APPENDIX B

Air Quality and GHG

Air Quality Data

Perris ERF

Anticipated Activity per month of construction (With Relative Intensity (1-10))

	Month of Construction																							
Activity	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Demolition	2	2	10	0	0	0	0	5	0	0	2	8	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	5	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	2	5	5	6	6	5	5	5	5	3	0	0	0	0	0	0	0	0	0	0	0	0
Drainage/Utilities/Sub Grade	0	0	0	0	0	0	0	5	8	5	5	5	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	0	0	5	10	0	5	6	0	5	5	0	5	10	5	5	10	5	5	10	5	5	5	10	10
Paving	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rip Rap	0	0	0	0	0	0	0	0	0	2	3	8	0	0	0	0	0	0	0	0	0	0	0	0

	Month of Construction											
Activity	25	26	27	28	29	30	31	32	33	34	35	36
Demolition	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	0	0	0	0	0	0	0	0	0	0
Drainage/Utilities/Sub Grade	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	10	10	10	10	10	10	10	10	10	10	0	0
Paving	0	0	0	0	0	0	0	0	0	0	10	0
Rip Rap	0	0	0	0	0	0	0	0	0	0	2	2

Note:

Subsequent to modeling the construction period was extended from two to three years. As part of that extension, the building construction phase was extended by 12 months and the riprap and paving phases were moved from month 23 and 24 to months 35 and 36. As the same amount of equpiment would be used per day, remodeling was not re-done. Instead it was conservatively assumed that the maximum daily emissions from months 13 trhough 24 is extended through month 34 for building and construction and that the same emissions identified for Paving and Rip Rap in months 23 and 24 would now occur in months 35 and 36. Changes to the schedule are shown in red.

Project Construction Pollutant Emissions (From CalEEMod Run) - Unmitigated

	Regional Combustion Emissions (lbs/day) - Unmitigated						Regional Fugitive Emissions (lbs/day)	
	ROG	NOx	CO	SOx	PM10	PM2.5	PM10	PM2.5
Demolition	6.97	61.06	34.36	0.09	2.4	2.29	33.19	3.41
Site Preparation	7.56	91.23	43.81	0.09	3.64	3.35	15.2	1.55
Grading/Excavation	12.32	147.85	81.93	0.19	5.19	4.78	220.13	22.11
Utility Relocation	2.33	25.33	11.61	0.03	0.89	0.84	0.22	0.06
Building Construction	9.03	110.39	47.99	0.15	3.9	3.65	1.26	0.34
Paving	3.37	31.69	18.06	0.04	1.47	1.35	0.35	0.1
Rip Rap	7.24	88.36	44.83	0.09	3.37	3.11	29.57	3.01

PERRIS DAM REMDIATION PROJECT

Worst-Case Daily Emissions Per Month - Unmitigated

ROG Emissions

Month -Year:	Jan-15												Jan-16											
Month of Construction:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Demolition	1.394	1.394	6.97	0	0	0	0	3.485	0	0	1.394	5.576	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	3.78	7.56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	2.464	6.16	6.16	7.392	7.392	6.16	6.16	6.16	6.16	3.696	0	0	0	0	0	0	0	0	0	0	0	0
Utility Relocation	0	0	0	0	0	0	0	1.165	1.864	1.165	1.165	1.165	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	0	0	4.515	9.03	0	4.515	5.418	0	4.515	4.515	0	4.515	9.03	4.515	4.515	9.03	4.515	4.515	9.03	4.515	4.515	4.515	9.03	9.03
Paving	0	0	0	0	0	0	0	0	0	1.685	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rip Rap	0	0	0	0	0	0	0	0	0	1.448	2.172	5.792	0	0	0	0	0	0	0	0	0	0	0	0
Total Daily ROG Emissions (lbs/day):	**5.17**	**8.95**	**13.95**	**15.19**	**6.16**	**11.91**	**12.81**	**10.81**	**12.54**	**14.97**	**10.89**	**20.74**	**9.03**	**4.52**	**4.52**	**9.03**	**4.52**	**4.52**	**9.03**	**4.52**	**4.52**	**4.52**	**9.03**	**9.03**
Exceed SCAQMD ROG Threshold (75 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

NOx Emissions

Month -Year:	Jan-15												Jan-16											
Month of Construction:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Demolition	12.212	12.212	61.06	0	0	0	0	30.53	0	0	12.212	48.848	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	45.615	91.23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	29.57	73.925	73.925	88.71	88.71	73.925	73.925	73.925	73.925	44.355	0	0	0	0	0	0	0	0	0	0	0	0
Utility Relocation	0	0	0	0	0	0	0	12.665	20.264	12.665	12.665	12.665	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	0	0	55.195	110.39	0	55.195	66.234	0	55.195	55.195	0	55.195	110.39	55.195	55.195	110.39	55.195	55.195	110.39	55.195	55.195	55.195	110.39	110.39
Paving	0	0	0	0	0	0	0	0	0	15.845	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rip Rap	0	0	0	0	0	0	0	0	0	17.672	26.508	70.688	0	0	0	0	0	0	0	0	0	0	0	0
Total Daily NOx Emissions (lbs/day):	**57.83**	**103.44**	**145.83**	**184.32**	**73.93**	**143.91**	**154.94**	**117.12**	**149.38**	**175.30**	**125.31**	**231.75**	**110.39**	**55.20**	**55.20**	**110.39**	**55.20**	**55.20**	**110.39**	**55.20**	**55.20**	**55.20**	**110.39**	**110.39**
Exceed SCAQMD NOx Threshold (100 lb/day)?	**NO**	**YES**	**YES**	**YES**	**NO**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**NO**	**NO**	**YES**	**NO**	**NO**	**YES**	**NO**	**NO**	**NO**	**YES**	**YES**

CO Emissions

Month -Year:	Jan-15												Jan-16											
Month of Construction:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Demolition	6.872	6.872	34.36	0	0	0	0	17.18	0	0	6.872	27.488	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	21.905	43.81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	16.386	40.965	40.965	49.158	49.158	40.965	40.965	40.965	40.965	24.579	0	0	0	0	0	0	0	0	0	0	0	0
Utility Relocation	0	0	0	0	0	0	0	5.805	9.288	5.805	5.805	5.805	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	0	0	23.995	47.99	0	23.995	28.794	0	23.995	23.995	0	23.995	47.99	23.995	23.995	47.99	23.995	23.995	47.99	23.995	23.995	23.995	47.99	47.99
Paving	0	0	0	0	0	0	0	0	0	9.03	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rip Rap	0	0	0	0	0	0	0	0	0	8.966	13.449	35.864	0	0	0	0	0	0	0	0	0	0	0	0
Total Daily CO Emissions (lbs/day):	**28.78**	**50.68**	**74.74**	**88.96**	**40.97**	**73.15**	**77.95**	**63.95**	**74.25**	**88.76**	**67.09**	**117.73**	**47.99**	**24.00**	**24.00**	**47.99**	**24.00**	**24.00**	**47.99**	**24.00**	**24.00**	**24.00**	**47.99**	**47.99**
Exceed SCAQMD CO Threshold (550 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

SOx Emissions

Month -Year:	Jan-15												Jan-16											
Month of Construction:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Demolition	0.018	0.018	0.09					0.072			0.018	0.09												
Site Preparation	0.045	0.09																						
Grading/Excavation			0.038	0.095	0.095	0.152	0.152	0.152	0.152	0.19	0.19	0.095												
Utility Relocation								0.03	0.03	0.015	0.015	0.015												
Building Construction			0.075	0.15		0.075	0.15		0.075	0.15		0.075	0.15	0.075	0.075	0.15	0.075	0.075	0.15	0.075	0.075	0.075	0.15	0.15
Paving										0.04														
Rip Rap										0.018	0.045	0.09												
Total Daily SOx Emissions (lbs/day):	**0.06**	**0.11**	**0.20**	**0.25**	**0.10**	**0.23**	**0.30**	**0.25**	**0.26**	**0.41**	**0.27**	**0.37**	**0.15**	**0.08**	**0.08**	**0.15**	**0.08**	**0.08**	**0.15**	**0.08**	**0.08**	**0.08**	**0.15**	**0.15**
Exceed SCAQMD SOx Threshold (150 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

PM10 Emissions

Month -Year:	Jan-15												Jan-16											
Month of Construction:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Demolition	7.118	7.118	35.59	0	0	0	0	17.795	0	0	7.118	28.472	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	9.42	18.84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	45.064	112.66	112.66	135.192	135.192	112.66	112.66	112.66	112.66	67.596	0	0	0	0	0	0	0	0	0	0	0	0
Utility Relocation	0	0	0	0	0	0	0	0.555	0.888	0.555	0.555	0.555	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	0	0	2.58	5.16	0	2.58	3.096	0	2.58	2.58	0	2.58	5.16	2.58	2.58	5.16	2.58	2.58	5.16	2.58	2.58	2.58	5.16	5.16
Paving	0	0	0	0	0	0	0	0	0	0.91	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rip Rap	0	0	0	0	0	0	0	0	0	6.588	9.882	26.352	0	0	0	0	0	0	0	0	0	0	0	0
Total Daily PM10 Emissions (lbs/day):	**16.54**	**25.96**	**83.23**	**117.82**	**112.66**	**137.77**	**138.29**	**131.01**	**116.13**	**123.29**	**130.22**	**125.56**	**5.16**	**2.58**	**2.58**	**5.16**	**2.58**	**2.58**	**5.16**	**2.58**	**2.58**	**2.58**	**5.16**	**5.16**
Exceed SCAQMD PM10 Threshold (150 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

PM2.5 Emissions

Month -Year:	Jan-15												Jan-16											
Month of Construction:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Demolition	1.14	1.14	5.7	0	0	0	0	2.85	0	0	1.14	4.56	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	2.45	4.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	5.378	13.445	13.445	16.134	16.134	13.445	13.445	13.445	13.445	8.067	0	0	0	0	0	0	0	0	0	0	0	0
Utility Relocation	0	0	0	0	0	0	0	0.45	0.72	0.45	0.45	0.45	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	0	0	1.995	3.99	0	1.995	2.394	0	1.995	1.995	0	1.995	3.99	1.995	1.995	3.99	1.995	1.995	3.99	1.995	1.995	1.995	3.99	3.99
Paving	0	0	0	0	0	0	0	0	0	0.725	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rip Rap	0	0	0	0	0	0	0	0	0	1.224	1.836	4.896	0	0	0	0	0	0	0	0	0	0	0	0
Total Daily PM2.5 Emissions (lbs/day):	**3.59**	**6.04**	**13.07**	**17.44**	**13.45**	**18.13**	**18.53**	**16.75**	**16.16**	**17.84**	**16.87**	**19.97**	**3.99**	**2.00**	**2.00**	**3.99**	**2.00**	**2.00**	**3.99**	**2.00**	**2.00**	**2.00**	**3.99**	**3.99**
Exceed SCAQMD PM2.5 Threshold (55 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

**Note

Subsequent to modeling the construction period was extended from two to three years. As part of that extension, the building construction phase was extended by 12 months and the riprap and paving phases were moved from month 23 and 24 to months 35 and 36. As the same amount of equipment would be used per day, remodeling was not re-done. Instead it was conservatively assumed that the maximum daily emissions from months 13 trhough 24 is extended through month 34 for building and construction and that the same emissions identified for Paving and Rip Rap in months 23 and 24 would now occur in months 35 and 36.

PERRIS DAM REMDIATION PROJECT

Worst-Case Daily Emissions Per Month - Unmitigated

ROG Emissions

Month -Year:	Jan-17											
Month of Construction:	25	26	27	28	29	30	31	32	33	34	35	36
Demolition	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	0	0	0	0	0	0	0	0	0	0
Utility Relocation	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	9.03	9.03	9.03	9.03	9.03	9.03	9.03	9.03	9.03	9.03	0	0
Paving	0	0	0	0	0	0	0	0	0	0	3.37	0
Rip Rap	0	0	0	0	0	0	0	0	0	0	1.448	1.448
Total Daily ROG Emissions (lbs/day):	**9.03**	**9.03**	**9.03**	**9.03**	**9.03**	**9.03**	**9.03**	**9.03**	**9.03**	**9.03**	**4.82**	**1.45**
Exceed SCAQMD ROG Threshold (75 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

NOx Emissions

Month -Year:	Jan-17											
Month of Construction:	25	26	27	28	29	30	31	32	33	34	35	36
Demolition	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	0	0	0	0	0	0	0	0	0	0
Utility Relocation	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	110.39	110.39	110.39	110.39	110.39	110.39	110.39	110.39	110.39	110.39	0	0
Paving	0	0	0	0	0	0	0	0	0	0	31.69	0
Rip Rap	0	0	0	0	0	0	0	0	0	0	17.672	17.672
Total Daily NOx Emissions (lbs/day):	**110.39**	**110.39**	**110.39**	**110.39**	**110.39**	**110.39**	**110.39**	**110.39**	**110.39**	**110.39**	**49.36**	**17.67**
Exceed SCAQMD NOx Threshold (100 lb/day)?	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**NO**	**NO**

CO Emissions

Month -Year:	Jan-17											
Month of Construction:	25	26	27	28	29	30	31	32	33	34	35	36
Demolition	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	0	0	0	0	0	0	0	0	0	0
Utility Relocation	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	47.99	47.99	47.99	47.99	47.99	47.99	47.99	47.99	47.99	47.99	0	0
Paving	0	0	0	0	0	0	0	0	0	0	18.06	0
Rip Rap	0	0	0	0	0	0	0	0	0	0	8.966	8.966
Total Daily CO Emissions (lbs/day):	**47.99**	**47.99**	**47.99**	**47.99**	**47.99**	**47.99**	**47.99**	**47.99**	**47.99**	**47.99**	**27.03**	**8.97**
Exceed SCAQMD CO Threshold (550 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

SOx Emissions

Month -Year:	Jan-17											
Month of Construction:	25	26	27	28	29	30	31	32	33	34	35	36
Demolition												
Site Preparation												
Grading/Excavation												
Utility Relocation												
Building Construction	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15		
Paving											0.04	
Rip Rap											0.018	0.018
Total Daily SOx Emissions (lbs/day):	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.06**	**0.02**
Exceed SCAQMD SOx Threshold (150 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

PM10 Emissions

Month -Year:	Jan-17											
Month of Construction:	25	26	27	28	29	30	31	32	33	34	35	36
Demolition	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	0	0	0	0	0	0	0	0	0	0
Utility Relocation	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16	0	0
Paving	0	0	0	0	0	0	0	0	0	0	1.82	0
Rip Rap	0	0	0	0	0	0	0	0	0	0	6.588	6.588
Total Daily PM10 Emissions (lbs/day):	**5.16**	**5.16**	**5.16**	**5.16**	**5.16**	**5.16**	**5.16**	**5.16**	**5.16**	**5.16**	**8.41**	**6.59**
Exceed SCAQMD PM10 Threshold (150 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

PM2.5 Emissions

Month -Year:	Jan-17											
Month of Construction:	25	26	27	28	29	30	31	32	33	34	35	36
Demolition	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	0	0	0	0	0	0	0	0	0	0
Utility Relocation	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	0	0
Paving	0	0	0	0	0	0	0	0	0	0	1.45	0
Rip Rap	0	0	0	0	0	0	0	0	0	0	1.224	1.224
Total Daily PM2.5 Emissions (lbs/day):	**3.99**	**3.99**	**3.99**	**3.99**	**3.99**	**3.99**	**3.99**	**3.99**	**3.99**	**3.99**	**2.67**	**1.22**
Exceed SCAQMD PM2.5 Threshold (55 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

Project Construction Pollutant Emissions (From CalEEMod Run) - Mitigated

	Regional Combustion Emissions (lbs/day) - Mitigated*						Regional Fugitive Emissions (lbs/day)	
	ROG	NOx	CO	SOx	PM10	PM2.5	PM10	PM2.5
Demolition	3.31	35.16	41.31	0.08	0.88	0.85	33.19	3.41
Site Preparation	2.33	43.28	50.29	0.09	1.64	1.64	15.2	1.55
Grading/Excavation	4.16	55.31	102.71	0.19	0.52	0.5	220.13	22.11
Utility Relocation	0.86	15.22	18.15	0.03	0.59	0.59	0.22	0.06
Building Construction	2.75	46.03	70.69	0.15	0.51	0.34	1.26	0.34
Paving	0.93	16.94	18.64	0.04	0.64	0.73	0.35	0.1
Rip Rap	1.72	24.73	49.67	0.92	0.18	0.18	29.57	3.01

* Modeling reflects Mitigation consists of use of Tier 3 Equiment for Site Preparation, Utility Relocation and Paving phases. Tier 4 Equpiment for Demolition, Grading/Excavation, Building construction, an Rip

PERRIS DAM REMDIATION PROJECT

Worst-Case Daily Emissions Per Month - Mitigated (with Tier 3 Construction Equipment)

ROG Emissions

Month -Year:	Jan-15												Jan-16											
Month of Construction:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Demolition	0.662	0.662	3.31	0	0	0	0	1.655	0	0	0.662	2.648	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	1.165	2.33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	0.832	2.08	2.08	2.496	2.496	2.08	2.08	2.08	2.08	1.248	0	0	0	0	0	0	0	0	0	0	0	0
Utility Relocation	0	0	0	0	0	0	0	0.43	0.688	0.43	0.43	0.43	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	0	0	1.375	2.75	0	1.375	1.65	0	1.375	1.375	0	1.375	2.75	1.375	1.375	2.75	1.375	1.375	2.75	1.375	1.375	1.375	2.75	2.75
Paving	0	0	0	0	0	0	0	0	0	0.465	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rip Rap	0	0	0	0	0	0	0	0	0	0.344	0.516	1.376	0	0	0	0	0	0	0	0	0	0	0	0
Total Daily ROG Emissions (lbs/day):	**1.83**	**2.99**	**5.52**	**4.83**	**2.08**	**3.87**	**4.15**	**4.17**	**4.14**	**4.69**	**3.69**	**7.08**	**2.75**	**1.38**	**1.38**	**2.75**	**1.38**	**1.38**	**2.75**	**1.38**	**1.38**	**1.38**	**2.75**	**2.75**
Exceed SCAQMD ROG Threshold (75 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

NOx Emissions

Month -Year:	Jan-15												Jan-16											
Month of Construction:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Demolition	7.032	7.032	35.16	0	0	0	0	17.58	0	0	7.032	28.128	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	21.64	43.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	11.062	27.655	27.655	33.186	33.186	27.655	27.655	27.655	27.655	16.593	0	0	0	0	0	0	0	0	0	0	0	0
Utility Relocation	0	0	0	0	0	0	0	7.61	12.176	7.61	7.61	7.61	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	0	0	23.015	46.03	0	23.015	27.618	0	23.015	23.015	0	23.015	46.03	23.015	23.015	46.03	23.015	23.015	46.03	23.015	23.015	23.015	46.03	46.03
Paving	0	0	0	0	0	0	0	0	0	8.47	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rip Rap	0	0	0	0	0	0	0	0	0	4.946	7.419	19.784	0	0	0	0	0	0	0	0	0	0	0	0
Total Daily NOx Emissions (lbs/day):	**28.67**	**50.31**	**69.24**	**73.69**	**27.66**	**56.20**	**60.80**	**52.85**	**62.85**	**71.70**	**49.72**	**95.13**	**46.03**	**23.02**	**23.02**	**46.03**	**23.02**	**23.02**	**46.03**	**23.02**	**23.02**	**23.02**	**46.03**	**46.03**
Exceed SCAQMD NOx Threshold (100 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

CO Emissions

Month -Year:	Jan-15												Jan-16											
Month of Construction:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Demolition	8.262	8.262	41.31	0	0	0	0	20.655	0	0	8.262	33.048	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	25.145	50.29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	20.542	51.355	51.355	61.626	61.626	51.355	51.355	51.355	51.355	30.813	0	0	0	0	0	0	0	0	0	0	0	0
Utility Relocation	0	0	0	0	0	0	0	9.075	14.52	9.075	9.075	9.075	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	0	0	35.345	70.69	0	35.345	42.414	0	35.345	35.345	0	35.345	70.69	35.345	35.345	70.69	35.345	35.345	70.69	35.345	35.345	35.345	70.69	70.69
Paving	0	0	0	0	0	0	0	0	0	9.32	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rip Rap	0	0	0	0	0	0	0	0	0	9.934	14.901	39.736	0	0	0	0	0	0	0	0	0	0	0	0
Total Daily CO Emissions (lbs/day):	**33.41**	**58.55**	**97.20**	**122.05**	**51.36**	**96.97**	**104.04**	**81.09**	**101.22**	**115.03**	**83.59**	**148.02**	**70.69**	**35.35**	**35.35**	**70.69**	**35.35**	**35.35**	**70.69**	**35.35**	**35.35**	**35.35**	**70.69**	**70.69**
Exceed SCAQMD CO Threshold (550 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

SOx Emissions

Month -Year:	Jan-15												Jan-16											
Month of Construction:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Demolition	0.016	0.016	0.08	0	0	0	0	0.04	0	0	0.016	0.064	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	0.045	0.09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	0.038	0.095	0.095	0.114	0.114	0.095	0.095	0.095	0.095	0.057	0	0	0	0	0	0	0	0	0	0	0	0
Utility Relocation	0	0	0	0	0	0	0	0.015	0.024	0.015	0.015	0.015	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	0	0	0.075	0.15	0	0.075	0.09	0	0.075	0.075	0	0.075	0.15	0.075	0.075	0.15	0.075	0.075	0.15	0.075	0.075	0.075	0.15	0.15
Paving	0	0	0	0	0	0	0	0	0	0.02	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rip Rap	0	0	0	0	0	0	0	0	0	0.184	0.276	0.736	0	0	0	0	0	0	0	0	0	0	0	0
Total Daily SOx Emissions (lbs/day):	**0.06**	**0.11**	**0.19**	**0.25**	**0.10**	**0.19**	**0.20**	**0.15**	**0.19**	**0.39**	**0.40**	**0.95**	**0.15**	**0.08**	**0.08**	**0.15**	**0.08**	**0.08**	**0.15**	**0.08**	**0.08**	**0.08**	**0.15**	**0.15**
Exceed SCAQMD SOx Threshold (150 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

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PM10 Emissions

Month -Year:	Jan-15												Jan-16											
Month of Construction:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Demolition	6.814	6.814	34.07	0	0	0	0	17.035	0	0	6.814	27.256	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	8.42	16.84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	44.13	110.325	110.325	132.39	132.39	110.325	110.325	110.325	110.325	66.195	0	0	0	0	0	0	0	0	0	0	0	0
Utility Relocation	0	0	0	0	0	0	0	0.405	0.648	0.405	0.405	0.405	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	0	0	0.885	1.77	0	0.885	1.062	0	0.885	0.885	0	0.885	1.77	0.885	0.885	1.77	0.885	0.885	1.77	0.885	0.885	0.885	1.77	1.77
Paving	0	0	0	0	0	0	0	0	0	0.495	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rip Rap	0	0	0	0	0	0	0	0	0	5.95	8.925	23.8	0	0	0	0	0	0	0	0	0	0	0	0
Total Daily PM10 Emissions (lbs/day):	**15.23**	**23.65**	**79.09**	**112.10**	**110.33**	**133.28**	**133.45**	**127.77**	**111.86**	**118.06**	**126.47**	**118.54**	**1.77**	**0.89**	**0.89**	**1.77**	**0.89**	**0.89**	**1.77**	**0.89**	**0.89**	**0.89**	**1.77**	**1.77**
Exceed SCAQMD PM10 Threshold (150 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

PM2.5 Emissions

Month -Year:	Jan-15												Jan-16											
Month of Construction:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Demolition	0.852	0.852	4.26	0	0	0	0	2.13	0	0	0.852	3.408	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	1.595	3.19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	4.522	11.305	11.305	13.566	13.566	11.305	11.305	11.305	11.305	6.783	0	0	0	0	0	0	0	0	0	0	0	0
Utility Relocation	0	0	0	0	0	0	0	0.325	0.52	0.325	0.325	0.325	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	0	0	0.34	0.68	0	0.34	0.408	0	0.34	0.34	0	0.34	0.68	0.34	0.34	0.68	0.34	0.34	0.68	0.34	0.34	0.34	0.68	0.68
Paving	0	0	0	0	0	0	0	0	0	0.415	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rip Rap	0	0	0	0	0	0	0	0	0	0.638	0.957	2.552	0	0	0	0	0	0	0	0	0	0	0	0
Total Daily PM2.5 Emissions (lbs/day):	**2.45**	**4.04**	**9.12**	**11.99**	**11.31**	**13.91**	**13.97**	**13.76**	**12.17**	**13.02**	**13.44**	**13.41**	**0.68**	**0.34**	**0.34**	**0.68**	**0.34**	**0.34**	**0.68**	**0.34**	**0.34**	**0.34**	**0.68**	**0.68**
Exceed SCAQMD PM2.5 Threshold (55 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

**Note

Subsequent to modeling the construction period was extended from two to three years. As part of that extension, the building construction phase was extended by 12 months and the riprap and paving phases were moved from month 23 and 24 to months 35 and 36. As the same amount of equpiment would be used per day, remodeling was not re-done. Instead it was conservatively assumed that the maximum daily emissions from months 13 trhough 24 is extended through month 34 for building and construction and that the same emissions identified for Paving and Rip Rap in months 23 and 24 would now occur in months 35 and 36.

PERRIS DAM REMDIATION PROJECT

Worst-Case Daily Emissions Per Month - Mitigated (with Tier 3 Construction Equipment)

ROG Emissions

Month -Year:	Jan-17											
Month of Construction:	25	26	27	28	29	30	31	32	33	34	35	36
Demolition	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	0	0	0	0	0	0	0	0	0	0
Utility Relocation	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	0	0
Paving	0	0	0	0	0	0	0	0	0	0	0.93	0
Rip Rap	0	0	0	0	0	0	0	0	0	0	0.344	0.344
Total Daily ROG Emissions (lbs/day):	**2.75**	**2.75**	**2.75**	**2.75**	**2.75**	**2.75**	**2.75**	**2.75**	**2.75**	**2.75**	**1.27**	**0.34**
Exceed SCAQMD ROG Threshold (75 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

NOx Emissions

Month -Year:	Jan-17											
Month of Construction:	25	26	27	28	29	30	31	32	33	34	35	36
Demolition	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	0	0	0	0	0	0	0	0	0	0
Utility Relocation	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	46.03	46.03	46.03	46.03	46.03	46.03	46.03	46.03	46.03	46.03	0	0
Paving	0	0	0	0	0	0	0	0	0	0	16.94	0
Rip Rap	0	0	0	0	0	0	0	0	0	0	4.946	4.946
Total Daily NOx Emissions (lbs/day):	**46.03**	**46.03**	**46.03**	**46.03**	**46.03**	**46.03**	**46.03**	**46.03**	**46.03**	**46.03**	**21.89**	**4.95**
Exceed SCAQMD NOx Threshold (100 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

CO Emissions

Month -Year:	Jan-17											
Month of Construction:	25	26	27	28	29	30	31	32	33	34	35	36
Demolition	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	0	0	0	0	0	0	0	0	0	0
Utility Relocation	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	70.69	70.69	70.69	70.69	70.69	70.69	70.69	70.69	70.69	70.69	0	0
Paving	0	0	0	0	0	0	0	0	0	0	18.64	0
Rip Rap	0	0	0	0	0	0	0	0	0	0	9.934	9.934
Total Daily CO Emissions (lbs/day):	**70.69**	**70.69**	**70.69**	**70.69**	**70.69**	**70.69**	**70.69**	**70.69**	**70.69**	**70.69**	**28.57**	**9.93**
Exceed SCAQMD CO Threshold (550 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

SOx Emissions

Month -Year:	Jan-17											
Month of Construction:	25	26	27	28	29	30	31	32	33	34	35	36
Demolition												
Site Preparation												
Grading/Excavation												
Utility Relocation												
Building Construction	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15		
Paving											0.04	
Rip Rap											0.184	0.184
Total Daily SOx Emissions (lbs/day):	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.22**	**0.18**
Exceed SCAQMD SOx Threshold (150 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

PM10 Emissions

Month -Year:	Jan-17											
Month of Construction:	25	26	27	28	29	30	31	32	33	34	35	36
Demolition	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	0	0	0	0	0	0	0	0	0	0
Utility Relocation	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	0	0
Paving	0	0	0	0	0	0	0	0	0	0	0.99	0
Rip Rap	0	0	0	0	0	0	0	0	0	0	5.95	5.95
Total Daily PM10 Emissions (lbs/day):	**1.77**	**1.77**	**1.77**	**1.77**	**1.77**	**1.77**	**1.77**	**1.77**	**1.77**	**1.77**	**6.94**	**5.95**
Exceed SCAQMD PM10 Threshold (150 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

PM2.5 Emissions

Month -Year:	Jan-17											
Month of Construction:	25	26	27	28	29	30	31	32	33	34	35	36
Demolition	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	0	0	0	0	0	0	0	0	0	0
Utility Relocation	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0	0
Paving	0	0	0	0	0	0	0	0	0	0	0.83	0
Rip Rap	0	0	0	0	0	0	0	0	0	0	0.638	0.638
Total Daily PM2.5 Emissions (lbs/day):	**0.68**	**0.68**	**0.68**	**0.68**	**0.68**	**0.68**	**0.68**	**0.68**	**0.68**	**0.68**	**1.47**	**0.64**
Exceed SCAQMD PM2.5 Threshold (55 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

Perris Dam Remediation - Demolition Emissions Scenario

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Demolition phase for project.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Demolition phase for project.

Trips and VMT - 250 total haul trips in one month for demolition phase. 6-mile roundtrip distance for haul trucks.

On-road Fugitive Dust - Approximately 40 percent of hault truck travel during demolition would be on paved roads.

Demolition - 8,000 cy of demolition debris x 2,500 lb/cy = 20,000,000 lb/2,000 = 10,000 tons of debris; 10,000/60 x 10 (active construction days in a month) = 1,667 tons/month

Grading -

Construction Off-road Equipment Mitigation - Use of Tier 4 Equipment for mitigation.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	70.00	10.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	HorsePower	81.00	50.00
tblOffRoadEquipment	HorsePower	78.00	50.00
tblOffRoadEquipment	HorsePower	85.00	250.00
tblOffRoadEquipment	HorsePower	84.00	250.00
tblOffRoadEquipment	HorsePower	199.00	750.00
tblOffRoadEquipment	HorsePower	6.00	15.00
tblOffRoadEquipment	HorsePower	64.00	120.00
tblOffRoadEquipment	HorsePower	97.00	250.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	8.00	3.00
tblOnRoadDust	HaulingPercentPave	100.00	40.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	6.00

tblTripsAndVMT	HaulingTripNumber	165.00	250.00
tblTripsAndVMT	WorkerTripNumber	35.00	8.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	6.9548	60.9878	34.0099	0.0851	136.2113	2.4002	138.6115	13.8055	2.2941	16.0996	0.0000	7,866.4932	7,866.4932	1.4407	0.0000	7,896.7468
Total	**6.9548**	**60.9878**	**34.0099**	**0.0851**	**136.2113**	**2.4002**	**138.6115**	**13.8055**	**2.2941**	**16.0996**	**0.0000**	**7,866.4932**	**7,866.4932**	**1.4407**	**0.0000**	**7,896.7468**

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					
2015	3.2934	35.0769	40.9642	0.0851	33.1910	0.8767	34.0677	3.4087	0.8526	4.2613	0.0000	7,866.4932	7,866.4932	1.4407	0.0000	7,896.7468
Total	**3.2934**	**35.0769**	**40.9642**	**0.0851**	**33.1910**	**0.8767**	**34.0677**	**3.4087**	**0.8526**	**4.2613**	**0.0000**	**7,866.4932**	**7,866.4932**	**1.4407**	**0.0000**	**7,896.7468**

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

Percent Reduction	**52.65**	**42.49**	**-20.45**	**0.00**	**75.63**	**63.47**	**75.42**	**75.31**	**62.83**	**73.53**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/5/2015	1/16/2015	5	10	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Air Compressors	2	3.00	50	0.48
Demolition	Concrete/Industrial Saws	2	3.00	50	0.73
Demolition	Crushing/Proc. Equipment	1	4.00	250	0.78
Demolition	Excavators	0	8.00	162	0.38
Demolition	Generator Sets	1	3.00	250	0.74
Demolition	Rubber Tired Dozers	0	8.00	255	0.40
Demolition	Rubber Tired Loaders	1	8.00	750	0.36
Demolition	Signal Boards	4	24.00	15	0.82
Demolition	Skid Steer Loaders	1	8.00	120	0.37
Demolition	Tractors/Loaders/Backhoes	2	4.00	250	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class

Demolition	14	8.00	0.00	250.00	14.70	6.90	6.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2015

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					3.5892	0.0000	3.5892	0.5434	0.0000	0.5434			0.0000			0.0000
Off-Road	6.6732	58.3127	30.2092	0.0783		2.3536	2.3536		2.2513	2.2513		7,197.5016	7,197.5016	1.4317		7,227.5670
Total	**6.6732**	**58.3127**	**30.2092**	**0.0783**	**3.5892**	**2.3536**	**5.9429**	**0.5434**	**2.2513**	**2.7948**		**7,197.5016**	**7,197.5016**	**1.4317**		**7,227.5670**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2476	2.6347	3.2959	5.6900e-003	132.5327	0.0459	132.5786	13.2383	0.0422	13.2805		576.8690	576.8690	4.7800e-003		576.9693

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	0.0341	0.0404	0.5049	1.0700e-003	0.0894	5.8000e-004	0.0900	0.0237	5.3000e-004	0.0243		92.1225	92.1225	4.1900e-003		92.2105
Total	**0.2816**	**2.6751**	**3.8008**	**6.7600e-003**	**132.6221**	**0.0465**	**132.6686**	**13.2620**	**0.0428**	**13.3048**		**668.9915**	**668.9915**	**8.9700e-003**		**669.1798**

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					1.3998	0.0000	1.3998	0.2119	0.0000	0.2119			0.0000			0.0000
Off-Road	3.0118	32.4018	37.1634	0.0783		0.8301	0.8301		0.8099	0.8099	0.0000	7,197.5016	7,197.5016	1.4317		7,227.5670
Total	**3.0118**	**32.4018**	**37.1634**	**0.0783**	**1.3998**	**0.8301**	**2.2299**	**0.2119**	**0.8099**	**1.0218**	**0.0000**	**7,197.5016**	**7,197.5016**	**1.4317**		**7,227.5670**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2476	2.6347	3.2959	5.6900e-003	31.7018	0.0459	31.7478	3.1730	0.0422	3.2152		576.8690	576.8690	4.7800e-003		576.9693
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	0.0341	0.0404	0.5049	1.0700e-003	0.0894	5.8000e-004	0.0900	0.0237	5.3000e-004	0.0243		92.1225	92.1225	4.1900e-003		92.2105
Total	**0.2816**	**2.6751**	**3.8008**	**6.7600e-003**	**31.7912**	**0.0465**	**31.8378**	**3.1967**	**0.0428**	**3.2395**		**668.9915**	**668.9915**	**8.9700e-003**		**669.1798**

Perris Dam Remediation - Demolition Emissions Scenario

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Demolition phase for project.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Demolition phase for project.

Trips and VMT - 250 total haul trips in one month for demolition phase. 6-mile roundtrip distance for haul trucks.

On-road Fugitive Dust - Approximately 40 percent of hault truck travel during demolition would be on paved roads.

Demolition - 8,000 cy of demolition debris x 2,500 lb/cy = 20,000,000 lb/2,000 = 10,000 tons of debris; 10,000/60 x 10 (active construction days in a month) = 1,667 tons/month

Grading -

Construction Off-road Equipment Mitigation - Use of Tier 4 Equipment for mitigation.

