

Appendix A
Air Quality, Energy, and Greenhouse Gas Estimates

Work Days	54
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Average Daily Criteria Pollutant Emissions (Pounds / Day)

Source	ROG	NOx	CO	SO ₂	PM10 Exhaust	PM10 Fugitive	PM2.5 Exhaust	PM2.5 Fugitive
2020								
Vehicles/Equipment	0.94	9.25	10.02	0.02	0.48	0.13	0.45	0.03
<i>Total</i>	0.94	9.25	10.02	0.02	0.48	0.13	0.45	0.03
BAAQMD Threshold	54	54			82			54

Annual Criteria Pollutant Emissions (Tons / Year)

Source	ROG	NOx	CO	SO ₂	PM10 Exhaust	PM10 Fugitive	PM2.5 Exhaust	PM2.5 Fugitive
2020								
Vehicles/Equipment	0.0254	0.2497	0.2705	0.000464	0.0129	0.00347	0.0121	0.00076
		-	-		-	-	-	-
<i>Total</i>	0.0254	0.2497	0.2705	0.000464	0.0129	0.00347	0.0121	0.00076
BAAQMD Threshold	10	10			15			10

Fuel Consumption Summary

Construction Fuel Consumption	Gasoline	Diesel
Construction On-Road Vehicles	199	83
Construction Off-Road Equipment		4,127
Total For Construction	199	4,211

	Fuel Consumption Summary								Gasoline		Diesel	
	Phase	Vehicle Type	Construction Phase Days	Trips Per Day	Total Trips	Miles Per Trip	Total Miles	Fuel Type	Weighted Fuel Economy (miles/gallon)	Fuel Consumption (gallons)	Weighted Fuel Economy (miles/gallon)	Fuel Consumption (gallons)
Construction On-Road Vehicles	Phase I	Worker	10	8	80	10.8	864	LDA,LDT1, LD	27.59571336	31.10	38.1144679	0.15
		Vendor	10	0	0	7.3	-	HHDT, MHDT			8.143187453	-
		Hauling	10		6	20	120	HHDT			6.547970628	18
	Phase II - Abutment Removal	Worker	4	8	32	10.8	346	LDA,LDT1, LD	27.59571336	12.44	38.1144679	0.06
		Vendor	4	0	0	7.3	-	HHDT, MHDT			8.143187453	-
		Hauling	4		1	20	20	HHDT			6.547970628	3
	Phase II- Paving and Grading	Worker	40	10	400	10.8	4,320	LDA,LDT1, LD	27.59571336	155.50	38.1144679	0.76
		Vendor	40	0	0	7.3	-	HHDT, MHDT			8.143187453	-
		Hauling	40		20	20	400	HHDT			6.547970628	61
	Total Fuel Consumption (Gallons)									199.03		83.44

Notes:

1. Fuel Consumption is total miles multiplied by the percent gasoline or diesel respectively and then divided by fuel economy. It was assumed all MHDT and HHDT are diesel. LDA, LDT1, and LDT2 were assumed to be a mix of gasoline and diesel as ratioed by their VMT.

	LDA,LDT1,LDT2	MHDT	HHDT
Gasoline %	99.33%	0	0
Diesel %	0.67%	1	1

Fuel Consumption Summary	Offroad Equipment Type	Amount	Days in Phase	Usage Hours	Horse Power	Load Factor	Fuel Consumption Rate lb/hp-hr	Diesel Fuel Consumption (gallons)
Phase I	Cranes	1	10	8	231	0.29	0.367	277
Phase I	Excavators	1	10	8	158	0.38	0.367	248
Phase I	Skid Steer Loaders	1	10	8	65	0.37	0.408	110
Phase II - Abutment Ref	Excavators	1	4	8	158	0.38	0.367	99
Phase II - Abutment Ref	Tractors/Loaders/Backhoes	2	4	8	97	0.37	0.408	132
Phase II - Paving and G	Generator Sets	1	40	8	84	0.74	0.408	1,142
Phase II - Paving and G	Pavers	1	40	8	130	0.42	0.367	902
Phase II - Paving and G	Rollers	1	40	8	80	0.38	0.408	558
Phase II - Paving and G	Tractors/Loaders/Backhoes	1	40	8	97	0.37	0.408	659
								-
Total Diesel Fuel Use from Construction Off-Road								4,127

1. Equipment list is from CalEEMod.
2. Fuel Consumption is 0.408 for less than 100 hp and .367 if greater than or equal to 100 hp based on CARB Off-Road Diesel Engine Emission Factors
3. To convert to gallons the conversion factor of 7.1089 lb/gallon is used
4. Fuel consumption is amount multiplied by usage hours, days in phase, horsepower, loadfactor, and fuel consumption rate divided by conversion factor.

			Weighting					Fuel Economy					Weighted Fuel Economy
			LDA	LDT1	LDT2	MHDT	HHDT	LDA	LDT1	LDT2	MHDT	HHDT	Miles per Gallon
Gasoline	Worker	LDA, LDT1,LDT2	0.5	0.25	0.25	0	0	30.3369	25.90543	23.80362			27.59571336
	Vendor	HHDT,MHDT	0	0	0	0.5	0.5						0
	Hauling	HHDT	0	0	0	0	1						0
Diesel	Worker	LDA, LDT1,LDT2	0.5	0.25	0.25	0	0	47.3773	22.82111	34.88216	9.738404	6.547971	38.1144679
	Vendor	HHDT,MHDT	0	0	0	0.5	0.5				9.738404	6.547971	8.143187453
	Hauling	HHDT	0	0	0	0	1				9.738404	6.547971	6.547970628
Notes:													
1. It was assumed all MHDT and HHDT are diesel. LDA, LDT1, and LDT2 were assumed to be a mix of gasoline and diesel as ratioed by their VMT.													
2. EMFAC 2017 was used to estimate fuel economy based on VMT and fuel consumption.													

Source: EMFAC2017 (v1.0.3) Emissions Inventory

Region Type: Statewide

Region: California

Calendar Year: 2021

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	VMT	Trips
Statewide	2021	HHDT	Aggregate	Aggregate	Gasoline	182.219569	17379.44227	3645.84913
Statewide	2021	HHDT	Aggregate	Aggregate	Diesel	324251.189	42254554.85	3555521.57
Statewide	2021	HHDT	Aggregate	Aggregate	Natural Gas	7893.01451	321380.4937	30782.7566
Statewide	2021	LDA	Aggregate	Aggregate	Gasoline	15248076.6	587444749.5	71747206.2
Statewide	2021	LDA	Aggregate	Aggregate	Diesel	149938.615	5892042.775	705029.117
Statewide	2021	LDA	Aggregate	Aggregate	Electricity	268429.211	10611344.15	1337523.91
Statewide	2021	LDT1	Aggregate	Aggregate	Gasoline	1720217.53	61717689.97	7846467.95
Statewide	2021	LDT1	Aggregate	Aggregate	Diesel	1455.17293	27326.53817	4951.42408
Statewide	2021	LDT1	Aggregate	Aggregate	Electricity	7914.5068	318547.2808	39565.4429
Statewide	2021	LDT2	Aggregate	Aggregate	Gasoline	5425739.13	199749398	25208441.8
Statewide	2021	LDT2	Aggregate	Aggregate	Diesel	30763.9205	1316610.094	151261.995
Statewide	2021	LDT2	Aggregate	Aggregate	Electricity	37418.8313	1241296.456	189493.522
Statewide	2021	LHDT1	Aggregate	Aggregate	Gasoline	449999.322	15613780.04	6704319.4
Statewide	2021	LHDT1	Aggregate	Aggregate	Diesel	392210.763	14435479.09	4933518
Statewide	2021	LHDT2	Aggregate	Aggregate	Gasoline	67732.9519	2353889.477	1009120.06
Statewide	2021	LHDT2	Aggregate	Aggregate	Diesel	133928.19	5054449.666	1684648.15
Statewide	2021	MCY	Aggregate	Aggregate	Gasoline	782987.791	5977166.178	1565975.58
Statewide	2021	MDV	Aggregate	Aggregate	Gasoline	4047627.18	140474066.8	18516990.7
Statewide	2021	MDV	Aggregate	Aggregate	Diesel	83580.9997	3422047.849	406221.957
Statewide	2021	MDV	Aggregate	Aggregate	Electricity	15797.269	543437.6633	80879.1289
Statewide	2021	MH	Aggregate	Aggregate	Gasoline	96477.8173	855222.8011	9651.64085
Statewide	2021	MH	Aggregate	Aggregate	Diesel	34680.6089	319824.0294	3468.06089
Statewide	2021	MHDT	Aggregate	Aggregate	Gasoline	48777.5105	2660499.946	975940.429
Statewide	2021	MHDT	Aggregate	Aggregate	Diesel	291204.454	17942665.98	2799629.42
Statewide	2021	OBUS	Aggregate	Aggregate	Gasoline	14117.7711	674776.6846	282468.365
Statewide	2021	OBUS	Aggregate	Aggregate	Diesel	11179.6872	814341.001	107888.824
Statewide	2021	SBUS	Aggregate	Aggregate	Gasoline	4818.28183	229605.0973	19273.1273
Statewide	2021	SBUS	Aggregate	Aggregate	Diesel	24346.6236	767341.359	280956.661
Statewide	2021	UBUS	Aggregate	Aggregate	Gasoline	2524.01903	230861.6239	10096.0761
Statewide	2021	UBUS	Aggregate	Aggregate	Diesel	3212.68354	324923.6413	12850.7341
Statewide	2021	UBUS	Aggregate	Aggregate	Electricity	35.0511889	2737.944915	140.204756
Statewide	2021	UBUS	Aggregate	Aggregate	Natural Gas	8467.62759	919594.9516	33870.5104

Source: EMFAC2017 (v1.0.3) Emissions Inventory
Region Type: Statewide
Region: California
Calendar Year: 2021
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	NOx_RU NEX	NOx_IDL EX	NOx_ST REX	NOx_TO TEX	PM2.5_RUNEX	PM2.5_IDLEX
Statewide	2021	HHDT	Aggregate	Aggregate	Gasoline	0.095019	0	0.003175	0.098194	2.68053E-05	0
Statewide	2021	HHDT	Aggregate	Aggregate	Diesel	171.8617	26.80876	7.599321	206.2698	2.499696858	0.038749015
Statewide	2021	HHDT	Aggregate	Aggregate	Natural Gas	1.108488	0.207194	0	1.315681	0.002287632	0.000411527
Statewide	2021	LDA	Aggregate	Aggregate	Gasoline	29.76387	0	16.47058	46.23444	0.975120488	0
Statewide	2021	LDA	Aggregate	Aggregate	Diesel	0.676449	0	0	0.676449	0.062043527	0
Statewide	2021	LDA	Aggregate	Aggregate	Electricity	0	0	0	0	0	0
Statewide	2021	LDT1	Aggregate	Aggregate	Gasoline	9.142474	0	2.633991	11.77647	0.154300578	0
Statewide	2021	LDT1	Aggregate	Aggregate	Diesel	0.036002	0	0	0.036002	0.004461029	0
Statewide	2021	LDT1	Aggregate	Aggregate	Electricity	0	0	0	0	0	0
Statewide	2021	LDT2	Aggregate	Aggregate	Gasoline	22.67346	0	9.545717	32.21917	0.347662766	0
Statewide	2021	LDT2	Aggregate	Aggregate	Diesel	0.077832	0	0	0.077832	0.008791641	0
Statewide	2021	LDT2	Aggregate	Aggregate	Electricity	0	0	0	0	0	0
Statewide	2021	LHDT1	Aggregate	Aggregate	Gasoline	5.067263	0.019737	4.072788	9.159788	0.032020889	0
Statewide	2021	LHDT1	Aggregate	Aggregate	Diesel	41.83611	0.996737	0	42.83284	0.42013071	0.011572832
Statewide	2021	LHDT2	Aggregate	Aggregate	Gasoline	0.663535	0.002972	0.615422	1.281929	0.003968616	0
Statewide	2021	LHDT2	Aggregate	Aggregate	Diesel	10.88407	0.334888	0	11.21896	0.126748294	0.003942743
Statewide	2021	MCY	Aggregate	Aggregate	Gasoline	7.669429	0	0.462808	8.132237	0.012592129	0
Statewide	2021	MDV	Aggregate	Aggregate	Gasoline	20.59121	0	8.703385	29.2946	0.253185343	0
Statewide	2021	MDV	Aggregate	Aggregate	Diesel	0.242473	0	0	0.242473	0.021618649	0
Statewide	2021	MDV	Aggregate	Aggregate	Electricity	0	0	0	0	0	0
Statewide	2021	MH	Aggregate	Aggregate	Gasoline	0.476706	0	0.003495	0.480201	0.001495199	0
Statewide	2021	MH	Aggregate	Aggregate	Diesel	1.663688	0	0	1.663688	0.041141571	0
Statewide	2021	MHDT	Aggregate	Aggregate	Gasoline	1.674478	0.004768	0.401923	2.081169	0.003298603	0
Statewide	2021	MHDT	Aggregate	Aggregate	Diesel	57.82931	2.806638	4.391645	65.0276	1.488723258	0.00851476
Statewide	2021	OBUS	Aggregate	Aggregate	Gasoline	0.469598	0.001009	0.104152	0.574759	0.000676514	0
Statewide	2021	OBUS	Aggregate	Aggregate	Diesel	3.050009	0.251519	0.190319	3.491847	0.065294606	0.000942673
Statewide	2021	SBUS	Aggregate	Aggregate	Gasoline	0.164101	0.004889	0.012102	0.181092	0.00035212	0
Statewide	2021	SBUS	Aggregate	Aggregate	Diesel	6.30234	1.219105	0.223392	7.744837	0.038437386	0.001546622
Statewide	2021	UBUS	Aggregate	Aggregate	Gasoline	0.058198	0	0.008284	0.066482	0.000299934	0
Statewide	2021	UBUS	Aggregate	Aggregate	Diesel	0.610689	0	0	0.610689	0.002261433	0
Statewide	2021	UBUS	Aggregate	Aggregate	Electricity	0	0	0	0	0	0
Statewide	2021	UBUS	Aggregate	Aggregate	Natural Gas	1.098261	0	0	1.098261	0.003674947	0

Source: EMFAC2017 (v1.0.3) Emissions Inventory
Region Type: Statewide
Region: California
Calendar Year: 2021
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	PM2.5_S TREX	PM2.5_T OTEX	PM2.5_P MTW	PM2.5_P MBW	PM2.5_T OTAL	PM10_R UNEX	PM10_ID LEX
Statewide	2021	HHDT	Aggregate	Aggregate	Gasoline	4E-06	3.08E-05	9.58E-05	0.000507	0.000633	2.92E-05	0
Statewide	2021	HHDT	Aggregate	Aggregate	Diesel	0	2.538446	0.414858	1.219681	4.172985	2.612722	0.040501
Statewide	2021	HHDT	Aggregate	Aggregate	Natural Gas	0	0.002699	0.003188	0.009374	0.015261	0.002391	0.00043
Statewide	2021	LDA	Aggregate	Aggregate	Gasoline	0.146585	1.121705	1.295094	10.19887	12.61566	1.06051	0
Statewide	2021	LDA	Aggregate	Aggregate	Diesel	0	0.062044	0.01299	0.102294	0.177327	0.064849	0
Statewide	2021	LDA	Aggregate	Aggregate	Electricity	0	0	0.023394	0.184228	0.207622	0	0
Statewide	2021	LDT1	Aggregate	Aggregate	Gasoline	0.022997	0.177298	0.136064	1.071506	1.384868	0.167803	0
Statewide	2021	LDT1	Aggregate	Aggregate	Diesel	0	0.004461	6.02E-05	0.000474	0.004996	0.004663	0
Statewide	2021	LDT1	Aggregate	Aggregate	Electricity	0	0	0.000702	0.00553	0.006233	0	0
Statewide	2021	LDT2	Aggregate	Aggregate	Gasoline	0.051563	0.399226	0.440372	3.46793	4.307528	0.378099	0
Statewide	2021	LDT2	Aggregate	Aggregate	Diesel	0	0.008792	0.002903	0.022858	0.034552	0.009189	0
Statewide	2021	LDT2	Aggregate	Aggregate	Electricity	0	0	0.002737	0.021551	0.024287	0	0
Statewide	2021	LHDT1	Aggregate	Aggregate	Gasoline	0.003209	0.03523	0.034422	0.56384	0.633493	0.034826	0
Statewide	2021	LHDT1	Aggregate	Aggregate	Diesel	0	0.431704	0.047737	0.52129	1.000731	0.439127	0.012096
Statewide	2021	LHDT2	Aggregate	Aggregate	Gasoline	0.000378	0.004346	0.005189	0.09917	0.108706	0.004316	0
Statewide	2021	LHDT2	Aggregate	Aggregate	Diesel	0	0.130691	0.016715	0.212946	0.360351	0.132479	0.004121
Statewide	2021	MCY	Aggregate	Aggregate	Gasoline	0.005457	0.01805	0.006589	0.033207	0.057845	0.013443	0
Statewide	2021	MDV	Aggregate	Aggregate	Gasoline	0.042017	0.295202	0.309692	2.438827	3.043721	0.275151	0
Statewide	2021	MDV	Aggregate	Aggregate	Diesel	0	0.021619	0.007544	0.059412	0.088575	0.022596	0
Statewide	2021	MDV	Aggregate	Aggregate	Electricity	0	0	0.001198	0.009435	0.010633	0	0
Statewide	2021	MH	Aggregate	Aggregate	Gasoline	3.91E-06	0.001499	0.002828	0.05266	0.056988	0.001626	0
Statewide	2021	MH	Aggregate	Aggregate	Diesel	0	0.041142	0.00141	0.019693	0.062245	0.043002	0
Statewide	2021	MHDT	Aggregate	Aggregate	Gasoline	0.000494	0.003792	0.008798	0.163821	0.176411	0.003588	0
Statewide	2021	MHDT	Aggregate	Aggregate	Diesel	0	1.497238	0.059335	1.104822	2.661395	1.556037	0.0089
Statewide	2021	OBUS	Aggregate	Aggregate	Gasoline	7.9E-05	0.000755	0.002231	0.041549	0.044536	0.000736	0
Statewide	2021	OBUS	Aggregate	Aggregate	Diesel	0	0.066237	0.002693	0.050143	0.119073	0.068247	0.000985
Statewide	2021	SBUS	Aggregate	Aggregate	Gasoline	1.05E-05	0.000363	0.000506	0.080788	0.081657	0.000383	0
Statewide	2021	SBUS	Aggregate	Aggregate	Diesel	0	0.039984	0.002538	0.269995	0.312517	0.040175	0.001617
Statewide	2021	UBUS	Aggregate	Aggregate	Gasoline	4.59E-06	0.000305	0.00067	0.012565	0.013539	0.000326	0
Statewide	2021	UBUS	Aggregate	Aggregate	Diesel	0	0.002261	0.002782	0.011585	0.016628	0.002364	0
Statewide	2021	UBUS	Aggregate	Aggregate	Electricity	0	0	1.9E-05	0.00012	0.000139	0	0
Statewide	2021	UBUS	Aggregate	Aggregate	Natural Gas	0	0.003675	0.008276	0.030724	0.042676	0.003841	0

