

Appendix K1
Air Quality Emission Calculations

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Comparison of Emissions

Table K-1. Maximum Daily Unmitigated Emissions

Alternative	Description	ROG, lbs/day	NOx, lbs/day	CO, lbs/day	SO2, lbs/day	PM10, lbs/day	PM2.5, lbs/day
1	East Side Small Gated Notch	51	667	261	2	467	58
2	Central Small Gated Notch	63	921	432	3	602	80
3	West Side Small Gated Notch	61	1,097	469	3	603	80
4	Managed Flow	95	1,543	689	5	922	137
5	Multiple Gates	144	1,516	850	4	1,038	157
6	Large Gated Notch	88	1,609	687	5	695	109
Yolo-Solano AQMD Significance Thresholds		n/a	n/a	n/a	n/a	80	n/a
Feather River AQMD Significance Thresholds		n/a	n/a	n/a	n/a	80	n/a

Table K-2. Annual Unmitigated Emissions

Alternative	Description	ROG, tpy	NOx, tpy	CO, tpy	SO2, tpy	PM10, tpy	PM2.5, tpy	Emissions, MTCO2e/ project
1	East Side Small Gated Notch	1.2	15.8	8.8	0.0	6.0	1.1	4,866
2	Central Small Gated Notch	2.4	29.8	17.3	0.1	8.2	1.6	9,924
3	West Side Small Gated Notch	2.1	30.5	15.6	0.1	10.7	2.0	9,008
4	Managed Flow	3.7	57.2	26.8	0.2	15.6	3.3	18,034
5	Multiple Gates	6.5	74.2	45.8	0.2	13.5	3.9	21,179
6	Large Gated Notch	3.8	60.0	28.4	0.2	19.5	3.6	17,669
Yolo-Solano AQMD Significance Thresholds		10	10	n/a	n/a	n/a	n/a	1,100
Feather River AQMD Significance Thresholds		2.5	2.5	n/a	n/a	n/a	n/a	1,100
Feather River AQMD Significance Thresholds (Alt 5)		3.6	3.6	n/a	n/a	n/a	n/a	1,100
General Conformity De Minimis Thresholds		25	25	100	100	100	100	n/a

Note: Emissions include construction of downstream reach.

Construction occurs over two dry seasons for Alternative 5 only.

Feather River AQMD NOx and ROG significance threshold equal to 25 lbs/day multiplied by project length, not to exceed 4.5 tons per year.

Only certain portions (certain urban areas) are designated maintenance for PM10 and CO; therefore, only the portion of emissions that occur in those areas are subject to general cor

Construction Duration

200 days
6.7 months

Legend

Exceeds CEQA significance threshold
Exceeds general conformity de minimis

Construction Duration (Alternative 5)

284 days
9.5 months

Construction Season

	Year 1	Year 2
Start	15-Apr	15-Apr
End	1-Nov	8-Jul

Table K-3. ROG Detailed Summary (Alternative 1) - Unmitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.66	26.47	26.65	25.82	8.99	9.41	14.56	12.19	14.11	13.68	8.80	9.05	10.46	12.38	15.11	13.54	9.09	10.65	0.65
	Construction Worker Commuting	0.10	0.08	0.18	0.07	0.07	0.06	0.13	0.12	0.12	0.11	0.09	0.14	0.18	0.19	0.24	0.23	0.14	0.19	0.07
	Haul Trucks	0.34	0.25	0.39	--	--	--	0.12	0.02	--	--	--	2.09	5.17	4.73	5.05	5.05	3.16	5.24	0.18
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		1.09	26.80	27.22	25.89	9.06	9.47	14.81	12.33	14.23	13.79	8.89	11.29	15.81	17.30	20.40	18.82	12.38	16.07	0.91
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	0.29	1.07	0.18	11.22	4.89	3.94	7.82	0.26	0.37	0.43	0.43	0.72	1.09	0.79	0.18	0.18	0.18	0.18	0.18
	Construction Worker Commuting	0.02	0.02	0.04	0.02	0.02	0.04	0.11	0.01	0.07	0.02	0.01	0.02	0.03	0.01	0.04	0.00	0.01	0.01	0.00
	Haul Trucks	0.03	0.03	0.12	0.12	--	--	2.28	--	0.16	--	--	0.08	0.12	--	0.04	0.01	--	--	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		0.34	1.12	0.34	11.36	4.90	3.98	10.22	0.27	0.60	0.44	0.44	0.82	1.24	0.80	0.26	0.20	0.19	0.19	0.20
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.47	11.22	11.22	11.22	11.22	3.94	5.09	5.09	4.12	6.04	6.04	6.04	4.09	7.82	7.82	7.82	7.82	7.82	3.91
	Construction Worker Commuting	0.04	0.02	0.02	0.02	0.02	0.04	0.05	0.05	0.06	0.06	0.06	0.06	0.07	0.11	0.11	0.11	0.11	0.11	0.06
	Haul Trucks	0.11	0.12	0.12	--	--	--	--	--	0.03	--	--	--	1.63	3.20	3.20	3.20	3.20	3.20	1.60
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.62	11.36	11.36	11.24	11.24	3.98	5.13	5.13	4.21	6.09	6.09	6.09	5.80	11.14	11.14	11.14	11.14	11.14	5.57
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.47	11.22	3.94	0.26	0.26	0.18	0.24	1.15	0.24	0.18	4.41	1.19	0.90	0.90	0.79	1.77	0.65	2.48	0.72
	Construction Worker Commuting	0.03	0.02	0.04	0.01	0.01	0.02	0.01	0.01	0.01	0.04	0.05	0.02	0.02	0.02	0.02	0.04	0.02	0.06	0.02
	Haul Trucks	0.07	0.09	--	--	--	--	0.02	1.56	0.02	0.07	--	--	--	--	--	0.04	0.06	0.07	0.11
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.57	11.33	3.98	0.27	0.27	0.20	0.26	2.72	0.26	0.29	4.45	1.22	0.92	0.92	0.82	1.85	0.73	2.61	0.85
GRAND TOTAL		2.62	50.60	42.89	48.76	25.46	17.63	30.43	20.45	19.30	20.62	19.87	19.42	23.77	30.15	32.61	32.00	24.43	30.01	7.53
Yolo County Total		2.29	49.48	42.55	37.40	20.56	13.65	20.21	20.18	18.70	20.18	19.43	18.60	22.52	29.36	32.35	31.80	24.24	29.82	7.33
Sutter County Total		0.34	1.12	0.34	11.36	4.90	3.98	10.22	0.27	0.60	0.44	0.44	0.82	1.24	0.80	0.26	0.20	0.19	0.19	0.20

Table K-3. ROG Detailed Summary (Alternative 1) - Un

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	0.47	0.65	2.03	2.03	2.03	1.85	1.07	1.44	0.18	0.66
	Construction Worker Commuting	0.01	0.01	0.06	0.06	0.06	0.06	0.05	0.12	0.01	0.01
	Haul Trucks	--	0.00	--	--	--	--	--	0.61	0.03	0.07
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		0.48	0.66	2.09	2.09	2.09	1.91	1.11	2.17	0.22	0.74
Supplemental Fish Passage West											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	1.07	0.18	0.03
	Construction Worker Commuting	--	--	--	--	--	--	--	0.02	0.01	0.00
	Haul Trucks	--	--	--	--	--	--	--	0.48	0.03	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	1.57	0.22	0.03
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.26	0.26	0.18	1.07	0.18	--	--	--	--	0.35
	Construction Worker Commuting	0.01	0.01	0.03	0.02	0.00	--	--	--	--	0.00
	Haul Trucks	--	--	0.10	0.48	0.01	--	--	--	--	0.05
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.27	0.27	0.31	1.57	0.20	--	--	--	--	0.41
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.80	--	1.26	0.18	--	--	--	--	--	0.04
	Construction Worker Commuting	0.01	--	0.03	0.00	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.24	0.01	--	--	--	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.81	--	1.52	0.20	--	--	--	--	--	0.04
GRAND TOTAL		1.56	0.93	3.92	3.86	2.29	1.91	1.11	3.74	0.44	1.23
Yolo County Total		1.56	0.93	3.92	3.86	2.29	1.91	1.11	2.17	0.22	1.20
Sutter County Total		--	--	--	--	--	--	--	1.57	0.22	0.03

Table K-4. ROG Detailed Summary (Alternative 2) - Unmitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.66	26.47	26.65	25.82	18.76	18.03	28.27	25.72	25.72	25.29	10.63	10.58	20.57	18.28	16.91	19.02	16.83	16.91	15.17
	Construction Worker Commuting	0.14	0.08	0.18	0.07	0.10	0.08	0.20	0.18	0.18	0.16	0.11	0.15	0.32	0.29	0.28	0.30	0.25	0.25	0.25
	Haul Trucks	0.39	0.26	0.39	--	0.11	--	0.06	--	--	--	--	3.22	7.39	7.39	7.38	7.32	7.16	7.06	5.42
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		1.19	26.80	27.22	25.89	18.97	18.12	28.53	25.90	25.90	25.46	10.75	13.94	28.28	25.96	24.56	26.63	24.25	24.22	20.84
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	0.29	1.07	0.18	11.22	4.89	3.94	7.82	0.26	0.37	0.43	0.43	0.72	1.09	0.79	0.18	0.18	0.18	0.18	0.18
	Construction Worker Commuting	0.02	0.02	0.04	0.02	0.02	0.04	0.11	0.01	0.07	0.02	0.01	0.02	0.03	0.01	0.04	0.00	0.01	0.01	0.00
	Haul Trucks	0.03	0.03	0.12	0.12	--	--	2.28	--	0.16	--	--	0.08	0.12	--	0.04	0.01	--	--	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		0.34	1.12	0.34	11.36	4.90	3.98	10.22	0.27	0.60	0.44	0.44	0.82	1.24	0.80	0.26	0.20	0.19	0.19	0.20
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.47	11.22	11.22	11.22	11.22	3.94	5.09	5.09	4.12	6.04	6.04	6.04	4.09	7.82	7.82	7.82	7.82	7.82	3.91
	Construction Worker Commuting	0.04	0.02	0.02	0.02	0.02	0.04	0.05	0.05	0.06	0.06	0.06	0.06	0.07	0.11	0.11	0.11	0.11	0.11	0.06
	Haul Trucks	0.11	0.12	0.12	--	--	--	--	--	0.03	--	--	--	1.63	3.20	3.20	3.20	3.20	3.20	1.60
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.62	11.36	11.36	11.24	11.24	3.98	5.13	5.13	4.21	6.09	6.09	6.09	5.80	11.14	11.14	11.14	11.14	11.14	5.57
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.47	11.22	3.94	0.26	0.26	0.18	0.24	1.15	0.24	0.18	4.41	1.19	0.90	0.90	0.79	1.77	0.65	2.48	0.72
	Construction Worker Commuting	0.03	0.02	0.04	0.01	0.01	0.02	0.01	0.01	0.01	0.04	0.05	0.02	0.02	0.02	0.02	0.04	0.02	0.06	0.02
	Haul Trucks	0.07	0.09	--	--	--	--	0.02	1.56	0.02	0.07	--	--	--	--	--	0.04	0.06	0.07	0.11
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.57	11.33	3.98	0.27	0.27	0.20	0.26	2.72	0.26	0.29	4.45	1.22	0.92	0.92	0.82	1.85	0.73	2.61	0.85
River Grading Site																				
5	Offroad Construction Equipment Exhaust	1.23	12.62	6.09	4.06	4.06	4.06	4.06	4.06	4.06	4.06	4.06	4.06	4.06	4.06	4.06	4.06	4.06	4.06	4.06
	Construction Worker Commuting	--	--	0.03	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
	Haul Trucks	0.08	0.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	6.54	--	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27
River Grading Site Subtotal		7.85	12.65	9.39	7.37	7.36	7.36	7.36	7.36	7.36	7.36	7.36	7.36	7.36	7.36	7.36	7.36	7.36	7.36	7.36
GRAND TOTAL		10.57	63.26	52.28	56.13	42.74	33.64	51.51	41.38	38.33	39.65	29.10	29.44	43.60	46.18	44.14	47.18	43.66	45.52	34.82
Yolo County Total		10.23	62.13	51.94	44.77	37.84	29.66	41.29	41.11	37.73	39.20	28.66	28.62	42.36	45.38	43.88	46.98	43.47	45.33	34.63
Sutter County Total		0.34	1.12	0.34	11.36	4.90	3.98	10.22	0.27	0.60	0.44	0.44	0.82	1.24	0.80	0.26	0.20	0.19	0.19	0.20

Table K-4. ROG Detailed Summary (Alternative 2) - Un

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	8.47	0.84	0.99	2.03	2.03	1.85	1.85	1.44	0.18	1.07
	Construction Worker Commuting	0.13	0.12	0.04	0.06	0.06	0.06	0.06	0.12	0.01	0.01
	Haul Trucks	3.91	0.31	--	--	--	--	--	0.63	0.03	0.15
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		12.51	1.27	1.03	2.09	2.09	1.91	1.91	2.19	0.22	1.23
Supplemental Fish Passage West											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	1.07	0.18	0.03
	Construction Worker Commuting	--	--	--	--	--	--	--	0.02	0.01	0.00
	Haul Trucks	--	--	--	--	--	--	--	0.48	0.03	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	1.57	0.22	0.03
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.26	0.26	0.18	1.07	0.18	--	--	--	--	0.35
	Construction Worker Commuting	0.01	0.01	0.03	0.02	0.00	--	--	--	--	0.00
	Haul Trucks	--	--	0.10	0.48	0.01	--	--	--	--	0.05
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.27	0.27	0.31	1.57	0.20	--	--	--	--	0.41
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.80	--	1.26	0.18	--	--	--	--	--	0.04
	Construction Worker Commuting	0.01	--	0.03	0.00	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.24	0.01	--	--	--	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.81	--	1.52	0.20	--	--	--	--	--	0.04
River Grading Site											
5	Offroad Construction Equipment Exhaust	4.06	6.19	0.10	0.10	--	1.23	--	--	--	0.11
	Construction Worker Commuting	0.03	0.09	0.06	0.07	0.01	--	--	--	--	0.00
	Haul Trucks	--	1.59	1.59	1.59	--	0.08	--	--	--	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	3.27	3.27	--	--	--	--	--	--	--	0.53
River Grading Site Subtotal		7.36	11.13	1.75	1.76	0.01	1.31	--	--	--	0.65
GRAND TOTAL		20.95	12.67	4.60	5.61	2.30	3.22	1.91	3.76	0.44	2.37
Yolo County Total		20.95	12.67	4.60	5.61	2.30	3.22	1.91	2.19	0.22	2.34
Sutter County Total		--	--	--	--	--	--	--	1.57	0.22	0.03

Table K-5. ROG Detailed Summary (Alternative 3) - Unmitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.66	26.47	26.65	25.82	18.76	18.03	28.27	26.87	26.87	26.44	26.44	33.11	35.28	40.81	16.91	19.02	16.83	16.91	22.99
	Construction Worker Commuting	0.14	0.08	0.18	0.07	0.10	0.08	0.20	0.19	0.19	0.17	0.17	0.28	0.33	0.42	0.28	0.30	0.25	0.25	0.36
	Haul Trucks	0.39	0.25	0.39	--	0.11	--	0.06	--	--	--	--	3.23	3.55	6.74	6.73	6.68	6.52	6.42	8.21
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		1.19	26.80	27.22	25.89	18.97	18.12	28.53	27.05	27.05	26.61	26.61	36.62	39.17	47.98	23.92	25.99	23.60	23.58	31.56
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	0.29	1.07	0.18	11.22	4.89	3.94	7.82	0.26	0.37	0.43	0.43	0.72	1.09	0.79	0.18	0.18	0.18	0.18	0.18
	Construction Worker Commuting	0.02	0.02	0.04	0.02	0.02	0.04	0.11	0.01	0.07	0.02	0.01	0.02	0.03	0.01	0.04	0.00	0.01	0.01	0.00
	Haul Trucks	0.03	0.03	0.12	0.12	--	--	2.23	--	0.16	--	--	0.08	0.12	--	0.04	0.01	--	--	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		0.34	1.12	0.34	11.36	4.90	3.98	10.17	0.27	0.60	0.44	0.44	0.82	1.24	0.80	0.26	0.20	0.19	0.19	0.20
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.47	11.22	11.22	11.22	11.22	3.94	5.09	5.09	4.12	6.04	6.04	6.04	4.09	7.82	7.82	7.82	7.82	7.82	3.91
	Construction Worker Commuting	0.04	0.02	0.02	0.02	0.02	0.04	0.05	0.05	0.06	0.06	0.06	0.06	0.07	0.11	0.11	0.11	0.11	0.11	0.06
	Haul Trucks	0.11	0.12	0.12	--	--	--	--	--	0.03	--	--	--	1.63	3.20	3.20	3.20	3.20	3.20	1.60
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.62	11.36	11.36	11.24	11.24	3.98	5.13	5.13	4.21	6.09	6.09	6.09	5.80	11.14	11.14	11.14	11.14	11.14	5.57
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.47	11.22	3.94	0.26	0.26	0.18	0.24	1.15	0.24	0.18	4.41	1.19	0.90	0.90	0.79	1.77	0.65	2.48	0.72
	Construction Worker Commuting	0.03	0.02	0.04	0.01	0.01	0.02	0.01	0.01	0.01	0.04	0.05	0.02	0.02	0.02	0.02	0.04	0.02	0.06	0.02
	Haul Trucks	0.07	0.09	--	--	--	--	0.02	1.56	0.02	0.07	--	--	--	--	--	0.04	0.06	0.07	0.11
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.57	11.33	3.98	0.27	0.27	0.20	0.26	2.72	0.26	0.29	4.45	1.22	0.92	0.92	0.82	1.85	0.73	2.61	0.85
GRAND TOTAL		2.72	50.61	42.90	48.76	35.38	26.28	44.09	35.17	32.12	33.44	37.60	44.76	47.13	60.83	36.13	39.17	35.65	37.52	38.18
Yolo County Total		2.72	50.61	42.90	48.76	35.38	26.28	44.09	35.17	32.12	33.44	37.60	44.76	47.13	60.83	36.13	39.17	35.65	37.52	38.18
Sutter County Total		1.19	26.80	27.22	25.89	18.97	18.12	28.53	27.05	27.05	26.61	26.61	36.62	39.17	47.98	23.92	25.99	23.60	23.58	31.56

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Table K-5. ROG Detailed Summary (Alternative 3) - Un

#	Activity	26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	Annual Emissions, tpy
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	16.48	8.47	8.81	2.03	2.03	1.85	1.85	1.44	0.18	1.46
	Construction Worker Commuting	0.35	0.12	0.15	0.06	0.06	0.06	0.06	0.12	0.01	0.01
	Haul Trucks	6.77	3.21	3.19	--	--	--	--	0.63	0.03	0.18
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		23.61	11.80	12.15	2.09	2.09	1.91	1.91	2.19	0.22	1.66
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	1.07	0.18	0.03
	Construction Worker Commuting	--	--	--	--	--	--	--	0.02	0.01	0.00
	Haul Trucks	--	--	--	--	--	--	--	0.48	0.03	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	1.57	0.22	0.04
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.26	0.26	0.18	1.07	0.18	--	--	--	--	0.35
	Construction Worker Commuting	0.01	0.01	0.03	0.02	0.00	--	--	--	--	0.00
	Haul Trucks	--	--	0.10	0.48	0.01	--	--	--	--	0.05
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.27	0.27	0.31	1.57	0.20	--	--	--	--	0.41
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.80	--	1.26	0.18	--	--	--	--	--	0.04
	Construction Worker Commuting	0.01	--	0.03	0.00	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.24	0.01	--	--	--	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.81	--	1.52	0.20	--	--	--	--	--	0.04
GRAND TOTAL		24.69	12.07	13.98	3.86	2.29	1.91	1.91	3.76	0.44	2.15
Yolo County Total		24.69	12.07	13.98	3.86	2.29	1.91	1.91	3.76	0.44	2.15
Sutter County Total		23.61	11.80	12.15	2.09	2.09	1.91	1.91	2.19	0.22	1.66

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-6. ROG Detailed Summary (Alternative 4) - Unmitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.66	26.47	26.65	25.82	18.76	18.03	28.27	26.87	26.87	26.44	26.44	33.11	35.28	40.81	16.91	19.02	16.83	16.91	22.99
	Construction Worker Commuting	0.14	0.08	0.18	0.07	0.10	0.08	0.20	0.19	0.19	0.17	0.17	0.28	0.33	0.42	0.28	0.30	0.25	0.25	0.36
	Haul Trucks	0.39	0.25	0.39	--	0.11	--	0.06	--	--	--	--	3.23	3.55	6.74	6.73	6.68	6.52	6.42	8.21
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		1.19	26.80	27.22	25.89	18.97	18.12	28.53	27.05	27.05	26.61	26.61	36.62	39.17	47.98	23.92	25.99	23.60	23.58	31.56
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	0.29	1.07	0.18	11.22	4.89	3.94	7.82	0.26	0.37	0.43	0.43	0.72	1.09	0.79	0.18	0.18	0.18	0.18	0.18
	Construction Worker Commuting	0.02	0.02	0.04	0.02	0.02	0.04	0.11	0.01	0.07	0.02	0.01	0.02	0.03	0.01	0.04	0.00	0.01	0.01	0.00
	Haul Trucks	0.03	0.03	0.12	0.12	--	--	2.23	--	0.16	--	--	0.08	0.12	--	0.04	0.01	--	--	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		0.34	1.12	0.34	11.36	4.90	3.98	10.17	0.27	0.60	0.44	0.44	0.82	1.24	0.80	0.26	0.20	0.19	0.19	0.20
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.47	11.22	11.22	11.22	11.22	3.94	5.09	5.09	4.12	6.04	6.04	6.04	4.09	7.82	7.82	7.82	7.82	7.82	3.91
	Construction Worker Commuting	0.04	0.02	0.02	0.02	0.02	0.04	0.05	0.05	0.06	0.06	0.06	0.06	0.07	0.11	0.11	0.11	0.11	0.11	0.06
	Haul Trucks	0.11	0.12	0.12	--	--	--	--	--	0.03	--	--	--	1.63	3.20	3.20	3.20	3.20	3.20	1.60
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.62	11.36	11.36	11.24	11.24	3.98	5.13	5.13	4.21	6.09	6.09	6.09	5.80	11.14	11.14	11.14	11.14	11.14	5.57
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.47	11.22	3.94	0.26	0.26	0.18	0.24	1.15	0.24	0.18	4.41	1.19	0.90	0.90	0.79	1.77	0.65	2.48	0.72
	Construction Worker Commuting	0.03	0.02	0.04	0.01	0.01	0.02	0.01	0.01	0.01	0.04	0.05	0.02	0.02	0.02	0.02	0.04	0.02	0.06	0.02
	Haul Trucks	0.07	0.09	--	--	--	--	0.02	1.56	0.02	0.07	--	--	--	--	0.04	0.06	0.07	0.11	
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.57	11.33	3.98	0.27	0.27	0.20	0.26	2.72	0.26	0.29	4.45	1.22	0.92	0.92	0.82	1.85	0.73	2.61	0.85
Northern Water Control Structure Improvements																				
5	Offroad Construction Equipment Exhaust	0.66	14.17	14.41	10.14	11.04	14.07	10.33	6.64	6.68	10.61	1.39	0.96	1.24	0.78	1.26	1.44	1.44	0.36	0.18
	Construction Worker Commuting	0.05	0.04	0.05	0.05	0.09	0.09	0.13	0.09	0.08	0.12	0.04	0.05	0.02	0.02	0.02	0.02	0.03	0.03	0.01
	Haul Trucks	0.15	0.09	0.12	3.53	3.68	3.53	3.59	3.53	3.53	4.59	0.03	0.18	--	0.13	--	0.01	--	0.07	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Northern Water Control Structure Improvements Subtotal		0.86	14.30	14.57	13.72	14.81	17.69	14.05	10.25	10.29	15.32	1.46	1.19	1.26	0.93	1.27	1.47	1.46	0.46	0.19
Southern Water Control Structure Improvements																				
6	Offroad Construction Equipment Exhaust	0.68	25.39	25.63	27.69	11.04	14.07	19.13	15.43	15.48	19.41	15.90	10.90	11.36	10.90	11.38	11.56	11.56	10.48	10.30
	Construction Worker Commuting	0.06	0.06	0.07	0.07	0.09	0.09	0.21	0.16	0.15	0.19	0.17	0.15	0.15	0.15	0.15	0.15	0.16	0.16	0.14
	Haul Trucks	0.18	0.23	0.26	4.93	5.08	4.93	5.00	4.93	4.93	8.40	8.40	8.51	8.40	8.53	8.40	8.41	8.40	8.48	8.40
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Southern Water Control Structure Improvements Subtotal		0.93	25.68	25.95	32.70	16.21	19.10	24.33	20.53	20.56	28.01	24.47	19.55	19.91	19.58	19.93	20.13	20.12	19.12	18.84
GRAND TOTAL		4.51	90.59	83.42	95.17	66.40	63.07	82.47	65.95	62.97	76.78	63.53	65.50	68.31	81.34	57.33	60.77	57.23	57.10	57.21
Yolo County Total		4.51	90.59	83.42	95.17	66.40	63.07	82.47	65.95	62.97	76.78	63.53	65.50	68.31	81.34	57.33	60.77	57.23	57.10	57.21
Sutter County Total		1.19	26.80	27.22	25.89	18.97	18.12	28.53	27.05	27.05	26.61	26.61	36.62	39.17	47.98	23.92	25.99	23.60	23.58	31.56

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Table K-6. ROG Detailed Summary (Alternative 4) - Un

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	16.48	8.47	8.81	1.85	1.85	1.67	1.67	1.44	0.18	1.46
	Construction Worker Commuting	0.35	0.12	0.15	0.06	0.06	0.06	0.06	0.12	0.01	0.01
	Haul Trucks	6.77	3.21	3.19	--	--	--	--	0.63	0.03	0.18
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		23.61	11.80	12.15	1.91	1.91	1.72	1.72	2.19	0.22	1.65
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	1.07	0.18	0.03
	Construction Worker Commuting	--	--	--	--	--	--	--	0.02	0.01	0.00
	Haul Trucks	--	--	--	--	--	--	--	0.48	0.03	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	1.57	0.22	0.04
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.26	0.26	0.18	1.07	0.18	--	--	--	--	0.35
	Construction Worker Commuting	0.01	0.01	0.03	0.02	0.00	--	--	--	--	0.00
	Haul Trucks	--	--	0.10	0.48	0.01	--	--	--	--	0.05
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.27	0.27	0.31	1.57	0.20	--	--	--	--	0.41
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.80	--	1.26	0.18	--	--	--	--	--	0.04
	Construction Worker Commuting	0.01	--	0.03	0.00	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.24	0.01	--	--	--	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.81	--	1.52	0.20	--	--	--	--	--	0.04
Northern Water Control Structure Improvements											
5	Offroad Construction Equipment Exhaust	0.26	0.26	1.26	0.18	--	--	--	--	--	0.32
	Construction Worker Commuting	0.02	0.02	0.02	0.00	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.57	0.01	--	--	--	--	--	0.10
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Northern Water Control Structure Improvements Subtotal		0.28	0.28	1.84	0.20	--	--	--	--	--	0.42
Southern Water Control Structure Improvements											
6	Offroad Construction Equipment Exhaust	2.82	2.74	1.49	0.21	--	--	--	--	--	0.78
	Construction Worker Commuting	0.04	0.07	0.03	0.00	--	--	--	--	--	0.01
	Haul Trucks	4.93	5.05	0.62	0.01	--	--	--	--	--	0.36
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Southern Water Control Structure Improvements Subtotal		7.79	7.85	2.14	0.22	--	--	--	--	--	1.15
GRAND TOTAL		32.75	20.20	17.97	4.10	2.10	1.72	1.72	3.76	0.44	3.72
Yolo County Total		32.75	20.20	17.97	4.10	2.10	1.72	1.72	3.76	0.44	3.72
Sutter County Total		23.61	11.80	12.15	1.91	1.91	1.72	1.72	2.19	0.22	1.65

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-7. ROG Detailed Summary (Alternative 5) - Unmitigated

#	Activity	Ma																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	3.88	118.39	55.22	72.39	84.77	80.84	70.16	81.89	36.20	32.08	31.06	24.61	36.02	32.08	30.81	28.27	28.27	16.73	3.02
	Construction Worker Commuting	0.30	0.27	0.37	0.25	0.41	0.37	0.24	0.42	0.53	0.47	0.44	0.37	0.51	0.47	0.43	0.46	0.46	0.30	0.04
	Haul Trucks	0.96	0.35	0.34	--	0.11	0.11	0.11	5.79	11.40	11.33	11.33	11.33	11.33	11.33	11.33	12.00	12.00	6.37	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		5.15	119.01	55.93	72.63	85.30	81.32	70.51	88.10	48.13	43.89	42.84	36.32	47.87	43.89	42.57	40.73	40.73	23.39	3.06
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	0.29	1.07	0.18	11.22	4.89	3.94	7.82	0.26	0.37	0.43	0.43	0.72	1.09	0.79	0.18	0.18	0.18	0.18	0.18
	Construction Worker Commuting	0.02	0.02	0.04	0.02	0.02	0.04	0.11	0.01	0.07	0.02	0.01	0.02	0.03	0.01	0.04	0.00	0.01	0.01	0.00
	Haul Trucks	0.03	0.03	0.12	0.12	--	--	2.28	--	0.16	--	--	0.08	0.12	--	0.04	0.01	--	--	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		0.34	1.12	0.34	11.36	4.90	3.98	10.22	0.27	0.60	0.44	0.44	0.82	1.24	0.80	0.26	0.20	0.19	0.19	0.20
Agricultural Crossing 1																				
3	Offroad Construction Equipment Exhaust	0.47	11.22	3.94	0.26	0.26	0.18	0.24	1.15	0.24	0.18	4.41	1.19	0.90	0.90	0.79	1.77	0.65	2.48	0.72
	Construction Worker Commuting	0.03	0.02	0.04	0.01	0.01	0.02	0.01	0.01	0.01	0.04	0.05	0.02	0.02	0.02	0.02	0.04	0.02	0.06	0.02
	Haul Trucks	0.07	0.09	--	--	--	--	0.02	1.56	0.02	0.07	--	--	--	--	--	0.04	0.06	0.07	0.11
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.57	11.33	3.98	0.27	0.27	0.20	0.26	2.72	0.26	0.29	4.45	1.22	0.92	0.92	0.82	1.85	0.73	2.61	0.85
River Grading Site																				
4	Offroad Construction Equipment Exhaust	1.23	12.62	6.09	4.06	4.06	4.06	4.06	4.06	4.06	4.06	4.06	4.06	4.06	4.06	4.06	4.06	4.06	4.06	4.06
	Construction Worker Commuting	--	--	0.03	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
	Haul Trucks	0.08	0.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	6.54	--	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27
River Grading Site Subtotal		7.85	12.65	9.39	7.37	7.36	7.36	7.36	7.36	7.36	7.36	7.36	7.36	7.36	7.36	7.36	7.36	7.36	7.36	7.36
GRAND TOTAL		13.90	144.11	69.64	91.63	97.83	92.86	88.35	98.45	56.35	51.99	55.09	45.72	57.39	52.97	51.01	50.14	49.01	33.56	11.48
Yolo County Total		13.57	142.98	69.29	80.27	92.93	88.89	78.14	98.18	55.75	51.55	54.65	44.90	56.15	52.17	50.75	49.94	48.82	33.37	11.28
Sutter County Total		0.34	1.12	0.34	11.36	4.90	3.98	10.22	0.27	0.60	0.44	0.44	0.82	1.24	0.80	0.26	0.20	0.19	0.19	0.20