Table Name	Column Name	Default Value	New Value

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	70.00	10.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	HorsePower	81.00	50.00
tblOffRoadEquipment	HorsePower	78.00	50.00
tblOffRoadEquipment	HorsePower	85.00	250.00
tblOffRoadEquipment	HorsePower	84.00	250.00
tblOffRoadEquipment	HorsePower	199.00	750.00
tblOffRoadEquipment	HorsePower	6.00	15.00
tblOffRoadEquipment	HorsePower	64.00	120.00
tblOffRoadEquipment	HorsePower	97.00	250.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	8.00	3.00
tblOnRoadDust	HaulingPercentPave	100.00	40.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	6.00
tblTripsAndVMT	HaulingTripNumber	165.00	250.00

tblTripsAndVMT	WorkerTripNumber	35.00	8.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	6.9705	61.0665	34.3581	0.0849	136.2113	2.4006	138.6119	13.8055	2.2945	16.1000	0.0000	7,854.1111	7,854.1111	1.4408	0.0000	7,884.3687
Total	**6.9705**	**61.0665**	**34.3581**	**0.0849**	**136.2113**	**2.4006**	**138.6119**	**13.8055**	**2.2945**	**16.1000**	**0.0000**	**7,854.1111**	**7,854.1111**	**1.4408**	**0.0000**	**7,884.3687**

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					
2015	3.3091	35.1557	41.3123	0.0849	33.1910	0.8771	34.0682	3.4087	0.8531	4.2617	0.0000	7,854.1111	7,854.1111	1.4408	0.0000	7,884.3687
Total	**3.3091**	**35.1557**	**41.3123**	**0.0849**	**33.1910**	**0.8771**	**34.0682**	**3.4087**	**0.8531**	**4.2617**	**0.0000**	**7,854.1111**	**7,854.1111**	**1.4408**	**0.0000**	**7,884.3687**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**52.53**	**42.43**	**-20.24**	**0.00**	**75.63**	**63.46**	**75.42**	**75.31**	**62.82**	**73.53**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/5/2015	1/16/2015	5	10	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Air Compressors	2	3.00	50	0.48
Demolition	Concrete/Industrial Saws	2	3.00	50	0.73
Demolition	Crushing/Proc. Equipment	1	4.00	250	0.78
Demolition	Excavators	0	8.00	162	0.38
Demolition	Generator Sets	1	3.00	250	0.74
Demolition	Rubber Tired Dozers	0	8.00	255	0.40
Demolition	Rubber Tired Loaders	1	8.00	750	0.36
Demolition	Signal Boards	4	24.00	15	0.82
Demolition	Skid Steer Loaders	1	8.00	120	0.37
Demolition	Tractors/Loaders/Backhoes	2	4.00	250	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class

Demolition	14	8.00	0.00	250.00	14.70	6.90	6.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2015

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					3.5892	0.0000	3.5892	0.5434	0.0000	0.5434			0.0000			0.0000
Off-Road	6.6732	58.3127	30.2092	0.0783		2.3536	2.3536		2.2513	2.2513		7,197.5016	7,197.5016	1.4317		7,227.5670
Total	**6.6732**	**58.3127**	**30.2092**	**0.0783**	**3.5892**	**2.3536**	**5.9429**	**0.5434**	**2.2513**	**2.7948**		**7,197.5016**	**7,197.5016**	**1.4317**		**7,227.5670**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2648	2.7108	3.7127	5.6600e-003	132.5327	0.0464	132.5791	13.2383	0.0427	13.2810		572.4147	572.4147	4.9600e-003		572.5189
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	0.0326	0.0431	0.4362	9.8000e-004	0.0894	5.8000e-004	0.0900	0.0237	5.3000e-004	0.0243		84.1948	84.1948	4.1900e-003		84.2828
Total	**0.2973**	**2.7538**	**4.1489**	**6.6400e-003**	**132.6221**	**0.0470**	**132.6691**	**13.2620**	**0.0432**	**13.3052**		**656.6095**	**656.6095**	**9.1500e-003**		**656.8017**

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					1.3998	0.0000	1.3998	0.2119	0.0000	0.2119			0.0000			0.0000
Off-Road	3.0118	32.4018	37.1634	0.0783		0.8301	0.8301		0.8099	0.8099	0.0000	7,197.5016	7,197.5016	1.4317		7,227.5670
Total	**3.0118**	**32.4018**	**37.1634**	**0.0783**	**1.3998**	**0.8301**	**2.2299**	**0.2119**	**0.8099**	**1.0218**	**0.0000**	**7,197.5016**	**7,197.5016**	**1.4317**		**7,227.5670**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2648	2.7108	3.7127	5.6600e-003	31.7018	0.0464	31.7482	3.1730	0.0427	3.2157		572.4147	572.4147	4.9600e-003		572.5189
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	0.0326	0.0431	0.4362	9.8000e-004	0.0894	5.8000e-004	0.0900	0.0237	5.3000e-004	0.0243		84.1948	84.1948	4.1900e-003		84.2828
Total	**0.2973**	**2.7538**	**4.1489**	**6.6400e-003**	**31.7912**	**0.0470**	**31.8382**	**3.1967**	**0.0432**	**3.2399**		**656.6095**	**656.6095**	**9.1500e-003**		**656.8017**

Perris Dam Remediation - Site Preparation Emissions Scenario

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Site preparation phase for project.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Construction equipment for site preparation phase.

Trips and VMT - 80 total haul truck trips over 8 day period = 10 truck trips per day; 6-mile roundtrip distance for haul trucks.

On-road Fugitive Dust - Approximately 40 percent of haul truck travel would be on paved roads.

Grading - Site acreage to be disturbed during site preparation.

Construction Off-road Equipment Mitigation - Use of Tier 3 equipment for mitigation.

Table Name	Column Name	Default Value	New Value

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	40.00	8.00
tblGrading	AcresOfGrading	11.00	5.00
tblGrading	MaterialExported	0.00	32,000.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	HorsePower	208.00	500.00
tblOffRoadEquipment	HorsePower	400.00	500.00
tblOffRoadEquipment	HorsePower	100.00	250.00
tblOffRoadEquipment	HorsePower	199.00	750.00
tblOffRoadEquipment	HorsePower	199.00	750.00
tblOffRoadEquipment	HorsePower	361.00	500.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	40.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	6.00
tblTripsAndVMT	HaulingTripNumber	4,000.00	80.00
tblTripsAndVMT	WorkerTripNumber	20.00	10.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	7.5475	91.1985	43.7320	0.0910	54.2942	3.6371	57.9312	5.4732	3.3461	8.8193	0.0000	9,521.4969	9,521.4969	2.7465	0.0000	9,579.1723
Total	**7.5475**	**91.1985**	**43.7320**	**0.0910**	**54.2942**	**3.6371**	**57.9312**	**5.4732**	**3.3461**	**8.8193**	**0.0000**	**9,521.4969**	**9,521.4969**	**2.7465**	**0.0000**	**9,579.1723**

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					
2015	2.3210	43.2397	50.2081	0.0910	15.1950	1.6400	16.8350	1.5506	1.6385	3.1891	0.0000	9,521.4969	9,521.4969	2.7465	0.0000	9,579.1723
Total	**2.3210**	**43.2397**	**50.2081**	**0.0910**	**15.1950**	**1.6400**	**16.8350**	**1.5506**	**1.6385**	**3.1891**	**0.0000**	**9,521.4969**	**9,521.4969**	**2.7465**	**0.0000**	**9,579.1723**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**69.25**	**52.59**	**-14.81**	**0.00**	**72.01**	**54.91**	**70.94**	**71.67**	**51.03**	**63.84**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/5/2015	1/14/2015	5	8	

Acres of Grading (Site Preparation Phase): 5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Crawler Tractors	1	8.00	500	0.43
Site Preparation	Graders	1	6.00	174	0.41
Site Preparation	Off-Highway Trucks	1	2.00	500	0.38
Site Preparation	Rough Terrain Forklifts	1	7.00	250	0.40
Site Preparation	Rubber Tired Dozers	0	8.00	255	0.40
Site Preparation	Rubber Tired Loaders	1	3.00	750	0.36
Site Preparation	Rubber Tired Loaders	2	6.00	750	0.36
Site Preparation	Scrapers	1	4.00	500	0.48
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	8	10.00	0.00	80.00	14.70	6.90	6.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2015

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					1.1694	0.0000	1.1694	0.1483	0.0000	0.1483			0.0000			0.0000
Off-Road	7.4059	90.0941	41.7826	0.0874		3.6180	3.6180		3.3285	3.3285		9,175.5962	9,175.5962	2.7393		9,233.1214
Total	**7.4059**	**90.0941**	**41.7826**	**0.0874**	**1.1694**	**3.6180**	**4.7873**	**0.1483**	**3.3285**	**3.4768**		**9,175.5962**	**9,175.5962**	**2.7393**		**9,233.1214**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0990	1.0539	1.3184	2.2800e-003	53.0131	0.0184	53.0314	5.2953	0.0169	5.3122		230.7476	230.7476	1.9100e-003		230.7877
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	0.0426	0.0505	0.6311	1.3400e-003	0.1118	7.3000e-004	0.1125	0.0296	6.7000e-004	0.0303		115.1531	115.1531	5.2400e-003		115.2631
Total	**0.1416**	**1.1044**	**1.9495**	**3.6200e-003**	**53.1248**	**0.0191**	**53.1440**	**5.3250**	**0.0176**	**5.3425**		**345.9008**	**345.9008**	**7.1500e-003**		**346.0509**

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					0.4560	0.0000	0.4560	0.0578	0.0000	0.0578			0.0000			0.0000
Off-Road	2.1794	42.1353	48.2586	0.0874		1.6209	1.6209		1.6209	1.6209	0.0000	9,175.5961	9,175.5961	2.7393		9,233.1214
Total	**2.1794**	**42.1353**	**48.2586**	**0.0874**	**0.4560**	**1.6209**	**2.0769**	**0.0578**	**1.6209**	**1.6787**	**0.0000**	**9,175.5961**	**9,175.5961**	**2.7393**		**9,233.1214**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0990	1.0539	1.3184	2.2800e-003	14.6272	0.0184	14.6456	1.4632	0.0169	1.4800		230.7476	230.7476	1.9100e-003		230.7877
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	0.0426	0.0505	0.6311	1.3400e-003	0.1118	7.3000e-004	0.1125	0.0296	6.7000e-004	0.0303		115.1531	115.1531	5.2400e-003		115.2631
Total	**0.1416**	**1.1044**	**1.9495**	**3.6200e-003**	**14.7390**	**0.0191**	**14.7581**	**1.4928**	**0.0176**	**1.5104**		**345.9008**	**345.9008**	**7.1500e-003**		**346.0509**

Perris Dam Remediation - Site Preparation Emissions Scenario

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Site preparation phase for project.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Construction equipment for site preparation phase.

Trips and VMT - 80 total haul truck trips over 8 day period = 10 truck trips per day; 6-mile roundtrip distance for haul trucks.

On-road Fugitive Dust - Approximately 40 percent of haul truck travel would be on paved roads.

Grading - Site acreage to be disturbed during site preparation.

Construction Off-road Equipment Mitigation - Use of Tier 3 equipment for mitigation.

Table Name	Column Name	Default Value	New Value

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	40.00	8.00
tblGrading	AcresOfGrading	11.00	5.00
tblGrading	MaterialExported	0.00	32,000.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	HorsePower	208.00	500.00
tblOffRoadEquipment	HorsePower	400.00	500.00
tblOffRoadEquipment	HorsePower	100.00	250.00
tblOffRoadEquipment	HorsePower	199.00	750.00
tblOffRoadEquipment	HorsePower	199.00	750.00
tblOffRoadEquipment	HorsePower	361.00	500.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	40.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	6.00
tblTripsAndVMT	HaulingTripNumber	4,000.00	80.00
tblTripsAndVMT	WorkerTripNumber	20.00	10.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	7.5525	91.2323	43.8129	0.0909	54.2942	3.6372	57.9314	5.4732	3.3463	8.8195	0.0000	9,509.8055	9,509.8055	2.7465	0.0000	9,567.4825
Total	**7.5525**	**91.2323**	**43.8129**	**0.0909**	**54.2942**	**3.6372**	**57.9314**	**5.4732**	**3.3463**	**8.8195**	**0.0000**	**9,509.8055**	**9,509.8055**	**2.7465**	**0.0000**	**9,567.4825**

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					
2015	2.3260	43.2735	50.2890	0.0909	15.1950	1.6402	16.8352	1.5506	1.6386	3.1892	0.0000	9,509.8055	9,509.8055	2.7465	0.0000	9,567.4825
Total	**2.3260**	**43.2735**	**50.2890**	**0.0909**	**15.1950**	**1.6402**	**16.8352**	**1.5506**	**1.6386**	**3.1892**	**0.0000**	**9,509.8055**	**9,509.8055**	**2.7465**	**0.0000**	**9,567.4825**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**69.20**	**52.57**	**-14.78**	**0.00**	**72.01**	**54.91**	**70.94**	**71.67**	**51.03**	**63.84**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/5/2015	1/14/2015	5	8	

Acres of Grading (Site Preparation Phase): 5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Crawler Tractors	1	8.00	500	0.43
Site Preparation	Graders	1	6.00	174	0.41
Site Preparation	Off-Highway Trucks	1	2.00	500	0.38
Site Preparation	Rough Terrain Forklifts	1	7.00	250	0.40
Site Preparation	Rubber Tired Dozers	0	8.00	255	0.40
Site Preparation	Rubber Tired Loaders	1	3.00	750	0.36
Site Preparation	Rubber Tired Loaders	2	6.00	750	0.36
Site Preparation	Scrapers	1	4.00	500	0.48
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	8	10.00	0.00	80.00	14.70	6.90	6.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2015

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					1.1694	0.0000	1.1694	0.1483	0.0000	0.1483			0.0000			0.0000
Off-Road	7.4059	90.0941	41.7826	0.0874		3.6180	3.6180		3.3285	3.3285		9,175.5962	9,175.5962	2.7393		9,233.1214
Total	**7.4059**	**90.0941**	**41.7826**	**0.0874**	**1.1694**	**3.6180**	**4.7873**	**0.1483**	**3.3285**	**3.4768**		**9,175.5962**	**9,175.5962**	**2.7393**		**9,233.1214**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1059	1.0843	1.4851	2.2600e-003	53.0131	0.0186	53.0316	5.2953	0.0171	5.3124		228.9659	228.9659	1.9800e-003		229.0076
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	0.0407	0.0538	0.5452	1.2200e-003	0.1118	7.3000e-004	0.1125	0.0296	6.7000e-004	0.0303		105.2435	105.2435	5.2400e-003		105.3535
Total	**0.1466**	**1.1382**	**2.0303**	**3.4800e-003**	**53.1248**	**0.0193**	**53.1441**	**5.3250**	**0.0177**	**5.3427**		**334.2094**	**334.2094**	**7.2200e-003**		**334.3610**

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					0.4560	0.0000	0.4560	0.0578	0.0000	0.0578			0.0000			0.0000
Off-Road	2.1794	42.1353	48.2586	0.0874		1.6209	1.6209		1.6209	1.6209	0.0000	9,175.5961	9,175.5961	2.7393		9,233.1214
Total	**2.1794**	**42.1353**	**48.2586**	**0.0874**	**0.4560**	**1.6209**	**2.0769**	**0.0578**	**1.6209**	**1.6787**	**0.0000**	**9,175.5961**	**9,175.5961**	**2.7393**		**9,233.1214**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1059	1.0843	1.4851	2.2600e-003	14.6272	0.0186	14.6458	1.4632	0.0171	1.4802		228.9659	228.9659	1.9800e-003		229.0076
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	0.0407	0.0538	0.5452	1.2200e-003	0.1118	7.3000e-004	0.1125	0.0296	6.7000e-004	0.0303		105.2435	105.2435	5.2400e-003		105.3535
Total	**0.1466**	**1.1382**	**2.0303**	**3.4800e-003**	**14.7390**	**0.0193**	**14.7583**	**1.4928**	**0.0177**	**1.5105**		**334.2094**	**334.2094**	**7.2200e-003**		**334.3610**

Perris Dam Remediation - Grading/Excavation Emissions

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Project grading phase.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Construction equipment for site grading.

Trips and VMT - 3,000 total trips over 20 day construction period = 150 haul truck trips per day; 6-mile roundtrip distance for haul trucks.

On-road Fugitive Dust - Approximately 40 percent of haul truck travel would be on paved roads.

Grading - 67,000 cy total of soil export.

Construction Off-road Equipment Mitigation - Use of Tier 4 equipment for mitigation.

Table Name	Column Name	Default Value	New Value

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	110.00	20.00
tblGrading	AcresOfGrading	30.00	5.00
tblGrading	MaterialExported	0.00	67,000.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	HorsePower	162.00	500.00
tblOffRoadEquipment	HorsePower	174.00	500.00
tblOffRoadEquipment	HorsePower	97.00	250.00
tblOffRoadEquipment	HorsePower	208.00	500.00
tblOffRoadEquipment	HorsePower	400.00	500.00
tblOffRoadEquipment	HorsePower	400.00	500.00
tblOffRoadEquipment	HorsePower	80.00	250.00
tblOffRoadEquipment	HorsePower	199.00	750.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOnRoadDust	HaulingPercentPave	100.00	40.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	6.00
tblTripsAndVMT	HaulingTripNumber	8,375.00	3,000.00
tblTripsAndVMT	WorkerTripNumber	28.00	40.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	12.2294	147.3775	79.7706	0.1863	796.3324	5.1891	801.5214	79.6412	4.7738	84.4150	0.0000	19,321.5147	19,321.5147	4.6471	0.0000	19,419.1030
Total	**12.2294**	**147.3775**	**79.7706**	**0.1863**	**796.3324**	**5.1891**	**801.5214**	**79.6412**	**4.7738**	**84.4150**	**0.0000**	**19,321.5147**	**19,321.5147**	**4.6471**	**0.0000**	**19,419.1030**

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					
2015	4.0636	54.8375	100.5563	0.1863	220.1239	0.5194	220.6432	22.1020	0.4969	22.5989	0.0000	19,321.5147	19,321.5147	4.6471	0.0000	19,419.1029
Total	**4.0636**	**54.8375**	**100.5563**	**0.1863**	**220.1239**	**0.5194**	**220.6432**	**22.1020**	**0.4969**	**22.5989**	**0.0000**	**19,321.5147**	**19,321.5147**	**4.6471**	**0.0000**	**19,419.1029**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**66.77**	**62.79**	**-26.06**	**0.00**	**72.36**	**89.99**	**72.47**	**72.25**	**89.59**	**73.23**	**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	Grading	Grading	1/1/2015	1/28/2015	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 5

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Crawler Tractors	1	8.00	500	0.43
Grading	Excavators	0	8.00	162	0.38
Grading	Excavators	1	8.00	500	0.38
Grading	Graders	0	8.00	174	0.41
Grading	Graders	2	8.00	500	0.41

Grading	Off-Highway Trucks	2	8.00	500	0.38
Grading	Off-Highway Trucks	1	4.00	500	0.38
Grading	Rollers	2	8.00	250	0.38
Grading	Rubber Tired Dozers	0	8.00	255	0.40
Grading	Rubber Tired Loaders	1	5.00	750	0.36
Grading	Scrapers	0	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	1	5.00	250	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
Grading	11	40.00	0.00	3,000.00	14.70	6.90	6.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Grading - 2015

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					0.6894	0.0000	0.6894	0.0929	0.0000	0.0929			0.0000			0.0000
Off-Road	10.5736	131.3672	57.4707	0.1468		4.9105	4.9105		4.5177	4.5177		15,399.6880	15,399.6880	4.5975		15,496.2344

Total	**10.5736**	**131.3672**	**57.4707**	**0.1468**	**0.6894**	**4.9105**	**5.5999**	**0.0929**	**4.5177**	**4.6105**		**15,399.6880**	**15,399.6880**	**4.5975**		**15,496.2344**

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	1.4854	15.8083	19.7755	0.0342	795.1959	0.2756	795.4716	79.4298	0.2534	79.6832		3,461.2142	3,461.2142	0.0287		3,461.8160
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	0.1704	0.2020	2.5244	5.3700e-003	0.4471	2.9200e-003	0.4500	0.1186	2.6700e-003	0.1213		460.6126	460.6126	0.0210		461.0526
Total	**1.6557**	**16.0103**	**22.2999**	**0.0395**	**795.6430**	**0.2786**	**795.9216**	**79.5484**	**0.2561**	**79.8045**		**3,921.8268**	**3,921.8268**	**0.0496**		**3,922.8685**

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					0.2688	0.0000	0.2688	0.0362	0.0000	0.0362			0.0000			0.0000
Off-Road	2.4079	38.8272	78.2564	0.1468		0.2408	0.2408		0.2408	0.2408	0.0000	15,399.6880	15,399.6880	4.5975		15,496.2344
Total	**2.4079**	**38.8272**	**78.2564**	**0.1468**	**0.2688**	**0.2408**	**0.5096**	**0.0362**	**0.2408**	**0.2770**	**0.0000**	**15,399.6880**	**15,399.6880**	**4.5975**		**15,496.2344**

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	1.4854	15.8083	19.7755	0.0342	219.4079	0.2756	219.6836	21.9472	0.2534	22.2007		3,461.2142	3,461.2142	0.0287		3,461.8160
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	0.1704	0.2020	2.5244	5.3700e-003	0.4471	2.9200e-003	0.4500	0.1186	2.6700e-003	0.1213		460.6126	460.6126	0.0210		461.0526
Total	**1.6557**	**16.0103**	**22.2999**	**0.0395**	**219.8551**	**0.2786**	**220.1336**	**22.0658**	**0.2561**	**22.3219**		**3,921.8268**	**3,921.8268**	**0.0496**		**3,922.8685**

Perris Dam Remediation - Grading/Excavation Emissions

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Project grading phase.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Construction equipment for site grading.

Trips and VMT - 3,000 total trips over 20 day construction period = 150 haul truck trips per day; 6-mile roundtrip distance for haul trucks.

On-road Fugitive Dust - Approximately 40 percent of haul truck travel would be on paved roads.

Grading - 67,000 cy total of soil export.

Construction Off-road Equipment Mitigation - Use of Tier 4 equipment for mitigation.

Table Name	Column Name	Default Value	New Value

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	110.00	20.00
tblGrading	AcresOfGrading	30.00	5.00
tblGrading	MaterialExported	0.00	67,000.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	HorsePower	162.00	500.00
tblOffRoadEquipment	HorsePower	174.00	500.00
tblOffRoadEquipment	HorsePower	97.00	250.00
tblOffRoadEquipment	HorsePower	208.00	500.00
tblOffRoadEquipment	HorsePower	400.00	500.00
tblOffRoadEquipment	HorsePower	400.00	500.00
tblOffRoadEquipment	HorsePower	80.00	250.00
tblOffRoadEquipment	HorsePower	199.00	750.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOnRoadDust	HaulingPercentPave	100.00	40.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	6.00
tblTripsAndVMT	HaulingTripNumber	8,375.00	3,000.00
tblTripsAndVMT	WorkerTripNumber	28.00	40.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	12.3251	147.8472	81.9280	0.1856	796.3324	5.1918	801.5242	79.6412	4.7763	84.4175	0.0000	19,255.1503	19,255.1503	4.6482	0.0000	19,352.7618
Total	**12.3251**	**147.8472**	**81.9280**	**0.1856**	**796.3324**	**5.1918**	**801.5242**	**79.6412**	**4.7763**	**84.4175**	**0.0000**	**19,255.1503**	**19,255.1503**	**4.6482**	**0.0000**	**19,352.7618**

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					
2015	4.1593	55.3072	102.7136	0.1856	220.1239	0.5221	220.6460	22.1020	0.4994	22.6014	0.0000	19,255.1502	19,255.1502	4.6482	0.0000	19,352.7618
Total	**4.1593**	**55.3072**	**102.7136**	**0.1856**	**220.1239**	**0.5221**	**220.6460**	**22.1020**	**0.4994**	**22.6014**	**0.0000**	**19,255.1502**	**19,255.1502**	**4.6482**	**0.0000**	**19,352.7618**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**66.25**	**62.59**	**-25.37**	**0.00**	**72.36**	**89.94**	**72.47**	**72.25**	**89.54**	**73.23**	**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	Grading	Grading	1/1/2015	1/28/2015	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 5

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Crawler Tractors	1	8.00	500	0.43
Grading	Excavators	0	8.00	162	0.38
Grading	Excavators	1	8.00	500	0.38
Grading	Graders	0	8.00	174	0.41
Grading	Graders	2	8.00	500	0.41
Grading	Off-Highway Trucks	2	8.00	500	0.38

Grading	Off-Highway Trucks	1	4.00	500	0.38
Grading	Rollers	2	8.00	250	0.38
Grading	Rubber Tired Dozers	0	8.00	255	0.40
Grading	Rubber Tired Loaders	1	5.00	750	0.36
Grading	Scrapers	0	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	1	5.00	250	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
Grading	11	40.00	0.00	3,000.00	14.70	6.90	6.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Grading - 2015

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					0.6894	0.0000	0.6894	0.0929	0.0000	0.0929			0.0000			0.0000
Off-Road	10.5736	131.3672	57.4707	0.1468		4.9105	4.9105		4.5177	4.5177		15,399.6880	15,399.6880	4.5975		15,496.2344

Total	**10.5736**	**131.3672**	**57.4707**	**0.1468**	**0.6894**	**4.9105**	**5.5999**	**0.0929**	**4.5177**	**4.6105**		**15,399.6880**	**15,399.6880**	**4.5975**		**15,496.2344**

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	1.5885	16.2646	22.2764	0.0339	795.1959	0.2784	795.4743	79.4298	0.2560	79.6858		3,434.4884	3,434.4884	0.0298		3,435.1135
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	0.1629	0.2154	2.1809	4.9000e-003	0.4471	2.9200e-003	0.4500	0.1186	2.6700e-003	0.1213		420.9739	420.9739	0.0210		421.4139
Total	**1.7514**	**16.4800**	**24.4573**	**0.0388**	**795.6430**	**0.2813**	**795.9243**	**79.5484**	**0.2586**	**79.8070**		**3,855.4623**	**3,855.4623**	**0.0507**		**3,856.5274**

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					0.2688	0.0000	0.2688	0.0362	0.0000	0.0362			0.0000			0.0000
Off-Road	2.4079	38.8272	78.2564	0.1468		0.2408	0.2408		0.2408	0.2408	0.0000	15,399.6880	15,399.6880	4.5975		15,496.2344
Total	**2.4079**	**38.8272**	**78.2564**	**0.1468**	**0.2688**	**0.2408**	**0.5096**	**0.0362**	**0.2408**	**0.2770**	**0.0000**	**15,399.6880**	**15,399.6880**	**4.5975**		**15,496.2344**

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	1.5885	16.2646	22.2764	0.0339	219.4079	0.2784	219.6863	21.9472	0.2560	22.2032		3,434.4884	3,434.4884	0.0298		3,435.1135
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	0.1629	0.2154	2.1809	4.9000e-003	0.4471	2.9200e-003	0.4500	0.1186	2.6700e-003	0.1213		420.9739	420.9739	0.0210		421.4139
Total	**1.7514**	**16.4800**	**24.4573**	**0.0388**	**219.8551**	**0.2813**	**220.1364**	**22.0658**	**0.2586**	**22.3244**		**3,855.4623**	**3,855.4623**	**0.0507**		**3,856.5274**

Perris Dam Remediation - Utility Relocation Emissions

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Utility relocation contruction phase.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Construction equipment for utility relocaton phase.

Trips and VMT - 20 daily worker trips anticpated during this construction phase.

Grading -

Construction Off-road Equipment Mitigation - Use of Tier 3 equipment for mitigation.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	1,110.00	16.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	HorsePower	84.00	250.00
tblOffRoadEquipment	HorsePower	78.00	50.00
tblOffRoadEquipment	HorsePower	162.00	500.00
tblOffRoadEquipment	HorsePower	400.00	500.00
tblOffRoadEquipment	HorsePower	80.00	250.00
tblOffRoadEquipment	HorsePower	100.00	250.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	WorkerTripNumber	0.00	20.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	2.3341	25.3226	11.7737	0.0366	0.2236	0.8949	1.1185	0.0593	0.8442	0.9035	0.0000	3,651.7561	3,651.7561	0.7956	0.0000	3,668.4630
Total	**2.3341**	**25.3226**	**11.7737**	**0.0366**	**0.2236**	**0.8949**	**1.1185**	**0.0593**	**0.8442**	**0.9035**	**0.0000**	**3,651.7561**	**3,651.7561**	**0.7956**	**0.0000**	**3,668.4630**

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					
2015	0.8619	15.2067	18.3242	0.0366	0.2236	0.5931	0.8166	0.0593	0.5930	0.6522	0.0000	3,651.7561	3,651.7561	0.7956	0.0000	3,668.4630
Total	**0.8619**	**15.2067**	**18.3242**	**0.0366**	**0.2236**	**0.5931**	**0.8166**	**0.0593**	**0.5930**	**0.6522**	**0.0000**	**3,651.7561**	**3,651.7561**	**0.7956**	**0.0000**	**3,668.4630**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**63.07**	**39.95**	**-55.64**	**0.00**	**0.00**	**33.73**	**26.99**	**0.00**	**29.76**	**27.81**	**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	Utility Relocation	Building Construction	1/5/2015	1/26/2015	5	16	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Utility Relocation	Air Compressors	2	2.00	50	0.48
Utility Relocation	Cranes	0	7.00	226	0.29
Utility Relocation	Excavators	1	4.00	500	0.38
Utility Relocation	Forklifts	0	8.00	89	0.20
Utility Relocation	Generator Sets	2	2.00	250	0.74
Utility Relocation	Off-Highway Trucks	1	4.00	500	0.38
Utility Relocation	Rollers	1	4.00	250	0.38
Utility Relocation	Rough Terrain Forklifts	1	2.00	250	0.40
Utility Relocation	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Utility Relocation	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Utility Relocation	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Utility Relocation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2489	25.2216	10.5115	0.0339		0.8935	0.8935		0.8428	0.8428		3,421.4499	3,421.4499	0.7851		3,437.9368
Total	**2.2489**	**25.2216**	**10.5115**	**0.0339**		**0.8935**	**0.8935**		**0.8428**	**0.8428**		**3,421.4499**	**3,421.4499**	**0.7851**		**3,437.9368**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0852	0.1010	1.2622	2.6800e-003	0.2236	1.4600e-003	0.2250	0.0593	1.3400e-003	0.0606		230.3063	230.3063	0.0105		230.5263
Total	**0.0852**	**0.1010**	**1.2622**	**2.6800e-003**	**0.2236**	**1.4600e-003**	**0.2250**	**0.0593**	**1.3400e-003**	**0.0606**		**230.3063**	**230.3063**	**0.0105**		**230.5263**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7767	15.1057	17.0620	0.0339		0.5916	0.5916		0.5916	0.5916	0.0000	3,421.4498	3,421.4498	0.7851		3,437.9368
Total	**0.7767**	**15.1057**	**17.0620**	**0.0339**		**0.5916**	**0.5916**		**0.5916**	**0.5916**	**0.0000**	**3,421.4498**	**3,421.4498**	**0.7851**		**3,437.9368**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0852	0.1010	1.2622	2.6800e-003	0.2236	1.4600e-003	0.2250	0.0593	1.3400e-003	0.0606		230.3063	230.3063	0.0105		230.5263
Total	**0.0852**	**0.1010**	**1.2622**	**2.6800e-003**	**0.2236**	**1.4600e-003**	**0.2250**	**0.0593**	**1.3400e-003**	**0.0606**		**230.3063**	**230.3063**	**0.0105**		**230.5263**

Perris Dam Remediation - Utility Relocation Emissions

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Utility relocation contruction phase.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Construction equipment for utility relocaton phase.

Trips and VMT - 20 daily worker trips anticpated during this construction phase.

Grading -

Construction Off-road Equipment Mitigation - Use of Tier 3 equipment for mitigation.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	1,110.00	16.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	HorsePower	84.00	250.00
tblOffRoadEquipment	HorsePower	78.00	50.00
tblOffRoadEquipment	HorsePower	162.00	500.00
tblOffRoadEquipment	HorsePower	400.00	500.00
tblOffRoadEquipment	HorsePower	80.00	250.00
tblOffRoadEquipment	HorsePower	100.00	250.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	WorkerTripNumber	0.00	20.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	2.3303	25.3293	11.6019	0.0364	0.2236	0.8949	1.1185	0.0593	0.8442	0.9035	0.0000	3,631.9368	3,631.9368	0.7956	0.0000	3,648.6437
Total	**2.3303**	**25.3293**	**11.6019**	**0.0364**	**0.2236**	**0.8949**	**1.1185**	**0.0593**	**0.8442**	**0.9035**	**0.0000**	**3,631.9368**	**3,631.9368**	**0.7956**	**0.0000**	**3,648.6437**

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					
2015	0.8582	15.2134	18.1525	0.0364	0.2236	0.5931	0.8166	0.0593	0.5930	0.6522	0.0000	3,631.9368	3,631.9368	0.7956	0.0000	3,648.6437
Total	**0.8582**	**15.2134**	**18.1525**	**0.0364**	**0.2236**	**0.5931**	**0.8166**	**0.0593**	**0.5930**	**0.6522**	**0.0000**	**3,631.9368**	**3,631.9368**	**0.7956**	**0.0000**	**3,648.6437**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**63.17**	**39.94**	**-56.46**	**0.00**	**0.00**	**33.73**	**26.99**	**0.00**	**29.76**	**27.81**	**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	Utility Relocation	Building Construction	1/5/2015	1/26/2015	5	16	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Utility Relocation	Air Compressors	2	2.00	50	0.48
Utility Relocation	Cranes	0	7.00	226	0.29
Utility Relocation	Excavators	1	4.00	500	0.38
Utility Relocation	Forklifts	0	8.00	89	0.20
Utility Relocation	Generator Sets	2	2.00	250	0.74
Utility Relocation	Off-Highway Trucks	1	4.00	500	0.38
Utility Relocation	Rollers	1	4.00	250	0.38
Utility Relocation	Rough Terrain Forklifts	1	2.00	250	0.40
Utility Relocation	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Utility Relocation	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Utility Relocation	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Utility Relocation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2489	25.2216	10.5115	0.0339		0.8935	0.8935		0.8428	0.8428		3,421.4499	3,421.4499	0.7851		3,437.9368
Total	**2.2489**	**25.2216**	**10.5115**	**0.0339**		**0.8935**	**0.8935**		**0.8428**	**0.8428**		**3,421.4499**	**3,421.4499**	**0.7851**		**3,437.9368**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0814	0.1077	1.0905	2.4500e-003	0.2236	1.4600e-003	0.2250	0.0593	1.3400e-003	0.0606		210.4869	210.4869	0.0105		210.7069
Total	**0.0814**	**0.1077**	**1.0905**	**2.4500e-003**	**0.2236**	**1.4600e-003**	**0.2250**	**0.0593**	**1.3400e-003**	**0.0606**		**210.4869**	**210.4869**	**0.0105**		**210.7069**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7767	15.1057	17.0620	0.0339		0.5916	0.5916		0.5916	0.5916	0.0000	3,421.4498	3,421.4498	0.7851		3,437.9368
Total	**0.7767**	**15.1057**	**17.0620**	**0.0339**		**0.5916**	**0.5916**		**0.5916**	**0.5916**	**0.0000**	**3,421.4498**	**3,421.4498**	**0.7851**		**3,437.9368**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0814	0.1077	1.0905	2.4500e-003	0.2236	1.4600e-003	0.2250	0.0593	1.3400e-003	0.0606		210.4869	210.4869	0.0105		210.7069
Total	**0.0814**	**0.1077**	**1.0905**	**2.4500e-003**	**0.2236**	**1.4600e-003**	**0.2250**	**0.0593**	**1.3400e-003**	**0.0606**		**210.4869**	**210.4869**	**0.0105**		**210.7069**

Perris Dam Remediation - Building Construction Emissions

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Project building construction phase.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Construction equipment for site grading.

Trips and VMT - 35 daily worker trips anticipated for this phase. 1,100 total truck trips over 22 construction period = 50 truck trips per day.

On-road Fugitive Dust -

Grading - Site acreage to be disturbed during grading.

Construction Off-road Equipment Mitigation - Use of Tier 4 equipment for mitigation.