Source: EMFAC2017 (v1.0.3) Emissions Inventory
Region Type: Statewide
Region: California
Calendar Year: 2021
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	PM10_ST REX	PM10_T OTEX	PM10_P MTW	PM10_P MBW	PM10_T OTAL	CO2_RU NEX	CO2_IDL EX
Statewide	2021	HHDT	Aggregate	Aggregate	Gasoline	4.34E-06	3.35E-05	0.000383	0.001183	0.001599	40.47614	0
Statewide	2021	HHDT	Aggregate	Aggregate	Diesel	0	2.653223	1.65943	2.845923	7.158576	67371.85	5034.533
Statewide	2021	HHDT	Aggregate	Aggregate	Natural Ga	0	0.002821	0.012753	0.021872	0.037447	1189.576	35.84493
Statewide	2021	LDA	Aggregate	Aggregate	Gasoline	0.159414	1.219924	5.180376	23.79735	30.19765	178960.9	0
Statewide	2021	LDA	Aggregate	Aggregate	Diesel	0	0.064849	0.051959	0.238686	0.355494	1395.422	0
Statewide	2021	LDA	Aggregate	Aggregate	Electricity	0	0	0.093576	0.429865	0.523441	0	0
Statewide	2021	LDT1	Aggregate	Aggregate	Gasoline	0.025009	0.192811	0.544257	2.50018	3.237248	21990.33	0
Statewide	2021	LDT1	Aggregate	Aggregate	Diesel	0	0.004663	0.000241	0.001107	0.006011	13.43563	0
Statewide	2021	LDT1	Aggregate	Aggregate	Electricity	0	0	0.002809	0.012904	0.015713	0	0
Statewide	2021	LDT2	Aggregate	Aggregate	Gasoline	0.056076	0.434175	1.761488	8.091836	10.2875	77447.09	0
Statewide	2021	LDT2	Aggregate	Aggregate	Diesel	0	0.009189	0.011611	0.053336	0.074135	423.5101	0
Statewide	2021	LDT2	Aggregate	Aggregate	Electricity	0	0	0.010946	0.050285	0.061231	0	0
Statewide	2021	LHDT1	Aggregate	Aggregate	Gasoline	0.00349	0.038316	0.13769	1.315628	1.491633	15940.94	60.7484
Statewide	2021	LHDT1	Aggregate	Aggregate	Diesel	0	0.451223	0.190949	1.216343	1.858515	8523.105	59.42216
Statewide	2021	LHDT2	Aggregate	Aggregate	Gasoline	0.000411	0.004727	0.020758	0.231397	0.256882	2727.634	10.53765
Statewide	2021	LHDT2	Aggregate	Aggregate	Diesel	0	0.1366	0.066859	0.496873	0.700332	3289.382	32.38377
Statewide	2021	MCY	Aggregate	Aggregate	Gasoline	0.005781	0.019224	0.026355	0.077483	0.123062	1430.711	0
Statewide	2021	MDV	Aggregate	Aggregate	Gasoline	0.045651	0.320802	1.238769	5.690596	7.250167	66764.56	0
Statewide	2021	MDV	Aggregate	Aggregate	Diesel	0	0.022596	0.030177	0.138627	0.1914	1455.803	0
Statewide	2021	MDV	Aggregate	Aggregate	Electricity	0	0	0.004792	0.022015	0.026807	0	0
Statewide	2021	MH	Aggregate	Aggregate	Gasoline	4.25E-06	0.00163	0.011313	0.122874	0.135817	1660.751	0
Statewide	2021	MH	Aggregate	Aggregate	Diesel	0	0.043002	0.005641	0.045951	0.094593	357.7293	0
Statewide	2021	MHDT	Aggregate	Aggregate	Gasoline	0.000537	0.004124	0.035192	0.382248	0.421565	5067.766	29.45151
Statewide	2021	MHDT	Aggregate	Aggregate	Diesel	0	1.564936	0.237341	2.577917	4.380194	20378.04	295.2294
Statewide	2021	OBUS	Aggregate	Aggregate	Gasoline	8.59E-05	0.000822	0.008926	0.096949	0.106696	1315.462	5.963402
Statewide	2021	OBUS	Aggregate	Aggregate	Diesel	0	0.069232	0.010772	0.117001	0.197005	1111.352	33.82844
Statewide	2021	SBUS	Aggregate	Aggregate	Gasoline	1.14E-05	0.000394	0.002025	0.188506	0.190925	222.625	13.89981
Statewide	2021	SBUS	Aggregate	Aggregate	Diesel	0	0.041792	0.01015	0.629988	0.68193	1001.982	99.46102
Statewide	2021	UBUS	Aggregate	Aggregate	Gasoline	4.99E-06	0.000331	0.00268	0.029318	0.032329	460.0957	0
Statewide	2021	UBUS	Aggregate	Aggregate	Diesel	0	0.002364	0.011126	0.027032	0.040522	568.8303	0
Statewide	2021	UBUS	Aggregate	Aggregate	Electricity	0	0	7.62E-05	0.000279	0.000355	0	0
Statewide	2021	UBUS	Aggregate	Aggregate	Natural Ga	0	0.003841	0.033105	0.07169	0.108636	1982.697	0

Source: EMFAC2017 (v1.0.3) Emissions Inventory
Region Type: Statewide
Region: California
Calendar Year: 2021
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	CO2_ST REX	CO2_TO TEX	CH4_RU NEX	CH4_IDL EX	CH4_ST REX	CH4_TO TEX	N2O_RU NEX
Statewide	2021	HHDT	Aggregate	Aggregate	Gasoline	0.190494	40.66664	0.002472	0	1.09E-06	0.002473	0.003154
Statewide	2021	HHDT	Aggregate	Aggregate	Diesel	0	72406.38	0.229199	0.096005	0	0.325204	10.58992
Statewide	2021	HHDT	Aggregate	Aggregate	Natural Gas	0	1225.421	1.651494	0.011346	0	1.66284	0.242503
Statewide	2021	LDA	Aggregate	Aggregate	Gasoline	4491.949	183452.8	1.998324	0	4.581801	6.580125	3.230025
Statewide	2021	LDA	Aggregate	Aggregate	Diesel	0	1395.422	0.005972	0	0	0.005972	0.219341
Statewide	2021	LDA	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0
Statewide	2021	LDT1	Aggregate	Aggregate	Gasoline	580.5002	22570.83	0.529893	0	0.744327	1.27422	0.661611
Statewide	2021	LDT1	Aggregate	Aggregate	Diesel	0	13.43563	0.000282	0	0	0.000282	0.002112
Statewide	2021	LDT1	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0
Statewide	2021	LDT2	Aggregate	Aggregate	Gasoline	2053.636	79500.73	1.122308	0	2.234606	3.356914	1.755154
Statewide	2021	LDT2	Aggregate	Aggregate	Diesel	0	423.5101	0.001276	0	0	0.001276	0.06657
Statewide	2021	LDT2	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0
Statewide	2021	LHDT1	Aggregate	Aggregate	Gasoline	142.2296	16143.91	0.218565	0.061814	0.208072	0.48845	0.293862
Statewide	2021	LHDT1	Aggregate	Aggregate	Diesel	0	8582.527	0.111098	0.002204	0	0.113302	1.339713
Statewide	2021	LHDT2	Aggregate	Aggregate	Gasoline	24.24593	2762.418	0.02132	0.009455	0.029925	0.060701	0.041891
Statewide	2021	LHDT2	Aggregate	Aggregate	Diesel	0	3321.765	0.03335	0.000753	0	0.034102	0.517045
Statewide	2021	MCY	Aggregate	Aggregate	Gasoline	106.9372	1537.649	2.342593	0	0.437071	2.779664	0.440402
Statewide	2021	MDV	Aggregate	Aggregate	Gasoline	1867.214	68631.77	1.052349	0	2.019662	3.072011	1.517242
Statewide	2021	MDV	Aggregate	Aggregate	Diesel	0	1455.803	0.002569	0	0	0.002569	0.228832
Statewide	2021	MDV	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0
Statewide	2021	MH	Aggregate	Aggregate	Gasoline	0.282079	1661.033	0.016887	0	0.000352	0.017239	0.027615
Statewide	2021	MH	Aggregate	Aggregate	Diesel	0	357.7293	0.001759	0	0	0.001759	0.05623
Statewide	2021	MHDT	Aggregate	Aggregate	Gasoline	42.90451	5140.122	0.052162	0.013996	0.044249	0.110407	0.080033
Statewide	2021	MHDT	Aggregate	Aggregate	Diesel	0	20673.27	0.150248	0.001859	0	0.152106	3.203145
Statewide	2021	OBUS	Aggregate	Aggregate	Gasoline	8.467967	1329.894	0.013322	0.003055	0.009905	0.026282	0.021998
Statewide	2021	OBUS	Aggregate	Aggregate	Diesel	0	1145.181	0.007211	0.000681	0	0.007893	0.174689
Statewide	2021	SBUS	Aggregate	Aggregate	Gasoline	1.067504	237.5924	0.004807	0.012818	0.001325	0.018951	0.008312
Statewide	2021	SBUS	Aggregate	Aggregate	Diesel	0	1101.443	0.004538	0.000368	0	0.004906	0.157498
Statewide	2021	UBUS	Aggregate	Aggregate	Gasoline	0.845012	460.9407	0.001369	0	0.001039	0.002408	0.005139
Statewide	2021	UBUS	Aggregate	Aggregate	Diesel	0	568.8303	0.044141	0	0	0.044141	0.089412
Statewide	2021	UBUS	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0
Statewide	2021	UBUS	Aggregate	Aggregate	Natural Gas	0	1982.697	6.601196	0	0	6.601196	0.404186

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Region Type: Statewide
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Vehicle Classification: EMFAC2007 Categories
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Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	N2O_IDL EX	N2O_ST REX	N2O_TO TEX	ROG_RU NEX	ROG_IDL EX	ROG_ST REX	ROG_TO TEX
Statewide	2021	HHDT	Aggregate	Aggregate	Gasoline	0	7.04E-05	0.003224	0.013346	0	5.7E-06	0.013351
Statewide	2021	HHDT	Aggregate	Aggregate	Diesel	0.791358	0	11.38128	4.93459	2.066972	0	7.001562
Statewide	2021	HHDT	Aggregate	Aggregate	Natural Gas	0.007307	0	0.24981	0.113547	0.000598	0	0.114145
Statewide	2021	LDA	Aggregate	Aggregate	Gasoline	0	2.166921	5.396946	7.893061	0	21.02939	28.92245
Statewide	2021	LDA	Aggregate	Aggregate	Diesel	0	0	0.219341	0.128578	0	0	0.128578
Statewide	2021	LDA	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0
Statewide	2021	LDT1	Aggregate	Aggregate	Gasoline	0	0.271646	0.933257	2.365559	0	3.839847	6.205405
Statewide	2021	LDT1	Aggregate	Aggregate	Diesel	0	0	0.002112	0.006079	0	0	0.006079
Statewide	2021	LDT1	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0
Statewide	2021	LDT2	Aggregate	Aggregate	Gasoline	0	0.998073	2.753227	4.694524	0	10.74712	15.44164
Statewide	2021	LDT2	Aggregate	Aggregate	Diesel	0	0	0.06657	0.027463	0	0	0.027463
Statewide	2021	LDT2	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0
Statewide	2021	LHDT1	Aggregate	Aggregate	Gasoline	0.001566	0.313201	0.608629	1.090979	0.225882	1.053935	2.370795
Statewide	2021	LHDT1	Aggregate	Aggregate	Diesel	0.00934	0	1.349054	2.391868	0.047453	0	2.439321
Statewide	2021	LHDT2	Aggregate	Aggregate	Gasoline	0.000236	0.047177	0.089303	0.097735	0.034054	0.149313	0.281102
Statewide	2021	LHDT2	Aggregate	Aggregate	Diesel	0.00509	0	0.522135	0.717997	0.016204	0	0.7342
Statewide	2021	MCY	Aggregate	Aggregate	Gasoline	0	0.026201	0.466603	16.13722	0	3.361777	19.49899
Statewide	2021	MDV	Aggregate	Aggregate	Gasoline	0	0.80887	2.326111	4.83906	0	10.29788	15.13693
Statewide	2021	MDV	Aggregate	Aggregate	Diesel	0	0	0.228832	0.055307	0	0	0.055307
Statewide	2021	MDV	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0
Statewide	2021	MH	Aggregate	Aggregate	Gasoline	0	0.000358	0.027973	0.076165	0	0.001512	0.077677
Statewide	2021	MH	Aggregate	Aggregate	Diesel	0	0	0.05623	0.037878	0	0	0.037878
Statewide	2021	MHDT	Aggregate	Aggregate	Gasoline	0.000399	0.030868	0.1113	0.25921	0.05394	0.240456	0.553606
Statewide	2021	MHDT	Aggregate	Aggregate	Diesel	0.046406	0	3.249551	3.23479	0.040014	0	3.274804
Statewide	2021	OBUS	Aggregate	Aggregate	Gasoline	8.36E-05	0.007969	0.03005	0.064817	0.011565	0.052283	0.128664
Statewide	2021	OBUS	Aggregate	Aggregate	Diesel	0.005317	0	0.180006	0.15526	0.01467	0	0.16993
Statewide	2021	SBUS	Aggregate	Aggregate	Gasoline	0.00045	0.00109	0.009852	0.023905	0.056042	0.007675	0.087622
Statewide	2021	SBUS	Aggregate	Aggregate	Diesel	0.015634	0	0.173131	0.097705	0.007914	0	0.10562
Statewide	2021	UBUS	Aggregate	Aggregate	Gasoline	0	0.00075	0.005889	0.004419	0	0.004417	0.008836
Statewide	2021	UBUS	Aggregate	Aggregate	Diesel	0	0	0.089412	0.001069	0	0	0.001069
Statewide	2021	UBUS	Aggregate	Aggregate	Electricity	0	0	0	0	0	0	0
Statewide	2021	UBUS	Aggregate	Aggregate	Natural Gas	0	0	0.404186	0.095165	0	0	0.095165

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Region Type: Statewide
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Vehicle Classification: EMFAC2007 Categories
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Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	ROG_DI URN	ROG_HO TSOAK	ROG_RU NLOSS	ROG_RE STLOSS	ROG_TO TAL	TOG_RU NEX
Statewide	2021	HHDT	Aggregate	Aggregate	Gasoline	2.09E-05	0.000766	0.004809	1.25E-05	0.01896	0.019474
Statewide	2021	HHDT	Aggregate	Aggregate	Diesel	0	0	0	0	7.001562	5.617655
Statewide	2021	HHDT	Aggregate	Aggregate	Natural Gas	0	0	0	0	0.114145	1.787959
Statewide	2021	LDA	Aggregate	Aggregate	Gasoline	4.660911	9.088606	18.63679	4.056918	65.36568	11.51054
Statewide	2021	LDA	Aggregate	Aggregate	Diesel	0	0	0	0	0.128578	0.146378
Statewide	2021	LDA	Aggregate	Aggregate	Electricity	0.006282	0.007207	0	0.002096	0.015585	0
Statewide	2021	LDT1	Aggregate	Aggregate	Gasoline	1.332758	2.137993	7.479223	1.025941	18.18132	3.448617
Statewide	2021	LDT1	Aggregate	Aggregate	Diesel	0	0	0	0	0.006079	0.006921
Statewide	2021	LDT1	Aggregate	Aggregate	Electricity	0.000188	0.000213	0	6.31E-05	0.000465	0
Statewide	2021	LDT2	Aggregate	Aggregate	Gasoline	2.4508	4.262668	14.23331	2.223078	38.6115	6.845997
Statewide	2021	LDT2	Aggregate	Aggregate	Diesel	0	0	0	0	0.027463	0.031265
Statewide	2021	LDT2	Aggregate	Aggregate	Electricity	0.000899	0.001021	0	0.000303	0.002223	0
Statewide	2021	LHDT1	Aggregate	Aggregate	Gasoline	0.034348	1.126337	8.090976	0.017732	11.64019	1.591954
Statewide	2021	LHDT1	Aggregate	Aggregate	Diesel	0	0	0	0	2.439321	2.722983
Statewide	2021	LHDT2	Aggregate	Aggregate	Gasoline	0.004213	0.143103	0.956282	0.002283	1.386983	0.142614
Statewide	2021	LHDT2	Aggregate	Aggregate	Diesel	0	0	0	0	0.7342	0.817391
Statewide	2021	MCY	Aggregate	Aggregate	Gasoline	1.991653	1.390488	3.914505	1.172338	27.96798	19.78805
Statewide	2021	MDV	Aggregate	Aggregate	Gasoline	2.139232	3.612841	11.25547	1.992656	34.13714	6.808158
Statewide	2021	MDV	Aggregate	Aggregate	Diesel	0	0	0	0	0.055307	0.062963
Statewide	2021	MDV	Aggregate	Aggregate	Electricity	0.000385	0.000436	0	0.000131	0.000952	0
Statewide	2021	MH	Aggregate	Aggregate	Gasoline	0.015111	0.001071	0.025763	0.005481	0.125103	0.11114
Statewide	2021	MH	Aggregate	Aggregate	Diesel	0	0	0	0	0.037878	0.043122
Statewide	2021	MHDT	Aggregate	Aggregate	Gasoline	0.002782	0.104942	0.59013	0.001511	1.252971	0.378238
Statewide	2021	MHDT	Aggregate	Aggregate	Diesel	0	0	0	0	3.274804	3.682562
Statewide	2021	OBUS	Aggregate	Aggregate	Gasoline	0.000876	0.010299	0.122426	0.000389	0.262654	0.094581
Statewide	2021	OBUS	Aggregate	Aggregate	Diesel	0	0	0	0	0.16993	0.176751
Statewide	2021	SBUS	Aggregate	Aggregate	Gasoline	0.00026	0.002156	0.016424	0.000105	0.106568	0.034882
Statewide	2021	SBUS	Aggregate	Aggregate	Diesel	0	0	0	0	0.10562	0.11123
Statewide	2021	UBUS	Aggregate	Aggregate	Gasoline	5.39E-05	0.000652	0.003898	3.67E-05	0.013477	0.006448
Statewide	2021	UBUS	Aggregate	Aggregate	Diesel	0	0	0	0	0.001069	0.045528
Statewide	2021	UBUS	Aggregate	Aggregate	Electricity	0	0	0	0	0	0
Statewide	2021	UBUS	Aggregate	Aggregate	Natural Gas	0	0	0	0	0.095165	6.737929

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Vehicle Classification: EMFAC2007 Categories
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Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	TOG_IDL EX	TOG_ST REX	TOG_TO TEX	TOG_DIU RN	TOG_HO TSOAK	TOG_RU NLOSS
Statewide	2021	HHDT	Aggregate	Aggregate	Gasoline	0	6.24E-06	0.01948	2.09E-05	0.000766	0.004809
Statewide	2021	HHDT	Aggregate	Aggregate	Diesel	2.35309	0	7.970745	0	0	0
Statewide	2021	HHDT	Aggregate	Aggregate	Natural Gas	0.012076	0	1.800035	0	0	0
Statewide	2021	LDA	Aggregate	Aggregate	Gasoline	0	23.02436	34.5349	4.660911	9.088606	18.63679
Statewide	2021	LDA	Aggregate	Aggregate	Diesel	0	0	0.146378	0	0	0
Statewide	2021	LDA	Aggregate	Aggregate	Electricity	0	0	0	0.006282	0.007207	0
Statewide	2021	LDT1	Aggregate	Aggregate	Gasoline	0	4.204113	7.652731	1.332758	2.137993	7.479223
Statewide	2021	LDT1	Aggregate	Aggregate	Diesel	0	0	0.006921	0	0	0
Statewide	2021	LDT1	Aggregate	Aggregate	Electricity	0	0	0	0.000188	0.000213	0
Statewide	2021	LDT2	Aggregate	Aggregate	Gasoline	0	11.76669	18.61269	2.4508	4.262668	14.23331
Statewide	2021	LDT2	Aggregate	Aggregate	Diesel	0	0	0.031265	0	0	0
Statewide	2021	LDT2	Aggregate	Aggregate	Electricity	0	0	0	0.000899	0.001021	0
Statewide	2021	LHDT1	Aggregate	Aggregate	Gasoline	0.329606	1.153926	3.075485	0.034348	1.126337	8.090976
Statewide	2021	LHDT1	Aggregate	Aggregate	Diesel	0.054022	0	2.777005	0	0	0
Statewide	2021	LHDT2	Aggregate	Aggregate	Gasoline	0.049692	0.163479	0.355786	0.004213	0.143103	0.956282
Statewide	2021	LHDT2	Aggregate	Aggregate	Diesel	0.018447	0	0.835838	0	0	0
Statewide	2021	MCY	Aggregate	Aggregate	Gasoline	0	3.657243	23.44529	1.991653	1.390488	3.914505
Statewide	2021	MDV	Aggregate	Aggregate	Gasoline	0	11.27348	18.08164	2.139232	3.612841	11.25547
Statewide	2021	MDV	Aggregate	Aggregate	Diesel	0	0	0.062963	0	0	0
Statewide	2021	MDV	Aggregate	Aggregate	Electricity	0	0	0	0.000385	0.000436	0
Statewide	2021	MH	Aggregate	Aggregate	Gasoline	0	0.001655	0.112795	0.015111	0.001071	0.025763
Statewide	2021	MH	Aggregate	Aggregate	Diesel	0	0	0.043122	0	0	0
Statewide	2021	MHDT	Aggregate	Aggregate	Gasoline	0.078709	0.263269	0.720216	0.002782	0.104942	0.59013
Statewide	2021	MHDT	Aggregate	Aggregate	Diesel	0.045553	0	3.728115	0	0	0
Statewide	2021	OBUS	Aggregate	Aggregate	Gasoline	0.016875	0.057243	0.168699	0.000876	0.010299	0.122426
Statewide	2021	OBUS	Aggregate	Aggregate	Diesel	0.016701	0	0.193452	0	0	0
Statewide	2021	SBUS	Aggregate	Aggregate	Gasoline	0.081777	0.008403	0.125062	0.00026	0.002156	0.016424
Statewide	2021	SBUS	Aggregate	Aggregate	Diesel	0.00901	0	0.12024	0	0	0
Statewide	2021	UBUS	Aggregate	Aggregate	Gasoline	0	0.004836	0.011284	5.39E-05	0.000652	0.003898
Statewide	2021	UBUS	Aggregate	Aggregate	Diesel	0	0	0.045528	0	0	0
Statewide	2021	UBUS	Aggregate	Aggregate	Electricity	0	0	0	0	0	0
Statewide	2021	UBUS	Aggregate	Aggregate	Natural Gas	0	0	6.737929	0	0	0

