodgers, Inc. for a proposed Community Resiliency Center located in the census-designated place of Groveland in Tuolumne County, California. This analysis has been performed to determine any impacts the proposed Project may have on surrounding transportation facilities and potential mitigation measures that could be implemented to address any significant impacts caused by the Project. This analysis focuses on typical weekday operating conditions at the Project site, and not special event scenarios such as during a natural disaster. This TIS includes sight distance analysis for potential Project site driveway locations.

### I.I PROJECT DESCRIPTION

The Project site consists of one parcel located on the southwest quadrant of the Ferretti Road / Pine Mountain Drive intersection in Groveland, CA. An approximately 12,000 square foot Community Resiliency Center building and adjacent parking lot are planned. Total paved parking area would be approximately 65,000 square feet. The Project site would provide approximately 200 parking stalls for its users. The project site location is shown on the map in **Figure 1**. The Project Site Plan (Lionakis, dated February 25, 2019) may be found in **Appendix A**.

The Community Resiliency Center will be designed with flexible space and areas that can be utilized by multiple people/groups at the same time. The building is planned to contain the following spaces: a lobby area, a large gathering group (100-200 person capacity), a few small classroom type rooms, a commercial kitchen, and restrooms. The County will be contracting with Non-Profit Groups to oversee the activities of the facility and schedule meetings. One (1) Facilities Management staff may also be required. Non-Emergency facility uses and activities include rentals by various community groups and businesses for meetings, trainings, parties and fundraisers. Governmental Entities will also use these facilities to hold town hall meetings and make presentations. Emergency uses and activities include utilizing the facility as an emergency shelter, temporary housing, for possible feeding of first responders, and for emergency responders to conduct community briefings during emergency events.

### 1.2 STUDY AREA

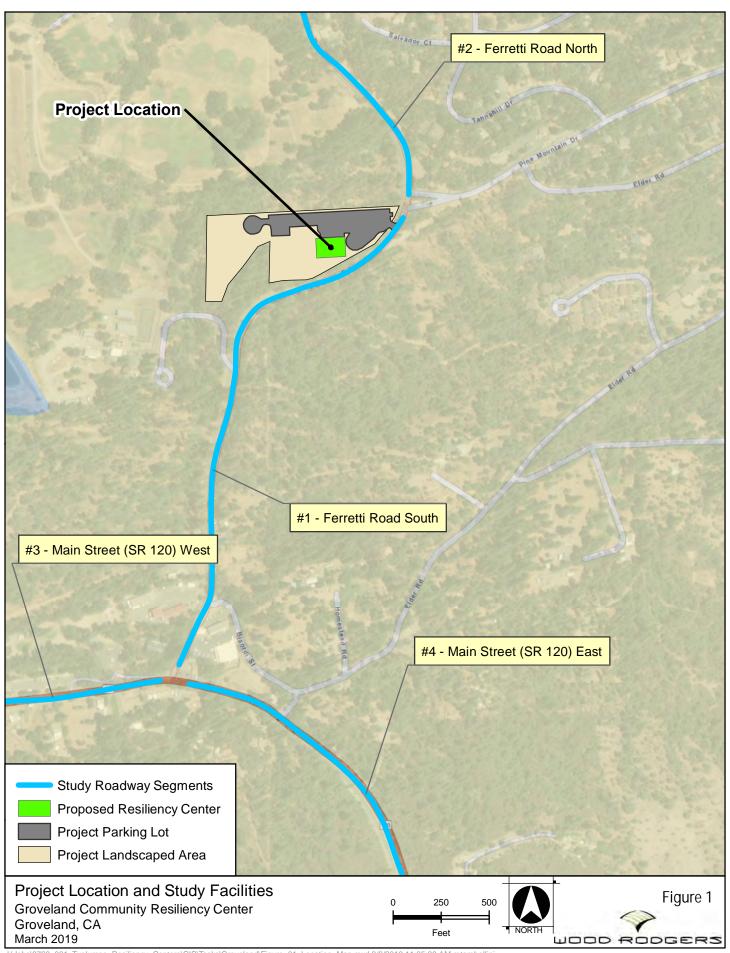
The Project study area extends along Ferretti Road from Main Street (SR 120) (southern limit) to Phelan Mogan Road (northern limit) in proximity of the Project site, as well as Main Street (SR 120) from Priest Coulterville Road (western limit) to Smith Station Road (eastern limit). Study facilities include the roadway segments discussed below.

### I.2.I Roadway Segments

Roadway segments were selected for analysis based on projected travel patterns of Project site trips, knowledge of the area, and engineering judgement. The list of study roadway segments was reviewed by County staff prior to preparation of the TIS. The following four (4) existing study roadway segments were analyzed in this TIS:

- 1. Ferretti Road between Main Street (SR 120) and Pine Mountain Drive
- 2. Ferretti Road between Pine Mountain Drive and Phelan Mogan Road
- 3. Main Street (SR 120) between Priest Coulterville Road and Ferretti Road
- 4. Main Street (SR 120) between Ferretti Road and Smith Station Road

The locations of the above roadway segments are shown on **Figure 1**.



### 1.3 Analysis Scenarios

Four roadway segments were evaluated under weekday daily conditions for the following scenarios:

- Existing Conditions: Existing traffic volumes from counts.
- Existing plus Project Conditions: Existing traffic volumes plus traffic projected to be generated by the proposed Project.
- Near-term No Project Conditions: Analysis of near-term future year 2020 traffic conditions developed by applying a yearly growth rate, calculated from the Tuolumne County Regional Travel Demand Model (RTDM), to existing traffic volume counts.
- Near-term plus Project Conditions: "Near-term No Project" volumes plus traffic projected to be generated by the proposed Project.
- Cumulative (long-term) No Project Conditions: Analysis of long-term future year 2040 traffic conditions developed by applying a yearly growth rate, calculated from the Tuolumne County RTDM, to existing traffic volume counts.
- Cumulative (long-term) plus Project Conditions: "Cumulative (long-term) No Project" volumes plus traffic projected to be generated by the proposed Project.

#### I.4 Analysis Methods

All study roadways were classified as urban or rural, and all roadways were further classified as rolling or mountainous. Roadway segment LOS was calculated by comparing study roadway ADT volumes, obtained from recent traffic counts, to the corresponding TCTC Roadway ADT LOS thresholds for the roadway type contained in the *Tuolumne County General Plan and Regional Transportation Plan Update EIR Traffic Study* (Wood Rodgers, August 2015). The TCTC Roadway ADT LOS Lookup Table is shown in **Table 1**.

Intersection analysis was not included in this TIS. According to the *Guide of the Preparation of County of Tuolumne Traffic Impact Studies*, a full TIS is needed when a project generates over 50 peak hour trips assigned to a County roadway or a highway. Based on the trip generation performed for this Project (see Section 3.2.1 of this TIS for trip generation details), the Project would generate up to 28 peak hour trips, and therefore would not trigger the County requirement for a full TIS with intersection analysis.

Typical daily weekday analysis was performed for this TIS. It was determined that existing traffic volumes on study roadways remained generally consistent (within five percent of each other) on weekdays and weekends, and therefore weekday traffic counts were a reasonable approximation of weekend traffic counts for study roadway segments (see Section 2.5 of this TIS for additional discussion). It was also determined that *Institute of Transportation Engineers Trip Generation Manual*, 10<sup>th</sup> Edition based weekday trip generation rates were a reasonably conservative estimate of Project generated trips on both weekdays and weekends, consistent with County estimates of site usage (see Section 3.2.1 of this TIS for additional discussion). Therefore, the typical daily weekday analysis included in this TIS could also be considered a reasonable estimate of daily weekend operating conditions with and without the Project.