Table Name	Column Name	Default Value	New Value

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	1,110.00	22.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	HorsePower	226.00	120.00
tblOffRoadEquipment	HorsePower	84.00	250.00
tblOffRoadEquipment	HorsePower	97.00	250.00
tblOffRoadEquipment	HorsePower	78.00	50.00
tblOffRoadEquipment	HorsePower	9.00	25.00
tblOffRoadEquipment	HorsePower	400.00	500.00
tblOffRoadEquipment	HorsePower	100.00	500.00
tblOffRoadEquipment	HorsePower	199.00	750.00
tblOffRoadEquipment	HorsePower	64.00	120.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	5.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripNumber	0.00	1,100.00
tblTripsAndVMT	WorkerTripNumber	0.00	35.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	8.9995	109.8031	47.4683	0.1539	1.2634	3.8985	5.1618	0.3426	3.6497	3.9923	0.0000	15,501.4763	15,501.4763	2.5166	0.0000	15,554.3240
Total	**8.9995**	**109.8031**	**47.4683**	**0.1539**	**1.2634**	**3.8985**	**5.1618**	**0.3426**	**3.6497**	**3.9923**	**0.0000**	**15,501.4763**	**15,501.4763**	**2.5166**	**0.0000**	**15,554.3240**

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					
2015	2.7202	45.4449	70.1730	0.1539	1.2634	0.5089	1.7722	0.3426	0.4849	0.8275	0.0000	15,501.4763	15,501.4763	2.5166	0.0000	15,554.3240
Total	**2.7202**	**45.4449**	**70.1730**	**0.1539**	**1.2634**	**0.5089**	**1.7722**	**0.3426**	**0.4849**	**0.8275**	**0.0000**	**15,501.4763**	**15,501.4763**	**2.5166**	**0.0000**	**15,554.3240**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**69.77**	**58.61**	**-47.83**	**0.00**	**0.00**	**86.95**	**65.67**	**0.00**	**86.71**	**79.27**	**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	Building Construction	Building Construction	1/1/2015	1/30/2015	5	22	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Air Compressors	1	5.00	50	0.48
Building Construction	Cement and Mortar Mixers	1	2.00	25	0.56
Building Construction	Cranes	2	8.00	120	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	250	0.74
Building Construction	Off-Highway Trucks	1	8.00	500	0.38

Building Construction	Rough Terrain Forklifts	2	6.00	500	0.40
Building Construction	Rubber Tired Loaders	1	6.00	750	0.36
Building Construction	Skid Steer Loaders	1	5.00	120	0.37
Building Construction	Tractors/Loaders/Backhoes	1	5.00	250	0.37
Building Construction	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	12	35.00	0.00	1,100.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	8.0022	94.5444	36.2532	0.1136		3.5989	3.5989		3.3741	3.3741		11,465.7984	11,465.7984	2.4726		11,517.7230
Total	**8.0022**	**94.5444**	**36.2532**	**0.1136**		**3.5989**	**3.5989**		**3.3741**	**3.3741**		**11,465.7984**	**11,465.7984**	**2.4726**		**11,517.7230**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.8482	15.0819	9.0062	0.0357	0.8721	0.2970	1.1691	0.2389	0.2732	0.5121		3,632.6419	3,632.6419	0.0256		3,633.1801
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	0.1491	0.1768	2.2089	4.6900e-003	0.3912	2.5500e-003	0.3938	0.1038	2.3400e-003	0.1061		403.0360	403.0360	0.0183		403.4210
Total	**0.9973**	**15.2587**	**11.2151**	**0.0403**	**1.2634**	**0.2995**	**1.5629**	**0.3426**	**0.2755**	**0.6182**		**4,035.6779**	**4,035.6779**	**0.0440**		**4,036.6011**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7229	30.1862	58.9579	0.1136		0.2093	0.2093		0.2093	0.2093	0.0000	11,465.7984	11,465.7984	2.4726		11,517.7230
Total	**1.7229**	**30.1862**	**58.9579**	**0.1136**		**0.2093**	**0.2093**		**0.2093**	**0.2093**	**0.0000**	**11,465.7984**	**11,465.7984**	**2.4726**		**11,517.7230**

Mitigated Construction Off-Site

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

Category	lb/day										lb/day					
Hauling	0.8482	15.0819	9.0062	0.0357	0.8721	0.2970	1.1691	0.2389	0.2732	0.5121		3,632.6419	3,632.6419	0.0256		3,633.1801
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	0.1491	0.1768	2.2089	4.6900e-003	0.3912	2.5500e-003	0.3938	0.1038	2.3400e-003	0.1061		403.0360	403.0360	0.0183		403.4210
Total	**0.9973**	**15.2587**	**11.2151**	**0.0403**	**1.2634**	**0.2995**	**1.5629**	**0.3426**	**0.2755**	**0.6182**		**4,035.6779**	**4,035.6779**	**0.0440**		**4,036.6011**

Perris Dam Remediation - Building Construction Emissions

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Project building construction phase.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Construction equipment for site grading.

Trips and VMT - 35 daily worker trips anticipated for this phase. 1,100 total truck trips over 22 construction period = 50 truck trips per day.

On-road Fugitive Dust -

Grading - Site acreage to be disturbed during grading.

Construction Off-road Equipment Mitigation - Use of Tier 4 equipment for mitigation.

Table Name	Column Name	Default Value	New Value

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	1,110.00	22.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	HorsePower	226.00	120.00
tblOffRoadEquipment	HorsePower	84.00	250.00
tblOffRoadEquipment	HorsePower	97.00	250.00
tblOffRoadEquipment	HorsePower	78.00	50.00
tblOffRoadEquipment	HorsePower	9.00	25.00
tblOffRoadEquipment	HorsePower	400.00	500.00
tblOffRoadEquipment	HorsePower	100.00	500.00
tblOffRoadEquipment	HorsePower	199.00	750.00
tblOffRoadEquipment	HorsePower	64.00	120.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	5.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripNumber	0.00	1,100.00
tblTripsAndVMT	WorkerTripNumber	0.00	35.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	9.0272	110.3923	47.9925	0.1534	1.2634	3.8994	5.1628	0.3426	3.6505	3.9931	0.0000	15,457.8838	15,457.8838	2.5169	0.0000	15,510.7394
Total	**9.0272**	**110.3923**	**47.9925**	**0.1534**	**1.2634**	**3.8994**	**5.1628**	**0.3426**	**3.6505**	**3.9931**	**0.0000**	**15,457.8838**	**15,457.8838**	**2.5169**	**0.0000**	**15,510.7394**

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					
2015	2.7479	46.0341	70.6972	0.1534	1.2634	0.5098	1.7732	0.3426	0.4857	0.8283	0.0000	15,457.8838	15,457.8838	2.5169	0.0000	15,510.7393
Total	**2.7479**	**46.0341**	**70.6972**	**0.1534**	**1.2634**	**0.5098**	**1.7732**	**0.3426**	**0.4857**	**0.8283**	**0.0000**	**15,457.8838**	**15,457.8838**	**2.5169**	**0.0000**	**15,510.7393**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**69.56**	**58.30**	**-47.31**	**0.00**	**0.00**	**86.93**	**65.65**	**0.00**	**86.69**	**79.26**	**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	Building Construction	Building Construction	1/1/2015	1/30/2015	5	22	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Air Compressors	1	5.00	50	0.48
Building Construction	Cement and Mortar Mixers	1	2.00	25	0.56
Building Construction	Cranes	2	8.00	120	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	250	0.74

Building Construction	Off-Highway Trucks	1	8.00	500	0.38
Building Construction	Rough Terrain Forklifts	2	6.00	500	0.40
Building Construction	Rubber Tired Loaders	1	6.00	750	0.36
Building Construction	Skid Steer Loaders	1	5.00	120	0.37
Building Construction	Tractors/Loaders/Backhoes	1	5.00	250	0.37
Building Construction	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	12	35.00	0.00	1,100.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	8.0022	94.5444	36.2532	0.1136		3.5989	3.5989		3.3741	3.3741		11,465.7984	11,465.7984	2.4726		11,517.7230
Total	**8.0022**	**94.5444**	**36.2532**	**0.1136**		**3.5989**	**3.5989**		**3.3741**	**3.3741**		**11,465.7984**	**11,465.7984**	**2.4726**		**11,517.7230**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.8825	15.6594	9.8310	0.0356	0.8721	0.2979	1.1701	0.2389	0.2740	0.5129		3,623.7333	3,623.7333	0.0260		3,624.2793
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	0.1425	0.1885	1.9083	4.2900e-003	0.3912	2.5500e-003	0.3938	0.1038	2.3400e-003	0.1061		368.3521	368.3521	0.0183		368.7371
Total	**1.0250**	**15.8479**	**11.7393**	**0.0399**	**1.2634**	**0.3005**	**1.5638**	**0.3426**	**0.2764**	**0.6190**		**3,992.0855**	**3,992.0855**	**0.0443**		**3,993.0164**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7229	30.1862	58.9579	0.1136		0.2093	0.2093		0.2093	0.2093	0.0000	11,465.7984	11,465.7984	2.4726		11,517.7230
Total	**1.7229**	**30.1862**	**58.9579**	**0.1136**		**0.2093**	**0.2093**		**0.2093**	**0.2093**	**0.0000**	**11,465.7984**	**11,465.7984**	**2.4726**		**11,517.7230**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.8825	15.6594	9.8310	0.0356	0.8721	0.2979	1.1701	0.2389	0.2740	0.5129		3,623.7333	3,623.7333	0.0260		3,624.2793
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	0.1425	0.1885	1.9083	4.2900e-003	0.3912	2.5500e-003	0.3938	0.1038	2.3400e-003	0.1061		368.3521	368.3521	0.0183		368.7371
Total	**1.0250**	**15.8479**	**11.7393**	**0.0399**	**1.2634**	**0.3005**	**1.5638**	**0.3426**	**0.2764**	**0.6190**		**3,992.0855**	**3,992.0855**	**0.0443**		**3,993.0164**

Perris Dam Remediation - Paving Emissions

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Paving phase for project.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Construction equipment for paving phase.

Trips and VMT - 100 total haul truck trips over 10 day construction period = 10 truck trips per day.

On-road Fugitive Dust -

Grading - Site acreage to be disturbed during grading.

Construction Off-road Equipment Mitigation - Use of Tier 3 equipment for mitigation.

Table Name	Column Name	Default Value	New Value

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	75.00	10.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	HorsePower	125.00	50.00
tblOffRoadEquipment	HorsePower	130.00	50.00
tblOffRoadEquipment	HorsePower	80.00	175.00
tblOffRoadEquipment	HorsePower	199.00	750.00
tblOffRoadEquipment	HorsePower	64.00	175.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripNumber	0.00	100.00
tblTripsAndVMT	WorkerTripNumber	13.00	16.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	3.3699	31.5698	18.0339	0.0373	0.3533	1.4667	1.8199	0.0952	1.3493	1.4445	0.0000	3,851.9121	3,851.9121	0.8916	0.0000	3,870.6348
Total	**3.3699**	**31.5698**	**18.0339**	**0.0373**	**0.3533**	**1.4667**	**1.8199**	**0.0952**	**1.3493**	**1.4445**	**0.0000**	**3,851.9121**	**3,851.9121**	**0.8916**	**0.0000**	**3,870.6348**

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					
2015	0.9322	16.8122	18.6142	0.0373	0.3533	0.6414	0.9946	0.0952	0.6365	0.7317	0.0000	3,851.9121	3,851.9121	0.8916	0.0000	3,870.6348
Total	**0.9322**	**16.8122**	**18.6142**	**0.0373**	**0.3533**	**0.6414**	**0.9946**	**0.0952**	**0.6365**	**0.7317**	**0.0000**	**3,851.9121**	**3,851.9121**	**0.8916**	**0.0000**	**3,870.6348**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**72.34**	**46.75**	**-3.22**	**0.00**	**0.00**	**56.27**	**45.35**	**0.00**	**52.83**	**49.35**	**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	Paving	Paving	1/5/2015	1/16/2015	5	10	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Paving	Pavers	1	8.00	50	0.42
Paving	Paving Equipment	1	8.00	50	0.36
Paving	Rollers	1	8.00	175	0.38
Paving	Rubber Tired Loaders	1	6.00	750	0.36
Paving	Sweepers/Scrubbers	1	2.00	175	0.46

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
Paving	5	16.00	0.00	100.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Paving - 2015

Unmitigated Construction On-Site

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

Off-Road	3.1321	28.4726	15.2229	0.0280		1.4061	1.4061		1.2936	1.2936		2,941.1387	2,941.1387	0.8781		2,959.5778
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.1321**	**28.4726**	**15.2229**	**0.0280**		**1.4061**	**1.4061**		**1.2936**	**1.2936**		**2,941.1387**	**2,941.1387**	**0.8781**		**2,959.5778**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1697	3.0164	1.8013	7.1300e-003	0.1744	0.0594	0.2338	0.0478	0.0546	0.1024		726.5284	726.5284	5.1300e-003		726.6360
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	0.0681	0.0808	1.0098	2.1500e-003	0.1788	1.1700e-003	0.1800	0.0474	1.0700e-003	0.0485		184.2450	184.2450	8.3800e-003		184.4210
Total	**0.2378**	**3.0972**	**2.8110**	**9.2800e-003**	**0.3533**	**0.0606**	**0.4138**	**0.0952**	**0.0557**	**0.1509**		**910.7734**	**910.7734**	**0.0135**		**911.0570**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6945	13.7151	15.8032	0.0280		0.5808	0.5808		0.5808	0.5808	0.0000	2,941.1387	2,941.1387	0.8781		2,959.5778
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6945**	**13.7151**	**15.8032**	**0.0280**		**0.5808**	**0.5808**		**0.5808**	**0.5808**	**0.0000**	**2,941.1387**	**2,941.1387**	**0.8781**		**2,959.5778**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1697	3.0164	1.8013	7.1300e-003	0.1744	0.0594	0.2338	0.0478	0.0546	0.1024		726.5284	726.5284	5.1300e-003		726.6360
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	0.0681	0.0808	1.0098	2.1500e-003	0.1788	1.1700e-003	0.1800	0.0474	1.0700e-003	0.0485		184.2450	184.2450	8.3800e-003		184.4210
Total	**0.2378**	**3.0972**	**2.8110**	**9.2800e-003**	**0.3533**	**0.0606**	**0.4138**	**0.0952**	**0.0557**	**0.1509**		**910.7734**	**910.7734**	**0.0135**		**911.0570**

Perris Dam Remediation - Paving Emissions

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Paving phase for project.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Construction equipment for paving phase.

Trips and VMT - 100 total haul truck trips over 10 day construction period = 10 truck trips per day.

On-road Fugitive Dust -

Grading - Site acreage to be disturbed during grading.

Construction Off-road Equipment Mitigation - Use of Tier 3 equipment for mitigation.

Table Name	Column Name	Default Value	New Value

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	75.00	10.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	HorsePower	125.00	50.00
tblOffRoadEquipment	HorsePower	130.00	50.00
tblOffRoadEquipment	HorsePower	80.00	175.00
tblOffRoadEquipment	HorsePower	199.00	750.00
tblOffRoadEquipment	HorsePower	64.00	175.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripNumber	0.00	100.00
tblTripsAndVMT	WorkerTripNumber	13.00	16.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	3.3737	31.6906	18.0614	0.0371	0.3533	1.4669	1.8201	0.0952	1.3495	1.4447	0.0000	3,834.2749	3,834.2749	0.8916	0.0000	3,852.9992
Total	**3.3737**	**31.6906**	**18.0614**	**0.0371**	**0.3533**	**1.4669**	**1.8201**	**0.0952**	**1.3495**	**1.4447**	**0.0000**	**3,834.2749**	**3,834.2749**	**0.8916**	**0.0000**	**3,852.9992**

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					
2015	0.9361	16.9331	18.6417	0.0371	0.3533	0.6416	0.9948	0.0952	0.6367	0.7319	0.0000	3,834.2749	3,834.2749	0.8916	0.0000	3,852.9992
Total	**0.9361**	**16.9331**	**18.6417**	**0.0371**	**0.3533**	**0.6416**	**0.9948**	**0.0952**	**0.6367**	**0.7319**	**0.0000**	**3,834.2749**	**3,834.2749**	**0.8916**	**0.0000**	**3,852.9992**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**72.25**	**46.57**	**-3.21**	**0.00**	**0.00**	**56.26**	**45.34**	**0.00**	**52.82**	**49.34**	**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	Paving	Paving	1/5/2015	1/16/2015	5	10	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Paving	Pavers	1	8.00	50	0.42
Paving	Paving Equipment	1	8.00	50	0.36
Paving	Rollers	1	8.00	175	0.38
Paving	Rubber Tired Loaders	1	6.00	750	0.36
Paving	Sweepers/Scrubbers	1	2.00	175	0.46

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
Paving	5	16.00	0.00	100.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Paving - 2015

Unmitigated Construction On-Site

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

Off-Road	3.1321	28.4726	15.2229	0.0280		1.4061	1.4061		1.2936	1.2936		2,941.1387	2,941.1387	0.8781		2,959.5778
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.1321**	**28.4726**	**15.2229**	**0.0280**		**1.4061**	**1.4061**		**1.2936**	**1.2936**		**2,941.1387**	**2,941.1387**	**0.8781**		**2,959.5778**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1765	3.1319	1.9662	7.1200e-003	0.1744	0.0596	0.2340	0.0478	0.0548	0.1026		724.7467	724.7467	5.2000e-003		724.8559
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	0.0652	0.0862	0.8724	1.9600e-003	0.1788	1.1700e-003	0.1800	0.0474	1.0700e-003	0.0485		168.3896	168.3896	8.3800e-003		168.5655
Total	**0.2417**	**3.2180**	**2.8386**	**9.0800e-003**	**0.3533**	**0.0608**	**0.4140**	**0.0952**	**0.0559**	**0.1511**		**893.1362**	**893.1362**	**0.0136**		**893.4214**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6945	13.7151	15.8032	0.0280		0.5808	0.5808		0.5808	0.5808	0.0000	2,941.1387	2,941.1387	0.8781		2,959.5778
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6945**	**13.7151**	**15.8032**	**0.0280**		**0.5808**	**0.5808**		**0.5808**	**0.5808**	**0.0000**	**2,941.1387**	**2,941.1387**	**0.8781**		**2,959.5778**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1765	3.1319	1.9662	7.1200e-003	0.1744	0.0596	0.2340	0.0478	0.0548	0.1026		724.7467	724.7467	5.2000e-003		724.8559
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	0.0652	0.0862	0.8724	1.9600e-003	0.1788	1.1700e-003	0.1800	0.0474	1.0700e-003	0.0485		168.3896	168.3896	8.3800e-003		168.5655
Total	**0.2417**	**3.2180**	**2.8386**	**9.0800e-003**	**0.3533**	**0.0608**	**0.4140**	**0.0952**	**0.0559**	**0.1511**		**893.1362**	**893.1362**	**0.0136**		**893.4214**

Perris Dam Remediation - Rip Rap Construction Emissions

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Rip rap construction phase.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Construction equipment for Rip Rap.

Trips and VMT - 28 daily worker trips anticipated for this phase. 400 total truck trips over 20-day construction period = 20 truck trips per day; 6-mile roundtrip distance for haul trucks

On-road Fugitive Dust - Approximately 40 percent of haul truck travel would be on paved roads.

Grading - Site acreage to be disturbed during grading.

Construction Off-road Equipment Mitigation - Use of Tier 4 equipment for mitigation.

Table Name	Column Name	Default Value	New Value

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	1,110.00	20.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	HorsePower	208.00	500.00
tblOffRoadEquipment	HorsePower	400.00	500.00
tblOffRoadEquipment	HorsePower	400.00	500.00
tblOffRoadEquipment	HorsePower	199.00	750.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	40.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	6.00
tblTripsAndVMT	HaulingTripNumber	0.00	400.00
tblTripsAndVMT	WorkerTripNumber	0.00	28.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	7.2243	88.2880	44.7376	0.0927	106.3391	3.3720	109.7111	10.6736	3.1022	13.7758	0.0000	9,644.0173	9,644.0173	2.6636	0.0000	9,699.9528
Total	**7.2243**	**88.2880**	**44.7376**	**0.0927**	**106.3391**	**3.3720**	**109.7111**	**10.6736**	**3.1022**	**13.7758**	**0.0000**	**9,644.0173**	**9,644.0173**	**2.6636**	**0.0000**	**9,699.9528**

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					
2015	1.7071	24.6596	49.5721	0.0927	29.5674	0.1778	29.7451	3.0093	0.1746	3.1839	0.0000	9,644.0173	9,644.0173	2.6636	0.0000	9,699.9528
Total	**1.7071**	**24.6596**	**49.5721**	**0.0927**	**29.5674**	**0.1778**	**29.7451**	**3.0093**	**0.1746**	**3.1839**	**0.0000**	**9,644.0173**	**9,644.0173**	**2.6636**	**0.0000**	**9,699.9528**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**76.37**	**72.07**	**-10.81**	**0.00**	**72.20**	**94.73**	**72.89**	**71.81**	**94.37**	**76.89**	**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	Rip Rap	Building Construction	1/5/2015	1/30/2015	5	20	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Rip Rap	Cranes	0	7.00	226	0.29
Rip Rap	Crawler Tractors	2	8.00	500	0.43
Rip Rap	Forklifts	0	8.00	89	0.20
Rip Rap	Generator Sets	0	8.00	84	0.74
Rip Rap	Off-Highway Trucks	1	8.00	500	0.38
Rip Rap	Off-Highway Trucks	1	4.00	500	0.38
Rip Rap	Rubber Tired Loaders	1	8.00	750	0.36
Rip Rap	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Rip Rap	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Rip Rap	5	28.00	0.00	400.00	14.70	6.90	6.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Rip Rap - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.9070	86.0388	40.3338	0.0844		3.3332	3.3332		3.0665	3.0665		8,860.0932	8,860.0932	2.6451		8,915.6405
Total	**6.9070**	**86.0388**	**40.3338**	**0.0844**		**3.3332**	**3.3332**		**3.0665**	**3.0665**		**8,860.0932**	**8,860.0932**	**2.6451**		**8,915.6405**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1981	2.1078	2.6367	4.5500e-003	106.0261	0.0368	106.0629	10.5906	0.0338	10.6244		461.4952	461.4952	3.8200e-003		461.5755
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	0.1192	0.1414	1.7671	3.7600e-003	0.3130	2.0400e-003	0.3150	0.0830	1.8700e-003	0.0849		322.4288	322.4288	0.0147		322.7368
Total	**0.3173**	**2.2492**	**4.4038**	**8.3100e-003**	**106.3391**	**0.0388**	**106.3779**	**10.6736**	**0.0357**	**10.7093**		**783.9240**	**783.9240**	**0.0185**		**784.3123**

Mitigated Construction On-Site

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

Category	lb/day										lb/day					
Off-Road	1.3898	22.4104	45.1683	0.0844		0.1390	0.1390		0.1390	0.1390	0.0000	8,860.0932	8,860.0932	2.6451		8,915.6405
Total	**1.3898**	**22.4104**	**45.1683**	**0.0844**		**0.1390**	**0.1390**		**0.1390**	**0.1390**	**0.0000**	**8,860.0932**	**8,860.0932**	**2.6451**		**8,915.6405**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1981	2.1078	2.6367	4.5500e-003	29.2544	0.0368	29.2911	2.9263	0.0338	2.9601		461.4952	461.4952	3.8200e-003		461.5755
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	0.1192	0.1414	1.7671	3.7600e-003	0.3130	2.0400e-003	0.3150	0.0830	1.8700e-003	0.0849		322.4288	322.4288	0.0147		322.7368
Total	**0.3173**	**2.2492**	**4.4038**	**8.3100e-003**	**29.5674**	**0.0388**	**29.6062**	**3.0093**	**0.0357**	**3.0450**		**783.9240**	**783.9240**	**0.0185**		**784.3123**

Perris Dam Remediation - Rip Rap Construction Emissions

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Rip rap construction phase.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Construction equipment for Rip Rap.

Trips and VMT - 28 daily worker trips anticipated for this phase. 400 total truck trips over 20-day construction period = 20 truck trips per day; 6-mile roundtrip distance for haul trucks

On-road Fugitive Dust - Approximately 40 percent of haul truck travel would be on paved roads.

Grading - Site acreage to be disturbed during grading.

Construction Off-road Equipment Mitigation - Use of Tier 4 equipment for mitigation.

Table Name	Column Name	Default Value	New Value

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	1,110.00	20.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	HorsePower	208.00	500.00
tblOffRoadEquipment	HorsePower	400.00	500.00
tblOffRoadEquipment	HorsePower	400.00	500.00
tblOffRoadEquipment	HorsePower	199.00	750.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	40.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	6.00
tblTripsAndVMT	HaulingTripNumber	0.00	400.00
tblTripsAndVMT	WorkerTripNumber	0.00	28.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	7.2328	88.3582	44.8306	0.0924	106.3391	3.3724	109.7115	10.6736	3.1025	13.7762	0.0000	9,612.7067	9,612.7067	2.6637	0.0000	9,668.6453
Total	**7.2328**	**88.3582**	**44.8306**	**0.0924**	**106.3391**	**3.3724**	**109.7115**	**10.6736**	**3.1025**	**13.7762**	**0.0000**	**9,612.7067**	**9,612.7067**	**2.6637**	**0.0000**	**9,668.6453**

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					
2015	1.7156	24.7298	49.6651	0.0924	29.5674	0.1781	29.7455	3.0093	0.1750	3.1843	0.0000	9,612.7067	9,612.7067	2.6637	0.0000	9,668.6453
Total	**1.7156**	**24.7298**	**49.6651**	**0.0924**	**29.5674**	**0.1781**	**29.7455**	**3.0093**	**0.1750**	**3.1843**	**0.0000**	**9,612.7067**	**9,612.7067**	**2.6637**	**0.0000**	**9,668.6453**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**76.28**	**72.01**	**-10.78**	**0.00**	**72.20**	**94.72**	**72.89**	**71.81**	**94.36**	**76.89**	**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	Rip Rap	Building Construction	1/5/2015	1/30/2015	5	20	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Rip Rap	Cranes	0	7.00	226	0.29
Rip Rap	Crawler Tractors	2	8.00	500	0.43
Rip Rap	Forklifts	0	8.00	89	0.20
Rip Rap	Generator Sets	0	8.00	84	0.74
Rip Rap	Off-Highway Trucks	1	8.00	500	0.38
Rip Rap	Off-Highway Trucks	1	4.00	500	0.38
Rip Rap	Rubber Tired Loaders	1	8.00	750	0.36
Rip Rap	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Rip Rap	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Rip Rap	5	28.00	0.00	400.00	14.70	6.90	6.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Rip Rap - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.9070	86.0388	40.3338	0.0844		3.3332	3.3332		3.0665	3.0665		8,860.0932	8,860.0932	2.6451		8,915.6405
Total	**6.9070**	**86.0388**	**40.3338**	**0.0844**		**3.3332**	**3.3332**		**3.0665**	**3.0665**		**8,860.0932**	**8,860.0932**	**2.6451**		**8,915.6405**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2118	2.1686	2.9702	4.5200e-003	106.0261	0.0371	106.0632	10.5906	0.0341	10.6248		457.9318	457.9318	3.9700e-003		458.0151
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	0.1140	0.1508	1.5266	3.4300e-003	0.3130	2.0400e-003	0.3150	0.0830	1.8700e-003	0.0849		294.6817	294.6817	0.0147		294.9897
Total	**0.3258**	**2.3194**	**4.4968**	**7.9500e-003**	**106.3391**	**0.0392**	**106.3783**	**10.6736**	**0.0360**	**10.7096**		**752.6135**	**752.6135**	**0.0186**		**753.0048**

Mitigated Construction On-Site

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

Category	lb/day										lb/day					
Off-Road	1.3898	22.4104	45.1683	0.0844		0.1390	0.1390		0.1390	0.1390	0.0000	8,860.0932	8,860.0932	2.6451		8,915.6405
Total	**1.3898**	**22.4104**	**45.1683**	**0.0844**		**0.1390**	**0.1390**		**0.1390**	**0.1390**	**0.0000**	**8,860.0932**	**8,860.0932**	**2.6451**		**8,915.6405**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2118	2.1686	2.9702	4.5200e-003	29.2544	0.0371	29.2915	2.9263	0.0341	2.9604		457.9318	457.9318	3.9700e-003		458.0151
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	0.1140	0.1508	1.5266	3.4300e-003	0.3130	2.0400e-003	0.3150	0.0830	1.8700e-003	0.0849		294.6817	294.6817	0.0147		294.9897
Total	**0.3258**	**2.3194**	**4.4968**	**7.9500e-003**	**29.5674**	**0.0392**	**29.6065**	**3.0093**	**0.0360**	**3.0453**		**752.6135**	**752.6135**	**0.0186**		**753.0048**

Perris ERF

Anticipated Activity per month of construction (With Relative Intensity (1-10))

	Month of Construction																							
Activity	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Demolition	2	2	10	0	0	0	0	5	0	0	2	8	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	5	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	2	5	5	6	6	5	5	5	5	3	0	0	0	0	0	0	0	0	0	0	0	0
Drainage/Utilities/Sub Grade	0	0	0	0	0	0	0	5	8	5	5	5	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	0	0	5	10	0	5	6	0	5	5	0	5	10	5	5	10	5	5	10	5	5	5	10	10
Paving	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rip Rap	0	0	0	0	0	0	0	0	0	2	3	8	0	0	0	0	0	0	0	0	0	0	0	0

	Month of Construction											
Activity	25	26	27	28	29	30	31	32	33	34	35	36
Demolition	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	0	0	0	0	0	0	0	0	0	0
Drainage/Utilities/Sub Grade	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	10	10	10	10	10	10	10	10	10	10	0	0
Paving	0	0	0	0	0	0	0	0	0	0	10	0
Rip Rap	0	0	0	0	0	0	0	0	0	0	2	2

Note:

Subsequent to modeling the construction period was extended from two to three years. As part of that extension, the building construction phase was extended by 12 months and the riprap and paving phases were moved from month 23 and 24 to months 35 and 36. As the same amount of equpiment would be used per day, remodeling was not re-done. Instead it was conservatively assumed that the maximum daily emissions from months 13 trhough 24 is extended through month 34 for building and construction and that the same emissions identified for Paving and Rip Rap in months 23 and 24 would now occur in months 35 and 36. Changes to the schedule are shown in red.

Project On-site Demolition Emissions

Fugitive Dust Material Handling

Aerodynamic Particle Size Multiplier[a]	Mean Wind Speed[b]	Moisture Content[c]	Debris Handled[d]
	mph		ton/day
0.35	10	2.0	243

Incremental Increase in Fugitive Dust Emissions from Construction Operations

Equations:

Material Handling[e]: (0.0032 x Aerodynamic Particle Size Multiplier x (wind speed (mph)/5)$^{1.3}$/(moisture content/2)$^{1.4}$ x debris handled (ton/day)) x (1 - control efficiency) = PM10 Emissions (lb/day)

Description	Control Efficiency	PM10[g]	PM2.5[h]
	%	lb/day	lb/day
Material Handling (Demolition)[f]	61	0.26	0.0546
Material Handling (Debris)	61	0.26	0.0546
Total		**0.52**	**0.11**

Notes:

a) USEPA, AP-42, Jan 1995, Section 13.2.4 Aggregate Handling and Storage Piles, p 13.2.4-3 Aerodynamic particle size multiplier for < 10 µm

b) Mean wind speed - maximum of daily average wind speeds reported in 1981 meteorological data.

c) USEPA, Fugitive Dust Background Document and Technical Information Document for Best Available Control Measures, equation 2-13, p 2-28

d) Daily maximum 300 cy of demolition debris; Building density assumed to be 1,620 lb/cy; [300cy x 1,620/2000) = 243 tons].

e) USEPA, Fugitive Dust Background Document and Technical Information Document for Best Available Control Measures, equation 2-13, p 2-28. EPA suggests using the material handling equation for demolition emission estimates.

f) EPA suggests using the material handling equation for demolition emission estimates.

g) Includes watering at least three times a day per Rule 403 (61% control efficiency)

h) CARB's CEIDARS database PM2.5 fractions - construction dust category for fugitive and diesel vehicle exhaust category for combustion.

Project On-site Grading/Excavation Emissions

Fugitive Dust Grading Parameters

Vehicle Speed (mph)[b]	Vehicle Miles Traveled[c]
3	3.44

Fugitive Dust Stockpiling Parameters

Silt Content[d]	Precipitation Days[e]	Mean Wind Speed Percent[f]	TSP Fraction	Area[g] (acres)
6.9	10	100	0.5	0

Fugitive Dust Material Handling

Aerodynamic Particle Size Multiplier[h]	Mean Wind Speed[i]	Moisture Content[d]	Dirt Handled[a]	Dirt Handled[j]
	mph		cy	lb/day
0.35	10	7.9	30,000	5,000,000

Incremental Increase in Fugitive Dust Emissions from Construction Operations

Equations:

Grading[k]: PM10 Emissions (lb/day) = 0.60 x 0.051 x mean vehicle speed$^{2.0}$ x VMT x (1 - control efficiency)

Storage Piles[l]: PM10 Emissions (lb/day) = 1.7 x (silt content/1.5) x ((365-precipitation days)/235) x wind speed percent/15 x TSP fraction x Area) x (1 - control efficiency)

Material Handling[m]: PM10 Emissions (lb/day) = (0.0032 x aerodynamic particle size multiplier x (wind speed (mph)/5)$^{1.3}$/(moisture content/2)$^{1.4}$ x dirt handled (lb/day)/2,000 (lb/ton) (1 - control efficiency)

Description	Control Efficiency	PM10[n]	PM2.5[o]
	%	lb/day	lb/day
Earthmoving	61	0.37	0.0777
Storage Piles	61	0	0
Material Handling	61	0.39	0.0819
Total		**0.76**	**0.16**

Notes:

a) Based on data provided for project.

b) Caterpillar Performance Handbook, Edition 33, October 2003 Operating Speeds, p 2-3.

c) A maximum total of 5 acres to be disturbed daily [(43560 x 5)/12/5280)=3.44 miles

d) USEPA, AP-42, July 1998, Table 11.9-3 Typical Values for Correction Factors Applicable to the Predictive Emission Factor Equations

e) Table A9-9-E2, SCAQMD CEQA Air Quality Handbook, 1993

f) Mean wind speed percent - percent of time mean wind speed exceeds 12 mph. At least one meteorological site recorded wind speeds greater than 12 mph over a 24-hour period in 1981.

g) No storage pile site preparation phase.

h) USEPA, AP-42, Jan 1995, Section 13.2.4 Aggregate Handling and Storage Piles, p 13.2.4-3 Aerodynamic particle size multiplier for < 10 µm

i) Mean wind speed - maximum of daily average wind speeds reported in 1981 meteorological data.

j) Assumes a maximum of 2,000 cubic yards of dirt will be handled on a maximum day [(2000 cyd x 2,500 lb/cyd)= 5,000,000 lb/day]

k) USEPA, AP-42, July 1998, Table 11.9-1, Equation for Site Grading ≤ 10 µm

l) USEPA, AP-42, Jan 1995, Section 13.2.4 Aggregate Handling and Storage Piles, Equation 1

m) USEPA, Fugitive Dust Background Document and Technical Information Document for Best Available Control Measures, Sept 1992, EPA-450/2-92-004, Equation 2-12

n) Includes watering at least three times a day per Rule 403 (61% control efficiency).

o) CARB's CEIDARS database PM2.5 fractions - construction dust category for fugitive dust.

Project On-site Grading/Excavation Emissions

Fugitive Dust Grading Parameters

Vehicle Speed (mph)[b]	Vehicle Miles Traveled[c]
3	3.44

Fugitive Dust Stockpiling Parameters

Silt Content[d]	Precipitation Days[e]	Mean Wind Speed Percent[f]	TSP Fraction	Area[g] (acres)
6.9	10	100	0.5	0.21

Fugitive Dust Material Handling

Aerodynamic Particle Size Multiplier[h]	Mean Wind Speed[i]	Moisture Content[d]	Dirt Handled[a]	Dirt Handled[j]
	mph		cy	lb/day
0.35	10	7.9	127,000	4,125,000

Incremental Increase in Fugitive Dust Emissions from Construction Operations

Equations:

Grading[k]: PM10 Emissions (lb/day) = 0.60 x 0.051 x mean vehicle speed$^{2.0}$ x VMT x (1 - control efficiency)

Storage Piles[l]: PM10 Emissions (lb/day) = 1.7 x (silt content/1.5) x ((365-precipitation days)/235) x wind speed percent/15 x TSP fraction x Area) x (1 - control efficiency)

Material Handling[m]: PM10 Emissions (lb/day) = (0.0032 x aerodynamic particle size multiplier x (wind speed (mph)/5)$^{1.3}$/(moisture content/2)$^{1.4}$ x dirt handled (lb/day)/2,000 (lb/ton) (1 - control efficiency)

Description	Control Efficiency	PM10[n]	PM2.5[o]
	%	lb/day	lb/day
Earthmoving	61	0.37	0.0777
Storage Piles	61	3.23	0.6783
Material Handling	61	0.32	0.0672
Total		**3.92**	**0.82**

Notes:

a) Based on data provided for project.

b) Caterpillar Performance Handbook, Edition 33, October 2003 Operating Speeds, p 2-3.

c) A maximum total of 5 acres to be disturbed daily [(43560 x 5)/12/5280)=3.44 miles

d) USEPA, AP-42, July 1998, Table 11.9-3 Typical Values for Correction Factors Applicable to the Predictive Emission Factor Equations

e) Table A9-9-E2, SCAQMD CEQA Air Quality Handbook, 1993

f) Mean wind speed percent - percent of time mean wind speed exceeds 12 mph. At least one meteorological site recorded wind speeds greater than 12 mph over a 24-hour period in 1981.

g) Assumed storage pile of 0.21 acres in size

h) USEPA, AP-42, Jan 1995, Section 13.2.4 Aggregate Handling and Storage Piles, p 13.2.4-3 Aerodynamic particle size multiplier for < 10 µm

i) Mean wind speed - maximum of daily average wind speeds reported in 1981 meteorological data.

j) Assumes a maximum of 1,650 cubic yards of dirt will be handled on a maximum day [(1650 cyd x 2,500 lb/cyd)= 4,125,000 lb/day]

k) USEPA, AP-42, July 1998, Table 11.9-1, Equation for Site Grading ≤ 10 µm

l) USEPA, AP-42, Jan 1995, Section 13.2.4 Aggregate Handling and Storage Piles, Equation 1

m) USEPA, Fugitive Dust Background Document and Technical Information Document for Best Available Control Measures, Sept 1992, EPA-450/2-92-004, Equation 2-12

n) Includes watering at least three times a day per Rule 403 (61% control efficiency).

o) CARB's CEIDARS database PM2.5 fractions - construction dust category for fugitive dust.