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Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	TOG_RE STLOSS	TOG_TO TAL	CO_RUNEX	CO_IDLE X	CO_STR EX
Statewide	2021	HHDT	Aggregate	Aggregate	Gasoline	1.25E-05	0.025089	0.771396746	0	0.019023
Statewide	2021	HHDT	Aggregate	Aggregate	Diesel	0	7.970745	20.11980211	26.72457	0
Statewide	2021	HHDT	Aggregate	Aggregate	Natural Ga	0	1.800035	4.309595762	0.177262	0
Statewide	2021	LDA	Aggregate	Aggregate	Gasoline	4.056918	70.97812	475.1218411	0	183.7261
Statewide	2021	LDA	Aggregate	Aggregate	Diesel	0	0.146378	1.717498711	0	0
Statewide	2021	LDA	Aggregate	Aggregate	Electricity	0.002096	0.015585	0	0	0
Statewide	2021	LDT1	Aggregate	Aggregate	Gasoline	1.025941	19.62865	102.1661026	0	22.01729
Statewide	2021	LDT1	Aggregate	Aggregate	Diesel	0	0.006921	0.037560163	0	0
Statewide	2021	LDT1	Aggregate	Aggregate	Electricity	6.31E-05	0.000465	0	0	0
Statewide	2021	LDT2	Aggregate	Aggregate	Gasoline	2.223078	41.78254	234.9636493	0	82.43175
Statewide	2021	LDT2	Aggregate	Aggregate	Diesel	0	0.031265	0.226476084	0	0
Statewide	2021	LDT2	Aggregate	Aggregate	Electricity	0.000303	0.002223	0	0	0
Statewide	2021	LHDT1	Aggregate	Aggregate	Gasoline	0.017732	12.34488	22.11299021	1.855247	13.81953
Statewide	2021	LHDT1	Aggregate	Aggregate	Diesel	0	2.777005	11.62115239	0.393318	0
Statewide	2021	LHDT2	Aggregate	Aggregate	Gasoline	0.002283	1.461667	2.043627736	0.28026	1.975902
Statewide	2021	LHDT2	Aggregate	Aggregate	Diesel	0	0.835838	3.474237572	0.134306	0
Statewide	2021	MCY	Aggregate	Aggregate	Gasoline	1.172338	31.91428	137.2140283	0	15.19323
Statewide	2021	MDV	Aggregate	Aggregate	Gasoline	1.992656	37.08184	202.4037911	0	74.075
Statewide	2021	MDV	Aggregate	Aggregate	Diesel	0	0.062963	0.912241661	0	0
Statewide	2021	MDV	Aggregate	Aggregate	Electricity	0.000131	0.000952	0	0	0
Statewide	2021	MH	Aggregate	Aggregate	Gasoline	0.005481	0.160221	2.111256122	0	0.03341
Statewide	2021	MH	Aggregate	Aggregate	Diesel	0	0.043122	0.147414499	0	0
Statewide	2021	MHDT	Aggregate	Aggregate	Gasoline	0.001511	1.419581	6.277362836	0.78711	5.322708
Statewide	2021	MHDT	Aggregate	Aggregate	Diesel	0	3.728115	9.850706076	0.819618	0
Statewide	2021	OBUS	Aggregate	Aggregate	Gasoline	0.000389	0.302688	1.524739052	0.08957	1.106993
Statewide	2021	OBUS	Aggregate	Aggregate	Diesel	0	0.193452	0.508156443	0.159458	0
Statewide	2021	SBUS	Aggregate	Aggregate	Gasoline	0.000105	0.144008	0.520051518	0.43391	0.196375
Statewide	2021	SBUS	Aggregate	Aggregate	Diesel	0	0.12024	0.264177603	0.151921	0
Statewide	2021	UBUS	Aggregate	Aggregate	Gasoline	3.67E-05	0.015925	0.075208761	0	0.071614
Statewide	2021	UBUS	Aggregate	Aggregate	Diesel	0	0.045528	0.074023158	0	0
Statewide	2021	UBUS	Aggregate	Aggregate	Electricity	0	0	0	0	0
Statewide	2021	UBUS	Aggregate	Aggregate	Natural Ga	0	6.737929	46.23176428	0	0

Source: EMFAC2017 (v1.0.3) Emissions Inventory
Region Type: Statewide
Region: California
Calendar Year: 2021
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	CO_TOT EX	SOx_RU NEX	SOx_IDL EX	SOx_ST REX	SOx_TO TEX	Fuel Consumption
Statewide	2021	HHDT	Aggregate	Aggregate	Gasoline	0.79042	0.000401	0	1.89E-06	0.000402	4.292494
Statewide	2021	HHDT	Aggregate	Aggregate	Diesel	46.84437	0.636496	0.047564	0	0.68406	6453.076
Statewide	2021	HHDT	Aggregate	Aggregate	Natural Gas	4.486858	0	0	0	0	141.6399
Statewide	2021	LDA	Aggregate	Aggregate	Gasoline	658.8479	1.770963	0	0.044451	1.815414	19364.03
Statewide	2021	LDA	Aggregate	Aggregate	Diesel	1.717499	0.013192	0	0	0.013192	124.3643
Statewide	2021	LDA	Aggregate	Aggregate	Electricity	0	0	0	0	0	0
Statewide	2021	LDT1	Aggregate	Aggregate	Gasoline	124.1834	0.217612	0	0.005745	0.223357	2382.423
Statewide	2021	LDT1	Aggregate	Aggregate	Diesel	0.03756	0.000127	0	0	0.000127	1.197424
Statewide	2021	LDT1	Aggregate	Aggregate	Electricity	0	0	0	0	0	0
Statewide	2021	LDT2	Aggregate	Aggregate	Gasoline	317.3954	0.766402	0	0.020322	0.786724	8391.556
Statewide	2021	LDT2	Aggregate	Aggregate	Diesel	0.226476	0.004004	0	0	0.004004	37.74451
Statewide	2021	LDT2	Aggregate	Aggregate	Electricity	0	0	0	0	0	0
Statewide	2021	LHDT1	Aggregate	Aggregate	Gasoline	37.78776	0.157748	0.000601	0.001407	0.159757	1704.042
Statewide	2021	LHDT1	Aggregate	Aggregate	Diesel	12.01447	0.080574	0.000562	0	0.081136	764.9008
Statewide	2021	LHDT2	Aggregate	Aggregate	Gasoline	4.29979	0.026992	0.000104	0.00024	0.027336	291.582
Statewide	2021	LHDT2	Aggregate	Aggregate	Diesel	3.608544	0.031096	0.000306	0	0.031403	296.0458
Statewide	2021	MCY	Aggregate	Aggregate	Gasoline	152.4073	0.014158	0	0.001058	0.015216	162.3037
Statewide	2021	MDV	Aggregate	Aggregate	Gasoline	276.4788	0.660689	0	0.018478	0.679167	7244.303
Statewide	2021	MDV	Aggregate	Aggregate	Diesel	0.912242	0.013763	0	0	0.013763	129.7456
Statewide	2021	MDV	Aggregate	Aggregate	Electricity	0	0	0	0	0	0
Statewide	2021	MH	Aggregate	Aggregate	Gasoline	2.144666	0.016434	0	2.79E-06	0.016437	175.3273
Statewide	2021	MH	Aggregate	Aggregate	Diesel	0.147414	0.003382	0	0	0.003382	31.88192
Statewide	2021	MHDT	Aggregate	Aggregate	Gasoline	12.38718	0.05015	0.000291	0.000425	0.050866	542.5563
Statewide	2021	MHDT	Aggregate	Aggregate	Diesel	10.67032	0.192522	0.002789	0	0.195311	1842.465
Statewide	2021	OBUS	Aggregate	Aggregate	Gasoline	2.721302	0.013018	5.9E-05	8.38E-05	0.01316	140.3745
Statewide	2021	OBUS	Aggregate	Aggregate	Diesel	0.667614	0.0105	0.00032	0	0.010819	102.062
Statewide	2021	SBUS	Aggregate	Aggregate	Gasoline	1.150337	0.002203	0.000138	1.06E-05	0.002351	25.07863
Statewide	2021	SBUS	Aggregate	Aggregate	Diesel	0.416099	0.009466	0.00094	0	0.010406	98.16392
Statewide	2021	UBUS	Aggregate	Aggregate	Gasoline	0.146823	0.004553	0	8.36E-06	0.004561	48.65377
Statewide	2021	UBUS	Aggregate	Aggregate	Diesel	0.074023	0.005377	0	0	0.005377	50.69588
Statewide	2021	UBUS	Aggregate	Aggregate	Electricity	0	0	0	0	0	0
Statewide	2021	UBUS	Aggregate	Aggregate	Natural Gas	46.23176	0	0	0	0	229.1696

Sensitive Receptors Within 1-Mile

No Elementary, Middle, or High Schools

Distance from Project:

Receptor	Edge	Center	Notes
Recreational - San Tomas Aquino Creek Trail	0	200	Actively used trail will be adjacent to construction of temporary trail
Medical - Stanford Healthcare	300	900	300 feet from trail reroute
Residential - Santa Clara Square Apartments	1,125	1,620	
Intel Museum	1,425	1,600	
Preschool - Knowledge Preschool	2,830	3,020	
Daycare - Little Glitters	4,890	5,050	

US Highway 101 is 950 feet to the South

San Jose International Airport is 8,800 feet to SE of site

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	1.00	Acre	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	4			Operational Year	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Based on Project Description

Off-road Equipment - Based on Project Description

Off-road Equipment - Based on Project Description

Off-road Equipment - Based on Project Description

Trips and VMT -

Grading - Based on Project Description

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Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	2.00	10.00
tblConstructionPhase	NumDays	2.00	4.00
tblConstructionPhase	NumDays	2.00	40.00
tblConstructionPhase	PhaseEndDate	6/2/2021	6/14/2021
tblConstructionPhase	PhaseEndDate	6/4/2021	6/18/2021
tblConstructionPhase	PhaseEndDate	6/8/2021	8/13/2021
tblConstructionPhase	PhaseStartDate	6/3/2021	6/15/2021
tblConstructionPhase	PhaseStartDate	6/5/2021	6/21/2021
tblGrading	AcresOfGrading	0.00	1.00
tblGrading	AcresOfGrading	0.00	1.00
tblGrading	MaterialExported	0.00	50.00
tblGrading	MaterialExported	0.00	7.00
tblGrading	MaterialImported	0.00	280.00
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	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	7.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00

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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	tons/yr										MT/yr					
2021	0.0254	0.2497	0.2705	4.6000e-004	3.4700e-003	0.0129	0.0163	7.6000e-004	0.0121	0.0128	0.0000	40.6030	40.6030	9.1100e-003	0.0000	40.8307
Maximum	0.0254	0.2497	0.2705	4.6000e-004	3.4700e-003	0.0129	0.0163	7.6000e-004	0.0121	0.0128	0.0000	40.6030	40.6030	9.1100e-003	0.0000	40.8307

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0254	0.2497	0.2705	4.6000e-004	3.4700e-003	0.0129	0.0163	7.6000e-004	0.0121	0.0128	0.0000	40.6030	40.6030	9.1100e-003	0.0000	40.8307
Maximum	0.0254	0.2497	0.2705	4.6000e-004	3.4700e-003	0.0129	0.0163	7.6000e-004	0.0121	0.0128	0.0000	40.6030	40.6030	9.1100e-003	0.0000	40.8307

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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
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	6-1-2021	8-31-2021	0.3509	0.3509
		Highest	0.3509	0.3509

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.1000e-004	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	1.7000e-003	6.9900e-003	0.0193	6.0000e-005	5.5500e-003	5.0000e-005	5.6000e-003	1.4900e-003	5.0000e-005	1.5400e-003	0.0000	5.7094	5.7094	2.0000e-004	0.0000	5.7144
Waste						0.0000	0.0000		0.0000	0.0000	0.0183	0.0000	0.0183	1.0800e-003	0.0000	0.0453
Water						0.0000	0.0000		0.0000	0.0000	0.0000	1.2132	1.2132	5.0000e-005	1.0000e-005	1.2179
Total	2.1100e-003	6.9900e-003	0.0193	6.0000e-005	5.5500e-003	5.0000e-005	5.6000e-003	1.4900e-003	5.0000e-005	1.5400e-003	0.0183	6.9225	6.9408	1.3300e-003	1.0000e-005	6.9776

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2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.1000e-004	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	1.7000e-003	6.9900e-003	0.0193	6.0000e-005	5.5500e-003	5.0000e-005	5.6000e-003	1.4900e-003	5.0000e-005	1.5400e-003	0.0000	5.7094	5.7094	2.0000e-004	0.0000	5.7144
Waste						0.0000	0.0000		0.0000	0.0000	0.0183	0.0000	0.0183	1.0800e-003	0.0000	0.0453
Water						0.0000	0.0000		0.0000	0.0000	0.0000	1.2132	1.2132	5.0000e-005	1.0000e-005	1.2179
Total	2.1100e-003	6.9900e-003	0.0193	6.0000e-005	5.5500e-003	5.0000e-005	5.6000e-003	1.4900e-003	5.0000e-005	1.5400e-003	0.0183	6.9225	6.9408	1.3300e-003	1.0000e-005	6.9776

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

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Phase I	Grading	6/1/2021	6/14/2021	5	10	
2	Phase II - Abutment Removal	Grading	6/15/2021	6/18/2021	5	4	
3	Phase II - Paving and Grading	Grading	6/21/2021	8/13/2021	5	40	

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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**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Phase I	Concrete/Industrial Saws	0	8.00	81	0.73
Phase I	Cranes	1	8.00	231	0.29
Phase I	Excavators	1	8.00	158	0.38
Phase I	Graders	0	6.00	187	0.41
Phase I	Rubber Tired Dozers	0	6.00	247	0.40
Phase I	Skid Steer Loaders	1	8.00	65	0.37
Phase I	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Phase II - Abutment Removal	Excavators	1	8.00	158	0.38
Phase II - Abutment Removal	Graders	0	6.00	187	0.41
Phase II - Abutment Removal	Rubber Tired Dozers	0	7.00	247	0.40
Phase II - Abutment Removal	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Phase II - Paving and Grading	Generator Sets	1	8.00	84	0.74
Phase II - Paving and Grading	Graders	0	8.00	187	0.41
Phase II - Paving and Grading	Pavers	1	8.00	130	0.42
Phase II - Paving and Grading	Rollers	1	8.00	80	0.38
Phase II - Paving and Grading	Rubber Tired Dozers	0	6.00	247	0.40
Phase II - Paving and Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

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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
Phase I	3	8.00	0.00	6.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase II - Abutment Removal	3	8.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase II - Paving and Grading	4	10.00	0.00	35.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Phase I - 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	tons/yr										MT/yr					
Fugitive Dust					5.3000e-004	0.0000	5.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5900e-003	0.0400	0.0332	7.0000e-005		1.7100e-003	1.7100e-003		1.5700e-003	1.5700e-003	0.0000	5.7113	5.7113	1.8500e-003	0.0000	5.7575
Total	3.5900e-003	0.0400	0.0332	7.0000e-005	5.3000e-004	1.7100e-003	2.2400e-003	6.0000e-005	1.5700e-003	1.6300e-003	0.0000	5.7113	5.7113	1.8500e-003	0.0000	5.7575

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3.2 Phase I - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	8.0000e-004	1.7000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.2259	0.2259	1.0000e-005	0.0000	0.2262
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	1.2000e-004	9.0000e-005	9.2000e-004	0.0000	3.2000e-004	0.0000	3.2000e-004	8.0000e-005	0.0000	9.0000e-005	0.0000	0.2626	0.2626	1.0000e-005	0.0000	0.2628
Total	1.4000e-004	8.9000e-004	1.0900e-003	0.0000	3.7000e-004	0.0000	3.7000e-004	9.0000e-005	0.0000	1.1000e-004	0.0000	0.4885	0.4885	2.0000e-005	0.0000	0.4889

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.3000e-004	0.0000	5.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5900e-003	0.0400	0.0332	7.0000e-005		1.7100e-003	1.7100e-003		1.5700e-003	1.5700e-003	0.0000	5.7113	5.7113	1.8500e-003	0.0000	5.7575
Total	3.5900e-003	0.0400	0.0332	7.0000e-005	5.3000e-004	1.7100e-003	2.2400e-003	6.0000e-005	1.5700e-003	1.6300e-003	0.0000	5.7113	5.7113	1.8500e-003	0.0000	5.7575

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3.2 Phase I - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	8.0000e-004	1.7000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.2259	0.2259	1.0000e-005	0.0000	0.2262
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	1.2000e-004	9.0000e-005	9.2000e-004	0.0000	3.2000e-004	0.0000	3.2000e-004	8.0000e-005	0.0000	9.0000e-005	0.0000	0.2626	0.2626	1.0000e-005	0.0000	0.2628
Total	1.4000e-004	8.9000e-004	1.0900e-003	0.0000	3.7000e-004	0.0000	3.7000e-004	9.0000e-005	0.0000	1.1000e-004	0.0000	0.4885	0.4885	2.0000e-005	0.0000	0.4889

3.3 Phase II - Abutment Removal - 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	tons/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	1.2100e-003	0.0119	0.0156	2.0000e-005		6.6000e-004	6.6000e-004		6.0000e-004	6.0000e-004	0.0000	1.9994	1.9994	6.5000e-004	0.0000	2.0156
Total	1.2100e-003	0.0119	0.0156	2.0000e-005	0.0000	6.6000e-004	6.6000e-004	0.0000	6.0000e-004	6.0000e-004	0.0000	1.9994	1.9994	6.5000e-004	0.0000	2.0156

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3.3 Phase II - Abutment Removal - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.3000e-004	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0377	0.0377	0.0000	0.0000	0.0377
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	5.0000e-005	3.0000e-005	3.7000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1051	0.1051	0.0000	0.0000	0.1051
Total	5.0000e-005	1.6000e-004	4.0000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1427	0.1427	0.0000	0.0000	0.1428

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2100e-003	0.0119	0.0156	2.0000e-005		6.6000e-004	6.6000e-004		6.0000e-004	6.0000e-004	0.0000	1.9994	1.9994	6.5000e-004	0.0000	2.0156
Total	1.2100e-003	0.0119	0.0156	2.0000e-005	0.0000	6.6000e-004	6.6000e-004	0.0000	6.0000e-004	6.0000e-004	0.0000	1.9994	1.9994	6.5000e-004	0.0000	2.0156

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3.3 Phase II - Abutment Removal - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.3000e-004	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0377	0.0377	0.0000	0.0000	0.0377
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	5.0000e-005	3.0000e-005	3.7000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1051	0.1051	0.0000	0.0000	0.1051
Total	5.0000e-005	1.6000e-004	4.0000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1427	0.1427	0.0000	0.0000	0.1428

3.4 Phase II - Paving and 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	tons/yr										MT/yr					
Fugitive Dust					5.5000e-004	0.0000	5.5000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0196	0.1916	0.2146	3.4000e-004		0.0105	0.0105		9.8800e-003	9.8800e-003	0.0000	29.6302	29.6302	6.5000e-003	0.0000	29.7928
Total	0.0196	0.1916	0.2146	3.4000e-004	5.5000e-004	0.0105	0.0110	6.0000e-005	9.8800e-003	9.9400e-003	0.0000	29.6302	29.6302	6.5000e-003	0.0000	29.7928

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3.4 Phase II - Paving and Grading - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-004	4.6800e-003	1.0200e-003	1.0000e-005	3.0000e-004	1.0000e-005	3.1000e-004	8.0000e-005	1.0000e-005	1.0000e-004	0.0000	1.3178	1.3178	6.0000e-005	0.0000	1.3193
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2000e-004	4.3000e-004	4.5800e-003	1.0000e-005	1.5900e-003	1.0000e-005	1.6000e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.3131	1.3131	3.0000e-005	0.0000	1.3138
Total	7.6000e-004	5.1100e-003	5.6000e-003	2.0000e-005	1.8900e-003	2.0000e-005	1.9100e-003	5.0000e-004	2.0000e-005	5.3000e-004	0.0000	2.6309	2.6309	9.0000e-005	0.0000	2.6331

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.5000e-004	0.0000	5.5000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0196	0.1916	0.2146	3.4000e-004		0.0105	0.0105		9.8800e-003	9.8800e-003	0.0000	29.6302	29.6302	6.5000e-003	0.0000	29.7928
Total	0.0196	0.1916	0.2146	3.4000e-004	5.5000e-004	0.0105	0.0110	6.0000e-005	9.8800e-003	9.9400e-003	0.0000	29.6302	29.6302	6.5000e-003	0.0000	29.7928