Table 1. TCTC Generalized Roadway ADT LOS Lookup Table

FHWA FC#	Roadway Type	Type #	Area Type	Maximum Two-way Average Daily Traffic (ADT) Volume-carrying Capacity for each LOS Designation  LOS "A" LOS "B" LOS "C" LOS "D" LOS "E"					
4	Rural Arterial (4-lane) Divided	1		6,240	12,480	18,720	26,520	31,200	
4	Rural Arterial (4-lane) Undivided	2		4,820	9,640	14,460	20,485	24,100	
4	Rural Minor Arterial (4-lane)	3		6,080	12,160	18,240	25,840	30,400	
4	Rural Minor Arterial (with left-turn Lane)	4		4,600	9,200	13,800	19,550	23,000	
4	Rural Minor Arterial (2-lane)	5	ā	3,120	6,240	9,360	13,260	15,600	
5	Major Collector (34 ft 36 ft.)	6	ROLLING	3,420	6,840	10,260	14,535	17,100	
5	Major/Minor Collector (23 ft 32 ft.)	7	SOL	2,900	5,800	8,700	12,325	14,500	
5	Major/Minor Collector (20 ft 23 ft.)	8		2,590	5,180	7,770	11,008	12,950	
5	Major/Minor Collector (18 ft 20 ft.)	9		2,300	4,600	6,900	9,775	11,500	
5	Major/Minor Collector (Less than 18 ft.)	10		1,920	3,840	5,760	8,160	9,600	
6	Local Road	11		1,920	3,840	5,760	8,160	9,600	
4	Rural Arterial (4-lane) Divided	101		5,810	11,610	17,410	24,670	29,020	
4	Rural Arterial (4-lane) Undivided	102		4,490	8,970	13,450	19,060	22,420	
4	Rural Minor Arterial (4-lane)	103		5,660	11,310	16,970	24,040	28,280	
4	Rural Minor Arterial (with left-turn Lane)	104	ns	4,280	8,560	12,840	18,190	21,390	
4	Rural Minor Arterial (2-lane)	105	Ŏ	2,910	5,810	8,710	12,340	14,510	
5	Major Collector (34 ft 36 ft.)	106	₹	3,190	6,370	9,550	13,520	15,910	
5	Major/Minor Collector (23 ft 32 ft.)	107	MOUNTAINOUS	2,700	5,400	8,100	11,470	13,490	
5	Major/Minor Collector (20 ft 23 ft.)	108		2,410	4,820	7,230	10,240	12,050	
5	Major/Minor Collector (18 ft 20 ft.)	109		2,140	4,280	6,420	9,100	10,700	
5	Major/Minor Collector (Less than 18 ft.)	110		1,790	3,580	5,360	7,590	8,930	
6	Local Road	111		1,790	3,580	5,360	7,590	8,930	
2	4-Lane Freeway	201		28,000	43,200	61,600	74,400	80,000	
2	3-Lane Freeway	202		10,100	20,200	30,300	42,925	50,500	
2	2-Lane Freeway + Auxiliary Lanes	203		8,392	16,784	25,176	35,666	41,960	
2	2-Lane Freeway	204		6,680	13,360	20,040	28,390	33,400	
2	4-Lane Expressway	205		24,000	28,000	32,000	36,000	40,000	
2	2-Lane Expressway	206		12,000	14,000	16,000	18,000	20,000	
3	6-Lane Divided Arterial (with left-turn lane)	207	Ä	32,000	38,000	43,000	49,000	54,000	
3	4-Lane Divided Arterial (with left-turn lane)	208	URBAN	22,000	25,000	29,000	32,500	36,000	
3	4-Lane Undivided Arterial (no left-turn lane)	209	ر	18,000	21,000	24,000	27,000	30,000	
4	2-Lane Principal/Minor Arterial (with left-turn lane)	210		2,900	7,700	14,300	20,100	31,300	
4	2-Lane Principal/Minor Arterial (no left-turn lane)	211		2,900	7,200	11,900	16,100	24,200	
5	2-Lane Major/Minor Collector (with left-turn lane)	212		3,400	6,900	11,600	15,800	29,400	
5	2-Lane Major/Minor Collector (no left-turn lane)	213		2,700	5,600	9,200	12,800	23,500	
6	2-Lane Local Street	214		2,300	4,900	8,400	11,400	21,200	

- 1. Values shown corresponding to LOS A through E are roadway ADT traffic volumes
- Values shown corresponding to ECO A through E are loadway AD I traine volumes
   Collector width is measured from the edge of pavement to the edge of pavement
   Roadways with continuous grade steeper than 6% or above 4,000 ft. elevation should use mountainous terrain LOS thresholds
- 4. Site Specific LOS maybe necessary
- 5. Peak Hour LOS threshold is assumed to be 10% of the daily traffic volume unless site specific analysis shows a different peak
- hour to daily traffic ratio

  6. Examples LOS A (0.20 of capacity), LOS B (0.21 to 0.40 of capacity), LOS C (0.41 to 0.60 of capacity), LOS D (0.61 to 0.85 of capacity),

LOS E (0.86 to 0.92 of capacity).

All volumes thresholds are approximate and assumes average roadway characteristics. Actual threshold volume for each Level of Service listed above may vary depending on a variety of factors including (but not limited to) roadway curvature and grade, intersection or interchange spacing, driveway spacing, percentage of trucks, RVs and other heavy vehicles, travel lane widths, speed limits, signal timing characteristics, on-street parking, volume of cross traffic and pedestrians, etc.

### 1.5 LEVEL OF SERVICE STANDARDS AND SIGNIFICANT IMPACT CRITERIA

Consistent with the 2018 General Plan Update Appendix B: Tuolumne County General Plan and Regional Transportation Plan Update EIR Traffic Study (Wood Rodgers, August 2015), the minimum LOS standard for Minor Collectors, Major Collectors, Rural Arterials and Urban Local Streets (County facilities) was assumed to be LOS "D", unless an exception is made by the County. The minimum LOS standard for rural local roads and residential roads was assumed to be LOS "C". The minimum peak hour LOS standard for all County intersections was assumed to be LOS "D".

The Project study area includes State Route120. The Caltrans published *Guide for* the *Preparation of Traffic Impact Studies (dates December 2002)* states the following:

"Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" on State highway facilities, however, Caltrans acknowledges that this may not be always feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS"

Based on the above, the minimum LOS standard for all Caltrans facilities was assumed to be LOS "D".

#### 1.6 REPORT ORGANIZATION

The remainder of this report is divided into the following chapters:

- Chapter 2: Existing Conditions Describes existing conditions and operations of the study area intersections, transit system, pedestrian facilities, and bicycle facilities.
- Chapter 3: Existing Plus Project Conditions Describes the methods used to estimate and distribute Project generated traffic and the resulting study area operations.
- Chapter 4: Near-term No Project Describes projected conditions and operations of study area facilities under Near-term No Project conditions.
- Chapter 5: Near-term plus Project Describes projected conditions and operations of study area facilities under Near-term plus Project conditions.
- Chapter 6: Cumulative (long-term) No Project Describes projected conditions and operations of study area facilities under Cumulative (long-term) No Project conditions.
- Chapter 7: Cumulative (long-term) plus Project Describes projected conditions and operations of study area facilities under Cumulative (long-term) plus Project conditions.
- Chapter 8: Project Impacts and Mitigation Measures Describes the projected impacts the Project will have on study area facilities (if any) and presents potential mitigations.
- Chapter 9: Site Access and Circulation Describes site access, circulation, and Project Driveway site distances for the Project Site.

### 2. EXISTING CONDITIONS

This chapter describes the existing roadway network, transit services, pedestrian facilities, and bicycle facilities within the study area. It also presents existing ADT at study roadway segments and existing study roadway segment LOS.

### 2. I EXISTING ROADWAY NETWORK

This section provides descriptions of the study area roadways.

**Ferretti Road** is a two-lane major collector that runs north-south between Phelan Mogan Road and Main Street (SR 120). Ferretti Road forms one-way stop-controlled T-intersections with Main Street (SR 120) as well as Pine Mountain Drive. The posted speed limit on Ferretti Road is 35 mph.

Ferretti Road currently (as of November 2018) has a full closure approximately 350 feet north of Pine Mountain Drive where the roadway has been closed due to storm damage. The County has indicated that they plan to fix this damaged section of roadway by early 2019. In the meantime, Ferretti Road traffic is likely diverting via Pine Mountain Drive, Tannahill Drive, and Mueller Drive, or the eastern Ferretti Road / SR 120 intersection (approximately seven miles east of Groveland).

Main Street (SR 120) is a two-lane rural minor arterial that runs east-west between Priest Coulterville Road and Smith Station Road. The posted speed limit is 25 mph west of Ferretti Road T-intersection, and 35 mph east of Ferretti Road T-intersection. Posted speed limit increases to 40 mph near the Main Street (SR 120) / Merrell Road intersection, and to 45 mph near the Main Street (SR 120) / Old Highway 120 intersection.

#### 2.2 PEDESTRIAN FACILITIES

Pedestrian sidewalk was detected along the east side of Ferretti Road south of Pine Mountain Drive and north of Bisordi Street. No existing pedestrian sidewalks or pedestrian crossings were detected along the Project site frontage. There are no pedestrian crossings at the Ferretti Road / Main Street (SR 120) T-intersection or at the Ferretti Road / Pine Mountain Drive intersection.

#### 2.3 BICYCLE FACILITIES

The 2016 Regional Transportation Plan (Tuolumne County Transportation Council, January 2017) classifies bikeways as follows:

- <u>Class I Bike Path</u> Provides a completely separate right of way designated for exclusive use of bicycles and pedestrians with cross-flows by motorists minimized.
- <u>Class II Bike Lanes</u> –Provides a restricted right-of-way through signs and pavement striping
  designated for the exclusive or semi-exclusive use of bicycles with through travel by motor
  vehicles or pedestrian prohibited, but with vehicle cross-flows by pedestrian and motorists
  permitted. In California, the Manual on Uniform Traffic Control Devices (MUTCD) sign
  #R3-17 normally designates class II facilities.

Study area bicycle facilities have been identified using information from the 2016 Regional Transportation Plan. No bike lanes were detected within or near the Project study area. Shoulders of two feet were detected along the east side of Ferretti Road. The west side of Ferretti has little to no shoulder in the Project area.



### 2.4 EXISTING TRANSIT SERVICE

Tuolumne County Transit provides Groveland Dial-A-Ride Service. On Tuesdays, curb to curb Dial-A-Ride services are available from Groveland to the Sonora area for shopping, medical appointments, etc. Service is available to the general public, with priority service to those who are disabled or 55 years of age or over. A Sonora, Groveland, Yosemite Valley shuttle is available seven days a week from May to September. The shuttle stops at Mary Laveroni Park, which is located approximately 3,400 feet from the Project site.

### 2.5 EXISTING ROADWAY SEGMENT VOLUMES

Project study roadway segment traffic operations were evaluated for typical existing daily weekday conditions. Wood Rodgers conducted new 24 hour vehicular traffic counts at the following roadway segments on Tuesday October 16, 2018:

- 1. Ferretti Road between Main Street (SR 120) and Pine Mountain Drive
- 3. Main Street (SR 120) between Priest Coulterville Road and Ferretti Road
- 4. Main Street (SR 120) between Ferretti Road and Smith Station Road

24 hour weekend counts were also conducted on Ferretti Road between Main Street (SR 120) and Pine Mountain Drive on Saturday October 20, 2018. Weekend ADT on this segment was found to be within five percent of the existing weekday count. Therefore, traffic operations on the weekend were assumed to be similar to those during the week.