On-Site Project Construction Pollutant Emissions (From CalEEMod Run) - Unmitigated (LST)

	NOx	CO	PM10	PM2.5	Regional Fugitive Emissions (lbs/day) PM10	PM2.5
Demolition	59.92	33.67	2.37	2.27	17.77	1.91
Site Preparation	90.74	43.16	3.63	3.34	8.07	0.89
Grading/Excavation	139.12	74.05	5.03	4.63	91.68	9.60
Utility Relocation	25.22	10.51	0.89	0.84	0	0
Building Construction	95.94	42.73	3.61	3.38	0.02	0.01
Paving	28.75	16.52	1.41	1.29	0	0
Rip Rap	87.33	43.09	3.35	3.09	14.63	1.46

*The on-site pollutant emissions associated with combustion emisisons were taken from the CalEEMod outputs, while the fugitive dust emissions were taken from CalEEMod outputs as well as calculations using EPA's AP-42 equations.

PERRIS DAM REMDIATION PROJECT

Worst-Case Daily On-Site Emissions Per Month - Unmitigated (LST)

NOx Emissions

Month -Year:	Jan-15												Jan-16											
Month of Construction:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Demolition	11.984	11.984	59.92	0	0	0	0	29.96	0	0	11.984	47.936	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	45.37	90.74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	27.824	69.56	69.56	83.472	83.472	69.56	69.56	69.56	69.56	41.736	0	0	0	0	0	0	0	0	0	0	0	0
Utility Relocation	0	0	0	0	0	0	0	12.61	20.176	12.61	12.61	12.61	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	0	0	47.97	95.94	0	47.97	57.564	0	47.97	47.97	0	47.97	95.94	47.97	47.97	95.94	47.97	47.97	95.94	47.97	47.97	47.97	95.94	95.94
Paving	0	0	0	0	0	0	0	0	0	14.375	0	0	0	0	0	0	0	0	0	0	0	0		
Rip Rap	0	0	0	0	0	0	0	0	0	17.466	26.199	69.864	0	0	0	0	0	0	0	0	0	0		
Total Daily NOx Emissions (lbs/day):	**57.35**	**102.72**	**135.71**	**165.50**	**69.56**	**131.44**	**141.04**	**112.13**	**137.71**	**161.98**	**120.35**	**220.12**	**95.94**	**47.97**	**47.97**	**95.94**	**47.97**	**47.97**	**95.94**	**47.97**	**47.97**	**47.97**	**95.94**	**95.94**
Exceed SCAQMD NOx LST (378 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

CO Emissions

Month -Year:	Jan-15												Jan-16											
Month of Construction:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Demolition	6.734	6.734	33.67	0	0	0	0	16.835	0	0	6.734	26.936	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	21.58	43.16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	14.81	37.025	37.025	44.43	44.43	37.025	37.025	37.025	37.025	22.215	0	0	0	0	0	0	0	0	0	0	0	0
Utility Relocation	0	0	0	0	0	0	0	5.255	8.408	5.255	5.255	5.255	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	0	0	21.365	42.73	0	21.365	25.638	0	21.365	21.365	0	21.365	42.73	21.365	21.365	42.73	21.365	21.365	42.73	21.365	21.365	21.365	42.73	42.73
Paving	0	0	0	0	0	0	0	0	0	8.26	0	0	0	0	0	0	0	0	0	0	0	0		
Rip Rap	0	0	0	0	0	0	0	0	0	8.618	12.927	34.472	0	0	0	0	0	0	0	0	0	0		
Total Daily CO Emissions (lbs/day):	**28.31**	**49.89**	**69.85**	**79.76**	**37.03**	**65.80**	**70.07**	**59.12**	**66.80**	**80.52**	**61.94**	**110.24**	**42.73**	**21.37**	**21.37**	**42.73**	**21.37**	**21.37**	**42.73**	**21.37**	**21.37**	**21.37**	**42.73**	**42.73**
Exceed SCAQMD CO LST (3,437 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

PM10 Emissions

Month -Year:	Jan-15												Jan-16											
Month of Construction:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Demolition	4.028	4.028	20.14	0	0	0	0	10.07	0	0	4.028	16.112	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	5.85	11.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	19.342	48.355	48.355	58.026	58.026	48.355	48.355	48.355	48.355	29.013	0	0	0	0	0	0	0	0	0	0	0	0
Utility Relocation	0	0	0	0	0	0	0	0.445	0.712	0.445	0.445	0.445	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	0	0	1.815	3.63	0	1.815	2.178	0	1.815	1.815	0	1.815	3.63	1.815	1.815	3.63	1.815	1.815	3.63	1.815	1.815	1.815	3.63	3.63
Paving	0	0	0	0	0	0	0	0	0	0.705	0	0	0	0	0	0	0	0	0	0	0	0		
Rip Rap	0	0	0	0	0	0	0	0	0	3.596	5.394	14.384	0	0	0	0	0	0	0	0	0	0		
Total Daily PM10 Emissions (lbs/day):	**9.88**	**15.73**	**41.30**	**51.99**	**48.36**	**59.84**	**60.20**	**58.87**	**50.88**	**54.92**	**58.22**	**61.77**	**3.63**	**1.82**	**1.82**	**3.63**	**1.82**	**1.82**	**3.63**	**1.82**	**1.82**	**1.82**	**3.63**	**3.63**
Exceed SCAQMD PM10 LST (59 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**	**YES**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

PM2.5 Emissions

Month -Year:	Jan-15												Jan-16											
Month of Construction:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Demolition	0.836	0.836	4.18	0	0	0	0	2.09	0	0	0.836	3.344	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	2.115	4.23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	2.846	7.115	7.115	8.538	8.538	7.115	7.115	7.115	7.115	4.269	0	0	0	0	0	0	0	0	0	0	0	0
Utility Relocation	0	0	0	0	0	0	0	0.42	0.672	0.42	0.42	0.42	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	0	0	1.695	3.39	0	1.695	2.034	0	1.695	1.695	0	1.695	3.39	1.695	1.695	3.39	1.695	1.695	3.39	1.695	1.695	1.695	3.39	3.39
Paving	0	0	0	0	0	0	0	0	0	0.645	0	0	0	0	0	0	0	0	0	0	0	0		
Rip Rap	0	0	0	0	0	0	0	0	0	0.91	1.365	3.64	0	0	0	0	0	0	0	0	0	0		
Total Daily PM2.5 Emissions (lbs/day):	**2.95**	**5.07**	**8.72**	**10.51**	**7.12**	**10.23**	**10.57**	**9.63**	**9.48**	**10.79**	**9.74**	**13.37**	**3.39**	**1.70**	**1.70**	**3.39**	**1.70**	**1.70**	**3.39**	**1.70**	**1.70**	**1.70**	**3.39**	**3.39**
Exceed SCAQMD PM2.5 LST (16 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

PERRIS DAM REMDIATION PROJECT

Worst-Case Daily On-Site Emissions Per Month - Unmitigated

NOx Emissions

Month -Year:												
Month of Construction:	25	26	27	28	29	30	31	32	33	34	35	36
Demolition												
Site Preparation												
Grading/Excavation												
Utility Relocation												
Building Construction	95.94	95.94	95.94	95.94	95.94	95.94	95.94	95.94	95.94	95.94		
Paving											0	0
Rip Rap											0	0
Total Daily NOx Emissions (lbs/day):	**95.94**	**95.94**	**95.94**	**95.94**	**95.94**	**95.94**	**95.94**	**95.94**	**95.94**	**95.94**	**0.00**	**0.00**
Exceed SCAQMD NOx LST (378 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

CO Emissions

Month -Year:												
Month of Construction:	25	26	27	28	29	30	31	32	33	34	35	36
Demolition												
Site Preparation												
Grading/Excavation												
Utility Relocation												
Building Construction	42.73	42.73	42.73	42.73	42.73	42.73	42.73	42.73	42.73	42.73		
Paving											0	0
Rip Rap											0	0
Total Daily CO Emissions (lbs/day):	**42.73**	**42.73**	**42.73**	**42.73**	**42.73**	**42.73**	**42.73**	**42.73**	**42.73**	**42.73**	**0.00**	**0.00**
Exceed SCAQMD CO LST (3,437 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

PM10 Emissions

Month -Year:												
Month of Construction:	25	26	27	28	29	30	31	32	33	34	35	36
Demolition												
Site Preparation												
Grading/Excavation												
Utility Relocation												
Building Construction	3.63	3.63	3.63	3.63	3.63	3.63	3.63	3.63	3.63	3.63		
Paving											0	0
Rip Rap											0	0
Total Daily PM10 Emissions (lbs/day):	**3.63**	**3.63**	**3.63**	**3.63**	**3.63**	**3.63**	**3.63**	**3.63**	**3.63**	**3.63**	**0.00**	**0.00**
Exceed SCAQMD PM10 LST (59 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

PM2.5 Emissions

Month -Year:												
Month of Construction:	25	26	27	28	29	30	31	32	33	34	35	36
Demolition												
Site Preparation												
Grading/Excavation												
Utility Relocation												
Building Construction	3.39	3.39	3.39	3.39	3.39	3.39	3.39	3.39	3.39	3.39		
Paving											0	0
Rip Rap											0	0
Total Daily PM2.5 Emissions (lbs/day):	**3.39**	**3.39**	**3.39**	**3.39**	**3.39**	**3.39**	**3.39**	**3.39**	**3.39**	**3.39**	**0.00**	**0.00**
Exceed SCAQMD PM2.5 LST (16 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

On-Site Project Construction Pollutant Emissions (From CalEEMod Run) - Mitigated (LST)

	NOx	CO	PM10	PM2.5	Regional Fugitive Emissions (lbs/day) PM10	Regional Fugitive Emissions (lbs/day) PM2.5
Demolition	42.08	40.62	1.61	1.59	17.77	1.91
Site Preparation	42.79	49.64	1.63	1.63	8.07	0.89
Grading/Excavation	77.58	94.84	2.77	2.76	91.68	9.60
Utility Relocation	15.11	17.06	0.59	0.59	0	0
Building Construction	52.23	65.44	2.01	2.01	0.02	0.01
Paving	14	17.1	0.58	0.58	0	0
Rip Rap	41.59	47.93	1.55	1.55	14.63	1.46

*Mitigation was conducted using Tier 3 equipment prior to revision in the analysis which required Tier 4 equipment to be used. Since LST emissions were LTS using Tier 3, remodeling was not conducted. However, emissions from Tier 4 equipment would result in further decreases in criteria pollutant emissions than are presented here.

PERRIS DAM REMDIATION PROJECT

Worst-Case Daily On-Site Emissions Per Month - Mitigated (with Tier 3 Construction Equipment) - (LST)

NOx Emissions

Month -Year:	Jan-15												Jan-16											
Month of Construction:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Demolition	8.416	8.416	42.08	0	0	0	0	21.04	0	0	8.416	33.664	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	21.395	42.79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	15.516	38.79	38.79	46.548	46.548	38.79	38.79	38.79	38.79	23.274	0	0	0	0	0	0	0	0	0	0	0	0
Utility Relocation	0	0	0	0	0	0	0	7.555	12.088	7.555	7.555	7.555	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	0	0	26.115	52.23	0	26.115	31.338	0	26.115	26.115	0	26.115	52.23	26.115	26.115	52.23	26.115	26.115	52.23	26.115	26.115	26.115	52.23	52.23
Paving	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0		
Rip Rap	0	0	0	0	0	0	0	0	0	8.318	12.477	33.272	0	0	0	0	0	0	0	0	0	0		
Total Daily NOx Emissions (lbs/day):	**29.81**	**51.21**	**83.71**	**91.02**	**38.79**	**72.66**	**77.89**	**67.39**	**76.99**	**87.78**	**67.24**	**123.88**	**52.23**	**26.12**	**26.12**	**52.23**	**26.12**	**26.12**	**52.23**	**26.12**	**26.12**	**26.12**	**52.23**	**52.23**
Exceed SCAQMD NOx LST (378 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

CO Emissions

Month -Year:	Jan-15												Jan-16											
Month of Construction:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Demolition	8.124	8.124	40.62	0	0	0	0	20.31	0	0	8.124	32.496	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	24.82	49.64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	18.968	47.42	47.42	56.904	56.904	47.42	47.42	47.42	47.42	28.452	0	0	0	0	0	0	0	0	0	0	0	0
Utility Relocation	0	0	0	0	0	0	0	8.53	13.648	8.53	8.53	8.53	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	0	0	32.72	65.44	0	32.72	39.264	0	32.72	32.72	0	32.72	65.44	32.72	32.72	65.44	32.72	32.72	65.44	32.72	32.72	32.72	65.44	65.44
Paving	0	0	0	0	0	0	0	0	0	8.55	0	0	0	0	0	0	0	0	0	0	0	0		
Rip Rap	0	0	0	0	0	0	0	0	0	9.586	14.379	38.344	0	0	0	0	0	0	0	0	0	0		
Total Daily CO Emissions (lbs/day):	**32.94**	**57.76**	**92.31**	**112.86**	**47.42**	**89.62**	**96.17**	**76.26**	**93.79**	**106.81**	**78.45**	**140.54**	**65.44**	**32.72**	**32.72**	**65.44**	**32.72**	**32.72**	**65.44**	**32.72**	**32.72**	**32.72**	**65.44**	**65.44**
Exceed SCAQMD CO LST (3,437 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

PM10 Emissions

Month -Year:	Jan-15												Jan-16											
Month of Construction:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Demolition	3.876	3.876	19.38	0	0	0	0	9.69	0	0	3.876	15.504	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	4.85	9.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	18.89	47.225	47.225	56.67	56.67	47.225	47.225	47.225	47.225	28.335	0	0	0	0	0	0	0	0	0	0	0	0
Utility Relocation	0	0	0	0	0	0	0	0.295	0.472	0.295	0.295	0.295	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	0	0	1.015	2.03	0	1.015	1.218	0	1.015	1.015	0	1.015	2.03	1.015	1.015	2.03	1.015	1.015	2.03	1.015	1.015	1.015	2.03	2.03
Paving	0	0	0	0	0	0	0	0	0	0.29	0	0	0	0	0	0	0	0	0	0	0	0		
Rip Rap	0	0	0	0	0	0	0	0	0	3.236	4.854	12.944	0	0	0	0	0	0	0	0	0	0		
Total Daily PM10 Emissions (lbs/day):	**8.73**	**13.58**	**39.29**	**49.26**	**47.23**	**57.69**	**57.89**	**57.21**	**48.71**	**52.06**	**56.25**	**58.09**	**2.03**	**1.02**	**1.02**	**2.03**	**1.02**	**1.02**	**2.03**	**1.02**	**1.02**	**1.02**	**2.03**	**2.03**
Exceed SCAQMD PM10 LST (59 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

PM2.5 Emissions

Month -Year:	Jan-15												Jan-16											
Month of Construction:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Demolition	0.7	0.7	3.5	0	0	0	0	1.75	0	0	0.7	2.8	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	1.26	2.52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	2.472	6.18	6.18	7.416	7.416	6.18	6.18	6.18	6.18	3.708	0	0	0	0	0	0	0	0	0	0	0	0
Utility Relocation	0	0	0	0	0	0	0	0.295	0.472	0.295	0.295	0.295	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	0	0	1.01	2.02	0	1.01	1.212	0	1.01	1.01	0	1.01	2.02	1.01	1.01	2.02	1.01	1.01	2.02	1.01	1.01	1.01	2.02	2.02
Paving	0	0	0	0	0	0	0	0	0	0.29	0	0	0	0	0	0	0	0	0	0	0	0		
Rip Rap	0	0	0	0	0	0	0	0	0	0.602	0.903	2.408	0	0	0	0	0	0	0	0	0	0		
Total Daily PM2.5 Emissions (lbs/day):	**1.96**	**3.22**	**6.98**	**8.20**	**6.18**	**8.43**	**8.63**	**8.23**	**7.66**	**8.38**	**8.08**	**10.22**	**2.02**	**1.01**	**1.01**	**2.02**	**1.01**	**1.01**	**2.02**	**1.01**	**1.01**	**1.01**	**2.02**	**2.02**
Exceed SCAQMD PM2.5 LST (16 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

*Mitigation was conducted using Tier 3 equipment prior to revision in the analysis which required Tier 4 equipment to be used. Since LST emissions were LTS using Tier 3, remodeling was not conducted. However, emissions from Tier 4 equipment would result in further decreases in criteria pollutant emissions than are presented here.

PERRIS DAM REMDIATION PROJECT

Worst-Case Daily On-Site Emissions Per Month - Mitigated (with Tier 3 Construction Equipment)

NOx Emissions

Month -Year:	17-Jan											
Month of Construction:	25	26	27	28	29	30	31	32	33	34	35	36
Demolition												
Site Preparation												
Grading/Excavation												
Utility Relocation												
Building Construction	52.23	52.23	52.23	52.23	52.23	52.23	52.23	52.23	52.23	52.23		
Paving											0	0
Rip Rap											0	0
Total Daily NOx Emissions (lbs/day):	**52.23**	**52.23**	**52.23**	**52.23**	**52.23**	**52.23**	**52.23**	**52.23**	**52.23**	**52.23**	**0.00**	**0.00**
Exceed SCAQMD NOx LST (378 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

CO Emissions

Month -Year:												
Month of Construction:	25	26	27	28	29	30	31	32	33	34	35	36
Demolition												
Site Preparation												
Grading/Excavation												
Utility Relocation												
Building Construction	65.44	65.44	65.44	65.44	65.44	65.44	65.44	65.44	65.44	65.44		
Paving											0	0
Rip Rap											0	0
Total Daily CO Emissions (lbs/day):	**65.44**	**65.44**	**65.44**	**65.44**	**65.44**	**65.44**	**65.44**	**65.44**	**65.44**	**65.44**	**0.00**	**0.00**
Exceed SCAQMD CO LST (3,437 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

PM10 Emissions

Month -Year:												
Month of Construction:	25	26	27	28	29	30	31	32	33	34	35	36
Demolition												
Site Preparation												
Grading/Excavation												
Utility Relocation												
Building Construction	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.03		
Paving											0	0
Rip Rap											0	0
Total Daily PM10 Emissions (lbs/day):	**2.03**	**2.03**	**2.03**	**2.03**	**2.03**	**2.03**	**2.03**	**2.03**	**2.03**	**2.03**	**0.00**	**0.00**
Exceed SCAQMD PM10 LST (59 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

PM2.5 Emissions

Month -Year:												
Month of Construction:	25	26	27	28	29	30	31	32	33	34	35	36
Demolition												
Site Preparation												
Grading/Excavation												
Utility Relocation												
Building Construction	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02		
Paving											0	0
Rip Rap											0	0
Total Daily PM2.5 Emissions (lbs/day):	**2.02**	**2.02**	**2.02**	**2.02**	**2.02**	**2.02**	**2.02**	**2.02**	**2.02**	**2.02**	**0.00**	**0.00**
Exceed SCAQMD PM2.5 LST (16 lb/day)?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

Perris Dam Remediation - On-Site Demolition Emissions

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Demolition phase for project.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Demolition phase for project.

Trips and VMT - 250 total haul trips in one month for demolition phase. 6-mile roundtrip distance for haul trucks.

On-road Fugitive Dust - Approximately 40 percent of hault truck travel during demolition would be on paved roads.

Demolition - 8,000 cy of demolition debris x 2,500 lb/cy = 20,000,000 lb/2,000 = 10,000 tons of debris; 10,000/60 x 10 (active construction days in a month) = 1,667 tons/month

Grading -

Construction Off-road Equipment Mitigation - Use of Tier 3 Equipment for mitigation.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	70.00	10.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	HorsePower	81.00	50.00
tblOffRoadEquipment	HorsePower	78.00	50.00
tblOffRoadEquipment	HorsePower	85.00	250.00
tblOffRoadEquipment	HorsePower	84.00	250.00
tblOffRoadEquipment	HorsePower	199.00	750.00
tblOffRoadEquipment	HorsePower	6.00	15.00
tblOffRoadEquipment	HorsePower	64.00	120.00
tblOffRoadEquipment	HorsePower	97.00	250.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	8.00	3.00
tblOnRoadDust	HaulingPercentPave	100.00	40.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	3.00

tblTripsAndVMT	HaulingTripNumber	165.00	250.00
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblTripsAndVMT	WorkerTripNumber	35.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	6.8829	59.8960	33.2464	0.0814	69.8558	2.3776	72.2334	7.1627	2.2734	9.4360	0.0000	7,508.7738	7,508.7738	1.4347	0.0000	7,538.9033
Total	**6.8829**	**59.8960**	**33.2464**	**0.0814**	**69.8558**	**2.3776**	**72.2334**	**7.1627**	**2.2734**	**9.4360**	**0.0000**	**7,508.7738**	**7,508.7738**	**1.4347**	**0.0000**	**7,538.9033**

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					
2015	3.5767	42.0546	40.2007	0.0814	17.2510	1.6160	18.8670	1.7985	1.5938	3.3923	0.0000	7,508.7738	7,508.7738	1.4347	0.0000	7,538.9033
Total	**3.5767**	**42.0546**	**40.2007**	**0.0814**	**17.2510**	**1.6160**	**18.8670**	**1.7985**	**1.5938**	**3.3923**	**0.0000**	**7,508.7738**	**7,508.7738**	**1.4347**	**0.0000**	**7,538.9033**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	48.04	29.79	-20.92	0.00	75.30	32.03	73.88	74.89	29.89	64.05	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/5/2015	1/16/2015	5	10	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Air Compressors	2	3.00	50	0.48
Demolition	Concrete/Industrial Saws	2	3.00	50	0.73
Demolition	Crushing/Proc. Equipment	1	4.00	250	0.78
Demolition	Excavators	0	8.00	162	0.38
Demolition	Generator Sets	1	3.00	250	0.74
Demolition	Rubber Tired Dozers	0	8.00	255	0.40
Demolition	Rubber Tired Loaders	1	8.00	750	0.36
Demolition	Signal Boards	4	24.00	15	0.82
Demolition	Skid Steer Loaders	1	8.00	120	0.37
Demolition	Tractors/Loaders/Backhoes	2	4.00	250	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	14	0.00	0.00	250.00	0.00	0.00	3.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2015

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					3.5892	0.0000	3.5892	0.5434	0.0000	0.5434			0.0000			0.0000
Off-Road	6.6732	58.3127	30.2092	0.0783		2.3536	2.3536		2.2513	2.2513		7,197.5016	7,197.5016	1.4317		7,227.5670
Total	**6.6732**	**58.3127**	**30.2092**	**0.0783**	**3.5892**	**2.3536**	**5.9429**	**0.5434**	**2.2513**	**2.7948**		**7,197.5016**	**7,197.5016**	**1.4317**		**7,227.5670**

Unmitigated Construction Off-Site

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

Hauling	0.2097	1.5834	3.0372	3.0900e-003	66.2666	0.0240	66.2906	6.6192	0.0220	6.6413		311.2722	311.2722	3.0500e-003		311.3363
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	0.0000	0.0000	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	**0.2097**	**1.5834**	**3.0372**	**3.0900e-003**	**66.2666**	**0.0240**	**66.2906**	**6.6192**	**0.0220**	**6.6413**		**311.2722**	**311.2722**	**3.0500e-003**		**311.3363**

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					1.3998	0.0000	1.3998	0.2119	0.0000	0.2119			0.0000			0.0000
Off-Road	3.3670	40.4713	37.1634	0.0783		1.5920	1.5920		1.5717	1.5717	0.0000	7,197.5016	7,197.5016	1.4317		7,227.5670
Total	**3.3670**	**40.4713**	**37.1634**	**0.0783**	**1.3998**	**1.5920**	**2.9918**	**0.2119**	**1.5717**	**1.7837**	**0.0000**	**7,197.5016**	**7,197.5016**	**1.4317**		**7,227.5670**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2097	1.5834	3.0372	3.0900e-003	15.8512	0.0240	15.8751	1.5866	0.0220	1.6086		311.2722	311.2722	3.0500e-003		311.3363
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	0.0000	0.0000	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	**0.2097**	**1.5834**	**3.0372**	**3.0900e-003**	**15.8512**	**0.0240**	**15.8751**	**1.5866**	**0.0220**	**1.6086**		**311.2722**	**311.2722**	**3.0500e-003**		**311.3363**

Perris Dam Remediation - On-Site Demolition Emissions

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Demolition phase for project.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Demolition phase for project.

Trips and VMT - 250 total haul trips in one month for demolition phase. 6-mile roundtrip distance for haul trucks.

On-road Fugitive Dust - Approximately 40 percent of hault truck travel during demolition would be on paved roads.

Demolition - 8,000 cy of demolition debris x 2,500 lb/cy = 20,000,000 lb/2,000 = 10,000 tons of debris; 10,000/60 x 10 (active construction days in a month) = 1,667 tons/month

Grading -

Construction Off-road Equipment Mitigation - Use of Tier 3 Equipment for mitigation.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	70.00	10.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	HorsePower	81.00	50.00
tblOffRoadEquipment	HorsePower	78.00	50.00
tblOffRoadEquipment	HorsePower	85.00	250.00
tblOffRoadEquipment	HorsePower	84.00	250.00
tblOffRoadEquipment	HorsePower	199.00	750.00
tblOffRoadEquipment	HorsePower	6.00	15.00
tblOffRoadEquipment	HorsePower	64.00	120.00
tblOffRoadEquipment	HorsePower	97.00	250.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	8.00	3.00
tblOnRoadDust	HaulingPercentPave	100.00	40.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	3.00

tblTripsAndVMT	HaulingTripNumber	165.00	250.00
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblTripsAndVMT	WorkerTripNumber	35.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	6.9001	59.9265	33.6641	0.0814	69.8558	2.3781	72.2339	7.1627	2.2738	9.4365	0.0000	7,504.3195	7,504.3195	1.4349	0.0000	7,534.4529
Total	**6.9001**	**59.9265**	**33.6641**	**0.0814**	**69.8558**	**2.3781**	**72.2339**	**7.1627**	**2.2738**	**9.4365**	**0.0000**	**7,504.3195**	**7,504.3195**	**1.4349**	**0.0000**	**7,534.4529**

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					
2015	3.5939	42.0851	40.6184	0.0814	17.2510	1.6164	18.8674	1.7985	1.5942	3.3927	0.0000	7,504.3195	7,504.3195	1.4349	0.0000	7,534.4529
Total	**3.5939**	**42.0851**	**40.6184**	**0.0814**	**17.2510**	**1.6164**	**18.8674**	**1.7985**	**1.5942**	**3.3927**	**0.0000**	**7,504.3195**	**7,504.3195**	**1.4349**	**0.0000**	**7,534.4529**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	47.92	29.77	-20.66	0.00	75.30	32.03	73.88	74.89	29.89	64.05	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/5/2015	1/16/2015	5	10	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Air Compressors	2	3.00	50	0.48
Demolition	Concrete/Industrial Saws	2	3.00	50	0.73
Demolition	Crushing/Proc. Equipment	1	4.00	250	0.78
Demolition	Excavators	0	8.00	162	0.38
Demolition	Generator Sets	1	3.00	250	0.74
Demolition	Rubber Tired Dozers	0	8.00	255	0.40
Demolition	Rubber Tired Loaders	1	8.00	750	0.36
Demolition	Signal Boards	4	24.00	15	0.82
Demolition	Skid Steer Loaders	1	8.00	120	0.37
Demolition	Tractors/Loaders/Backhoes	2	4.00	250	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	14	0.00	0.00	250.00	0.00	0.00	3.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2015

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					3.5892	0.0000	3.5892	0.5434	0.0000	0.5434			0.0000			0.0000
Off-Road	6.6732	58.3127	30.2092	0.0783		2.3536	2.3536		2.2513	2.2513		7,197.5016	7,197.5016	1.4317		7,227.5670
Total	**6.6732**	**58.3127**	**30.2092**	**0.0783**	**3.5892**	**2.3536**	**5.9429**	**0.5434**	**2.2513**	**2.7948**		**7,197.5016**	**7,197.5016**	**1.4317**		**7,227.5670**

Unmitigated Construction Off-Site

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

Hauling	0.2269	1.6139	3.4550	3.0600e-003	66.2666	0.0244	66.2910	6.6192	0.0224	6.6417		306.8179	306.8179	3.2400e-003		306.8859
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	0.0000	0.0000	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	**0.2269**	**1.6139**	**3.4550**	**3.0600e-003**	**66.2666**	**0.0244**	**66.2910**	**6.6192**	**0.0224**	**6.6417**		**306.8179**	**306.8179**	**3.2400e-003**		**306.8859**

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					1.3998	0.0000	1.3998	0.2119	0.0000	0.2119			0.0000			0.0000
Off-Road	3.3670	40.4713	37.1634	0.0783		1.5920	1.5920		1.5717	1.5717	0.0000	7,197.5016	7,197.5016	1.4317		7,227.5670
Total	**3.3670**	**40.4713**	**37.1634**	**0.0783**	**1.3998**	**1.5920**	**2.9918**	**0.2119**	**1.5717**	**1.7837**	**0.0000**	**7,197.5016**	**7,197.5016**	**1.4317**		**7,227.5670**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2269	1.6139	3.4550	3.0600e-003	15.8512	0.0244	15.8756	1.5866	0.0224	1.6090		306.8179	306.8179	3.2400e-003		306.8859
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	0.0000	0.0000	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	**0.2269**	**1.6139**	**3.4550**	**3.0600e-003**	**15.8512**	**0.0244**	**15.8756**	**1.5866**	**0.0224**	**1.6090**		**306.8179**	**306.8179**	**3.2400e-003**		**306.8859**

Perris Dam Remediation - On-Site Site Preparation Emissions

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Site preparation phase for project.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Construction equipment for site preparation phase.

Trips and VMT - Approximately 3 miles of on-site haul truck travel.

On-road Fugitive Dust - Approximately 40 percent of haul truck travel would be on paved roads.

Grading - On-site fugitive dust emissions calculated outside of CalEEMod.

Construction Off-road Equipment Mitigation - Use of Tier 3 equipment for mitigation.

Table Name	Column Name	Default Value	New Value

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	40.00	8.00
tblGrading	AcresOfGrading	11.00	0.00
tblGrading	MeanVehicleSpeed	7.10	0.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	HorsePower	208.00	500.00
tblOffRoadEquipment	HorsePower	400.00	500.00
tblOffRoadEquipment	HorsePower	100.00	250.00
tblOffRoadEquipment	HorsePower	199.00	750.00
tblOffRoadEquipment	HorsePower	199.00	750.00
tblOffRoadEquipment	HorsePower	361.00	500.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	40.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	3.00
tblTripsAndVMT	HaulingTripNumber	0.00	80.00
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00

tblTripsAndVMT	WorkerTripNumber	20.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	7.4898	90.7275	42.9974	0.0887	26.5066	3.6275	30.1342	2.6477	3.3373	5.9850	0.0000	9,300.1050	9,300.1050	2.7405	0.0000	9,357.6560
Total	**7.4898**	**90.7275**	**42.9974**	**0.0887**	**26.5066**	**3.6275**	**30.1342**	**2.6477**	**3.3373**	**5.9850**	**0.0000**	**9,300.1050**	**9,300.1050**	**2.7405**	**0.0000**	**9,357.6560**

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					
2015	2.2633	42.7687	49.4735	0.0887	7.3137	1.6305	8.9442	0.7316	1.6297	2.3613	0.0000	9,300.1050	9,300.1050	2.7405	0.0000	9,357.6560
Total	**2.2633**	**42.7687**	**49.4735**	**0.0887**	**7.3137**	**1.6305**	**8.9442**	**0.7316**	**1.6297**	**2.3613**	**0.0000**	**9,300.1050**	**9,300.1050**	**2.7405**	**0.0000**	**9,357.6560**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**69.78**	**52.86**	**-15.06**	**0.00**	**72.41**	**55.05**	**70.32**	**72.37**	**51.17**	**60.55**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/5/2015	1/14/2015	5	8	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Crawler Tractors	1	8.00	500	0.43
Site Preparation	Graders	1	6.00	174	0.41
Site Preparation	Off-Highway Trucks	1	2.00	500	0.38
Site Preparation	Rough Terrain Forklifts	1	7.00	250	0.40
Site Preparation	Rubber Tired Dozers	0	8.00	255	0.40
Site Preparation	Rubber Tired Loaders	1	3.00	750	0.36
Site Preparation	Rubber Tired Loaders	2	6.00	750	0.36
Site Preparation	Scrapers	1	4.00	500	0.48
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	8	0.00	0.00	80.00	0.00	0.00	3.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2015

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	7.4059	90.0941	41.7826	0.0874		3.6180	3.6180		3.3285	3.3285		9,175.5962	9,175.5962	2.7393		9,233.1214
Total	**7.4059**	**90.0941**	**41.7826**	**0.0874**	**0.0000**	**3.6180**	**3.6180**	**0.0000**	**3.3285**	**3.3285**		**9,175.5962**	**9,175.5962**	**2.7393**		**9,233.1214**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0839	0.6334	1.2149	1.2400e-003	26.5066	9.5900e-003	26.5162	2.6477	8.8100e-003	2.6565		124.5089	124.5089	1.2200e-003		124.5345
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	0.0000	0.0000	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	**0.0839**	**0.6334**	**1.2149**	**1.2400e-003**	**26.5066**	**9.5900e-003**	**26.5162**	**2.6477**	**8.8100e-003**	**2.6565**		**124.5089**	**124.5089**	**1.2200e-003**		**124.5345**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.1794	42.1353	48.2586	0.0874		1.6209	1.6209		1.6209	1.6209	0.0000	9,175.5961	9,175.5961	2.7393		9,233.1214
Total	**2.1794**	**42.1353**	**48.2586**	**0.0874**	**0.0000**	**1.6209**	**1.6209**	**0.0000**	**1.6209**	**1.6209**	**0.0000**	**9,175.5961**	**9,175.5961**	**2.7393**		**9,233.1214**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0839	0.6334	1.2149	1.2400e-003	7.3137	9.5900e-003	7.3233	0.7316	8.8100e-003	0.7404		124.5089	124.5089	1.2200e-003		124.5345
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	0.0000	0.0000	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	**0.0839**	**0.6334**	**1.2149**	**1.2400e-003**	**7.3137**	**9.5900e-003**	**7.3233**	**0.7316**	**8.8100e-003**	**0.7404**		**124.5089**	**124.5089**	**1.2200e-003**		**124.5345**

Perris Dam Remediation - On-Site Site Preparation Emissions

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Site preparation phase for project.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Construction equipment for site preparation phase.

Trips and VMT - Approximately 3 miles of on-site haul truck travel.

On-road Fugitive Dust - Approximately 40 percent of haul truck travel would be on paved roads.

Grading - On-site fugitive dust emissions calculated outside of CalEEMod.

Construction Off-road Equipment Mitigation - Use of Tier 3 equipment for mitigation.