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3.4 Phase II - Paving and Grading - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-004	4.6800e-003	1.0200e-003	1.0000e-005	3.0000e-004	1.0000e-005	3.1000e-004	8.0000e-005	1.0000e-005	1.0000e-004	0.0000	1.3178	1.3178	6.0000e-005	0.0000	1.3193
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2000e-004	4.3000e-004	4.5800e-003	1.0000e-005	1.5900e-003	1.0000e-005	1.6000e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.3131	1.3131	3.0000e-005	0.0000	1.3138
Total	7.6000e-004	5.1100e-003	5.6000e-003	2.0000e-005	1.8900e-003	2.0000e-005	1.9100e-003	5.0000e-004	2.0000e-005	5.3000e-004	0.0000	2.6309	2.6309	9.0000e-005	0.0000	2.6331

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	tons/yr										MT/yr					
Mitigated	1.7000e-003	6.9900e-003	0.0193	6.0000e-005	5.5500e-003	5.0000e-005	5.6000e-003	1.4900e-003	5.0000e-005	1.5400e-003	0.0000	5.7094	5.7094	2.0000e-004	0.0000	5.7144
Unmitigated	1.7000e-003	6.9900e-003	0.0193	6.0000e-005	5.5500e-003	5.0000e-005	5.6000e-003	1.4900e-003	5.0000e-005	1.5400e-003	0.0000	5.7094	5.7094	2.0000e-004	0.0000	5.7144

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	1.89	22.75	16.74	14,926	14,926
Total	1.89	22.75	16.74	14,926	14,926

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761

5.0 Energy Detail

Historical Energy Use: N

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5.1 Mitigation Measures Energy

[illegible]

5.2 Energy by Land Use - NaturalGas

Unmitigated

[illegible]

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

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	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

5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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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			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive 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	4.1000e-004	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	4.1000e-004	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

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6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.1000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	4.1000e-004	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.1000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	4.1000e-004	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

7.0 Water Detail

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7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.2132	5.0000e-005	1.0000e-005	1.2179
Unmitigated	1.2132	5.0000e-005	1.0000e-005	1.2179

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.19148	1.2132	5.0000e-005	1.0000e-005	1.2179
Total		1.2132	5.0000e-005	1.0000e-005	1.2179

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7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.19148	1.2132	5.0000e-005	1.0000e-005	1.2179
Total		1.2132	5.0000e-005	1.0000e-005	1.2179

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0183	1.0800e-003	0.0000	0.0453
Unmitigated	0.0183	1.0800e-003	0.0000	0.0453

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8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.09	0.0183	1.0800e-003	0.0000	0.0453
Total		0.0183	1.0800e-003	0.0000	0.0453

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.09	0.0183	1.0800e-003	0.0000	0.0453
Total		0.0183	1.0800e-003	0.0000	0.0453

9.0 Operational Offroad

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

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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

Freedom Bridge Demolition Project - Santa Clara County, Summer

Freedom Bridge Demolition Project

Santa Clara County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	1.00	Acre	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	4			Operational Year	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Based on Project Description

Off-road Equipment - Based on Project Description

Off-road Equipment - Based on Project Description

Off-road Equipment - Based on Project Description

Trips and VMT -

Grading - Based on Project Description

Freedom Bridge Demolition Project - Santa Clara County, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	2.00	10.00
tblConstructionPhase	NumDays	2.00	4.00
tblConstructionPhase	NumDays	2.00	40.00
tblConstructionPhase	PhaseEndDate	6/2/2021	6/14/2021
tblConstructionPhase	PhaseEndDate	6/4/2021	6/18/2021
tblConstructionPhase	PhaseEndDate	6/8/2021	8/13/2021
tblConstructionPhase	PhaseStartDate	6/3/2021	6/15/2021
tblConstructionPhase	PhaseStartDate	6/5/2021	6/21/2021
tblGrading	AcresOfGrading	0.00	1.00
tblGrading	AcresOfGrading	0.00	1.00
tblGrading	MaterialExported	0.00	50.00
tblGrading	MaterialExported	0.00	7.00
tblGrading	MaterialImported	0.00	280.00
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	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	7.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00

Freedom Bridge Demolition Project - Santa Clara County, Summer

2.0 Emissions Summary**2.1 Overall Construction (Maximum Daily Emission)****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	1.0194	9.8298	11.0316	0.0185	0.1828	0.5238	0.6485	0.0318	0.4953	0.5243	0.0000	1,784.041 7	1,784.041 7	0.4109	0.0000	1,793.128 3
Maximum	1.0194	9.8298	11.0316	0.0185	0.1828	0.5238	0.6485	0.0318	0.4953	0.5243	0.0000	1,784.041 7	1,784.041 7	0.4109	0.0000	1,793.128 3

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	1.0194	9.8298	11.0316	0.0185	0.1828	0.5238	0.6485	0.0318	0.4953	0.5243	0.0000	1,784.041 7	1,784.041 7	0.4109	0.0000	1,793.128 3
Maximum	1.0194	9.8298	11.0316	0.0185	0.1828	0.5238	0.6485	0.0318	0.4953	0.5243	0.0000	1,784.041 7	1,784.041 7	0.4109	0.0000	1,793.128 3

Freedom Bridge Demolition Project - Santa Clara County, Summer

[illegible]

Freedom Bridge Demolition Project - Santa Clara County, Summer

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.2500e-003	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0350	0.1211	0.3595	1.1800e-003	0.1027	9.7000e-004	0.1037	0.0274	9.1000e-004	0.0283		119.3418	119.3418	4.0400e-003		119.4428
Total	0.0373	0.1211	0.3596	1.1800e-003	0.1027	9.7000e-004	0.1037	0.0274	9.1000e-004	0.0283		119.3420	119.3420	4.0400e-003	0.0000	119.4430

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.2500e-003	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0350	0.1211	0.3595	1.1800e-003	0.1027	9.7000e-004	0.1037	0.0274	9.1000e-004	0.0283		119.3418	119.3418	4.0400e-003		119.4428
Total	0.0373	0.1211	0.3596	1.1800e-003	0.1027	9.7000e-004	0.1037	0.0274	9.1000e-004	0.0283		119.3420	119.3420	4.0400e-003	0.0000	119.4430

Freedom Bridge Demolition Project - Santa Clara County, Summer

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Phase I	Grading	6/1/2021	6/14/2021	5	10	
2	Phase II - Abutment Removal	Grading	6/15/2021	6/18/2021	5	4	
3	Phase II - Paving and Grading	Grading	6/21/2021	8/13/2021	5	40	

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

Freedom Bridge Demolition Project - Santa Clara County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Phase I	Concrete/Industrial Saws	0	8.00	81	0.73
Phase I	Cranes	1	8.00	231	0.29
Phase I	Excavators	1	8.00	158	0.38
Phase I	Graders	0	6.00	187	0.41
Phase I	Rubber Tired Dozers	0	6.00	247	0.40
Phase I	Skid Steer Loaders	1	8.00	65	0.37
Phase I	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Phase II - Abutment Removal	Excavators	1	8.00	158	0.38
Phase II - Abutment Removal	Graders	0	6.00	187	0.41
Phase II - Abutment Removal	Rubber Tired Dozers	0	7.00	247	0.40
Phase II - Abutment Removal	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Phase II - Paving and Grading	Generator Sets	1	8.00	84	0.74
Phase II - Paving and Grading	Graders	0	8.00	187	0.41
Phase II - Paving and Grading	Pavers	1	8.00	130	0.42
Phase II - Paving and Grading	Rollers	1	8.00	80	0.38
Phase II - Paving and Grading	Rubber Tired Dozers	0	6.00	247	0.40
Phase II - Paving and Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Phase I	3	8.00	0.00	6.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase II - Abutment Removal	3	8.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase II - Paving and Grading	4	10.00	0.00	35.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Freedom Bridge Demolition Project - Santa Clara County, Summer

3.2 Phase I - 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	lb/day										lb/day					
Fugitive Dust					0.1066	0.0000	0.1066	0.0115	0.0000	0.0115			0.0000			0.0000
Off-Road	0.7176	8.0063	6.6446	0.0130		0.3422	0.3422		0.3148	0.3148		1,259.129 1	1,259.129 1	0.4072		1,269.309 8
Total	0.7176	8.0063	6.6446	0.0130	0.1066	0.3422	0.4488	0.0115	0.3148	0.3263		1,259.129 1	1,259.129 1	0.4072		1,269.309 8

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.6500e-003	0.1574	0.0339	4.7000e-004	0.0105	5.0000e-004	0.0110	2.8700e-003	4.8000e-004	3.3500e-003		50.1643	50.1643	2.2200e-003		50.2197
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0258	0.0153	0.2016	6.2000e-004	0.0657	4.0000e-004	0.0661	0.0174	3.7000e-004	0.0178		62.2409	62.2409	1.4100e-003		62.2762
Total	0.0304	0.1726	0.2355	1.0900e-003	0.0762	9.0000e-004	0.0771	0.0203	8.5000e-004	0.0212		112.4051	112.4051	3.6300e-003		112.4959

Freedom Bridge Demolition Project - Santa Clara County, Summer

3.2 Phase I - 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	lb/day										lb/day					
Fugitive Dust					0.1066	0.0000	0.1066	0.0115	0.0000	0.0115			0.0000			0.0000
Off-Road	0.7176	8.0063	6.6446	0.0130		0.3422	0.3422		0.3148	0.3148	0.0000	1,259.129 1	1,259.129 1	0.4072		1,269.309 8
Total	0.7176	8.0063	6.6446	0.0130	0.1066	0.3422	0.4488	0.0115	0.3148	0.3263	0.0000	1,259.129 1	1,259.129 1	0.4072		1,269.309 8

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.6500e-003	0.1574	0.0339	4.7000e-004	0.0105	5.0000e-004	0.0110	2.8700e-003	4.8000e-004	3.3500e-003		50.1643	50.1643	2.2200e-003		50.2197
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0258	0.0153	0.2016	6.2000e-004	0.0657	4.0000e-004	0.0661	0.0174	3.7000e-004	0.0178		62.2409	62.2409	1.4100e-003		62.2762
Total	0.0304	0.1726	0.2355	1.0900e-003	0.0762	9.0000e-004	0.0771	0.0203	8.5000e-004	0.0212		112.4051	112.4051	3.6300e-003		112.4959

Freedom Bridge Demolition Project - Santa Clara County, Summer

3.3 Phase II - Abutment Removal - 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	lb/day										lb/day					
Fugitive Dust					2.0000e-004	0.0000	2.0000e-004	3.0000e-005	0.0000	3.0000e-005			0.0000			0.0000
Off-Road	0.6037	5.9450	7.7923	0.0114		0.3280	0.3280		0.3018	0.3018		1,101.9921	1,101.9921	0.3564		1,110.9023
Total	0.6037	5.9450	7.7923	0.0114	2.0000e-004	0.3280	0.3282	3.0000e-005	0.3018	0.3018		1,101.9921	1,101.9921	0.3564		1,110.9023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.9400e-003	0.0656	0.0141	2.0000e-004	4.3700e-003	2.1000e-004	4.5800e-003	1.2000e-003	2.0000e-004	1.4000e-003		20.9018	20.9018	9.2000e-004		20.9249
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0258	0.0153	0.2016	6.2000e-004	0.0657	4.0000e-004	0.0661	0.0174	3.7000e-004	0.0178		62.2409	62.2409	1.4100e-003		62.2762
Total	0.0277	0.0808	0.2157	8.2000e-004	0.0701	6.1000e-004	0.0707	0.0186	5.7000e-004	0.0192		83.1427	83.1427	2.3300e-003		83.2011

Freedom Bridge Demolition Project - Santa Clara County, Summer

3.3 Phase II - Abutment Removal - 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	lb/day										lb/day					
Fugitive Dust					2.0000e-004	0.0000	2.0000e-004	3.0000e-005	0.0000	3.0000e-005			0.0000			0.0000
Off-Road	0.6037	5.9450	7.7923	0.0114		0.3280	0.3280		0.3018	0.3018	0.0000	1,101.9921	1,101.9921	0.3564		1,110.9023
Total	0.6037	5.9450	7.7923	0.0114	2.0000e-004	0.3280	0.3282	3.0000e-005	0.3018	0.3018	0.0000	1,101.9921	1,101.9921	0.3564		1,110.9023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.9400e-003	0.0656	0.0141	2.0000e-004	4.3700e-003	2.1000e-004	4.5800e-003	1.2000e-003	2.0000e-004	1.4000e-003		20.9018	20.9018	9.2000e-004		20.9249
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0258	0.0153	0.2016	6.2000e-004	0.0657	4.0000e-004	0.0661	0.0174	3.7000e-004	0.0178		62.2409	62.2409	1.4100e-003		62.2762
Total	0.0277	0.0808	0.2157	8.2000e-004	0.0701	6.1000e-004	0.0707	0.0186	5.7000e-004	0.0192		83.1427	83.1427	2.3300e-003		83.2011

Freedom Bridge Demolition Project - Santa Clara County, Summer

3.4 Phase II - Paving and 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	lb/day										lb/day					
Fugitive Dust					0.0273	0.0000	0.0273	2.9800e-003	0.0000	2.9800e-003			0.0000			0.0000
Off-Road	0.9804	9.5812	10.7302	0.0170		0.5226	0.5226		0.4942	0.4942		1,633.0844	1,633.0844	0.3585		1,642.0460
Total	0.9804	9.5812	10.7302	0.0170	0.0273	0.5226	0.5499	2.9800e-003	0.4942	0.4972		1,633.0844	1,633.0844	0.3585		1,642.0460

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.7800e-003	0.2295	0.0495	6.9000e-004	0.0153	7.3000e-004	0.0160	4.1900e-003	6.9000e-004	4.8900e-003		73.1562	73.1562	3.2300e-003		73.2370
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0322	0.0191	0.2520	7.8000e-004	0.0822	5.0000e-004	0.0827	0.0218	4.6000e-004	0.0223		77.8011	77.8011	1.7700e-003		77.8453
Total	0.0390	0.2486	0.3015	1.4700e-003	0.0974	1.2300e-003	0.0987	0.0260	1.1500e-003	0.0271		150.9573	150.9573	5.0000e-003		151.0823

Freedom Bridge Demolition Project - Santa Clara County, Summer

3.4 Phase II - Paving and Grading - 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	lb/day										lb/day					
Fugitive Dust					0.0273	0.0000	0.0273	2.9800e-003	0.0000	2.9800e-003			0.0000			0.0000
Off-Road	0.9804	9.5812	10.7302	0.0170		0.5226	0.5226		0.4942	0.4942	0.0000	1,633.0844	1,633.0844	0.3585		1,642.0460
Total	0.9804	9.5812	10.7302	0.0170	0.0273	0.5226	0.5499	2.9800e-003	0.4942	0.4972	0.0000	1,633.0844	1,633.0844	0.3585		1,642.0460

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.7800e-003	0.2295	0.0495	6.9000e-004	0.0153	7.3000e-004	0.0160	4.1900e-003	6.9000e-004	4.8900e-003		73.1562	73.1562	3.2300e-003		73.2370
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0322	0.0191	0.2520	7.8000e-004	0.0822	5.0000e-004	0.0827	0.0218	4.6000e-004	0.0223		77.8011	77.8011	1.7700e-003		77.8453
Total	0.0390	0.2486	0.3015	1.4700e-003	0.0974	1.2300e-003	0.0987	0.0260	1.1500e-003	0.0271		150.9573	150.9573	5.0000e-003		151.0823

4.0 Operational Detail - Mobile

Freedom Bridge Demolition Project - Santa Clara County, Summer

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0350	0.1211	0.3595	1.1800e-003	0.1027	9.7000e-004	0.1037	0.0274	9.1000e-004	0.0283		119.3418	119.3418	4.0400e-003		119.4428
Unmitigated	0.0350	0.1211	0.3595	1.1800e-003	0.1027	9.7000e-004	0.1037	0.0274	9.1000e-004	0.0283		119.3418	119.3418	4.0400e-003		119.4428

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	1.89	22.75	16.74	14,926	14,926
Total	1.89	22.75	16.74	14,926	14,926

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761

Freedom Bridge Demolition Project - Santa Clara County, Summer

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

Freedom Bridge Demolition Project - Santa Clara County, Summer

5.2 Energy by Land Use - NaturalGas**Unmitigated**

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

Mitigated

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

6.0 Area Detail**6.1 Mitigation Measures Area**

Freedom Bridge Demolition Project - Santa Clara County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.2500e-003	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	2.2500e-003	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2400e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	2.2500e-003	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

Freedom Bridge Demolition Project - Santa Clara County, Summer

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2400e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	2.2500e-003	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

7.0 Water Detail**7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Freedom Bridge Demolition Project - Santa Clara County, Summer

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
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Freedom Bridge Demolition Project - Santa Clara County, Winter

Freedom Bridge Demolition Project

Santa Clara County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	1.00	Acre	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	4			Operational Year	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Based on Project Description

Off-road Equipment - Based on Project Description

Off-road Equipment - Based on Project Description

Off-road Equipment - Based on Project Description

Trips and VMT -

Grading - Based on Project Description

Freedom Bridge Demolition Project - Santa Clara County, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	2.00	10.00
tblConstructionPhase	NumDays	2.00	4.00
tblConstructionPhase	NumDays	2.00	40.00
tblConstructionPhase	PhaseEndDate	6/2/2021	6/14/2021
tblConstructionPhase	PhaseEndDate	6/4/2021	6/18/2021
tblConstructionPhase	PhaseEndDate	6/8/2021	8/13/2021
tblConstructionPhase	PhaseStartDate	6/3/2021	6/15/2021
tblConstructionPhase	PhaseStartDate	6/5/2021	6/21/2021
tblGrading	AcresOfGrading	0.00	1.00
tblGrading	AcresOfGrading	0.00	1.00
tblGrading	MaterialExported	0.00	50.00
tblGrading	MaterialExported	0.00	7.00
tblGrading	MaterialImported	0.00	280.00
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	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	7.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00

Freedom Bridge Demolition Project - Santa Clara County, Winter

2.0 Emissions Summary**2.1 Overall Construction (Maximum Daily Emission)****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	1.0217	9.8393	11.0159	0.0184	0.1828	0.5238	0.6485	0.0318	0.4953	0.5243	0.0000	1,776.468 6	1,776.468 6	0.4109	0.0000	1,785.555 7
Maximum	1.0217	9.8393	11.0159	0.0184	0.1828	0.5238	0.6485	0.0318	0.4953	0.5243	0.0000	1,776.468 6	1,776.468 6	0.4109	0.0000	1,785.555 7

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	1.0217	9.8393	11.0159	0.0184	0.1828	0.5238	0.6485	0.0318	0.4953	0.5243	0.0000	1,776.468 6	1,776.468 6	0.4109	0.0000	1,785.555 7
Maximum	1.0217	9.8393	11.0159	0.0184	0.1828	0.5238	0.6485	0.0318	0.4953	0.5243	0.0000	1,776.468 6	1,776.468 6	0.4109	0.0000	1,785.555 7

Freedom Bridge Demolition Project - Santa Clara County, Winter

[illegible]

Freedom Bridge Demolition Project - Santa Clara County, Winter

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.2500e-003	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0303	0.1276	0.3600	1.1000e-003	0.1027	9.8000e-004	0.1037	0.0274	9.1000e-004	0.0283		111.2029	111.2029	4.1000e-003		111.3053
Total	0.0326	0.1276	0.3601	1.1000e-003	0.1027	9.8000e-004	0.1037	0.0274	9.1000e-004	0.0283		111.2031	111.2031	4.1000e-003	0.0000	111.3055

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.2500e-003	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0303	0.1276	0.3600	1.1000e-003	0.1027	9.8000e-004	0.1037	0.0274	9.1000e-004	0.0283		111.2029	111.2029	4.1000e-003		111.3053
Total	0.0326	0.1276	0.3601	1.1000e-003	0.1027	9.8000e-004	0.1037	0.0274	9.1000e-004	0.0283		111.2031	111.2031	4.1000e-003	0.0000	111.3055

Freedom Bridge Demolition Project - Santa Clara County, Winter

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Phase I	Grading	6/1/2021	6/14/2021	5	10	
2	Phase II - Abutment Removal	Grading	6/15/2021	6/18/2021	5	4	
3	Phase II - Paving and Grading	Grading	6/21/2021	8/13/2021	5	40	

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

Freedom Bridge Demolition Project - Santa Clara County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Phase I	Concrete/Industrial Saws	0	8.00	81	0.73
Phase I	Cranes	1	8.00	231	0.29
Phase I	Excavators	1	8.00	158	0.38
Phase I	Graders	0	6.00	187	0.41
Phase I	Rubber Tired Dozers	0	6.00	247	0.40
Phase I	Skid Steer Loaders	1	8.00	65	0.37
Phase I	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Phase II - Abutment Removal	Excavators	1	8.00	158	0.38
Phase II - Abutment Removal	Graders	0	6.00	187	0.41
Phase II - Abutment Removal	Rubber Tired Dozers	0	7.00	247	0.40
Phase II - Abutment Removal	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Phase II - Paving and Grading	Generator Sets	1	8.00	84	0.74
Phase II - Paving and Grading	Graders	0	8.00	187	0.41
Phase II - Paving and Grading	Pavers	1	8.00	130	0.42
Phase II - Paving and Grading	Rollers	1	8.00	80	0.38
Phase II - Paving and Grading	Rubber Tired Dozers	0	6.00	247	0.40
Phase II - Paving and Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Phase I	3	8.00	0.00	6.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase II - Abutment Removal	3	8.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase II - Paving and Grading	4	10.00	0.00	35.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Freedom Bridge Demolition Project - Santa Clara County, Winter