Due to the existing full closure of Ferretti Road approximately 350 feet north of Pine Mountain Drive, Wood Rodgers was unable to conduct new traffic counts at the following roadway segment:

2. Ferretti Road between Pine Mountain Drive and Phelan Mogan Road

After discussion with the County, it was decided that latest counts published on the Tuolumne County website (last updated 07/01/2017) could be used to obtain existing Ferretti Road traffic volumes north of Pine Mountain Drive. As the latest available traffic counts from the County at this location were conducted in November of 2014, the counts were growth rated to represent current year 2018 conditions. The growth rate was derived using the Tuolumne County RTDM.

**Figure 1** illustrates existing study roadway segments and **Figure 2** illustrates "Existing" conditions study roadway segment ADTs. Roadway segment raw count sheets are included in **Appendix B**.

### 2.6 Existing Roadway Segment Operations

**Table 2** presents existing study roadway segment traffic operations under "Existing" roadway ADT volumes.

As shown in **Table 2**, all study roadway segments are currently operating at acceptable level of service conditions (LOS "D" or better).

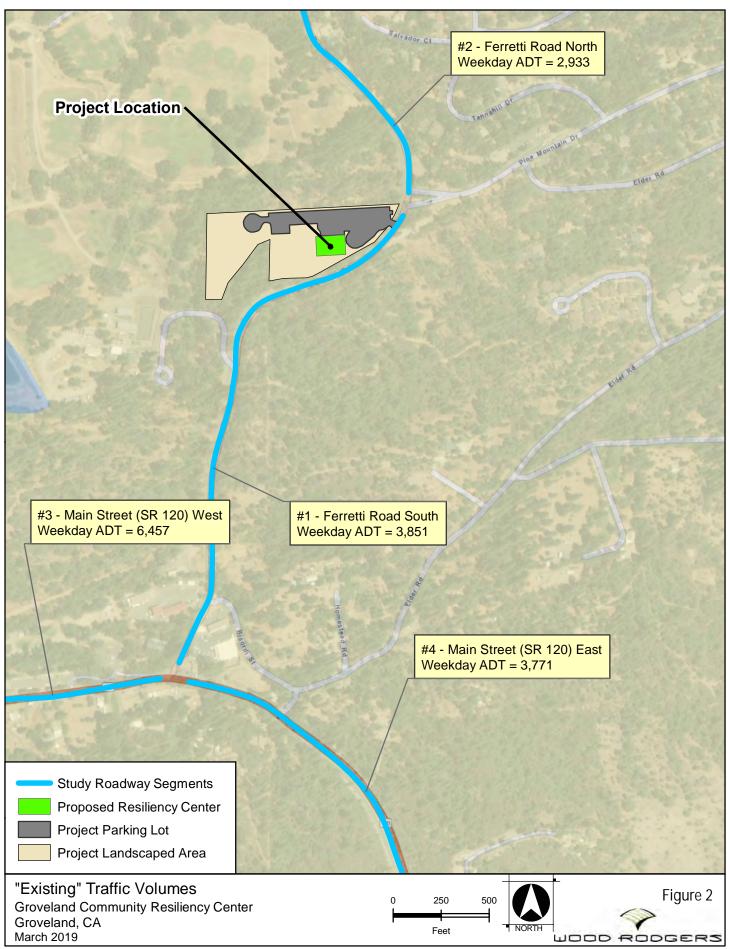


Table 2. "Existing" Conditions Roadway Segment Traffic Operation

#	Roadway Segment	Type #1	Roadway Capacity	Min. LOS Std.	ADT	LOS
1	Ferretti Road between Main Street (SR 120) and Pine Mountain Drive	7	14,500	D	3,851	В
2	Ferretti Road between Pine Mountain Drive and Phelan Mogan Road	7	14,500	D	2,933	В
3	Main Street (SR 120) between Priest Coulterville Road and Ferretti Road	5	15,600	D	6,457	С
4	Main Street (SR 120) between Ferretti Road and Smith Station Road	5	15,600	D	3,771	В

Notes:

<sup>&</sup>lt;sup>1</sup> Type # from **Table 1**. TCTC Generalized Roadway ADT LOS Lookup Table



# 3. EXISTING PLUS PROJECT CONDITIONS

This chapter provides a description of the proposed Project, a discussion of the trip generation and distribution/assignment methods used to come up with "Project Only" volumes at study roadway segments, and an analysis of projected traffic operations due to the proposed Project.

### 3.1 PROJECT SITE DESCRIPTION

The proposed Project plans to develop a Community Resiliency Center on a single parcel. The building will be approximately 12,000 square feet. The area to be paved for parking will be approximately 65,000 square feet, with approximately 200 parking stalls.

The County provided the following estimates of anticipated usage of the Groveland Community Resiliency Center:

- Weekday Daytime Use (Monday Thursday) 20 30 people per day
- Weekday Evening Use (Monday Thursday) 20 60 people per day
- Weekend Use (Friday Sunday) 40 200 people per day

The usage estimates above were based on the current schedule for an existing Community Center in Groveland.

### 3.2 PROJECT GENERATED TRIPS

### 3.2.1 Trip Generation

The following trip generation rates from the *Institute of Transportation Engineers (ITE) Trip Generation Manual*, 10<sup>th</sup> Edition were used to estimate Project generated trips:

Recreational Community Center – For the proposed Community Resiliency Center, the Recreational Community Center (Code 495) trip generation rate is used. ITE Trip Generation describes the Recreational Community Center as: "...stand-alone public facility similar to and including YMCAs. These facilities often include classes and clubs for adults and children: a day care or nursery school; meeting rooms; swimming pools and whirlpools; saunas; tennis, racquetball, handball, basketball and volleyball courts; outdoor athletic fields/courts; exercise classes; weightlifting and gymnastics equipment; locker rooms; and a restaurant or snack bar. Public access is typically allowed but a fee may be charged."

ITE trip generation rates were used to estimate trips generated by the Project as they are generally accepted as an industry standard method of estimating traffic generation and they produced trips that were generally consistent with, or slightly more conservative than, the County's estimate of Project usage included in Section 3.1. **Table 3** summarizes the trip generation rates used for the proposed Project and **Table 4** summarizes the trip generation volumes and reductions for the proposed Project.

According to the ITE trip generation rates, the Recreation Community Center land use type generates more trips on weekdays than on weekends. In order to remain conservative, it was assumed that the weekday trip generation rates could generally be used as a reasonable estimate of Project generated traffic on both weekdays and weekends.

Table 3. Project Trip Generation Rates

Land Use Category	Source	ITE Code	Rate Unit	Daily Trip		day AM			xday PM ur Rate/	
		Code	Cint	Rate/Unit	Total	In%	Out%	Total	In%	Out%
Recreational Community Center	ľΈ	495	KSF1	28.82	1.76	66%	34%	2.31	47%	53%
Notes: <sup>1</sup> KSF – 1000 SQFT Flo	or Area		1			ı		•	ı	

Table 4. Project Trip Generation Volumes

Land Use	Units	0	Daily		day AM our Trip			day PM our Trip	
	Units	Quantity	Trips	Total	In	Out	Total	In	Out
Recreational Community Center	KSF1	12	346	22	15	7	28	13	15
Notes: <sup>1</sup> KSF – 1000 SQFT Floor Area									

As illustrated in **Table 4**, the proposed Project is anticipated to generate a total of 346 daily trips, 22 AM peak hour (15 inbound, 7 outbound) trips, and 28 PM peak hour (13 inbound, 15 outbound) trips under typical "annual average" traffic demand conditions. ITE Trip Generation average rates were used in place of fitted curve equations to better capture the realistic trip generation of the small square footage being developed.

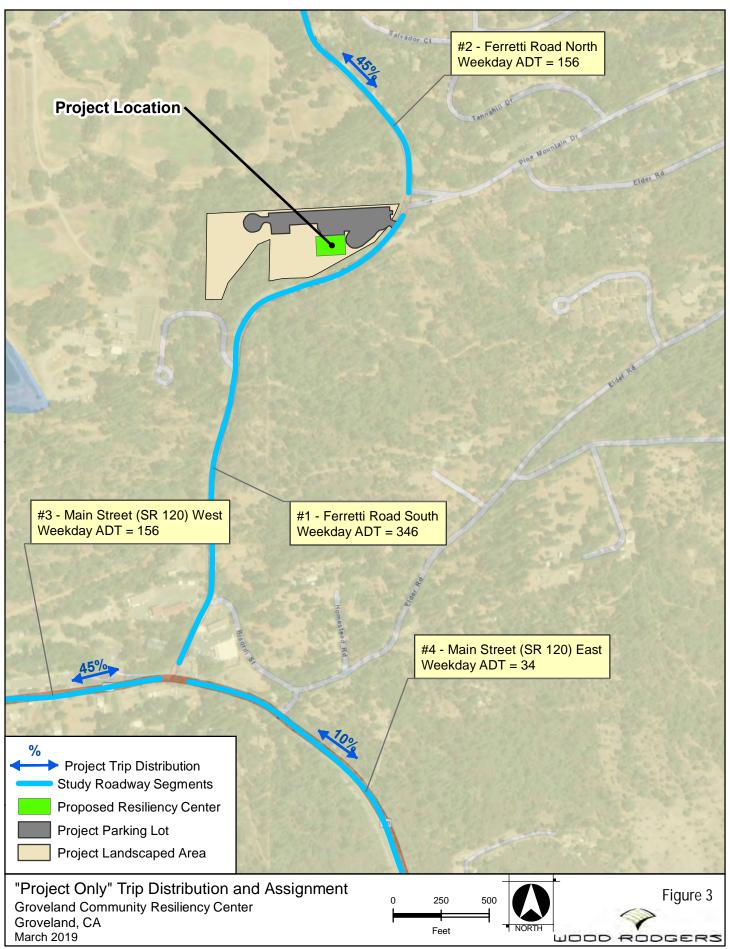
The 346 daily Project trips estimated using ITE trip generation rates, and shown in **Table 4** above, are generally consistent with the County's estimate of Project usage on weekends, but slightly higher than the County's estimate of Project usage on weekdays. However, as Project usage is only an estimate and could end up being higher than anticipated by the County, the 346 daily trips were considered a reasonably conservative estimate of weekday Project trip generation as well.