Table Name	Column Name	Default Value	New Value

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	40.00	8.00
tblGrading	AcresOfGrading	11.00	0.00
tblGrading	MeanVehicleSpeed	7.10	0.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	HorsePower	208.00	500.00
tblOffRoadEquipment	HorsePower	400.00	500.00
tblOffRoadEquipment	HorsePower	100.00	250.00
tblOffRoadEquipment	HorsePower	199.00	750.00
tblOffRoadEquipment	HorsePower	199.00	750.00
tblOffRoadEquipment	HorsePower	361.00	500.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	40.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	3.00
tblTripsAndVMT	HaulingTripNumber	0.00	80.00
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00

tblTripsAndVMT	WorkerTripNumber	20.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	7.4967	90.7397	43.1646	0.0886	26.5066	3.6277	30.1344	2.6477	3.3375	5.9852	0.0000	9,298.3233	9,298.3233	2.7406	0.0000	9,355.8758
Total	**7.4967**	**90.7397**	**43.1646**	**0.0886**	**26.5066**	**3.6277**	**30.1344**	**2.6477**	**3.3375**	**5.9852**	**0.0000**	**9,298.3233**	**9,298.3233**	**2.7406**	**0.0000**	**9,355.8758**

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					
2015	2.2702	42.7809	49.6406	0.0886	7.3137	1.6307	8.9444	0.7316	1.6299	2.3615	0.0000	9,298.3233	9,298.3233	2.7406	0.0000	9,355.8758
Total	**2.2702**	**42.7809**	**49.6406**	**0.0886**	**7.3137**	**1.6307**	**8.9444**	**0.7316**	**1.6299**	**2.3615**	**0.0000**	**9,298.3233**	**9,298.3233**	**2.7406**	**0.0000**	**9,355.8758**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**69.72**	**52.85**	**-15.00**	**0.00**	**72.41**	**55.05**	**70.32**	**72.37**	**51.17**	**60.54**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/5/2015	1/14/2015	5	8	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Crawler Tractors	1	8.00	500	0.43
Site Preparation	Graders	1	6.00	174	0.41
Site Preparation	Off-Highway Trucks	1	2.00	500	0.38
Site Preparation	Rough Terrain Forklifts	1	7.00	250	0.40
Site Preparation	Rubber Tired Dozers	0	8.00	255	0.40
Site Preparation	Rubber Tired Loaders	1	3.00	750	0.36
Site Preparation	Rubber Tired Loaders	2	6.00	750	0.36
Site Preparation	Scrapers	1	4.00	500	0.48
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	8	0.00	0.00	80.00	0.00	0.00	3.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2015

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	7.4059	90.0941	41.7826	0.0874		3.6180	3.6180		3.3285	3.3285		9,175.5962	9,175.5962	2.7393		9,233.1214
Total	**7.4059**	**90.0941**	**41.7826**	**0.0874**	**0.0000**	**3.6180**	**3.6180**	**0.0000**	**3.3285**	**3.3285**		**9,175.5962**	**9,175.5962**	**2.7393**		**9,233.1214**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0908	0.6455	1.3820	1.2200e-003	26.5066	9.7700e-003	26.5164	2.6477	8.9800e-003	2.6567		122.7272	122.7272	1.3000e-003		122.7544
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	0.0000	0.0000	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	**0.0908**	**0.6455**	**1.3820**	**1.2200e-003**	**26.5066**	**9.7700e-003**	**26.5164**	**2.6477**	**8.9800e-003**	**2.6567**		**122.7272**	**122.7272**	**1.3000e-003**		**122.7544**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.1794	42.1353	48.2586	0.0874		1.6209	1.6209		1.6209	1.6209	0.0000	9,175.5961	9,175.5961	2.7393		9,233.1214
Total	**2.1794**	**42.1353**	**48.2586**	**0.0874**	**0.0000**	**1.6209**	**1.6209**	**0.0000**	**1.6209**	**1.6209**	**0.0000**	**9,175.5961**	**9,175.5961**	**2.7393**		**9,233.1214**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0908	0.6455	1.3820	1.2200e-003	7.3137	9.7700e-003	7.3235	0.7316	8.9800e-003	0.7406		122.7272	122.7272	1.3000e-003		122.7544
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	0.0000	0.0000	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	**0.0908**	**0.6455**	**1.3820**	**1.2200e-003**	**7.3137**	**9.7700e-003**	**7.3235**	**0.7316**	**8.9800e-003**	**0.7406**		**122.7272**	**122.7272**	**1.3000e-003**		**122.7544**

Perris Dam Remediation - On-Site Grading/Excavation Emissions

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Project grading phase.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Construction equipment for site grading.

Trips and VMT - 2,400 total trips over 20 day construction period = 120 haul truck trips per day;

On-road Fugitive Dust - Approximately 40 percent of haul truck travel would be on paved roads.

Grading - On-site fugitive dust emissions calculated outside of CalEEMod.

Construction Off-road Equipment Mitigation - Use of Tier 3 equipment for mitigation.

Table Name	Column Name	Default Value	New Value

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	110.00	20.00
tblGrading	AcresOfGrading	30.00	0.00
tblGrading	MeanVehicleSpeed	7.10	0.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	HorsePower	162.00	500.00
tblOffRoadEquipment	HorsePower	174.00	500.00
tblOffRoadEquipment	HorsePower	97.00	250.00
tblOffRoadEquipment	HorsePower	208.00	500.00
tblOffRoadEquipment	HorsePower	400.00	500.00
tblOffRoadEquipment	HorsePower	400.00	500.00
tblOffRoadEquipment	HorsePower	80.00	250.00
tblOffRoadEquipment	HorsePower	199.00	750.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOnRoadDust	HaulingPercentPave	100.00	40.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	3.00
tblTripsAndVMT	HaulingTripNumber	0.00	2,400.00
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblTripsAndVMT	WorkerTripNumber	28.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	11.5803	138.9674	72.0494	0.1616	318.0796	5.0255	323.1052	31.7724	4.6234	36.3957	0.0000	16,893.7945	16,893.7945	4.6121	0.0000	16,990.6488
Total	**11.5803**	**138.9674**	**72.0494**	**0.1616**	**318.0796**	**5.0255**	**323.1052**	**31.7724**	**4.6234**	**36.3957**	**0.0000**	**16,893.7945**	**16,893.7945**	**4.6121**	**0.0000**	**16,990.6488**

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					
2015	4.6185	77.4290	92.8350	0.1616	87.7644	2.7637	90.5281	8.7793	2.7544	11.5337	0.0000	16,893.7945	16,893.7945	4.6121	0.0000	16,990.6487
Total	**4.6185**	**77.4290**	**92.8350**	**0.1616**	**87.7644**	**2.7637**	**90.5281**	**8.7793**	**2.7544**	**11.5337**	**0.0000**	**16,893.7945**	**16,893.7945**	**4.6121**	**0.0000**	**16,990.6487**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**60.12**	**44.28**	**-28.85**	**0.00**	**72.41**	**45.01**	**71.98**	**72.37**	**40.42**	**68.31**	**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	Grading	Grading	1/1/2015	1/28/2015	5	20	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Crawler Tractors	1	8.00	500	0.43
Grading	Excavators	0	8.00	162	0.38
Grading	Excavators	1	8.00	500	0.38
Grading	Graders	0	8.00	174	0.41
Grading	Graders	2	8.00	500	0.41

Grading	Off-Highway Trucks	2	8.00	500	0.38
Grading	Off-Highway Trucks	1	4.00	500	0.38
Grading	Rollers	2	8.00	250	0.38
Grading	Rubber Tired Dozers	0	8.00	255	0.40
Grading	Rubber Tired Loaders	1	5.00	750	0.36
Grading	Scrapers	0	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	1	5.00	250	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
Grading	11	0.00	0.00	2,400.00	0.00	0.00	3.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Grading - 2015

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	10.5736	131.3672	57.4707	0.1468		4.9105	4.9105		4.5177	4.5177		15,399.6880	15,399.6880	4.5975		15,496.2344

Total	**10.5736**	**131.3672**	**57.4707**	**0.1468**	**0.0000**	**4.9105**	**4.9105**	**0.0000**	**4.5177**	**4.5177**		**15,399.6880**	**15,399.6880**	**4.5975**		**15,496.2344**

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	1.0067	7.6002	14.5787	0.0149	318.0796	0.1150	318.1947	31.7724	0.1057	31.8781		1,494.1065	1,494.1065	0.0147		1,494.4143
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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0067**	**7.6002**	**14.5787**	**0.0149**	**318.0796**	**0.1150**	**318.1947**	**31.7724**	**0.1057**	**31.8781**		**1,494.1065**	**1,494.1065**	**0.0147**		**1,494.4143**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	3.6118	69.8288	78.2564	0.1468		2.6487	2.6487		2.6487	2.6487	0.0000	15,399.6880	15,399.6880	4.5975		15,496.2344
Total	**3.6118**	**69.8288**	**78.2564**	**0.1468**	**0.0000**	**2.6487**	**2.6487**	**0.0000**	**2.6487**	**2.6487**	**0.0000**	**15,399.6880**	**15,399.6880**	**4.5975**		**15,496.2344**

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	1.0067	7.6002	14.5787	0.0149	87.7644	0.1150	87.8795	8.7793	0.1057	8.8850		1,494.1065	1,494.1065	0.0147		1,494.4143
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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0067**	**7.6002**	**14.5787**	**0.0149**	**87.7644**	**0.1150**	**87.8795**	**8.7793**	**0.1057**	**8.8850**		**1,494.1065**	**1,494.1065**	**0.0147**		**1,494.4143**

Perris Dam Remediation - On-Site Grading/Excavation Emissions

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Project grading phase.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Construction equipment for site grading.

Trips and VMT - 2,400 total trips over 20 day construction period = 120 haul truck trips per day;

On-road Fugitive Dust - Approximately 40 percent of haul truck travel would be on paved roads.

Grading - On-site fugitive dust emissions calculated outside of CalEEMod.

Construction Off-road Equipment Mitigation - Use of Tier 3 equipment for mitigation.

Table Name	Column Name	Default Value	New Value

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	110.00	20.00
tblGrading	AcresOfGrading	30.00	0.00
tblGrading	MeanVehicleSpeed	7.10	0.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	HorsePower	162.00	500.00
tblOffRoadEquipment	HorsePower	174.00	500.00
tblOffRoadEquipment	HorsePower	97.00	250.00
tblOffRoadEquipment	HorsePower	208.00	500.00
tblOffRoadEquipment	HorsePower	400.00	500.00
tblOffRoadEquipment	HorsePower	400.00	500.00
tblOffRoadEquipment	HorsePower	80.00	250.00
tblOffRoadEquipment	HorsePower	199.00	750.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOnRoadDust	HaulingPercentPave	100.00	40.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	3.00
tblTripsAndVMT	HaulingTripNumber	0.00	2,400.00
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblTripsAndVMT	WorkerTripNumber	28.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	11.6629	139.1137	74.0547	0.1614	318.0796	5.0278	323.1074	31.7724	4.6254	36.3978	0.0000	16,872.4139	16,872.4139	4.6130	0.0000	16,969.2868
Total	**11.6629**	**139.1137**	**74.0547**	**0.1614**	**318.0796**	**5.0278**	**323.1074**	**31.7724**	**4.6254**	**36.3978**	**0.0000**	**16,872.4139**	**16,872.4139**	**4.6130**	**0.0000**	**16,969.2868**

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					
2015	4.7011	77.5753	94.8403	0.1614	87.7644	2.7659	90.5304	8.7793	2.7564	11.5358	0.0000	16,872.4139	16,872.4139	4.6130	0.0000	16,969.2868
Total	**4.7011**	**77.5753**	**94.8403**	**0.1614**	**87.7644**	**2.7659**	**90.5304**	**8.7793**	**2.7564**	**11.5358**	**0.0000**	**16,872.4139**	**16,872.4139**	**4.6130**	**0.0000**	**16,969.2868**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**59.69**	**44.24**	**-28.07**	**0.00**	**72.41**	**44.99**	**71.98**	**72.37**	**40.41**	**68.31**	**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	Grading	Grading	1/1/2015	1/28/2015	5	20	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Crawler Tractors	1	8.00	500	0.43
Grading	Excavators	0	8.00	162	0.38
Grading	Excavators	1	8.00	500	0.38
Grading	Graders	0	8.00	174	0.41
Grading	Graders	2	8.00	500	0.41

Grading	Off-Highway Trucks	2	8.00	500	0.38
Grading	Off-Highway Trucks	1	4.00	500	0.38
Grading	Rollers	2	8.00	250	0.38
Grading	Rubber Tired Dozers	0	8.00	255	0.40
Grading	Rubber Tired Loaders	1	5.00	750	0.36
Grading	Scrapers	0	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	1	5.00	250	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
Grading	11	0.00	0.00	2,400.00	0.00	0.00	3.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Grading - 2015

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	10.5736	131.3672	57.4707	0.1468		4.9105	4.9105		4.5177	4.5177		15,399.6880	15,399.6880	4.5975		15,496.2344

Total	**10.5736**	**131.3672**	**57.4707**	**0.1468**	**0.0000**	**4.9105**	**4.9105**	**0.0000**	**4.5177**	**4.5177**		**15,399.6880**	**15,399.6880**	**4.5975**		**15,496.2344**

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	1.0893	7.7465	16.5839	0.0147	318.0796	0.1172	318.1969	31.7724	0.1077	31.8801		1,472.7259	1,472.7259	0.0156		1,473.0524
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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0893**	**7.7465**	**16.5839**	**0.0147**	**318.0796**	**0.1172**	**318.1969**	**31.7724**	**0.1077**	**31.8801**		**1,472.7259**	**1,472.7259**	**0.0156**		**1,473.0524**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	3.6118	69.8288	78.2564	0.1468		2.6487	2.6487		2.6487	2.6487	0.0000	15,399.6880	15,399.6880	4.5975		15,496.2344
Total	**3.6118**	**69.8288**	**78.2564**	**0.1468**	**0.0000**	**2.6487**	**2.6487**	**0.0000**	**2.6487**	**2.6487**	**0.0000**	**15,399.6880**	**15,399.6880**	**4.5975**		**15,496.2344**

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	1.0893	7.7465	16.5839	0.0147	87.7644	0.1172	87.8817	8.7793	0.1077	8.8871		1,472.7259	1,472.7259	0.0156		1,473.0524
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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0893**	**7.7465**	**16.5839**	**0.0147**	**87.7644**	**0.1172**	**87.8817**	**8.7793**	**0.1077**	**8.8871**		**1,472.7259**	**1,472.7259**	**0.0156**		**1,473.0524**

Perris Dam Remediation - On-site Utility Relocation Emissions

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Utility relocation contruction phase.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Construction equipment for utility relocaton phase.

Trips and VMT - No on-site vehicle trips.

Grading -

Construction Off-road Equipment Mitigation - Use of Tier 3 equipment for mitigation.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	1,110.00	16.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	HorsePower	84.00	250.00
tblOffRoadEquipment	HorsePower	78.00	50.00
tblOffRoadEquipment	HorsePower	162.00	500.00
tblOffRoadEquipment	HorsePower	400.00	500.00
tblOffRoadEquipment	HorsePower	80.00	250.00
tblOffRoadEquipment	HorsePower	100.00	250.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	2.2489	25.2216	10.5115	0.0339	0.0000	0.8935	0.8935	0.0000	0.8428	0.8428	0.0000	3,421.4499	3,421.4499	0.7851	0.0000	3,437.9368
Total	**2.2489**	**25.2216**	**10.5115**	**0.0339**	**0.0000**	**0.8935**	**0.8935**	**0.0000**	**0.8428**	**0.8428**	**0.0000**	**3,421.4499**	**3,421.4499**	**0.7851**	**0.0000**	**3,437.9368**

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					
2015	0.7767	15.1057	17.0620	0.0339	0.0000	0.5916	0.5916	0.0000	0.5916	0.5916	0.0000	3,421.4498	3,421.4498	0.7851	0.0000	3,437.9368
Total	**0.7767**	**15.1057**	**17.0620**	**0.0339**	**0.0000**	**0.5916**	**0.5916**	**0.0000**	**0.5916**	**0.5916**	**0.0000**	**3,421.4498**	**3,421.4498**	**0.7851**	**0.0000**	**3,437.9368**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**65.46**	**40.11**	**-62.32**	**0.00**	**0.00**	**33.79**	**33.79**	**0.00**	**29.81**	**29.81**	**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	Utility Relocation	Building Construction	1/5/2015	1/26/2015	5	16	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Utility Relocation	Air Compressors	2	2.00	50	0.48
Utility Relocation	Cranes	0	7.00	226	0.29
Utility Relocation	Excavators	1	4.00	500	0.38
Utility Relocation	Forklifts	0	8.00	89	0.20
Utility Relocation	Generator Sets	2	2.00	250	0.74
Utility Relocation	Off-Highway Trucks	1	4.00	500	0.38
Utility Relocation	Rollers	1	4.00	250	0.38
Utility Relocation	Rough Terrain Forklifts	1	2.00	250	0.40
Utility Relocation	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Utility Relocation	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Utility Relocation	8	0.00	0.00	0.00	0.00	0.00	0.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Utility Relocation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2489	25.2216	10.5115	0.0339		0.8935	0.8935		0.8428	0.8428		3,421.4499	3,421.4499	0.7851		3,437.9368
Total	**2.2489**	**25.2216**	**10.5115**	**0.0339**		**0.8935**	**0.8935**		**0.8428**	**0.8428**		**3,421.4499**	**3,421.4499**	**0.7851**		**3,437.9368**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7767	15.1057	17.0620	0.0339		0.5916	0.5916		0.5916	0.5916	0.0000	3,421.4498	3,421.4498	0.7851		3,437.9368
Total	**0.7767**	**15.1057**	**17.0620**	**0.0339**		**0.5916**	**0.5916**		**0.5916**	**0.5916**	**0.0000**	**3,421.4498**	**3,421.4498**	**0.7851**		**3,437.9368**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	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**

Perris Dam Remediation - On-site Utility Relocation Emissions

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Utility relocation contruction phase.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Construction equipment for utility relocaton phase.

Trips and VMT - No on-site vehicle trips.

Grading -

Construction Off-road Equipment Mitigation - Use of Tier 3 equipment for mitigation.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	1,110.00	16.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	HorsePower	84.00	250.00
tblOffRoadEquipment	HorsePower	78.00	50.00
tblOffRoadEquipment	HorsePower	162.00	500.00
tblOffRoadEquipment	HorsePower	400.00	500.00
tblOffRoadEquipment	HorsePower	80.00	250.00
tblOffRoadEquipment	HorsePower	100.00	250.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	2.2489	25.2216	10.5115	0.0339	0.0000	0.8935	0.8935	0.0000	0.8428	0.8428	0.0000	3,421.4499	3,421.4499	0.7851	0.0000	3,437.9368
Total	**2.2489**	**25.2216**	**10.5115**	**0.0339**	**0.0000**	**0.8935**	**0.8935**	**0.0000**	**0.8428**	**0.8428**	**0.0000**	**3,421.4499**	**3,421.4499**	**0.7851**	**0.0000**	**3,437.9368**

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					
2015	0.7767	15.1057	17.0620	0.0339	0.0000	0.5916	0.5916	0.0000	0.5916	0.5916	0.0000	3,421.4498	3,421.4498	0.7851	0.0000	3,437.9368
Total	**0.7767**	**15.1057**	**17.0620**	**0.0339**	**0.0000**	**0.5916**	**0.5916**	**0.0000**	**0.5916**	**0.5916**	**0.0000**	**3,421.4498**	**3,421.4498**	**0.7851**	**0.0000**	**3,437.9368**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**65.46**	**40.11**	**-62.32**	**0.00**	**0.00**	**33.79**	**33.79**	**0.00**	**29.81**	**29.81**	**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	Utility Relocation	Building Construction	1/5/2015	1/26/2015	5	16	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Utility Relocation	Air Compressors	2	2.00	50	0.48
Utility Relocation	Cranes	0	7.00	226	0.29
Utility Relocation	Excavators	1	4.00	500	0.38
Utility Relocation	Forklifts	0	8.00	89	0.20
Utility Relocation	Generator Sets	2	2.00	250	0.74
Utility Relocation	Off-Highway Trucks	1	4.00	500	0.38
Utility Relocation	Rollers	1	4.00	250	0.38
Utility Relocation	Rough Terrain Forklifts	1	2.00	250	0.40
Utility Relocation	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Utility Relocation	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Utility Relocation	8	0.00	0.00	0.00	0.00	0.00	0.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Utility Relocation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2489	25.2216	10.5115	0.0339		0.8935	0.8935		0.8428	0.8428		3,421.4499	3,421.4499	0.7851		3,437.9368
Total	**2.2489**	**25.2216**	**10.5115**	**0.0339**		**0.8935**	**0.8935**		**0.8428**	**0.8428**		**3,421.4499**	**3,421.4499**	**0.7851**		**3,437.9368**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7767	15.1057	17.0620	0.0339		0.5916	0.5916		0.5916	0.5916	0.0000	3,421.4498	3,421.4498	0.7851		3,437.9368
Total	**0.7767**	**15.1057**	**17.0620**	**0.0339**		**0.5916**	**0.5916**		**0.5916**	**0.5916**	**0.0000**	**3,421.4498**	**3,421.4498**	**0.7851**		**3,437.9368**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	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**

Perris Dam Remediation - On-Site Building Construction Emissions

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Project building construction phase.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Construction equipment for site grading.

Trips and VMT - 1,100 total truck trips over 22 construction period = 50 truck trips per day.

On-road Fugitive Dust -

Grading - Site acreage to be disturbed during grading.

Construction Off-road Equipment Mitigation - Use of Tier 3 equipment for mitigation.

Table Name	Column Name	Default Value	New Value

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	1,110.00	22.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	HorsePower	226.00	120.00
tblOffRoadEquipment	HorsePower	84.00	250.00
tblOffRoadEquipment	HorsePower	97.00	250.00
tblOffRoadEquipment	HorsePower	78.00	50.00
tblOffRoadEquipment	HorsePower	9.00	25.00
tblOffRoadEquipment	HorsePower	400.00	500.00
tblOffRoadEquipment	HorsePower	100.00	500.00
tblOffRoadEquipment	HorsePower	199.00	750.00
tblOffRoadEquipment	HorsePower	64.00	120.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	5.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripNumber	0.00	1,100.00
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	8.3586	95.9589	41.8965	0.1154	0.0228	3.6102	3.6331	6.3400e-003	3.3845	3.3908	0.0000	11,645.6814	11,645.6814	2.4758	0.0000	11,697.6739
Total	**8.3586**	**95.9589**	**41.8965**	**0.1154**	**0.0228**	**3.6102**	**3.6331**	**6.3400e-003**	**3.3845**	**3.3908**	**0.0000**	**11,645.6814**	**11,645.6814**	**2.4758**	**0.0000**	**11,697.6739**

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					
2015	2.9832	52.2493	64.6012	0.1154	0.0228	2.0105	2.0333	6.3400e-003	2.0095	2.0159	0.0000	11,645.6813	11,645.6813	2.4758	0.0000	11,697.6739
Total	**2.9832**	**52.2493**	**64.6012**	**0.1154**	**0.0228**	**2.0105**	**2.0333**	**6.3400e-003**	**2.0095**	**2.0159**	**0.0000**	**11,645.6813**	**11,645.6813**	**2.4758**	**0.0000**	**11,697.6739**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**64.31**	**45.55**	**-54.19**	**0.00**	**0.00**	**44.31**	**44.03**	**0.00**	**40.63**	**40.55**	**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	Building Construction	Building Construction	1/1/2015	1/30/2015	5	22	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Air Compressors	1	5.00	50	0.48
Building Construction	Cement and Mortar Mixers	1	2.00	25	0.56
Building Construction	Cranes	2	8.00	120	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	250	0.74

Building Construction	Off-Highway Trucks	1	8.00	500	0.38
Building Construction	Rough Terrain Forklifts	2	6.00	500	0.40
Building Construction	Rubber Tired Loaders	1	6.00	750	0.36
Building Construction	Skid Steer Loaders	1	5.00	120	0.37
Building Construction	Tractors/Loaders/Backhoes	1	5.00	250	0.37
Building Construction	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	12	0.00	0.00	1,100.00	0.00	0.00	0.50	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	8.0022	94.5444	36.2532	0.1136		3.5989	3.5989		3.3741	3.3741		11,465.7984	11,465.7984	2.4726		11,517.7230
Total	**8.0022**	**94.5444**	**36.2532**	**0.1136**		**3.5989**	**3.5989**		**3.3741**	**3.3741**		**11,465.7984**	**11,465.7984**	**2.4726**		**11,517.7230**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3564	1.4145	5.6433	1.8500e-003	0.0228	0.0113	0.0341	6.3400e-003	0.0103	0.0167		179.8830	179.8830	3.2400e-003		179.9510
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	0.0000	0.0000	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	**0.3564**	**1.4145**	**5.6433**	**1.8500e-003**	**0.0228**	**0.0113**	**0.0341**	**6.3400e-003**	**0.0103**	**0.0167**		**179.8830**	**179.8830**	**3.2400e-003**		**179.9510**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6268	50.8348	58.9579	0.1136		1.9992	1.9992		1.9992	1.9992	0.0000	11,465.7984	11,465.7984	2.4726		11,517.7230
Total	**2.6268**	**50.8348**	**58.9579**	**0.1136**		**1.9992**	**1.9992**		**1.9992**	**1.9992**	**0.0000**	**11,465.7984**	**11,465.7984**	**2.4726**		**11,517.7230**

Mitigated Construction Off-Site

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

Category	lb/day										lb/day					
Hauling	0.3564	1.4145	5.6433	1.8500e-003	0.0228	0.0113	0.0341	6.3400e-003	0.0103	0.0167		179.8830	179.8830	3.2400e-003		179.9510
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	0.0000	0.0000	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	**0.3564**	**1.4145**	**5.6433**	**1.8500e-003**	**0.0228**	**0.0113**	**0.0341**	**6.3400e-003**	**0.0103**	**0.0167**		**179.8830**	**179.8830**	**3.2400e-003**		**179.9510**

Perris Dam Remediation - On-Site Building Construction Emissions

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Project building construction phase.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Construction equipment for site grading.

Trips and VMT - 1,100 total truck trips over 22 construction period = 50 truck trips per day.

On-road Fugitive Dust -

Grading - Site acreage to be disturbed during grading.

Construction Off-road Equipment Mitigation - Use of Tier 3 equipment for mitigation.

Table Name	Column Name	Default Value	New Value

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	1,110.00	22.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	HorsePower	226.00	120.00
tblOffRoadEquipment	HorsePower	84.00	250.00
tblOffRoadEquipment	HorsePower	97.00	250.00
tblOffRoadEquipment	HorsePower	78.00	50.00
tblOffRoadEquipment	HorsePower	9.00	25.00
tblOffRoadEquipment	HorsePower	400.00	500.00
tblOffRoadEquipment	HorsePower	100.00	500.00
tblOffRoadEquipment	HorsePower	199.00	750.00
tblOffRoadEquipment	HorsePower	64.00	120.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	5.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripNumber	0.00	1,100.00
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	8.3930	95.9439	42.7336	0.1154	0.0228	3.6112	3.6340	6.3400e-003	3.3853	3.3917	0.0000	11,636.7728	11,636.7728	2.4762	0.0000	11,688.7731
Total	**8.3930**	**95.9439**	**42.7336**	**0.1154**	**0.0228**	**3.6112**	**3.6340**	**6.3400e-003**	**3.3853**	**3.3917**	**0.0000**	**11,636.7728**	**11,636.7728**	**2.4762**	**0.0000**	**11,688.7731**

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					
2015	3.0176	52.2343	65.4383	0.1154	0.0228	2.0114	2.0342	6.3400e-003	2.0104	2.0167	0.0000	11,636.7728	11,636.7728	2.4762	0.0000	11,688.7731
Total	**3.0176**	**52.2343**	**65.4383**	**0.1154**	**0.0228**	**2.0114**	**2.0342**	**6.3400e-003**	**2.0104**	**2.0167**	**0.0000**	**11,636.7728**	**11,636.7728**	**2.4762**	**0.0000**	**11,688.7731**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**64.05**	**45.56**	**-53.13**	**0.00**	**0.00**	**44.30**	**44.02**	**0.00**	**40.62**	**40.54**	**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	Building Construction	Building Construction	1/1/2015	1/30/2015	5	22	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Air Compressors	1	5.00	50	0.48
Building Construction	Cement and Mortar Mixers	1	2.00	25	0.56
Building Construction	Cranes	2	8.00	120	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	250	0.74

Building Construction	Off-Highway Trucks	1	8.00	500	0.38
Building Construction	Rough Terrain Forklifts	2	6.00	500	0.40
Building Construction	Rubber Tired Loaders	1	6.00	750	0.36
Building Construction	Skid Steer Loaders	1	5.00	120	0.37
Building Construction	Tractors/Loaders/Backhoes	1	5.00	250	0.37
Building Construction	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	12	0.00	0.00	1,100.00	0.00	0.00	0.50	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	8.0022	94.5444	36.2532	0.1136		3.5989	3.5989		3.3741	3.3741		11,465.7984	11,465.7984	2.4726		11,517.7230
Total	**8.0022**	**94.5444**	**36.2532**	**0.1136**		**3.5989**	**3.5989**		**3.3741**	**3.3741**		**11,465.7984**	**11,465.7984**	**2.4726**		**11,517.7230**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3908	1.3995	6.4804	1.7800e-003	0.0228	0.0122	0.0351	6.3400e-003	0.0112	0.0175		170.9744	170.9744	3.6100e-003		171.0502
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	0.0000	0.0000	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	**0.3908**	**1.3995**	**6.4804**	**1.7800e-003**	**0.0228**	**0.0122**	**0.0351**	**6.3400e-003**	**0.0112**	**0.0175**		**170.9744**	**170.9744**	**3.6100e-003**		**171.0502**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6268	50.8348	58.9579	0.1136		1.9992	1.9992		1.9992	1.9992	0.0000	11,465.7984	11,465.7984	2.4726		11,517.7230
Total	**2.6268**	**50.8348**	**58.9579**	**0.1136**		**1.9992**	**1.9992**		**1.9992**	**1.9992**	**0.0000**	**11,465.7984**	**11,465.7984**	**2.4726**		**11,517.7230**

Mitigated Construction Off-Site

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

Category	lb/day										lb/day					
Hauling	0.3908	1.3995	6.4804	1.7800e-003	0.0228	0.0122	0.0351	6.3400e-003	0.0112	0.0175		170.9744	170.9744	3.6100e-003		171.0502
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	0.0000	0.0000	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	**0.3908**	**1.3995**	**6.4804**	**1.7800e-003**	**0.0228**	**0.0122**	**0.0351**	**6.3400e-003**	**0.0112**	**0.0175**		**170.9744**	**170.9744**	**3.6100e-003**		**171.0502**

Perris Dam Remediation - On-Site Paving Emissions

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Paving phase for project.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Construction equipment for paving phase.

Trips and VMT - 100 total haul truck trips over 10 day construction period = 10 truck trips per day.

On-road Fugitive Dust -

Grading - Site acreage to be disturbed during grading.

Construction Off-road Equipment Mitigation - Use of Tier 3 equipment for mitigation.

Table Name	Column Name	Default Value	New Value

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	75.00	10.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	HorsePower	125.00	50.00
tblOffRoadEquipment	HorsePower	130.00	50.00
tblOffRoadEquipment	HorsePower	80.00	175.00
tblOffRoadEquipment	HorsePower	199.00	750.00
tblOffRoadEquipment	HorsePower	64.00	175.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripNumber	0.00	100.00
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblTripsAndVMT	WorkerTripNumber	13.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	3.2033	28.7555	16.3515	0.0284	4.5700e-003	1.4084	1.4129	1.2700e-003	1.2957	1.2970	0.0000	2,977.1153	2,977.1153	0.8787	0.0000	2,995.5680
Total	**3.2033**	**28.7555**	**16.3515**	**0.0284**	**4.5700e-003**	**1.4084**	**1.4129**	**1.2700e-003**	**1.2957**	**1.2970**	**0.0000**	**2,977.1153**	**2,977.1153**	**0.8787**	**0.0000**	**2,995.5680**

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					
2015	0.7657	13.9980	16.9318	0.0284	4.5700e-003	0.5831	0.5876	1.2700e-003	0.5829	0.5841	0.0000	2,977.1153	2,977.1153	0.8787	0.0000	2,995.5680
Total	**0.7657**	**13.9980**	**16.9318**	**0.0284**	**4.5700e-003**	**0.5831**	**0.5876**	**1.2700e-003**	**0.5829**	**0.5841**	**0.0000**	**2,977.1153**	**2,977.1153**	**0.8787**	**0.0000**	**2,995.5680**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**76.10**	**51.32**	**-3.55**	**0.00**	**0.00**	**58.60**	**58.41**	**0.00**	**55.01**	**54.96**	**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	Paving	Paving	1/5/2015	1/16/2015	5	10	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Paving	Pavers	1	8.00	50	0.42
Paving	Paving Equipment	1	8.00	50	0.36
Paving	Rollers	1	8.00	175	0.38
Paving	Rubber Tired Loaders	1	6.00	750	0.36
Paving	Sweepers/Scrubbers	1	2.00	175	0.46

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
Paving	5	0.00	0.00	100.00	0.00	0.00	0.50	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Paving - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1321	28.4726	15.2229	0.0280		1.4061	1.4061		1.2936	1.2936		2,941.1387	2,941.1387	0.8781		2,959.5778
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.1321**	**28.4726**	**15.2229**	**0.0280**		**1.4061**	**1.4061**		**1.2936**	**1.2936**		**2,941.1387**	**2,941.1387**	**0.8781**		**2,959.5778**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0713	0.2829	1.1287	3.7000e-004	4.5700e-003	2.2600e-003	6.8300e-003	1.2700e-003	2.0700e-003	3.3400e-003		35.9766	35.9766	6.5000e-004		35.9902
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	0.0000	0.0000	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	**0.0713**	**0.2829**	**1.1287**	**3.7000e-004**	**4.5700e-003**	**2.2600e-003**	**6.8300e-003**	**1.2700e-003**	**2.0700e-003**	**3.3400e-003**		**35.9766**	**35.9766**	**6.5000e-004**		**35.9902**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6945	13.7151	15.8032	0.0280		0.5808	0.5808		0.5808	0.5808	0.0000	2,941.1387	2,941.1387	0.8781		2,959.5778

Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6945**	**13.7151**	**15.8032**	**0.0280**		**0.5808**	**0.5808**		**0.5808**	**0.5808**	**0.0000**	**2,941.1387**	**2,941.1387**	**0.8781**		**2,959.5778**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0713	0.2829	1.1287	3.7000e-004	4.5700e-003	2.2600e-003	6.8300e-003	1.2700e-003	2.0700e-003	3.3400e-003		35.9766	35.9766	6.5000e-004		35.9902
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	0.0000	0.0000	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	**0.0713**	**0.2829**	**1.1287**	**3.7000e-004**	**4.5700e-003**	**2.2600e-003**	**6.8300e-003**	**1.2700e-003**	**2.0700e-003**	**3.3400e-003**		**35.9766**	**35.9766**	**6.5000e-004**		**35.9902**

Perris Dam Remediation - On-Site Paving Emissions

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Paving phase for project.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Construction equipment for paving phase.

Trips and VMT - 100 total haul truck trips over 10 day construction period = 10 truck trips per day.

On-road Fugitive Dust -

Grading - Site acreage to be disturbed during grading.

Construction Off-road Equipment Mitigation - Use of Tier 3 equipment for mitigation.

Table Name	Column Name	Default Value	New Value

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	75.00	10.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	HorsePower	125.00	50.00
tblOffRoadEquipment	HorsePower	130.00	50.00
tblOffRoadEquipment	HorsePower	80.00	175.00
tblOffRoadEquipment	HorsePower	199.00	750.00
tblOffRoadEquipment	HorsePower	64.00	175.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripNumber	0.00	100.00
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblTripsAndVMT	WorkerTripNumber	13.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	3.2102	28.7525	16.5190	0.0284	4.5700e-003	1.4085	1.4131	1.2700e-003	1.2959	1.2971	0.0000	2,975.3336	2,975.3336	0.8788	0.0000	2,993.7878
Total	**3.2102**	**28.7525**	**16.5190**	**0.0284**	**4.5700e-003**	**1.4085**	**1.4131**	**1.2700e-003**	**1.2959**	**1.2971**	**0.0000**	**2,975.3336**	**2,975.3336**	**0.8788**	**0.0000**	**2,993.7878**

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					
2015	0.7726	13.9950	17.0993	0.0284	4.5700e-003	0.5833	0.5878	1.2700e-003	0.5830	0.5843	0.0000	2,975.3336	2,975.3336	0.8788	0.0000	2,993.7878
Total	**0.7726**	**13.9950**	**17.0993**	**0.0284**	**4.5700e-003**	**0.5833**	**0.5878**	**1.2700e-003**	**0.5830**	**0.5843**	**0.0000**	**2,975.3336**	**2,975.3336**	**0.8788**	**0.0000**	**2,993.7878**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**75.93**	**51.33**	**-3.51**	**0.00**	**0.00**	**58.59**	**58.40**	**0.00**	**55.01**	**54.95**	**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	Paving	Paving	1/5/2015	1/16/2015	5	10	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Paving	Pavers	1	8.00	50	0.42
Paving	Paving Equipment	1	8.00	50	0.36
Paving	Rollers	1	8.00	175	0.38
Paving	Rubber Tired Loaders	1	6.00	750	0.36
Paving	Sweepers/Scrubbers	1	2.00	175	0.46

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
Paving	5	0.00	0.00	100.00	0.00	0.00	0.50	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Paving - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1321	28.4726	15.2229	0.0280		1.4061	1.4061		1.2936	1.2936		2,941.1387	2,941.1387	0.8781		2,959.5778
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.1321**	**28.4726**	**15.2229**	**0.0280**		**1.4061**	**1.4061**		**1.2936**	**1.2936**		**2,941.1387**	**2,941.1387**	**0.8781**		**2,959.5778**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0782	0.2799	1.2961	3.6000e-004	4.5700e-003	2.4400e-003	7.0100e-003	1.2700e-003	2.2400e-003	3.5100e-003		34.1949	34.1949	7.2000e-004		34.2100
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	0.0000	0.0000	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	**0.0782**	**0.2799**	**1.2961**	**3.6000e-004**	**4.5700e-003**	**2.4400e-003**	**7.0100e-003**	**1.2700e-003**	**2.2400e-003**	**3.5100e-003**		**34.1949**	**34.1949**	**7.2000e-004**		**34.2100**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6945	13.7151	15.8032	0.0280		0.5808	0.5808		0.5808	0.5808	0.0000	2,941.1387	2,941.1387	0.8781		2,959.5778

Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6945**	**13.7151**	**15.8032**	**0.0280**		**0.5808**	**0.5808**		**0.5808**	**0.5808**	**0.0000**	**2,941.1387**	**2,941.1387**	**0.8781**		**2,959.5778**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0782	0.2799	1.2961	3.6000e-004	4.5700e-003	2.4400e-003	7.0100e-003	1.2700e-003	2.2400e-003	3.5100e-003		34.1949	34.1949	7.2000e-004		34.2100
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	0.0000	0.0000	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	**0.0782**	**0.2799**	**1.2961**	**3.6000e-004**	**4.5700e-003**	**2.4400e-003**	**7.0100e-003**	**1.2700e-003**	**2.2400e-003**	**3.5100e-003**		**34.1949**	**34.1949**	**7.2000e-004**		**34.2100**

Perris Dam Remediation - On-Site Rip Rap Construction Emissions

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Rip rap construction phase.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Construction equipment for Rip Rap.