3.2 Phase I - 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	lb/day										lb/day					
Fugitive Dust					0.1066	0.0000	0.1066	0.0115	0.0000	0.0115			0.0000			0.0000
Off-Road	0.7176	8.0063	6.6446	0.0130		0.3422	0.3422		0.3148	0.3148		1,259.129 1	1,259.129 1	0.4072		1,269.309 8
Total	0.7176	8.0063	6.6446	0.0130	0.1066	0.3422	0.4488	0.0115	0.3148	0.3263		1,259.129 1	1,259.129 1	0.4072		1,269.309 8

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.7800e-003	0.1610	0.0364	4.6000e-004	0.0105	5.1000e-004	0.0110	2.8700e-003	4.8000e-004	3.3600e-003		49.3079	49.3079	2.3200e-003		49.3659
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0275	0.0186	0.1861	5.7000e-004	0.0657	4.0000e-004	0.0661	0.0174	3.7000e-004	0.0178		57.1815	57.1815	1.3100e-003		57.2143
Total	0.0322	0.1796	0.2225	1.0300e-003	0.0762	9.1000e-004	0.0771	0.0203	8.5000e-004	0.0212		106.4894	106.4894	3.6300e-003		106.5801

Freedom Bridge Demolition Project - Santa Clara County, Winter

3.2 Phase I - 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	lb/day										lb/day					
Fugitive Dust					0.1066	0.0000	0.1066	0.0115	0.0000	0.0115			0.0000			0.0000
Off-Road	0.7176	8.0063	6.6446	0.0130		0.3422	0.3422		0.3148	0.3148	0.0000	1,259.129 1	1,259.129 1	0.4072		1,269.309 8
Total	0.7176	8.0063	6.6446	0.0130	0.1066	0.3422	0.4488	0.0115	0.3148	0.3263	0.0000	1,259.129 1	1,259.129 1	0.4072		1,269.309 8

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.7800e-003	0.1610	0.0364	4.6000e-004	0.0105	5.1000e-004	0.0110	2.8700e-003	4.8000e-004	3.3600e-003		49.3079	49.3079	2.3200e-003		49.3659
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0275	0.0186	0.1861	5.7000e-004	0.0657	4.0000e-004	0.0661	0.0174	3.7000e-004	0.0178		57.1815	57.1815	1.3100e-003		57.2143
Total	0.0322	0.1796	0.2225	1.0300e-003	0.0762	9.1000e-004	0.0771	0.0203	8.5000e-004	0.0212		106.4894	106.4894	3.6300e-003		106.5801

Freedom Bridge Demolition Project - Santa Clara County, Winter

3.3 Phase II - Abutment Removal - 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	lb/day										lb/day					
Fugitive Dust					2.0000e-004	0.0000	2.0000e-004	3.0000e-005	0.0000	3.0000e-005			0.0000			0.0000
Off-Road	0.6037	5.9450	7.7923	0.0114		0.3280	0.3280		0.3018	0.3018		1,101.9921	1,101.9921	0.3564		1,110.9023
Total	0.6037	5.9450	7.7923	0.0114	2.0000e-004	0.3280	0.3282	3.0000e-005	0.3018	0.3018		1,101.9921	1,101.9921	0.3564		1,110.9023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.9900e-003	0.0671	0.0152	1.9000e-004	4.3700e-003	2.1000e-004	4.5800e-003	1.2000e-003	2.0000e-004	1.4000e-003		20.5450	20.5450	9.7000e-004		20.5691
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0275	0.0186	0.1861	5.7000e-004	0.0657	4.0000e-004	0.0661	0.0174	3.7000e-004	0.0178		57.1815	57.1815	1.3100e-003		57.2143
Total	0.0294	0.0857	0.2013	7.6000e-004	0.0701	6.1000e-004	0.0707	0.0186	5.7000e-004	0.0192		77.7264	77.7264	2.2800e-003		77.7834

Freedom Bridge Demolition Project - Santa Clara County, Winter

3.3 Phase II - Abutment Removal - 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	lb/day										lb/day					
Fugitive Dust					2.0000e-004	0.0000	2.0000e-004	3.0000e-005	0.0000	3.0000e-005			0.0000			0.0000
Off-Road	0.6037	5.9450	7.7923	0.0114		0.3280	0.3280		0.3018	0.3018	0.0000	1,101.9921	1,101.9921	0.3564		1,110.9023
Total	0.6037	5.9450	7.7923	0.0114	2.0000e-004	0.3280	0.3282	3.0000e-005	0.3018	0.3018	0.0000	1,101.9921	1,101.9921	0.3564		1,110.9023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.9900e-003	0.0671	0.0152	1.9000e-004	4.3700e-003	2.1000e-004	4.5800e-003	1.2000e-003	2.0000e-004	1.4000e-003		20.5450	20.5450	9.7000e-004		20.5691
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0275	0.0186	0.1861	5.7000e-004	0.0657	4.0000e-004	0.0661	0.0174	3.7000e-004	0.0178		57.1815	57.1815	1.3100e-003		57.2143
Total	0.0294	0.0857	0.2013	7.6000e-004	0.0701	6.1000e-004	0.0707	0.0186	5.7000e-004	0.0192		77.7264	77.7264	2.2800e-003		77.7834

Freedom Bridge Demolition Project - Santa Clara County, Winter

3.4 Phase II - Paving and 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	lb/day										lb/day					
Fugitive Dust					0.0273	0.0000	0.0273	2.9800e-003	0.0000	2.9800e-003			0.0000			0.0000
Off-Road	0.9804	9.5812	10.7302	0.0170		0.5226	0.5226		0.4942	0.4942		1,633.0844	1,633.0844	0.3585		1,642.0460
Total	0.9804	9.5812	10.7302	0.0170	0.0273	0.5226	0.5499	2.9800e-003	0.4942	0.4972		1,633.0844	1,633.0844	0.3585		1,642.0460

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.9700e-003	0.2348	0.0531	6.7000e-004	0.0153	7.4000e-004	0.0160	4.1900e-003	7.1000e-004	4.9000e-003		71.9074	71.9074	3.3800e-003		71.9919
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0343	0.0233	0.2326	7.2000e-004	0.0822	5.0000e-004	0.0827	0.0218	4.6000e-004	0.0223		71.4768	71.4768	1.6400e-003		71.5178
Total	0.0413	0.2581	0.2857	1.3900e-003	0.0974	1.2400e-003	0.0987	0.0260	1.1700e-003	0.0272		143.3842	143.3842	5.0200e-003		143.5097

Freedom Bridge Demolition Project - Santa Clara County, Winter

3.4 Phase II - Paving and Grading - 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	lb/day										lb/day					
Fugitive Dust					0.0273	0.0000	0.0273	2.9800e-003	0.0000	2.9800e-003			0.0000			0.0000
Off-Road	0.9804	9.5812	10.7302	0.0170		0.5226	0.5226		0.4942	0.4942	0.0000	1,633.0844	1,633.0844	0.3585		1,642.0460
Total	0.9804	9.5812	10.7302	0.0170	0.0273	0.5226	0.5499	2.9800e-003	0.4942	0.4972	0.0000	1,633.0844	1,633.0844	0.3585		1,642.0460

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.9700e-003	0.2348	0.0531	6.7000e-004	0.0153	7.4000e-004	0.0160	4.1900e-003	7.1000e-004	4.9000e-003		71.9074	71.9074	3.3800e-003		71.9919
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0343	0.0233	0.2326	7.2000e-004	0.0822	5.0000e-004	0.0827	0.0218	4.6000e-004	0.0223		71.4768	71.4768	1.6400e-003		71.5178
Total	0.0413	0.2581	0.2857	1.3900e-003	0.0974	1.2400e-003	0.0987	0.0260	1.1700e-003	0.0272		143.3842	143.3842	5.0200e-003		143.5097

4.0 Operational Detail - Mobile

Freedom Bridge Demolition Project - Santa Clara County, Winter

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0303	0.1276	0.3600	1.1000e-003	0.1027	9.8000e-004	0.1037	0.0274	9.1000e-004	0.0283		111.2029	111.2029	4.1000e-003		111.3053
Unmitigated	0.0303	0.1276	0.3600	1.1000e-003	0.1027	9.8000e-004	0.1037	0.0274	9.1000e-004	0.0283		111.2029	111.2029	4.1000e-003		111.3053

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	1.89	22.75	16.74	14,926	14,926
Total	1.89	22.75	16.74	14,926	14,926

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761

Freedom Bridge Demolition Project - Santa Clara County, Winter

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

Freedom Bridge Demolition Project - Santa Clara County, Winter

5.2 Energy by Land Use - NaturalGas**Unmitigated**

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

Mitigated

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

6.0 Area Detail**6.1 Mitigation Measures Area**

Freedom Bridge Demolition Project - Santa Clara County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.2500e-003	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	2.2500e-003	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2400e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	2.2500e-003	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

Freedom Bridge Demolition Project - Santa Clara County, Winter

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2400e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	2.2500e-003	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

7.0 Water Detail**7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Freedom Bridge Demolition Project - Santa Clara County, Winter

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
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Appendix B

Biological Resources Appendix



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad< IS (Newark (3712251) OR Niles (3712158) OR La Costa Valley (3712157) OR Mountain View (3712241) OR Milpitas (3712148) OR Calaveras Reservoir (3712147) OR Cupertino (3712231) OR San Jose East (3712137) OR San Jose West (3712138))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Accipiter cooperii</i> Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
<i>Accipiter striatus</i> sharp-shinned hawk	ABNKC12020	None	None	G5	S4	WL
<i>Adela oplerella</i> Opler's longhorn moth	IILEE0G040	None	None	G2	S2	
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	Threatened	G2G3	S1S2	SSC
<i>Ambystoma californiense</i> California tiger salamander	AAAAA01180	Threatened	Threatened	G2G3	S2S3	WL
<i>Aneides niger</i> Santa Cruz black salamander	AAAAD01070	None	None	G3	S3	SSC
<i>Anniella pulchra</i> Northern California legless lizard	ARACC01020	None	None	G3	S3	SSC
<i>Antrozous pallidus</i> pallid bat	AMACC10010	None	None	G5	S3	SSC
<i>Aquila chrysaetos</i> golden eagle	ABNKC22010	None	None	G5	S3	FP
<i>Ardea herodias</i> great blue heron	ABNGA04010	None	None	G5	S4	
<i>Astragalus tener var. tener</i> alkali milk-vetch	PDFAB0F8R1	None	None	G2T1	S1	1B.2
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	None	G4	S3	SSC
<i>Atriplex depressa</i> brittlescale	PDCHE042L0	None	None	G2	S2	1B.2
<i>Atriplex minuscula</i> lesser saltscale	PDCHE042M0	None	None	G2	S2	1B.1
<i>Balsamorhiza macrolepis</i> big-scale balsamroot	PDAST11061	None	None	G2	S2	1B.2
<i>Bombus caliginosus</i> obscure bumble bee	IIHYM24380	None	None	G4?	S1S2	
<i>Bombus crotchii</i> Crotch bumble bee	IIHYM24480	None	Candidate Endangered	G3G4	S1S2	
<i>Bombus occidentalis</i> western bumble bee	IIHYM24250	None	Candidate Endangered	G2G3	S1	



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Buteo swainsoni</i> Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
<i>Campanula exigua</i> chaparral harebell	PDCAM020A0	None	None	G2	S2	1B.2
<i>Centromadia parryi ssp. congdonii</i> Congdon's tarplant	PDAST4R0P1	None	None	G3T1T2	S1S2	1B.1
<i>Charadrius alexandrinus nivosus</i> western snowy plover	ABNNB03031	Threatened	None	G3T3	S2S3	SSC
<i>Chloropyron maritimum ssp. palustre</i> Point Reyes salty bird's-beak	PDSCR0J0C3	None	None	G4?T2	S2	1B.2
<i>Chorizanthe robusta var. robusta</i> robust spineflower	PDPGN040Q2	Endangered	None	G2T1	S1	1B.1
<i>Circus hudsonius</i> northern harrier	ABNKC11011	None	None	G5	S3	SSC
<i>Cirsium fontinale var. campylon</i> Mt. Hamilton thistle	PDAST2E163	None	None	G2T2	S2	1B.2
<i>Clarkia concinna ssp. automixa</i> Santa Clara red ribbons	PDONA050A1	None	None	G5?T3	S3	4.3
<i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
<i>Collinsia multicolor</i> San Francisco collinsia	PDSCR0H0B0	None	None	G2	S2	1B.2
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	AMACC08010	None	None	G3G4	S2	SSC
<i>Coturnicops noveboracensis</i> yellow rail	ABNME01010	None	None	G4	S1S2	SSC
<i>Danaus plexippus pop. 1</i> monarch - California overwintering population	IILEPP2012	None	None	G4T2T3	S2S3	
<i>Delphinium californicum ssp. interius</i> Hospital Canyon larkspur	PDRAN0B0A2	None	None	G3T3	S3	1B.2
<i>Dicamptodon ensatus</i> California giant salamander	AAAAH01020	None	None	G3	S2S3	SSC
<i>Dipodomys heermanni berkeleyensis</i> Berkeley kangaroo rat	AMAFD03061	None	None	G3G4T1	S1	
<i>Dipodomys venustus venustus</i> Santa Cruz kangaroo rat	AMAFD03042	None	None	G4T1	S1	
<i>Dirca occidentalis</i> western leatherwood	PDTHY03010	None	None	G2	S2	1B.2
<i>Dudleya abramsii ssp. setchellii</i> Santa Clara Valley dudleya	PDCRA040Z0	Endangered	None	G4T2	S2	1B.1
<i>Egretta thula</i> snowy egret	ABNGA06030	None	None	G5	S4	



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Elanus leucurus</i> white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
<i>Emys marmorata</i> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
<i>Eryngium aristulatum</i> var. <i>hooveri</i> Hoover's button-celery	PDAP10Z043	None	None	G5T1	S1	1B.1
<i>Euphydryas editha bayensis</i> Bay checkerspot butterfly	IILEPK4055	Threatened	None	G5T1	S1	
<i>Extriplex joaquinana</i> San Joaquin spearscale	PDCHE041F3	None	None	G2	S2	1B.2
<i>Falco mexicanus</i> prairie falcon	ABNKD06090	None	None	G5	S4	WL
<i>Falco peregrinus anatum</i> American peregrine falcon	ABNKD06071	Delisted	Delisted	G4T4	S3S4	FP
<i>Fritillaria liliacea</i> fragrant fritillary	PMLIL0V0C0	None	None	G2	S2	1B.2
<i>Geothlypis trichas sinuosa</i> saltmarsh common yellowthroat	ABPBX1201A	None	None	G5T3	S3	SSC
<i>Gonidea angulata</i> western ridged mussel	IMBIV19010	None	None	G3	S1S2	
<i>Hoita strobilina</i> Loma Prieta hoita	PDFAB5Z030	None	None	G2?	S2?	1B.1
<i>Lasiurus cinereus</i> hoary bat	AMACC05030	None	None	G5	S4	
<i>Lasthenia conjugens</i> Contra Costa goldfields	PDAST5L040	Endangered	None	G1	S1	1B.1
<i>Laterallus jamaicensis coturniculus</i> California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
<i>Lepidurus packardii</i> vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G4	S3S4	
<i>Lessingia micradenia</i> var. <i>glabrata</i> smooth lessingia	PDAST5S062	None	None	G2T2	S2	1B.2
<i>Linderiella occidentalis</i> California linderiella	ICBRA06010	None	None	G2G3	S2S3	
<i>Malacothamnus arcuatus</i> arcuate bush-mallow	PDMAL0Q0E0	None	None	G2Q	S2	1B.2
<i>Malacothamnus hallii</i> Hall's bush-mallow	PDMAL0Q0F0	None	None	G2	S2	1B.2
<i>Masticophis lateralis euryxanthus</i> Alameda whipsnake	ARADB21031	Threatened	Threatened	G4T2	S2	
<i>Melospiza melodia pusillula</i> Alameda song sparrow	ABPBXA301S	None	None	G5T2?	S2S3	SSC



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Microcina homi</i> Hom's micro-blind harvestman	ILARA47020	None	None	G1	S1	
<i>Monolopia gracilens</i> woodland woollythreads	PDAST6G010	None	None	G3	S3	1B.2
<i>Myotis evotis</i> long-eared myotis	AMACC01070	None	None	G5	S3	
<i>Myotis yumanensis</i> Yuma myotis	AMACC01020	None	None	G5	S4	
<i>Navarretia prostrata</i> prostrate vernal pool navarretia	PDPLM0C0Q0	None	None	G2	S2	1B.2
<i>Neotoma fuscipes annectens</i> San Francisco dusky-footed woodrat	AMAFF08082	None	None	G5T2T3	S2S3	SSC
<i>Northern Coastal Salt Marsh</i> Northern Coastal Salt Marsh	CTT52110CA	None	None	G3	S3.2	
<i>Oncorhynchus mykiss irideus pop. 8</i> steelhead - central California coast DPS	AFCHA0209G	Threatened	None	G5T2T3Q	S2S3	
<i>Plagiobothrys glaber</i> hairless popcornflower	PDBOR0V0B0	None	None	GX	SX	1A
<i>Puccinellia simplex</i> California alkali grass	PMPOA53110	None	None	G3	S2	1B.2
<i>Rallus obsoletus obsoletus</i> California Ridgway's rail	ABNME05011	Endangered	Endangered	G5T1	S1	FP
<i>Rana boylei</i> foothill yellow-legged frog	AAABH01050	None	Endangered	G3	S3	SSC
<i>Rana draytonii</i> California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
<i>Reithrodontomys raviventris</i> salt-marsh harvest mouse	AMAFF02040	Endangered	Endangered	G1G2	S1S2	FP
<i>Riparia riparia</i> bank swallow	ABPAU08010	None	Threatened	G5	S2	
<i>Rynchops niger</i> black skimmer	ABNNM14010	None	None	G5	S2	SSC
<i>Senecio aphanactis</i> chaparral ragwort	PDAST8H060	None	None	G3	S2	2B.2
<i>Sidalcea malachroides</i> maple-leaved checkerbloom	PDMAL110E0	None	None	G3	S3	4.2
<i>Sorex vagrans halicoetes</i> salt-marsh wandering shrew	AMABA01071	None	None	G5T1	S1	SSC
<i>Spergularia macrotheca var. longistyla</i> long-styled sand-spurrey	PDCAR0W062	None	None	G5T2	S2	1B.2
<i>Spirinchus thaleichthys</i> longfin smelt	AFCHB03010	Candidate	Threatened	G5	S1	



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Sternula antillarum browni</i> California least tern	ABNNM08103	Endangered	Endangered	G4T2T3Q	S2	FP
<i>Streptanthus albidus ssp. albidus</i> Metcalf Canyon jewelflower	PDBRA2G011	Endangered	None	G2T1	S1	1B.1
<i>Streptanthus albidus ssp. peramoenus</i> most beautiful jewelflower	PDBRA2G012	None	None	G2T2	S2	1B.2
<i>Stuckenia filiformis ssp. alpina</i> slender-leaved pondweed	PMPOT03091	None	None	G5T5	S2S3	2B.2
<i>Suaeda californica</i> California seablite	PDCHE0P020	Endangered	None	G1	S1	1B.1
<i>Sycamore Alluvial Woodland</i> Sycamore Alluvial Woodland	CTT62100CA	None	None	G1	S1.1	
<i>Trifolium hydrophilum</i> saline clover	PDFAB400R5	None	None	G2	S2	1B.2
<i>Tryonia imitator</i> mimic tryonia (=California brackishwater snail)	IMGASJ7040	None	None	G2	S2	

Record Count: 89

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.