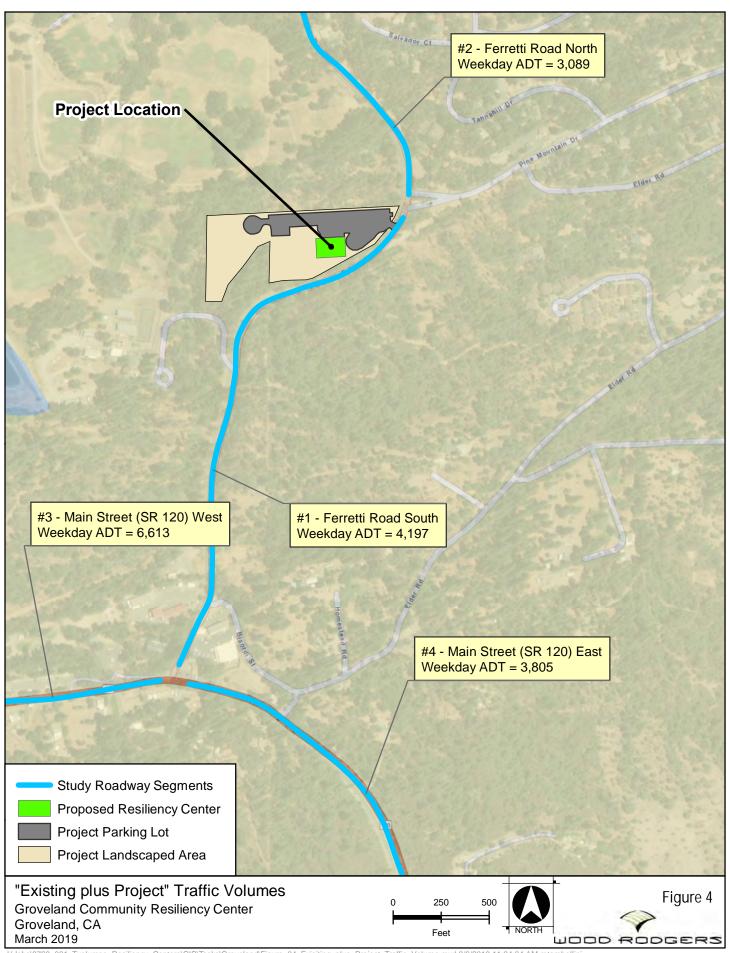
# 3.2.2 Project Trip Distribution and Assignment

The Project trip distribution was determined based on existing traffic volumes and travel patterns, knowledge of the area, and engineering judgement. Project trips were assigned to the study area network based on the Project trip distribution.

**Figure 3** illustrates the estimated weekday daily Project directional trip distribution and assignment patterns projected to be generally applicable for the Project under existing conditions on an annualized average usage basis.

"Project Only" traffic volumes were added on top of "Existing" conditions traffic volumes at study roadway segments to create "Existing plus Project" conditions traffic volumes. **Figure 4** illustrates the estimated weekday daily "Existing plus Project" conditions traffic volumes at study roadway segments.





## 3.3 "Existing plus Project" Roadway Segment Operations

"Existing plus Project" roadway operations were quantified under "Existing plus Project" traffic volumes (shown in **Figure 4**). **Table 5** illustrates the resulting "Existing plus Project" roadway segment LOS operations. **Table 5** also contains "Existing" conditions roadways segment ADT and LOS for comparison purposes.

Table 5. "Existing plus Project" Conditions Roadway Segment Traffic Operation

#	Roadway Segment	Туре	Roadway	Min. LOS	Existi Conditi	0	Existing Project Con		
	, c	#	Capacity	Std.	ADT	LOS	ADT	LOS	
1	Ferretti Road between Main Street (SR 120) and Pine Mountain Drive	7	14,500	D	3,851	В	4,197	В	
2	Ferretti Road between Pine Mountain Drive and Phelan Mogan Road	7	14,500	D	2,933	В	3,089	В	
3	Main Street (SR 120) between Priest Coulterville Road and Ferretti Road	5	15,600	D	6,457	С	6,613	С	
4	Main Street (SR 120) between Ferretti Road and Smith Station Road	5	15,600	D	3,771	В	3,805	В	
Notes:  1 Type # from <b>Table 1</b> TCTC Generalized Roadway ADT LOS Lookup Table									

<sup>1</sup> Type # from **Table 1**. TCTC Generalized Roadway ADT LOS Lookup Table

As shown in **Table 5**, all study roadway segments are projected to operate at acceptable Level of Service (LOS "D" or better) under "Existing plus Project" weekday daily conditions.

# 4. NEAR-TERM NO PROJECT

This chapter provides a description of the "Near-term No Project" roadway segment operations and roadway segment ADT volumes. "Near-term No Project" roadway volumes were obtained by applying a straight-line yearly growth rate to the vehicular traffic counts. The yearly growth rate was determined by differencing the Tuolumne County RTDM vehicular traffic volume projections for year 2015 (base-year) and year 2040 (build-out year), and dividing by 25 years. Year 2020 was chosen to represent near -term conditions in this TIS.

#### 4. I ROADWAY SEGMENT OPERATIONS

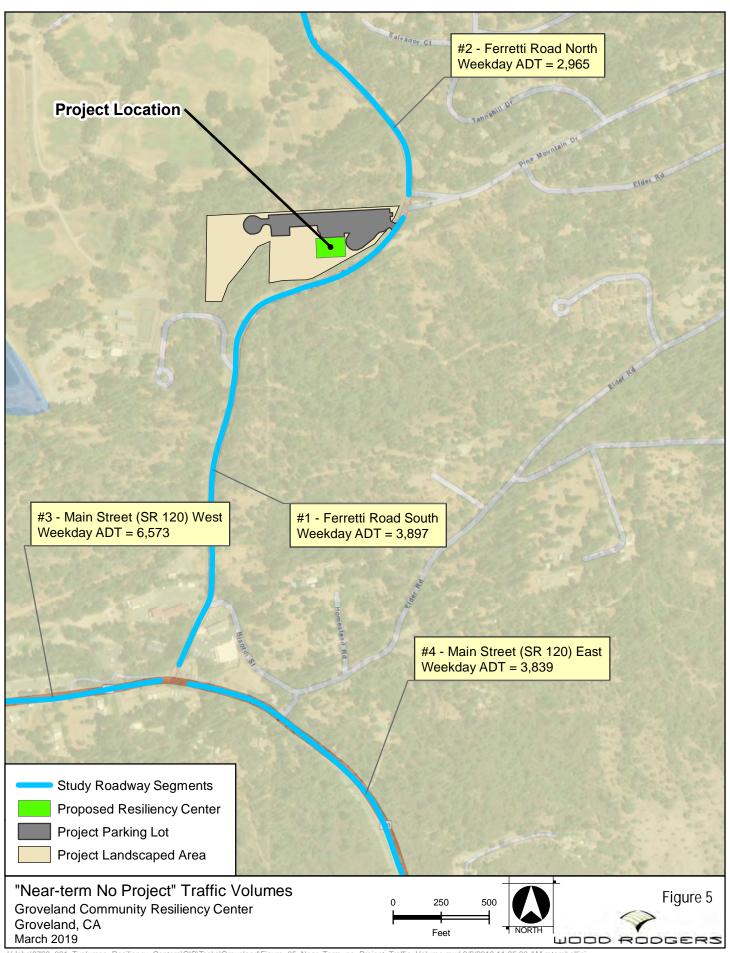
"Near-term No Project" roadway segment operations were quantified under "Near-term No Project" traffic volumes (shown in Figure 5). Table 6 illustrates the resulting "Near-term No Project" conditions roadway segment LOS operations.

Table 6. "Near-term No Project" Conditions Roadway Segments Traffic Operation

#	Roadway Segment	Type #1	Roadway Capacity	Min. LOS Std.	ADT	LOS							
1	Ferretti Road between Main Street (SR 120) and Pine Mountain Drive	7	14,500	D	3,897	В							
2	Ferretti Road between Pine Mountain Drive and Phelan Mogan Road	7	14,500	D	2,965	В							
3	Main Street (SR 120) between Priest Coulterville Road and Ferretti Road	5	15,600	D	6,573	С							
4	Main Street (SR 120) between Ferretti Road and Smith Station Road	5	15,600	D	3,839	В							
	Notes:  ¹ Type # from Table 1. TCTC Generalized Roadway ADT LOS Lookup Table												

As shown in **Table 6**, all study roadway segments are projected to operate at acceptable Level of Service (LOS "D" or better) under "Near-term no Project" weekday daily conditions.

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# 5. NEAR-TERM PLUS PROJECT

"Project Only" daily traffic volumes were added on top of "Near-term No Project" conditions traffic volumes to generate "Near-term plus Project" conditions traffic volumes. This chapter provides a description of the "Near-term plus Project" roadway segment operations and roadway segment ADT volumes.

#### **5.1 ROADWAY SEGMENT OPERATIONS**

"Near-term plus Project" roadway segment operations were quantified under "Near-term plus Project" traffic volumes (shown in Figure 6). Table 7 illustrates the resulting "Near-term plus Project" conditions roadway segments LOS operations.