Trips and VMT - 28 daily worker trips anticipated for this phase. 400 total truck trips over 20-day construction period = 20 truck trips per day;

On-road Fugitive Dust - Approximately 40 percent of haul truck travel would be on paved roads.

Grading - Site acreage to be disturbed during grading.

Construction Off-road Equipment Mitigation - Use of Tier 3 equipment for mitigation.

Table Name	Column Name	Default Value	New Value

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	1,110.00	20.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	HorsePower	208.00	500.00
tblOffRoadEquipment	HorsePower	400.00	500.00
tblOffRoadEquipment	HorsePower	400.00	500.00
tblOffRoadEquipment	HorsePower	199.00	750.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	40.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	3.00
tblTripsAndVMT	HaulingTripNumber	0.00	400.00
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	7.0748	87.3055	42.7635	0.0869	53.0133	3.3524	56.3656	5.2954	3.0842	8.3796	0.0000	9,109.1110	9,109.1110	2.6476	0.0000	9,164.7096
Total	**7.0748**	**87.3055**	**42.7635**	**0.0869**	**53.0133**	**3.3524**	**56.3656**	**5.2954**	**3.0842**	**8.3796**	**0.0000**	**9,109.1110**	**9,109.1110**	**2.6476**	**0.0000**	**9,164.7096**

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					
2015	2.2525	41.5707	47.5981	0.0869	14.6274	1.5479	16.1754	1.4632	1.5464	3.0096	0.0000	9,109.1110	9,109.1110	2.6476	0.0000	9,164.7096
Total	**2.2525**	**41.5707**	**47.5981**	**0.0869**	**14.6274**	**1.5479**	**16.1754**	**1.4632**	**1.5464**	**3.0096**	**0.0000**	**9,109.1110**	**9,109.1110**	**2.6476**	**0.0000**	**9,164.7096**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**68.16**	**52.38**	**-11.31**	**0.00**	**72.41**	**53.83**	**71.30**	**72.37**	**49.86**	**64.08**	**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	Rip Rap	Building Construction	1/5/2015	1/30/2015	5	20	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Rip Rap	Cranes	0	7.00	226	0.29
Rip Rap	Crawler Tractors	2	8.00	500	0.43
Rip Rap	Forklifts	0	8.00	89	0.20
Rip Rap	Generator Sets	0	8.00	84	0.74
Rip Rap	Off-Highway Trucks	1	8.00	500	0.38
Rip Rap	Off-Highway Trucks	1	4.00	500	0.38
Rip Rap	Rubber Tired Loaders	1	8.00	750	0.36
Rip Rap	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Rip Rap	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Rip Rap	5	0.00	0.00	400.00	0.00	0.00	3.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Rip Rap - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.9070	86.0388	40.3338	0.0844		3.3332	3.3332		3.0665	3.0665		8,860.0932	8,860.0932	2.6451		8,915.6405
Total	**6.9070**	**86.0388**	**40.3338**	**0.0844**		**3.3332**	**3.3332**		**3.0665**	**3.0665**		**8,860.0932**	**8,860.0932**	**2.6451**		**8,915.6405**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1678	1.2667	2.4298	2.4700e-003	53.0133	0.0192	53.0324	5.2954	0.0176	5.3130		249.0178	249.0178	2.4400e-003		249.0691
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	0.0000	0.0000	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	**0.1678**	**1.2667**	**2.4298**	**2.4700e-003**	**53.0133**	**0.0192**	**53.0324**	**5.2954**	**0.0176**	**5.3130**		**249.0178**	**249.0178**	**2.4400e-003**		**249.0691**

Mitigated Construction On-Site

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

Off-Road	2.0847	40.3040	45.1683	0.0844		1.5288	1.5288		1.5288	1.5288	0.0000	8,860.0932	8,860.0932	2.6451		8,915.6405
Total	**2.0847**	**40.3040**	**45.1683**	**0.0844**		**1.5288**	**1.5288**		**1.5288**	**1.5288**	**0.0000**	**8,860.0932**	**8,860.0932**	**2.6451**		**8,915.6405**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1678	1.2667	2.4298	2.4700e-003	14.6274	0.0192	14.6466	1.4632	0.0176	1.4808		249.0178	249.0178	2.4400e-003		249.0691
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	0.0000	0.0000	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	**0.1678**	**1.2667**	**2.4298**	**2.4700e-003**	**14.6274**	**0.0192**	**14.6466**	**1.4632**	**0.0176**	**1.4808**		**249.0178**	**249.0178**	**2.4400e-003**		**249.0691**

Perris Dam Remediation - On-Site Rip Rap Construction Emissions

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Rip rap construction phase.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Construction equipment for Rip Rap.

Trips and VMT - 28 daily worker trips anticipated for this phase. 400 total truck trips over 20-day construction period = 20 truck trips per day;

On-road Fugitive Dust - Approximately 40 percent of haul truck travel would be on paved roads.

Grading - Site acreage to be disturbed during grading.

Construction Off-road Equipment Mitigation - Use of Tier 3 equipment for mitigation.

Table Name	Column Name	Default Value	New Value

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	1,110.00	20.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	HorsePower	208.00	500.00
tblOffRoadEquipment	HorsePower	400.00	500.00
tblOffRoadEquipment	HorsePower	400.00	500.00
tblOffRoadEquipment	HorsePower	199.00	750.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	40.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	3.00
tblTripsAndVMT	HaulingTripNumber	0.00	400.00
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	7.0886	87.3299	43.0978	0.0869	53.0133	3.3527	56.3660	5.2954	3.0845	8.3799	0.0000	9,105.5476	9,105.5476	2.6477	0.0000	9,161.1492
Total	**7.0886**	**87.3299**	**43.0978**	**0.0869**	**53.0133**	**3.3527**	**56.3660**	**5.2954**	**3.0845**	**8.3799**	**0.0000**	**9,105.5476**	**9,105.5476**	**2.6477**	**0.0000**	**9,161.1492**

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					
2015	2.2662	41.5951	47.9323	0.0869	14.6274	1.5483	16.1757	1.4632	1.5467	3.0100	0.0000	9,105.5475	9,105.5475	2.6477	0.0000	9,161.1492
Total	**2.2662**	**41.5951**	**47.9323**	**0.0869**	**14.6274**	**1.5483**	**16.1757**	**1.4632**	**1.5467**	**3.0100**	**0.0000**	**9,105.5475**	**9,105.5475**	**2.6477**	**0.0000**	**9,161.1492**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**68.03**	**52.37**	**-11.22**	**0.00**	**72.41**	**53.82**	**71.30**	**72.37**	**49.85**	**64.08**	**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	Rip Rap	Building Construction	1/5/2015	1/30/2015	5	20	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Rip Rap	Cranes	0	7.00	226	0.29
Rip Rap	Crawler Tractors	2	8.00	500	0.43
Rip Rap	Forklifts	0	8.00	89	0.20
Rip Rap	Generator Sets	0	8.00	84	0.74
Rip Rap	Off-Highway Trucks	1	8.00	500	0.38
Rip Rap	Off-Highway Trucks	1	4.00	500	0.38
Rip Rap	Rubber Tired Loaders	1	8.00	750	0.36
Rip Rap	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Rip Rap	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Rip Rap	5	0.00	0.00	400.00	0.00	0.00	3.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Rip Rap - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.9070	86.0388	40.3338	0.0844		3.3332	3.3332		3.0665	3.0665		8,860.0932	8,860.0932	2.6451		8,915.6405
Total	**6.9070**	**86.0388**	**40.3338**	**0.0844**		**3.3332**	**3.3332**		**3.0665**	**3.0665**		**8,860.0932**	**8,860.0932**	**2.6451**		**8,915.6405**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1816	1.2911	2.7640	2.4400e-003	53.0133	0.0195	53.0328	5.2954	0.0180	5.3134		245.4543	245.4543	2.5900e-003		245.5087
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	0.0000	0.0000	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	**0.1816**	**1.2911**	**2.7640**	**2.4400e-003**	**53.0133**	**0.0195**	**53.0328**	**5.2954**	**0.0180**	**5.3134**		**245.4543**	**245.4543**	**2.5900e-003**		**245.5087**

Mitigated Construction On-Site

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

Off-Road	2.0847	40.3040	45.1683	0.0844		1.5288	1.5288		1.5288	1.5288	0.0000	8,860.0932	8,860.0932	2.6451		8,915.6405
Total	**2.0847**	**40.3040**	**45.1683**	**0.0844**		**1.5288**	**1.5288**		**1.5288**	**1.5288**	**0.0000**	**8,860.0932**	**8,860.0932**	**2.6451**		**8,915.6405**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1816	1.2911	2.7640	2.4400e-003	14.6274	0.0195	14.6469	1.4632	0.0180	1.4812		245.4543	245.4543	2.5900e-003		245.5087
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	0.0000	0.0000	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	**0.1816**	**1.2911**	**2.7640**	**2.4400e-003**	**14.6274**	**0.0195**	**14.6469**	**1.4632**	**0.0180**	**1.4812**		**245.4543**	**245.4543**	**2.5900e-003**		**245.5087**

Blasting Operations - Fugitive Dust Emissions

ERF Crushed Rock Quantity Assumptions:	
Total Quanity of crushed rock:	60,000 tons
Quantity per Truckload:	35 tons
Total Truckloads:	1,720
Delivery Period (days):	12
Truckloads per day:	150
One-Way Truck Trips/day:	300

Blasting Assumption:	
Crush rock produced per day (tons):	5,000
Cubic yards of rock per day:	2500
Maximum area (sf) for blasting:	5000
Maximum blasting events per day:	4

PM10 Scaling Factor:	0.52
PM2.5 Fraction of PM10[a]:	0.292

PM Emission Factor Equation (lb/blast): $0.000014(A)^{1.5}$, where A = horizontal area (sf)

PM10 Emissions: 10.29547

PM2.5 Emissions: 3.006279

[a] SCAQMD. 2006. Final - Methodology to Calculate Particulate Matter (PM) 2.5 and PM 2.5 Significance Thresholds, Appendix A. October.

Detonation Emissions

	Emission Factors (lbs/ton)			
	CO	NO_x	SO_2	CH_4
ANFO Explosives:	67	17	2	1.3
Assumed amount of explosives per blast (tons):		0.5		

Emissions from Detonation of Explosives:	CO (lbs/day)	NOx (lbs/day)	SO_2 (lbs/day)	CH_4 (lbs/day)
	134	**34**	**4**	**2.6**

Stone Processing Operations - Fugitive Emissions

	Emission Factors	Daily Emissions	
	Total PM10 (lb/ton)	PM10 (lbs/day)	PM2.5 (lbs/day)
Tertiary Crushing (controlled):	0.00054	2.7	0.7884
Fines Crushing (controlled):	0.0012	6	1.752
Screening (controlled):	0.00074	3.7	1.0804
Fines Screening (controlled):	0.0022	11	3.212
Truck Unloading - Fragmented Stone:	0.000016	0.08	0.02336
Truck Loading - Conveyor, crushed:	0.0001	0.5	0.146
Total Emissions:		**23.98**	**7.00216**

On-Site Emissions from Off-Road Equipment (From CalEEMod Run) - Unmitigated

	Regional Combustion Emissions (lbs/day)						Regional Fugitive Emissions (lbs/day)	
	ROG	NOx	CO	SOx	PM10	PM2.5	PM10	PM2.5
Summer Emissions	5.8627	50.8113	26.7913	0.0553	2.9392	2.8649	0.22	0.06
Winter Emissions	5.859	50.818	26.6195	0.055	2.9392	2.8649	0.22	0.06
Haul Truck Emissions - Daily Max.	**5.8627**	**50.818**	**26.7913**	**0.0553**	**2.9392**	**2.8649**	**0.2236**	**0.0593**

On-Site Emissions from Off-Road Equipment (From CalEEMod Run) - Mitigated (Tier 3 Equipment)

	Regional Combustion Emissions (lbs/day)						Regional Fugitive Emissions (lbs/day)	
	ROG	NOx	CO	SOx	PM10	PM2.5	PM10	PM2.5
Summer Emissions	1.2529	24.6423	31.7089	0.0553	1.3443	1.3441	0.22	0.06
Winter Emissions	1.2492	24.649	31.5371	0.005	1.3443	1.3441	0.22	0.06
Haul Truck Emissions - Daily Max.	**1.2529**	**24.649**	**31.7089**	**0.0553**	**1.3443**	**1.3441**	**0.2236**	**0.0593**

On-Site Emissions from Quarry Haul Trucks (From CalEEMod Run) - Unmitigated

	Regional Combustion Emissions (lbs/day)						Regional Fugitive Emissions (lbs/day)	
	ROG	NOx	CO	SOx	PM10	PM2.5	PM10	PM2.5
Summer Emissions	1.334	11.6029	18.7407	0.0238	0.1877	0.1726	657.37	65.58
Winter Emissions	1.4373	11.877	21.2454	0.0235	0.1905	0.1751	657.37	65.58
Haul Truck Emissions - Daily Max.	**1.4373**	**11.877**	**21.2454**	**0.0238**	**0.1905**	**0.1751**	**657.3678**	**65.5764**

On-Site Emissions from Quarry Haul Trucks (From CalEEMod Run) - Mitigated (Dust Control Measures)

	Regional Combustion Emissions (lbs/day)						Regional Fugitive Emissions (lbs/day)	
	ROG	NOx	CO	SOx	PM10	PM2.5	PM10	PM2.5
Summer Emissions	1.334	11.6029	18.7407	0.0238	0.1877	0.1726	229.20	22.87
Winter Emissions	1.4373	11.877	21.2454	0.0235	0.1905	0.1751	229.20	22.87
Haul Truck Emissions - Daily Max.	**1.4373**	**11.877**	**21.2454**	**0.0238**	**0.1905**	**0.1751**	**229.1999**	**22.8665**

On-Site Emissions from Quarry Haul Trucks (From CalEEMod Run) - With Reduced Daily Trips (74 Daily Truck Trips)

	Regional Combustion Emissions (lbs/day)						Regional Fugitive Emissions (lbs/day)	
	ROG	NOx	CO	SOx	PM10	PM2.5	PM10	PM2.5
Summer Emissions	0.6596	5.737	9.2662	0.0118	0.0928	0.0853	113.33	11.31
Winter Emissions	0.7106	5.8725	10.5047	0.0116	0.0942	0.0866	113.33	11.31
Haul Truck Emissions - Daily Max.	**0.7106**	**5.8725**	**10.5047**	**0.0118**	**0.0942**	**0.0866**	**113.3266**	**11.3062**

Total Quarry Rock Hauling Emissions - Unmitigated

	Regional Combustion Emissions (lbs/day)					
	ROG	NOx	CO	SOx	PM10	PM2.5
Blasting	0.00	34	134	4	10.29547	3.006279
Stone Processing (Fugitive Dust)	0.00	0.00	0.00	0.00	23.98	7.00216
Off-Road Equipment	5.8627	50.818	26.7913	0.0553	3.1628	2.9242
Haul Trucks	1.4373	11.877	21.2454	0.0238	657.5583	65.7515
Total Emissions:	**7.30**	**96.70**	**182.04**	**4.08**	**695.00**	**78.68**
SCAQMD Threholds:	75	100	550	150	150	55
Exceed Threshold?	No	No	No	No	Yes	Yes

Total Quarry Rock Hauling Emissions - Mitigated (Tier 3 Equipment + Dust Control Measures)

	Regional Combustion Emissions (lbs/day)					
	ROG	NOx	CO	SOx	PM10	PM2.5
Blasting	0.00	34	134	4	10.29547	3.006279
Stone Processing (Fugitive Dust)	0.00	0.00	0.00	0.00	23.98	7.00216
Off-Road Equipment	1.2529	24.649	31.7089	0.0553	1.5679	1.4034
Haul Trucks	1.4373	11.877	21.2454	0.0238	229.3904	23.0416
Total Emissions:	**2.69**	**70.53**	**186.95**	**4.08**	**265.23**	**34.45**
SCAQMD Threholds:	75	100	550	150	150	55
Exceed Threshold?	No	No	No	No	Yes	No

Total Quarry Rock Hauling Emissions - Mitigated (Tier 3 Equipment + Dust Control Measures + Reduced Daily Truck Trips)

	Regional Combustion Emissions (lbs/day)					
	ROG	NOx	CO	SOx	PM10	PM2.5
Blasting	0.00	34	134	4	10.29547	3.006279
Stone Processing (Fugitive Dust)	0.00	0.00	0.00	0.00	23.98	7.00216
Off-Road Equipment	1.2529	24.649	31.7089	0.0553	1.5679	1.4034
Haul Trucks	0.7106	5.8725	10.5047	0.0118	113.4208	11.3928
Total Emissions:	**1.96**	**64.52**	**176.21**	**4.07**	**149.26**	**22.80**
SCAQMD Threholds:	75	100	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No

QUARRY-RELATED GREENHOUSE GAS EMISSIONS

Detonation GHG Emissions

	lbs/day	lbs/yr.	MT/yr.	CO2 Equivalency Factor[a]	CO2 Equivalent Emissions (MT/yr.)
Methane:	2.6	31.2	0.0141648	25	**0.35412**

Off-Road Equipment Emissions

Emissions	Emissions from CalEEMod (MT/yr)	CO_2 Equivalency Factors[a]	CO_2 Equivalent Emissions (tons per year)
Carbon Dioxide	29.63	1	29.63
Methane	0.00604	25	0.15
Nitrous Oxide	0.00000	298	-
	Total Emissions:		**29.78**

Haul Truck Emissions (Tier 3 Equipment + Dust Control Measures)

Emissions	Emissions from CalEEMod (MT/yr)	CO_2 Equivalency Factors[a]	CO_2 Equivalent Emissions (tons per year)
Carbon Dioxide	13.00	1	13.00
Methane	0.00012	25	0.00
Nitrous Oxide	0.00000	298	-
	Total Emissions:		**13.00**

Haul Truck Emissions (Tier 3 Equipment + Dust Control Measures + Reduced Daily Truck Trips)

Emissions	Emissions from CalEEMod (MT/yr)	CO_2 Equivalency Factors[a]	CO_2 Equivalent Emissions (tons per year)
Carbon Dioxide	6.43	1	6.43
Methane	0.00006	25	0.00
Nitrous Oxide	0.00000	298	-
	Total Emissions:		**6.43**

TOTAL UNMITIGATED GHG EMISSIONS: 43.13
TOTAL MITIGATED GHG EMISSIONS: 36.56

Note: Emissions of CO2, CH4, and N2O calculated in CalEEMod.
[a] CO2 equivalency factors from IPCC's AR4.

Perris Dam Remediation - Quarry Mining Off-Road Equipment Emissions

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - 12 day scheudle for quarry processing activities.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Off-Road Equipment for quarry processing and haul truck loading operations.

Trips and VMT - Off-road equipment worker trips.

On-road Fugitive Dust - Haul truck travel would be on unpaved roads.

Grading -

Construction Off-road Equipment Mitigation - Watering as required under Fugitive Dust Rule 403. Tier 3 equipment to be used for project.

Table Name	Column Name	Default Value	New Value

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	110.00	12.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	VendorTripLength	6.90	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	5.8627	50.8113	26.7913	0.0553	0.2236	2.9392	3.1627	0.0593	2.8649	2.9242	0.0000	5,460.4989	5,460.4989	1.1104	0.0000	5,483.8180
Total	**5.8627**	**50.8113**	**26.7913**	**0.0553**	**0.2236**	**2.9392**	**3.1627**	**0.0593**	**2.8649**	**2.9242**	**0.0000**	**5,460.4989**	**5,460.4989**	**1.1104**	**0.0000**	**5,483.8180**

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					
2015	1.2529	24.6423	31.7089	0.0553	0.2236	1.3443	1.5678	0.0593	1.3441	1.4034	0.0000	5,460.4989	5,460.4989	1.1104	0.0000	5,483.8180
Total	**1.2529**	**24.6423**	**31.7089**	**0.0553**	**0.2236**	**1.3443**	**1.5678**	**0.0593**	**1.3441**	**1.4034**	**0.0000**	**5,460.4989**	**5,460.4989**	**1.1104**	**0.0000**	**5,483.8180**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**78.63**	**51.50**	**-18.36**	**0.00**	**0.00**	**54.26**	**50.43**	**0.00**	**53.08**	**52.01**	**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	Quarry Rock Mining	Grading	12/7/2015	12/22/2015	5	12	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Quarry Rock Mining	Crushing/Proc. Equipment	4	8.00	85	0.78

Quarry Rock Mining	Excavators	0	8.00	162	0.38
Quarry Rock Mining	Excavators	0	8.00	162	0.38
Quarry Rock Mining	Graders	0	8.00	174	0.41
Quarry Rock Mining	Graders	0	8.00	174	0.41
Quarry Rock Mining	Rubber Tired Dozers	0	8.00	255	0.40
Quarry Rock Mining	Rubber Tired Loaders	4	8.00	199	0.36
Quarry Rock Mining	Scrapers	0	8.00	361	0.48
Quarry Rock Mining	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Quarry Rock Mining	8	20.00	0.00	0.00	14.70	0.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Quarry Rock Mining - 2015

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	5.7775	50.7103	25.5291	0.0526		2.9377	2.9377		2.8636	2.8636		5,230.1926	5,230.1926	1.1000		5,253.2918

Total	**5.7775**	**50.7103**	**25.5291**	**0.0526**	**0.0000**	**2.9377**	**2.9377**	**0.0000**	**2.8636**	**2.8636**		**5,230.1926**	**5,230.1926**	**1.1000**		**5,253.2918**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0852	0.1010	1.2622	2.6800e-003	0.2236	1.4600e-003	0.2250	0.0593	1.3400e-003	0.0606		230.3063	230.3063	0.0105		230.5263
Total	**0.0852**	**0.1010**	**1.2622**	**2.6800e-003**	**0.2236**	**1.4600e-003**	**0.2250**	**0.0593**	**1.3400e-003**	**0.0606**		**230.3063**	**230.3063**	**0.0105**		**230.5263**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.1678	24.5413	30.4467	0.0526		1.3428	1.3428		1.3428	1.3428	0.0000	5,230.1926	5,230.1926	1.1000		5,253.2918
Total	**1.1678**	**24.5413**	**30.4467**	**0.0526**	**0.0000**	**1.3428**	**1.3428**	**0.0000**	**1.3428**	**1.3428**	**0.0000**	**5,230.1926**	**5,230.1926**	**1.1000**		**5,253.2918**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0852	0.1010	1.2622	2.6800e-003	0.2236	1.4600e-003	0.2250	0.0593	1.3400e-003	0.0606		230.3063	230.3063	0.0105		230.5263
Total	**0.0852**	**0.1010**	**1.2622**	**2.6800e-003**	**0.2236**	**1.4600e-003**	**0.2250**	**0.0593**	**1.3400e-003**	**0.0606**		**230.3063**	**230.3063**	**0.0105**		**230.5263**

Perris Dam Remediation - Quarry Mining Off-Road Equipment Emissions

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - 12 day scheudle for quarry processing activities.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Off-Road Equipment for quarry processing and haul truck loading operations.

Trips and VMT - Off-road equipment worker trips.

On-road Fugitive Dust - Haul truck travel would be on unpaved roads.

Grading -

Construction Off-road Equipment Mitigation - Watering as required under Fugitive Dust Rule 403. Tier 3 equipment to be used for project.

Table Name	Column Name	Default Value	New Value

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	110.00	12.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	VendorTripLength	6.90	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	5.8590	50.8180	26.6195	0.0550	0.2236	2.9392	3.1627	0.0593	2.8649	2.9242	0.0000	5,440.6795	5,440.6795	1.1104	0.0000	5,463.9987
Total	**5.8590**	**50.8180**	**26.6195**	**0.0550**	**0.2236**	**2.9392**	**3.1627**	**0.0593**	**2.8649**	**2.9242**	**0.0000**	**5,440.6795**	**5,440.6795**	**1.1104**	**0.0000**	**5,463.9987**

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					
2015	1.2492	24.6490	31.5371	0.0550	0.2236	1.3443	1.5678	0.0593	1.3441	1.4034	0.0000	5,440.6795	5,440.6795	1.1104	0.0000	5,463.9987
Total	**1.2492**	**24.6490**	**31.5371**	**0.0550**	**0.2236**	**1.3443**	**1.5678**	**0.0593**	**1.3441**	**1.4034**	**0.0000**	**5,440.6795**	**5,440.6795**	**1.1104**	**0.0000**	**5,463.9987**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**78.68**	**51.50**	**-18.47**	**0.00**	**0.00**	**54.26**	**50.43**	**0.00**	**53.08**	**52.01**	**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	Quarry Rock Mining	Grading	12/7/2015	12/22/2015	5	12	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Quarry Rock Mining	Crushing/Proc. Equipment	4	8.00	85	0.78

Quarry Rock Mining	Excavators	0	8.00	162	0.38
Quarry Rock Mining	Excavators	0	8.00	162	0.38
Quarry Rock Mining	Graders	0	8.00	174	0.41
Quarry Rock Mining	Graders	0	8.00	174	0.41
Quarry Rock Mining	Rubber Tired Dozers	0	8.00	255	0.40
Quarry Rock Mining	Rubber Tired Loaders	4	8.00	199	0.36
Quarry Rock Mining	Scrapers	0	8.00	361	0.48
Quarry Rock Mining	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Quarry Rock Mining	8	20.00	0.00	0.00	14.70	0.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Quarry Rock Mining - 2015

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	5.7775	50.7103	25.5291	0.0526		2.9377	2.9377		2.8636	2.8636		5,230.1926	5,230.1926	1.1000		5,253.2918

Total	**5.7775**	**50.7103**	**25.5291**	**0.0526**	**0.0000**	**2.9377**	**2.9377**	**0.0000**	**2.8636**	**2.8636**		**5,230.1926**	**5,230.1926**	**1.1000**		**5,253.2918**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0814	0.1077	1.0905	2.4500e-003	0.2236	1.4600e-003	0.2250	0.0593	1.3400e-003	0.0606		210.4869	210.4869	0.0105		210.7069
Total	**0.0814**	**0.1077**	**1.0905**	**2.4500e-003**	**0.2236**	**1.4600e-003**	**0.2250**	**0.0593**	**1.3400e-003**	**0.0606**		**210.4869**	**210.4869**	**0.0105**		**210.7069**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.1678	24.5413	30.4467	0.0526		1.3428	1.3428		1.3428	1.3428	0.0000	5,230.1926	5,230.1926	1.1000		5,253.2918
Total	**1.1678**	**24.5413**	**30.4467**	**0.0526**	**0.0000**	**1.3428**	**1.3428**	**0.0000**	**1.3428**	**1.3428**	**0.0000**	**5,230.1926**	**5,230.1926**	**1.1000**		**5,253.2918**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0814	0.1077	1.0905	2.4500e-003	0.2236	1.4600e-003	0.2250	0.0593	1.3400e-003	0.0606		210.4869	210.4869	0.0105		210.7069
Total	**0.0814**	**0.1077**	**1.0905**	**2.4500e-003**	**0.2236**	**1.4600e-003**	**0.2250**	**0.0593**	**1.3400e-003**	**0.0606**		**210.4869**	**210.4869**	**0.0105**		**210.7069**

Perris Dam Remediation - Quarry Mining Off-Road Equipment Emissions

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - 12 day scheudle for quarry processing activities.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Off-Road Equipment for quarry processing and haul truck loading operations.

Trips and VMT - Off-road equipment worker trips.

On-road Fugitive Dust - Haul truck travel would be on unpaved roads.

Grading -

Construction Off-road Equipment Mitigation - Watering as required under Fugitive Dust Rule 403. Tier 3 equipment to be used for project.

Table Name	Column Name	Default Value	New Value

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	110.00	12.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	VendorTripLength	6.90	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.0351	0.3049	0.1600	3.3000e-004	1.3200e-003	0.0176	0.0190	3.5000e-004	0.0172	0.0175	0.0000	29.6298	29.6298	6.0400e-003	0.0000	29.7567
Total	**0.0351**	**0.3049**	**0.1600**	**3.3000e-004**	**1.3200e-003**	**0.0176**	**0.0190**	**3.5000e-004**	**0.0172**	**0.0175**	**0.0000**	**29.6298**	**29.6298**	**6.0400e-003**	**0.0000**	**29.7567**

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					
2015	7.4700e-003	0.1479	0.1895	3.3000e-004	1.3200e-003	8.0700e-003	9.3800e-003	3.5000e-004	8.0600e-003	8.4200e-003	0.0000	29.6298	29.6298	6.0400e-003	0.0000	29.7567
Total	**7.4700e-003**	**0.1479**	**0.1895**	**3.3000e-004**	**1.3200e-003**	**8.0700e-003**	**9.3800e-003**	**3.5000e-004**	**8.0600e-003**	**8.4200e-003**	**0.0000**	**29.6298**	**29.6298**	**6.0400e-003**	**0.0000**	**29.7567**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**78.74**	**51.49**	**-18.44**	**0.00**	**0.00**	**54.25**	**50.50**	**0.00**	**53.11**	**52.00**	**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	Quarry Rock Mining	Grading	12/7/2015	12/22/2015	5	12	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Quarry Rock Mining	Crushing/Proc. Equipment	4	8.00	85	0.78

Quarry Rock Mining	Excavators	0	8.00	162	0.38
Quarry Rock Mining	Excavators	0	8.00	162	0.38
Quarry Rock Mining	Graders	0	8.00	174	0.41
Quarry Rock Mining	Graders	0	8.00	174	0.41
Quarry Rock Mining	Rubber Tired Dozers	0	8.00	255	0.40
Quarry Rock Mining	Rubber Tired Loaders	4	8.00	199	0.36
Quarry Rock Mining	Scrapers	0	8.00	361	0.48
Quarry Rock Mining	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Quarry Rock Mining	8	20.00	0.00	0.00	14.70	0.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Quarry Rock Mining - 2015

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	0.0347	0.3043	0.1532	3.2000e-004		0.0176	0.0176		0.0172	0.0172	0.0000	28.4685	28.4685	5.9900e-003	0.0000	28.5942

Total	**0.0347**	**0.3043**	**0.1532**	**3.2000e-004**	**0.0000**	**0.0176**	**0.0176**	**0.0000**	**0.0172**	**0.0172**	**0.0000**	**28.4685**	**28.4685**	**5.9900e-003**	**0.0000**	**28.5942**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	6.7000e-004	6.7800e-003	1.0000e-005	1.3200e-003	1.0000e-005	1.3300e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.1613	1.1613	6.0000e-005	0.0000	1.1625
Total	**4.6000e-004**	**6.7000e-004**	**6.7800e-003**	**1.0000e-005**	**1.3200e-003**	**1.0000e-005**	**1.3300e-003**	**3.5000e-004**	**1.0000e-005**	**3.6000e-004**	**0.0000**	**1.1613**	**1.1613**	**6.0000e-005**	**0.0000**	**1.1625**

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	7.0100e-003	0.1473	0.1827	3.2000e-004		8.0600e-003	8.0600e-003		8.0600e-003	8.0600e-003	0.0000	28.4685	28.4685	5.9900e-003	0.0000	28.5942
Total	**7.0100e-003**	**0.1473**	**0.1827**	**3.2000e-004**	**0.0000**	**8.0600e-003**	**8.0600e-003**	**0.0000**	**8.0600e-003**	**8.0600e-003**	**0.0000**	**28.4685**	**28.4685**	**5.9900e-003**	**0.0000**	**28.5942**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	6.7000e-004	6.7800e-003	1.0000e-005	1.3200e-003	1.0000e-005	1.3300e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.1613	1.1613	6.0000e-005	0.0000	1.1625
Total	**4.6000e-004**	**6.7000e-004**	**6.7800e-003**	**1.0000e-005**	**1.3200e-003**	**1.0000e-005**	**1.3300e-003**	**3.5000e-004**	**1.0000e-005**	**3.6000e-004**	**0.0000**	**1.1613**	**1.1613**	**6.0000e-005**	**0.0000**	**1.1625**

Perris Dam Remediation - On-Site Quarry Haul Truck Emissions

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Quarry haul trucks.

Off-road Equipment - Construction equipment for building phase.

Trips and VMT - 1,800 total trips over 12 day construction period = 150 haul truck trips per day; Approximately 4-mile roundtrip distance per truck.

On-road Fugitive Dust - Haul truck travel would be on unpaved roads.

Grading -

Construction Off-road Equipment Mitigation - Watering as required under Fugitive Dust Rule 403.

Off-road Equipment - On-site equipment emissions calculated in separate CalEEMod run.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	110.00	12.00

tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	35.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	MaterialMoistureContent	0.50	0.60
tblOnRoadDust	MaterialSiltContent	8.50	8.30
tblOnRoadDust	MeanVehicleSpeed	40.00	25.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,800.00
tblTripsAndVMT	VendorTripLength	6.90	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	1.3340	11.6029	18.7407	0.0238	657.3678	0.1877	657.5555	65.5764	0.1726	65.7489	0.0000	2,398.8268	2,398.8268	0.0218	0.0000	2,399.2839
Total	**1.3340**	**11.6029**	**18.7407**	**0.0238**	**657.3678**	**0.1877**	**657.5555**	**65.5764**	**0.1726**	**65.7489**	**0.0000**	**2,398.8268**	**2,398.8268**	**0.0218**	**0.0000**	**2,399.2839**

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					
2015	1.3340	11.6029	18.7407	0.0238	229.1999	0.1877	229.3877	22.8665	0.1726	23.0390	0.0000	2,398.8268	2,398.8268	0.0218	0.0000	2,399.2839
Total	**1.3340**	**11.6029**	**18.7407**	**0.0238**	**229.1999**	**0.1877**	**229.3877**	**22.8665**	**0.1726**	**23.0390**	**0.0000**	**2,398.8268**	**2,398.8268**	**0.0218**	**0.0000**	**2,399.2839**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**65.13**	**0.00**	**65.12**	**65.13**	**0.00**	**64.96**	**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	Quarry Haul Truck Emissions	Grading	12/7/2015	12/22/2015	5	12	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor

Quarry Haul Truck Emissions	Excavators	0	8.00	162	0.38
Quarry Haul Truck Emissions	Excavators	0	8.00	162	0.38
Quarry Haul Truck Emissions	Graders	0	8.00	174	0.41
Quarry Haul Truck Emissions	Graders	0	8.00	174	0.41
Quarry Haul Truck Emissions	Rubber Tired Dozers	0	8.00	255	0.40
Quarry Haul Truck Emissions	Rubber Tired Loaders	0	8.00	199	0.36
Quarry Haul Truck Emissions	Scrapers	0	8.00	361	0.48
Quarry Haul Truck Emissions	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Quarry Haul Truck Emissions	0	0.00	0.00	1,800.00	14.70	0.00	4.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Quarry Haul Truck Emissions - 2015

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
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**

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	1.3340	11.6029	18.7407	0.0238	657.3678	0.1877	657.5555	65.5764	0.1726	65.7489		2,398.8268	2,398.8268	0.0218		2,399.2839
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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.3340**	**11.6029**	**18.7407**	**0.0238**	**657.3678**	**0.1877**	**657.5555**	**65.5764**	**0.1726**	**65.7489**		**2,398.8268**	**2,398.8268**	**0.0218**		**2,399.2839**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	1.3340	11.6029	18.7407	0.0238	229.1999	0.1877	229.3877	22.8665	0.1726	23.0390		2,398.8268	2,398.8268	0.0218		2,399.2839
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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.3340**	**11.6029**	**18.7407**	**0.0238**	**229.1999**	**0.1877**	**229.3877**	**22.8665**	**0.1726**	**23.0390**		**2,398.8268**	**2,398.8268**	**0.0218**		**2,399.2839**

Perris Dam Remediation - On-Site Quarry Haul Truck Emissions

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Quarry haul trucks.

Off-road Equipment - Construction equipment for building phase.

Trips and VMT - 1,800 total trips over 12 day construction period = 150 haul truck trips per day; Approximately 4-mile roundtrip distance per truck.

On-road Fugitive Dust - Haul truck travel would be on unpaved roads.

Grading -

Construction Off-road Equipment Mitigation - Watering as required under Fugitive Dust Rule 403.

Off-road Equipment - On-site equipment emissions calculated in separate CalEEMod run.