Table K-7. ROG Detailed Summary (Alternative 5) - Un

#	Activity	Maximum Daily Emissions, lbs/day																		
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	1.19	1.27	1.27	5.18	4.81	0.18	1.26	0.00	0.00	0.37	4.18	4.18	4.18	4.18	4.18	4.18	4.18	4.18	4.26
	Construction Worker Commuting	0.02	0.02	0.02	0.32	0.12	0.21	0.03	0.00	0.00	0.01	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.10
	Haul Trucks	0.06	--	--	1.47	0.66	0.25	0.54	--	--	0.27	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		1.27	1.29	1.29	6.97	5.59	0.65	1.82	--	--	0.64	4.27	4.27	4.27	4.27	4.27	4.27	4.27	4.27	4.36
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	1.07	0.18	--	--	--	--	--	--	--	--	--	--
	Construction Worker Commuting	--	--	--	--	--	--	--	0.02	0.01	--	--	--	--	--	--	--	--	--	--
	Haul Trucks	--	--	--	--	--	--	--	0.48	0.03	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	1.57	0.22	--	--	--	--	--	--	--	--	--	--
Agricultural Crossing 1																				
3	Offroad Construction Equipment Exhaust	0.80	--	1.26	0.18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Construction Worker Commuting	0.01	--	0.03	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Haul Trucks	--	--	0.24	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.81	--	1.52	0.20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
River Grading Site																				
4	Offroad Construction Equipment Exhaust	4.06	6.19	0.10	0.10	--	1.23	--	--	--	--	--	--	--	--	--	--	--	--	--
	Construction Worker Commuting	0.03	0.09	0.06	0.07	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Haul Trucks	--	1.59	1.59	1.59	--	0.08	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	3.27	3.27	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
River Grading Site Subtotal		7.36	11.13	1.75	1.76	0.01	1.31	--	--	--	--	--	--	--	--	--	--	--	--	--
GRAND TOTAL		9.45	12.42	4.55	8.93	5.60	1.96	1.82	1.57	0.22	0.64	4.27	4.27	4.27	4.27	4.27	4.27	4.27	4.27	4.36
Yolo County Total		9.45	12.42	4.55	8.93	5.60	1.96	1.82	--	--	0.64	4.27	4.27	4.27	4.27	4.27	4.27	4.27	4.27	4.36
Sutter County Total		--	--	--	--	--	--	--	1.57	0.22	--	--	--	--	--	--	--	--	--	--

Table K-7. ROG Detailed Summary (Alternative 5) - Un

#	Activity	24-Jun	1-Jul	8-Jul	Annual Emissions, tpy	Year 1, tpy	Year 2, tpy
Intake Channel, Headworks, and Outlet Channel							
1	Offroad Construction Equipment Exhaust	1.07	0.37	0.00	5.42	5.31	0.11
	Construction Worker Commuting	0.05	0.01	0.00	0.02	0.02	0.00
	Haul Trucks	--	0.27	--	0.29	0.29	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		1.11	0.64	--	5.74	5.62	0.12
Supplemental Fish Passage West							
2	Offroad Construction Equipment Exhaust	--	--	--	0.03	0.03	--
	Construction Worker Commuting	--	--	--	0.00	0.00	--
	Haul Trucks	--	--	--	0.00	0.00	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		--	--	--	0.03	0.03	--
Agricultural Crossing 1							
3	Offroad Construction Equipment Exhaust	--	--	--	0.04	0.04	--
	Construction Worker Commuting	--	--	--	0.00	0.00	--
	Haul Trucks	--	--	--	0.00	0.00	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		--	--	--	0.04	0.04	--
River Grading Site							
4	Offroad Construction Equipment Exhaust	--	--	--	0.11	0.11	--
	Construction Worker Commuting	--	--	--	0.00	0.00	--
	Haul Trucks	--	--	--	0.01	0.01	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	--	--	--	0.53	0.53	--
River Grading Site Subtotal		--	--	--	0.65	0.65	--
GRAND TOTAL		1.11	0.64	--	6.47	6.35	0.12
Yolo County Total		1.11	0.64	--	6.43	6.32	0.12
Sutter County Total		--	--	--	0.03	0.03	--

Table K-8. ROG Detailed Summary (Alternative 6) - Unmitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.66	38.95	39.62	37.47	27.62	26.90	28.65	27.32	26.89	29.06	61.36	61.36	59.99	62.10	60.53	59.99	62.16	61.55	59.37
	Construction Worker Commuting	0.20	0.27	0.15	0.10	0.15	0.13	0.19	0.17	0.15	0.21	0.65	0.65	0.64	0.66	0.65	0.61	0.67	0.66	0.60
	Haul Trucks	0.53	0.60	0.39	0.34	0.11	--	0.06	--	--	0.33	11.65	11.65	11.63	11.57	11.66	11.32	11.65	11.71	11.33
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		1.39	39.83	40.15	37.91	27.89	27.03	28.90	27.48	27.04	29.60	73.67	73.67	72.25	74.32	72.84	71.92	74.48	73.91	71.31
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	0.29	1.07	0.18	11.22	4.89	3.94	7.82	0.26	0.37	0.43	0.43	0.72	1.09	0.79	0.18	0.18	0.18	0.18	0.18
	Construction Worker Commuting	0.02	0.02	0.04	0.02	0.02	0.04	0.11	0.01	0.07	0.02	0.01	0.02	0.03	0.01	0.04	0.00	0.01	0.01	0.00
	Haul Trucks	0.03	0.03	0.12	0.12	--	--	2.23	--	0.16	--	--	0.08	0.12	--	0.04	0.01	--	--	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		0.34	1.12	0.34	11.36	4.90	3.98	10.17	0.27	0.60	0.44	0.44	0.82	1.24	0.80	0.26	0.20	0.19	0.19	0.20
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.47	11.22	11.22	11.22	11.22	3.94	5.09	5.09	4.12	6.04	6.04	6.04	4.09	7.82	7.82	7.82	7.82	7.82	3.91
	Construction Worker Commuting	0.04	0.02	0.02	0.02	0.02	0.04	0.05	0.05	0.06	0.06	0.06	0.06	0.07	0.11	0.11	0.11	0.11	0.11	0.06
	Haul Trucks	0.11	0.12	0.12	--	--	--	--	--	0.03	--	--	--	1.63	3.20	3.20	3.20	3.20	3.20	1.60
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.62	11.36	11.36	11.24	11.24	3.98	5.13	5.13	4.21	6.09	6.09	6.09	5.80	11.14	11.14	11.14	11.14	11.14	5.57
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.47	11.22	3.94	0.26	0.26	0.18	0.24	1.15	0.24	0.18	4.41	1.19	0.90	0.90	0.79	1.77	0.65	2.48	0.72
	Construction Worker Commuting	0.03	0.02	0.04	0.01	0.01	0.02	0.01	0.01	0.01	0.04	0.05	0.02	0.02	0.02	0.02	0.04	0.02	0.06	0.02
	Haul Trucks	0.07	0.09	--	--	--	--	0.02	1.56	0.02	0.07	--	--	--	--	0.04	0.06	0.07	0.11	
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.57	11.33	3.98	0.27	0.27	0.20	0.26	2.72	0.26	0.29	4.45	1.22	0.92	0.92	0.82	1.85	0.73	2.61	0.85
GRAND TOTAL		2.92	63.63	55.83	60.77	44.30	35.19	44.46	35.60	32.11	36.43	84.65	81.80	80.21	87.18	85.05	85.10	86.53	87.85	77.93
Yolo County Total		2.92	63.63	55.83	60.77	44.30	35.19	44.46	35.60	32.11	36.43	84.65	81.80	80.21	87.18	85.05	85.10	86.53	87.85	77.93
Sutter County Total		1.39	39.83	40.15	37.91	27.89	27.03	28.90	27.48	27.04	29.60	73.67	73.67	72.25	74.32	72.84	71.92	74.48	73.91	71.31

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Table K-8. ROG Detailed Summary (Alternative 6) - Un

#	Activity	26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	Annual Emissions, tpy
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	63.62	44.07	16.63	18.46	3.00	2.64	2.64	2.06	0.55	2.88
	Construction Worker Commuting	0.69	0.62	0.27	0.30	0.23	0.07	0.07	0.06	0.18	0.03
	Haul Trucks	12.87	12.87	6.46	6.46	0.42	--	--	0.48	0.27	0.44
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		77.18	57.57	23.36	25.22	3.65	2.71	2.71	2.59	1.00	3.35
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	1.07	0.18	0.03
	Construction Worker Commuting	--	--	--	--	--	--	--	0.02	0.01	0.00
	Haul Trucks	--	--	--	--	--	--	--	0.48	0.03	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	1.57	0.22	0.04
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.26	0.26	0.18	1.07	0.18	--	--	--	--	0.35
	Construction Worker Commuting	0.01	0.01	0.03	0.02	0.00	--	--	--	--	0.00
	Haul Trucks	--	--	0.10	0.48	0.01	--	--	--	--	0.05
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.27	0.27	0.31	1.57	0.20	--	--	--	--	0.41
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.80	--	1.26	0.18	--	--	--	--	--	0.04
	Construction Worker Commuting	0.01	--	0.03	0.00	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.24	0.01	--	--	--	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.81	--	1.52	0.20	--	--	--	--	--	0.04
GRAND TOTAL		78.26	57.83	25.19	26.99	3.85	2.71	2.71	4.16	1.22	3.84
Yolo County Total		78.26	57.83	25.19	26.99	3.85	2.71	2.71	4.16	1.22	3.84
Sutter County Total		77.18	57.57	23.36	25.22	3.65	2.71	2.71	2.59	1.00	3.35

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-9. NOx Detailed Summary (Alternative 1) - Unmitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	10.21	71.19	74.14	63.11	113.17	121.03	199.49	159.07	179.46	174.95	109.20	107.87	173.38	232.71	261.69	242.17	164.92	176.33	6.34
	Construction Worker Commuting	0.49	0.39	0.90	0.36	0.35	0.30	0.65	0.59	0.60	0.53	0.45	0.71	0.88	0.94	1.18	1.14	0.67	0.93	0.35
	Haul Trucks	9.78	7.34	11.25	--	--	--	3.59	0.56	--	--	--	61.03	150.75	137.95	147.40	147.40	92.12	152.92	5.38
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		20.48	78.92	86.29	63.46	113.52	121.32	203.73	160.22	180.07	175.48	109.65	169.62	325.01	371.60	410.27	390.72	257.71	330.17	12.07
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	4.31	12.60	2.95	11.02	65.75	56.59	150.92	2.00	5.90	4.51	4.51	6.36	13.77	10.74	2.95	2.95	1.71	1.71	2.95
	Construction Worker Commuting	0.08	0.10	0.18	0.09	0.08	0.20	0.57	0.04	0.37	0.08	0.07	0.09	0.14	0.06	0.18	0.02	0.04	0.04	0.02
	Haul Trucks	0.82	0.82	3.59	3.42	--	--	66.60	--	4.73	--	--	2.35	3.53	--	1.14	0.33	--	--	0.33
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		5.20	13.52	6.72	14.53	65.83	56.80	218.09	2.05	10.99	4.59	4.58	8.80	17.44	10.80	4.27	3.30	1.75	1.75	3.30
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	7.26	11.02	11.02	11.02	11.02	56.59	70.81	70.81	59.54	79.94	79.94	79.94	78.41	150.92	150.92	150.92	150.92	150.92	75.46
	Construction Worker Commuting	0.18	0.09	0.09	0.09	0.09	0.20	0.24	0.24	0.28	0.29	0.29	0.29	0.36	0.57	0.57	0.57	0.57	0.57	0.29
	Haul Trucks	3.26	3.42	3.42	--	--	--	--	--	0.98	--	--	--	47.68	93.43	93.43	93.43	93.43	93.43	46.73
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		10.70	14.53	14.53	11.11	11.11	56.80	71.05	71.05	60.79	80.22	80.22	80.22	126.44	244.92	244.92	244.92	244.92	244.92	122.48
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	7.26	11.02	56.59	2.00	2.00	2.95	3.01	14.21	3.01	2.95	59.98	9.75	8.18	8.18	7.46	17.83	6.34	28.82	6.36
	Construction Worker Commuting	0.15	0.09	0.20	0.04	0.04	0.10	0.03	0.04	0.03	0.18	0.23	0.12	0.09	0.09	0.12	0.21	0.08	0.32	0.09
	Haul Trucks	1.96	2.56	--	--	--	--	0.49	45.43	0.49	2.12	--	--	--	--	--	1.09	1.63	2.12	3.26
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		9.37	13.68	56.80	2.05	2.05	3.05	3.53	59.68	3.53	5.25	60.22	9.87	8.27	8.27	7.59	19.13	8.05	31.26	9.71
GRAND TOTAL		45.75	120.64	164.33	91.15	192.51	237.97	496.40	293.00	255.38	265.55	254.67	268.52	477.16	635.59	667.05	658.07	512.43	608.10	147.55
Yolo County Total		40.55	107.12	157.61	76.62	126.68	181.17	278.30	290.95	244.39	260.96	250.09	259.71	459.72	624.79	662.78	654.77	510.68	606.35	144.25
Sutter County Total		5.20	13.52	6.72	14.53	65.83	56.80	218.09	2.05	10.99	4.59	4.58	8.80	17.44	10.80	4.27	3.30	1.75	1.75	3.30

Table K-9. NOx Detailed Summary (Alternative 1) - Un

#	Activity	26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	Annual Emissions, tpy
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	3.39	6.34	19.72	19.72	19.72	17.81	7.07	26.89	2.95	7.09
	Construction Worker Commuting	0.03	0.05	0.30	0.30	0.30	0.30	0.23	0.61	0.05	0.03
	Haul Trucks	--	0.03	--	--	--	--	--	17.87	0.82	2.12
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		3.42	6.42	20.02	20.02	20.02	18.10	7.30	45.37	3.82	9.24
Supplemental Fish Passage West											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	20.99	2.95	0.33
	Construction Worker Commuting	--	--	--	--	--	--	--	0.08	0.05	0.01
	Haul Trucks	--	--	--	--	--	--	--	13.99	0.82	0.08
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	35.06	3.82	0.42
Downstream Channel											
3	Offroad Construction Equipment Exhaust	2.00	2.00	2.95	20.99	2.95	--	--	--	--	4.09
	Construction Worker Commuting	0.04	0.04	0.13	0.08	0.02	--	--	--	--	0.02
	Haul Trucks	--	--	2.93	13.99	0.33	--	--	--	--	1.60
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		2.05	2.05	6.02	35.06	3.30	--	--	--	--	5.71
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	10.62	--	23.94	2.95	--	--	--	--	--	0.33
	Construction Worker Commuting	0.07	--	0.13	0.02	--	--	--	--	--	0.00
	Haul Trucks	--	--	6.88	0.33	--	--	--	--	--	0.08
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		10.69	--	30.95	3.30	--	--	--	--	--	0.42
GRAND TOTAL		16.15	8.47	56.98	58.38	23.31	18.10	7.30	80.44	7.63	15.79
Yolo County Total		16.15	8.47	56.98	58.38	23.31	18.10	7.30	45.37	3.82	15.37
Sutter County Total		--	--	--	--	--	--	--	35.06	3.82	0.42

Table K-10. NOx Detailed Summary (Alternative 2) - Unmitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	10.21	71.19	74.14	63.11	244.68	238.32	387.58	344.21	344.21	339.70	142.44	180.18	350.17	324.29	314.22	337.15	311.58	315.84	259.45
	Construction Worker Commuting	0.71	0.39	0.90	0.36	0.51	0.42	1.02	0.89	0.89	0.82	0.57	0.73	1.58	1.45	1.39	1.47	1.26	1.24	1.23
	Haul Trucks	11.25	7.48	11.39	--	3.19	--	1.79	--	--	--	--	93.80	215.57	215.57	215.17	213.54	208.81	206.09	158.15
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		22.17	79.06	86.43	63.46	248.37	238.74	390.40	345.10	345.10	340.52	143.02	274.71	567.32	541.32	530.78	552.15	521.66	523.18	418.84
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	4.31	12.60	2.95	11.02	65.75	56.59	150.92	2.00	5.90	4.51	4.51	6.36	13.77	10.74	2.95	2.95	1.71	1.71	2.95
	Construction Worker Commuting	0.08	0.10	0.18	0.09	0.08	0.20	0.57	0.04	0.37	0.08	0.07	0.09	0.14	0.06	0.18	0.02	0.04	0.04	0.02
	Haul Trucks	0.82	0.82	3.59	3.42	--	--	66.60	--	4.73	--	--	2.35	3.53	--	1.14	0.33	--	--	0.33
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		5.20	13.52	6.72	14.53	65.83	56.80	218.09	2.05	10.99	4.59	4.58	8.80	17.44	10.80	4.27	3.30	1.75	1.75	3.30
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	7.26	11.02	11.02	11.02	11.02	56.59	70.81	70.81	59.54	79.94	79.94	79.94	78.41	150.92	150.92	150.92	150.92	150.92	75.46
	Construction Worker Commuting	0.18	0.09	0.09	0.09	0.09	0.20	0.24	0.24	0.28	0.29	0.29	0.29	0.36	0.57	0.57	0.57	0.57	0.57	0.29
	Haul Trucks	3.26	3.42	3.42	--	--	--	--	--	0.98	--	--	--	47.68	93.43	93.43	93.43	93.43	93.43	46.73
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		10.70	14.53	14.53	11.11	11.11	56.80	71.05	71.05	60.79	80.22	80.22	80.22	126.44	244.92	244.92	244.92	244.92	244.92	122.48
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	7.26	11.02	56.59	2.00	2.00	2.95	3.01	14.21	3.01	2.95	59.98	9.75	8.18	8.18	7.46	17.83	6.34	28.82	6.36
	Construction Worker Commuting	0.15	0.09	0.20	0.04	0.04	0.10	0.03	0.04	0.03	0.18	0.23	0.12	0.09	0.09	0.12	0.21	0.08	0.32	0.09
	Haul Trucks	1.96	2.56	--	--	--	--	0.49	45.43	0.49	2.12	--	--	--	--	--	1.09	1.63	2.12	3.26
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		9.37	13.68	56.80	2.05	2.05	3.05	3.53	59.68	3.53	5.25	60.22	9.87	8.27	8.27	7.59	19.13	8.05	31.26	9.71
River Grading Site																				
5	Offroad Construction Equipment Exhaust	14.04	29.51	105.17	77.35	77.35	77.35	77.35	77.35	77.35	77.35	77.35	77.35	77.35	77.35	77.35	77.35	77.35	77.35	77.35
	Construction Worker Commuting	--	--	0.15	0.19	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
	Haul Trucks	2.45	0.85	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	48.89	--	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45
River Grading Site Subtotal		65.38	30.36	129.77	101.99	101.94	101.94	101.94	101.94	101.94	101.94	101.94	101.94	101.94	101.94	101.94	101.94	101.94	101.94	101.94
GRAND TOTAL		112.82	151.15	294.25	193.14	429.31	457.32	785.01	579.82	522.36	532.53	389.98	475.55	821.42	907.25	889.51	921.45	878.32	903.05	656.27
Yolo County Total		107.61	137.63	287.53	178.61	363.48	400.53	566.92	577.78	511.37	527.94	385.40	466.75	803.98	896.45	885.23	918.15	876.57	901.30	652.97
Sutter County Total		5.20	13.52	6.72	14.53	65.83	56.80	218.09	2.05	10.99	4.59	4.58	8.80	17.44	10.80	4.27	3.30	1.75	1.75	3.30

Table K-10. NOx Detailed Summary (Alternative 2) - U

#	Activity	26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	Annual Emissions, tpy
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	157.25	9.29	6.98	19.72	19.72	17.81	17.81	26.89	2.95	13.28
	Construction Worker Commuting	0.65	0.59	0.19	0.30	0.30	0.30	0.30	0.61	0.05	0.05
	Haul Trucks	113.93	9.13	--	--	--	--	--	18.33	0.82	4.31
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		271.84	19.01	7.17	20.02	20.02	18.10	18.10	45.83	3.82	17.63
Supplemental Fish Passage West											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	20.99	2.95	0.33
	Construction Worker Commuting	--	--	--	--	--	--	--	0.08	0.05	0.01
	Haul Trucks	--	--	--	--	--	--	--	13.99	0.82	0.08
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	35.06	3.82	0.42
Downstream Channel											
3	Offroad Construction Equipment Exhaust	2.00	2.00	2.95	20.99	2.95	--	--	--	--	4.09
	Construction Worker Commuting	0.04	0.04	0.13	0.08	0.02	--	--	--	--	0.02
	Haul Trucks	--	--	2.93	13.99	0.33	--	--	--	--	1.60
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		2.05	2.05	6.02	35.06	3.30	--	--	--	--	5.71
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	10.62	--	23.94	2.95	--	--	--	--	--	0.33
	Construction Worker Commuting	0.07	--	0.13	0.02	--	--	--	--	--	0.00
	Haul Trucks	--	--	6.88	0.33	--	--	--	--	--	0.08
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		10.69	--	30.95	3.30	--	--	--	--	--	0.42
River Grading Site											
5	Offroad Construction Equipment Exhaust	77.35	105.29	0.12	0.12	--	14.04	--	--	--	1.22
	Construction Worker Commuting	0.15	0.44	0.29	0.33	0.04	--	--	--	--	0.01
	Haul Trucks	--	46.28	46.28	46.28	--	2.45	--	--	--	0.42
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	24.45	24.45	--	--	--	--	--	--	--	3.98
River Grading Site Subtotal		101.94	176.46	46.68	46.72	0.04	16.49	--	--	--	5.64
GRAND TOTAL		386.52	197.51	90.82	105.10	23.36	34.59	18.10	80.89	7.63	29.82
Yolo County Total		386.52	197.51	90.82	105.10	23.36	34.59	18.10	45.83	3.82	29.40
Sutter County Total		--	--	--	--	--	--	--	35.06	3.82	0.42

Table K-11. NOx Detailed Summary (Alternative 3) - Unmitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	10.21	71.19	74.14	63.11	244.68	238.32	387.58	358.43	358.43	353.91	353.91	490.62	509.69	634.73	314.22	337.15	311.58	315.84	410.37
	Construction Worker Commuting	0.71	0.39	0.90	0.36	0.51	0.42	1.02	0.93	0.93	0.86	0.86	1.39	1.66	2.10	1.39	1.47	1.26	1.24	1.81
	Haul Trucks	11.25	7.39	11.30	--	3.26	--	1.79	--	--	--	--	94.31	103.61	196.67	196.44	194.81	190.09	187.37	239.45
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		22.17	78.97	86.34	63.46	248.45	238.74	390.40	359.35	359.35	354.77	354.77	586.31	614.96	833.50	512.05	533.43	502.93	504.45	651.62
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	4.31	12.60	2.95	11.02	65.75	56.59	150.92	2.00	5.90	4.51	4.51	6.36	13.77	10.74	2.95	2.95	1.71	1.71	2.95
	Construction Worker Commuting	0.08	0.10	0.18	0.09	0.08	0.20	0.57	0.04	0.37	0.08	0.07	0.09	0.14	0.06	0.18	0.02	0.04	0.04	0.02
	Haul Trucks	0.82	0.82	3.59	3.42	--	--	65.07	--	4.73	--	--	2.35	3.53	--	1.14	0.33	--	--	0.33
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		5.20	13.52	6.72	14.53	65.83	56.80	216.55	2.05	10.99	4.59	4.58	8.80	17.44	10.80	4.27	3.30	1.75	1.75	3.30
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	7.26	11.02	11.02	11.02	11.02	56.59	70.81	70.81	59.54	79.94	79.94	79.94	78.41	150.92	150.92	150.92	150.92	150.92	75.46
	Construction Worker Commuting	0.18	0.09	0.09	0.09	0.09	0.20	0.24	0.24	0.28	0.29	0.29	0.29	0.36	0.57	0.57	0.57	0.57	0.57	0.29
	Haul Trucks	3.26	3.42	3.42	--	--	--	--	--	0.98	--	--	--	47.68	93.43	93.43	93.43	93.43	93.43	46.73
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		10.70	14.53	14.53	11.11	11.11	56.80	71.05	71.05	60.79	80.22	80.22	80.22	126.44	244.92	244.92	244.92	244.92	244.92	122.48
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	7.26	11.02	56.59	2.00	2.00	2.95	3.01	14.21	3.01	2.95	59.98	9.75	8.18	8.18	7.46	17.83	6.34	28.82	6.36
	Construction Worker Commuting	0.15	0.09	0.20	0.04	0.04	0.10	0.03	0.04	0.03	0.18	0.23	0.12	0.09	0.09	0.12	0.21	0.08	0.32	0.09
	Haul Trucks	1.96	2.56	--	--	--	--	0.49	45.43	0.49	2.12	--	--	--	--	--	1.09	1.63	2.12	3.26
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		9.37	13.68	56.80	2.05	2.05	3.05	3.53	59.68	3.53	5.25	60.22	9.87	8.27	8.27	7.59	19.13	8.05	31.26	9.71
GRAND TOTAL		47.44	120.69	164.38	91.15	327.44	355.38	681.53	492.13	434.67	444.84	499.79	685.21	767.11	1097.49	768.83	800.78	757.65	782.38	787.10
Yolo County Total		47.44	120.69	164.38	91.15	327.44	355.38	681.53	492.13	434.67	444.84	499.79	685.21	767.11	1097.49	768.83	800.78	757.65	782.38	787.10
Sutter County Total		22.17	78.97	86.34	63.46	248.45	238.74	390.40	359.35	359.35	354.77	354.77	586.31	614.96	833.50	512.05	533.43	502.93	504.45	651.62

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Table K-11. NOx Detailed Summary (Alternative 3) - U

#	Activity	26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	Annual Emissions, tpy
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	311.12	157.25	157.90	19.72	19.72	17.81	17.81	26.89	2.95	18.56
	Construction Worker Commuting	1.76	0.62	0.77	0.30	0.30	0.30	0.30	0.61	0.05	0.07
	Haul Trucks	197.64	93.55	93.06	--	--	--	--	18.40	0.82	5.25
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		510.52	251.43	251.72	20.02	20.02	18.10	18.10	45.90	3.82	23.87
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	20.99	2.95	0.39
	Construction Worker Commuting	--	--	--	--	--	--	--	0.08	0.05	0.01
	Haul Trucks	--	--	--	--	--	--	--	13.93	0.82	0.11
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	35.00	3.82	0.51
Downstream Channel											
3	Offroad Construction Equipment Exhaust	2.00	2.00	2.95	20.99	2.95	--	--	--	--	4.09
	Construction Worker Commuting	0.04	0.04	0.13	0.08	0.02	--	--	--	--	0.02
	Haul Trucks	--	--	2.93	13.99	0.33	--	--	--	--	1.60
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		2.05	2.05	6.02	35.06	3.30	--	--	--	--	5.71
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	10.62	--	23.94	2.95	--	--	--	--	--	0.33
	Construction Worker Commuting	0.07	--	0.13	0.02	--	--	--	--	--	0.00
	Haul Trucks	--	--	6.88	0.33	--	--	--	--	--	0.08
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		10.69	--	30.95	3.30	--	--	--	--	--	0.42
GRAND TOTAL		523.26	253.47	288.69	58.38	23.31	18.10	18.10	80.89	7.63	30.51
Yolo County Total		523.26	253.47	288.69	58.38	23.31	18.10	18.10	80.89	7.63	30.51
Sutter County Total		510.52	251.43	251.72	20.02	20.02	18.10	18.10	45.90	3.82	23.87