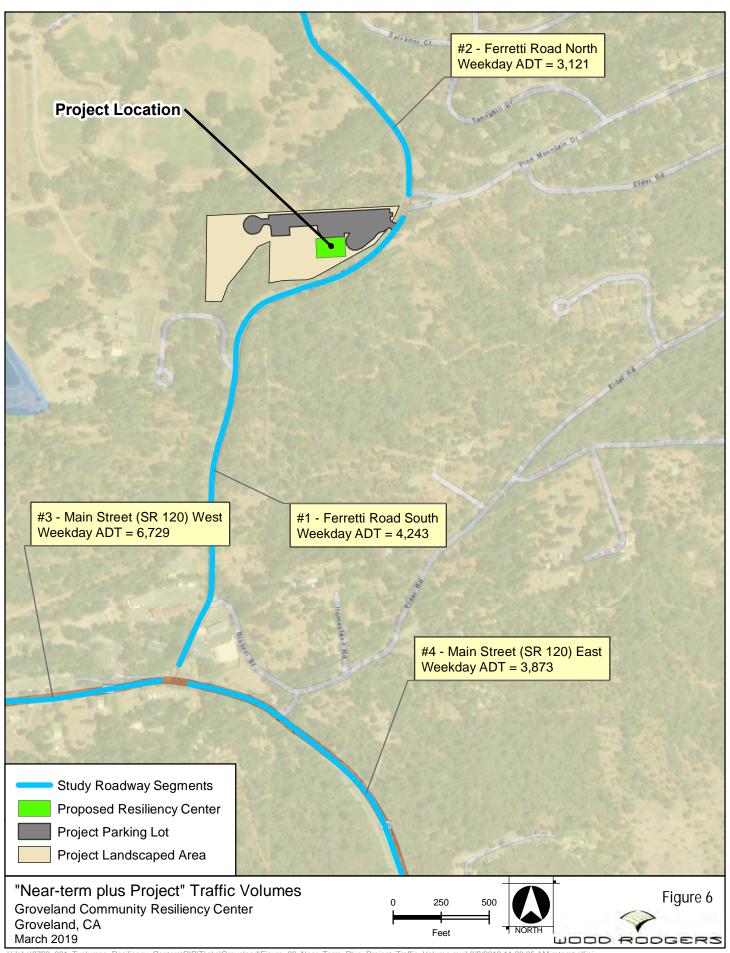
Table 7. "Near-term plus Project" Conditions Roadway Segment Traffic Operations

#	Roadway Segment	Type #1	Roadway Capacity	Min. LOS	Pro	erm No ject itions	Near- plus P Cond	roject
		#*	Supucity	Std.	ADT	LOS	ADT	LOS
1	Ferretti Road between Main Street (SR 120) and Pine Mountain Drive	7	14,500	D	3,897	В	4,243	В
2	Ferretti Road between Pine Mountain Drive and Phelan Mogan Road	7	14,500	D	2,965	В	3,121	В
3	Main Street (SR 120) between Priest Coulterville Road and Ferretti Road	5	15,600	D	6,573	С	6,729	С
4	Main Street (SR 120) between Ferretti Road and Smith Station Road	5	15,600	D	3,839	В	3,873	В
Note:	: oe # from <b>Table 1</b> . TCTC Generalized Roadway ADT	LOSLo	okun Table					

<sup>1</sup> Type # from **Table 1**. TCTC Generalized Roadway ADT LOS Lookup Table

As shown in **Table 7**, all study roadway segments are projected to operate at acceptable Level of Service (LOS "D" or better) under "Near-term No Project" weekday daily conditions.

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# 6. CUMULATIVE (LONG-TERM) NO PROJECT

This chapter provides a description of "Cumulative (long-term) No Project" roadway segment operations and roadway segment ADT volumes. "Cumulative (long-term) No Project" roadway volumes were obtained by applying a straight-line yearly growth rate to the vehicular traffic counts. The yearly growth rate was determined by differencing the Tuolumne County RTDM vehicular traffic volume projections for year 2015 (base-year) and year 2040 (build-out year), and dividing by 25 years. Year 2040 was chosen to represent long-term conditions in this TIS.

#### **6.1 ROADWAY SEGMENT OPERATIONS**

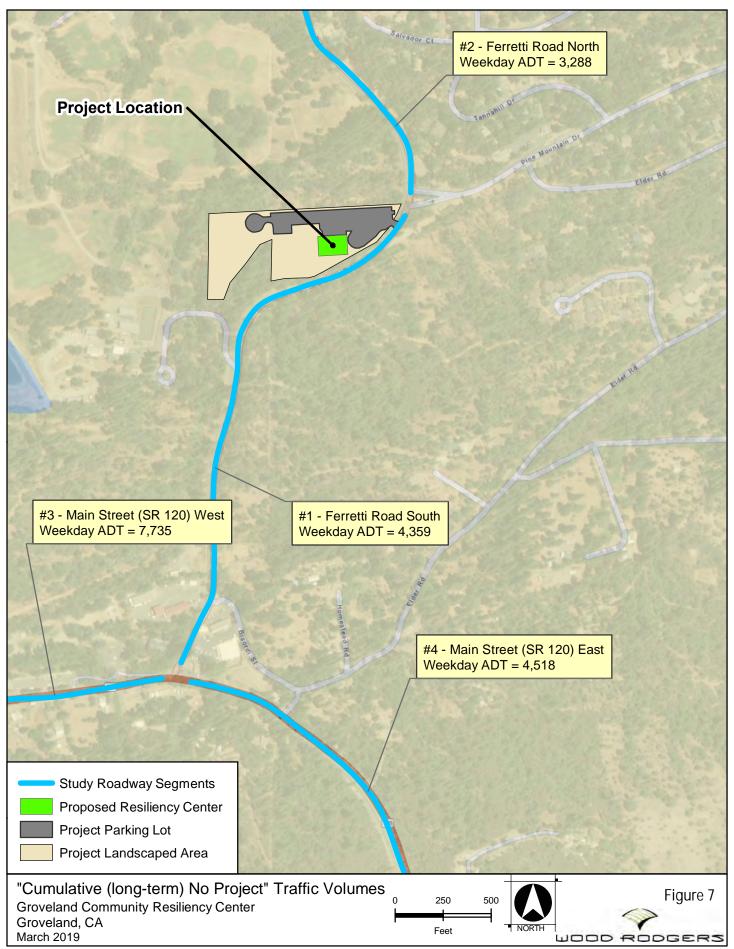
"Cumulative (long-term) No Project" roadway segment operations were quantified under "Cumulative (long-term) No Project" traffic volumes (shown in Figure 7). Table 8 illustrates the resulting "Cumulative (long-term) No Project" conditions roadway segment LOS operations.

Table 8. "Cumulative (long-term) No Project" Conditions Roadway Segment Traffic **Operations** 

#	Roadway Segment	Type #1	Roadway Capacity	Min. LOS Std.	ADT	LOS
1	Ferretti Road between Main Street (SR 120) and Pine Mountain Drive	7	14,500	D	4,359	В
2	Ferretti Road between Pine Mountain Drive and Phelan Mogan Road	7	14,500	D	3,288	В
3	Main Street (SR 120) between Priest Coulterville Road and Ferretti Road	5	15,600	D	7,735	С
4	Main Street (SR 120) between Ferretti Road and Smith Station Road	5	15,600	D	4,518	В
Notes	e # from <b>Table 1</b> . TCTC Generalized Roadway ADT	LOS Look	rup Table			

As shown in **Table 8**, all study roadway segments are projected to operate at acceptable Level of Service (LOS "D" or better) under "Cumulative (long-term) No Project" weekday daily conditions.

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# 7. CUMULATIVE (LONG-TERM) PLUS PROJECT

"Project Only" daily traffic volumes were added on top of "Cumulative (long-term) No Project" conditions traffic volumes to generate "Cumulative (long-term) plus Project" conditions traffic volumes. This chapter provides a description of "Cumulative (long-term) plus Project" roadway segment operations and roadway segment ADT volumes.

#### 7.1 ROADWAY SEGMENT OPERATIONS

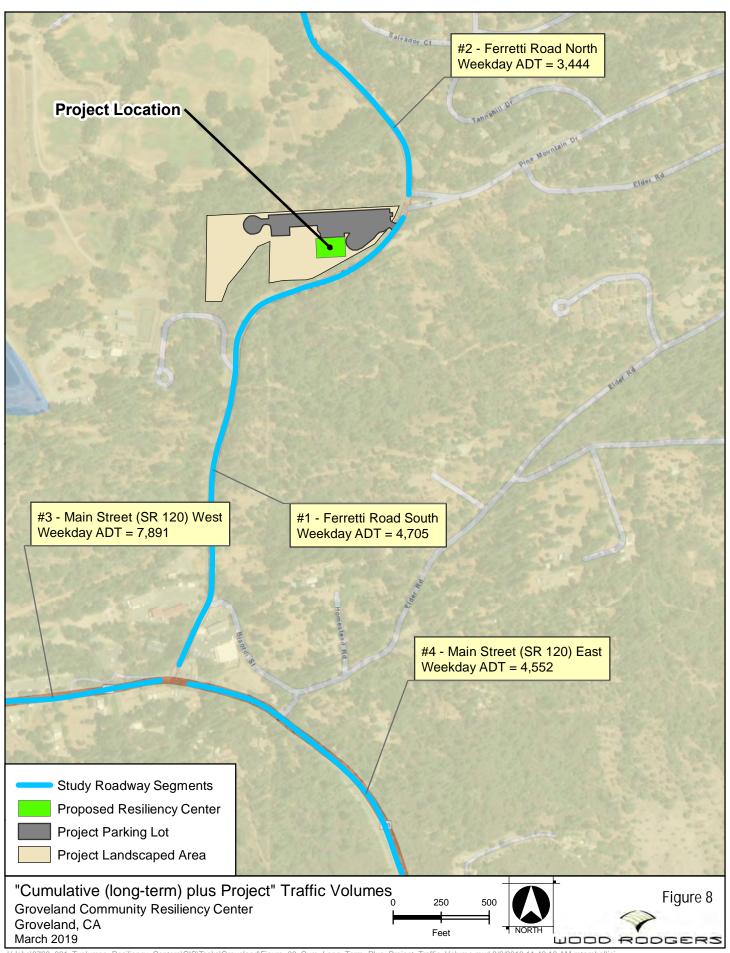
"Cumulative (long-term) plus Project" roadway segment operations were quantified under "Cumulative (long-term) plus Project" traffic volumes (shown in **Figure 8**). **Table 9** illustrates the resulting "Cumulative (long-term) plus Project" conditions roadway segment LOS operations.