Table Name	Column Name	Default Value	New Value

tblConstructionPhase	NumDays	110.00	12.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	35.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	MaterialMoistureContent	0.50	0.60
tblOnRoadDust	MaterialSiltContent	8.50	8.30
tblOnRoadDust	MeanVehicleSpeed	40.00	25.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,800.00
tblTripsAndVMT	VendorTripLength	6.90	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	1.4373	11.8770	21.2454	0.0235	657.3678	0.1905	657.5583	65.5764	0.1751	65.7515	0.0000	2,372.1011	2,372.1011	0.0229	0.0000	2,372.5815

Total	**1.4373**	**11.8770**	**21.2454**	**0.0235**	**657.3678**	**0.1905**	**657.5583**	**65.5764**	**0.1751**	**65.7515**	**0.0000**	**2,372.1011**	**2,372.1011**	**0.0229**	**0.0000**	**2,372.5815**

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					
2015	1.4373	11.8770	21.2454	0.0235	229.1999	0.1905	229.3904	22.8665	0.1751	23.0416	0.0000	2,372.1011	2,372.1011	0.0229	0.0000	2,372.5815
Total	**1.4373**	**11.8770**	**21.2454**	**0.0235**	**229.1999**	**0.1905**	**229.3904**	**22.8665**	**0.1751**	**23.0416**	**0.0000**	**2,372.1011**	**2,372.1011**	**0.0229**	**0.0000**	**2,372.5815**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**65.13**	**0.00**	**65.11**	**65.13**	**0.00**	**64.96**	**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	Quarry Haul Truck Emissions	Grading	12/7/2015	12/22/2015	5	12	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Quarry Haul Truck Emissions	Excavators	0	8.00	162	0.38
Quarry Haul Truck Emissions	Excavators	0	8.00	162	0.38
Quarry Haul Truck Emissions	Graders	0	8.00	174	0.41
Quarry Haul Truck Emissions	Graders	0	8.00	174	0.41
Quarry Haul Truck Emissions	Rubber Tired Dozers	0	8.00	255	0.40
Quarry Haul Truck Emissions	Rubber Tired Loaders	0	8.00	199	0.36
Quarry Haul Truck Emissions	Scrapers	0	8.00	361	0.48
Quarry Haul Truck Emissions	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Quarry Haul Truck Emissions	0	0.00	0.00	1,800.00	14.70	0.00	4.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Quarry Haul Truck Emissions - 2015

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000

Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
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**

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	1.4373	11.8770	21.2454	0.0235	657.3678	0.1905	657.5583	65.5764	0.1751	65.7515		2,372.1011	2,372.1011	0.0229		2,372.5815
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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.4373**	**11.8770**	**21.2454**	**0.0235**	**657.3678**	**0.1905**	**657.5583**	**65.5764**	**0.1751**	**65.7515**		**2,372.1011**	**2,372.1011**	**0.0229**		**2,372.5815**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	1.4373	11.8770	21.2454	0.0235	229.1999	0.1905	229.3904	22.8665	0.1751	23.0416		2,372.1011	2,372.1011	0.0229		2,372.5815
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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.4373**	**11.8770**	**21.2454**	**0.0235**	**229.1999**	**0.1905**	**229.3904**	**22.8665**	**0.1751**	**23.0416**		**2,372.1011**	**2,372.1011**	**0.0229**		**2,372.5815**

Perris Dam Remediation - On-Site Quarry Haul Truck Emissions

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Quarry haul trucks.

Off-road Equipment - Construction equipment for building phase.

Trips and VMT - 1,800 total trips over 12 day construction period = 150 haul truck trips per day; Approximately 4-mile roundtrip distance per truck.

On-road Fugitive Dust - Haul truck travel would be on unpaved roads.

Grading -

Construction Off-road Equipment Mitigation - Watering as required under Fugitive Dust Rule 403.

Off-road Equipment - On-site equipment emissions calculated in separate CalEEMod run.

Table Name	Column Name	Default Value	New Value

tblConstructionPhase	NumDays	110.00	12.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	35.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	MaterialMoistureContent	0.50	0.60
tblOnRoadDust	MaterialSiltContent	8.50	8.30
tblOnRoadDust	MeanVehicleSpeed	40.00	25.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,800.00
tblTripsAndVMT	VendorTripLength	6.90	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	8.5800e-003	0.0726	0.1317	1.4000e-004	3.6417	1.1300e-003	3.6428	0.3633	1.0400e-003	0.3643	0.0000	12.9960	12.9960	1.2000e-004	0.0000	12.9985

Total	**8.5800e-003**	**0.0726**	**0.1317**	**1.4000e-004**	**3.6417**	**1.1300e-003**	**3.6428**	**0.3633**	**1.0400e-003**	**0.3643**	**0.0000**	**12.9960**	**12.9960**	**1.2000e-004**	**0.0000**	**12.9985**

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					
2015	8.5800e-003	0.0726	0.1317	1.4000e-004	1.2698	1.1300e-003	1.2709	0.1267	1.0400e-003	0.1277	0.0000	12.9960	12.9960	1.2000e-004	0.0000	12.9985
Total	**8.5800e-003**	**0.0726**	**0.1317**	**1.4000e-004**	**1.2698**	**1.1300e-003**	**1.2709**	**0.1267**	**1.0400e-003**	**0.1277**	**0.0000**	**12.9960**	**12.9960**	**1.2000e-004**	**0.0000**	**12.9985**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**65.13**	**0.00**	**65.11**	**65.13**	**0.00**	**64.94**	**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	Quarry Haul Truck Emissions	Grading	12/7/2015	12/22/2015	5	12	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Quarry Haul Truck Emissions	Excavators	0	8.00	162	0.38
Quarry Haul Truck Emissions	Excavators	0	8.00	162	0.38
Quarry Haul Truck Emissions	Graders	0	8.00	174	0.41
Quarry Haul Truck Emissions	Graders	0	8.00	174	0.41
Quarry Haul Truck Emissions	Rubber Tired Dozers	0	8.00	255	0.40
Quarry Haul Truck Emissions	Rubber Tired Loaders	0	8.00	199	0.36
Quarry Haul Truck Emissions	Scrapers	0	8.00	361	0.48
Quarry Haul Truck Emissions	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Quarry Haul Truck Emissions	0	0.00	0.00	1,800.00	14.70	0.00	4.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Quarry Haul Truck Emissions - 2015

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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	8.5800e-003	0.0726	0.1317	1.4000e-004	3.6417	1.1300e-003	3.6428	0.3633	1.0400e-003	0.3643	0.0000	12.9960	12.9960	1.2000e-004	0.0000	12.9985
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.5800e-003**	**0.0726**	**0.1317**	**1.4000e-004**	**3.6417**	**1.1300e-003**	**3.6428**	**0.3633**	**1.0400e-003**	**0.3643**	**0.0000**	**12.9960**	**12.9960**	**1.2000e-004**	**0.0000**	**12.9985**

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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction 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	8.5800e-003	0.0726	0.1317	1.4000e-004	1.2698	1.1300e-003	1.2709	0.1267	1.0400e-003	0.1277	0.0000	12.9960	12.9960	1.2000e-004	0.0000	12.9985
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.5800e-003**	**0.0726**	**0.1317**	**1.4000e-004**	**1.2698**	**1.1300e-003**	**1.2709**	**0.1267**	**1.0400e-003**	**0.1277**	**0.0000**	**12.9960**	**12.9960**	**1.2000e-004**	**0.0000**	**12.9985**

Perris Dam Remediation - On-Site Quarry Haul Truck Emissions with Reduced Trips

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Quarry haul trucks.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - On-site equipment emissions calculated in separate CalEEMod run.

Trips and VMT - 890 total trips over 12 day construction period = 74 haul truck trips per day; Approximately 4-mile roundtrip distance per truck.

On-road Fugitive Dust - Haul truck travel would be on unpaved roads.

Grading -

Construction Off-road Equipment Mitigation - Watering as required under Fugitive Dust Rule 403.

Table Name	Column Name	Default Value	New Value

tblConstructionPhase	NumDays	110.00	12.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	35.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	MaterialMoistureContent	0.50	0.60
tblOnRoadDust	MaterialSiltContent	8.50	8.30
tblOnRoadDust	MeanVehicleSpeed	40.00	25.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	890.00
tblTripsAndVMT	VendorTripLength	6.90	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	0.6596	5.7370	9.2662	0.0118	325.0319	0.0928	325.1247	32.4239	0.0853	32.5092	0.0000	1,186.0866	1,186.0866	0.0108	0.0000	1,186.3126

Total	**0.6596**	**5.7370**	**9.2662**	**0.0118**	**325.0319**	**0.0928**	**325.1247**	**32.4239**	**0.0853**	**32.5092**	**0.0000**	**1,186.0866**	**1,186.0866**	**0.0108**	**0.0000**	**1,186.3126**

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					
2015	0.6596	5.7370	9.2662	0.0118	113.3266	0.0928	113.4195	11.3062	0.0853	11.3915	0.0000	1,186.0866	1,186.0866	0.0108	0.0000	1,186.3126
Total	**0.6596**	**5.7370**	**9.2662**	**0.0118**	**113.3266**	**0.0928**	**113.4195**	**11.3062**	**0.0853**	**11.3915**	**0.0000**	**1,186.0866**	**1,186.0866**	**0.0108**	**0.0000**	**1,186.3126**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**65.13**	**0.00**	**65.12**	**65.13**	**0.00**	**64.96**	**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	Quarry Haul Truck Emissions	Grading	12/7/2015	12/22/2015	5	12	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Quarry Haul Truck Emissions	Excavators	0	8.00	162	0.38
Quarry Haul Truck Emissions	Excavators	0	8.00	162	0.38
Quarry Haul Truck Emissions	Graders	0	8.00	174	0.41
Quarry Haul Truck Emissions	Graders	0	8.00	174	0.41
Quarry Haul Truck Emissions	Rubber Tired Dozers	0	8.00	255	0.40
Quarry Haul Truck Emissions	Scrapers	0	8.00	361	0.48
Quarry Haul Truck Emissions	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Quarry Haul Truck Emissions	0	0.00	0.00	890.00	14.70	0.00	4.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Quarry Haul Truck Emissions - 2015

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

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**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6596	5.7370	9.2662	0.0118	325.0319	0.0928	325.1247	32.4239	0.0853	32.5092		1,186.0866	1,186.0866	0.0108		1,186.3126
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	0.0000	0.0000	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	**0.6596**	**5.7370**	**9.2662**	**0.0118**	**325.0319**	**0.0928**	**325.1247**	**32.4239**	**0.0853**	**32.5092**		**1,186.0866**	**1,186.0866**	**0.0108**		**1,186.3126**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6596	5.7370	9.2662	0.0118	113.3266	0.0928	113.4195	11.3062	0.0853	11.3915		1,186.0866	1,186.0866	0.0108		1,186.3126
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	0.0000	0.0000	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	**0.6596**	**5.7370**	**9.2662**	**0.0118**	**113.3266**	**0.0928**	**113.4195**	**11.3062**	**0.0853**	**11.3915**		**1,186.0866**	**1,186.0866**	**0.0108**		**1,186.3126**

Perris Dam Remediation - On-Site Quarry Haul Truck Emissions with Reduced Trips

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Quarry haul trucks.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - On-site equipment emissions calculated in separate CalEEMod run.

Trips and VMT - 890 total trips over 12 day construction period = 74 haul truck trips per day; Approximately 4-mile roundtrip distance per truck.

On-road Fugitive Dust - Haul truck travel would be on unpaved roads.

Grading -

Construction Off-road Equipment Mitigation - Watering as required under Fugitive Dust Rule 403.

Table Name	Column Name	Default Value	New Value

tblConstructionPhase	NumDays	110.00	12.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	35.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	MaterialMoistureContent	0.50	0.60
tblOnRoadDust	MaterialSiltContent	8.50	8.30
tblOnRoadDust	MeanVehicleSpeed	40.00	25.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	890.00
tblTripsAndVMT	VendorTripLength	6.90	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	0.7106	5.8725	10.5047	0.0116	325.0319	0.0942	325.1260	32.4239	0.0866	32.5104	0.0000	1,172.8722	1,172.8722	0.0113	0.0000	1,173.1098

Total	**0.7106**	**5.8725**	**10.5047**	**0.0116**	**325.0319**	**0.0942**	**325.1260**	**32.4239**	**0.0866**	**32.5104**	**0.0000**	**1,172.8722**	**1,172.8722**	**0.0113**	**0.0000**	**1,173.1098**

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					
2015	0.7106	5.8725	10.5047	0.0116	113.3266	0.0942	113.4208	11.3062	0.0866	11.3928	0.0000	1,172.8722	1,172.8722	0.0113	0.0000	1,173.1098
Total	**0.7106**	**5.8725**	**10.5047**	**0.0116**	**113.3266**	**0.0942**	**113.4208**	**11.3062**	**0.0866**	**11.3928**	**0.0000**	**1,172.8722**	**1,172.8722**	**0.0113**	**0.0000**	**1,173.1098**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**65.13**	**0.00**	**65.11**	**65.13**	**0.00**	**64.96**	**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	Quarry Haul Truck Emissions	Grading	12/7/2015	12/22/2015	5	12	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Quarry Haul Truck Emissions	Excavators	0	8.00	162	0.38
Quarry Haul Truck Emissions	Excavators	0	8.00	162	0.38
Quarry Haul Truck Emissions	Graders	0	8.00	174	0.41
Quarry Haul Truck Emissions	Graders	0	8.00	174	0.41
Quarry Haul Truck Emissions	Rubber Tired Dozers	0	8.00	255	0.40
Quarry Haul Truck Emissions	Scrapers	0	8.00	361	0.48
Quarry Haul Truck Emissions	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Quarry Haul Truck Emissions	0	0.00	0.00	890.00	14.70	0.00	4.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Quarry Haul Truck Emissions - 2015

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

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**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7106	5.8725	10.5047	0.0116	325.0319	0.0942	325.1260	32.4239	0.0866	32.5104		1,172.8722	1,172.8722	0.0113		1,173.1098
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	0.0000	0.0000	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	**0.7106**	**5.8725**	**10.5047**	**0.0116**	**325.0319**	**0.0942**	**325.1260**	**32.4239**	**0.0866**	**32.5104**		**1,172.8722**	**1,172.8722**	**0.0113**		**1,173.1098**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7106	5.8725	10.5047	0.0116	113.3266	0.0942	113.4208	11.3062	0.0866	11.3928		1,172.8722	1,172.8722	0.0113		1,173.1098
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	0.0000	0.0000	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	**0.7106**	**5.8725**	**10.5047**	**0.0116**	**113.3266**	**0.0942**	**113.4208**	**11.3062**	**0.0866**	**11.3928**		**1,172.8722**	**1,172.8722**	**0.0113**		**1,173.1098**

Perris Dam Remediation - On-Site Quarry Haul Truck Emissions with Reduced Trips

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Quarry haul trucks.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - On-site equipment emissions calculated in separate CalEEMod run.

Trips and VMT - 890 total trips over 12 day construction period = 74 haul truck trips per day; Approximately 4-mile roundtrip distance per truck.

On-road Fugitive Dust - Haul truck travel would be on unpaved roads.

Grading -

Construction Off-road Equipment Mitigation - Watering as required under Fugitive Dust Rule 403.

Table Name	Column Name	Default Value	New Value

tblConstructionPhase	NumDays	110.00	12.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	35.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	MaterialMoistureContent	0.50	0.60
tblOnRoadDust	MaterialSiltContent	8.50	8.30
tblOnRoadDust	MeanVehicleSpeed	40.00	25.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	890.00
tblTripsAndVMT	VendorTripLength	6.90	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	4.2400e-003	0.0359	0.0651	7.0000e-005	1.8006	5.6000e-004	1.8012	0.1796	5.2000e-004	0.1802	0.0000	6.4258	6.4258	6.0000e-005	0.0000	6.4271

Total	**4.2400e-003**	**0.0359**	**0.0651**	**7.0000e-005**	**1.8006**	**5.6000e-004**	**1.8012**	**0.1796**	**5.2000e-004**	**0.1802**	**0.0000**	**6.4258**	**6.4258**	**6.0000e-005**	**0.0000**	**6.4271**

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					
2015	4.2400e-003	0.0359	0.0651	7.0000e-005	0.6278	5.6000e-004	0.6284	0.0626	5.2000e-004	0.0632	0.0000	6.4258	6.4258	6.0000e-005	0.0000	6.4271
Total	**4.2400e-003**	**0.0359**	**0.0651**	**7.0000e-005**	**0.6278**	**5.6000e-004**	**0.6284**	**0.0626**	**5.2000e-004**	**0.0632**	**0.0000**	**6.4258**	**6.4258**	**6.0000e-005**	**0.0000**	**6.4271**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**65.13**	**0.00**	**65.11**	**65.13**	**0.00**	**64.94**	**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	Quarry Haul Truck Emissions	Grading	12/7/2015	12/22/2015	5	12	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Quarry Haul Truck Emissions	Excavators	0	8.00	162	0.38
Quarry Haul Truck Emissions	Excavators	0	8.00	162	0.38
Quarry Haul Truck Emissions	Graders	0	8.00	174	0.41
Quarry Haul Truck Emissions	Graders	0	8.00	174	0.41
Quarry Haul Truck Emissions	Rubber Tired Dozers	0	8.00	255	0.40
Quarry Haul Truck Emissions	Scrapers	0	8.00	361	0.48
Quarry Haul Truck Emissions	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Quarry Haul Truck Emissions	0	0.00	0.00	890.00	14.70	0.00	4.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Quarry Haul Truck Emissions - 2015

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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	4.2400e-003	0.0359	0.0651	7.0000e-005	1.8006	5.6000e-004	1.8012	0.1796	5.2000e-004	0.1802	0.0000	6.4258	6.4258	6.0000e-005	0.0000	6.4271
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.2400e-003**	**0.0359**	**0.0651**	**7.0000e-005**	**1.8006**	**5.6000e-004**	**1.8012**	**0.1796**	**5.2000e-004**	**0.1802**	**0.0000**	**6.4258**	**6.4258**	**6.0000e-005**	**0.0000**	**6.4271**

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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction 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	4.2400e-003	0.0359	0.0651	7.0000e-005	0.6278	5.6000e-004	0.6284	0.0626	5.2000e-004	0.0632	0.0000	6.4258	6.4258	6.0000e-005	0.0000	6.4271
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.2400e-003**	**0.0359**	**0.0651**	**7.0000e-005**	**0.6278**	**5.6000e-004**	**0.6284**	**0.0626**	**5.2000e-004**	**0.0632**	**0.0000**	**6.4258**	**6.4258**	**6.0000e-005**	**0.0000**	**6.4271**

Greenhouse Gas Emissions Data

Perris ERF

Anticipated Activity per month of construction (With Relative Intensity (1-10))

	Month of Construction																							
Activity	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Demolition	2	2	10	0	0	0	0	5	0	0	2	8	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	5	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	2	5	5	6	6	5	5	5	5	3	0	0	0	0	0	0	0	0	0	0	0	0
Drainage/Utilities/Sub Grade	0	0	0	0	0	0	0	5	8	5	5	5	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	0	0	5	10	0	5	6	0	5	5	0	5	10	5	5	10	5	5	10	5	5	5	10	10
Paving	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rip Rap	0	0	0	0	0	0	0	0	0	2	3	8	0	0	0	0	0	0	0	0	0	0	0	0

	Month of Construction											
Activity	25	26	27	28	29	30	31	32	33	34	35	36
Demolition	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	0	0	0	0	0	0	0	0	0	0
Drainage/Utilities/Sub Grade	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	10	10	10	10	10	10	10	10	10	10	0	0
Paving	0	0	0	0	0	0	0	0	0	0	10	0
Rip Rap	0	0	0	0	0	0	0	0	0	0	2	2

Note:

Subsequent to modeling the construction period was extended from two to three years. As part of that extension, the building construction phase was extended by 12 months and the riprap and paving phases were moved from month 23 and 24 to months 35 and 36. As the same amount of equpiment would be used per day, remodeling was not re-done. Instead it was conservatively assumed that the maximum daily emissions from months 13 trhough 24 is extended through month 34 for building and construction and that the same emissions identified for Paving and Rip Rap in months 23 and 24 would now occur in months 35 and 36. Changes to the schedule are shown in red.

Project Construction GHG Emissions (From CalEEMod Run)

	Construction days per month	CO2e (lbs/day)	CO2e (MT/month)
Demolition	10	7897	35.85238
Site Preparation	8	9579	34.790928
Grading/Excavation	20	19419	176.32452
Utility Relocation	16	3668	26.644352
Building Construction	24	15554	169.476384
Paving	10	3871	17.57434
Rip Rap	20	9700	88.076

*Note: For CalEEMod Output see the Air Quality Appendix.

PERRIS DAM REMDIATION PROJECT

Annual Construction GHG Emissions

CO2e Emissions

Month -Year:	Jan-15												Jan-16											
Month of Construction:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Demolition	7.170476	7.170476	35.85238	0	0	0	0	17.92619	0	0	7.170476	28.6819	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	17.39546	34.79093	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	35.2649	88.16226	88.16226	105.7947	105.7947	88.16226	88.16226	88.16226	88.16226	52.89736	0	0	0	0	0	0	0	0	0	0	0	0
Utility Relocation	0	0	0	0	0	0	0	13.32218	21.31548	13.32218	13.32218	13.32218	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	0	0	84.73819	169.4764	0	84.73819	101.6858	0	84.73819	84.73819	0	84.73819	169.4764	84.73819	84.73819	169.4764	84.73819	84.73819	169.4764	84.73819	84.73819	84.73819	169.4764	169.4764
Paving	0	0	0	0	0	0	0	0	0	8.78717	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rip Rap	0	0	0	0	0	0	0	0	0	17.6152	26.4228	70.4608	0	0	0	0	0	0	0	0	0	0	0	0
Total Monthly GHG Emissions (MT):	24.57	41.96	155.86	257.64	88.16	190.53	207.48	119.41	194.22	212.62	135.08	250.10	169.48	84.74	84.74	169.48	84.74	84.74	169.48	84.74	84.74	84.74	169.48	169.48

Month -Year:	Jan-17											
Month of Construction:	25	26	27	28	29	30	31	32	33	34	35	36
Demolition	0	0	0	0	0	0	0	0	0	0	0	0
Site Preparation	0	0	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	0	0	0	0	0	0	0	0	0	0	0	0
Utility Relocation	0	0	0	0	0	0	0	0	0	0	0	0
Building Construction	169.4764	169.4764	169.4764	169.4764	169.4764	169.4764	169.4764	169.4764	169.4764	169.4764	0	0
Paving	0	0	0	0	0	0	0	0	0	0	17.57434	0
Rip Rap	0	0	0	0	0	0	0	0	0	0	17.6152	17.6152
Total Monthly GHG Emissions (MT):	169.48	169.48	169.48	169.48	169.48	169.48	169.48	169.48	169.48	169.48	35.19	17.62

2015 GHG Emissions (MT/yr): ***1877.63***

2016 GHG Emissions (MT/yr): ***1440.55***

2017 GHG Emissions (MT/yr): ***1747.57***

Total GHG Emissions (MT): **5065.74**

**Note

Subsequent to modeling the construction period was extended from two to three years. As part of that extension, the building construction phase was extended by 12 months and the riprap and paving phases were moved from month 23 and 24 to months 35 and 36. As the same amount of equipment would be used per day, remodeling was not re-done. Instead it was conservatively assumed that the maximum daily emissions from months 13 trhough 24 is extended through month 34 for building and construction and that the same emissions identified for Paving and Rip Rap in months 23 and 24 would now occur in months 35 and 36.

Blasting Operations - Fugitive Dust Emissions

ERF Crushed Rock Quantity Assumptions:	
Total Quanity of crushed rock:	60,000 tons
Quantity per Truckload:	35 tons
Total Truckloads:	1,720
Delivery Period (days):	12
Truckloads per day:	150
One-Way Truck Trips/day:	300

Blasting Assumption:	
Crush rock produced per day (tons):	5,000
Cubic yards of rock per day:	2500
Maximum area (sf) for blasting:	5000
Maximum blasting events per day:	4

PM10 Scaling Factor:	0.52
PM2.5 Fraction of PM10[a]:	0.292

PM Emission Factor Equation (lb/blast): $0.000014(A)^{1.5}$, where A = horizontal area (sf)

PM10 Emissions: 10.29547

PM2.5 Emissions: 3.006279

[a] SCAQMD. 2006. Final - Methodology to Calculate Particulate Matter (PM) 2.5 and PM 2.5 Significance Thresholds, Appendix A. October.

Detonation Emissions

	Emission Factors (lbs/ton)			
	CO	NO_x	SO_2	CH_4
ANFO Explosives:	67	17	2	1.3
Assumed amount of explosives per blast (tons):		0.5		

Emissions from Detonation of Explosives:	CO (lbs/day)	NOx (lbs/day)	SO_2 (lbs/day)	CH_4 (lbs/day)
	134	**34**	**4**	**2.6**

Stone Processing Operations - Fugitive Emissions

	Emission Factors	Daily Emissions	
	Total PM10 (lb/ton)	PM10 (lbs/day)	PM2.5 (lbs/day)
Tertiary Crushing (controlled):	0.00054	2.7	0.7884
Fines Crushing (controlled):	0.0012	6	1.752
Screening (controlled):	0.00074	3.7	1.0804
Fines Screening (controlled):	0.0022	11	3.212
Truck Unloading - Fragmented Stone:	0.000016	0.08	0.02336
Truck Loading - Conveyor, crushed:	0.0001	0.5	0.146
Total Emissions:		**23.98**	**7.00216**

On-Site Emissions from Off-Road Equipment (From CalEEMod Run) - Unmitigated

	Regional Combustion Emissions (lbs/day)						Regional Fugitive Emissions (lbs/day)	
	ROG	NOx	CO	SOx	PM10	PM2.5	PM10	PM2.5
Summer Emissions	5.8627	50.8113	26.7913	0.0553	2.9392	2.8649	0.22	0.06
Winter Emissions	5.859	50.818	26.6195	0.055	2.9392	2.8649	0.22	0.06
Haul Truck Emissions - Daily Max.	**5.8627**	**50.818**	**26.7913**	**0.0553**	**2.9392**	**2.8649**	**0.2236**	**0.0593**

On-Site Emissions from Off-Road Equipment (From CalEEMod Run) - Mitigated (Tier 3 Equipment)

	Regional Combustion Emissions (lbs/day)						Regional Fugitive Emissions (lbs/day)	
	ROG	NOx	CO	SOx	PM10	PM2.5	PM10	PM2.5
Summer Emissions	1.2529	24.6423	31.7089	0.0553	1.3443	1.3441	0.22	0.06
Winter Emissions	1.2492	24.649	31.5371	0.005	1.3443	1.3441	0.22	0.06
Haul Truck Emissions - Daily Max.	**1.2529**	**24.649**	**31.7089**	**0.0553**	**1.3443**	**1.3441**	**0.2236**	**0.0593**

On-Site Emissions from Quarry Haul Trucks (From CalEEMod Run) - Unmitigated

	Regional Combustion Emissions (lbs/day)						Regional Fugitive Emissions (lbs/day)	
	ROG	NOx	CO	SOx	PM10	PM2.5	PM10	PM2.5
Summer Emissions	1.334	11.6029	18.7407	0.0238	0.1877	0.1726	657.37	65.58
Winter Emissions	1.4373	11.877	21.2454	0.0235	0.1905	0.1751	657.37	65.58
Haul Truck Emissions - Daily Max.	**1.4373**	**11.877**	**21.2454**	**0.0238**	**0.1905**	**0.1751**	**657.3678**	**65.5764**

On-Site Emissions from Quarry Haul Trucks (From CalEEMod Run) - Mitigated (Dust Control Measures)

	Regional Combustion Emissions (lbs/day)						Regional Fugitive Emissions (lbs/day)	
	ROG	NOx	CO	SOx	PM10	PM2.5	PM10	PM2.5
Summer Emissions	1.334	11.6029	18.7407	0.0238	0.1877	0.1726	229.20	22.87
Winter Emissions	1.4373	11.877	21.2454	0.0235	0.1905	0.1751	229.20	22.87
Haul Truck Emissions - Daily Max.	**1.4373**	**11.877**	**21.2454**	**0.0238**	**0.1905**	**0.1751**	**229.1999**	**22.8665**

On-Site Emissions from Quarry Haul Trucks (From CalEEMod Run) - With Reduced Daily Trips (74 Daily Truck Trips)

	Regional Combustion Emissions (lbs/day)						Regional Fugitive Emissions (lbs/day)	
	ROG	NOx	CO	SOx	PM10	PM2.5	PM10	PM2.5
Summer Emissions	0.6596	5.737	9.2662	0.0118	0.0928	0.0853	113.33	11.31
Winter Emissions	0.7106	5.8725	10.5047	0.0116	0.0942	0.0866	113.33	11.31
Haul Truck Emissions - Daily Max.	**0.7106**	**5.8725**	**10.5047**	**0.0118**	**0.0942**	**0.0866**	**113.3266**	**11.3062**

Total Quarry Rock Hauling Emissions - Unmitigated

	Regional Combustion Emissions (lbs/day)					
	ROG	NOx	CO	SOx	PM10	PM2.5
Blasting	0.00	34	134	4	10.29547	3.006279
Stone Processing (Fugitive Dust)	0.00	0.00	0.00	0.00	23.98	7.00216
Off-Road Equipment	5.8627	50.818	26.7913	0.0553	3.1628	2.9242
Haul Trucks	1.4373	11.877	21.2454	0.0238	657.5583	65.7515
Total Emissions:	**7.30**	**96.70**	**182.04**	**4.08**	**695.00**	**78.68**
SCAQMD Threholds:	75	100	550	150	150	55
Exceed Threshold?	No	No	No	No	Yes	Yes

Total Quarry Rock Hauling Emissions - Mitigated (Tier 3 Equipment + Dust Control Measures)

	Regional Combustion Emissions (lbs/day)					
	ROG	NOx	CO	SOx	PM10	PM2.5
Blasting	0.00	34	134	4	10.29547	3.006279
Stone Processing (Fugitive Dust)	0.00	0.00	0.00	0.00	23.98	7.00216
Off-Road Equipment	1.2529	24.649	31.7089	0.0553	1.5679	1.4034
Haul Trucks	1.4373	11.877	21.2454	0.0238	229.3904	23.0416
Total Emissions:	**2.69**	**70.53**	**186.95**	**4.08**	**265.23**	**34.45**
SCAQMD Threholds:	75	100	550	150	150	55
Exceed Threshold?	No	No	No	No	Yes	No

Total Quarry Rock Hauling Emissions - Mitigated (Tier 3 Equipment + Dust Control Measures + Reduced Daily Truck Trips)

	Regional Combustion Emissions (lbs/day)					
	ROG	NOx	CO	SOx	PM10	PM2.5
Blasting	0.00	34	134	4	10.29547	3.006279
Stone Processing (Fugitive Dust)	0.00	0.00	0.00	0.00	23.98	7.00216
Off-Road Equipment	1.2529	24.649	31.7089	0.0553	1.5679	1.4034
Haul Trucks	0.7106	5.8725	10.5047	0.0118	113.4208	11.3928
Total Emissions:	**1.96**	**64.52**	**176.21**	**4.07**	**149.26**	**22.80**
SCAQMD Threholds:	75	100	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No

QUARRY-RELATED GREENHOUSE GAS EMISSIONS

Detonation GHG Emissions

	lbs/day	lbs/yr.	MT/yr.	CO2 Equivalency Factor[a]	CO2 Equivalent Emissions (MT/yr.)
Methane:	2.6	31.2	0.0141648	25	**0.35412**

Off-Road Equipment Emissions

Emissions	Emissions from CalEEMod (MT/yr)	CO_2 Equivalency Factors[a]	CO_2 Equivalent Emissions (tons per year)
Carbon Dioxide	29.63	1	29.63
Methane	0.00604	25	0.15
Nitrous Oxide	0.00000	298	-
	Total Emissions:		**29.78**

Haul Truck Emissions (Tier 3 Equipment + Dust Control Measures)

Emissions	Emissions from CalEEMod (MT/yr)	CO_2 Equivalency Factors[a]	CO_2 Equivalent Emissions (tons per year)
Carbon Dioxide	13.00	1	13.00
Methane	0.00012	25	0.00
Nitrous Oxide	0.00000	298	-
	Total Emissions:		**13.00**

Haul Truck Emissions (Tier 3 Equipment + Dust Control Measures + Reduced Daily Truck Trips)

Emissions	Emissions from CalEEMod (MT/yr)	CO_2 Equivalency Factors[a]	CO_2 Equivalent Emissions (tons per year)
Carbon Dioxide	6.43	1	6.43
Methane	0.00006	25	0.00
Nitrous Oxide	0.00000	298	-
	Total Emissions:		**6.43**

TOTAL UNMITIGATED GHG EMISSIONS: 43.13
TOTAL MITIGATED GHG EMISSIONS: 36.56

Note: Emissions of CO2, CH4, and N2O calculated in CalEEMod.
[a] CO2 equivalency factors from IPCC's AR4.

Perris Dam Remediation - Quarry Mining Off-Road Equipment Emissions

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - 12 day scheudle for quarry processing activities.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Off-Road Equipment for quarry processing and haul truck loading operations.

Trips and VMT - Off-road equipment worker trips.

On-road Fugitive Dust - Haul truck travel would be on unpaved roads.

Grading -

Construction Off-road Equipment Mitigation - Watering as required under Fugitive Dust Rule 403. Tier 3 equipment to be used for project.

Table Name	Column Name	Default Value	New Value

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	110.00	12.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	VendorTripLength	6.90	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	5.8627	50.8113	26.7913	0.0553	0.2236	2.9392	3.1627	0.0593	2.8649	2.9242	0.0000	5,460.4989	5,460.4989	1.1104	0.0000	5,483.8180
Total	**5.8627**	**50.8113**	**26.7913**	**0.0553**	**0.2236**	**2.9392**	**3.1627**	**0.0593**	**2.8649**	**2.9242**	**0.0000**	**5,460.4989**	**5,460.4989**	**1.1104**	**0.0000**	**5,483.8180**

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					
2015	1.2529	24.6423	31.7089	0.0553	0.2236	1.3443	1.5678	0.0593	1.3441	1.4034	0.0000	5,460.4989	5,460.4989	1.1104	0.0000	5,483.8180
Total	**1.2529**	**24.6423**	**31.7089**	**0.0553**	**0.2236**	**1.3443**	**1.5678**	**0.0593**	**1.3441**	**1.4034**	**0.0000**	**5,460.4989**	**5,460.4989**	**1.1104**	**0.0000**	**5,483.8180**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**78.63**	**51.50**	**-18.36**	**0.00**	**0.00**	**54.26**	**50.43**	**0.00**	**53.08**	**52.01**	**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	Quarry Rock Mining	Grading	12/7/2015	12/22/2015	5	12	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Quarry Rock Mining	Crushing/Proc. Equipment	4	8.00	85	0.78

Quarry Rock Mining	Excavators	0	8.00	162	0.38
Quarry Rock Mining	Excavators	0	8.00	162	0.38
Quarry Rock Mining	Graders	0	8.00	174	0.41
Quarry Rock Mining	Graders	0	8.00	174	0.41
Quarry Rock Mining	Rubber Tired Dozers	0	8.00	255	0.40
Quarry Rock Mining	Rubber Tired Loaders	4	8.00	199	0.36
Quarry Rock Mining	Scrapers	0	8.00	361	0.48
Quarry Rock Mining	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Quarry Rock Mining	8	20.00	0.00	0.00	14.70	0.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Quarry Rock Mining - 2015

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	5.7775	50.7103	25.5291	0.0526		2.9377	2.9377		2.8636	2.8636		5,230.1926	5,230.1926	1.1000		5,253.2918

Total	**5.7775**	**50.7103**	**25.5291**	**0.0526**	**0.0000**	**2.9377**	**2.9377**	**0.0000**	**2.8636**	**2.8636**		**5,230.1926**	**5,230.1926**	**1.1000**		**5,253.2918**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0852	0.1010	1.2622	2.6800e-003	0.2236	1.4600e-003	0.2250	0.0593	1.3400e-003	0.0606		230.3063	230.3063	0.0105		230.5263
Total	**0.0852**	**0.1010**	**1.2622**	**2.6800e-003**	**0.2236**	**1.4600e-003**	**0.2250**	**0.0593**	**1.3400e-003**	**0.0606**		**230.3063**	**230.3063**	**0.0105**		**230.5263**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.1678	24.5413	30.4467	0.0526		1.3428	1.3428		1.3428	1.3428	0.0000	5,230.1926	5,230.1926	1.1000		5,253.2918
Total	**1.1678**	**24.5413**	**30.4467**	**0.0526**	**0.0000**	**1.3428**	**1.3428**	**0.0000**	**1.3428**	**1.3428**	**0.0000**	**5,230.1926**	**5,230.1926**	**1.1000**		**5,253.2918**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0852	0.1010	1.2622	2.6800e-003	0.2236	1.4600e-003	0.2250	0.0593	1.3400e-003	0.0606		230.3063	230.3063	0.0105		230.5263
Total	**0.0852**	**0.1010**	**1.2622**	**2.6800e-003**	**0.2236**	**1.4600e-003**	**0.2250**	**0.0593**	**1.3400e-003**	**0.0606**		**230.3063**	**230.3063**	**0.0105**		**230.5263**

Perris Dam Remediation - Quarry Mining Off-Road Equipment Emissions

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - 12 day scheudle for quarry processing activities.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Off-Road Equipment for quarry processing and haul truck loading operations.