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-12. NOx Detailed Summary (Alternative 4) - Unmitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	10.21	71.19	74.14	63.11	244.68	238.32	387.58	358.43	358.43	353.91	353.91	490.62	509.69	634.73	314.22	337.15	311.58	315.84	410.37
	Construction Worker Commuting	0.71	0.39	0.90	0.36	0.51	0.42	1.02	0.93	0.93	0.86	0.86	1.39	1.66	2.10	1.39	1.47	1.26	1.24	1.81
	Haul Trucks	11.25	7.39	11.30	--	3.26	--	1.79	--	--	--	--	94.31	103.61	196.67	196.44	194.81	190.09	187.37	239.45
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		22.17	78.97	86.34	63.46	248.45	238.74	390.40	359.35	359.35	354.77	354.77	586.31	614.96	833.50	512.05	533.43	502.93	504.45	651.62
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	4.31	12.60	2.95	11.02	65.75	56.59	150.92	2.00	5.90	4.51	4.51	6.36	13.77	10.74	2.95	2.95	1.71	1.71	2.95
	Construction Worker Commuting	0.08	0.10	0.18	0.09	0.08	0.20	0.57	0.04	0.37	0.08	0.07	0.09	0.14	0.06	0.18	0.02	0.04	0.04	0.02
	Haul Trucks	0.82	0.82	3.59	3.42	--	--	65.07	--	4.73	--	--	2.35	3.53	--	1.14	0.33	--	--	0.33
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		5.20	13.52	6.72	14.53	65.83	56.80	216.55	2.05	10.99	4.59	4.58	8.80	17.44	10.80	4.27	3.30	1.75	1.75	3.30
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	7.26	11.02	11.02	11.02	11.02	56.59	70.81	70.81	59.54	79.94	79.94	79.94	78.41	150.92	150.92	150.92	150.92	150.92	75.46
	Construction Worker Commuting	0.18	0.09	0.09	0.09	0.09	0.20	0.24	0.24	0.28	0.29	0.29	0.29	0.36	0.57	0.57	0.57	0.57	0.57	0.29
	Haul Trucks	3.26	3.42	3.42	--	--	--	--	--	0.98	--	--	--	47.68	93.43	93.43	93.43	93.43	93.43	46.73
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		10.70	14.53	14.53	11.11	11.11	56.80	71.05	71.05	60.79	80.22	80.22	80.22	126.44	244.92	244.92	244.92	244.92	244.92	122.48
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	7.26	11.02	56.59	2.00	2.00	2.95	3.01	14.21	3.01	2.95	59.98	9.75	8.18	8.18	7.46	17.83	6.34	28.82	6.36
	Construction Worker Commuting	0.15	0.09	0.20	0.04	0.04	0.10	0.03	0.04	0.03	0.18	0.23	0.12	0.09	0.09	0.12	0.21	0.08	0.32	0.09
	Haul Trucks	1.96	2.56	--	--	--	--	0.49	45.43	0.49	2.12	--	--	--	--	--	1.09	1.63	2.12	3.26
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		9.37	13.68	56.80	2.05	2.05	3.05	3.53	59.68	3.53	5.25	60.22	9.87	8.27	8.27	7.59	19.13	8.05	31.26	9.71
Northern Water Control Structure Improvements																				
5	Offroad Construction Equipment Exhaust	10.21	47.57	50.58	130.73	140.04	187.32	163.43	108.40	107.28	163.87	12.91	9.37	13.98	6.42	14.13	17.08	15.84	4.66	1.71
	Construction Worker Commuting	0.27	0.19	0.24	0.27	0.45	0.47	0.66	0.44	0.40	0.60	0.19	0.23	0.09	0.11	0.09	0.11	0.13	0.13	0.04
	Haul Trucks	4.40	2.64	3.45	102.95	107.24	102.95	104.74	102.95	102.95	133.88	0.82	5.27	--	3.80	--	0.33	--	2.12	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Northern Water Control Structure Improvements Subtotal		14.87	50.41	54.28	233.94	247.72	290.74	268.83	211.78	210.62	298.35	13.92	14.87	14.07	10.33	14.22	17.52	15.97	6.91	1.75
Southern Water Control Structure Improvements																				
6	Offroad Construction Equipment Exhaust	10.24	58.59	61.60	87.02	140.04	187.32	304.64	249.61	248.48	305.08	253.00	185.76	193.32	185.76	193.47	196.42	195.18	184.00	181.05
	Construction Worker Commuting	0.31	0.29	0.34	0.37	0.45	0.47	1.03	0.81	0.77	0.97	0.84	0.77	0.74	0.77	0.74	0.77	0.79	0.79	0.69
	Haul Trucks	5.38	6.73	7.55	143.94	148.23	143.94	145.73	143.94	143.94	245.14	245.14	248.13	245.14	248.95	245.14	245.47	245.14	247.26	245.14
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Southern Water Control Structure Improvements Subtotal		15.92	65.61	69.48	231.33	288.72	331.73	451.40	394.35	393.19	551.19	498.98	434.66	439.21	435.47	439.36	442.65	441.11	432.05	426.89
GRAND TOTAL		78.24	236.71	288.15	556.42	863.88	977.85	1401.76	1098.27	1038.48	1294.38	1012.69	1134.73	1220.39	1543.29	1222.41	1260.95	1214.72	1221.33	1215.74
Yolo County Total		78.24	236.71	288.15	556.42	863.88	977.85	1401.76	1098.27	1038.48	1294.38	1012.69	1134.73	1220.39	1543.29	1222.41	1260.95	1214.72	1221.33	1215.74
Sutter County Total		22.17	78.97	86.34	63.46	248.45	238.74	390.40	359.35	359.35	354.77	354.77	586.31	614.96	833.50	512.05	533.43	502.93	504.45	651.62

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Table K-12. NOx Detailed Summary (Alternative 4) - U

#	Activity	26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	Annual Emissions, tpy
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	311.12	157.25	157.90	17.10	17.10	15.18	15.18	26.89	2.95	18.52
	Construction Worker Commuting	1.76	0.62	0.77	0.30	0.30	0.30	0.30	0.61	0.05	0.07
	Haul Trucks	197.64	93.55	93.06	--	--	--	--	18.40	0.82	5.25
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		510.52	251.43	251.72	17.39	17.39	15.48	15.48	45.90	3.82	23.84
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	20.99	2.95	0.39
	Construction Worker Commuting	--	--	--	--	--	--	--	0.08	0.05	0.01
	Haul Trucks	--	--	--	--	--	--	--	13.93	0.82	0.11
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	35.00	3.82	0.51
Downstream Channel											
3	Offroad Construction Equipment Exhaust	2.00	2.00	2.95	20.99	2.95	--	--	--	--	4.09
	Construction Worker Commuting	0.04	0.04	0.13	0.08	0.02	--	--	--	--	0.02
	Haul Trucks	--	--	2.93	13.99	0.33	--	--	--	--	1.60
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		2.05	2.05	6.02	35.06	3.30	--	--	--	--	5.71
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	10.62	--	23.94	2.95	--	--	--	--	--	0.33
	Construction Worker Commuting	0.07	--	0.13	0.02	--	--	--	--	--	0.00
	Haul Trucks	--	--	6.88	0.33	--	--	--	--	--	0.08
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		10.69	--	30.95	3.30	--	--	--	--	--	0.42
Northern Water Control Structure Improvements											
5	Offroad Construction Equipment Exhaust	1.80	1.80	23.94	2.95	--	--	--	--	--	3.77
	Construction Worker Commuting	0.08	0.08	0.10	0.02	--	--	--	--	--	0.01
	Haul Trucks	--	--	16.61	0.33	--	--	--	--	--	2.85
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Northern Water Control Structure Improvements Subtotal		1.88	1.88	40.65	3.30	--	--	--	--	--	6.64
Southern Water Control Structure Improvements											
6	Offroad Construction Equipment Exhaust	32.23	33.17	26.95	2.98	--	--	--	--	--	9.47
	Construction Worker Commuting	0.20	0.33	0.15	0.02	--	--	--	--	--	0.04
	Haul Trucks	143.94	147.20	18.16	0.33	--	--	--	--	--	10.61
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Southern Water Control Structure Improvements Subtotal		176.37	180.70	45.26	3.33	--	--	--	--	--	20.11
GRAND TOTAL		701.51	436.05	374.60	62.38	20.69	15.48	15.48	80.89	7.63	57.24
Yolo County Total		701.51	436.05	374.60	62.38	20.69	15.48	15.48	80.89	7.63	57.24
Sutter County Total		510.52	251.43	251.72	17.39	17.39	15.48	15.48	45.90	3.82	23.84

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-13. NOx Detailed Summary (Alternative 5) - Unmitigated

#	Activity	Ma																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	48.00	184.56	734.81	984.93	1,134.52	1,077.93	954.73	1,181.11	606.83	547.29	535.76	462.65	603.88	547.29	533.75	494.28	494.28	270.86	31.27
	Construction Worker Commuting	1.51	1.33	1.87	1.22	2.06	1.86	1.21	2.07	2.65	2.36	2.18	1.86	2.56	2.36	2.14	2.30	2.30	1.48	0.20
	Haul Trucks	28.06	10.29	9.80	--	3.19	3.19	3.19	169.04	332.45	330.65	330.65	330.65	330.65	330.65	330.65	350.01	350.01	185.78	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		77.57	196.18	746.48	986.15	1139.77	1082.97	959.14	1352.22	941.93	880.30	868.60	795.16	937.10	880.30	866.55	846.58	846.58	458.12	31.47
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	4.31	12.60	2.95	11.02	65.75	56.59	150.92	2.00	5.90	4.51	4.51	6.36	13.77	10.74	2.95	2.95	1.71	1.71	2.95
	Construction Worker Commuting	0.08	0.10	0.18	0.09	0.08	0.20	0.57	0.04	0.37	0.08	0.07	0.09	0.14	0.06	0.18	0.02	0.04	0.04	0.02
	Haul Trucks	0.82	0.82	3.59	3.42	--	--	66.60	--	4.73	--	--	2.35	3.53	--	1.14	0.33	--	--	0.33
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		5.20	13.52	6.72	14.53	65.83	56.80	218.09	2.05	10.99	4.59	4.58	8.80	17.44	10.80	4.27	3.30	1.75	1.75	3.30
Agricultural Crossing 1																				
3	Offroad Construction Equipment Exhaust	7.26	11.02	56.59	2.00	2.00	2.95	3.01	14.21	3.01	2.95	59.98	9.75	8.18	8.18	7.46	17.83	6.34	28.82	6.36
	Construction Worker Commuting	0.15	0.09	0.20	0.04	0.04	0.10	0.03	0.04	0.03	0.18	0.23	0.12	0.09	0.09	0.12	0.21	0.08	0.32	0.09
	Haul Trucks	1.96	2.56	--	--	--	--	0.49	45.43	0.49	2.12	--	--	--	--	--	1.09	1.63	2.12	3.26
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		9.37	13.68	56.80	2.05	2.05	3.05	3.53	59.68	3.53	5.25	60.22	9.87	8.27	8.27	7.59	19.13	8.05	31.26	9.71
River Grading Site																				
4	Offroad Construction Equipment Exhaust	14.04	29.51	105.17	77.35	77.35	77.35	77.35	77.35	77.35	77.35	77.35	77.35	77.35	77.35	77.35	77.35	77.35	77.35	77.35
	Construction Worker Commuting	--	--	0.15	0.19	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
	Haul Trucks	2.45	0.85	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	48.89	--	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45
River Grading Site Subtotal		65.38	30.36	129.77	101.99	101.94	101.94	101.94	101.94	101.94	101.94	101.94	101.94	101.94	101.94	101.94	101.94	101.94	101.94	101.94
GRAND TOTAL		157.52	253.74	939.77	1104.71	1309.59	1244.76	1282.70	1515.89	1058.40	992.09	1035.34	915.78	1064.76	1001.32	980.36	970.96	958.33	593.07	146.42
Yolo County Total		152.31	240.22	933.05	1090.18	1243.76	1187.97	1064.61	1513.85	1047.40	987.50	1030.76	906.98	1047.32	990.52	976.08	967.66	956.58	591.32	143.12
Sutter County Total		5.20	13.52	6.72	14.53	65.83	56.80	218.09	2.05	10.99	4.59	4.58	8.80	17.44	10.80	4.27	3.30	1.75	1.75	3.30

Table K-13. NOx Detailed Summary (Alternative 5) - U

#	Activity	Maximum Daily Emissions, lbs/day																		
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	9.75	14.01	14.01	47.43	41.53	2.95	23.94	0.00	0.00										
	Construction Worker Commuting	0.12	0.10	0.10	1.59	0.58	1.05	0.13	0.00	0.00										
	Haul Trucks	1.63	--	--	42.99	19.35	7.34	15.72	--	--										
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		11.50	14.11	14.11	92.01	61.47	11.34	39.79	--	--	13.76	49.89	49.89	49.89	49.89	49.89	49.89	49.89	49.89	50.02
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	20.99	2.95										
	Construction Worker Commuting	--	--	--	--	--	--	--	0.08	0.05										
	Haul Trucks	--	--	--	--	--	--	--	13.99	0.82										
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	35.06	3.82	--	--	--	--	--	--	--	--	--	--
Agricultural Crossing 1																				
3	Offroad Construction Equipment Exhaust	10.62	--	23.94	2.95	--	--	--	--	--										
	Construction Worker Commuting	0.07	--	0.13	0.02	--	--	--	--	--										
	Haul Trucks	--	--	6.88	0.33	--	--	--	--	--										
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		10.69	--	30.95	3.30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
River Grading Site																				
4	Offroad Construction Equipment Exhaust	77.35	105.29	0.12	0.12	--	14.04	--	--	--										
	Construction Worker Commuting	0.15	0.44	0.29	0.33	0.04	--	--	--	--										
	Haul Trucks	--	46.28	46.28	46.28	--	2.45	--	--	--										
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	24.45	24.45	--	--	--	--	--	--	--										
River Grading Site Subtotal		101.94	176.46	46.68	46.72	0.04	16.49	--	--	--	--	--	--	--	--	--	--	--	--	--
GRAND TOTAL		124.13	190.57	91.74	142.03	61.51	27.82	39.79	35.06	3.82	13.76	49.89	49.89	49.89	49.89	49.89	49.89	49.89	49.89	50.02
Yolo County Total		124.13	190.57	91.74	142.03	61.51	27.82	39.79	--	--	13.76	49.89	49.89	49.89	49.89	49.89	49.89	49.89	49.89	50.02
Sutter County Total		--	--	--	--	--	--	--	35.06	3.82	--	--	--	--	--	--	--	--	--	--

Table K-13. NOx Detailed Summary (Alternative 5) - U

#	Activity	24-Jun	1-Jul	8-Jul	Annual Emissions, tpy	Year 1, tpy	Year 2, tpy
Intake Channel, Headworks, and Outlet Channel							
1	Offroad Construction Equipment Exhaust	7.07	5.90	0.00	59.04	57.70	1.34
	Construction Worker Commuting	0.23	0.04	0.00	0.11	0.10	0.01
	Haul Trucks	--	7.82	--	8.53	8.53	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		7.30	13.76	--	67.68	66.33	1.35
Supplemental Fish Passage West							
2	Offroad Construction Equipment Exhaust	--	--	--	0.33	0.33	--
	Construction Worker Commuting	--	--	--	0.01	0.01	--
	Haul Trucks	--	--	--	0.08	0.08	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		--	--	--	0.42	0.42	--
Agricultural Crossing 1							
3	Offroad Construction Equipment Exhaust	--	--	--	0.33	0.33	--
	Construction Worker Commuting	--	--	--	0.00	0.00	--
	Haul Trucks	--	--	--	0.08	0.08	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		--	--	--	0.42	0.42	--
River Grading Site							
4	Offroad Construction Equipment Exhaust	--	--	--	1.22	1.22	--
	Construction Worker Commuting	--	--	--	0.01	0.01	--
	Haul Trucks	--	--	--	0.42	0.42	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	--	--	--	3.98	3.98	--
River Grading Site Subtotal		--	--	--	5.64	5.64	--
GRAND TOTAL		7.30	13.76	--	74.16	72.81	1.35
Yolo County Total		7.30	13.76	--	73.74	72.39	1.35
Sutter County Total		--	--	--	0.42	0.42	--

Table K-14. NOx Detailed Summary (Alternative 6) - Unmitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	10.21	97.76	103.84	78.64	365.90	359.54	365.69	348.53	344.01	363.09	983.45	983.45	973.38	996.30	976.79	974.99	994.06	986.40	967.32
	Construction Worker Commuting	0.98	1.37	0.72	0.52	0.75	0.66	0.96	0.83	0.75	1.03	3.24	3.24	3.18	3.26	3.22	3.04	3.32	3.29	2.99
	Haul Trucks	15.49	17.48	11.45	9.80	3.26	--	1.79	--	--	9.74	339.87	339.87	339.15	337.52	340.24	330.14	339.87	341.50	330.62
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		26.67	116.61	116.01	88.96	369.91	360.20	368.44	349.35	344.77	373.85	1326.56	1326.56	1315.71	1337.08	1320.24	1308.17	1337.25	1331.20	1300.94
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	4.31	12.60	2.95	11.02	65.75	56.59	150.92	2.00	5.90	4.51	4.51	6.36	13.77	10.74	2.95	2.95	1.71	1.71	2.95
	Construction Worker Commuting	0.08	0.10	0.18	0.09	0.08	0.20	0.57	0.04	0.37	0.08	0.07	0.09	0.14	0.06	0.18	0.02	0.04	0.04	0.02
	Haul Trucks	0.82	0.82	3.59	3.42	--	--	65.07	--	4.73	--	--	2.35	3.53	--	1.14	0.33	--	--	0.33
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		5.20	13.52	6.72	14.53	65.83	56.80	216.55	2.05	10.99	4.59	4.58	8.80	17.44	10.80	4.27	3.30	1.75	1.75	3.30
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	7.26	11.02	11.02	11.02	11.02	56.59	70.81	70.81	59.54	79.94	79.94	79.94	78.41	150.92	150.92	150.92	150.92	150.92	75.46
	Construction Worker Commuting	0.18	0.09	0.09	0.09	0.09	0.20	0.24	0.24	0.28	0.29	0.29	0.29	0.36	0.57	0.57	0.57	0.57	0.57	0.29
	Haul Trucks	3.26	3.42	3.42	--	--	--	--	--	0.98	--	--	--	47.68	93.43	93.43	93.43	93.43	93.43	46.73
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		10.70	14.53	14.53	11.11	11.11	56.80	71.05	71.05	60.79	80.22	80.22	80.22	126.44	244.92	244.92	244.92	244.92	244.92	122.48
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	7.26	11.02	56.59	2.00	2.00	2.95	3.01	14.21	3.01	2.95	59.98	9.75	8.18	8.18	7.46	17.83	6.34	28.82	6.36
	Construction Worker Commuting	0.15	0.09	0.20	0.04	0.04	0.10	0.03	0.04	0.03	0.18	0.23	0.12	0.09	0.09	0.12	0.21	0.08	0.32	0.09
	Haul Trucks	1.96	2.56	--	--	--	--	0.49	45.43	0.49	2.12	--	--	--	--	--	1.09	1.63	2.12	3.26
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		9.37	13.68	56.80	2.05	2.05	3.05	3.53	59.68	3.53	5.25	60.22	9.87	8.27	8.27	7.59	19.13	8.05	31.26	9.71
GRAND TOTAL		51.95	158.33	194.05	116.65	448.90	476.84	659.57	482.13	420.08	463.92	1471.59	1425.46	1467.87	1601.08	1577.03	1575.52	1591.97	1609.12	1436.42
Yolo County Total		51.95	158.33	194.05	116.65	448.90	476.84	659.57	482.13	420.08	463.92	1471.59	1425.46	1467.87	1601.08	1577.03	1575.52	1591.97	1609.12	1436.42
Sutter County Total		26.67	116.61	116.01	88.96	369.91	360.20	368.44	349.35	344.77	373.85	1326.56	1326.56	1315.71	1337.08	1320.24	1308.17	1337.25	1331.20	1300.94

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Table K-14. NOx Detailed Summary (Alternative 6) - U

#	Activity	26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	Annual Emissions, tpy
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	1043.42	780.42	308.81	332.29	33.41	28.54	28.54	27.97	8.85	40.49
	Construction Worker Commuting	3.42	3.09	1.34	1.50	1.13	0.36	0.36	0.28	0.89	0.14
	Haul Trucks	375.48	375.48	188.53	188.53	12.39	--	--	13.99	7.82	12.73
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		1422.32	1158.99	498.68	522.32	46.93	28.90	28.90	42.24	17.56	53.35
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	20.99	2.95	0.39
	Construction Worker Commuting	--	--	--	--	--	--	--	0.08	0.05	0.01
	Haul Trucks	--	--	--	--	--	--	--	13.93	0.82	0.11
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	35.00	3.82	0.51
Downstream Channel											
3	Offroad Construction Equipment Exhaust	2.00	2.00	2.95	20.99	2.95	--	--	--	--	4.09
	Construction Worker Commuting	0.04	0.04	0.13	0.08	0.02	--	--	--	--	0.02
	Haul Trucks	--	--	2.93	13.99	0.33	--	--	--	--	1.60
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		2.05	2.05	6.02	35.06	3.30	--	--	--	--	5.71
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	10.62	--	23.94	2.95	--	--	--	--	--	0.33
	Construction Worker Commuting	0.07	--	0.13	0.02	--	--	--	--	--	0.00
	Haul Trucks	--	--	6.88	0.33	--	--	--	--	--	0.08
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		10.69	--	30.95	3.30	--	--	--	--	--	0.42
GRAND TOTAL		1435.05	1161.03	535.64	560.68	50.23	28.90	28.90	77.23	21.38	60.00
Yolo County Total		1435.05	1161.03	535.64	560.68	50.23	28.90	28.90	77.23	21.38	60.00
Sutter County Total		1422.32	1158.99	498.68	522.32	46.93	28.90	28.90	42.24	17.56	53.35

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-15. CO Detailed Summary (Alternative 1) - Unmitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	13.92	108.98	113.40	98.70	83.65	89.46	128.72	110.03	124.96	120.36	80.39	83.37	73.79	86.02	108.14	91.57	61.47	78.21	8.84
	Construction Worker Commuting	4.92	3.90	9.03	3.59	3.49	2.97	6.57	5.95	6.05	5.33	4.51	7.18	8.82	9.44	11.90	11.49	6.77	9.34	3.49
	Haul Trucks	2.06	1.55	2.37	--	--	--	0.76	0.12	--	--	--	12.87	31.78	29.08	31.08	31.08	19.42	32.24	1.13
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		20.91	114.43	124.80	102.29	87.14	92.44	136.05	116.09	131.02	125.70	84.91	103.41	114.39	124.54	151.12	134.13	87.66	119.78	13.47
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	5.09	14.88	4.42	30.50	39.97	34.06	51.45	4.42	8.84	4.60	4.60	5.97	7.55	5.55	4.42	4.42	4.66	4.66	4.42
	Construction Worker Commuting	0.82	1.03	1.85	0.92	0.82	2.05	5.74	0.41	3.69	0.82	0.72	0.92	1.44	0.62	1.85	0.21	0.41	0.41	0.21
	Haul Trucks	0.17	0.17	0.76	0.72	--	--	14.04	--	1.00	--	--	0.50	0.74	--	0.24	0.07	--	--	0.07
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		6.08	16.08	7.02	32.14	40.79	36.12	71.24	4.83	13.53	5.42	5.32	7.39	9.73	6.17	6.51	4.69	5.07	5.07	4.69
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	9.50	30.50	30.50	30.50	30.50	34.06	45.84	45.84	38.48	53.42	53.42	53.42	30.14	51.45	51.45	51.45	51.45	51.45	25.72
	Construction Worker Commuting	1.85	0.92	0.92	0.92	0.92	2.05	2.46	2.46	2.77	2.87	2.87	2.87	3.59	5.74	5.74	5.74	5.74	5.74	2.87
	Haul Trucks	0.69	0.72	0.72	--	--	--	--	--	0.21	--	--	--	10.05	19.70	19.70	19.70	19.70	19.70	9.85
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		12.04	32.14	32.14	31.42	31.42	36.12	48.31	48.31	41.46	56.29	56.29	56.29	43.79	76.89	76.89	76.89	76.89	76.89	38.45
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	9.50	30.50	34.06	4.42	4.42	4.42	4.87	11.78	4.87	4.42	38.49	10.40	8.86	8.86	6.43	14.38	8.84	26.96	5.97
	Construction Worker Commuting	1.54	0.92	2.05	0.41	0.41	1.03	0.31	0.41	0.31	1.85	2.36	1.23	0.92	0.92	1.23	2.15	0.82	3.18	0.92
	Haul Trucks	0.41	0.54	--	--	--	--	0.10	9.58	0.10	0.45	--	--	--	--	--	0.23	0.34	0.45	0.69
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		11.45	31.96	36.12	4.83	4.83	5.44	5.28	21.77	5.28	6.71	40.85	11.63	9.78	9.78	7.66	16.76	10.01	30.59	7.58
GRAND TOTAL		50.48	194.61	200.08	170.68	164.18	170.11	260.87	190.99	191.28	194.12	187.37	178.72	177.69	217.38	242.17	232.48	179.63	232.33	64.19
Yolo County Total		44.40	178.53	193.05	138.54	123.39	134.00	189.63	186.17	177.76	188.70	182.05	171.33	167.96	211.21	235.67	227.79	174.56	227.26	59.50
Sutter County Total		6.08	16.08	7.02	32.14	40.79	36.12	71.24	4.83	13.53	5.42	5.32	7.39	9.73	6.17	6.51	4.69	5.07	5.07	4.69

Table K-15. CO Detailed Summary (Alternative 1) - Uni

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	4.43	8.84	25.07	25.07	25.07	21.34	15.79	14.76	4.42	4.69
	Construction Worker Commuting	0.31	0.51	2.97	2.97	2.97	2.97	2.36	6.16	0.51	0.34
	Haul Trucks	--	0.01	--	--	--	--	--	3.77	0.17	0.45
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		4.73	9.36	28.05	28.05	28.05	24.31	18.15	24.68	5.10	5.47
Supplemental Fish Passage West											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	5.92	4.42	0.22
	Construction Worker Commuting	--	--	--	--	--	--	--	0.82	0.51	0.10
	Haul Trucks	--	--	--	--	--	--	--	2.95	0.17	0.02
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	9.69	5.10	0.34
Downstream Channel											
3	Offroad Construction Equipment Exhaust	4.42	4.42	4.42	5.92	4.42	--	--	--	--	2.14
	Construction Worker Commuting	0.41	0.41	1.33	0.82	0.21	--	--	--	--	0.16
	Haul Trucks	--	--	0.62	2.95	0.07	--	--	--	--	0.34
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		4.83	4.83	6.37	9.69	4.69	--	--	--	--	2.64
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	5.59	--	10.34	4.42	--	--	--	--	--	0.31
	Construction Worker Commuting	0.72	--	1.33	0.21	--	--	--	--	--	0.02
	Haul Trucks	--	--	1.45	0.07	--	--	--	--	--	0.02
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		6.31	--	13.12	4.69	--	--	--	--	--	0.35
GRAND TOTAL		15.87	14.19	47.54	42.43	32.74	24.31	18.15	34.37	10.21	8.80
Yolo County Total		15.87	14.19	47.54	42.43	32.74	24.31	18.15	24.68	5.10	8.46
Sutter County Total		--	--	--	--	--	--	--	9.69	5.10	0.34

Table K-16. CO Detailed Summary (Alternative 2) - Unmitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	13.92	108.98	113.40	98.70	163.60	157.63	242.73	219.62	219.62	215.02	95.10	78.42	147.78	125.24	115.74	133.87	113.30	112.92	105.11
	Construction Worker Commuting	7.18	3.90	9.03	3.59	5.13	4.21	10.26	8.92	8.92	8.21	5.74	7.39	15.90	14.57	13.95	14.77	12.72	12.52	12.41
	Haul Trucks	2.37	1.58	2.40	--	0.67	--	0.38	--	--	--	--	19.77	45.45	45.45	45.36	45.02	44.02	43.45	33.34
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		23.47	114.46	124.83	102.29	169.40	161.83	253.37	228.54	228.54	223.22	100.84	105.58	209.13	185.25	175.06	193.66	170.04	168.88	150.86
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	5.09	14.88	4.42	30.50	39.97	34.06	51.45	4.42	8.84	4.60	4.60	5.97	7.55	5.55	4.42	4.42	4.66	4.66	4.42
	Construction Worker Commuting	0.82	1.03	1.85	0.92	0.82	2.05	5.74	0.41	3.69	0.82	0.72	0.92	1.44	0.62	1.85	0.21	0.41	0.41	0.21
	Haul Trucks	0.17	0.17	0.76	0.72	--	--	14.04	--	1.00	--	--	0.50	0.74	--	0.24	0.07	--	--	0.07
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		6.08	16.08	7.02	32.14	40.79	36.12	71.24	4.83	13.53	5.42	5.32	7.39	9.73	6.17	6.51	4.69	5.07	5.07	4.69
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	9.50	30.50	30.50	30.50	30.50	34.06	45.84	45.84	38.48	53.42	53.42	53.42	30.14	51.45	51.45	51.45	51.45	51.45	25.72
	Construction Worker Commuting	1.85	0.92	0.92	0.92	0.92	2.05	2.46	2.46	2.77	2.87	2.87	2.87	3.59	5.74	5.74	5.74	5.74	5.74	2.87
	Haul Trucks	0.69	0.72	0.72	--	--	--	--	--	0.21	--	--	--	10.05	19.70	19.70	19.70	19.70	19.70	9.85
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		12.04	32.14	32.14	31.42	31.42	36.12	48.31	48.31	41.46	56.29	56.29	56.29	43.79	76.89	76.89	76.89	76.89	76.89	38.45
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	9.50	30.50	34.06	4.42	4.42	4.42	4.87	11.78	4.87	4.42	38.49	10.40	8.86	8.86	6.43	14.38	8.84	26.96	5.97
	Construction Worker Commuting	1.54	0.92	2.05	0.41	0.41	1.03	0.31	0.41	0.31	1.85	2.36	1.23	0.92	0.92	1.23	2.15	0.82	3.18	0.92
	Haul Trucks	0.41	0.54	--	--	--	--	0.10	9.58	0.10	0.45	--	--	--	--	0.23	0.34	0.45	0.69	
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		11.45	31.96	36.12	4.83	4.83	5.44	5.28	21.77	5.28	6.71	40.85	11.63	9.78	9.78	7.66	16.76	10.01	30.59	7.58
River Grading Site																				
5	Offroad Construction Equipment Exhaust	17.67	39.41	51.33	29.23	29.23	29.23	29.23	29.23	29.23	29.23	29.23	29.23	29.23	29.23	29.23	29.23	29.23	29.23	29.23
	Construction Worker Commuting	--	--	1.54	1.95	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54
	Haul Trucks	0.52	0.18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	46.74	--	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37
River Grading Site Subtotal		64.92	39.59	76.24	54.55	54.14	54.14	54.14	54.14	54.14	54.14	54.14	54.14	54.14	54.14	54.14	54.14	54.14	54.14	54.14
GRAND TOTAL		117.97	234.23	276.35	225.23	300.58	293.65	432.34	357.58	342.95	345.79	257.45	235.03	326.57	332.24	320.25	346.15	316.15	335.58	255.73
Yolo County Total		111.89	218.14	269.33	193.09	259.79	257.54	361.10	352.76	329.43	340.37	252.13	227.64	316.84	326.07	313.75	341.46	311.08	330.51	251.04
Sutter County Total		6.08	16.08	7.02	32.14	40.79	36.12	71.24	4.83	13.53	5.42	5.32	7.39	9.73	6.17	6.51	4.69	5.07	5.07	4.69