Table 9. "Cumulative (long-term) plus Project" Conditions Roadway Segment Traffic Operations

#	Roadway Segment	Type	Roadway Capacity	Min. LOS Std.	Cumu (long-te Pro Cond	rm) No ject	(long-te	ulative erm) plus oject litions
					ADT	LOS	ADT	LOS
1	Ferretti Road between Main Street (SR 120) and Pine Mountain Drive	7	14,500	D	4,359	В	4,705	В
2	Ferretti Road between Pine Mountain Drive and Phelan Mogan Road	7	14,500	D	3,288	В	3,444	В
3	Main Street (SR 120) between Priest Coulterville Road and Ferretti Road	5	15,600	D	7,735	С	7,891	С
4	and Smith Station Road		15,600	D	4,518	В	4,552	В
Note		ı		1				

<sup>1</sup> Type # from **Table 1**. TCTC Generalized Roadway ADT LOS Lookup Table

As shown in **Table 9**, all study roadway segments are projected to operate at acceptable Level of Service (LOS "D" or better) under "Cumulative (long-term) plus Project" weekday daily conditions.



#### 8. IMPACTS AND MITIGATION MEASURES

This chapter of the TIS evaluates the study roadway segment operations results presented in **Table 5** ("Existing plus Project" conditions), **Table 7** ("Near-term plus Project" conditions), and **Table 9** (Cumulative (long-term) plus Project" conditions) against the LOS impact criteria summarized in Section 1.5 of this report.

#### **8.1 ROADWAY SEGMENTS**

All study roadway segments are projected to operate at acceptable LOS under all study conditions. Therefore, the Project was found to have "less than significant" impacts on all four (4) study roadway segments under typical daily weekday conditions. No mitigation measures are recommended.

#### **8.2 VEHICLE MILES TRAVELED**

Based on the *General Plan and Regional Transportation Plan Update EIR Traffic Study* (Wood Rodgers Inc., August 2015) the current average trip length in Tuolumne County is 10.3 miles. This would provide a simple vehicle miles traveled (VMT) estimate of approximately 3,564 daily vehicle-miles per site (ADT \*average trip length).

An overall increase in VMT due to the Project may be anticipated. The expected daily usage of the Project site may lessen the VMT of Groveland residents who would otherwise need to drive further out of town to use a similar facility. However, the presence of the new resiliency center may draw new patrons, either from Groveland or from more distant rural communities who would not be willing to make the trip to a similar facility further away. Overall, it may be expected that the development of the Project would increase VMT in the region by a relatively small amount.

#### 8.3 BICYCLE, PEDESTRIAN AND TRANSIT FACILITIES

Bike users will have to share travel way and/or shoulder space with vehicles when traveling to/from the Project due to lack of bicycle facilities near the Project site.

There are no sidewalks, paths, or crossings within the vicinity of the Project site for pedestrian access. A pedestrian crossing could be considered (if demand exists) in the vicinity of the Ferretti Road / Pine Mountain Drive intersection to allow residents of the Pine Mountain Lake Subdivision to access the Project site on foot.

Seasonal Tuolumne County Transit shuttles stop within 3,400 feet of the Project site and provide connection from Sonora to Groveland. No bus routes serve the Project area. Tuolumne County Transit could consider expanding service to the Project area if there is enough demand. The Project is not projected to create a large amount of transit demand on its own.

#### 9. SITE ACCESS AND CIRCULATION

This chapter includes discussion of Project parking, internal circulation, and sight distance at Project Driveways.

### 9.1 PROJECT PARKING

The Project is programmed to include a total of 200 parking spaces. As these 200 spaces would be greater than 50 percent of total daily Project trips, proposed parking is projected to be adequate.

### 9.2 Project Driveways and Internal Circulation

Access to the Project site is currently proposed to occur at the following driveway location:

• Ferretti Road Driveway: A two-lane access driveway that would extend west from Ferretti Drive to provide access to the Project. This driveway is proposed to be located approximately 225 feet south of the Pine Mountain Drive westbound approach.

The proposed driveway and internal parking isles should be designed to accommodate access for a County fire truck and other emergency vehicles. The proposed parking lot should provide adequate space for an emergency vehicle (County fire truck) to turn around on site. The Project driveway egress is recommended to be one-way stop controlled. As the proposed Project will not generate a large amount of traffic, it is assumed the proposed internal parking isles can accommodate two-way traffic and can be yield controlled.

### 9.3 SIGHT DISTANCE AT PROJECT DRIVEWAYS

Driveway sight distances for the Project were analyzed against sight distance requirements for commercial roads/driveways contained in the *Tuolumne County Community Resources Agency Roads Division Encroachment Permit Information Packet* (Tuolumne County, 2014). The distances between the proposed Project driveway and the nearest approaches were also analyzed against the minimum recommended distances between a commercial approach and any other approach contained in the *County Encroachment Permit Information Packet*. **Table 10** shows the required and actual sight distances, as well as the required and actual distances between approaches, for the proposed Project driveway. Required minimum intersection sight distance triangles at the Project driveway location are shown in **Appendix C**.

The proposed Ferretti Road Driveway would be located on a curve in Ferretti Road just south of Pine Mountain Drive. The curve in Ferretti Road, as well as existing trees located on the west/north side of Ferretti Road adjacent to the proposed driveway, could potentially obstruct sight distance of a vehicle exiting the proposed Ferretti Road Driveway. Therefore, actual sight distances at the Ferretti Road Driveway were estimated under two scenarios: "Without Tree Clearing Adjacent to Driveway", and "With Tree Clearing Adjacent to Driveway". The "Without Tree Clearing Adjacent to Driveway" scenario assumes no existing trees will be removed from the west/north side of Ferretti Road adjacent to the proposed Ferretti Road Driveway. The "With Tree Clearing Adjacent to Driveway" Scenario assumes all existing trees located within the sight distance triangles shown in **Appendix C** will be removed/cleared by the County.

As shown in **Table 10**, the proposed Project driveway is projected to meet the County's distance between approaches requirements. The proposed Project driveway is projected to meet the County's sight distance requirements only if all existing trees located within the sight distance triangles shown

in **Appendix C** are removed/cleared by the County. This study recommends the County remove all trees located within the sight distance triangles shown in **Appendix C**.

Table 10. Sight Distance at Project Driveway and Distance between Approaches

Project Driveway	Speed Limit (mph) <sup>1</sup>	Origin of Oncoming Traffic	Scenario	Required Minimum Sight Distance (ft) <sup>2</sup>	Actual Sight Distance (ft) <sup>3</sup>	Required Minimum Distance between Approaches (ft) <sup>4</sup>	Actual Distance to Nearest Approach (ft) <sup>5</sup>
	35	Northbound	Without Tree Clearing Adjacent to Driveway <sup>6</sup>	385	275	175	225
Ferretti Road	33	Ferretti Road	With Tree Clearing Adjacent to Driveway <sup>7</sup>	385	385+	175	1,100
Driveway	35	Southbound	Without Tree Clearing Adjacent to Driveway <sup>6</sup>	385	275	175	225
	- 33	Ferretti Road	With Tree Clearing Adjacent to Driveway <sup>7</sup>	385	385+	175	225

#### Notes:

**BOLD** = Actual Sight Distance is less than Required Minimum Sight Distance.

<sup>&</sup>lt;sup>1</sup>Speed Limit of the cross street the driveway will be located on.

<sup>&</sup>lt;sup>2</sup>Tuolumne County Community Resources Agency Roads Division Encroachment Permit Information Packet (Tuolumne County, 2014).

<sup>&</sup>lt;sup>3</sup>Actual Sight Distance measured from aerial of Project site and Project site plan.

<sup>&</sup>lt;sup>4</sup>Tuolumne County Community Resources Agency Roads Division Encroachment Permit Information Packet (Tuolumne County, 2014). Measured from centerline to centerline.

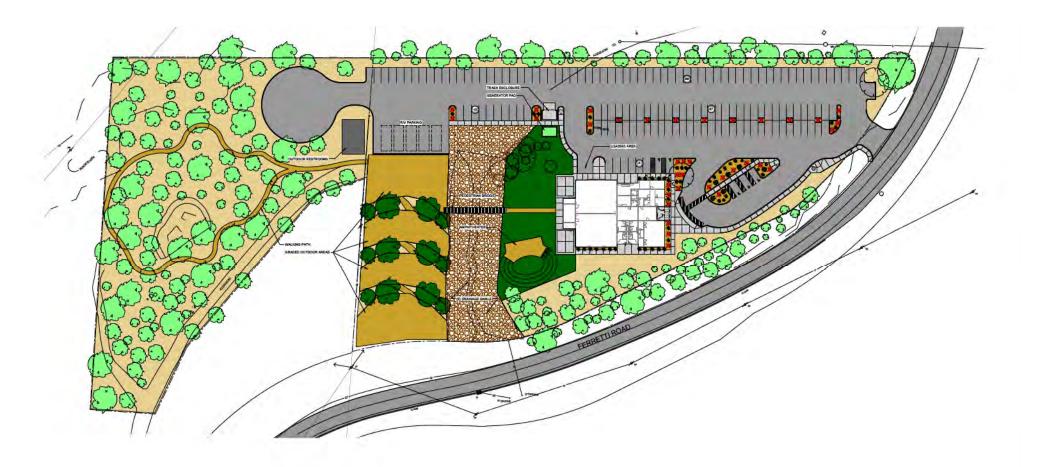
<sup>&</sup>lt;sup>5</sup>Actual Distance to Nearest Approach measured from aerial of Project site and Project site plan (centerline to centerline).