Trips and VMT - Off-road equipment worker trips.

On-road Fugitive Dust - Haul truck travel would be on unpaved roads.

Grading -

Construction Off-road Equipment Mitigation - Watering as required under Fugitive Dust Rule 403. Tier 3 equipment to be used for project.

Table Name	Column Name	Default Value	New Value

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	110.00	12.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	VendorTripLength	6.90	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	5.8590	50.8180	26.6195	0.0550	0.2236	2.9392	3.1627	0.0593	2.8649	2.9242	0.0000	5,440.6795	5,440.6795	1.1104	0.0000	5,463.9987
Total	**5.8590**	**50.8180**	**26.6195**	**0.0550**	**0.2236**	**2.9392**	**3.1627**	**0.0593**	**2.8649**	**2.9242**	**0.0000**	**5,440.6795**	**5,440.6795**	**1.1104**	**0.0000**	**5,463.9987**

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					
2015	1.2492	24.6490	31.5371	0.0550	0.2236	1.3443	1.5678	0.0593	1.3441	1.4034	0.0000	5,440.6795	5,440.6795	1.1104	0.0000	5,463.9987
Total	**1.2492**	**24.6490**	**31.5371**	**0.0550**	**0.2236**	**1.3443**	**1.5678**	**0.0593**	**1.3441**	**1.4034**	**0.0000**	**5,440.6795**	**5,440.6795**	**1.1104**	**0.0000**	**5,463.9987**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**78.68**	**51.50**	**-18.47**	**0.00**	**0.00**	**54.26**	**50.43**	**0.00**	**53.08**	**52.01**	**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	Quarry Rock Mining	Grading	12/7/2015	12/22/2015	5	12	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Quarry Rock Mining	Crushing/Proc. Equipment	4	8.00	85	0.78

Quarry Rock Mining	Excavators	0	8.00	162	0.38
Quarry Rock Mining	Excavators	0	8.00	162	0.38
Quarry Rock Mining	Graders	0	8.00	174	0.41
Quarry Rock Mining	Graders	0	8.00	174	0.41
Quarry Rock Mining	Rubber Tired Dozers	0	8.00	255	0.40
Quarry Rock Mining	Rubber Tired Loaders	4	8.00	199	0.36
Quarry Rock Mining	Scrapers	0	8.00	361	0.48
Quarry Rock Mining	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Quarry Rock Mining	8	20.00	0.00	0.00	14.70	0.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Quarry Rock Mining - 2015

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	5.7775	50.7103	25.5291	0.0526		2.9377	2.9377		2.8636	2.8636		5,230.1926	5,230.1926	1.1000		5,253.2918

Total	**5.7775**	**50.7103**	**25.5291**	**0.0526**	**0.0000**	**2.9377**	**2.9377**	**0.0000**	**2.8636**	**2.8636**		**5,230.1926**	**5,230.1926**	**1.1000**		**5,253.2918**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0814	0.1077	1.0905	2.4500e-003	0.2236	1.4600e-003	0.2250	0.0593	1.3400e-003	0.0606		210.4869	210.4869	0.0105		210.7069
Total	**0.0814**	**0.1077**	**1.0905**	**2.4500e-003**	**0.2236**	**1.4600e-003**	**0.2250**	**0.0593**	**1.3400e-003**	**0.0606**		**210.4869**	**210.4869**	**0.0105**		**210.7069**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.1678	24.5413	30.4467	0.0526		1.3428	1.3428		1.3428	1.3428	0.0000	5,230.1926	5,230.1926	1.1000		5,253.2918
Total	**1.1678**	**24.5413**	**30.4467**	**0.0526**	**0.0000**	**1.3428**	**1.3428**	**0.0000**	**1.3428**	**1.3428**	**0.0000**	**5,230.1926**	**5,230.1926**	**1.1000**		**5,253.2918**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0814	0.1077	1.0905	2.4500e-003	0.2236	1.4600e-003	0.2250	0.0593	1.3400e-003	0.0606		210.4869	210.4869	0.0105		210.7069
Total	**0.0814**	**0.1077**	**1.0905**	**2.4500e-003**	**0.2236**	**1.4600e-003**	**0.2250**	**0.0593**	**1.3400e-003**	**0.0606**		**210.4869**	**210.4869**	**0.0105**		**210.7069**

Perris Dam Remediation - Quarry Mining Off-Road Equipment Emissions

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - 12 day scheudle for quarry processing activities.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - Off-Road Equipment for quarry processing and haul truck loading operations.

Trips and VMT - Off-road equipment worker trips.

On-road Fugitive Dust - Haul truck travel would be on unpaved roads.

Grading -

Construction Off-road Equipment Mitigation - Watering as required under Fugitive Dust Rule 403. Tier 3 equipment to be used for project.

Table Name	Column Name	Default Value	New Value

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	110.00	12.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	VendorTripLength	6.90	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.0351	0.3049	0.1600	3.3000e-004	1.3200e-003	0.0176	0.0190	3.5000e-004	0.0172	0.0175	0.0000	29.6298	29.6298	6.0400e-003	0.0000	29.7567
Total	**0.0351**	**0.3049**	**0.1600**	**3.3000e-004**	**1.3200e-003**	**0.0176**	**0.0190**	**3.5000e-004**	**0.0172**	**0.0175**	**0.0000**	**29.6298**	**29.6298**	**6.0400e-003**	**0.0000**	**29.7567**

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					
2015	7.4700e-003	0.1479	0.1895	3.3000e-004	1.3200e-003	8.0700e-003	9.3800e-003	3.5000e-004	8.0600e-003	8.4200e-003	0.0000	29.6298	29.6298	6.0400e-003	0.0000	29.7567
Total	**7.4700e-003**	**0.1479**	**0.1895**	**3.3000e-004**	**1.3200e-003**	**8.0700e-003**	**9.3800e-003**	**3.5000e-004**	**8.0600e-003**	**8.4200e-003**	**0.0000**	**29.6298**	**29.6298**	**6.0400e-003**	**0.0000**	**29.7567**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**78.74**	**51.49**	**-18.44**	**0.00**	**0.00**	**54.25**	**50.50**	**0.00**	**53.11**	**52.00**	**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	Quarry Rock Mining	Grading	12/7/2015	12/22/2015	5	12	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Quarry Rock Mining	Crushing/Proc. Equipment	4	8.00	85	0.78

Quarry Rock Mining	Excavators	0	8.00	162	0.38
Quarry Rock Mining	Excavators	0	8.00	162	0.38
Quarry Rock Mining	Graders	0	8.00	174	0.41
Quarry Rock Mining	Graders	0	8.00	174	0.41
Quarry Rock Mining	Rubber Tired Dozers	0	8.00	255	0.40
Quarry Rock Mining	Rubber Tired Loaders	4	8.00	199	0.36
Quarry Rock Mining	Scrapers	0	8.00	361	0.48
Quarry Rock Mining	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Quarry Rock Mining	8	20.00	0.00	0.00	14.70	0.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Quarry Rock Mining - 2015

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	0.0347	0.3043	0.1532	3.2000e-004		0.0176	0.0176		0.0172	0.0172	0.0000	28.4685	28.4685	5.9900e-003	0.0000	28.5942

Total	**0.0347**	**0.3043**	**0.1532**	**3.2000e-004**	**0.0000**	**0.0176**	**0.0176**	**0.0000**	**0.0172**	**0.0172**	**0.0000**	**28.4685**	**28.4685**	**5.9900e-003**	**0.0000**	**28.5942**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	6.7000e-004	6.7800e-003	1.0000e-005	1.3200e-003	1.0000e-005	1.3300e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.1613	1.1613	6.0000e-005	0.0000	1.1625
Total	**4.6000e-004**	**6.7000e-004**	**6.7800e-003**	**1.0000e-005**	**1.3200e-003**	**1.0000e-005**	**1.3300e-003**	**3.5000e-004**	**1.0000e-005**	**3.6000e-004**	**0.0000**	**1.1613**	**1.1613**	**6.0000e-005**	**0.0000**	**1.1625**

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	7.0100e-003	0.1473	0.1827	3.2000e-004		8.0600e-003	8.0600e-003		8.0600e-003	8.0600e-003	0.0000	28.4685	28.4685	5.9900e-003	0.0000	28.5942
Total	**7.0100e-003**	**0.1473**	**0.1827**	**3.2000e-004**	**0.0000**	**8.0600e-003**	**8.0600e-003**	**0.0000**	**8.0600e-003**	**8.0600e-003**	**0.0000**	**28.4685**	**28.4685**	**5.9900e-003**	**0.0000**	**28.5942**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	6.7000e-004	6.7800e-003	1.0000e-005	1.3200e-003	1.0000e-005	1.3300e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.1613	1.1613	6.0000e-005	0.0000	1.1625
Total	**4.6000e-004**	**6.7000e-004**	**6.7800e-003**	**1.0000e-005**	**1.3200e-003**	**1.0000e-005**	**1.3300e-003**	**3.5000e-004**	**1.0000e-005**	**3.6000e-004**	**0.0000**	**1.1613**	**1.1613**	**6.0000e-005**	**0.0000**	**1.1625**

Perris Dam Remediation - On-Site Quarry Haul Truck Emissions

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Quarry haul trucks.

Off-road Equipment - Construction equipment for building phase.

Trips and VMT - 1,800 total trips over 12 day construction period = 150 haul truck trips per day; Approximately 4-mile roundtrip distance per truck.

On-road Fugitive Dust - Haul truck travel would be on unpaved roads.

Grading -

Construction Off-road Equipment Mitigation - Watering as required under Fugitive Dust Rule 403.

Off-road Equipment - On-site equipment emissions calculated in separate CalEEMod run.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	110.00	12.00

tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	35.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	MaterialMoistureContent	0.50	0.60
tblOnRoadDust	MaterialSiltContent	8.50	8.30
tblOnRoadDust	MeanVehicleSpeed	40.00	25.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,800.00
tblTripsAndVMT	VendorTripLength	6.90	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	1.3340	11.6029	18.7407	0.0238	657.3678	0.1877	657.5555	65.5764	0.1726	65.7489	0.0000	2,398.8268	2,398.8268	0.0218	0.0000	2,399.2839
Total	**1.3340**	**11.6029**	**18.7407**	**0.0238**	**657.3678**	**0.1877**	**657.5555**	**65.5764**	**0.1726**	**65.7489**	**0.0000**	**2,398.8268**	**2,398.8268**	**0.0218**	**0.0000**	**2,399.2839**

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					
2015	1.3340	11.6029	18.7407	0.0238	229.1999	0.1877	229.3877	22.8665	0.1726	23.0390	0.0000	2,398.8268	2,398.8268	0.0218	0.0000	2,399.2839
Total	**1.3340**	**11.6029**	**18.7407**	**0.0238**	**229.1999**	**0.1877**	**229.3877**	**22.8665**	**0.1726**	**23.0390**	**0.0000**	**2,398.8268**	**2,398.8268**	**0.0218**	**0.0000**	**2,399.2839**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**65.13**	**0.00**	**65.12**	**65.13**	**0.00**	**64.96**	**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	Quarry Haul Truck Emissions	Grading	12/7/2015	12/22/2015	5	12	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor

Quarry Haul Truck Emissions	Excavators	0	8.00	162	0.38
Quarry Haul Truck Emissions	Excavators	0	8.00	162	0.38
Quarry Haul Truck Emissions	Graders	0	8.00	174	0.41
Quarry Haul Truck Emissions	Graders	0	8.00	174	0.41
Quarry Haul Truck Emissions	Rubber Tired Dozers	0	8.00	255	0.40
Quarry Haul Truck Emissions	Rubber Tired Loaders	0	8.00	199	0.36
Quarry Haul Truck Emissions	Scrapers	0	8.00	361	0.48
Quarry Haul Truck Emissions	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Quarry Haul Truck Emissions	0	0.00	0.00	1,800.00	14.70	0.00	4.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Quarry Haul Truck Emissions - 2015

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
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**

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	1.3340	11.6029	18.7407	0.0238	657.3678	0.1877	657.5555	65.5764	0.1726	65.7489		2,398.8268	2,398.8268	0.0218		2,399.2839
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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.3340**	**11.6029**	**18.7407**	**0.0238**	**657.3678**	**0.1877**	**657.5555**	**65.5764**	**0.1726**	**65.7489**		**2,398.8268**	**2,398.8268**	**0.0218**		**2,399.2839**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	1.3340	11.6029	18.7407	0.0238	229.1999	0.1877	229.3877	22.8665	0.1726	23.0390		2,398.8268	2,398.8268	0.0218		2,399.2839
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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.3340**	**11.6029**	**18.7407**	**0.0238**	**229.1999**	**0.1877**	**229.3877**	**22.8665**	**0.1726**	**23.0390**		**2,398.8268**	**2,398.8268**	**0.0218**		**2,399.2839**

Perris Dam Remediation - On-Site Quarry Haul Truck Emissions

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Quarry haul trucks.

Off-road Equipment - Construction equipment for building phase.

Trips and VMT - 1,800 total trips over 12 day construction period = 150 haul truck trips per day; Approximately 4-mile roundtrip distance per truck.

On-road Fugitive Dust - Haul truck travel would be on unpaved roads.

Grading -

Construction Off-road Equipment Mitigation - Watering as required under Fugitive Dust Rule 403.

Off-road Equipment - On-site equipment emissions calculated in separate CalEEMod run.

Table Name	Column Name	Default Value	New Value

tblConstructionPhase	NumDays	110.00	12.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	35.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	MaterialMoistureContent	0.50	0.60
tblOnRoadDust	MaterialSiltContent	8.50	8.30
tblOnRoadDust	MeanVehicleSpeed	40.00	25.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,800.00
tblTripsAndVMT	VendorTripLength	6.90	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	1.4373	11.8770	21.2454	0.0235	657.3678	0.1905	657.5583	65.5764	0.1751	65.7515	0.0000	2,372.1011	2,372.1011	0.0229	0.0000	2,372.5815

Total	**1.4373**	**11.8770**	**21.2454**	**0.0235**	**657.3678**	**0.1905**	**657.5583**	**65.5764**	**0.1751**	**65.7515**	**0.0000**	**2,372.1011**	**2,372.1011**	**0.0229**	**0.0000**	**2,372.5815**

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					
2015	1.4373	11.8770	21.2454	0.0235	229.1999	0.1905	229.3904	22.8665	0.1751	23.0416	0.0000	2,372.1011	2,372.1011	0.0229	0.0000	2,372.5815
Total	**1.4373**	**11.8770**	**21.2454**	**0.0235**	**229.1999**	**0.1905**	**229.3904**	**22.8665**	**0.1751**	**23.0416**	**0.0000**	**2,372.1011**	**2,372.1011**	**0.0229**	**0.0000**	**2,372.5815**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**65.13**	**0.00**	**65.11**	**65.13**	**0.00**	**64.96**	**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	Quarry Haul Truck Emissions	Grading	12/7/2015	12/22/2015	5	12	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Quarry Haul Truck Emissions	Excavators	0	8.00	162	0.38
Quarry Haul Truck Emissions	Excavators	0	8.00	162	0.38
Quarry Haul Truck Emissions	Graders	0	8.00	174	0.41
Quarry Haul Truck Emissions	Graders	0	8.00	174	0.41
Quarry Haul Truck Emissions	Rubber Tired Dozers	0	8.00	255	0.40
Quarry Haul Truck Emissions	Rubber Tired Loaders	0	8.00	199	0.36
Quarry Haul Truck Emissions	Scrapers	0	8.00	361	0.48
Quarry Haul Truck Emissions	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Quarry Haul Truck Emissions	0	0.00	0.00	1,800.00	14.70	0.00	4.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Quarry Haul Truck Emissions - 2015

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000

Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
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**

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	1.4373	11.8770	21.2454	0.0235	657.3678	0.1905	657.5583	65.5764	0.1751	65.7515		2,372.1011	2,372.1011	0.0229		2,372.5815
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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.4373**	**11.8770**	**21.2454**	**0.0235**	**657.3678**	**0.1905**	**657.5583**	**65.5764**	**0.1751**	**65.7515**		**2,372.1011**	**2,372.1011**	**0.0229**		**2,372.5815**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	1.4373	11.8770	21.2454	0.0235	229.1999	0.1905	229.3904	22.8665	0.1751	23.0416		2,372.1011	2,372.1011	0.0229		2,372.5815
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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.4373**	**11.8770**	**21.2454**	**0.0235**	**229.1999**	**0.1905**	**229.3904**	**22.8665**	**0.1751**	**23.0416**		**2,372.1011**	**2,372.1011**	**0.0229**		**2,372.5815**

Perris Dam Remediation - On-Site Quarry Haul Truck Emissions

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Quarry haul trucks.

Off-road Equipment - Construction equipment for building phase.

Trips and VMT - 1,800 total trips over 12 day construction period = 150 haul truck trips per day; Approximately 4-mile roundtrip distance per truck.

On-road Fugitive Dust - Haul truck travel would be on unpaved roads.

Grading -

Construction Off-road Equipment Mitigation - Watering as required under Fugitive Dust Rule 403.

Off-road Equipment - On-site equipment emissions calculated in separate CalEEMod run.

Table Name	Column Name	Default Value	New Value

tblConstructionPhase	NumDays	110.00	12.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	35.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	MaterialMoistureContent	0.50	0.60
tblOnRoadDust	MaterialSiltContent	8.50	8.30
tblOnRoadDust	MeanVehicleSpeed	40.00	25.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,800.00
tblTripsAndVMT	VendorTripLength	6.90	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	8.5800e-003	0.0726	0.1317	1.4000e-004	3.6417	1.1300e-003	3.6428	0.3633	1.0400e-003	0.3643	0.0000	12.9960	12.9960	1.2000e-004	0.0000	12.9985

Total	**8.5800e-003**	**0.0726**	**0.1317**	**1.4000e-004**	**3.6417**	**1.1300e-003**	**3.6428**	**0.3633**	**1.0400e-003**	**0.3643**	**0.0000**	**12.9960**	**12.9960**	**1.2000e-004**	**0.0000**	**12.9985**

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					
2015	8.5800e-003	0.0726	0.1317	1.4000e-004	1.2698	1.1300e-003	1.2709	0.1267	1.0400e-003	0.1277	0.0000	12.9960	12.9960	1.2000e-004	0.0000	12.9985
Total	**8.5800e-003**	**0.0726**	**0.1317**	**1.4000e-004**	**1.2698**	**1.1300e-003**	**1.2709**	**0.1267**	**1.0400e-003**	**0.1277**	**0.0000**	**12.9960**	**12.9960**	**1.2000e-004**	**0.0000**	**12.9985**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**65.13**	**0.00**	**65.11**	**65.13**	**0.00**	**64.94**	**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	Quarry Haul Truck Emissions	Grading	12/7/2015	12/22/2015	5	12	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Quarry Haul Truck Emissions	Excavators	0	8.00	162	0.38
Quarry Haul Truck Emissions	Excavators	0	8.00	162	0.38
Quarry Haul Truck Emissions	Graders	0	8.00	174	0.41
Quarry Haul Truck Emissions	Graders	0	8.00	174	0.41
Quarry Haul Truck Emissions	Rubber Tired Dozers	0	8.00	255	0.40
Quarry Haul Truck Emissions	Rubber Tired Loaders	0	8.00	199	0.36
Quarry Haul Truck Emissions	Scrapers	0	8.00	361	0.48
Quarry Haul Truck Emissions	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Quarry Haul Truck Emissions	0	0.00	0.00	1,800.00	14.70	0.00	4.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Quarry Haul Truck Emissions - 2015

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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	8.5800e-003	0.0726	0.1317	1.4000e-004	3.6417	1.1300e-003	3.6428	0.3633	1.0400e-003	0.3643	0.0000	12.9960	12.9960	1.2000e-004	0.0000	12.9985
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.5800e-003**	**0.0726**	**0.1317**	**1.4000e-004**	**3.6417**	**1.1300e-003**	**3.6428**	**0.3633**	**1.0400e-003**	**0.3643**	**0.0000**	**12.9960**	**12.9960**	**1.2000e-004**	**0.0000**	**12.9985**

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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction 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	8.5800e-003	0.0726	0.1317	1.4000e-004	1.2698	1.1300e-003	1.2709	0.1267	1.0400e-003	0.1277	0.0000	12.9960	12.9960	1.2000e-004	0.0000	12.9985
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.5800e-003**	**0.0726**	**0.1317**	**1.4000e-004**	**1.2698**	**1.1300e-003**	**1.2709**	**0.1267**	**1.0400e-003**	**0.1277**	**0.0000**	**12.9960**	**12.9960**	**1.2000e-004**	**0.0000**	**12.9985**

Perris Dam Remediation - On-Site Quarry Haul Truck Emissions with Reduced Trips

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Quarry haul trucks.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - On-site equipment emissions calculated in separate CalEEMod run.

Trips and VMT - 890 total trips over 12 day construction period = 74 haul truck trips per day; Approximately 4-mile roundtrip distance per truck.

On-road Fugitive Dust - Haul truck travel would be on unpaved roads.

Grading -

Construction Off-road Equipment Mitigation - Watering as required under Fugitive Dust Rule 403.

Table Name	Column Name	Default Value	New Value

tblConstructionPhase	NumDays	110.00	12.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	35.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	MaterialMoistureContent	0.50	0.60
tblOnRoadDust	MaterialSiltContent	8.50	8.30
tblOnRoadDust	MeanVehicleSpeed	40.00	25.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	890.00
tblTripsAndVMT	VendorTripLength	6.90	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	0.6596	5.7370	9.2662	0.0118	325.0319	0.0928	325.1247	32.4239	0.0853	32.5092	0.0000	1,186.0866	1,186.0866	0.0108	0.0000	1,186.3126

Total	**0.6596**	**5.7370**	**9.2662**	**0.0118**	**325.0319**	**0.0928**	**325.1247**	**32.4239**	**0.0853**	**32.5092**	**0.0000**	**1,186.0866**	**1,186.0866**	**0.0108**	**0.0000**	**1,186.3126**

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					
2015	0.6596	5.7370	9.2662	0.0118	113.3266	0.0928	113.4195	11.3062	0.0853	11.3915	0.0000	1,186.0866	1,186.0866	0.0108	0.0000	1,186.3126
Total	**0.6596**	**5.7370**	**9.2662**	**0.0118**	**113.3266**	**0.0928**	**113.4195**	**11.3062**	**0.0853**	**11.3915**	**0.0000**	**1,186.0866**	**1,186.0866**	**0.0108**	**0.0000**	**1,186.3126**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**65.13**	**0.00**	**65.12**	**65.13**	**0.00**	**64.96**	**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	Quarry Haul Truck Emissions	Grading	12/7/2015	12/22/2015	5	12	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Quarry Haul Truck Emissions	Excavators	0	8.00	162	0.38
Quarry Haul Truck Emissions	Excavators	0	8.00	162	0.38
Quarry Haul Truck Emissions	Graders	0	8.00	174	0.41
Quarry Haul Truck Emissions	Graders	0	8.00	174	0.41
Quarry Haul Truck Emissions	Rubber Tired Dozers	0	8.00	255	0.40
Quarry Haul Truck Emissions	Scrapers	0	8.00	361	0.48
Quarry Haul Truck Emissions	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Quarry Haul Truck Emissions	0	0.00	0.00	890.00	14.70	0.00	4.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Quarry Haul Truck Emissions - 2015

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

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**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6596	5.7370	9.2662	0.0118	325.0319	0.0928	325.1247	32.4239	0.0853	32.5092		1,186.0866	1,186.0866	0.0108		1,186.3126
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	0.0000	0.0000	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	**0.6596**	**5.7370**	**9.2662**	**0.0118**	**325.0319**	**0.0928**	**325.1247**	**32.4239**	**0.0853**	**32.5092**		**1,186.0866**	**1,186.0866**	**0.0108**		**1,186.3126**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6596	5.7370	9.2662	0.0118	113.3266	0.0928	113.4195	11.3062	0.0853	11.3915		1,186.0866	1,186.0866	0.0108		1,186.3126
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	0.0000	0.0000	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	**0.6596**	**5.7370**	**9.2662**	**0.0118**	**113.3266**	**0.0928**	**113.4195**	**11.3062**	**0.0853**	**11.3915**		**1,186.0866**	**1,186.0866**	**0.0108**		**1,186.3126**

Perris Dam Remediation - On-Site Quarry Haul Truck Emissions with Reduced Trips

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Quarry haul trucks.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - On-site equipment emissions calculated in separate CalEEMod run.

Trips and VMT - 890 total trips over 12 day construction period = 74 haul truck trips per day; Approximately 4-mile roundtrip distance per truck.

On-road Fugitive Dust - Haul truck travel would be on unpaved roads.

Grading -

Construction Off-road Equipment Mitigation - Watering as required under Fugitive Dust Rule 403.

Table Name	Column Name	Default Value	New Value

tblConstructionPhase	NumDays	110.00	12.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	35.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	MaterialMoistureContent	0.50	0.60
tblOnRoadDust	MaterialSiltContent	8.50	8.30
tblOnRoadDust	MeanVehicleSpeed	40.00	25.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	890.00
tblTripsAndVMT	VendorTripLength	6.90	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	0.7106	5.8725	10.5047	0.0116	325.0319	0.0942	325.1260	32.4239	0.0866	32.5104	0.0000	1,172.8722	1,172.8722	0.0113	0.0000	1,173.1098

Total	**0.7106**	**5.8725**	**10.5047**	**0.0116**	**325.0319**	**0.0942**	**325.1260**	**32.4239**	**0.0866**	**32.5104**	**0.0000**	**1,172.8722**	**1,172.8722**	**0.0113**	**0.0000**	**1,173.1098**

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					
2015	0.7106	5.8725	10.5047	0.0116	113.3266	0.0942	113.4208	11.3062	0.0866	11.3928	0.0000	1,172.8722	1,172.8722	0.0113	0.0000	1,173.1098
Total	**0.7106**	**5.8725**	**10.5047**	**0.0116**	**113.3266**	**0.0942**	**113.4208**	**11.3062**	**0.0866**	**11.3928**	**0.0000**	**1,172.8722**	**1,172.8722**	**0.0113**	**0.0000**	**1,173.1098**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**65.13**	**0.00**	**65.11**	**65.13**	**0.00**	**64.96**	**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	Quarry Haul Truck Emissions	Grading	12/7/2015	12/22/2015	5	12	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Quarry Haul Truck Emissions	Excavators	0	8.00	162	0.38
Quarry Haul Truck Emissions	Excavators	0	8.00	162	0.38
Quarry Haul Truck Emissions	Graders	0	8.00	174	0.41
Quarry Haul Truck Emissions	Graders	0	8.00	174	0.41
Quarry Haul Truck Emissions	Rubber Tired Dozers	0	8.00	255	0.40
Quarry Haul Truck Emissions	Scrapers	0	8.00	361	0.48
Quarry Haul Truck Emissions	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Quarry Haul Truck Emissions	0	0.00	0.00	890.00	14.70	0.00	4.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Quarry Haul Truck Emissions - 2015

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

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**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7106	5.8725	10.5047	0.0116	325.0319	0.0942	325.1260	32.4239	0.0866	32.5104		1,172.8722	1,172.8722	0.0113		1,173.1098
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	0.0000	0.0000	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	**0.7106**	**5.8725**	**10.5047**	**0.0116**	**325.0319**	**0.0942**	**325.1260**	**32.4239**	**0.0866**	**32.5104**		**1,172.8722**	**1,172.8722**	**0.0113**		**1,173.1098**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7106	5.8725	10.5047	0.0116	113.3266	0.0942	113.4208	11.3062	0.0866	11.3928		1,172.8722	1,172.8722	0.0113		1,173.1098
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	0.0000	0.0000	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	**0.7106**	**5.8725**	**10.5047**	**0.0116**	**113.3266**	**0.0942**	**113.4208**	**11.3062**	**0.0866**	**11.3928**		**1,172.8722**	**1,172.8722**	**0.0113**		**1,173.1098**

Perris Dam Remediation - On-Site Quarry Haul Truck Emissions with Reduced Trips

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	70.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 70-acre project site

Construction Phase - Quarry haul trucks.

Off-road Equipment - Construction equipment for building phase.

Off-road Equipment - On-site equipment emissions calculated in separate CalEEMod run.

Trips and VMT - 890 total trips over 12 day construction period = 74 haul truck trips per day; Approximately 4-mile roundtrip distance per truck.

On-road Fugitive Dust - Haul truck travel would be on unpaved roads.

Grading -

Construction Off-road Equipment Mitigation - Watering as required under Fugitive Dust Rule 403.

Table Name	Column Name	Default Value	New Value

tblConstructionPhase	NumDays	110.00	12.00
tblLandUse	LotAcreage	0.00	70.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	35.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	MaterialMoistureContent	0.50	0.60
tblOnRoadDust	MaterialSiltContent	8.50	8.30
tblOnRoadDust	MeanVehicleSpeed	40.00	25.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	890.00
tblTripsAndVMT	VendorTripLength	6.90	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	4.2400e-003	0.0359	0.0651	7.0000e-005	1.8006	5.6000e-004	1.8012	0.1796	5.2000e-004	0.1802	0.0000	6.4258	6.4258	6.0000e-005	0.0000	6.4271

Total	**4.2400e-003**	**0.0359**	**0.0651**	**7.0000e-005**	**1.8006**	**5.6000e-004**	**1.8012**	**0.1796**	**5.2000e-004**	**0.1802**	**0.0000**	**6.4258**	**6.4258**	**6.0000e-005**	**0.0000**	**6.4271**

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					
2015	4.2400e-003	0.0359	0.0651	7.0000e-005	0.6278	5.6000e-004	0.6284	0.0626	5.2000e-004	0.0632	0.0000	6.4258	6.4258	6.0000e-005	0.0000	6.4271
Total	**4.2400e-003**	**0.0359**	**0.0651**	**7.0000e-005**	**0.6278**	**5.6000e-004**	**0.6284**	**0.0626**	**5.2000e-004**	**0.0632**	**0.0000**	**6.4258**	**6.4258**	**6.0000e-005**	**0.0000**	**6.4271**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**65.13**	**0.00**	**65.11**	**65.13**	**0.00**	**64.94**	**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	Quarry Haul Truck Emissions	Grading	12/7/2015	12/22/2015	5	12	

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 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Quarry Haul Truck Emissions	Excavators	0	8.00	162	0.38
Quarry Haul Truck Emissions	Excavators	0	8.00	162	0.38
Quarry Haul Truck Emissions	Graders	0	8.00	174	0.41
Quarry Haul Truck Emissions	Graders	0	8.00	174	0.41
Quarry Haul Truck Emissions	Rubber Tired Dozers	0	8.00	255	0.40
Quarry Haul Truck Emissions	Scrapers	0	8.00	361	0.48
Quarry Haul Truck Emissions	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Quarry Haul Truck Emissions	0	0.00	0.00	890.00	14.70	0.00	4.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Quarry Haul Truck Emissions - 2015

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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	4.2400e-003	0.0359	0.0651	7.0000e-005	1.8006	5.6000e-004	1.8012	0.1796	5.2000e-004	0.1802	0.0000	6.4258	6.4258	6.0000e-005	0.0000	6.4271
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.2400e-003**	**0.0359**	**0.0651**	**7.0000e-005**	**1.8006**	**5.6000e-004**	**1.8012**	**0.1796**	**5.2000e-004**	**0.1802**	**0.0000**	**6.4258**	**6.4258**	**6.0000e-005**	**0.0000**	**6.4271**

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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction 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	4.2400e-003	0.0359	0.0651	7.0000e-005	0.6278	5.6000e-004	0.6284	0.0626	5.2000e-004	0.0632	0.0000	6.4258	6.4258	6.0000e-005	0.0000	6.4271
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.2400e-003**	**0.0359**	**0.0651**	**7.0000e-005**	**0.6278**	**5.6000e-004**	**0.6284**	**0.0626**	**5.2000e-004**	**0.0632**	**0.0000**	**6.4258**	**6.4258**	**6.0000e-005**	**0.0000**	**6.4271**

Greenhouse Gas Emissions Reduction Plan (GGERP) Consistency Determination Checklist

DWR GHG Emissions Reduction Plan Consistency Determination Form

For Projects Using Contractors or Other Outside Labor

Print Form

This form is to be used by DWR project managers to document a DWR CEQA project's consistency with the DWR Greenhouse Gas Emissions Reduction Plan. This form is to be used only when DWR is the Lead Agency and when contractors or outside labor and equipment are use to implement the project.

Additional Guidance on filling out this form can be found at:
dwrclimatecange.water.ca.gov/guidance_resources.cfm

The DWR Greenhouse Gas Emissions Reduction Plan can be accessed at:
http://www.water.ca.gov/climatechange/CAP.cfm

California Department of Water Resources
1416 9th Steet
Sacramento, CA
95814
dwrclimatechange.water.ca.gov
www.water.ca.gov/climatechange

Project Name:	Perris Dam Emergency Release Facility
Environmental Document type:	Environmental Impact Report
Manager's Name:	Tru Nguyen
Manager's email:	tru@water.ca.gov
Division:	Division of Engineering
Office, Branch, or Field Division	Geotechnical and Engineering Services Branch

Short Project Description:

DWR is proposing to modify the existing emergency release structure and construct a water conveyance facility that would release and convey the emergency flows from the Perris Reservoir in the event of an emergency drawdown. The constructed facility would reduce the risk to public safety and property resulting from an emergency release from Perris Dam, by diverting the emergency release around the residential area that has been constructed downstream of the Dam.

The proposed project is composed of three distinct sections to convey the emergency release flow from the existing emergency release structure near the left abutment of the Dam. First a levee will be constructed to divert the emergency flow, from it's natural course, to the area between the Dam toe and Ramona Expressway. Downstream of the first area, a channel will be constructed across the southern end of the Lake Perris Fairgrounds. Finally another channel will be constructed north of Ramona Expressway to bring the emergency release flow to the regional drainage channel (Perris Valley Channel). In addition to the levees and channels constructed, two bridges will be constructed across the channels as well as two control weirs.

Project GHG Emissions Summary

Total Construction Emissions	5,700.4	$mtCO_2e$
Maximum Annual Construction Emissions	3,656.6	$mtCO_2e$

☒ All other emissions from the project not accounted for above will occur as ongoing operational, maintenance, or business activity emissions and therefore have already been accounted for and analyzed in the GGERP.

Extraordinary Construction Project Determination

Do total project construction emissions exceed 25,000 $mtCO_2e$ for the entire construction phase or exceed 12,500 $mtCO_2e$ in any single year of construction.

- ○ Yes - Addition analysis is required, consult with C4
- ◉ No - Additional analysis not required

Project GHG Reduction Plan Checklist

☒ All Project Level GHG Emissions Reduction Measures have been incorporated into the design or implementation plan for the project. (Project Level GHG Emissions Reduction Measures)

Or

☐ All feasible Project Level GHG Emissions Reduction Measures have been incorporated into the design or implementation plan for the project and and Measures not incorporated have been listed and determined not be apply to the proposed project (include as an attachment)

☒ Project does not conflict with any of the Specific Action GHG Emissions Reduction Measures (Specific Action GHG Emissions Reduction Measures)

Would implementation of the project result in additional energy demands on the SWP system of 15 GWh/yr or greater?

○ Yes ◉ No

If you answered Yes, attach a Renewable Power Procurement Plan update approval letter from the DWR SWP Power and Risk Office.

Is there substantial evidence that the effects of the proposed project may be cumulatively considerable notwithstanding the proposed project's compliance with the requirements of the DWR GHG Reduction Plan?

○ Yes ◉ No

If you answered Yes, the project is not eligible for streamlined analysis of GHG emissions using the DWR GHG Emissions Reduction Plan. (See CEQA Guidelines, section 15183.5, subdivision (b)(2).)

Based on the information provided above and information provided in associated environmental documentation completed pursuant to the above referenced project, the DWR CEQA Climate Change Committee has determined that the proposed project is consistent with the DWR Greenhouse Gas Reduction Plan and the greenhouse gasses emitted by the project are covered by the plan's analysis.

Project Manager Signature:	Tru Nguyen — Digitally signed by Tru Nguyen DN: cn=Tru Nguyen, o=DWR, ou=General Engineering, email=tru@water.ca.gov, c=US Date: 2016.05.11 14:00:17 -07'00'	Date:	05/11/16
C4 Approval Signature:	Andrew Schwarz — Digitally signed by Andrew Schwarz DN: cn=Andrew Schwarz, o=Department of Water Resources, ou=Climate Change Adaptation, email=aschwarz@water.ca.gov, c=US Date: 2016.05.26 11:18:24 -07'00'	Date:	05/26/16

Attachments:

☒ GHG Emissions Inventory

☐ List and Explanation of excluded Project Level GHG Emissions Reduction Measures

☐ Plan to update Renewable Energy Procurement Plan from DWR SWP Power and Risk Office