Table K-16. CO Detailed Summary (Alternative 2) - Un

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	60.29	13.26	15.11	25.07	25.07	21.34	21.34	14.76	4.42	7.61
	Construction Worker Commuting	6.57	5.95	1.95	2.97	2.97	2.97	2.97	6.16	0.51	0.52
	Haul Trucks	24.02	1.92	--	--	--	--	--	3.86	0.17	0.91
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		90.88	21.14	17.05	28.05	28.05	24.31	24.31	24.78	5.10	9.03
Supplemental Fish Passage West											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	5.92	4.42	0.22
	Construction Worker Commuting	--	--	--	--	--	--	--	0.82	0.51	0.10
	Haul Trucks	--	--	--	--	--	--	--	2.95	0.17	0.02
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	9.69	5.10	0.34
Downstream Channel											
3	Offroad Construction Equipment Exhaust	4.42	4.42	4.42	5.92	4.42	--	--	--	--	2.14
	Construction Worker Commuting	0.41	0.41	1.33	0.82	0.21	--	--	--	--	0.16
	Haul Trucks	--	--	0.62	2.95	0.07	--	--	--	--	0.34
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		4.83	4.83	6.37	9.69	4.69	--	--	--	--	2.64
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	5.59	--	10.34	4.42	--	--	--	--	--	0.31
	Construction Worker Commuting	0.72	--	1.33	0.21	--	--	--	--	--	0.02
	Haul Trucks	--	--	1.45	0.07	--	--	--	--	--	0.02
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		6.31	--	13.12	4.69	--	--	--	--	--	0.35
River Grading Site											
5	Offroad Construction Equipment Exhaust	29.23	52.24	0.91	0.91	--	17.67	--	--	--	0.86
	Construction Worker Commuting	1.54	4.41	2.87	3.28	0.41	--	--	--	--	0.11
	Haul Trucks	--	9.76	9.76	9.76	--	0.52	--	--	--	0.09
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	23.37	23.37	--	--	--	--	--	--	--	3.83
River Grading Site Subtotal		54.14	89.78	13.54	13.95	0.41	18.18	--	--	--	4.89
GRAND TOTAL		156.16	115.74	50.09	56.38	33.15	42.50	24.31	34.47	10.21	17.25
Yolo County Total		156.16	115.74	50.09	56.38	33.15	42.50	24.31	24.78	5.10	16.91
Sutter County Total		--	--	--	--	--	--	--	9.69	5.10	0.34

Table K-17. CO Detailed Summary (Alternative 3) - Unmitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	13.92	108.98	113.40	98.70	163.60	157.63	242.73	231.40	231.40	226.80	226.80	266.47	284.38	313.28	115.74	133.87	113.30	112.92	156.56
	Construction Worker Commuting	7.18	3.90	9.03	3.59	5.13	4.21	10.26	9.34	9.34	8.62	8.62	13.95	16.72	21.13	13.95	14.77	12.72	12.52	18.16
	Haul Trucks	2.37	1.56	2.38	--	0.69	--	0.38	--	--	--	--	19.88	21.84	41.46	41.42	41.07	40.07	39.50	50.48
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		23.47	114.44	124.81	102.29	169.41	161.83	253.37	240.73	240.73	235.41	235.41	300.30	322.94	375.88	171.11	189.71	166.09	164.94	225.20
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	5.09	14.88	4.42	30.50	39.97	34.06	51.45	4.42	8.84	4.60	4.60	5.97	7.55	5.55	4.42	4.42	4.66	4.66	4.42
	Construction Worker Commuting	0.82	1.03	1.85	0.92	0.82	2.05	5.74	0.41	3.69	0.82	0.72	0.92	1.44	0.62	1.85	0.21	0.41	0.41	0.21
	Haul Trucks	0.17	0.17	0.76	0.72	--	--	13.72	--	1.00	--	--	0.50	0.74	--	0.24	0.07	--	--	0.07
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		6.08	16.08	7.02	32.14	40.79	36.12	70.91	4.83	13.53	5.42	5.32	7.39	9.73	6.17	6.51	4.69	5.07	5.07	4.69
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	9.50	30.50	30.50	30.50	30.50	34.06	45.84	45.84	38.48	53.42	53.42	53.42	30.14	51.45	51.45	51.45	51.45	51.45	25.72
	Construction Worker Commuting	1.85	0.92	0.92	0.92	0.92	2.05	2.46	2.46	2.77	2.87	2.87	2.87	3.59	5.74	5.74	5.74	5.74	5.74	2.87
	Haul Trucks	0.69	0.72	0.72	--	--	--	--	--	0.21	--	--	--	10.05	19.70	19.70	19.70	19.70	19.70	9.85
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		12.04	32.14	32.14	31.42	31.42	36.12	48.31	48.31	41.46	56.29	56.29	56.29	43.79	76.89	76.89	76.89	76.89	76.89	38.45
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	9.50	30.50	34.06	4.42	4.42	4.42	4.87	11.78	4.87	4.42	38.49	10.40	8.86	8.86	6.43	14.38	8.84	26.96	5.97
	Construction Worker Commuting	1.54	0.92	2.05	0.41	0.41	1.03	0.31	0.41	0.31	1.85	2.36	1.23	0.92	0.92	1.23	2.15	0.82	3.18	0.92
	Haul Trucks	0.41	0.54	--	--	--	--	0.10	9.58	0.10	0.45	--	--	--	--	0.23	0.34	0.45	0.69	
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		11.45	31.96	36.12	4.83	4.83	5.44	5.28	21.77	5.28	6.71	40.85	11.63	9.78	9.78	7.66	16.76	10.01	30.59	7.58
GRAND TOTAL		53.04	194.62	200.09	170.68	246.45	239.51	377.87	315.63	301.00	303.84	337.87	375.61	386.24	468.72	262.16	288.06	258.06	277.49	275.92
Yolo County Total		53.04	194.62	200.09	170.68	246.45	239.51	377.87	315.63	301.00	303.84	337.87	375.61	386.24	468.72	262.16	288.06	258.06	277.49	275.92
Sutter County Total		23.47	114.44	124.81	102.29	169.41	161.83	253.37	240.73	240.73	235.41	235.41	300.30	322.94	375.88	171.11	189.71	166.09	164.94	225.20

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Table K-17. CO Detailed Summary (Alternative 3) - Uni

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	116.16	60.29	66.55	25.07	25.07	21.34	21.34	14.76	4.42	10.39
	Construction Worker Commuting	17.75	6.26	7.69	2.97	2.97	2.97	2.97	6.16	0.51	0.66
	Haul Trucks	41.67	19.72	19.62	--	--	--	--	3.88	0.17	1.11
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		175.58	86.27	93.87	28.05	28.05	24.31	24.31	24.79	5.10	12.16
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	5.92	4.42	0.28
	Construction Worker Commuting	--	--	--	--	--	--	--	0.82	0.51	0.13
	Haul Trucks	--	--	--	--	--	--	--	2.94	0.17	0.02
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	9.68	5.10	0.43
Downstream Channel											
3	Offroad Construction Equipment Exhaust	4.42	4.42	4.42	5.92	4.42	--	--	--	--	2.14
	Construction Worker Commuting	0.41	0.41	1.33	0.82	0.21	--	--	--	--	0.16
	Haul Trucks	--	--	0.62	2.95	0.07	--	--	--	--	0.34
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		4.83	4.83	6.37	9.69	4.69	--	--	--	--	2.64
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	5.59	--	10.34	4.42	--	--	--	--	--	0.31
	Construction Worker Commuting	0.72	--	1.33	0.21	--	--	--	--	--	0.02
	Haul Trucks	--	--	1.45	0.07	--	--	--	--	--	0.02
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		6.31	--	13.12	4.69	--	--	--	--	--	0.35
GRAND TOTAL		186.72	91.10	113.36	42.43	32.74	24.31	24.31	34.47	10.21	15.59
Yolo County Total		186.72	91.10	113.36	42.43	32.74	24.31	24.31	34.47	10.21	15.59
Sutter County Total		175.58	86.27	93.87	28.05	28.05	24.31	24.31	24.79	5.10	12.16

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-18. CO Detailed Summary (Alternative 4) - Unmitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	13.92	108.98	113.40	98.70	163.60	157.63	242.73	231.40	231.40	226.80	226.80	266.47	284.38	313.28	115.74	133.87	113.30	112.92	156.56
	Construction Worker Commuting	7.18	3.90	9.03	3.59	5.13	4.21	10.26	9.34	9.34	8.62	8.62	13.95	16.72	21.13	13.95	14.77	12.72	12.52	18.16
	Haul Trucks	2.37	1.56	2.38	--	0.69	--	0.38	--	--	--	--	19.88	21.84	41.46	41.42	41.07	40.07	39.50	50.48
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		23.47	114.44	124.81	102.29	169.41	161.83	253.37	240.73	240.73	235.41	235.41	300.30	322.94	375.88	171.11	189.71	166.09	164.94	225.20
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	5.09	14.88	4.42	30.50	39.97	34.06	51.45	4.42	8.84	4.60	4.60	5.97	7.55	5.55	4.42	4.42	4.66	4.66	4.42
	Construction Worker Commuting	0.82	1.03	1.85	0.92	0.82	2.05	5.74	0.41	3.69	0.82	0.72	0.92	1.44	0.62	1.85	0.21	0.41	0.41	0.21
	Haul Trucks	0.17	0.17	0.76	0.72	--	--	13.72	--	1.00	--	--	0.50	0.74	--	0.24	0.07	--	--	0.07
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		6.08	16.08	7.02	32.14	40.79	36.12	70.91	4.83	13.53	5.42	5.32	7.39	9.73	6.17	6.51	4.69	5.07	5.07	4.69
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	9.50	30.50	30.50	30.50	30.50	34.06	45.84	45.84	38.48	53.42	53.42	53.42	30.14	51.45	51.45	51.45	51.45	51.45	25.72
	Construction Worker Commuting	1.85	0.92	0.92	0.92	0.92	2.05	2.46	2.46	2.77	2.87	2.87	2.87	3.59	5.74	5.74	5.74	5.74	5.74	2.87
	Haul Trucks	0.69	0.72	0.72	--	--	--	--	--	0.21	--	--	--	10.05	19.70	19.70	19.70	19.70	19.70	9.85
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		12.04	32.14	32.14	31.42	31.42	36.12	48.31	48.31	41.46	56.29	56.29	56.29	43.79	76.89	76.89	76.89	76.89	76.89	38.45
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	9.50	30.50	34.06	4.42	4.42	4.42	4.87	11.78	4.87	4.42	38.49	10.40	8.86	8.86	6.43	14.38	8.84	26.96	5.97
	Construction Worker Commuting	1.54	0.92	2.05	0.41	0.41	1.03	0.31	0.41	0.31	1.85	2.36	1.23	0.92	0.92	1.23	2.15	0.82	3.18	0.92
	Haul Trucks	0.41	0.54	--	--	--	--	0.10	9.58	0.10	0.45	--	--	--	--	0.23	0.34	0.45	0.69	0.69
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		11.45	31.96	36.12	4.83	4.83	5.44	5.28	21.77	5.28	6.71	40.85	11.63	9.78	9.78	7.66	16.76	10.01	30.59	7.58
Northern Water Control Structure Improvements																				
5	Offroad Construction Equipment Exhaust	13.92	63.61	68.48	96.64	107.03	130.70	87.77	53.88	53.71	87.77	18.31	10.84	9.79	6.42	9.98	14.40	14.64	9.08	4.66
	Construction Worker Commuting	2.67	1.95	2.46	2.67	4.51	4.72	6.67	4.41	4.00	6.05	1.95	2.36	0.92	1.13	0.92	1.13	1.33	1.33	0.41
	Haul Trucks	0.93	0.56	0.73	21.70	22.61	21.70	22.08	21.70	21.70	28.23	0.17	1.11	--	0.80	--	0.07	--	0.45	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Northern Water Control Structure Improvements Subtotal		17.52	66.11	71.67	121.01	134.15	157.13	116.51	80.00	79.41	122.05	20.44	14.31	10.72	8.35	10.90	15.59	15.97	10.86	5.07
Southern Water Control Structure Improvements																				
6	Offroad Construction Equipment Exhaust	14.15	94.10	98.97	117.66	107.03	130.70	153.46	119.58	119.41	153.47	124.01	81.43	84.80	81.43	84.99	89.40	89.65	84.08	79.67
	Construction Worker Commuting	3.08	2.87	3.39	3.69	4.51	4.72	10.36	8.10	7.69	9.75	8.41	7.69	7.49	7.69	7.49	7.69	7.90	7.90	6.98
	Haul Trucks	1.13	1.42	1.59	30.35	31.25	30.35	30.72	30.35	30.35	51.68	51.68	52.31	51.68	52.48	51.68	51.75	51.68	52.13	51.68
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Southern Water Control Structure Improvements Subtotal		18.36	98.39	103.95	151.70	142.79	165.77	194.55	158.03	157.45	214.90	184.10	141.44	143.97	141.61	144.16	148.85	149.23	144.11	138.32
GRAND TOTAL		88.92	359.12	375.70	443.38	523.40	562.41	688.93	553.66	537.86	640.79	542.41	531.36	540.93	618.68	417.22	452.50	423.26	432.46	419.31
Yolo County Total		88.92	359.12	375.70	443.38	523.40	562.41	688.93	553.66	537.86	640.79	542.41	531.36	540.93	618.68	417.22	452.50	423.26	432.46	419.31
Sutter County Total		23.47	114.44	124.81	102.29	169.41	161.83	253.37	240.73	240.73	235.41	235.41	300.30	322.94	375.88	171.11	189.71	166.09	164.94	225.20

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Table K-18. CO Detailed Summary (Alternative 4) - Uni

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	116.16	60.29	66.55	23.73	23.73	19.99	19.99	14.76	4.42	10.38
	Construction Worker Commuting	17.75	6.26	7.69	2.97	2.97	2.97	2.97	6.16	0.51	0.66
	Haul Trucks	41.67	19.72	19.62	--	--	--	--	3.88	0.17	1.11
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		175.58	86.27	93.87	26.70	26.70	22.97	22.97	24.79	5.10	12.14
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	5.92	4.42	0.28
	Construction Worker Commuting	--	--	--	--	--	--	--	0.82	0.51	0.13
	Haul Trucks	--	--	--	--	--	--	--	2.94	0.17	0.02
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	9.68	5.10	0.43
Downstream Channel											
3	Offroad Construction Equipment Exhaust	4.42	4.42	4.42	5.92	4.42	--	--	--	--	2.14
	Construction Worker Commuting	0.41	0.41	1.33	0.82	0.21	--	--	--	--	0.16
	Haul Trucks	--	--	0.62	2.95	0.07	--	--	--	--	0.34
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		4.83	4.83	6.37	9.69	4.69	--	--	--	--	2.64
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	5.59	--	10.34	4.42	--	--	--	--	--	0.31
	Construction Worker Commuting	0.72	--	1.33	0.21	--	--	--	--	--	0.02
	Haul Trucks	--	--	1.45	0.07	--	--	--	--	--	0.02
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		6.31	--	13.12	4.69	--	--	--	--	--	0.35
Northern Water Control Structure Improvements											
5	Offroad Construction Equipment Exhaust	5.34	5.34	10.34	4.42	--	--	--	--	--	2.55
	Construction Worker Commuting	0.82	0.82	1.03	0.21	--	--	--	--	--	0.14
	Haul Trucks	--	--	3.50	0.07	--	--	--	--	--	0.60
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Northern Water Control Structure Improvements Subtotal		6.16	6.16	14.87	4.69	--	--	--	--	--	3.29
Southern Water Control Structure Improvements											
6	Offroad Construction Equipment Exhaust	33.31	33.32	15.21	4.65	--	--	--	--	--	5.37
	Construction Worker Commuting	2.05	3.28	1.54	0.21	--	--	--	--	--	0.37
	Haul Trucks	30.35	31.03	3.83	0.07	--	--	--	--	--	2.24
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Southern Water Control Structure Improvements Subtotal		65.71	67.63	20.58	4.92	--	--	--	--	--	7.98
GRAND TOTAL		258.59	164.89	148.81	50.70	31.40	22.97	22.97	34.47	10.21	26.84
Yolo County Total		258.59	164.89	148.81	50.70	31.40	22.97	22.97	34.47	10.21	26.84
Sutter County Total		175.58	86.27	93.87	26.70	26.70	22.97	22.97	24.79	5.10	12.14

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-19. CO Detailed Summary (Alternative 5) - Unmitigated

#	Activity	Ma																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	58.57	382.71	481.90	612.18	729.05	694.99	585.04	662.22	278.70	240.21	230.83	167.79	274.28	240.21	226.41	194.60	194.60	121.84	31.39
	Construction Worker Commuting	15.18	13.34	18.77	12.31	20.72	18.67	12.21	20.82	26.67	23.70	21.95	18.67	25.75	23.70	21.54	23.08	23.08	14.87	2.05
	Haul Trucks	5.92	2.17	2.07	--	0.67	0.67	0.67	35.64	70.09	69.71	69.71	69.71	69.71	69.71	69.71	73.79	73.79	39.17	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		79.67	398.22	502.74	624.49	750.45	714.33	597.92	718.68	375.46	333.62	322.49	256.17	369.74	333.62	317.67	291.47	291.47	175.88	33.44
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	5.09	14.88	4.42	30.50	39.97	34.06	51.45	4.42	8.84	4.60	4.60	5.97	7.55	5.55	4.42	4.42	4.66	4.66	4.42
	Construction Worker Commuting	0.82	1.03	1.85	0.92	0.82	2.05	5.74	0.41	3.69	0.82	0.72	0.92	1.44	0.62	1.85	0.21	0.41	0.41	0.21
	Haul Trucks	0.17	0.17	0.76	0.72	--	--	14.04	--	1.00	--	--	0.50	0.74	--	0.24	0.07	--	--	0.07
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		6.08	16.08	7.02	32.14	40.79	36.12	71.24	4.83	13.53	5.42	5.32	7.39	9.73	6.17	6.51	4.69	5.07	5.07	4.69
Agricultural Crossing 1																				
3	Offroad Construction Equipment Exhaust	9.50	30.50	34.06	4.42	4.42	4.42	4.87	11.78	4.87	4.42	38.49	10.40	8.86	8.86	6.43	14.38	8.84	26.96	5.97
	Construction Worker Commuting	1.54	0.92	2.05	0.41	0.41	1.03	0.31	0.41	0.31	1.85	2.36	1.23	0.92	0.92	1.23	2.15	0.82	3.18	0.92
	Haul Trucks	0.41	0.54	--	--	--	--	0.10	9.58	0.10	0.45	--	--	--	--	--	0.23	0.34	0.45	0.69
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		11.45	31.96	36.12	4.83	4.83	5.44	5.28	21.77	5.28	6.71	40.85	11.63	9.78	9.78	7.66	16.76	10.01	30.59	7.58
River Grading Site																				
4	Offroad Construction Equipment Exhaust	17.67	39.41	51.33	29.23	29.23	29.23	29.23	29.23	29.23	29.23	29.23	29.23	29.23	29.23	29.23	29.23	29.23	29.23	29.23
	Construction Worker Commuting	--	--	1.54	1.95	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54
	Haul Trucks	0.52	0.18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	46.74	--	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37
River Grading Site Subtotal		64.92	39.59	76.24	54.55	54.14	54.14	54.14	54.14	54.14	54.14	54.14	54.14	54.14	54.14	54.14	54.14	54.14	54.14	54.14
GRAND TOTAL		162.12	485.84	622.12	716.01	850.21	810.04	728.58	799.41	448.41	399.90	422.80	329.33	443.39	403.71	385.97	367.07	360.69	265.69	99.86
Yolo County Total		156.04	469.76	615.10	683.87	809.42	773.92	657.35	794.59	434.88	394.48	417.48	321.94	433.66	397.55	379.47	362.37	355.62	260.62	95.16
Sutter County Total		6.08	16.08	7.02	32.14	40.79	36.12	71.24	4.83	13.53	5.42	5.32	7.39	9.73	6.17	6.51	4.69	5.07	5.07	4.69

Table K-19. CO Detailed Summary (Alternative 5) - Un

#	Activity	Maximum Daily Emissions, lbs/day																		
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	10.40	10.02	10.02	49.09	40.25	4.42	10.34	0.00	0.00	8.84	37.48	37.48	37.48	37.48	37.48	37.48	37.48	37.48	38.17
	Construction Worker Commuting	1.23	1.03	1.03	16.00	5.85	10.57	1.33	0.00	0.00	0.41	4.41	4.41	4.41	4.41	4.41	4.41	4.41	4.41	4.82
	Haul Trucks	0.34	--	--	9.06	4.08	1.55	3.31	--	--	1.65	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		11.97	11.05	11.05	74.15	50.18	16.53	14.99	--	--	10.90	41.90	41.90	41.90	41.90	41.90	41.90	41.90	41.90	42.99
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	5.92	4.42	--	--	--	--	--	--	--	--	--	--
	Construction Worker Commuting	--	--	--	--	--	--	--	0.82	0.51	--	--	--	--	--	--	--	--	--	--
	Haul Trucks	--	--	--	--	--	--	--	2.95	0.17	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	9.69	5.10	--	--	--	--	--	--	--	--	--	--
Agricultural Crossing 1																				
3	Offroad Construction Equipment Exhaust	5.59	--	10.34	4.42	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Construction Worker Commuting	0.72	--	1.33	0.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Haul Trucks	--	--	1.45	0.07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		6.31	--	13.12	4.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
River Grading Site																				
4	Offroad Construction Equipment Exhaust	29.23	52.24	0.91	0.91	--	17.67	--	--	--	--	--	--	--	--	--	--	--	--	--
	Construction Worker Commuting	1.54	4.41	2.87	3.28	0.41	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Haul Trucks	--	9.76	9.76	9.76	--	0.52	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	23.37	23.37	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
River Grading Site Subtotal		54.14	89.78	13.54	13.95	0.41	18.18	--	--	--	--	--	--	--	--	--	--	--	--	--
GRAND TOTAL		72.43	100.83	37.71	92.79	50.59	34.71	14.99	9.69	5.10	10.90	41.90	41.90	41.90	41.90	41.90	41.90	41.90	41.90	42.99
Yolo County Total		72.43	100.83	37.71	92.79	50.59	34.71	14.99	--	--	10.90	41.90	41.90	41.90	41.90	41.90	41.90	41.90	41.90	42.99
Sutter County Total		--	--	--	--	--	--	--	9.69	5.10	--	--	--	--	--	--	--	--	--	--

Table K-19. CO Detailed Summary (Alternative 5) - Uni

#	Activity	24-Jun	1-Jul	8-Jul	Annual Emissions, tpy	Year 1, tpy	Year 2, tpy
Intake Channel, Headworks, and Outlet Channel							
1	Offroad Construction Equipment Exhaust	15.79	8.84	0.00	37.28	36.24	1.04
	Construction Worker Commuting	2.36	0.41	0.00	1.11	0.99	0.13
	Haul Trucks	--	1.65	--	1.80	1.80	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		18.15	10.90	--	40.20	39.03	1.17
Supplemental Fish Passage West							
2	Offroad Construction Equipment Exhaust	--	--	--	0.22	0.22	--
	Construction Worker Commuting	--	--	--	0.10	0.10	--
	Haul Trucks	--	--	--	0.02	0.02	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		--	--	--	0.34	0.34	--
Agricultural Crossing 1							
3	Offroad Construction Equipment Exhaust	--	--	--	0.31	0.31	--
	Construction Worker Commuting	--	--	--	0.02	0.02	--
	Haul Trucks	--	--	--	0.02	0.02	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		--	--	--	0.35	0.35	--
River Grading Site							
4	Offroad Construction Equipment Exhaust	--	--	--	0.86	0.86	--
	Construction Worker Commuting	--	--	--	0.11	0.11	--
	Haul Trucks	--	--	--	0.09	0.09	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	--	--	--	3.83	3.83	--
River Grading Site Subtotal		--	--	--	4.89	4.89	--
GRAND TOTAL		18.15	10.90	--	45.77	44.61	1.17
Yolo County Total		18.15	10.90	--	45.44	44.27	1.17
Sutter County Total		--	--	--	0.34	0.34	--

Table K-20. CO Detailed Summary (Alternative 6) - Unmitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	13.92	158.78	163.56	133.80	237.46	231.49	252.75	236.55	231.95	249.86	464.49	464.49	455.00	473.12	456.55	452.18	470.09	468.91	451.00
	Construction Worker Commuting	9.85	13.75	7.28	5.23	7.59	6.67	9.64	8.31	7.59	10.36	32.62	32.62	32.01	32.83	32.42	30.57	33.34	33.14	30.06
	Haul Trucks	3.26	3.69	2.41	2.07	0.69	--	0.38	--	--	2.05	71.65	71.65	71.50	71.16	71.73	69.60	71.65	72.00	69.70
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		27.04	176.21	173.26	141.09	245.74	238.16	262.77	244.86	239.54	262.28	568.77	568.77	558.50	577.11	560.70	552.35	575.08	574.04	550.76
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	5.09	14.88	4.42	30.50	39.97	34.06	51.45	4.42	8.84	4.60	4.60	5.97	7.55	5.55	4.42	4.42	4.66	4.66	4.42
	Construction Worker Commuting	0.82	1.03	1.85	0.92	0.82	2.05	5.74	0.41	3.69	0.82	0.72	0.92	1.44	0.62	1.85	0.21	0.41	0.41	0.21
	Haul Trucks	0.17	0.17	0.76	0.72	--	--	13.72	--	1.00	--	--	0.50	0.74	--	0.24	0.07	--	--	0.07
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		6.08	16.08	7.02	32.14	40.79	36.12	70.91	4.83	13.53	5.42	5.32	7.39	9.73	6.17	6.51	4.69	5.07	5.07	4.69
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	9.50	30.50	30.50	30.50	30.50	34.06	45.84	45.84	38.48	53.42	53.42	53.42	30.14	51.45	51.45	51.45	51.45	51.45	25.72
	Construction Worker Commuting	1.85	0.92	0.92	0.92	0.92	2.05	2.46	2.46	2.77	2.87	2.87	2.87	3.59	5.74	5.74	5.74	5.74	5.74	2.87
	Haul Trucks	0.69	0.72	0.72	--	--	--	--	--	0.21	--	--	--	10.05	19.70	19.70	19.70	19.70	19.70	9.85
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		12.04	32.14	32.14	31.42	31.42	36.12	48.31	48.31	41.46	56.29	56.29	56.29	43.79	76.89	76.89	76.89	76.89	76.89	38.45
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	9.50	30.50	34.06	4.42	4.42	4.42	4.87	11.78	4.87	4.42	38.49	10.40	8.86	8.86	6.43	14.38	8.84	26.96	5.97
	Construction Worker Commuting	1.54	0.92	2.05	0.41	0.41	1.03	0.31	0.41	0.31	1.85	2.36	1.23	0.92	0.92	1.23	2.15	0.82	3.18	0.92
	Haul Trucks	0.41	0.54	--	--	--	--	0.10	9.58	0.10	0.45	--	--	--	--	--	0.23	0.34	0.45	0.69
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		11.45	31.96	36.12	4.83	4.83	5.44	5.28	21.77	5.28	6.71	40.85	11.63	9.78	9.78	7.66	16.76	10.01	30.59	7.58
GRAND TOTAL		56.61	256.39	248.53	209.48	322.78	315.83	387.27	319.76	299.81	330.70	671.23	644.08	621.80	669.95	651.75	650.69	667.05	686.60	601.48
Yolo County Total		56.61	256.39	248.53	209.48	322.78	315.83	387.27	319.76	299.81	330.70	671.23	644.08	621.80	669.95	651.75	650.69	667.05	686.60	601.48
Sutter County Total		27.04	176.21	173.26	141.09	245.74	238.16	262.77	244.86	239.54	262.28	568.77	568.77	558.50	577.11	560.70	552.35	575.08	574.04	550.76

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Table K-20. CO Detailed Summary (Alternative 6) - Uni

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	482.99	323.10	118.00	133.53	35.05	26.89	26.89	21.03	13.25	20.94
	Construction Worker Commuting	34.37	31.08	13.44	15.08	11.39	3.59	3.59	2.77	8.92	1.38
	Haul Trucks	79.16	79.16	39.75	39.75	2.61	--	--	2.95	1.65	2.68
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		596.51	433.34	171.19	188.35	49.05	30.48	30.48	26.75	23.83	25.00
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	5.92	4.42	0.28
	Construction Worker Commuting	--	--	--	--	--	--	--	0.82	0.51	0.13
	Haul Trucks	--	--	--	--	--	--	--	2.94	0.17	0.02
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	9.68	5.10	0.43
Downstream Channel											
3	Offroad Construction Equipment Exhaust	4.42	4.42	4.42	5.92	4.42	--	--	--	--	2.14
	Construction Worker Commuting	0.41	0.41	1.33	0.82	0.21	--	--	--	--	0.16
	Haul Trucks	--	--	0.62	2.95	0.07	--	--	--	--	0.34
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		4.83	4.83	6.37	9.69	4.69	--	--	--	--	2.64
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	5.59	--	10.34	4.42	--	--	--	--	--	0.31
	Construction Worker Commuting	0.72	--	1.33	0.21	--	--	--	--	--	0.02
	Haul Trucks	--	--	1.45	0.07	--	--	--	--	--	0.02
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		6.31	--	13.12	4.69	--	--	--	--	--	0.35
GRAND TOTAL		607.65	438.17	190.68	202.74	53.74	30.48	30.48	36.43	28.93	28.43
Yolo County Total		607.65	438.17	190.68	202.74	53.74	30.48	30.48	36.43	28.93	28.43
Sutter County Total		596.51	433.34	171.19	188.35	49.05	30.48	30.48	26.75	23.83	25.00