<sup>6&</sup>quot;Without Tree Clearing Adjacent to Driveway" Scenario assumes no existing trees will be removed from the west/north side of Ferretti Road adjacent to the proposed Ferretti Road Driveway.

<sup>7&</sup>quot;With Tree Clearing Adjacent to Driveway" Scenario assumes all existing trees located within the sight distance triangles shown in Appendix C will be removed/cleared by the County.

# Appendix A

Project Site Plan





# Appendix B

Raw Count Sheets

#### **VOLUME**

# Ferretti Rd S/O Pine Mountain Dr

**Day:** Tuesday **Date:** 10/16/2018

	DA	AILY 1	COT/	A I C		NB	SI	В	EB		WB						То	tal
	UF	AILY I	1017	ALS		1,940	1,9	11	0		0						3,8	351
AM Period	NB		SB		EB	WB	1	ΓΟΤΑL	PM Period	NB		SB		ЕВ	WE	;	TO	TAL
00:00	2		0				2		12:00	52		43					95	
00:15 00:30	1 1		0 1				1 2		12:15 12:30	31 38		36 33					67 71	
00:30	0	4	0	1			0		12:45	43	164	30	142				73	306
01:00	0	•	0				0		13:00	44	10.	39					83	300
01:15	0		0				0		13:15	49		41					90	
01:30 01:45	1 0	1	0 0				1 0		13:30 13:45	35 51	179	38 37	155				73 88	334
02:00	0		0				0		14:00	38	1/9	41	155				- 00 79	334
02:15	Ö		Ö				0		14:15	39		34					73	
02:30	0		0				0		14:30	30		33					63	
02:45 03:00	0	1	2	1			2	2	14:45 15:00	49 70	156	58 43	166				107 113	322
03:00	0		0				0		15:00	48		43 32					80	
03:30	0		0				0		15:30	59		37					96	
03:45	0		1	3			1	3	15:45	50	227	29	141				79	368
04:00	1		2				3		16:00	48		30					78	
04:15 04:30	0 1		1 2				3		16:15 16:30	45 34		35 37					80 71	
04:45	0	2	5	10			5		16:45	44	171	19	121				63	292
05:00	2		3				5		17:00	44		24					68	
05:15	1		7				8		17:15	43		26					69	
05:30 05:45	2 4	9	7 14	31			9		17:30 17:45	35 38	160	21 19	90				56 57	250
06:00	9	9	9	31			18		18:00	35	100	21	30				56	230
06:15	9		10				19		18:15	32		20					52	
06:30	4		19				23		18:30	36		24					60	
06:45	5 11	27	40 19	78			45 30		18:45 19:00	34 24	137	28 18	93				62 42	230
07:00 07:15	11 14		28				42		19:00	24 17		18					42 30	
07:30	16		29				45		19:30	13		8					21	
07:45	30	71	38	114			68		19:45	13	67	11	50				24	117
08:00	23		45				68		20:00	25		6					31	
08:15 08:30	19 27		45 29				64 56		20:15 20:30	11 22		7 2					18 24	
08:45	17	86	37	156			54		20:45	17	75	6	21				23	96
09:00	28		33				61		21:00	15		4					19	
09:15	27		44				71		21:15	5		5					10	
09:30 09:45	21 23	99	36 46	159			57 69		21:30 21:45	14 12	46	2 4	15				16 16	61
10:00	22	99	51	139			73		22:00	9	40	3	15				12	01
10:15	27		48				75		22:15	12		3					15	
10:30	24		49				73		22:30	5		2					7	
10:45	29	102	40 36	188			69		22:45 23:00	5 4	31	<u>0</u>	8				5	39
11:00 11:15	25 22		36 42				64		23:00 23:15	4		0					5 4	
11:30	29		44				73		23:30	3		1					4	
11:45	33	109	43	165			76		23:45	5	16	1	3				6	19
TOTALS		511		906				1417	TOTALS		1429		1005					2434
SPLIT %		36.1%		63.9%				36.8%	SPLIT %		58.7%		41.3%					63.2%
				22.570														
	DA	AILY 1	ΓΟΤΑ	ALS		NB	SI		EB		WB							tal
						1,940	1,9	11	0		0						3,8	851
AM Peak Hour		11:45		09:45				11:30	PM Peak Hour		15:00		14:45					14:45
AM Pk Volume		154		194				311	PM Pk Volume		227		170					396
Pk Hr Factor		0.740		0.951				0.818	Pk Hr Factor		0.811		0.733					0.876
7 - 9 Volume		157		270				427	4 - 6 Volume		331		211					542
7 - 9 Peak Hour		07:45		07:30				07:45	4 - 6 Peak Hour		16:00		16:00					16:00
7 - 9 Pk Volume Pk Hr Factor		99 0.825		157 0.872				256 0.941	4 - 6 Pk Volume Pk Hr Factor		171 0.891		121 0.818					292 0.913
FK III PACLUI		0.623		0.072	0.00	0	.000	0.341	7 K III Factor		0.031		0.010	0.0	700	0.000		0.313

#### **VOLUME**

# Ferretti Rd S/O Pine Mountain Dr

**Day:** Saturday **Date:** 10/20/2018

	ח	AILY 1	OT/	\IS		NB	SB		EB		WB						To	tal
	U,	AILI I	017	1LJ		1,887	1,78	6	0		0						3,6	573
<b>AM Period</b>	NB		SB		ЕВ	WB	T	OTAL	PM Period	NB		SB		EB	WB	;	TO	TAL
00:00 00:15	2 4		1				3		12:00 12:15	31 39		35 44					66 83	
00:15	4		2				6		12:30	31		53					84	
00:45	2	12	1	4			3	16	12:45	57	158	32	164				89	322
01:00 01:15	1		0 1				1 2		13:00 13:15	40 33		44 21					84 54	
01:30	2		1				3		13:30	37		26					63	
01:45 02:00	6 2	10	<u>2</u> 0	4			8	14	13:45 14:00	38 27	148	27 34	118				65 61	266
02:00	3		0				3		14:15	43		29					72	
02:30	1		0				1		14:30	29		27					56	
02:45 03:00	4 0	10	<u>2</u> 0	2			6	12	14:45 15:00	37 43	136	36 25	126				73 68	262
03:15	0		0				0		15:15	39		22					61	
03:30	0		0				0		15:30	37	466	29					66	276
03:45 04:00	0		0 1				0		15:45 16:00	47 47	166	34 29	110				81 76	276
04:15	0		4				4		16:15	37		29					66	
04:30	0		2	0			2	0	16:30	44	162	35	1.10				79	200
04:45 05:00	0		<u>2</u> 1	9			2	9	16:45 17:00	34 46	162	53 26	146				87 72	308
05:15	1		3				4		17:15	39		29					68	
05:30	1 2	1	2 6	12			3	16	17:30 17:45	45 38	160	19 23	97				64 61	265
05:45 06:00	5	4	10	12			15	16	18:00	35	168	31	97				66	265
06:15	3		6				9		18:15	34		12					46	
06:30 06:45	5 4	17	9 16	41			14 20	58	18:30 18:45	42 39	150	16 23	82				58 62	232
07:00	6	1/	17	41			23	36	19:00	32	150	12	02				44	232
07:15	12		19				31		19:15	31		9					40	
07:30 07:45	10 10	38	16 26	78			26 36	116	19:30 19:45	22 21	106	13 8	42				35 29	148
08:00	18	30	29	70			47	110	20:00	24	100	9	42				33	140
08:15	14		28				42		20:15	19		17					36	
08:30 08:45	13 17	62	35 39	131			48 56	193	20:30 20:45	19 27	89	12 5	43				31 32	132
09:00	16		38	101			54	230	21:00	17		9					26	102
09:15	21		44				65		21:15	16		5					21	
09:30 09:45	24 26	87	43 42	167			67 68	254	21:30 21:45	9 14	56	2 5	21				11 19	77
10:00	22		46				68		22:00	9		7					16	
10:15 10:30	28 24		38 52				66 76		22:15 22:30	11 8		2 3					13 11	
10:30	34	108	52 44	180			78	288	22:45	4	32	0	12				4	44
11:00	37		51				88		23:00	13		1					14	
11:15 11:30	37 35		53 49				90		23:15 23:30	3 3		0 2					3 5	
11:45	35	144	40	193			75	337	23:45	5	24	1	4				6	28
TOTALS		492		821				1313	TOTALS		1395		965					2360
SPLIT %		37.5%		62.5%				35.7%	SPLIT %		59.1%		40.9%					64.3%
		A 11 3/ 5		NI C		NB	SB		EB		WB						To	tal
	D	AILY 1	TOT A	4L5		1,887	1,78		0		0						3,6	573
AM Peak Hour		11:00		10:30				10:45	PM Peak Hour		15:45		12:15					12:15
AM Pk Volume		144		200				340	PM Pk Volume		175		173					340
Pk Hr Factor		0.973		0.943				0.944	Pk Hr Factor		0.931		0.816					0.955
7 - 9 Volume 7 - 9 Peak Hour		100 08:00		209 08:00				309 08:00	4 - 6 Volume 4 - 6 Peak Hour		330 17:00		243 16:00					573 16:00
7 - 9 Pk Volume		62		131				193	4 - 6 Pk Volume		168		146					308
Pk Hr Factor		0.861		0.840	0.000	0.00	0	0.862	Pk Hr Factor		0.913		0.689	0.0	00	0.000		0.885