NAME _____

Freedom Bridge Demolition

LOCATION

Santa Clara County, California



Sacramento Fish And Wildlife Office

☎ (916) 414-6600

 (916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

NOT FOR CONSULTATION

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 could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, 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 potential effects to species, additional site-specific and project-specific information 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 or proposed to be listed 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 an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Log in to IPaC.
2. Go to your My Projects list.
3. Click PROJECT HOME for this project.
4. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information.
2. [NOAA Fisheries](#), also known as the National Marine Fisheries 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:

Mammals

NAME

STATUS

Salt Marsh Harvest Mouse <i>Reithrodontomys raviventris</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/613	Endangered
San Joaquin Kit Fox <i>Vulpes macrotis mutica</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2873	Endangered

Birds

NAME	STATUS
California Clapper Rail <i>Rallus longirostris obsoletus</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4240	Endangered
California Least Tern <i>Sterna antillarum browni</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered
Western Snowy Plover <i>Charadrius nivosus nivosus</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/8035	Threatened
Yellow-billed Cuckoo <i>Coccyzus americanus</i> There is proposed critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/3911	Threatened

Reptiles

NAME	STATUS
Alameda Whipsnake (=striped Racer) <i>Masticophis lateralis euryxanthus</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/5524	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/2891	Threatened

California Tiger Salamander *Ambystoma californiense*

Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/2076>

Fishes

NAME

STATUS

Delta Smelt *Hypomesus transpacificus*

Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/321>

Insects

NAME

STATUS

Bay Checkerspot Butterfly *Euphydryas editha bayensis*

Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/2320>

San Bruno Elfin Butterfly *Callophrys mossii bayensis*

Endangered

There is **proposed** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/3394>

Crustaceans

NAME

STATUS

Conservancy Fairy Shrimp *Branchinecta conservatio*

Endangered

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/8246>

Vernal Pool Tadpole Shrimp *Lepidurus packardii*

Endangered

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/2246>

Flowering Plants

NAME

STATUS

California Seablite *Suaeda californica*

Endangered

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/6310>

Contra Costa Goldfields *Lasthenia conjugens*

Endangered

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/7058>

Robust Spineflower *Chorizanthe robusta* var. *robusta*

Endangered

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/9287>

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

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 [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip:

enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. 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 list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

Allen's Hummingbird *Selasphorus sasin*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9637>

Breeds Feb 1 to Jul 15

Burrowing Owl *Athene cunicularia*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/9737>

Breeds Mar 15 to Aug 31

Common Yellowthroat *Geothlypis trichas sinuosa*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/2084>

Breeds May 20 to Jul 31

Nuttall's Woodpecker *Picoides nuttallii*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/9410>

Breeds Apr 1 to Jul 20

Oak Titmouse *Baeolophus inornatus*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9656>

Breeds Mar 15 to Jul 15

Song Sparrow *Melospiza melodia*

Breeds Feb 20 to Sep 5

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Spotted Towhee *Pipilo maculatus clementae*

Breeds Apr 15 to Jul 20

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/4243>

Tricolored Blackbird *Agelaius tricolor*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3910>

Willet *Tringa semipalmata*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are 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 make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar 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 survey effort 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 calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, 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 weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 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 bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

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 (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) 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 effort range, simply hover your mouse cursor over the bar.

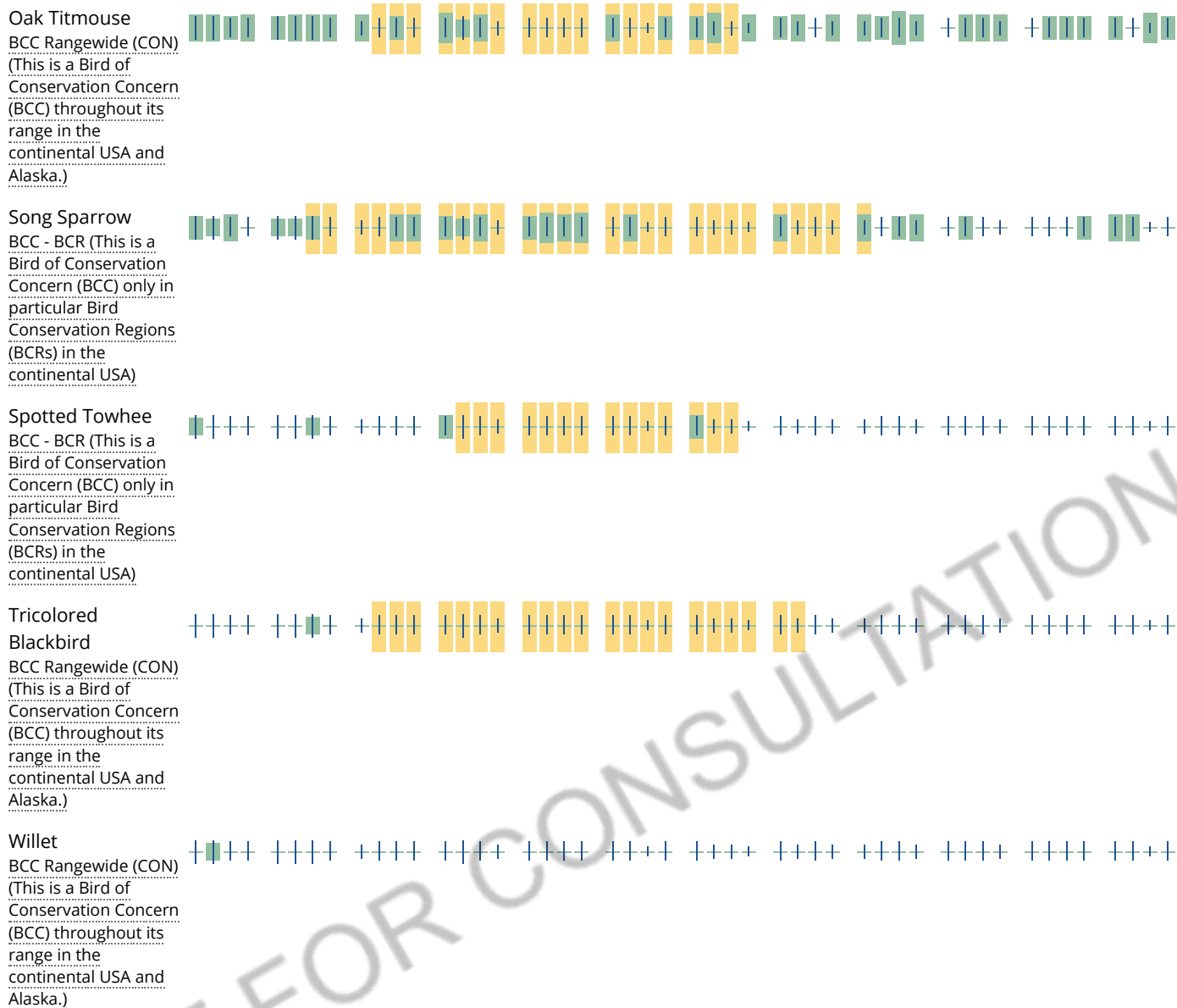
No Data (—)

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

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently 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 currently much more sparse.





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) and/or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

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

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project

intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) 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.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

RIVERINE

[R2UBHx](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

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

Wetlands or other mapped features may have changed since the date of 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 wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products 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 to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Appendix C

Noise Estimates

Noise Calculations for EnviroNova Freedom Bridge

Daytime calculations

Construction Equipment 1 (Multiple)	85	dBA at 50 feet
Construction Equipment 2 (Multiple)	85	dBA at 50 feet

Combined Daytime Noise at 50 feet (Ltotal at 50 feet) 88.0 dBA
 $L_{total}=10 \log(10^{L_1/10}+10^{L_2/10})$

Noise Threshold	Threshold Level - Leq (dBA)	Distance to Leq Threshold from Middle of Project Site (feet), Combined
FTA threshold. County and cities typically have construction hours.	90	39.8
City Santa Clara Noise Ordinance. Construction activities are exempt for those taking place between the hours of 7:00 A.M. to 6:00 P.M. on weekdays other than holidays, Monday through Friday, inclusive; and within the hours of 9:00 A.M. to 6:00 P.M. inclusive, on any Saturday which is not a holiday.		

Vibration Source Levels for Construction Equipment (FTA 2018)

Equipment	PPV at 25 feet	VBA
Dumptrucks	0.076	86
Roller (Vibratory)	0.21	94

Vibration Calculations with Equations for Vibration-Causing Equipment (use of dumptrucks) for Project Site

Threshold	Distance to Threshold from Middle of Project Site (feet)	Notes
$PPV=PPV_{ref} * (25/d)^{1.5}$	18.4	Building damage threshold (0.12 ppv)
$L_{vd}=L_{vref}-30\log(D/25)$	39.6	Annoyance (Federal 80 VdB)

Vibration Calculations with Equations for Vibration-Causing Equipment (use of Vibratory Roller) for Project Site

Threshold	Distance to Threshold from Middle of Project Site (feet)	Notes
$PPV=PPV_{ref} * (25/d)^{1.5}$	36.3	Building damage threshold (0.12 ppv)
$L_{vd}=L_{vref}-30\log(D/25)$	73.2	Annoyance (Federal 80 VdB)

This list is from the project description.

Equipment List	Similar name used	dBA 50 from:		FTA 2018	
		FTA 2018	FHWA Handbook	PPV at 25 feet	VBA
Dumptruck	Truck	84	84	0.076	86
Crane		83	85		
Paver		85	85		
Excavator			85		
Generator		82			
Loader		80		0.003	58
Roller		85	85	0.21	94
Plate Compactor	Compactor	82	83		
Torch			73		

(same as small bulldozer)

(If vibratory)

http://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/handbook09.cfm

Two loudest

Two largest vibration sources

Appendix D

Correspondence with Native American Tribes Pursuant to AB 52

Local Government Tribal Consultation List Request

Native American Heritage Commission

1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
916-373-5471 – Fax
nahe@nahe.ca.gov

Type of List Requested

- ☐ CEQA Tribal Consultation List (AB 52) – *Per Public Resources Code § 21080.3.1, subs. (b), (d), (e) and 21080.3.2*
- ☐ General Plan (SB 18) - *Per Government Code § 65352.3.*

Local Action Type:

___ General Plan ___ General Plan Element ___ General Plan Amendment
___ Specific Plan ___ Specific Plan Amendment ___ Pre-planning Outreach Activity

Required Information

Project Title: _____

Local Government/Lead Agency: _____

Contact Person: _____

Street Address: _____

City: _____ Zip: _____

Phone: _____ Fax: _____

Email: _____

Specific Area Subject to Proposed Action

County: _____ City/Community: _____

Project Description:

Additional Request

- ☐ Sacred Lands File Search - *Required Information:*

USGS Quadrangle Name(s): _____

Township: _____ Range: _____ Section(s): _____



NATIVE AMERICAN HERITAGE COMMISSION

September 17, 2020

Tiffany Hernandez
Santa Clara Valley Water District

Via Email to: thernandez@valleywater.org

CHAIRPERSON
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Luiseño

VICE CHAIRPERSON
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Chumash

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EXECUTIVE SECRETARY
Christina Snider
Pomo

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

Re: Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, Freedom Bridge Removal Project, Santa Clara County

To Ms. Hernandez:

Pursuant to Public Resources Code section 21080.3.1 (c), attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Please note that the intent of the AB 52 amendments to CEQA is to avoid and/or mitigate impacts to tribal cultural resources, (Pub. Resources Code §21084.3 (a)) ("Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.")

Public Resources Code sections 21080.3.1 and 21084.3(c) require CEQA lead agencies to consult with California Native American tribes that have requested notice from such agencies of proposed projects in the geographic area that are traditionally and culturally affiliated with the tribes on projects for which a Notice of Preparation or Notice of Negative Declaration or Mitigated Negative Declaration has been filed on or after July 1, 2015. Specifically, Public Resources Code section 21080.3.1 (d) provides:

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

The AB 52 amendments to CEQA law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction prior to receiving requests for notification of projects in the tribe's areas of traditional and cultural affiliation. The Native American Heritage Commission (NAHC) recommends, but does not require, early consultation as a best practice to ensure that lead agencies receive sufficient information about cultural resources in a project area to avoid damaging effects to tribal cultural resources.

The NAHC also recommends, but does not require that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

- A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;
- Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
- Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

- Any report that may contain site forms, site significance, and suggested mitigation measures.

All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code section 6254.10.

3. The result of any Sacred Lands File (SLF) check conducted through the Native American Heritage Commission was negative.

4. Any ethnographic studies conducted for any area including all or part of the APE; and

5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address: Sarah.Fonseca@nahc.ac.gov.

Sincerely,



Sarah Fonseca
Cultural Resources Analyst

Attachment

**Native American Heritage Commission
Tribal Consultation List
Santa Clara County
9/17/2020**

Amah Mutsun Tribal Band

Valentin Lopez, Chairperson
P.O. Box 5272
Galt, CA, 95632
Phone: (916) 743 - 5833
vlopez@amahmutsun.org

Costanoan
Northern Valley
Yokut

North Valley Yokuts Tribe

Katherine Perez, Chairperson
P.O. Box 717
Linden, CA, 95236
Phone: (209) 887 - 3415
canutes@verizon.net

Costanoan
Northern Valley
Yokut

***Amah Mutsun Tribal Band of
Mission San Juan Bautista***

Irenne Zwielerle, Chairperson
789 Canada Road
Woodside, CA, 94062
Phone: (650) 851 - 7489
Fax: (650) 332-1526
amahmutsuntribal@gmail.com

Costanoan

North Valley Yokuts Tribe

Timothy Perez, MLD Contact
P.O. Box 717
Linden, CA, 95236
Phone: (209) 662 - 2788
huskanam@gmail.com

Costanoan
Northern Valley
Yokut

***Indian Canyon Mutsun Band of
Costanoan***

Ann Marie Sayers, Chairperson
P.O. Box 28
Hollister, CA, 95024
Phone: (831) 637 - 4238
ams@indiancanyon.org

Costanoan

The Ohlone Indian Tribe

Andrew Galvan,
P.O. Box 3388
Fremont, CA, 94539
Phone: (510) 882 - 0527
Fax: (510) 687-9393
chochenyo@AOL.com

Bay Miwok
Ohlone
Patwin
Plains Miwok

Kanyon Sayers-Roods, MLD
Contact
1615 Pearson Court
San Jose, CA, 95122
Phone: (408) 673 - 0626
kanyon@kanyonconsulting.com

Costanoan

***The Confederated Villages of
Lisjan***

Corrina Gould, Chairperson
10926 Edes Avenue
Oakland, CA, 94603
Phone: (510) 575 - 8408
cvltribe@gmail.com

Bay Miwok
Ohlone
Delta Yokut

***Muwekma Ohlone Indian Tribe
of the SF Bay Area***

Monica Arellano,
20885 Redwood Road, Suite 232
Castro Valley, CA, 94546
Phone: (408) 205 - 9714
marellano@muwekma.org

Costanoan

***Muwekma Ohlone Indian Tribe
of the SF Bay Area***

Charlene Nijmeh, Chairperson
20885 Redwood Road, Suite 232
Castro Valley, CA, 94546
Phone: (408) 464 - 2892
cnijmeh@muwekma.org

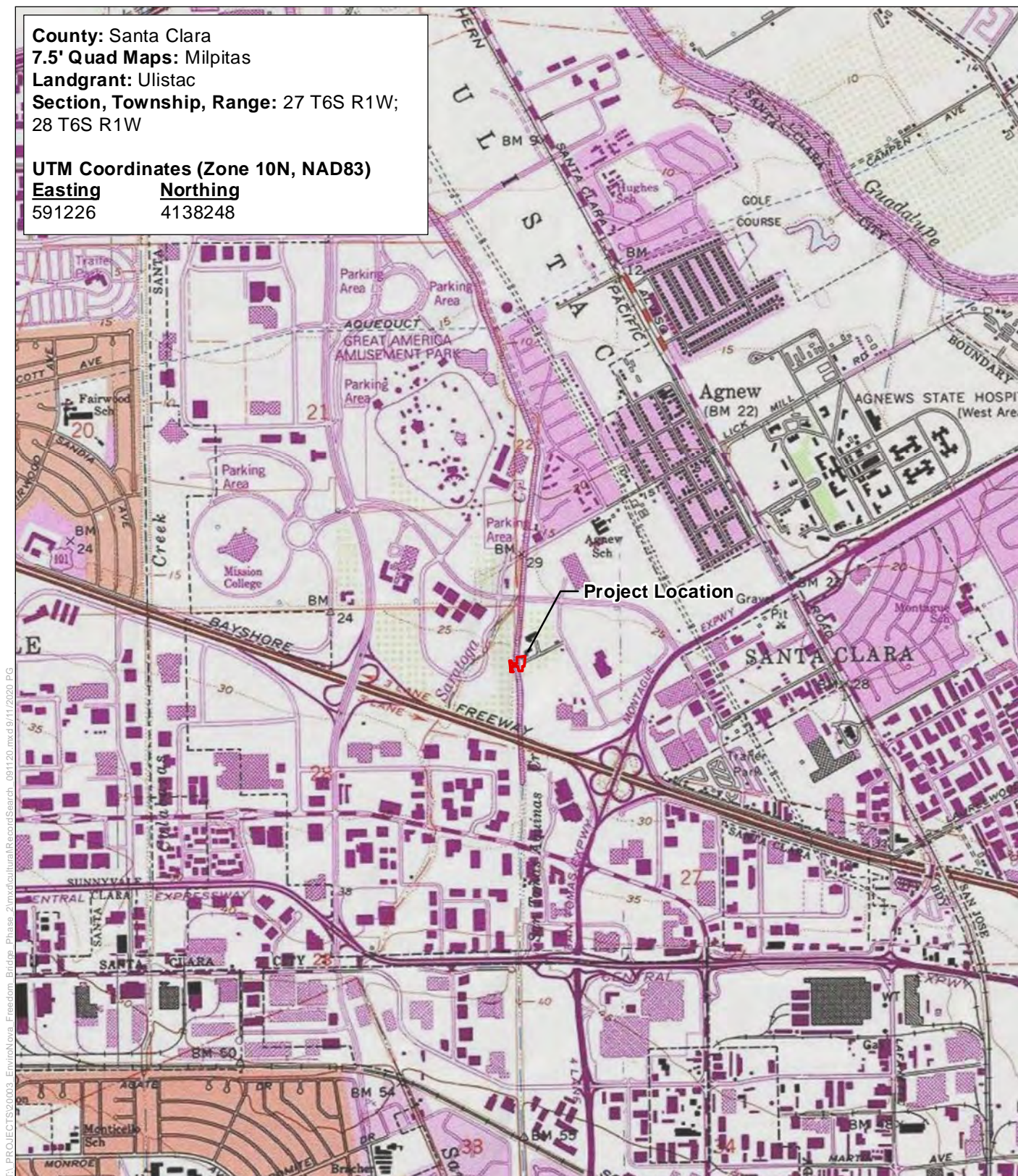
Costanoan

This list is current only as of the date of this document. 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 Resources Code and section 5097.98 of the Public Resources Code.

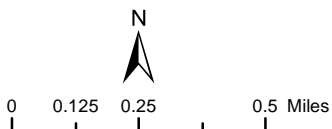
This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed Freedom Bridge Removal Project, Santa Clara County.

County: Santa Clara
7.5' Quad Maps: Milpitas
Landgrant: Ulistac
Section, Township, Range: 27 T6S R1W;
28 T6S R1W

UTM Coordinates (Zone 10N, NAD83)
Easting **Northing**
591226 4138248



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 Project Area

Record Search

Freedom Bridge
Removal Project

October 8, 2020

Monica Arellano
Muwekma Ohlone Indian Tribe of the SF Bay Area
20885 Redwood Road, Suite 232
Castro Valley, CA, 94546

RE: Freedom Bridge Removal Project – Tribal Consultation

Dear Ms. Arellano:

Santa Clara Valley Water District (Valley Water) has terminated the pedestrian bridge lease agreement with Intel, and is proposing to remove the Freedom Bridge (Phase I), which crosses San Tomas Aquino Creek in the city of Santa Clara in Santa Clara County, California, and to restore any areas temporarily impacted by the bridge removal (Phase II). This portion of San Tomas Aquino Creek has been channelized and is bound by levees. The project area is located between Mission College Boulevard on the north, and U.S. Highway 101 on the south (see attached figure). A staging area will be in the Intel parking lot east of Freedom Bridge.

A record search of the project area was conducted at the Northwest Information Center of the California Historical Resources Information System at Sonoma State University (NWIC File No. 19-1385). The search did not identify any previously recorded resources within the project area or within a $\frac{1}{4}$ - mile buffer, although seven studies have included portions of the project area and an additional 13 studies have taken place within the $\frac{1}{4}$ - mile search buffer.

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Valley Water is writing to notify you of the proposed project in order to coordinate with you and request information on known tribal cultural resources (as defined by Public Resources Code 21074) that may be present or affected within the proposed project area. We are requesting any information that you may have regarding tribal cultural resources within the proposed project areas so that this information can be incorporated into project planning. Valley Water respectfully requests input from you within 30 days of receipt of this letter.

Your comments and concerns are important to us and we look forward to hearing from you. If you have any questions or comments regarding the project, I can be contacted via email at thernandez@valleywater.org or by phone at (408) 265-2607, ext. 3094.

Sincerely,

A handwritten signature in black ink, appearing to read 'T. Hernandez', with a stylized flourish at the end.