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-21. SO2 Detailed Summary (Alternative 1) - Unmitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.04	0.20	0.21	0.18	0.29	0.31	0.45	0.42	0.48	0.45	0.30	0.30	0.36	0.45	0.56	0.49	0.33	0.37	0.02
	Construction Worker Commuting	0.02	0.02	0.04	0.01	0.01	0.01	0.03	0.02	0.02	0.02	0.02	0.03	0.03	0.04	0.05	0.04	0.03	0.04	0.01
	Haul Trucks	0.04	0.03	0.05	--	--	--	0.02	0.00	--	--	--	0.26	0.65	0.60	0.64	0.64	0.40	0.66	0.02
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		0.10	0.25	0.29	0.19	0.31	0.32	0.49	0.44	0.50	0.47	0.32	0.59	1.04	1.09	1.25	1.17	0.75	1.07	0.06
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	0.02	0.05	0.01	0.03	0.15	0.12	0.29	0.01	0.02	0.03	0.03	0.02	0.04	0.03	0.01	0.01	0.01	0.01	0.01
	Construction Worker Commuting	0.00	0.00	0.01	0.00	0.00	0.01	0.02	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00
	Haul Trucks	0.00	0.00	0.02	0.01	--	--	0.29	--	0.02	--	--	0.01	0.02	--	0.00	0.00	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		0.02	0.06	0.03	0.05	0.16	0.13	0.60	0.01	0.06	0.03	0.03	0.03	0.06	0.03	0.02	0.01	0.01	0.01	0.01
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.03	0.03	0.03	0.03	0.03	0.12	0.15	0.15	0.13	0.19	0.19	0.19	0.16	0.29	0.29	0.29	0.29	0.29	0.14
	Construction Worker Commuting	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01
	Haul Trucks	0.01	0.01	0.01	--	--	--	--	--	0.00	--	--	--	0.21	0.40	0.40	0.40	0.40	0.40	0.20
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.05	0.05	0.05	0.03	0.03	0.13	0.16	0.16	0.15	0.20	0.20	0.20	0.38	0.72	0.72	0.72	0.72	0.72	0.36
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.03	0.03	0.12	0.01	0.01	0.01	0.01	0.03	0.01	0.01	0.13	0.03	0.02	0.02	0.02	0.05	0.02	0.11	0.02
	Construction Worker Commuting	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00
	Haul Trucks	0.01	0.01	--	--	--	--	0.00	0.20	0.00	0.01	--	--	--	--	--	0.00	0.01	0.01	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.04	0.04	0.13	0.01	0.01	0.01	0.02	0.23	0.02	0.03	0.14	0.03	0.03	0.03	0.03	0.06	0.03	0.13	0.04
GRAND TOTAL		0.21	0.39	0.50	0.28	0.51	0.59	1.27	0.85	0.72	0.74	0.69	0.86	1.50	1.86	2.01	1.96	1.51	1.92	0.47
Yolo County Total		0.19	0.34	0.47	0.23	0.35	0.46	0.67	0.84	0.67	0.71	0.66	0.83	1.45	1.83	1.99	1.94	1.50	1.91	0.45
Sutter County Total		0.02	0.06	0.03	0.05	0.16	0.13	0.60	0.01	0.06	0.03	0.03	0.03	0.06	0.03	0.02	0.01	0.01	0.01	0.01

Table K-21. SO2 Detailed Summary (Alternative 1) - Un

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	0.01	0.02	0.07	0.07	0.07	0.06	0.04	0.06	0.01	0.02
	Construction Worker Commuting	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.02	0.00	0.00
	Haul Trucks	--	0.00	--	--	--	--	--	0.08	0.00	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		0.01	0.02	0.08	0.08	0.08	0.07	0.05	0.16	0.02	0.03
Supplemental Fish Passage West											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.04	0.01	0.00
	Construction Worker Commuting	--	--	--	--	--	--	--	0.00	0.00	0.00
	Haul Trucks	--	--	--	--	--	--	--	0.06	0.00	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	0.10	0.02	0.00
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.01	0.01	0.01	0.04	0.01	--	--	--	--	0.01
	Construction Worker Commuting	0.00	0.00	0.01	0.00	0.00	--	--	--	--	0.00
	Haul Trucks	--	--	0.01	0.06	0.00	--	--	--	--	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.01	0.01	0.03	0.10	0.01	--	--	--	--	0.02
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.03	--	0.05	0.01	--	--	--	--	--	0.00
	Construction Worker Commuting	0.00	--	0.01	0.00	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.03	0.00	--	--	--	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.03	--	0.08	0.01	--	--	--	--	--	0.00
GRAND TOTAL		0.05	0.03	0.19	0.20	0.09	0.07	0.05	0.26	0.03	0.05
Yolo County Total		0.05	0.03	0.19	0.20	0.09	0.07	0.05	0.16	0.02	0.04
Sutter County Total		--	--	--	--	--	--	--	0.10	0.02	0.00

Table K-22. SO2 Detailed Summary (Alternative 2) - Unmitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.04	0.20	0.21	0.18	0.60	0.58	0.88	0.84	0.84	0.81	0.35	0.39	0.74	0.65	0.62	0.71	0.61	0.62	0.53
	Construction Worker Commuting	0.03	0.02	0.04	0.01	0.02	0.02	0.04	0.03	0.03	0.03	0.02	0.03	0.06	0.06	0.05	0.06	0.05	0.05	0.05
	Haul Trucks	0.05	0.03	0.05	--	0.01	--	0.01	--	--	--	--	0.41	0.93	0.93	0.93	0.92	0.90	0.89	0.68
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		0.11	0.25	0.29	0.19	0.64	0.60	0.93	0.87	0.87	0.84	0.37	0.83	1.74	1.64	1.61	1.69	1.56	1.56	1.26
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	0.02	0.05	0.01	0.03	0.15	0.12	0.29	0.01	0.02	0.03	0.03	0.02	0.04	0.03	0.01	0.01	0.01	0.01	0.01
	Construction Worker Commuting	0.00	0.00	0.01	0.00	0.00	0.01	0.02	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00
	Haul Trucks	0.00	0.00	0.02	0.01	--	--	0.29	--	0.02	--	--	0.01	0.02	--	0.00	0.00	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		0.02	0.06	0.03	0.05	0.16	0.13	0.60	0.01	0.06	0.03	0.03	0.03	0.06	0.03	0.02	0.01	0.01	0.01	0.01
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.03	0.03	0.03	0.03	0.03	0.12	0.15	0.15	0.13	0.19	0.19	0.19	0.16	0.29	0.29	0.29	0.29	0.29	0.14
	Construction Worker Commuting	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01
	Haul Trucks	0.01	0.01	0.01	--	--	--	--	--	0.00	--	--	--	0.21	0.40	0.40	0.40	0.40	0.40	0.20
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.05	0.05	0.05	0.03	0.03	0.13	0.16	0.16	0.15	0.20	0.20	0.20	0.38	0.72	0.72	0.72	0.72	0.72	0.36
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.03	0.03	0.12	0.01	0.01	0.01	0.01	0.03	0.01	0.01	0.13	0.03	0.02	0.02	0.02	0.05	0.02	0.11	0.02
	Construction Worker Commuting	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00
	Haul Trucks	0.01	0.01	--	--	--	--	0.00	0.20	0.00	0.01	--	--	--	--	--	0.00	0.01	0.01	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.04	0.04	0.13	0.01	0.01	0.01	0.02	0.23	0.02	0.03	0.14	0.03	0.03	0.03	0.03	0.06	0.03	0.13	0.04
River Grading Site																				
5	Offroad Construction Equipment Exhaust	0.05	0.07	0.23	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
	Construction Worker Commuting	--	--	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Haul Trucks	0.01	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	0.13	--	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
River Grading Site Subtotal		0.20	0.08	0.31	0.23	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
GRAND TOTAL		0.42	0.47	0.81	0.51	1.06	1.10	1.93	1.50	1.32	1.33	0.97	1.33	2.42	2.63	2.60	2.70	2.54	2.64	1.90
Yolo County Total		0.40	0.41	0.78	0.46	0.90	0.97	1.33	1.49	1.26	1.30	0.94	1.29	2.36	2.60	2.57	2.69	2.53	2.62	1.88
Sutter County Total		0.02	0.06	0.03	0.05	0.16	0.13	0.60	0.01	0.06	0.03	0.03	0.03	0.06	0.03	0.02	0.01	0.01	0.01	0.01

Table K-22. SO2 Detailed Summary (Alternative 2) - Un

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	0.31	0.03	0.03	0.07	0.07	0.06	0.06	0.06	0.01	0.03
	Construction Worker Commuting	0.03	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.00	0.00
	Haul Trucks	0.49	0.04	--	--	--	--	--	0.08	0.00	0.02
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		0.83	0.09	0.04	0.08	0.08	0.07	0.07	0.16	0.02	0.05
Supplemental Fish Passage West											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.04	0.01	0.00
	Construction Worker Commuting	--	--	--	--	--	--	--	0.00	0.00	0.00
	Haul Trucks	--	--	--	--	--	--	--	0.06	0.00	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	0.10	0.02	0.00
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.01	0.01	0.01	0.04	0.01	--	--	--	--	0.01
	Construction Worker Commuting	0.00	0.00	0.01	0.00	0.00	--	--	--	--	0.00
	Haul Trucks	--	--	0.01	0.06	0.00	--	--	--	--	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.01	0.01	0.03	0.10	0.01	--	--	--	--	0.02
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.03	--	0.05	0.01	--	--	--	--	--	0.00
	Construction Worker Commuting	0.00	--	0.01	0.00	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.03	0.00	--	--	--	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.03	--	0.08	0.01	--	--	--	--	--	0.00
River Grading Site											
5	Offroad Construction Equipment Exhaust	0.15	0.24	0.00	0.00	--	0.05	--	--	--	0.00
	Construction Worker Commuting	0.01	0.02	0.01	0.01	0.00	--	--	--	--	0.00
	Haul Trucks	--	0.20	0.20	0.20	--	0.01	--	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	0.07	0.07	--	--	--	--	--	--	--	0.01
River Grading Site Subtotal		0.22	0.52	0.21	0.22	0.00	0.06	--	--	--	0.02
GRAND TOTAL		1.09	0.63	0.37	0.41	0.10	0.14	0.07	0.26	0.03	0.09
Yolo County Total		1.09	0.63	0.37	0.41	0.10	0.14	0.07	0.16	0.02	0.08
Sutter County Total		--	--	--	--	--	--	--	0.10	0.02	0.00

Table K-23. SO2 Detailed Summary (Alternative 3) - Unmitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.04	0.20	0.21	0.18	0.60	0.58	0.88	0.87	0.87	0.84	0.84	1.10	1.16	1.35	0.62	0.71	0.61	0.62	0.82
	Construction Worker Commuting	0.03	0.02	0.04	0.01	0.02	0.02	0.04	0.04	0.04	0.03	0.03	0.05	0.07	0.08	0.05	0.06	0.05	0.05	0.07
	Haul Trucks	0.05	0.03	0.05	--	0.01	--	0.01	--	--	--	--	0.41	0.45	0.85	0.85	0.84	0.82	0.81	1.04
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		0.11	0.25	0.29	0.19	0.64	0.60	0.93	0.91	0.91	0.88	0.88	1.56	1.67	2.28	1.53	1.61	1.48	1.48	1.93
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	0.02	0.05	0.01	0.03	0.15	0.12	0.29	0.01	0.02	0.03	0.03	0.02	0.04	0.03	0.01	0.01	0.01	0.01	0.01
	Construction Worker Commuting	0.00	0.00	0.01	0.00	0.00	0.01	0.02	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00
	Haul Trucks	0.00	0.00	0.02	0.01	--	--	0.28	--	0.02	--	--	0.01	0.02	--	0.00	0.00	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		0.02	0.06	0.03	0.05	0.16	0.13	0.59	0.01	0.06	0.03	0.03	0.03	0.06	0.03	0.02	0.01	0.01	0.01	0.01
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.03	0.03	0.03	0.03	0.03	0.12	0.15	0.15	0.13	0.19	0.19	0.19	0.16	0.29	0.29	0.29	0.29	0.29	0.14
	Construction Worker Commuting	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01
	Haul Trucks	0.01	0.01	0.01	--	--	--	--	--	0.00	--	--	--	0.21	0.40	0.40	0.40	0.40	0.40	0.20
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.05	0.05	0.05	0.03	0.03	0.13	0.16	0.16	0.15	0.20	0.20	0.20	0.38	0.72	0.72	0.72	0.72	0.72	0.36
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.03	0.03	0.12	0.01	0.01	0.01	0.01	0.03	0.01	0.01	0.13	0.03	0.02	0.02	0.02	0.05	0.02	0.11	0.02
	Construction Worker Commuting	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00
	Haul Trucks	0.01	0.01	--	--	--	--	0.00	0.20	0.00	0.01	--	--	--	--	--	0.00	0.01	0.01	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.04	0.04	0.13	0.01	0.01	0.01	0.02	0.23	0.02	0.03	0.14	0.03	0.03	0.03	0.03	0.06	0.03	0.13	0.04
GRAND TOTAL		0.23	0.39	0.50	0.28	0.84	0.87	1.70	1.31	1.13	1.14	1.25	1.83	2.13	3.05	2.29	2.40	2.24	2.33	2.33
Yolo County Total		0.23	0.39	0.50	0.28	0.84	0.87	1.70	1.31	1.13	1.14	1.25	1.83	2.13	3.05	2.29	2.40	2.24	2.33	2.33
Sutter County Total		0.11	0.25	0.29	0.19	0.64	0.60	0.93	0.91	0.91	0.88	0.88	1.56	1.67	2.28	1.53	1.61	1.48	1.48	1.93

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Table K-23. SO2 Detailed Summary (Alternative 3) - U

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	0.61	0.31	0.32	0.07	0.07	0.06	0.06	0.06	0.01	0.04
	Construction Worker Commuting	0.07	0.02	0.03	0.01	0.01	0.01	0.01	0.02	0.00	0.00
	Haul Trucks	0.85	0.40	0.40	--	--	--	--	0.08	0.00	0.02
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		1.53	0.74	0.76	0.08	0.08	0.07	0.07	0.16	0.02	0.07
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.04	0.01	0.00
	Construction Worker Commuting	--	--	--	--	--	--	--	0.00	0.00	0.00
	Haul Trucks	--	--	--	--	--	--	--	0.06	0.00	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	0.10	0.02	0.00
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.01	0.01	0.01	0.04	0.01	--	--	--	--	0.01
	Construction Worker Commuting	0.00	0.00	0.01	0.00	0.00	--	--	--	--	0.00
	Haul Trucks	--	--	0.01	0.06	0.00	--	--	--	--	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.01	0.01	0.03	0.10	0.01	--	--	--	--	0.02
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.03	--	0.05	0.01	--	--	--	--	--	0.00
	Construction Worker Commuting	0.00	--	0.01	0.00	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.03	0.00	--	--	--	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.03	--	0.08	0.01	--	--	--	--	--	0.00
GRAND TOTAL		1.58	0.75	0.87	0.20	0.09	0.07	0.07	0.26	0.03	0.09
Yolo County Total		1.58	0.75	0.87	0.20	0.09	0.07	0.07	0.26	0.03	0.09
Sutter County Total		1.53	0.74	0.76	0.08	0.08	0.07	0.07	0.16	0.02	0.07

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-24. SO2 Detailed Summary (Alternative 4) - Unmitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.04	0.20	0.21	0.18	0.60	0.58	0.88	0.87	0.87	0.84	0.84	1.10	1.16	1.35	0.62	0.71	0.61	0.62	0.82
	Construction Worker Commuting	0.03	0.02	0.04	0.01	0.02	0.02	0.04	0.04	0.04	0.03	0.03	0.05	0.07	0.08	0.05	0.06	0.05	0.05	0.07
	Haul Trucks	0.05	0.03	0.05	--	0.01	--	0.01	--	--	--	--	0.41	0.45	0.85	0.85	0.84	0.82	0.81	1.04
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		0.11	0.25	0.29	0.19	0.64	0.60	0.93	0.91	0.91	0.88	0.88	1.56	1.67	2.28	1.53	1.61	1.48	1.48	1.93
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	0.02	0.05	0.01	0.03	0.15	0.12	0.29	0.01	0.02	0.03	0.03	0.02	0.04	0.03	0.01	0.01	0.01	0.01	0.01
	Construction Worker Commuting	0.00	0.00	0.01	0.00	0.00	0.01	0.02	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00
	Haul Trucks	0.00	0.00	0.02	0.01	--	--	0.28	--	0.02	--	--	0.01	0.02	--	0.00	0.00	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		0.02	0.06	0.03	0.05	0.16	0.13	0.59	0.01	0.06	0.03	0.03	0.03	0.06	0.03	0.02	0.01	0.01	0.01	0.01
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.03	0.03	0.03	0.03	0.03	0.12	0.15	0.15	0.13	0.19	0.19	0.19	0.16	0.29	0.29	0.29	0.29	0.29	0.14
	Construction Worker Commuting	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01
	Haul Trucks	0.01	0.01	0.01	--	--	--	--	--	0.00	--	--	--	0.21	0.40	0.40	0.40	0.40	0.40	0.20
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.05	0.05	0.05	0.03	0.03	0.13	0.16	0.16	0.15	0.20	0.20	0.20	0.38	0.72	0.72	0.72	0.72	0.72	0.36
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.03	0.03	0.12	0.01	0.01	0.01	0.01	0.03	0.01	0.01	0.13	0.03	0.02	0.02	0.02	0.05	0.02	0.11	0.02
	Construction Worker Commuting	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00
	Haul Trucks	0.01	0.01	--	--	--	--	0.00	0.20	0.00	0.01	--	--	--	--	0.00	0.01	0.01	0.01	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.04	0.04	0.13	0.01	0.01	0.01	0.02	0.23	0.02	0.03	0.14	0.03	0.03	0.03	0.03	0.06	0.03	0.13	0.04
Northern Water Control Structure Improvements																				
5	Offroad Construction Equipment Exhaust	0.04	0.12	0.13	0.31	0.34	0.43	0.34	0.24	0.22	0.34	0.06	0.03	0.04	0.02	0.04	0.05	0.05	0.02	0.01
	Construction Worker Commuting	0.01	0.01	0.01	0.01	0.02	0.02	0.03	0.02	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.00
	Haul Trucks	0.02	0.01	0.01	0.44	0.46	0.44	0.45	0.44	0.44	0.58	0.00	0.02	--	0.02	--	0.00	--	0.01	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Northern Water Control Structure Improvements Subtotal		0.07	0.14	0.16	0.77	0.82	0.90	0.82	0.70	0.68	0.94	0.07	0.06	0.04	0.04	0.04	0.05	0.05	0.03	0.01
Southern Water Control Structure Improvements																				
6	Offroad Construction Equipment Exhaust	0.04	0.15	0.16	0.22	0.34	0.43	0.64	0.54	0.52	0.64	0.55	0.38	0.39	0.38	0.39	0.40	0.40	0.38	0.36
	Construction Worker Commuting	0.01	0.01	0.01	0.01	0.02	0.02	0.04	0.03	0.03	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
	Haul Trucks	0.02	0.03	0.03	0.62	0.64	0.62	0.63	0.62	0.62	1.06	1.06	1.07	1.06	1.08	1.06	1.06	1.06	1.07	1.06
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Southern Water Control Structure Improvements Subtotal		0.07	0.19	0.21	0.85	1.00	1.07	1.31	1.19	1.17	1.74	1.64	1.48	1.48	1.48	1.48	1.49	1.49	1.47	1.45
GRAND TOTAL		0.37	0.72	0.87	1.90	2.66	2.84	3.83	3.20	2.98	3.82	2.96	3.38	3.66	4.58	3.81	3.94	3.78	3.84	3.80
Yolo County Total		0.37	0.72	0.87	1.90	2.66	2.84	3.83	3.20	2.98	3.82	2.96	3.38	3.66	4.58	3.81	3.94	3.78	3.84	3.80
Sutter County Total		0.11	0.25	0.29	0.19	0.64	0.60	0.93	0.91	0.91	0.88	0.88	1.56	1.67	2.28	1.53	1.61	1.48	1.48	1.93

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Table K-24. SO2 Detailed Summary (Alternative 4) - U

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	0.61	0.31	0.32	0.06	0.06	0.06	0.06	0.06	0.01	0.04
	Construction Worker Commuting	0.07	0.02	0.03	0.01	0.01	0.01	0.01	0.02	0.00	0.00
	Haul Trucks	0.85	0.40	0.40	--	--	--	--	0.08	0.00	0.02
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		1.53	0.74	0.76	0.08	0.08	0.07	0.07	0.16	0.02	0.07
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.04	0.01	0.00
	Construction Worker Commuting	--	--	--	--	--	--	--	0.00	0.00	0.00
	Haul Trucks	--	--	--	--	--	--	--	0.06	0.00	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	0.10	0.02	0.00
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.01	0.01	0.01	0.04	0.01	--	--	--	--	0.01
	Construction Worker Commuting	0.00	0.00	0.01	0.00	0.00	--	--	--	--	0.00
	Haul Trucks	--	--	0.01	0.06	0.00	--	--	--	--	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.01	0.01	0.03	0.10	0.01	--	--	--	--	0.02
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.03	--	0.05	0.01	--	--	--	--	--	0.00
	Construction Worker Commuting	0.00	--	0.01	0.00	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.03	0.00	--	--	--	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.03	--	0.08	0.01	--	--	--	--	--	0.00
Northern Water Control Structure Improvements											
5	Offroad Construction Equipment Exhaust	0.01	0.01	0.05	0.01	--	--	--	--	--	0.01
	Construction Worker Commuting	0.00	0.00	0.00	0.00	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.07	0.00	--	--	--	--	--	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Northern Water Control Structure Improvements Subtotal		0.02	0.02	0.12	0.01	--	--	--	--	--	0.02
Southern Water Control Structure Improvements											
6	Offroad Construction Equipment Exhaust	0.09	0.09	0.06	0.01	--	--	--	--	--	0.02
	Construction Worker Commuting	0.01	0.01	0.01	0.00	--	--	--	--	--	0.00
	Haul Trucks	0.62	0.64	0.08	0.00	--	--	--	--	--	0.05
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Southern Water Control Structure Improvements Subtotal		0.72	0.74	0.14	0.01	--	--	--	--	--	0.07
GRAND TOTAL		2.31	1.50	1.13	0.22	0.09	0.07	0.07	0.26	0.03	0.18
Yolo County Total		2.31	1.50	1.13	0.22	0.09	0.07	0.07	0.26	0.03	0.18
Sutter County Total		1.53	0.74	0.76	0.08	0.08	0.07	0.07	0.16	0.02	0.07

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-25. SO2 Detailed Summary (Alternative 5) - Unmitigated

#	Activity	Ma																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.18	0.53	1.79	2.28	2.76	2.64	2.21	2.64	1.38	1.24	1.17	0.91	1.37	1.24	1.16	0.99	0.99	0.57	0.12
	Construction Worker Commuting	0.06	0.05	0.07	0.05	0.08	0.07	0.05	0.08	0.10	0.09	0.09	0.07	0.10	0.09	0.08	0.09	0.09	0.06	0.01
	Haul Trucks	0.12	0.04	0.04	--	0.01	0.01	0.01	0.73	1.44	1.43	1.43	1.43	1.43	1.43	1.43	1.51	1.51	0.80	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		0.36	0.62	1.91	2.33	2.85	2.73	2.27	3.45	2.92	2.77	2.69	2.41	2.89	2.77	2.68	2.60	2.60	1.43	0.12
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	0.02	0.05	0.01	0.03	0.15	0.12	0.29	0.01	0.02	0.03	0.03	0.02	0.04	0.03	0.01	0.01	0.01	0.01	0.01
	Construction Worker Commuting	0.00	0.00	0.01	0.00	0.00	0.01	0.02	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00
	Haul Trucks	0.00	0.00	0.02	0.01	--	--	0.29	--	0.02	--	--	0.01	0.02	--	0.00	0.00	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		0.02	0.06	0.03	0.05	0.16	0.13	0.60	0.01	0.06	0.03	0.03	0.03	0.06	0.03	0.02	0.01	0.01	0.01	0.01
Agricultural Crossing 1																				
3	Offroad Construction Equipment Exhaust	0.03	0.03	0.12	0.01	0.01	0.01	0.01	0.03	0.01	0.01	0.13	0.03	0.02	0.02	0.02	0.05	0.02	0.11	0.02
	Construction Worker Commuting	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00
	Haul Trucks	0.01	0.01	--	--	--	--	0.00	0.20	0.00	0.01	--	--	--	--	--	0.00	0.01	0.01	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.04	0.04	0.13	0.01	0.01	0.01	0.02	0.23	0.02	0.03	0.14	0.03	0.03	0.03	0.03	0.06	0.03	0.13	0.04
River Grading Site																				
4	Offroad Construction Equipment Exhaust	0.05	0.07	0.23	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
	Construction Worker Commuting	--	--	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Haul Trucks	0.01	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	0.13	--	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
River Grading Site Subtotal		0.20	0.08	0.31	0.23	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
GRAND TOTAL		0.63	0.80	2.38	2.61	3.25	3.09	3.11	3.92	3.21	3.05	3.08	2.71	3.20	3.04	2.95	2.90	2.86	1.80	0.40
Yolo County Total		0.60	0.74	2.34	2.56	3.09	2.96	2.51	3.91	3.16	3.02	3.05	2.67	3.15	3.02	2.93	2.88	2.85	1.79	0.38
Sutter County Total		0.02	0.06	0.03	0.05	0.16	0.13	0.60	0.01	0.06	0.03	0.03	0.03	0.06	0.03	0.02	0.01	0.01	0.01	0.01

Table K-25. SO2 Detailed Summary (Alternative 5) - U

#	Activity	Maximum Daily Emissions, lbs/day																		
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.03	0.04	0.04	0.15	0.13	0.01	0.05	0.00	0.00	0.02	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
	Construction Worker Commuting	0.00	0.00	0.00	0.06	0.02	0.04	0.01	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	Haul Trucks	0.01	--	--	0.19	0.08	0.03	0.07	--	--	0.03	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		0.04	0.04	0.04	0.40	0.23	0.08	0.12	--	--	0.06	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.04	0.01	--	--	--	--	--	--	--	--	--	--
	Construction Worker Commuting	--	--	--	--	--	--	--	0.00	0.00	--	--	--	--	--	--	--	--	--	--
	Haul Trucks	--	--	--	--	--	--	--	0.06	0.00	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	0.10	0.02	--	--	--	--	--	--	--	--	--	--
Agricultural Crossing 1																				
3	Offroad Construction Equipment Exhaust	0.03	--	0.05	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Construction Worker Commuting	0.00	--	0.01	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Haul Trucks	--	--	0.03	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.03	--	0.08	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
River Grading Site																				
4	Offroad Construction Equipment Exhaust	0.15	0.24	0.00	0.00	--	0.05	--	--	--	--	--	--	--	--	--	--	--	--	--
	Construction Worker Commuting	0.01	0.02	0.01	0.01	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Haul Trucks	--	0.20	0.20	0.20	--	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	0.07	0.07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
River Grading Site Subtotal		0.22	0.52	0.21	0.22	0.00	0.06	--	--	--	--	--	--	--	--	--	--	--	--	--
GRAND TOTAL		0.30	0.56	0.34	0.63	0.24	0.15	0.12	0.10	0.02	0.06	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Yolo County Total		0.30	0.56	0.34	0.63	0.24	0.15	0.12	--	--	0.06	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Sutter County Total		--	--	--	--	--	--	--	0.10	0.02	--	--	--	--	--	--	--	--	--	--

Table K-25. SO2 Detailed Summary (Alternative 5) - U

#	Activity	24-Jun	1-Jul	8-Jul	Annual Emissions, tpy	Year 1, tpy	Year 2, tpy
Intake Channel, Headworks, and Outlet Channel							
1	Offroad Construction Equipment Exhaust	0.04	0.02	0.00	0.14	0.13	0.00
	Construction Worker Commuting	0.01	0.00	0.00	0.00	0.00	0.00
	Haul Trucks	--	0.03	--	0.04	0.04	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		0.05	0.06	--	0.18	0.17	0.00
Supplemental Fish Passage West							
2	Offroad Construction Equipment Exhaust	--	--	--	0.00	0.00	--
	Construction Worker Commuting	--	--	--	0.00	0.00	--
	Haul Trucks	--	--	--	0.00	0.00	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		--	--	--	0.00	0.00	--
Agricultural Crossing 1							
3	Offroad Construction Equipment Exhaust	--	--	--	0.00	0.00	--
	Construction Worker Commuting	--	--	--	0.00	0.00	--
	Haul Trucks	--	--	--	0.00	0.00	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		--	--	--	0.00	0.00	--
River Grading Site							
4	Offroad Construction Equipment Exhaust	--	--	--	0.00	0.00	--
	Construction Worker Commuting	--	--	--	0.00	0.00	--
	Haul Trucks	--	--	--	0.00	0.00	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	--	--	--	0.01	0.01	--
River Grading Site Subtotal		--	--	--	0.02	0.02	--
GRAND TOTAL		0.05	0.06	--	0.20	0.19	0.00
Yolo County Total		0.05	0.06	--	0.20	0.19	0.00
Sutter County Total		--	--	--	0.00	0.00	--