#### **VOLUME**

### Main St (SR 120) W/O Ferretti Rd

**Day:** Tuesday **Date:** 10/16/2018

	DAILY TOTALS			NB		SB		EB	WB						To	otal
	DAILT TOTALS			0		0		3,217	3,240						6,4	457
AM Period	NB SB	ЕВ		WB		TO	TAL	PM Period	NB	SB	EB		WB		TO	TAL
00:00		3		3		6		12:00			90		61		151	
00:15		2		1		3		12:15			63		58		121	
00:30 00:45		0 1	6	3 0	7	3 1	12	12:30 12:45			82 66	301	50 56	225	132 122	E26
01:00		0	0	0	/	0	13	13:00			75	301	62	225	137	526
01:15		0		2		2		13:15			67		77		144	
01:30		1		1		2		13:30			64		69		133	
01:45		0	1	0	3	0	4	13:45			87	293	56	264	143	557
02:00		0		0		0		14:00			73		65		138	
02:15 02:30		1 0		0 0		1 0		14:15 14:30			70 78		68 63		138 141	
02:45		2	3	2	2	4	5	14:45			69	290	72	268	141	558
03:00		0		2		2		15:00			78		78		156	
03:15		1		0		1		15:15			69		62		131	
03:30		1	2	0		1		15:30			87	205	66	264	153	556
03:45 04:00		<u>0</u>	2	<u>2</u> 1	4	3	6	15:45 16:00			61 89	295	55 76	261	116 165	556
04:15		1		1		2		16:15			53		63		116	
04:30		3		4		7		16:30			52		58		110	
04:45		4	10	5	11	9	21	16:45			57	251	66	263	123	514
05:00		4		6		10		17:00			68		70		138	
05:15		3		9		12		17:15			50		61		111	
05:30 05:45		6 10	23	10 16	41	16 26	64	17:30 17:45			54 57	229	56 43	230	110 100	459
06:00		11		11	71	22	- 0-1	18:00			54	223	47	230	101	433
06:15		27		21		48		18:15			35		35		70	
06:30		21		22		43		18:30			40		46		86	
06:45		26	85	42	96	68	181	18:45			35	164	50	178	85	342
07:00 07:15		26 25		28 38		54 63		19:00 19:15			29 33		40 37		69 70	
07:30		25 27		36 41		68		19:30			22		33		55	
07:45		37	115	53	160	90	275	19:45			22	106	25	135	47	241
08:00		41		51		92		20:00			37		17		54	
08:15		41		59		100		20:15			20		20		40	
08:30		50	470	46	240	96	202	20:30			28	440	11	64	39	474
08:45 09:00		40	172	54 47	210	94	382	20:45 21:00			25 16	110	13 10	61	38 26	171
09:15		42		61		103		21:15			12		8		20	
09:30		53		57		110		21:30			16		5		21	
09:45		58	196	60	225	118	421	21:45			17	61	9	32	26	93
10:00		47		70		117		22:00			12		7		19	
10:15		52		67		119		22:15 22:30			12		4		16	
10:30 10:45		56 59	214	72 66	275	128 125	489	22:45			5 6	35	2 1	14	7 7	49
11:00		57	-17	55	_,,	112	133	23:00			4		3		7	1,5
11:15		50		68		118		23:15			5		4		9	
11:30		64		75		139		23:30			6		1		7	
11:45		63	234	68	266	131	500	23:45			6	21	1	9	7	30
TOTALS			1061		1300		2361	TOTALS				2156		1940		4096
SPLIT %			44.9%		55.1%		36.6%	SPLIT %				52.6%		47.4%		63.4%
	DAUVEGEALG			NB		SB		EB	WB						To	tal
	DAILY TOTALS			0		0		3,217	3,240							457
AM Peak Hour			11:45		10:00		11:30	PM Peak Hour				13:45		14:15		14:45
AM Pk Volume			298		275		542	PM Pk Volume				308		281		581
Pk Hr Factor			0.828		0.955		0.897	Pk Hr Factor				0.885		0.901		0.931
7 - 9 Volume	0 0		287		370		657	4 - 6 Volume	0	(	)	480		493		973
7 - 9 Peak Hour			08:00		08:00		08:00	4 - 6 Peak Hour				16:00		16:00		16:00
7 - 9 Pk Volume			172		210		382	4 - 6 Pk Volume				251		263		514
Pk Hr Factor	0.000 0.00	0	0.860		0.890		0.955	Pk Hr Factor	0.000	0.0	000	0.705		0.865		0.779

#### **VOLUME**

# Main St (SR 120) E/O Ferretti Rd

**Day:** Tuesday **Date:** 10/16/2018

	DAILY TOTALS	:		NB		SB		EB	WI	3_					To	otal
	DAILT TOTALS	<u>'</u>		0		0		1,836	1,93	5					3,7	771
<b>AM Period</b>	NB SB	EB		WB		TO	TAL	PM Period	NB	SB	ЕВ		WB		то	TAL
00:00 00:15		2 1		3 0		5 1		12:00 12:15			53 45		37 25		90 70	
00:15		1		3		4		12:30			54		25 27		81	
00:45		1	5	0	6	1	11	12:45			39	191	32	121	71	312
01:00 01:15		0 0		0 2		0 2		13:00 13:15			46 38		44 38		90 76	
01:30		0		0		0		13:30			33		40		73	
01:45		0		0	2	0	2	13:45			42	159	33	155	75	314
02:00 02:15		0 1		0 0		0 1		14:00 14:15			38 37		32 42		70 79	
02:30		0		0		0		14:30			44		40		84	
02:45		0	1	1	1	1	2	14:45			51	170	36	150	87	320
03:00 03:15		0 1		0 0		0 1		15:00 15:15			37 38		60 40		97 78	
03:30		1		0		1		15:30			34		35		69	
03:45		0	2	1	1	1	3	15:45			29	138	35	170	64	308
04:00 04:15		2 1		0 0		2		16:00 16:15			31 33		57 45		88 78	
04:30		2		2		4		16:30			29		36		65	
04:45		2	7	3	5	5	12	16:45			23	116	50	188	73	304
05:00 05:15		4 3		3 2		7 5		17:00 17:15			32 26		55 39		87 65	
05:30		5		7		12		17:30			15		44		59	
05:45		5	17	6	18	11	35	17:45			25	98	31	169	56	267
06:00 06:15		6 15		10 10		16 25		18:00 18:15			23 21		39 34		62 55	
06:30		16		8		24		18:30			17		34		51	
06:45		19	56	7	35	26	91	18:45			18	79	36	143	54	222
07:00 07:15		19 21		10 20		29 41		19:00 19:15			11 12		28 30		39 42	
07:30		21		24		45		19:30			19		17		36	
07:45		38	99	40	94	78	193	19:45			13	55	21	96	34	151
08:00 08:15		52 44		45 41		97 85		20:00 20:15			11 13		14 10		25 23	
08:30		30		26		56		20:30			9		4		13	
08:45 09:00		29 22	155	23	135	52 42	290	20:45 21:00			13 9	46	8 11	36	21	82
09:00		24		30		54		21:15			11		4		15	
09:30		44		27		71		21:30			5		8		13	
09:45 10:00		39 30	129	27 24	104	66 54	233	21:45 22:00			<u>7</u> 9	32	9 6	32	16 15	64
10:15		33		28		61		22:15			3		3		6	
10:30		28		27		55		22:30			2		4		6	
10:45 11:00		25 35	116	32 26	111	57 61	227	22:45 23:00			2	16	<u>1</u> 4	14	<u>3</u>	30
11:15		31		37		68		23:15			1		5		6	
11:30		37		34		71		23:30			6		2		8	
11:45		35	138	39	136	74	274	23:45			2	11	2	13	4	24
TOTALS			725		648		1373	TOTALS				1111		1287		2398
SPLIT %			52.8%		47.2%		36.4%	SPLIT %				46.3%		53.7%		63.6%
	DAILY TOTALS			NB		SB		EB	WI	_						otal
				0		0		1,836	1,93	35					3,	771
AM Peak Hour			11:45		07:45		07:45	PM Peak Hour				12:00		16:00		14:15
AM Pk Volume			187		152		316	PM Pk Volume				191		188		347
Pk Hr Factor 7 - 9 Volume	0	0	0.866 254		0.844 229		0.814 483	Pk Hr Factor 4 - 6 Volume	0		0	0.884		0.825 357		0.894 571
7 - 9 Volume 7 - 9 Peak Hour			07:45		07:45		465 07:45	4 - 6 Peak Hour				16:15		16:00		16:00
7 - 9 Pk Volume			164		152		316	4 - 6 Pk Volume				117		188		304
Pk Hr Factor	0.000 0.	000	0.788		0.844		0.814	Pk Hr Factor	0.00	0 (	0.000	0.886		0.825		0.864

# **Appendix C**

Required Minimum Intersection Sight Distance Triangles

# APPENDIX C: SIGHT DISTANCE TRIANGLE EXHIBIT

# **FERRETTI ROAD DRIVEWAY**

**GROVELAND** 

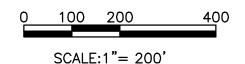
**CALIFORNIA** 

**MARCH 2019** 





= MINIMUM REQUIRED INTERSECTION SIGHT DISTANCE TRIANGLE





3301 C St, BLDG. 100-B TEL 916.341.7760 SACRAMENTO, CA 95816 FAX 916.341.7767