Tiffany Hernandez
Senior Environmental Planner

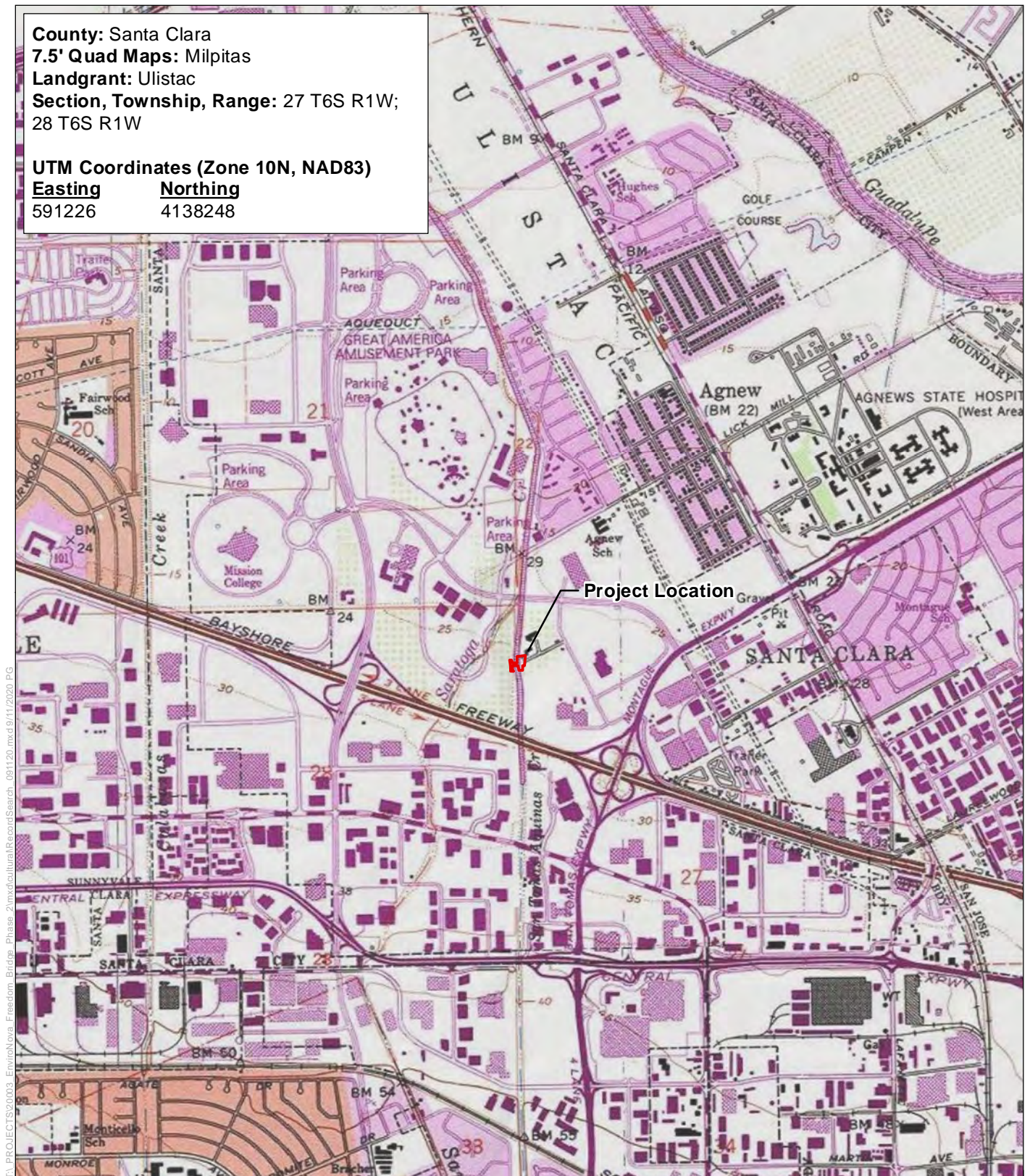
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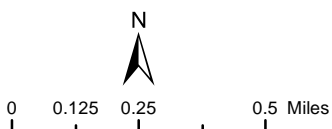
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 Project Area

Record Search

Freedom Bridge
Removal Project

October 8, 2020

Katherine Erolinda Perez, Chairperson
North Valley Yokuts Tribe
P.O. Box 717
Linden, CA 95236

RE: Freedom Bridge Removal Project – Tribal Consultation

Dear Honorable Chairperson Perez:

Santa Clara Valley Water District (Valley Water) has terminated the pedestrian bridge lease agreement with Intel, and is proposing to remove the Freedom Bridge (Phase I), which crosses San Tomas Aquino Creek in the city of Santa Clara in Santa Clara County, California, and to restore any areas temporarily impacted by the bridge removal (Phase II). This portion of San Tomas Aquino Creek has been channelized and is bound by levees. The project area is located between Mission College Boulevard on the north, and U.S. Highway 101 on the south (see attached figure). A staging area will be in the Intel parking lot east of Freedom Bridge.

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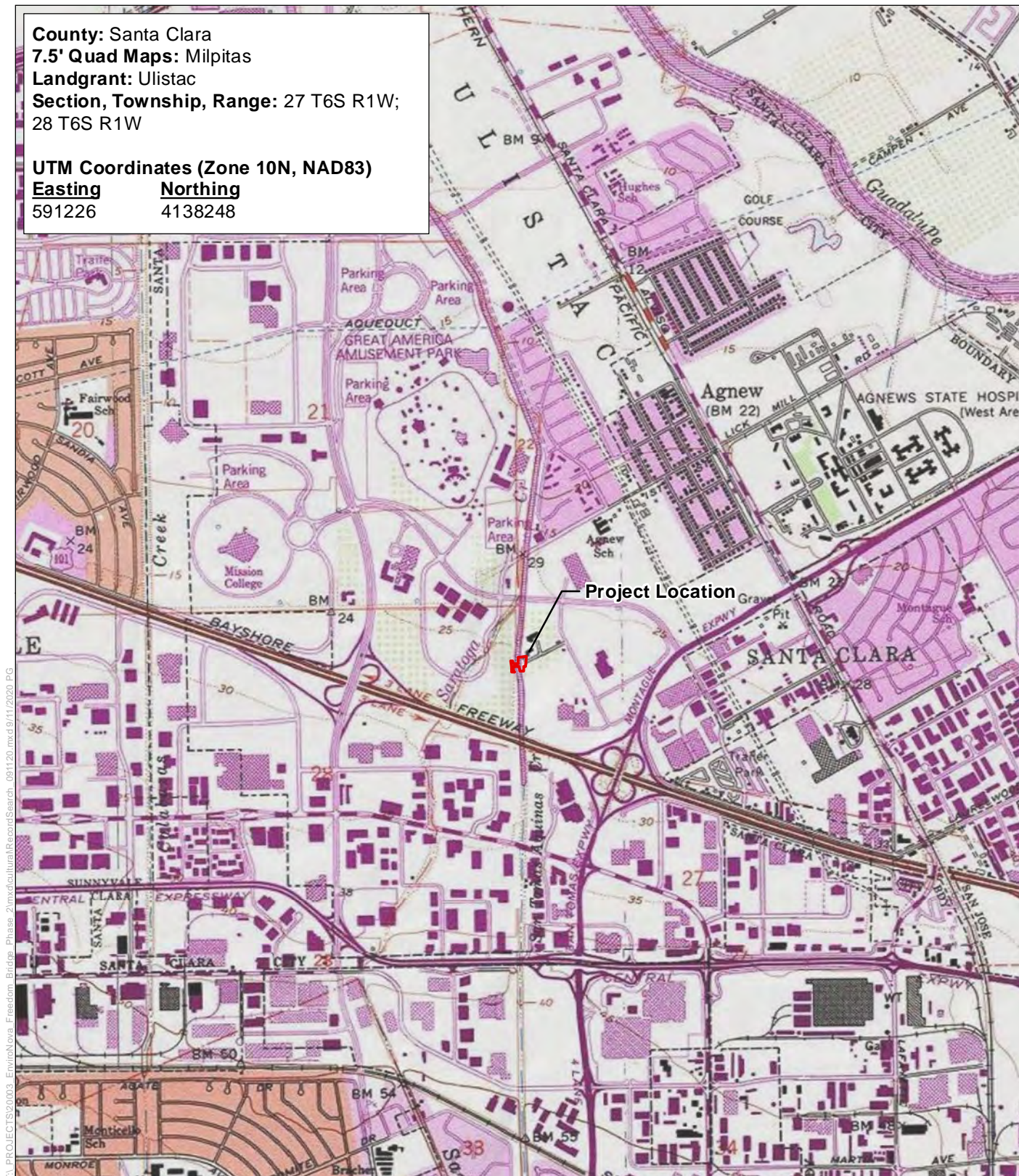
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Tiffany Hernandez
Senior Environmental Planner

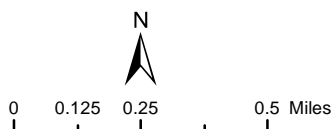
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Landgrant: Ulistac
Section, Township, Range: 27 T6S R1W;
 28 T6S R1W

UTM Coordinates (Zone 10N, NAD83)
Easting **Northing**
 591226 4138248



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 Project Area

Record Search

Freedom Bridge
Removal Project

October 8, 2020

Andrew Galvin
Ohlone Indian Tribe
P.O. Box 3152
Fremont, CA 94539

RE: Freedom Bridge Removal Project – Tribal Consultation

Dear Mr. Galvin:

Santa Clara Valley Water District (Valley Water) has terminated the pedestrian bridge lease agreement with Intel, and is proposing to remove the Freedom Bridge (Phase I), which crosses San Tomas Aquino Creek in the city of Santa Clara in Santa Clara County, California, and to restore any areas temporarily impacted by the bridge removal (Phase II). This portion of San Tomas Aquino Creek has been channelized and is bound by levees. The project area is located between Mission College Boulevard on the north, and U.S. Highway 101 on the south (see attached figure). A staging area will be in the Intel parking lot east of Freedom Bridge.

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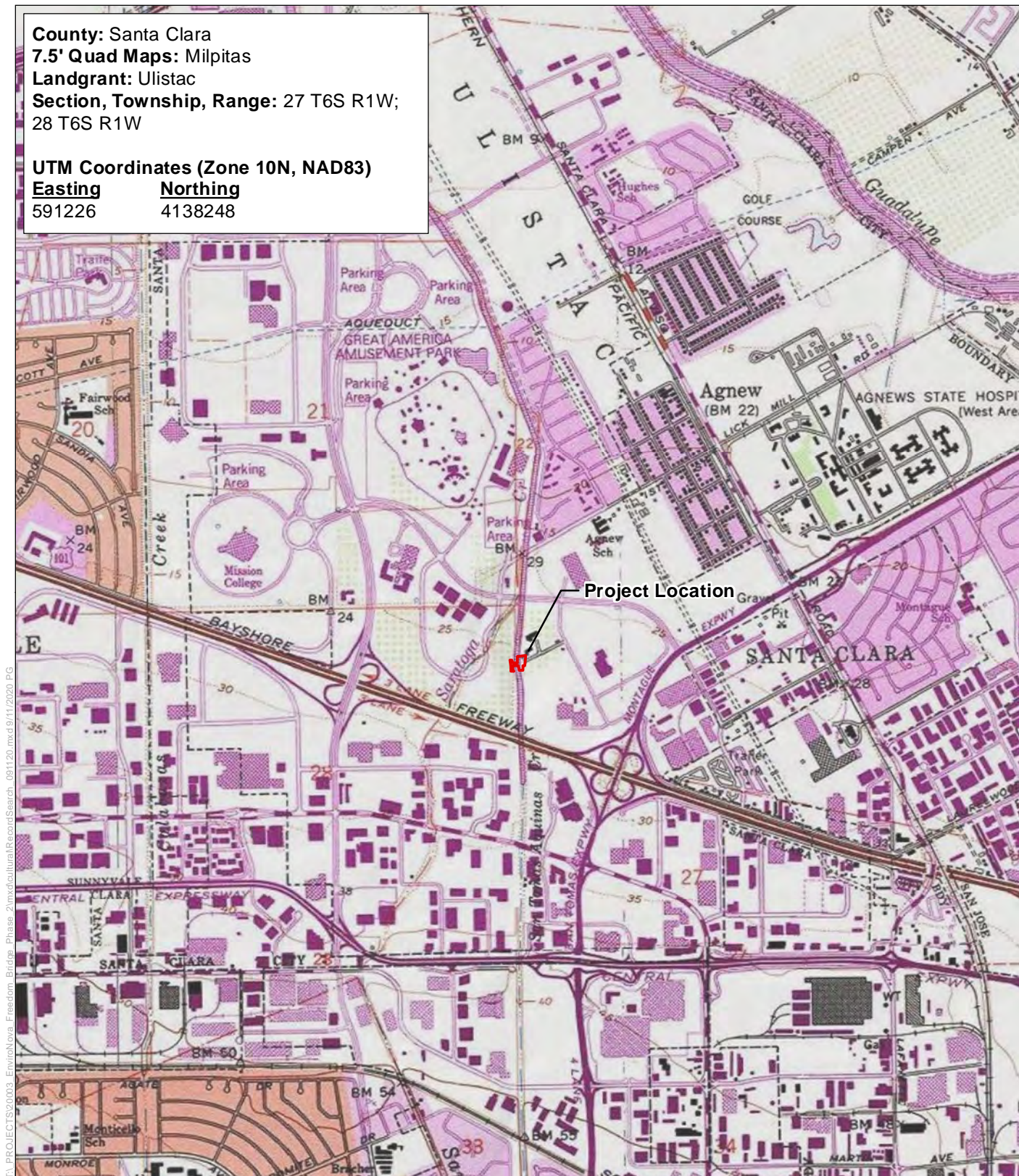
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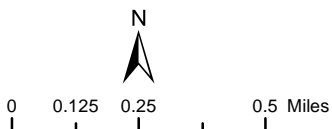
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Landgrant: Ulistac
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 Project Area

Record Search

Freedom Bridge
Removal Project

October 8, 2020

Corrina Gould, Chairperson
The Confederated Villages of Lisjan
10926 Edes Avenue
Oakland, CA, 94603

RE: Freedom Bridge Removal Project – Tribal Consultation

Dear Honorable Chairperson Gould:

Santa Clara Valley Water District (Valley Water) has terminated the pedestrian bridge lease agreement with Intel, and is proposing to remove the Freedom Bridge (Phase I), which crosses San Tomas Aquino Creek in the city of Santa Clara in Santa Clara County, California, and to restore any areas temporarily impacted by the bridge removal (Phase II). This portion of San Tomas Aquino Creek has been channelized and is bound by levees. The project area is located between Mission College Boulevard on the north, and U.S. Highway 101 on the south (see attached figure). A staging area will be in the Intel parking lot east of Freedom Bridge.

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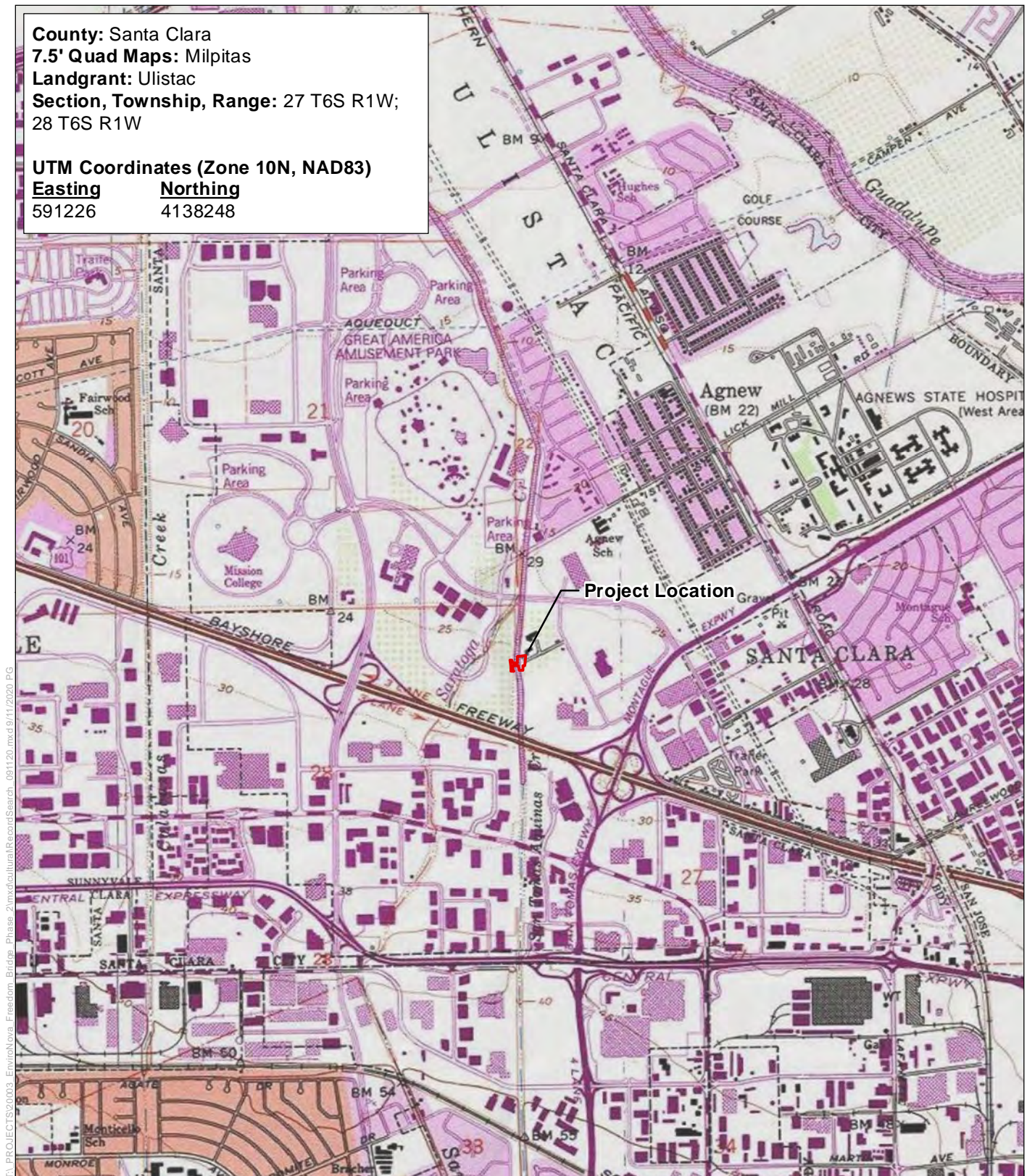
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Tiffany Hernandez
Senior Environmental Planner

Enclosures: Figure 1 – Proposed Project Area

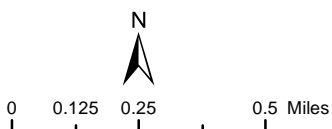
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Landgrant: Ulistac
Section, Township, Range: 27 T6S R1W;
 28 T6S R1W

UTM Coordinates (Zone 10N, NAD83)
Easting **Northing**
 591226 4138248



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Record Search



 **Project Area**



**Freedom Bridge
 Removal Project**

October 8, 2020

Valentin Lopez, Chairperson
Amah Mutsun Tribal Band
P.O. Box 5272
Galt, CA 95632

RE: Freedom Bridge Removal Project – Tribal Consultation

Dear Honorable Chairperson Lopez:

Santa Clara Valley Water District (Valley Water) has terminated the pedestrian bridge lease agreement with Intel, and is proposing to remove the Freedom Bridge (Phase I), which crosses San Tomas Aquino Creek in the city of Santa Clara in Santa Clara County, California, and to restore any areas temporarily impacted by the bridge removal (Phase II). This portion of San Tomas Aquino Creek has been channelized and is bound by levees. The project area is located between Mission College Boulevard on the north, and U.S. Highway 101 on the south (see attached figure). A staging area will be in the Intel parking lot east of Freedom Bridge.

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Tiffany Hernandez
Senior Environmental Planner

Enclosures: Figure 1 – Proposed Project Area

<u>Easting</u>	<u>Northing</u>
591226	4138248



Record Search



Freedom Bridge Removal Project

October 8, 2020

Charlene Nijmeh, Chairperson
Muwekma Ohlone Indian Tribe of the SF Bay Area
20885 Redwood Road, Suite 232
Castro Valley, CA, 94546

RE: Freedom Bridge Removal Project – Tribal Consultation

Dear Honorable Chairperson Nijmeh:

Santa Clara Valley Water District (Valley Water) has terminated the pedestrian bridge lease agreement with Intel, and is proposing to remove the Freedom Bridge (Phase I), which crosses San Tomas Aquino Creek in the city of Santa Clara in Santa Clara County, California, and to restore any areas temporarily impacted by the bridge removal (Phase II). This portion of San Tomas Aquino Creek has been channelized and is bound by levees. The project area is located between Mission College Boulevard on the north, and U.S. Highway 101 on the south (see attached figure). A staging area will be in the Intel parking lot east of Freedom Bridge.