Table K-26. SO2 Detailed Summary (Alternative 6) - Unmitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.04	0.29	0.33	0.23	0.86	0.84	0.99	0.94	0.92	0.97	2.06	2.06	2.04	2.12	2.04	2.03	2.09	2.07	2.01
	Construction Worker Commuting	0.04	0.05	0.03	0.02	0.03	0.03	0.04	0.03	0.03	0.04	0.13	0.13	0.12	0.13	0.13	0.12	0.13	0.13	0.12
	Haul Trucks	0.07	0.08	0.05	0.04	0.01	--	0.01	--	--	0.04	1.47	1.47	1.47	1.46	1.47	1.43	1.47	1.48	1.43
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		0.14	0.42	0.41	0.29	0.90	0.87	1.03	0.97	0.95	1.06	3.66	3.66	3.63	3.71	3.64	3.58	3.69	3.68	3.56
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	0.02	0.05	0.01	0.03	0.15	0.12	0.29	0.01	0.02	0.03	0.03	0.02	0.04	0.03	0.01	0.01	0.01	0.01	0.01
	Construction Worker Commuting	0.00	0.00	0.01	0.00	0.00	0.01	0.02	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00
	Haul Trucks	0.00	0.00	0.02	0.01	--	--	0.28	--	0.02	--	--	0.01	0.02	--	0.00	0.00	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		0.02	0.06	0.03	0.05	0.16	0.13	0.59	0.01	0.06	0.03	0.03	0.03	0.06	0.03	0.02	0.01	0.01	0.01	0.01
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.03	0.03	0.03	0.03	0.03	0.12	0.15	0.15	0.13	0.19	0.19	0.19	0.16	0.29	0.29	0.29	0.29	0.29	0.14
	Construction Worker Commuting	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01
	Haul Trucks	0.01	0.01	0.01	--	--	--	--	--	0.00	--	--	--	0.21	0.40	0.40	0.40	0.40	0.40	0.20
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.05	0.05	0.05	0.03	0.03	0.13	0.16	0.16	0.15	0.20	0.20	0.20	0.38	0.72	0.72	0.72	0.72	0.72	0.36
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.03	0.03	0.12	0.01	0.01	0.01	0.01	0.03	0.01	0.01	0.13	0.03	0.02	0.02	0.02	0.05	0.02	0.11	0.02
	Construction Worker Commuting	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00
	Haul Trucks	0.01	0.01	--	--	--	--	0.00	0.20	0.00	0.01	--	--	--	--	--	0.00	0.01	0.01	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.04	0.04	0.13	0.01	0.01	0.01	0.02	0.23	0.02	0.03	0.14	0.03	0.03	0.03	0.03	0.06	0.03	0.13	0.04
GRAND TOTAL		0.25	0.56	0.62	0.39	1.11	1.14	1.80	1.38	1.16	1.32	4.03	3.93	4.09	4.48	4.41	4.37	4.45	4.53	3.97
Yolo County Total		0.25	0.56	0.62	0.39	1.11	1.14	1.80	1.38	1.16	1.32	4.03	3.93	4.09	4.48	4.41	4.37	4.45	4.53	3.97
Sutter County Total		0.14	0.42	0.41	0.29	0.90	0.87	1.03	0.97	0.95	1.06	3.66	3.66	3.63	3.71	3.64	3.58	3.69	3.68	3.56

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Table K-26. SO2 Detailed Summary (Alternative 6) - U

#	Activity	26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	Annual Emissions, tpy
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	2.17	1.55	0.61	0.67	0.11	0.09	0.09	0.07	0.03	0.09
	Construction Worker Commuting	0.13	0.12	0.05	0.06	0.04	0.01	0.01	0.01	0.03	0.01
	Haul Trucks	1.62	1.62	0.81	0.81	0.05	--	--	0.06	0.03	0.06
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		3.93	3.30	1.48	1.55	0.21	0.10	0.10	0.14	0.10	0.15
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.04	0.01	0.00
	Construction Worker Commuting	--	--	--	--	--	--	--	0.00	0.00	0.00
	Haul Trucks	--	--	--	--	--	--	--	0.06	0.00	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	0.10	0.02	0.00
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.01	0.01	0.01	0.04	0.01	--	--	--	--	0.01
	Construction Worker Commuting	0.00	0.00	0.01	0.00	0.00	--	--	--	--	0.00
	Haul Trucks	--	--	0.01	0.06	0.00	--	--	--	--	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.01	0.01	0.03	0.10	0.01	--	--	--	--	0.02
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.03	--	0.05	0.01	--	--	--	--	--	0.00
	Construction Worker Commuting	0.00	--	0.01	0.00	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.03	0.00	--	--	--	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.03	--	0.08	0.01	--	--	--	--	--	0.00
GRAND TOTAL		3.97	3.31	1.59	1.66	0.22	0.10	0.10	0.24	0.12	0.17
Yolo County Total		3.97	3.31	1.59	1.66	0.22	0.10	0.10	0.24	0.12	0.17
Sutter County Total		3.93	3.30	1.48	1.55	0.21	0.10	0.10	0.14	0.10	0.15

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-27. PM10 Detailed Summary (Alternative 1) - Unmitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.44	3.61	3.73	3.27	5.02	5.30	7.44	6.28	7.16	6.93	4.25	4.55	3.99	4.23	5.64	4.88	3.30	4.11	0.35
	Construction Worker Commuting	2.20	1.74	4.03	1.60	1.56	1.33	2.93	2.66	2.70	2.38	2.02	3.21	3.94	4.22	5.32	5.13	3.03	4.17	1.56
	Haul Trucks	1.15	0.86	1.32	--	--	--	0.42	0.07	--	--	--	7.18	17.74	16.23	17.35	17.35	10.84	18.00	0.63
	Fugitive Dust	--	3.72	3.72	3.59	8.22	10.78	232.91	117.70	120.25	120.25	115.21	112.65	1.65	3.30	3.30	3.30	3.30	3.30	--
Intake Channel, Headworks, and Outlet Channel Subtotal		3.79	9.94	12.81	8.47	14.80	17.41	243.70	126.70	130.12	129.57	121.48	127.59	27.32	27.98	31.60	30.65	20.46	29.57	2.55
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	0.20	0.57	0.12	0.66	2.68	1.86	2.59	0.17	0.24	0.23	0.23	0.39	0.60	0.41	0.12	0.12	0.11	0.11	0.12
	Construction Worker Commuting	0.37	0.46	0.83	0.41	0.37	0.92	2.57	0.18	1.65	0.37	0.32	0.41	0.64	0.28	0.83	0.09	0.18	0.18	0.09
	Haul Trucks	0.10	0.10	0.42	0.40	--	--	7.84	--	0.56	--	--	0.28	0.42	--	0.13	0.04	--	--	0.04
	Fugitive Dust	--	0.13	--	0.53	223.49	--	3.30	--	--	215.51	--	--	--	--	--	--	--	--	--
Supplemental Fish Passage West Subtotal		0.66	1.25	1.37	2.01	226.53	2.78	16.29	0.36	2.45	216.10	0.55	1.08	1.66	0.69	1.08	0.25	0.29	0.29	0.25
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.32	0.66	0.66	0.66	0.66	1.86	2.54	2.54	1.99	2.87	2.87	2.87	1.41	2.59	2.59	2.59	2.59	2.59	1.29
	Construction Worker Commuting	0.83	0.41	0.41	0.41	0.41	0.92	1.10	1.10	1.24	1.28	1.28	1.28	1.60	2.57	2.57	2.57	2.57	2.57	1.28
	Haul Trucks	0.38	0.40	0.40	--	--	--	--	--	0.12	--	--	--	5.61	11.00	11.00	11.00	11.00	11.00	5.50
	Fugitive Dust	--	0.53	0.53	0.53	0.53	112.65	115.71	115.71	112.65	115.53	115.53	115.53	1.65	3.30	3.30	3.30	3.30	3.30	1.65
Downstream Channel Subtotal		1.53	2.01	2.01	1.61	1.61	115.43	119.35	119.35	115.99	119.68	119.68	119.68	10.28	19.44	19.44	19.44	19.44	19.44	9.72
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.32	0.66	1.86	0.17	0.17	0.12	0.15	0.68	0.15	0.12	2.10	0.62	0.52	0.52	0.45	0.91	0.35	1.28	0.39
	Construction Worker Commuting	0.69	0.41	0.92	0.18	0.18	0.46	0.14	0.18	0.14	0.83	1.05	0.55	0.41	0.41	0.55	0.96	0.37	1.42	0.41
	Haul Trucks	0.23	0.30	--	--	--	--	0.06	5.35	0.06	0.25	--	--	--	--	--	0.13	0.19	0.25	0.38
	Fugitive Dust	--	0.21	112.65	--	--	--	--	2.74	--	--	112.65	--	--	--	--	--	--	--	--
Agricultural Crossing 1 Subtotal		1.24	1.58	115.43	0.36	0.36	0.58	0.35	8.94	0.35	1.20	115.80	1.17	0.93	0.93	1.00	2.00	0.91	2.95	1.19
GRAND TOTAL		7.21	14.78	131.62	12.44	243.29	136.20	379.68	255.35	248.91	466.55	357.51	249.52	40.18	49.04	53.13	52.35	41.11	52.26	13.71
Yolo County Total		6.55	13.53	130.25	10.43	16.76	133.42	363.39	254.99	246.46	250.45	356.96	248.44	38.53	48.35	52.05	52.10	40.82	51.97	13.46
Sutter County Total		0.66	1.25	1.37	2.01	226.53	2.78	16.29	0.36	2.45	216.10	0.55	1.08	1.66	0.69	1.08	0.25	0.29	0.29	0.25

Table K-27. PM10 Detailed Summary (Alternative 1) - I

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	0.23	0.35	1.12	1.12	1.12	1.00	0.59	0.66	0.12	0.24
	Construction Worker Commuting	0.14	0.23	1.33	1.33	1.33	1.33	1.05	2.75	0.23	0.15
	Haul Trucks	--	0.00	--	--	--	--	--	2.10	0.10	0.25
	Fugitive Dust	--	--	--	--	--	--	--	0.21	--	2.28
Intake Channel, Headworks, and Outlet Channel Subtotal		0.37	0.59	2.45	2.45	2.45	2.33	1.64	5.72	0.45	2.92
Supplemental Fish Passage West											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.41	0.12	0.01
	Construction Worker Commuting	--	--	--	--	--	--	--	0.37	0.23	0.04
	Haul Trucks	--	--	--	--	--	--	--	1.65	0.10	0.01
	Fugitive Dust	--	--	--	--	--	--	--	0.53	--	0.09
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	2.96	0.45	0.16
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.17	0.17	0.12	0.41	0.12	--	--	--	--	0.10
	Construction Worker Commuting	0.18	0.18	0.60	0.37	0.09	--	--	--	--	0.07
	Haul Trucks	--	--	0.35	1.65	0.04	--	--	--	--	0.19
	Fugitive Dust	--	--	--	0.53	--	--	--	--	--	2.36
Downstream Channel Subtotal		0.36	0.36	1.06	2.96	0.25	--	--	--	--	2.72
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.48	--	0.53	0.12	--	--	--	--	--	0.02
	Construction Worker Commuting	0.32	--	0.60	0.09	--	--	--	--	--	0.01
	Haul Trucks	--	--	0.81	0.04	--	--	--	--	--	0.01
	Fugitive Dust	--	--	0.21	--	--	--	--	--	--	0.17
Agricultural Crossing 1 Subtotal		0.80	--	2.15	0.25	--	--	--	--	--	0.20
GRAND TOTAL		1.53	0.94	5.66	5.66	2.70	2.33	1.64	8.67	0.89	6.01
Yolo County Total		1.53	0.94	5.66	5.66	2.70	2.33	1.64	5.72	0.45	5.85
Sutter County Total		--	--	--	--	--	--	--	2.96	0.45	0.16

Table K-28. PM10 Detailed Summary (Alternative 2) - Unmitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.44	3.61	3.73	3.27	10.37	9.98	14.66	13.38	13.38	13.15	5.12	3.97	7.73	6.57	5.90	6.94	5.79	5.88	5.76
	Construction Worker Commuting	3.21	1.74	4.03	1.60	2.29	1.88	4.58	3.99	3.99	3.67	2.57	3.30	7.10	6.51	6.23	6.60	5.68	5.59	5.55
	Haul Trucks	1.32	0.88	1.34	--	0.38	--	0.21	--	--	--	--	11.04	25.37	25.37	25.32	25.13	24.57	24.25	18.61
	Fugitive Dust	--	5.66	5.66	5.53	29.31	29.31	360.96	245.25	245.25	245.25	220.41	3.30	6.60	6.60	6.60	6.60	6.60	6.60	4.95
Intake Channel, Headworks, and Outlet Channel Subtotal		4.97	11.90	14.77	10.41	42.35	41.17	380.41	262.61	262.61	262.07	228.09	21.61	46.80	45.05	44.05	45.26	42.64	42.32	34.86
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	0.20	0.57	0.12	0.66	2.68	1.86	2.59	0.17	0.24	0.23	0.23	0.39	0.60	0.41	0.12	0.12	0.11	0.11	0.12
	Construction Worker Commuting	0.37	0.46	0.83	0.41	0.37	0.92	2.57	0.18	1.65	0.37	0.32	0.41	0.64	0.28	0.83	0.09	0.18	0.18	0.09
	Haul Trucks	0.10	0.10	0.42	0.40	--	--	7.84	--	0.56	--	--	0.28	0.42	--	0.13	0.04	--	--	0.04
	Fugitive Dust	--	0.13	--	0.53	223.49	--	3.30	--	--	215.51	--	--	--	--	--	--	--	--	--
Supplemental Fish Passage West Subtotal		0.66	1.25	1.37	2.01	226.53	2.78	16.29	0.36	2.45	216.10	0.55	1.08	1.66	0.69	1.08	0.25	0.29	0.29	0.25
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.32	0.66	0.66	0.66	0.66	1.86	2.54	2.54	1.99	2.87	2.87	2.87	1.41	2.59	2.59	2.59	2.59	2.59	1.29
	Construction Worker Commuting	0.83	0.41	0.41	0.41	0.41	0.92	1.10	1.10	1.24	1.28	1.28	1.28	1.60	2.57	2.57	2.57	2.57	2.57	1.28
	Haul Trucks	0.38	0.40	0.40	--	--	--	--	--	0.12	--	--	--	5.61	11.00	11.00	11.00	11.00	11.00	5.50
	Fugitive Dust	--	0.53	0.53	0.53	0.53	112.65	115.71	115.71	112.65	115.53	115.53	115.53	1.65	3.30	3.30	3.30	3.30	3.30	1.65
Downstream Channel Subtotal		1.53	2.01	2.01	1.61	1.61	115.43	119.35	119.35	115.99	119.68	119.68	119.68	10.28	19.44	19.44	19.44	19.44	19.44	9.72
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.32	0.66	1.86	0.17	0.17	0.12	0.15	0.68	0.15	0.12	2.10	0.62	0.52	0.52	0.45	0.91	0.35	1.28	0.39
	Construction Worker Commuting	0.69	0.41	0.92	0.18	0.18	0.46	0.14	0.18	0.14	0.83	1.05	0.55	0.41	0.41	0.55	0.96	0.37	1.42	0.41
	Haul Trucks	0.23	0.30	--	--	--	--	0.06	5.35	0.06	0.25	--	--	--	--	--	0.13	0.19	0.25	0.38
	Fugitive Dust	--	0.21	112.65	--	--	--	--	2.74	--	--	112.65	--	--	--	--	--	--	--	--
Agricultural Crossing 1 Subtotal		1.24	1.58	115.43	0.36	0.36	0.58	0.35	8.94	0.35	1.20	115.80	1.17	0.93	0.93	1.00	2.00	0.91	2.95	1.19
River Grading Site																				
5	Offroad Construction Equipment Exhaust	0.73	1.30	2.28	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40
	Construction Worker Commuting	--	--	0.69	0.87	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
	Haul Trucks	0.29	0.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	0.53	6.29	6.29	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53
	Marine Equipment Exhaust	1.01	--	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51
River Grading Site Subtotal		2.56	7.69	9.76	3.31	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13
GRAND TOTAL		10.95	24.43	143.34	17.69	273.97	163.09	519.52	394.39	384.53	602.17	467.25	146.67	62.79	69.23	68.71	70.09	66.42	68.14	49.16
Yolo County Total		10.30	23.18	141.97	15.68	47.44	160.31	503.23	394.03	382.08	386.07	466.70	145.59	61.13	68.55	67.63	69.84	66.13	67.84	48.90
Sutter County Total		0.66	1.25	1.37	2.01	226.53	2.78	16.29	0.36	2.45	216.10	0.55	1.08	1.66	0.69	1.08	0.25	0.29	0.29	0.25

Table K-28. PM10 Detailed Summary (Alternative 2) - I

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	2.94	0.48	0.54	1.12	1.12	1.00	1.00	0.66	0.12	0.41
	Construction Worker Commuting	2.93	2.66	0.87	1.33	1.33	1.33	1.33	2.75	0.23	0.23
	Haul Trucks	13.41	1.07	--	--	--	--	--	2.16	0.10	0.51
	Fugitive Dust	3.30	--	--	--	--	--	--	0.53	--	3.73
Intake Channel, Headworks, and Outlet Channel Subtotal		22.58	4.21	1.41	2.45	2.45	2.33	2.33	6.09	0.45	4.88
Supplemental Fish Passage West											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.41	0.12	0.01
	Construction Worker Commuting	--	--	--	--	--	--	--	0.37	0.23	0.04
	Haul Trucks	--	--	--	--	--	--	--	1.65	0.10	0.01
	Fugitive Dust	--	--	--	--	--	--	--	0.53	--	0.09
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	2.96	0.45	0.16
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.17	0.17	0.12	0.41	0.12	--	--	--	--	0.10
	Construction Worker Commuting	0.18	0.18	0.60	0.37	0.09	--	--	--	--	0.07
	Haul Trucks	--	--	0.35	1.65	0.04	--	--	--	--	0.19
	Fugitive Dust	--	--	--	0.53	--	--	--	--	--	2.36
Downstream Channel Subtotal		0.36	0.36	1.06	2.96	0.25	--	--	--	--	2.72
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.48	--	0.53	0.12	--	--	--	--	--	0.02
	Construction Worker Commuting	0.32	--	0.60	0.09	--	--	--	--	--	0.01
	Haul Trucks	--	--	0.81	0.04	--	--	--	--	--	0.01
	Fugitive Dust	--	--	0.21	--	--	--	--	--	--	0.17
Agricultural Crossing 1 Subtotal		0.80	--	2.15	0.25	--	--	--	--	--	0.20
River Grading Site											
5	Offroad Construction Equipment Exhaust	1.40	2.34	0.06	0.06	--	0.73	--	--	--	0.04
	Construction Worker Commuting	0.69	1.97	1.28	1.47	0.18	--	--	--	--	0.05
	Haul Trucks	--	5.45	5.45	5.45	--	0.29	--	--	--	0.05
	Fugitive Dust	0.53	6.29	--	--	--	0.53	--	--	--	0.01
	Marine Equipment Exhaust	0.51	0.51	--	--	--	--	--	--	--	0.08
River Grading Site Subtotal		3.13	16.55	6.79	6.97	0.18	1.55	--	--	--	0.23
GRAND TOTAL		26.86	21.11	11.41	12.64	2.89	3.88	2.33	9.05	0.89	8.20
Yolo County Total		26.86	21.11	11.41	12.64	2.89	3.88	2.33	6.09	0.45	8.04
Sutter County Total		--	--	--	--	--	--	--	2.96	0.45	0.16

Table K-29. PM10 Detailed Summary (Alternative 3) - Unmitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.44	3.61	3.73	3.27	10.37	9.98	14.66	14.06	14.06	13.83	13.83	15.74	16.91	18.34	5.90	6.94	5.79	5.88	8.35
	Construction Worker Commuting	3.21	1.74	4.03	1.60	2.29	1.88	4.58	4.17	4.17	3.85	3.85	6.23	7.47	9.44	6.23	6.60	5.68	5.59	8.11
	Haul Trucks	1.32	0.87	1.33	--	0.38	--	0.21	--	--	--	--	11.10	12.19	23.14	23.12	22.93	22.37	22.05	28.18
	Fugitive Dust	--	5.66	5.66	5.53	29.31	29.31	360.96	248.30	248.30	248.30	248.30	248.54	248.54	251.84	6.60	6.60	6.60	6.60	8.24
Intake Channel, Headworks, and Outlet Channel Subtotal		4.97	11.89	14.76	10.41	42.36	41.17	380.41	266.53	266.53	265.98	265.98	281.61	285.12	302.76	41.85	43.06	40.44	40.12	52.88
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	0.20	0.57	0.12	0.66	2.68	1.86	2.59	0.17	0.24	0.23	0.23	0.39	0.60	0.41	0.12	0.12	0.11	0.11	0.12
	Construction Worker Commuting	0.37	0.46	0.83	0.41	0.37	0.92	2.57	0.18	1.65	0.37	0.32	0.41	0.64	0.28	0.83	0.09	0.18	0.18	0.09
	Haul Trucks	0.10	0.10	0.42	0.40	--	--	7.66	--	0.56	--	--	0.28	0.42	--	0.13	0.04	--	--	0.04
	Fugitive Dust	--	0.13	--	0.53	223.53	--	3.30	--	--	215.51	--	--	--	--	--	--	--	--	--
Supplemental Fish Passage East Subtotal		0.66	1.25	1.37	2.01	226.58	2.78	16.11	0.36	2.45	216.10	0.55	1.08	1.66	0.69	1.08	0.25	0.29	0.29	0.25
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.32	0.66	0.66	0.66	0.66	1.86	2.54	2.54	1.99	2.87	2.87	2.87	1.41	2.59	2.59	2.59	2.59	2.59	1.29
	Construction Worker Commuting	0.83	0.41	0.41	0.41	0.41	0.92	1.10	1.10	1.24	1.28	1.28	1.28	1.60	2.57	2.57	2.57	2.57	2.57	1.28
	Haul Trucks	0.38	0.40	0.40	--	--	--	--	--	0.12	--	--	--	5.61	11.00	11.00	11.00	11.00	11.00	5.50
	Fugitive Dust	--	0.53	0.53	0.53	0.53	112.65	115.71	115.71	112.65	115.53	115.53	115.53	1.65	3.30	3.30	3.30	3.30	3.30	1.65
Downstream Channel Subtotal		1.53	2.01	2.01	1.61	1.61	115.43	119.35	119.35	115.99	119.68	119.68	119.68	10.28	19.44	19.44	19.44	19.44	19.44	9.72
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.32	0.66	1.86	0.17	0.17	0.12	0.15	0.68	0.15	0.12	2.10	0.62	0.52	0.52	0.45	0.91	0.35	1.28	0.39
	Construction Worker Commuting	0.69	0.41	0.92	0.18	0.18	0.46	0.14	0.18	0.14	0.83	1.05	0.55	0.41	0.41	0.55	0.96	0.37	1.42	0.41
	Haul Trucks	0.23	0.30	--	--	--	--	0.06	5.35	0.06	0.25	--	--	--	--	--	0.13	0.19	0.25	0.38
	Fugitive Dust	--	0.21	112.65	--	--	--	--	2.74	--	--	112.65	--	--	--	--	--	--	--	--
Agricultural Crossing 1 Subtotal		1.24	1.58	115.43	0.36	0.36	0.58	0.35	8.94	0.35	1.20	115.80	1.17	0.93	0.93	1.00	2.00	0.91	2.95	1.19
GRAND TOTAL		8.39	16.73	133.57	14.38	270.90	159.97	516.21	395.18	385.32	602.96	502.01	403.55	297.98	323.83	63.38	64.76	61.09	62.81	64.04
Yolo County Total		8.39	16.73	133.57	14.38	270.90	159.97	516.21	395.18	385.32	602.96	502.01	403.55	297.98	323.83	63.38	64.76	61.09	62.81	64.04
Sutter County Total		4.97	11.89	14.76	10.41	42.36	41.17	380.41	266.53	266.53	265.98	265.98	281.61	285.12	302.76	41.85	43.06	40.44	40.12	52.88

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Table K-29. PM10 Detailed Summary (Alternative 3) - I

#	Activity	26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	Annual Emissions, tpy
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	5.65	2.94	3.13	1.12	1.12	1.00	1.00	0.66	0.12	0.57
	Construction Worker Commuting	7.93	2.80	3.44	1.33	1.33	1.33	1.33	2.75	0.23	0.30
	Haul Trucks	23.26	11.01	10.95	--	--	--	--	2.16	0.10	0.62
	Fugitive Dust	6.60	3.30	3.30	--	--	--	--	0.53	--	6.14
Intake Channel, Headworks, and Outlet Channel Subtotal		43.43	20.04	20.81	2.45	2.45	2.33	2.33	6.10	0.45	7.63
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.41	0.12	0.01
	Construction Worker Commuting	--	--	--	--	--	--	--	0.37	0.23	0.06
	Haul Trucks	--	--	--	--	--	--	--	1.64	0.10	0.01
	Fugitive Dust	--	--	--	--	--	--	--	0.53	--	0.10
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	2.95	0.45	0.18
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.17	0.17	0.12	0.41	0.12	--	--	--	--	0.10
	Construction Worker Commuting	0.18	0.18	0.60	0.37	0.09	--	--	--	--	0.07
	Haul Trucks	--	--	0.35	1.65	0.04	--	--	--	--	0.19
	Fugitive Dust	--	--	--	0.53	--	--	--	--	--	2.36
Downstream Channel Subtotal		0.36	0.36	1.06	2.96	0.25	--	--	--	--	2.72
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.48	--	0.53	0.12	--	--	--	--	--	0.02
	Construction Worker Commuting	0.32	--	0.60	0.09	--	--	--	--	--	0.01
	Haul Trucks	--	--	0.81	0.04	--	--	--	--	--	0.01
	Fugitive Dust	--	--	0.21	--	--	--	--	--	--	0.17
Agricultural Crossing 1 Subtotal		0.80	--	2.15	0.25	--	--	--	--	--	0.20
GRAND TOTAL		44.59	20.40	24.02	5.66	2.70	2.33	2.33	9.05	0.89	10.74
Yolo County Total		44.59	20.40	24.02	5.66	2.70	2.33	2.33	9.05	0.89	10.74
Sutter County Total		43.43	20.04	20.81	2.45	2.45	2.33	2.33	6.10	0.45	7.63

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-30. PM10 Detailed Summary (Alternative 4) - Unmitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.44	3.61	3.73	3.27	10.37	9.98	14.66	14.06	14.06	13.83	13.83	15.74	16.91	18.34	5.90	6.94	5.79	5.88	8.35
	Construction Worker Commuting	3.21	1.74	4.03	1.60	2.29	1.88	4.58	4.17	4.17	3.85	3.85	6.23	7.47	9.44	6.23	6.60	5.68	5.59	8.11
	Haul Trucks	1.32	0.87	1.33	--	0.38	--	0.21	--	--	--	--	11.10	12.19	23.14	23.12	22.93	22.37	22.05	28.18
	Fugitive Dust	--	5.66	5.66	5.53	29.31	29.31	360.96	248.30	248.30	248.30	248.30	248.54	248.54	251.84	6.60	6.60	6.60	6.60	8.24
Intake Channel, Headworks, and Outlet Channel Subtotal		4.97	11.89	14.76	10.41	42.36	41.17	380.41	266.53	266.53	265.98	265.98	281.61	285.12	302.76	41.85	43.06	40.44	40.12	52.88
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	0.20	0.57	0.12	0.66	2.68	1.86	2.59	0.17	0.24	0.23	0.23	0.39	0.60	0.41	0.12	0.12	0.11	0.11	0.12
	Construction Worker Commuting	0.37	0.46	0.83	0.41	0.37	0.92	2.57	0.18	1.65	0.37	0.32	0.41	0.64	0.28	0.83	0.09	0.18	0.18	0.09
	Haul Trucks	0.10	0.10	0.42	0.40	--	--	7.66	--	0.56	--	--	0.28	0.42	--	0.13	0.04	--	--	0.04
	Fugitive Dust	--	0.13	--	0.53	223.53	--	3.30	--	--	215.51	--	--	--	--	--	--	--	--	--
Supplemental Fish Passage East Subtotal		0.66	1.25	1.37	2.01	226.58	2.78	16.11	0.36	2.45	216.10	0.55	1.08	1.66	0.69	1.08	0.25	0.29	0.29	0.25
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.32	0.66	0.66	0.66	0.66	1.86	2.54	2.54	1.99	2.87	2.87	2.87	1.41	2.59	2.59	2.59	2.59	2.59	1.29
	Construction Worker Commuting	0.83	0.41	0.41	0.41	0.41	0.92	1.10	1.10	1.24	1.28	1.28	1.28	1.60	2.57	2.57	2.57	2.57	2.57	1.28
	Haul Trucks	0.38	0.40	0.40	--	--	--	--	--	0.12	--	--	--	5.61	11.00	11.00	11.00	11.00	11.00	5.50
	Fugitive Dust	--	0.53	0.53	0.53	0.53	112.65	115.71	115.71	112.65	115.53	115.53	115.53	1.65	3.30	3.30	3.30	3.30	3.30	1.65
Downstream Channel Subtotal		1.53	2.01	2.01	1.61	1.61	115.43	119.35	119.35	115.99	119.68	119.68	119.68	10.28	19.44	19.44	19.44	19.44	19.44	9.72
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.32	0.66	1.86	0.17	0.17	0.12	0.15	0.68	0.15	0.12	2.10	0.62	0.52	0.52	0.45	0.91	0.35	1.28	0.39
	Construction Worker Commuting	0.69	0.41	0.92	0.18	0.18	0.46	0.14	0.18	0.14	0.83	1.05	0.55	0.41	0.41	0.55	0.96	0.37	1.42	0.41
	Haul Trucks	0.23	0.30	--	--	--	--	0.06	5.35	0.06	0.25	--	--	--	--	--	0.13	0.19	0.25	0.38
	Fugitive Dust	--	0.21	112.65	--	--	--	--	2.74	--	--	112.65	--	--	--	--	--	--	--	--
Agricultural Crossing 1 Subtotal		1.24	1.58	115.43	0.36	0.36	0.58	0.35	8.94	0.35	1.20	115.80	1.17	0.93	0.93	1.00	2.00	0.91	2.95	1.19
Northern Water Control Structure Improvements																				
5	Offroad Construction Equipment Exhaust	0.44	2.38	2.54	5.75	6.26	7.61	4.63	2.87	2.88	4.74	0.78	0.54	0.70	0.42	0.64	0.76	0.75	0.23	0.11
	Construction Worker Commuting	1.19	0.87	1.10	1.19	2.02	2.11	2.98	1.97	1.79	2.70	0.87	1.05	0.41	0.50	0.41	0.50	0.60	0.60	0.18
	Haul Trucks	0.52	0.31	0.41	12.12	12.62	12.12	12.33	12.12	12.12	15.76	0.10	0.62	--	0.45	--	0.04	--	0.25	--
	Fugitive Dust	--	5.00	5.00	22.00	22.00	134.65	123.06	10.41	10.41	123.06	--	--	--	--	--	--	--	--	--
Northern Water Control Structure Improvements Subtotal		2.15	8.56	9.04	41.06	42.90	156.49	143.00	27.37	27.19	146.26	1.75	2.22	1.11	1.37	1.06	1.31	1.35	1.08	0.29
Southern Water Control Structure Improvements																				
6	Offroad Construction Equipment Exhaust	0.45	3.05	3.20	4.40	6.26	7.61	8.60	6.84	6.85	8.71	7.07	4.36	4.63	4.36	4.58	4.70	4.69	4.17	4.05
	Construction Worker Commuting	1.38	1.28	1.51	1.65	2.02	2.11	4.63	3.62	3.44	4.35	3.76	3.44	3.35	3.44	3.35	3.44	3.53	3.53	3.12
	Haul Trucks	0.63	0.79	0.89	16.94	17.44	16.94	17.15	16.94	16.94	28.85	28.85	29.20	28.85	29.30	28.85	28.89	28.85	29.10	28.85
	Fugitive Dust	--	5.53	5.53	15.41	22.00	134.65	131.24	18.59	18.59	131.24	18.59	10.94	10.94	10.94	10.94	10.94	10.94	10.94	10.94
Southern Water Control Structure Improvements Subtotal		2.46	10.65	11.13	38.40	47.72	161.31	161.62	45.99	45.82	173.16	58.27	47.94	47.77	48.03	47.71	47.97	48.01	47.73	46.95
GRAND TOTAL		13.00	35.95	153.74	93.83	361.52	477.77	820.84	468.54	458.32	922.38	562.04	453.70	346.86	373.23	112.15	114.03	110.44	111.61	111.29
Yolo County Total		13.00	35.95	153.74	93.83	361.52	477.77	820.84	468.54	458.32	922.38	562.04	453.70	346.86	373.23	112.15	114.03	110.44	111.61	111.29
Sutter County Total		4.97	11.89	14.76	10.41	42.36	41.17	380.41	266.53	266.53	265.98	265.98	281.61	285.12	302.76	41.85	43.06	40.44	40.12	52.88

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Table K-30. PM10 Detailed Summary (Alternative 4) - I

#	Activity	26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	Annual Emissions, tpy
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	5.65	2.94	3.13	1.02	1.02	0.89	0.89	0.66	0.12	0.57
	Construction Worker Commuting	7.93	2.80	3.44	1.33	1.33	1.33	1.33	2.75	0.23	0.30
	Haul Trucks	23.26	11.01	10.95	--	--	--	--	2.16	0.10	0.62
	Fugitive Dust	6.60	3.30	3.30	--	--	--	--	0.53	--	6.14
Intake Channel, Headworks, and Outlet Channel Subtotal		43.43	20.04	20.81	2.35	2.35	2.22	2.22	6.10	0.45	7.62
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.41	0.12	0.01
	Construction Worker Commuting	--	--	--	--	--	--	--	0.37	0.23	0.06
	Haul Trucks	--	--	--	--	--	--	--	1.64	0.10	0.01
	Fugitive Dust	--	--	--	--	--	--	--	0.53	--	0.10
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	2.95	0.45	0.18
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.17	0.17	0.12	0.41	0.12	--	--	--	--	0.10
	Construction Worker Commuting	0.18	0.18	0.60	0.37	0.09	--	--	--	--	0.07
	Haul Trucks	--	--	0.35	1.65	0.04	--	--	--	--	0.19
	Fugitive Dust	--	--	--	0.53	--	--	--	--	--	2.36
Downstream Channel Subtotal		0.36	0.36	1.06	2.96	0.25	--	--	--	--	2.72
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.48	--	0.53	0.12	--	--	--	--	--	0.02
	Construction Worker Commuting	0.32	--	0.60	0.09	--	--	--	--	--	0.01
	Haul Trucks	--	--	0.81	0.04	--	--	--	--	--	0.01
	Fugitive Dust	--	--	0.21	--	--	--	--	--	--	0.17
Agricultural Crossing 1 Subtotal		0.80	--	2.15	0.25	--	--	--	--	--	0.20
Northern Water Control Structure Improvements											
5	Offroad Construction Equipment Exhaust	0.15	0.15	0.53	0.12	--	--	--	--	--	0.13
	Construction Worker Commuting	0.37	0.37	0.46	0.09	--	--	--	--	--	0.06
	Haul Trucks	--	--	1.95	0.04	--	--	--	--	--	0.34
	Fugitive Dust	--	--	0.53	--	--	--	--	--	--	1.17
Northern Water Control Structure Improvements Subtotal		0.52	0.52	3.48	0.25	--	--	--	--	--	1.70
Southern Water Control Structure Improvements											
6	Offroad Construction Equipment Exhaust	1.68	1.63	0.69	0.14	--	--	--	--	--	0.27
	Construction Worker Commuting	0.92	1.47	0.69	0.09	--	--	--	--	--	0.17
	Haul Trucks	16.94	17.32	2.14	0.04	--	--	--	--	--	1.25
	Fugitive Dust	9.88	9.88	0.53	--	--	--	--	--	--	1.50
Southern Water Control Structure Improvements Subtotal		29.41	30.30	4.04	0.27	--	--	--	--	--	3.18
GRAND TOTAL		74.52	51.21	31.54	6.07	2.60	2.22	2.22	9.05	0.89	15.62
Yolo County Total		74.52	51.21	31.54	6.07	2.60	2.22	2.22	9.05	0.89	15.62
Sutter County Total		43.43	20.04	20.81	2.35	2.35	2.22	2.22	6.10	0.45	7.62

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-31. PM10 Detailed Summary (Alternative 5) - Unmitigated

#	Activity																			M:	
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug		19-Aug
Intake Channel, Headworks, and Outlet Channel																					
1	Offroad Construction Equipment Exhaust	2.14	10.05	30.33	38.29	44.47	42.60	36.96	40.84	14.12	12.14	11.63	8.39	14.00	12.14	11.46	10.33	10.33	6.57	1.56	
	Construction Worker Commuting	6.78	5.96	8.39	5.50	9.26	8.34	5.45	9.30	11.92	10.59	9.81	8.34	11.50	10.59	9.63	10.31	10.31	6.65	0.92	
	Haul Trucks	3.30	1.21	1.15	--	0.38	0.38	0.38	19.89	39.12	38.91	38.91	38.91	38.91	38.91	38.91	41.19	41.19	21.86	--	
	Fugitive Dust	0.40	10.17	87.66	640.73	753.38	640.73	636.26	641.21	124.14	11.48	11.48	11.48	124.14	11.48	11.48	11.48	11.48	11.48	6.54	--
Intake Channel, Headworks, and Outlet Channel Subtotal		12.62	27.39	127.53	684.52	807.49	692.05	679.05	711.24	189.30	73.12	71.83	67.12	188.56	73.12	71.48	73.31	73.31	41.62	2.48	
Supplemental Fish Passage West																					
2	Offroad Construction Equipment Exhaust	0.20	0.57	0.12	0.66	2.68	1.86	2.59	0.17	0.24	0.23	0.23	0.39	0.60	0.41	0.12	0.12	0.11	0.11	0.12	
	Construction Worker Commuting	0.37	0.46	0.83	0.41	0.37	0.92	2.57	0.18	1.65	0.37	0.32	0.41	0.64	0.28	0.83	0.09	0.18	0.18	0.09	
	Haul Trucks	0.10	0.10	0.42	0.40	--	--	7.84	--	0.56	--	--	0.28	0.42	--	0.13	0.04	--	--	0.04	
	Fugitive Dust	--	0.13	--	0.53	223.49	--	3.30	--	--	215.51	--	--	--	--	--	--	--	--	--	
Supplemental Fish Passage West Subtotal		0.66	1.25	1.37	2.01	226.53	2.78	16.29	0.36	2.45	216.10	0.55	1.08	1.66	0.69	1.08	0.25	0.29	0.29	0.25	
Agricultural Crossing 1																					
3	Offroad Construction Equipment Exhaust	0.32	0.66	1.86	0.17	0.17	0.12	0.15	0.68	0.15	0.12	2.10	0.62	0.52	0.52	0.45	0.91	0.35	1.28	0.39	
	Construction Worker Commuting	0.69	0.41	0.92	0.18	0.18	0.46	0.14	0.18	0.14	0.83	1.05	0.55	0.41	0.41	0.55	0.96	0.37	1.42	0.41	
	Haul Trucks	0.23	0.30	--	--	--	--	0.06	5.35	0.06	0.25	--	--	--	--	0.13	0.19	0.25	0.38	--	
	Fugitive Dust	--	0.21	112.65	--	--	--	--	2.74	--	--	112.65	--	--	--	--	--	--	--	--	
Agricultural Crossing 1 Subtotal		1.24	1.58	115.43	0.36	0.36	0.58	0.35	8.94	0.35	1.20	115.80	1.17	0.93	0.93	1.00	2.00	0.91	2.95	1.19	
River Grading Site																					
4	Offroad Construction Equipment Exhaust	0.73	1.30	2.28	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	
	Construction Worker Commuting	--	--	0.69	0.87	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	
	Haul Trucks	0.29	0.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	Fugitive Dust	0.53	6.29	6.29	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	
	Marine Equipment Exhaust	1.01	--	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	
River Grading Site Subtotal		2.56	7.69	9.76	3.31	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	
GRAND TOTAL		17.08	37.91	254.10	690.20	1037.50	698.54	698.81	723.67	195.23	293.55	191.31	72.50	194.27	77.87	76.69	78.70	77.65	47.99	7.04	
Yolo County Total		16.42	36.66	252.73	688.19	810.97	695.76	682.53	723.31	192.78	77.45	190.77	71.42	192.61	77.18	75.61	78.45	77.35	47.70	6.79	
Sutter County Total		0.66	1.25	1.37	2.01	226.53	2.78	16.29	0.36	2.45	216.10	0.55	1.08	1.66	0.69	1.08	0.25	0.29	0.29	0.25	

Table K-31. PM10 Detailed Summary (Alternative 5) - I

#	Activity	Maximum Daily Emissions, lbs/day																		
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.62	0.71	0.71	2.82	2.57	0.12	0.53	0.00	0.00	0.24	2.46	2.46	2.46	2.46	2.46	2.46	2.46	2.46	2.51
	Construction Worker Commuting	0.55	0.46	0.46	7.15	2.61	4.72	0.60	0.00	0.00	0.18	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	2.15
	Haul Trucks	0.19	--	--	5.06	2.28	0.86	1.85	--	--	0.92	--	--	--	--	--	--	--	--	--
	Fugitive Dust	--	--	--	--	--	--	0.53	--	--	--	--	--	--	--	--	--	--	--	--
Intake Channel, Headworks, and Outlet Channel Subtotal		1.36	1.17	1.17	15.03	7.46	5.71	3.51	--	--	1.35	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.66
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.41	0.12	--	--	--	--	--	--	--	--	--	--
	Construction Worker Commuting	--	--	--	--	--	--	--	0.37	0.23	--	--	--	--	--	--	--	--	--	--
	Haul Trucks	--	--	--	--	--	--	--	1.65	0.10	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	--	--	--	--	--	--	--	0.53	--	--	--	--	--	--	--	--	--	--	--
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	2.96	0.45	--	--	--	--	--	--	--	--	--	--
Agricultural Crossing 1																				
3	Offroad Construction Equipment Exhaust	0.48	--	0.53	0.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Construction Worker Commuting	0.32	--	0.60	0.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Haul Trucks	--	--	0.81	0.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	--	--	0.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Agricultural Crossing 1 Subtotal		0.80	--	2.15	0.25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
River Grading Site																				
4	Offroad Construction Equipment Exhaust	1.40	2.34	0.06	0.06	--	0.73	--	--	--	--	--	--	--	--	--	--	--	--	--
	Construction Worker Commuting	0.69	1.97	1.28	1.47	0.18	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Haul Trucks	--	5.45	5.45	5.45	--	0.29	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	0.53	6.29	--	--	--	0.53	--	--	--	--	--	--	--	--	--	--	--	--	--
	Marine Equipment Exhaust	0.51	0.51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
River Grading Site Subtotal		3.13	16.55	6.79	6.97	0.18	1.55	--	--	--	--	--	--	--	--	--	--	--	--	--
GRAND TOTAL		5.29	17.72	10.11	22.25	7.65	7.26	3.51	2.96	0.45	1.35	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.66
Yolo County Total		5.29	17.72	10.11	22.25	7.65	7.26	3.51	--	--	1.35	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.66
Sutter County Total		--	--	--	--	--	--	--	2.96	0.45	--	--	--	--	--	--	--	--	--	--

Table K-31. PM10 Detailed Summary (Alternative 5) - I

#	Activity	24-Jun	1-Jul	8-Jul	Annual Emissions, tpy	Year 1, tpy	Year 2, tpy
Intake Channel, Headworks, and Outlet Channel							
1	Offroad Construction Equipment Exhaust	0.59	0.24	--	2.12	2.05	0.07
	Construction Worker Commuting	1.05	0.18	--	0.50	0.44	0.06
	Haul Trucks	--	0.92	--	1.00	1.00	0.00
	Fugitive Dust	--	--	--	9.27	9.27	--
Intake Channel, Headworks, and Outlet Channel Subtotal		1.64	1.35	--	12.90	12.77	0.12
Supplemental Fish Passage West							
2	Offroad Construction Equipment Exhaust	--	--	--	0.01	0.01	--
	Construction Worker Commuting	--	--	--	0.04	0.04	--
	Haul Trucks	--	--	--	0.01	0.01	--
	Fugitive Dust	--	--	--	0.09	0.09	--
Supplemental Fish Passage West Subtotal		--	--	--	0.16	0.16	--
Agricultural Crossing 1							
3	Offroad Construction Equipment Exhaust	--	--	--	0.02	0.02	--
	Construction Worker Commuting	--	--	--	0.01	0.01	--
	Haul Trucks	--	--	--	0.01	0.01	--
	Fugitive Dust	--	--	--	0.17	0.17	--
Agricultural Crossing 1 Subtotal		--	--	--	0.20	0.20	--
River Grading Site							
4	Offroad Construction Equipment Exhaust	--	--	--	0.04	0.04	--
	Construction Worker Commuting	--	--	--	0.05	0.05	--
	Haul Trucks	--	--	--	0.05	0.05	--
	Fugitive Dust	--	--	--	0.01	0.01	--
	Marine Equipment Exhaust	--	--	--	0.08	0.08	--
River Grading Site Subtotal		--	--	--	0.23	0.23	--
GRAND TOTAL		1.64	1.35	--	13.49	13.36	0.12
Yolo County Total		1.64	1.35	--	13.33	13.21	0.12
Sutter County Total		--	--	--	0.16	0.16	--

Table K-32. PM10 Detailed Summary (Alternative 6) - Unmitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.44	4.96	5.30	4.16	14.92	14.53	15.44	14.65	14.42	15.59	26.76	26.76	26.09	27.12	26.36	26.07	27.24	26.88	25.71
	Construction Worker Commuting	4.40	6.14	3.25	2.34	3.39	2.98	4.31	3.71	3.39	4.63	14.58	14.58	14.30	14.67	14.48	13.66	14.90	14.80	13.43
	Haul Trucks	1.82	2.06	1.35	1.15	0.38	--	0.21	--	--	1.15	40.00	40.00	39.91	39.72	40.04	38.85	40.00	40.19	38.91
	Fugitive Dust	--	6.33	6.33	6.06	150.24	150.24	36.18	33.12	33.12	33.12	377.72	377.72	377.72	377.72	377.72	377.72	377.72	377.72	377.72
Intake Channel, Headworks, and Outlet Channel Subtotal		6.66	19.49	16.22	13.71	168.94	167.75	56.14	51.48	50.93	54.48	459.05	459.05	458.02	459.23	458.60	456.30	459.85	459.59	455.77
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	0.20	0.57	0.12	0.66	2.68	1.86	2.59	0.17	0.24	0.23	0.23	0.39	0.60	0.41	0.12	0.12	0.11	0.11	0.12
	Construction Worker Commuting	0.37	0.46	0.83	0.41	0.37	0.92	2.57	0.18	1.65	0.37	0.32	0.41	0.64	0.28	0.83	0.09	0.18	0.18	0.09
	Haul Trucks	0.10	0.10	0.42	0.40	--	--	7.66	--	0.56	--	--	0.28	0.42	--	0.13	0.04	--	--	0.04
	Fugitive Dust	--	0.13	--	0.53	223.53	--	3.30	--	--	215.51	--	--	--	--	--	--	--	--	--
Supplemental Fish Passage East Subtotal		0.66	1.25	1.37	2.01	226.58	2.78	16.11	0.36	2.45	216.10	0.55	1.08	1.66	0.69	1.08	0.25	0.29	0.29	0.25
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.32	0.66	0.66	0.66	0.66	1.86	2.54	2.54	1.99	2.87	2.87	2.87	1.41	2.59	2.59	2.59	2.59	2.59	1.29
	Construction Worker Commuting	0.83	0.41	0.41	0.41	0.41	0.92	1.10	1.10	1.24	1.28	1.28	1.28	1.60	2.57	2.57	2.57	2.57	2.57	1.28
	Haul Trucks	0.38	0.40	0.40	--	--	--	--	--	0.12	--	--	--	5.61	11.00	11.00	11.00	11.00	11.00	5.50
	Fugitive Dust	--	0.53	0.53	0.53	0.53	112.65	115.71	115.71	112.65	115.53	115.53	115.53	1.65	3.30	3.30	3.30	3.30	3.30	1.65
Downstream Channel Subtotal		1.53	2.01	2.01	1.61	1.61	115.43	119.35	119.35	115.99	119.68	119.68	119.68	10.28	19.44	19.44	19.44	19.44	19.44	9.72
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.32	0.66	1.86	0.17	0.17	0.12	0.15	0.68	0.15	0.12	2.10	0.62	0.52	0.52	0.45	0.91	0.35	1.28	0.39
	Construction Worker Commuting	0.69	0.41	0.92	0.18	0.18	0.46	0.14	0.18	0.14	0.83	1.05	0.55	0.41	0.41	0.55	0.96	0.37	1.42	0.41
	Haul Trucks	0.23	0.30	--	--	--	--	0.06	5.35	0.06	0.25	--	--	--	--	--	0.13	0.19	0.25	0.38
	Fugitive Dust	--	0.21	112.65	--	--	--	--	2.74	--	--	112.65	--	--	--	--	--	--	--	--
Agricultural Crossing 1 Subtotal		1.24	1.58	115.43	0.36	0.36	0.58	0.35	8.94	0.35	1.20	115.80	1.17	0.93	0.93	1.00	2.00	0.91	2.95	1.19
GRAND TOTAL		10.08	24.33	135.03	17.68	397.48	286.55	191.94	180.12	169.72	391.46	695.08	580.98	470.88	480.29	480.13	478.00	480.50	482.28	466.93
Yolo County Total		10.08	24.33	135.03	17.68	397.48	286.55	191.94	180.12	169.72	391.46	695.08	580.98	470.88	480.29	480.13	478.00	480.50	482.28	466.93
Sutter County Total		6.66	19.49	16.22	13.71	168.94	167.75	56.14	51.48	50.93	54.48	459.05	459.05	458.02	459.23	458.60	456.30	459.85	459.59	455.77

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Table K-32. PM10 Detailed Summary (Alternative 6) - I

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	27.19	16.47	5.71	6.70	1.66	1.41	1.41	0.95	0.36	1.17
	Construction Worker Commuting	15.35	13.89	6.00	6.74	5.09	1.60	1.60	1.24	3.99	0.62
	Haul Trucks	44.19	44.19	22.19	22.19	1.46	--	--	1.65	0.92	1.50
	Fugitive Dust	379.37	346.25	6.60	6.60	--	--	--	0.53	--	13.14
Intake Channel, Headworks, and Outlet Channel Subtotal		466.10	420.80	40.50	42.22	8.20	3.01	3.01	4.37	5.27	16.42
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.41	0.12	0.01
	Construction Worker Commuting	--	--	--	--	--	--	--	0.37	0.23	0.06
	Haul Trucks	--	--	--	--	--	--	--	1.64	0.10	0.01
	Fugitive Dust	--	--	--	--	--	--	--	0.53	--	0.10
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	2.95	0.45	0.18
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.17	0.17	0.12	0.41	0.12	--	--	--	--	0.10
	Construction Worker Commuting	0.18	0.18	0.60	0.37	0.09	--	--	--	--	0.07
	Haul Trucks	--	--	0.35	1.65	0.04	--	--	--	--	0.19
	Fugitive Dust	--	--	--	0.53	--	--	--	--	--	2.36
Downstream Channel Subtotal		0.36	0.36	1.06	2.96	0.25	--	--	--	--	2.72
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.48	--	0.53	0.12	--	--	--	--	--	0.02
	Construction Worker Commuting	0.32	--	0.60	0.09	--	--	--	--	--	0.01
	Haul Trucks	--	--	0.81	0.04	--	--	--	--	--	0.01
	Fugitive Dust	--	--	0.21	--	--	--	--	--	--	0.17
Agricultural Crossing 1 Subtotal		0.80	--	2.15	0.25	--	--	--	--	--	0.20
GRAND TOTAL		467.26	421.15	43.71	45.43	8.45	3.01	3.01	7.32	5.72	19.53
Yolo County Total		467.26	421.15	43.71	45.43	8.45	3.01	3.01	7.32	5.72	19.53
Sutter County Total		466.10	420.80	40.50	42.22	8.20	3.01	3.01	4.37	5.27	16.42

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-33. PM2.5 Detailed Summary (Alternative 1) - Unmitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.35	3.04	3.12	2.74	4.34	4.64	6.41	5.35	6.14	5.98	3.58	3.63	2.71	2.80	3.87	3.19	2.25	2.80	0.28
	Construction Worker Commuting	0.59	0.47	1.08	0.43	0.42	0.36	0.79	0.71	0.73	0.64	0.54	0.86	1.06	1.13	1.43	1.38	0.81	1.12	0.42
	Haul Trucks	0.35	0.26	0.40	--	--	--	0.13	0.02	--	--	--	2.19	5.40	4.94	5.28	5.28	3.30	5.48	0.19
	Fugitive Dust	--	1.45	1.45	1.42	2.99	4.30	25.45	12.87	14.19	14.19	12.58	11.27	0.25	0.50	0.50	0.50	0.50	0.50	--
Intake Channel, Headworks, and Outlet Channel Subtotal		1.29	5.21	6.05	4.59	7.75	9.30	32.78	18.95	21.05	20.81	16.70	17.94	9.42	9.38	11.08	10.35	6.86	9.90	0.89
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	0.12	0.45	0.09	0.54	2.40	1.55	1.68	0.13	0.17	0.15	0.15	0.28	0.44	0.34	0.09	0.09	0.08	0.08	0.09
	Construction Worker Commuting	0.10	0.12	0.22	0.11	0.10	0.25	0.69	0.05	0.44	0.10	0.09	0.11	0.17	0.07	0.22	0.02	0.05	0.05	0.02
	Haul Trucks	0.03	0.03	0.13	0.12	--	--	2.39	--	0.17	--	--	0.08	0.13	--	0.04	0.01	--	--	0.01
	Fugitive Dust	--	0.02	--	0.06	23.46	--	0.50	--	--	21.55	--	--	--	--	--	--	--	--	--
Supplemental Fish Passage West Subtotal		0.25	0.62	0.44	0.83	25.97	1.79	5.26	0.18	0.79	21.80	0.24	0.47	0.74	0.41	0.35	0.12	0.13	0.13	0.12
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.21	0.54	0.54	0.54	0.54	1.55	2.13	2.13	1.63	2.43	2.43	2.43	0.93	1.68	1.68	1.68	1.68	1.68	0.84
	Construction Worker Commuting	0.22	0.11	0.11	0.11	0.11	0.25	0.30	0.30	0.33	0.34	0.34	0.34	0.43	0.69	0.69	0.69	0.69	0.69	0.34
	Haul Trucks	0.12	0.12	0.12	--	--	--	--	--	0.04	--	--	--	1.71	3.35	3.35	3.35	3.35	3.35	1.67
	Fugitive Dust	--	0.06	0.06	0.06	0.06	11.27	12.64	12.64	11.27	12.61	12.61	12.61	0.25	0.50	0.50	0.50	0.50	0.50	0.25
Downstream Channel Subtotal		0.55	0.83	0.83	0.71	0.71	13.06	15.07	15.07	13.27	15.38	15.38	15.38	3.32	6.22	6.22	6.22	6.22	6.22	3.11
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.21	0.54	1.55	0.13	0.13	0.09	0.10	0.58	0.10	0.09	1.74	0.47	0.41	0.41	0.31	0.71	0.28	1.05	0.28
	Construction Worker Commuting	0.18	0.11	0.25	0.05	0.05	0.12	0.04	0.05	0.04	0.22	0.28	0.15	0.11	0.11	0.15	0.26	0.10	0.38	0.11
	Haul Trucks	0.07	0.09	--	--	--	--	0.02	1.63	0.02	0.08	--	--	--	--	--	0.04	0.06	0.08	0.12
	Fugitive Dust	--	0.02	11.27	--	--	--	--	1.34	--	--	11.27	--	--	--	--	--	--	--	--
Agricultural Crossing 1 Subtotal		0.47	0.77	13.06	0.18	0.18	0.21	0.16	3.60	0.16	0.38	13.29	0.62	0.53	0.53	0.45	1.01	0.44	1.50	0.51
GRAND TOTAL		2.55	7.43	20.38	6.32	34.60	24.37	53.26	37.81	35.26	58.38	45.61	34.42	14.00	16.53	18.10	17.70	13.65	17.75	4.63
Yolo County Total		2.30	6.81	19.95	5.49	8.64	22.57	48.01	37.63	34.48	36.58	45.38	33.94	13.26	16.12	17.75	17.58	13.52	17.62	4.51
Sutter County Total		0.25	0.62	0.44	0.83	25.97	1.79	5.26	0.18	0.79	21.80	0.24	0.47	0.74	0.41	0.35	0.12	0.13	0.13	0.12

Table K-33. PM2.5 Detailed Summary (Alternative 1) -

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	0.20	1.62	0.88	0.88	0.88	0.77	0.43	1.80	0.09	0.19
	Construction Worker Commuting	0.04	0.06	0.36	0.36	0.36	0.36	0.28	0.74	0.06	0.04
	Haul Trucks	--	0.00	--	--	--	--	--	0.64	0.03	0.08
	Fugitive Dust	--	--	--	--	--	--	--	0.02	--	0.28
Intake Channel, Headworks, and Outlet Channel Subtotal		0.23	1.69	1.24	1.24	1.24	1.13	0.71	3.20	0.18	0.58
Supplemental Fish Passage West											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.29	0.09	0.01
	Construction Worker Commuting	--	--	--	--	--	--	--	0.10	0.06	0.01
	Haul Trucks	--	--	--	--	--	--	--	0.50	0.03	0.00
	Fugitive Dust	--	--	--	--	--	--	--	0.06	--	0.01
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	0.94	0.18	0.03
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.13	0.13	0.09	0.29	0.09	--	--	--	--	0.08
	Construction Worker Commuting	0.05	0.05	0.16	0.10	0.02	--	--	--	--	0.02
	Haul Trucks	--	--	0.11	0.50	0.01	--	--	--	--	0.06
	Fugitive Dust	--	--	--	0.06	--	--	--	--	--	0.25
Downstream Channel Subtotal		0.18	0.18	0.35	0.94	0.12	--	--	--	--	0.41
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.37	--	0.37	0.09	--	--	--	--	--	0.01
	Construction Worker Commuting	0.09	--	0.16	0.02	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.25	0.01	--	--	--	--	--	0.00
	Fugitive Dust	--	--	0.02	--	--	--	--	--	--	0.02
Agricultural Crossing 1 Subtotal		0.46	--	0.80	0.12	--	--	--	--	--	0.04
GRAND TOTAL		0.88	1.87	2.39	2.30	1.36	1.13	0.71	4.15	0.36	1.06
Yolo County Total		0.88	1.87	2.39	2.30	1.36	1.13	0.71	3.20	0.18	1.03
Sutter County Total		--	--	--	--	--	--	--	0.94	0.18	0.03