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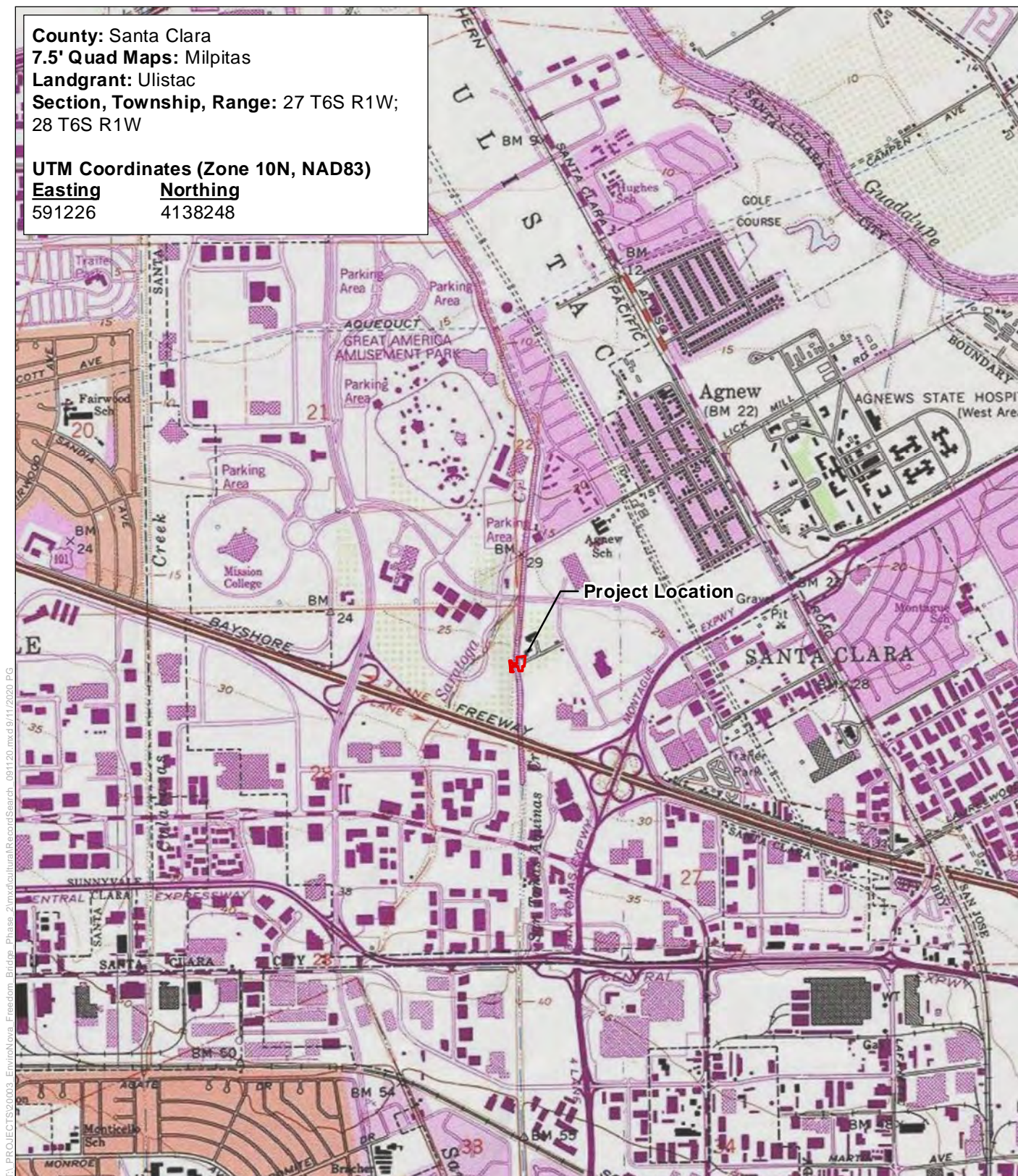
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Tiffany Hernandez
Senior Environmental Planner

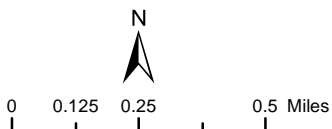
Enclosures: Figure 1 – Proposed Project Area

County: Santa Clara
7.5' Quad Maps: Milpitas
Landgrant: Ulistac
Section, Township, Range: 27 T6S R1W;
28 T6S R1W

UTM Coordinates (Zone 10N, NAD83)
Easting **Northing**
591226 4138248



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 Project Area

Record Search

Freedom Bridge
Removal Project

October 8, 2020

Ann Marie Sayers, Chairperson
Amah Mutsun Tribal Band of Mission San Juan Bautista
789 Canada Road
Woodside, CA 94062

RE: Freedom Bridge Removal Project – Tribal Consultation

Dear Honorable Chairperson Zwierlein:

Santa Clara Valley Water District (Valley Water) has terminated the pedestrian bridge lease agreement with Intel, and is proposing to remove the Freedom Bridge (Phase I), which crosses San Tomas Aquino Creek in the city of Santa Clara in Santa Clara County, California, and to restore any areas temporarily impacted by the bridge removal (Phase II). This portion of San Tomas Aquino Creek has been channelized and is bound by levees. The project area is located between Mission College Boulevard on the north, and U.S. Highway 101 on the south (see attached figure). A staging area will be in the Intel parking lot east of Freedom Bridge.

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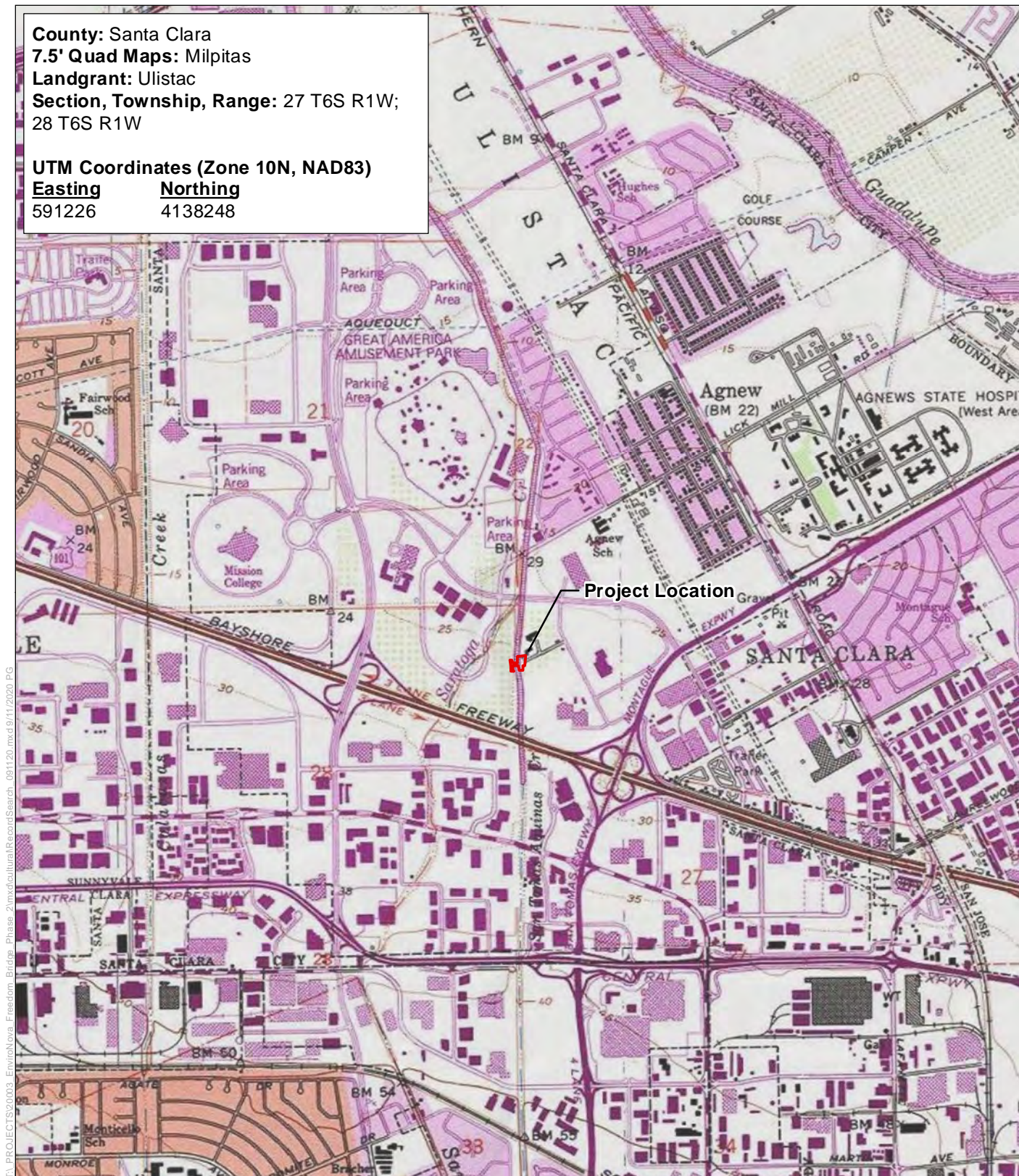
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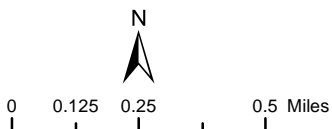
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UTM Coordinates (Zone 10N, NAD83)
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 Project Area

Record Search

Freedom Bridge
Removal Project

October 8, 2020

Kanyon Sayers-Roods
Indian Canyon Mutsun Band of Costanoan
1615 Pearson Court
San Jose, CA, 95122

RE: Freedom Bridge Removal Project – Tribal Consultation

Dear Ms. Sayers-Roods:

Santa Clara Valley Water District (Valley Water) has terminated the pedestrian bridge lease agreement with Intel, and is proposing to remove the Freedom Bridge (Phase I), which crosses San Tomas Aquino Creek in the city of Santa Clara in Santa Clara County, California, and to restore any areas temporarily impacted by the bridge removal (Phase II). This portion of San Tomas Aquino Creek has been channelized and is bound by levees. The project area is located between Mission College Boulevard on the north, and U.S. Highway 101 on the south (see attached figure). A staging area will be in the Intel parking lot east of Freedom Bridge.

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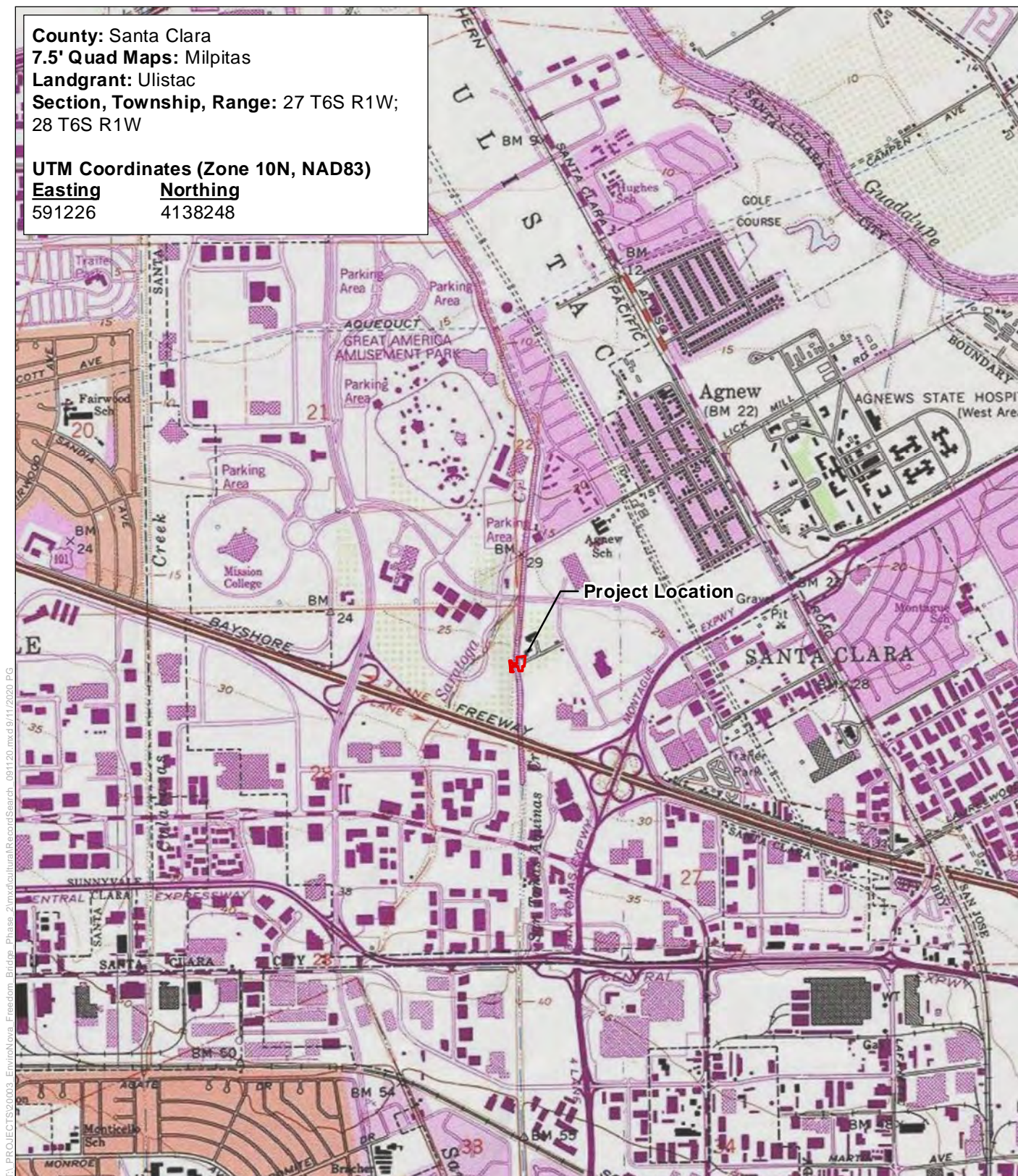
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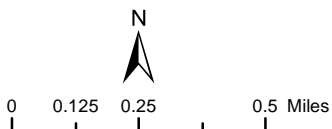
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 Project Area

Record Search

Freedom Bridge
Removal Project

October 8, 2020

Timothy Perez
North Valley Yokuts Tribe
P.O. Box 717
Linden, CA 95236

RE: Freedom Bridge Removal Project – Tribal Consultation

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Sincerely,

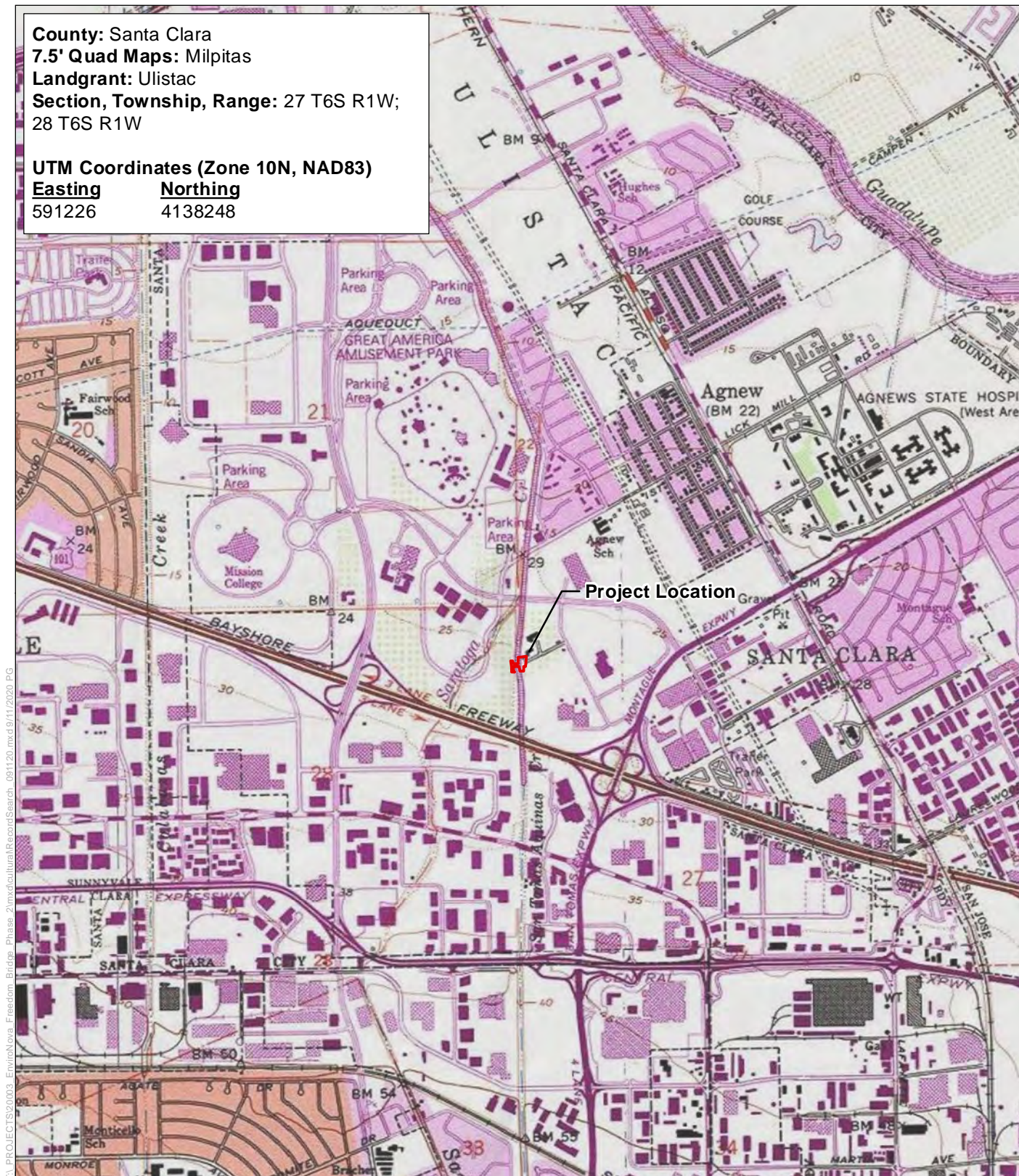
A handwritten signature in black ink, appearing to read 'T. Hernandez', with a stylized flourish at the end.

Tiffany Hernandez
Senior Environmental Planner

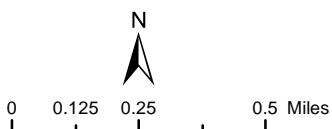
Enclosures: Figure 1 – Proposed Project Area

County: Santa Clara
7.5' Quad Maps: Milpitas
Landgrant: Ulistac
Section, Township, Range: 27 T6S R1W;
 28 T6S R1W

UTM Coordinates (Zone 10N, NAD83)
Easting **Northing**
 591226 4138248



Service Layer Credits: Copyright: © 2013 National Geographic



 Project Area

Record Search

Freedom Bridge
Removal Project

October 8, 2020

Irenne Zwierlein, Chairperson
Amah Mutsun Tribal Band of Mission San Juan Bautista
789 Canada Road
Woodside, CA 94062

RE: Freedom Bridge Removal Project – Tribal Consultation

Dear Honorable Chairperson Zwierlein:

Santa Clara Valley Water District (Valley Water) has terminated the pedestrian bridge lease agreement with Intel, and is proposing to remove the Freedom Bridge (Phase I), which crosses San Tomas Aquino Creek in the city of Santa Clara in Santa Clara County, California, and to restore any areas temporarily impacted by the bridge removal (Phase II). This portion of San Tomas Aquino Creek has been channelized and is bound by levees. The project area is located between Mission College Boulevard on the north, and U.S. Highway 101 on the south (see attached figure). A staging area will be in the Intel parking lot east of Freedom Bridge.

A record search of the project area was conducted at the Northwest Information Center of the California Historical Resources Information System at Sonoma State University (NWIC File No. 19-1385). The search did not identify any previously recorded resources within the project area or within a $\frac{1}{4}$ - mile buffer, although seven studies have included portions of the project area and an additional 13 studies have taken place within the $\frac{1}{4}$ - mile search buffer.

A Sacred Lands and Files Search request at the Native American Heritage Commission (NAHC) did not identify the presence of significant Native American resources in the vicinity of the proposed projects. The NAHC recommended contacting you regarding project concerns about tribal cultural resources within the project area.

Valley Water is writing to notify you of the proposed project in order to coordinate with you and request information on known tribal cultural resources (as defined by Public Resources Code 21074) that may be present or affected within the proposed project area. We are requesting any information that you may have regarding tribal cultural resources within the proposed project areas so that this information can be incorporated into project planning. Valley Water respectfully requests input from you within 30 days of receipt of this letter.

Your comments and concerns are important to us and we look forward to hearing from you. If you have any questions or comments regarding the project, I can be contacted via email at thernandez@valleywater.org or by phone at (408) 265-2607, ext. 3094.

Sincerely,

A handwritten signature in black ink, appearing to read 'T. Hernandez', with a stylized flourish at the end.

Tiffany Hernandez
Senior Environmental Planner

Enclosures: Figure 1 – Proposed Project Area

<u>Easting</u>	<u>Northing</u>
591226	4138248



Record Search



Freedom Bridge Removal Project

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