Table K-34. PM2.5 Detailed Summary (Alternative 2) - Unmitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.30	3.04	3.12	2.74	9.14	8.87	12.72	11.61	11.61	11.46	4.25	2.83	5.35	4.39	3.84	4.71	3.83	3.93	3.92
	Construction Worker Commuting	0.86	0.47	1.08	0.43	0.62	0.50	1.23	1.07	1.07	0.99	0.69	0.89	1.91	1.75	1.67	1.77	1.53	1.50	1.49
	Haul Trucks	0.40	0.27	0.41	--	0.11	--	0.06	--	--	--	--	3.36	7.72	7.72	7.71	7.65	7.48	7.38	5.67
	Fugitive Dust	--	1.65	1.65	1.63	7.40	7.40	40.56	27.92	27.92	27.92	22.04	0.50	1.00	1.00	1.00	1.00	1.00	1.00	0.75
Intake Channel, Headworks, and Outlet Channel Subtotal		1.56	5.43	6.27	4.80	17.27	16.77	54.57	40.60	40.60	40.36	26.98	7.58	15.98	14.86	14.22	15.14	13.84	13.81	11.83
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	0.12	0.45	0.09	0.54	2.40	1.55	1.68	0.13	0.17	0.15	0.15	0.28	0.44	0.34	0.09	0.09	0.08	0.08	0.09
	Construction Worker Commuting	0.10	0.12	0.22	0.11	0.10	0.25	0.69	0.05	0.44	0.10	0.09	0.11	0.17	0.07	0.22	0.02	0.05	0.05	0.02
	Haul Trucks	0.03	0.03	0.13	0.12	--	--	2.39	--	0.17	--	--	0.08	0.13	--	0.04	0.01	--	--	0.01
	Fugitive Dust	--	0.02	--	0.06	23.46	--	0.50	--	--	21.55	--	--	--	--	--	--	--	--	--
Supplemental Fish Passage West Subtotal		0.25	0.62	0.44	0.83	25.97	1.79	5.26	0.18	0.79	21.80	0.24	0.47	0.74	0.41	0.35	0.12	0.13	0.13	0.12
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.21	0.54	0.54	0.54	0.54	1.55	2.13	2.13	1.63	2.43	2.43	2.43	0.93	1.68	1.68	1.68	1.68	1.68	0.84
	Construction Worker Commuting	0.22	0.11	0.11	0.11	0.11	0.25	0.30	0.30	0.33	0.34	0.34	0.34	0.43	0.69	0.69	0.69	0.69	0.69	0.34
	Haul Trucks	0.12	0.12	0.12	--	--	--	--	--	0.04	--	--	--	1.71	3.35	3.35	3.35	3.35	3.35	1.67
	Fugitive Dust	--	0.06	0.06	0.06	0.06	11.27	12.64	12.64	11.27	12.61	12.61	12.61	0.25	0.50	0.50	0.50	0.50	0.50	0.25
Downstream Channel Subtotal		0.55	0.83	0.83	0.71	0.71	13.06	15.07	15.07	13.27	15.38	15.38	15.38	3.32	6.22	6.22	6.22	6.22	6.22	3.11
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.21	0.54	1.55	0.13	0.13	0.09	0.10	0.58	0.10	0.09	1.74	0.47	0.41	0.41	0.31	0.71	0.28	1.05	0.28
	Construction Worker Commuting	0.18	0.11	0.25	0.05	0.05	0.12	0.04	0.05	0.04	0.22	0.28	0.15	0.11	0.11	0.15	0.26	0.10	0.38	0.11
	Haul Trucks	0.07	0.09	--	--	--	--	0.02	1.63	0.02	0.08	--	--	--	--	--	0.04	0.06	0.08	0.12
	Fugitive Dust	--	0.02	11.27	--	--	--	--	1.34	--	--	11.27	--	--	--	--	--	--	--	--
Agricultural Crossing 1 Subtotal		0.47	0.77	13.06	0.18	0.18	0.21	0.16	3.60	0.16	0.38	13.29	0.62	0.53	0.53	0.45	1.01	0.44	1.50	0.51
River Grading Site																				
5	Offroad Construction Equipment Exhaust	0.65	1.13	1.60	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
	Construction Worker Commuting	--	--	0.18	0.23	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
	Haul Trucks	0.09	0.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	0.06	2.75	2.75	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
	Marine Equipment Exhaust	0.93	--	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47
River Grading Site Subtotal		1.73	3.91	5.00	1.70	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65
GRAND TOTAL		4.56	11.56	25.60	8.23	45.78	33.48	76.70	61.11	56.46	79.58	57.55	25.71	22.21	23.67	22.89	24.13	22.28	23.32	17.22
Yolo County Total		4.31	10.94	25.16	7.40	19.81	31.69	71.45	60.92	55.68	57.78	57.31	25.24	21.47	23.25	22.54	24.01	22.15	23.18	17.10
Sutter County Total		0.25	0.62	0.44	0.83	25.97	1.79	5.26	0.18	0.79	21.80	0.24	0.47	0.74	0.41	0.35	0.12	0.13	0.13	0.12

Table K-34. PM2.5 Detailed Summary (Alternative 2) -

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	1.96	0.37	0.41	0.88	0.88	0.77	0.77	0.46	0.09	0.33
	Construction Worker Commuting	0.79	0.71	0.23	0.36	0.36	0.36	0.36	0.74	0.06	0.06
	Haul Trucks	4.08	0.33	--	--	--	--	--	0.66	0.03	0.15
	Fugitive Dust	0.50	--	--	--	--	--	--	0.06	--	0.46
Intake Channel, Headworks, and Outlet Channel Subtotal		7.33	1.41	0.64	1.24	1.24	1.13	1.13	1.91	0.18	1.00
Supplemental Fish Passage West											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.29	0.09	0.01
	Construction Worker Commuting	--	--	--	--	--	--	--	0.10	0.06	0.01
	Haul Trucks	--	--	--	--	--	--	--	0.50	0.03	0.00
	Fugitive Dust	--	--	--	--	--	--	--	0.06	--	0.01
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	0.94	0.18	0.03
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.13	0.13	0.09	0.29	0.09	--	--	--	--	0.08
	Construction Worker Commuting	0.05	0.05	0.16	0.10	0.02	--	--	--	--	0.02
	Haul Trucks	--	--	0.11	0.50	0.01	--	--	--	--	0.06
	Fugitive Dust	--	--	--	0.06	--	--	--	--	--	0.25
Downstream Channel Subtotal		0.18	0.18	0.35	0.94	0.12	--	--	--	--	0.41
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.37	--	0.37	0.09	--	--	--	--	--	0.01
	Construction Worker Commuting	0.09	--	0.16	0.02	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.25	0.01	--	--	--	--	--	0.00
	Fugitive Dust	--	--	0.02	--	--	--	--	--	--	0.02
Agricultural Crossing 1 Subtotal		0.46	--	0.80	0.12	--	--	--	--	--	0.04
River Grading Site											
5	Offroad Construction Equipment Exhaust	0.94	1.63	0.03	0.03	--	0.65	--	--	--	0.03
	Construction Worker Commuting	0.18	0.53	0.34	0.39	0.05	--	--	--	--	0.01
	Haul Trucks	--	1.66	1.66	1.66	--	0.09	--	--	--	0.02
	Fugitive Dust	0.06	2.75	--	--	--	0.06	--	--	--	0.01
	Marine Equipment Exhaust	0.47	0.47	--	--	--	--	--	--	--	0.07
River Grading Site Subtotal		1.65	7.04	2.03	2.08	0.05	0.80	--	--	--	0.14
GRAND TOTAL		9.63	8.63	3.83	4.39	1.41	1.92	1.13	2.86	0.36	1.63
Yolo County Total		9.63	8.63	3.83	4.39	1.41	1.92	1.13	1.91	0.18	1.59
Sutter County Total		--	--	--	--	--	--	--	0.94	0.18	0.03

Table K-35. PM2.5 Detailed Summary (Alternative 3) - Unmitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.30	3.04	3.12	2.74	9.14	8.87	12.72	12.20	12.20	12.04	12.04	13.14	13.98	14.70	3.84	4.71	3.83	3.93	5.60
	Construction Worker Commuting	0.86	0.47	1.08	0.43	0.62	0.50	1.23	1.12	1.12	1.03	1.03	1.67	2.01	2.54	1.67	1.77	1.53	1.50	2.18
	Haul Trucks	0.40	0.26	0.40	--	0.12	--	0.06	--	--	--	--	3.38	3.71	7.05	7.04	6.98	6.81	6.71	8.58
	Fugitive Dust	--	1.65	1.65	1.63	7.40	7.40	40.56	29.29	29.29	29.29	29.29	28.42	28.42	28.92	1.00	1.00	1.00	1.00	1.25
Intake Channel, Headworks, and Outlet Channel Subtotal		1.56	5.42	6.27	4.80	17.27	16.77	54.57	42.61	42.61	42.37	42.37	46.61	48.11	53.20	13.55	14.46	13.17	13.14	17.61
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	0.12	0.45	0.09	0.54	2.40	1.55	1.68	0.13	0.17	0.15	0.15	0.28	0.44	0.34	0.09	0.09	0.08	0.08	0.09
	Construction Worker Commuting	0.10	0.12	0.22	0.11	0.10	0.25	0.69	0.05	0.44	0.10	0.09	0.11	0.17	0.07	0.22	0.02	0.05	0.05	0.02
	Haul Trucks	0.03	0.03	0.13	0.12	--	--	2.33	--	0.17	--	--	0.08	0.13	--	0.04	0.01	--	--	0.01
	Fugitive Dust	--	0.02	--	0.06	23.47	--	0.50	--	--	21.55	--	--	--	--	--	--	--	--	--
Supplemental Fish Passage East Subtotal		0.25	0.62	0.44	0.83	25.97	1.79	5.20	0.18	0.79	21.80	0.24	0.47	0.74	0.41	0.35	0.12	0.13	0.13	0.12
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.21	0.54	0.54	0.54	0.54	1.55	2.13	2.13	1.63	2.43	2.43	2.43	0.93	1.68	1.68	1.68	1.68	1.68	0.84
	Construction Worker Commuting	0.22	0.11	0.11	0.11	0.11	0.25	0.30	0.30	0.33	0.34	0.34	0.34	0.43	0.69	0.69	0.69	0.69	0.69	0.34
	Haul Trucks	0.12	0.12	0.12	--	--	--	--	--	0.04	--	--	--	1.71	3.35	3.35	3.35	3.35	3.35	1.67
	Fugitive Dust	--	0.06	0.06	0.06	0.06	11.27	12.64	12.64	11.27	12.61	12.61	12.61	0.25	0.50	0.50	0.50	0.50	0.50	0.25
Downstream Channel Subtotal		0.55	0.83	0.83	0.71	0.71	13.06	15.07	15.07	13.27	15.38	15.38	15.38	3.32	6.22	6.22	6.22	6.22	6.22	3.11
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.21	0.54	1.55	0.13	0.13	0.09	0.10	0.58	0.10	0.09	1.74	0.47	0.41	0.41	0.31	0.71	0.28	1.05	0.28
	Construction Worker Commuting	0.18	0.11	0.25	0.05	0.05	0.12	0.04	0.05	0.04	0.22	0.28	0.15	0.11	0.11	0.15	0.26	0.10	0.38	0.11
	Haul Trucks	0.07	0.09	--	--	--	--	0.02	1.63	0.02	0.08	--	--	--	--	--	0.04	0.06	0.08	0.12
	Fugitive Dust	--	0.02	11.27	--	--	--	--	1.34	--	--	11.27	--	--	--	--	--	--	--	--
Agricultural Crossing 1 Subtotal		0.47	0.77	13.06	0.18	0.18	0.21	0.16	3.60	0.16	0.38	13.29	0.62	0.53	0.53	0.45	1.01	0.44	1.50	0.51
GRAND TOTAL		2.83	7.64	20.59	6.53	44.14	31.83	75.00	61.46	56.82	79.94	71.29	63.09	52.69	60.35	20.57	21.81	19.96	20.99	21.35
Yolo County Total		2.83	7.64	20.59	6.53	44.14	31.83	75.00	61.46	56.82	79.94	71.29	63.09	52.69	60.35	20.57	21.81	19.96	20.99	21.35
Sutter County Total		1.56	5.42	6.27	4.80	17.27	16.77	54.57	42.61	42.61	42.37	42.37	46.61	48.11	53.20	13.55	14.46	13.17	13.14	17.61

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Table K-35. PM2.5 Detailed Summary (Alternative 3) -

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	3.73	1.96	2.09	0.88	0.88	0.77	0.77	0.46	0.09	0.46
	Construction Worker Commuting	2.13	0.75	0.92	0.36	0.36	0.36	0.36	0.74	0.06	0.08
	Haul Trucks	7.08	3.35	3.33	--	--	--	--	0.66	0.03	0.19
	Fugitive Dust	1.00	0.50	0.50	--	--	--	--	0.06	--	0.75
Intake Channel, Headworks, and Outlet Channel Subtotal		13.94	6.56	6.84	1.24	1.24	1.13	1.13	1.92	0.18	1.48
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.29	0.09	0.01
	Construction Worker Commuting	--	--	--	--	--	--	--	0.10	0.06	0.02
	Haul Trucks	--	--	--	--	--	--	--	0.50	0.03	0.00
	Fugitive Dust	--	--	--	--	--	--	--	0.06	--	0.01
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	0.94	0.18	0.04
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.13	0.13	0.09	0.29	0.09	--	--	--	--	0.08
	Construction Worker Commuting	0.05	0.05	0.16	0.10	0.02	--	--	--	--	0.02
	Haul Trucks	--	--	0.11	0.50	0.01	--	--	--	--	0.06
	Fugitive Dust	--	--	--	0.06	--	--	--	--	--	0.25
Downstream Channel Subtotal		0.18	0.18	0.35	0.94	0.12	--	--	--	--	0.41
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.37	--	0.37	0.09	--	--	--	--	--	0.01
	Construction Worker Commuting	0.09	--	0.16	0.02	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.25	0.01	--	--	--	--	--	0.00
	Fugitive Dust	--	--	0.02	--	--	--	--	--	--	0.02
Agricultural Crossing 1 Subtotal		0.46	--	0.80	0.12	--	--	--	--	--	0.04
GRAND TOTAL		14.58	6.75	8.00	2.30	1.36	1.13	1.13	2.86	0.36	1.96
Yolo County Total		14.58	6.75	8.00	2.30	1.36	1.13	1.13	2.86	0.36	1.96
Sutter County Total		13.94	6.56	6.84	1.24	1.24	1.13	1.13	1.92	0.18	1.48

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-36. PM2.5 Detailed Summary (Alternative 4) - Unmitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.30	3.04	3.12	2.74	9.14	8.87	12.72	12.20	12.20	12.04	12.04	13.14	13.98	14.70	3.84	4.71	3.83	3.93	5.60
	Construction Worker Commuting	0.86	0.47	1.08	0.43	0.62	0.50	1.23	1.12	1.12	1.03	1.03	1.67	2.01	2.54	1.67	1.77	1.53	1.50	2.18
	Haul Trucks	0.40	0.26	0.40	--	0.12	--	0.06	--	--	--	--	3.38	3.71	7.05	7.04	6.98	6.81	6.71	8.58
	Fugitive Dust	--	1.65	1.65	1.63	7.40	7.40	40.56	29.29	29.29	29.29	29.29	28.42	28.42	28.92	1.00	1.00	1.00	1.00	1.25
Intake Channel, Headworks, and Outlet Channel Subtotal		1.56	5.42	6.27	4.80	17.27	16.77	54.57	42.61	42.61	42.37	42.37	46.61	48.11	53.20	13.55	14.46	13.17	13.14	17.61
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	0.12	0.45	0.09	0.54	2.40	1.55	1.68	0.13	0.17	0.15	0.15	0.28	0.44	0.34	0.09	0.09	0.08	0.08	0.09
	Construction Worker Commuting	0.10	0.12	0.22	0.11	0.10	0.25	0.69	0.05	0.44	0.10	0.09	0.11	0.17	0.07	0.22	0.02	0.05	0.05	0.02
	Haul Trucks	0.03	0.03	0.13	0.12	--	--	2.33	--	0.17	--	--	0.08	0.13	--	0.04	0.01	--	--	0.01
	Fugitive Dust	--	0.02	--	0.06	23.47	--	0.50	--	--	21.55	--	--	--	--	--	--	--	--	--
Supplemental Fish Passage East Subtotal		0.25	0.62	0.44	0.83	25.97	1.79	5.20	0.18	0.79	21.80	0.24	0.47	0.74	0.41	0.35	0.12	0.13	0.13	0.12
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.21	0.54	0.54	0.54	0.54	1.55	2.13	2.13	1.63	2.43	2.43	2.43	0.93	1.68	1.68	1.68	1.68	1.68	0.84
	Construction Worker Commuting	0.22	0.11	0.11	0.11	0.11	0.25	0.30	0.30	0.33	0.34	0.34	0.34	0.43	0.69	0.69	0.69	0.69	0.69	0.34
	Haul Trucks	0.12	0.12	0.12	--	--	--	--	--	0.04	--	--	--	1.71	3.35	3.35	3.35	3.35	3.35	1.67
	Fugitive Dust	--	0.06	0.06	0.06	0.06	11.27	12.64	12.64	11.27	12.61	12.61	12.61	0.25	0.50	0.50	0.50	0.50	0.50	0.25
Downstream Channel Subtotal		0.55	0.83	0.83	0.71	0.71	13.06	15.07	15.07	13.27	15.38	15.38	15.38	3.32	6.22	6.22	6.22	6.22	6.22	3.11
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.21	0.54	1.55	0.13	0.13	0.09	0.10	0.58	0.10	0.09	1.74	0.47	0.41	0.41	0.31	0.71	0.28	1.05	0.28
	Construction Worker Commuting	0.18	0.11	0.25	0.05	0.05	0.12	0.04	0.05	0.04	0.22	0.28	0.15	0.11	0.11	0.15	0.26	0.10	0.38	0.11
	Haul Trucks	0.07	0.09	--	--	--	--	0.02	1.63	0.02	0.08	--	--	--	--	0.04	0.06	0.08	0.12	--
	Fugitive Dust	--	0.02	11.27	--	--	--	--	1.34	--	--	11.27	--	--	--	--	--	--	--	--
Agricultural Crossing 1 Subtotal		0.47	0.77	13.06	0.18	0.18	0.21	0.16	3.60	0.16	0.38	13.29	0.62	0.53	0.53	0.45	1.01	0.44	1.50	0.51
Northern Water Control Structure Improvements																				
5	Offroad Construction Equipment Exhaust	0.30	2.04	2.15	5.07	5.44	6.62	3.64	2.16	2.20	3.75	0.59	0.38	0.56	0.29	0.54	0.62	0.62	0.17	0.08
	Construction Worker Commuting	0.32	0.23	0.30	0.32	0.54	0.57	0.80	0.53	0.48	0.73	0.23	0.28	0.11	0.14	0.11	0.14	0.16	0.16	0.05
	Haul Trucks	0.16	0.09	0.12	3.69	3.84	3.69	3.75	3.69	3.69	4.80	0.03	0.19	--	0.14	--	0.01	--	0.08	--
	Fugitive Dust	--	1.58	1.58	6.70	6.70	17.97	14.64	3.38	3.38	14.64	--	--	--	--	--	--	--	--	--
Northern Water Control Structure Improvements Subtotal		0.78	3.95	4.14	15.79	16.53	28.85	22.84	9.76	9.75	23.92	0.85	0.85	0.67	0.57	0.65	0.77	0.78	0.40	0.13
Southern Water Control Structure Improvements																				
6	Offroad Construction Equipment Exhaust	0.31	2.58	2.69	3.75	5.44	6.62	6.89	5.41	5.45	7.00	5.60	3.14	3.41	3.14	3.38	3.47	3.47	3.02	2.93
	Construction Worker Commuting	0.37	0.34	0.41	0.44	0.54	0.57	1.24	0.97	0.92	1.17	1.01	0.92	0.90	0.92	0.90	0.92	0.95	0.95	0.84
	Haul Trucks	0.19	0.24	0.27	5.16	5.31	5.16	5.22	5.16	5.16	8.78	8.78	8.89	8.78	8.92	8.78	8.80	8.78	8.86	8.78
	Fugitive Dust	--	1.63	1.63	4.96	6.70	17.97	16.56	5.30	5.30	16.56	5.30	3.44	3.44	3.44	3.44	3.44	3.44	3.44	3.44
Southern Water Control Structure Improvements Subtotal		0.87	4.80	5.00	14.31	18.00	30.32	29.92	16.83	16.83	33.51	20.69	16.39	16.53	16.42	16.50	16.63	16.63	16.26	15.99
GRAND TOTAL		4.47	16.40	29.73	36.62	78.66	90.99	127.76	88.06	83.40	137.37	92.83	80.34	69.89	77.34	37.72	39.21	37.37	37.66	37.47
Yolo County Total		4.47	16.40	29.73	36.62	78.66	90.99	127.76	88.06	83.40	137.37	92.83	80.34	69.89	77.34	37.72	39.21	37.37	37.66	37.47
Sutter County Total		1.56	5.42	6.27	4.80	17.27	16.77	54.57	42.61	42.61	42.37	42.37	46.61	48.11	53.20	13.55	14.46	13.17	13.14	17.61

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Table K-36. PM2.5 Detailed Summary (Alternative 4) -

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	3.73	1.96	2.09	0.78	0.78	0.67	0.67	0.46	0.09	0.46
	Construction Worker Commuting	2.13	0.75	0.92	0.36	0.36	0.36	0.36	0.74	0.06	0.08
	Haul Trucks	7.08	3.35	3.33	--	--	--	--	0.66	0.03	0.19
	Fugitive Dust	1.00	0.50	0.50	--	--	--	--	0.06	--	0.75
Intake Channel, Headworks, and Outlet Channel Subtotal		13.94	6.56	6.84	1.14	1.14	1.03	1.03	1.92	0.18	1.48
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.29	0.09	0.01
	Construction Worker Commuting	--	--	--	--	--	--	--	0.10	0.06	0.02
	Haul Trucks	--	--	--	--	--	--	--	0.50	0.03	0.00
	Fugitive Dust	--	--	--	--	--	--	--	0.06	--	0.01
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	0.94	0.18	0.04
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.13	0.13	0.09	0.29	0.09	--	--	--	--	0.08
	Construction Worker Commuting	0.05	0.05	0.16	0.10	0.02	--	--	--	--	0.02
	Haul Trucks	--	--	0.11	0.50	0.01	--	--	--	--	0.06
	Fugitive Dust	--	--	--	0.06	--	--	--	--	--	0.25
Downstream Channel Subtotal		0.18	0.18	0.35	0.94	0.12	--	--	--	--	0.41
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.37	--	0.37	0.09	--	--	--	--	--	0.01
	Construction Worker Commuting	0.09	--	0.16	0.02	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.25	0.01	--	--	--	--	--	0.00
	Fugitive Dust	--	--	0.02	--	--	--	--	--	--	0.02
Agricultural Crossing 1 Subtotal		0.46	--	0.80	0.12	--	--	--	--	--	0.04
Northern Water Control Structure Improvements											
5	Offroad Construction Equipment Exhaust	0.11	0.11	0.37	0.09	--	--	--	--	--	0.11
	Construction Worker Commuting	0.10	0.10	0.12	0.02	--	--	--	--	--	0.02
	Haul Trucks	--	--	0.60	0.01	--	--	--	--	--	0.10
	Fugitive Dust	--	--	0.06	--	--	--	--	--	--	0.20
Northern Water Control Structure Improvements Subtotal		0.20	0.20	1.15	0.12	--	--	--	--	--	0.43
Southern Water Control Structure Improvements											
6	Offroad Construction Equipment Exhaust	1.41	1.36	0.48	0.09	--	--	--	--	--	0.22
	Construction Worker Commuting	0.25	0.39	0.18	0.02	--	--	--	--	--	0.04
	Haul Trucks	5.16	5.27	0.65	0.01	--	--	--	--	--	0.38
	Fugitive Dust	3.32	3.32	0.06	--	--	--	--	--	--	0.29
Southern Water Control Structure Improvements Subtotal		10.13	10.35	1.37	0.13	--	--	--	--	--	0.93
GRAND TOTAL		24.92	17.30	10.51	2.46	1.26	1.03	1.03	2.86	0.36	3.32
Yolo County Total		24.92	17.30	10.51	2.46	1.26	1.03	1.03	2.86	0.36	3.32
Sutter County Total		13.94	6.56	6.84	1.14	1.14	1.03	1.03	1.92	0.18	1.48

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-37. PM2.5 Detailed Summary (Alternative 5) - Unmitigated

#	Activity																			M:
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	1.65	8.27	26.98	33.62	38.63	37.08	32.40	34.92	10.21	8.57	8.25	5.52	10.12	8.57	8.11	6.91	6.91	4.47	1.29
	Construction Worker Commuting	1.82	1.60	2.25	1.48	2.49	2.24	1.47	2.50	3.20	2.84	2.64	2.24	3.09	2.84	2.59	2.77	2.77	1.79	0.25
	Haul Trucks	1.01	0.37	0.35	--	0.11	0.11	0.11	0.11	0.06	11.85	11.85	11.85	11.85	11.85	11.85	12.54	12.54	6.66	--
	Fugitive Dust	0.06	2.15	21.17	76.45	87.72	76.45	74.93	75.68	12.94	1.67	1.67	1.67	12.94	1.67	1.67	1.67	1.67	0.92	--
Intake Channel, Headworks, and Outlet Channel Subtotal		4.54	12.39	50.75	111.55	128.95	115.89	108.91	113.21	26.41	24.93	24.40	21.28	37.99	24.93	24.22	23.89	23.89	13.84	1.53
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	0.12	0.45	0.09	0.54	2.40	1.55	1.68	0.13	0.17	0.15	0.15	0.28	0.44	0.34	0.09	0.09	0.08	0.08	0.09
	Construction Worker Commuting	0.10	0.12	0.22	0.11	0.10	0.25	0.69	0.05	0.44	0.10	0.09	0.11	0.17	0.07	0.22	0.02	0.05	0.05	0.02
	Haul Trucks	0.03	0.03	0.13	0.12	--	--	2.39	--	0.17	--	--	0.08	0.13	--	0.04	0.01	--	--	0.01
	Fugitive Dust	--	0.02	--	0.06	23.46	--	0.50	--	--	21.55	--	--	--	--	--	--	--	--	--
Supplemental Fish Passage West Subtotal		0.25	0.62	0.44	0.83	25.97	1.79	5.26	0.18	0.79	21.80	0.24	0.47	0.74	0.41	0.35	0.12	0.13	0.13	0.12
Agricultural Crossing 1																				
3	Offroad Construction Equipment Exhaust	0.21	0.54	1.55	0.13	0.13	0.09	0.10	0.58	0.10	0.09	1.74	0.47	0.41	0.41	0.31	0.71	0.28	1.05	0.28
	Construction Worker Commuting	0.18	0.11	0.25	0.05	0.05	0.12	0.04	0.05	0.04	0.22	0.28	0.15	0.11	0.11	0.15	0.26	0.10	0.38	0.11
	Haul Trucks	0.07	0.09	--	--	--	--	0.02	1.63	0.02	0.08	--	--	--	--	--	0.04	0.06	0.08	0.12
	Fugitive Dust	--	0.02	11.27	--	--	--	--	1.34	--	--	11.27	--	--	--	--	--	--	--	--
Agricultural Crossing 1 Subtotal		0.47	0.77	13.06	0.18	0.18	0.21	0.16	3.60	0.16	0.38	13.29	0.62	0.53	0.53	0.45	1.01	0.44	1.50	0.51
River Grading Site																				
4	Offroad Construction Equipment Exhaust	0.65	1.13	1.60	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
	Construction Worker Commuting	--	--	0.18	0.23	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
	Haul Trucks	0.09	0.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	0.06	2.75	2.75	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
	Marine Equipment Exhaust	0.93	--	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47
River Grading Site Subtotal		1.73	3.91	5.00	1.70	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65
GRAND TOTAL		6.98	17.69	69.25	114.27	156.75	119.55	115.97	118.65	29.00	48.77	39.58	24.03	40.91	27.52	26.67	26.67	26.11	17.12	3.81
Yolo County Total		6.73	17.07	68.81	113.44	130.79	117.75	110.72	118.47	28.22	26.97	39.34	23.55	40.17	27.11	26.32	26.55	25.98	16.99	3.69
Sutter County Total		0.25	0.62	0.44	0.83	25.97	1.79	5.26	0.18	0.79	21.80	0.24	0.47	0.74	0.41	0.35	0.12	0.13	0.13	0.12

Table K-37. PM2.5 Detailed Summary (Alternative 5) -

#	Activity	Maximum Daily Emissions, lbs/day																		
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.47	0.57	0.57	2.04	1.87	0.09	0.37	0.00	0.00	0.17	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.92
	Construction Worker Commuting	0.15	0.12	0.12	1.92	0.70	1.27	0.16	0.00	0.00	0.05	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.58
	Haul Trucks	0.06	--	--	1.54	0.69	0.26	0.56	--	--	0.28	--	--	--	--	--	--	--	--	--
	Fugitive Dust	--	--	--	--	--	--	0.06	--	--	--	--	--	--	--	--	--	--	--	--
Intake Channel, Headworks, and Outlet Channel Subtotal		0.68	0.69	0.69	5.50	3.26	1.62	1.15	--	--	0.50	2.43	2.43	2.43	2.43	2.43	2.43	2.43	2.43	2.50
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.29	0.09	--	--	--	--	--	--	--	--	--	--
	Construction Worker Commuting	--	--	--	--	--	--	--	0.10	0.06	--	--	--	--	--	--	--	--	--	--
	Haul Trucks	--	--	--	--	--	--	--	0.50	0.03	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	--	--	--	--	--	--	--	0.06	--	--	--	--	--	--	--	--	--	--	--
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	0.94	0.18	--	--	--	--	--	--	--	--	--	--
Agricultural Crossing 1																				
3	Offroad Construction Equipment Exhaust	0.37	--	0.37	0.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Construction Worker Commuting	0.09	--	0.16	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Haul Trucks	--	--	0.25	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	--	--	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Agricultural Crossing 1 Subtotal		0.46	--	0.80	0.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
River Grading Site																				
4	Offroad Construction Equipment Exhaust	0.94	1.63	0.03	0.03	--	0.65	--	--	--	--	--	--	--	--	--	--	--	--	--
	Construction Worker Commuting	0.18	0.53	0.34	0.39	0.05	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Haul Trucks	--	1.66	1.66	1.66	--	0.09	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	0.06	2.75	--	--	--	0.06	--	--	--	--	--	--	--	--	--	--	--	--	--
	Marine Equipment Exhaust	0.47	0.47	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
River Grading Site Subtotal		1.65	7.04	2.03	2.08	0.05	0.80	--	--	--	--	--	--	--	--	--	--	--	--	--
GRAND TOTAL		2.79	7.73	3.53	7.71	3.31	2.41	1.15	0.94	0.18	0.50	2.43	2.43	2.43	2.43	2.43	2.43	2.43	2.43	2.50
Yolo County Total		2.79	7.73	3.53	7.71	3.31	2.41	1.15	--	--	0.50	2.43	2.43	2.43	2.43	2.43	2.43	2.43	2.43	2.50
Sutter County Total		--	--	--	--	--	--	--	0.94	0.18	--	--	--	--	--	--	--	--	--	--

Table K-37. PM2.5 Detailed Summary (Alternative 5) -

#	Activity	24-Jun	1-Jul	8-Jul	Annual Emissions, tpy	Year 1, tpy	Year 2, tpy
Intake Channel, Headworks, and Outlet Channel							
1	Offroad Construction Equipment Exhaust	0.43	0.17	--	1.79	1.74	0.05
	Construction Worker Commuting	0.28	0.05	--	0.13	0.12	0.02
	Haul Trucks	--	0.28	--	0.31	0.31	0.00
	Fugitive Dust	--	--	--	1.43	1.43	--
Intake Channel, Headworks, and Outlet Channel Subtotal		0.71	0.50	--	3.66	3.60	0.07
Supplemental Fish Passage West							
2	Offroad Construction Equipment Exhaust	--	--	--	0.01	0.01	--
	Construction Worker Commuting	--	--	--	0.01	0.01	--
	Haul Trucks	--	--	--	0.00	0.00	--
	Fugitive Dust	--	--	--	0.01	0.01	--
Supplemental Fish Passage West Subtotal		--	--	--	0.03	0.03	--
Agricultural Crossing 1							
3	Offroad Construction Equipment Exhaust	--	--	--	0.01	0.01	--
	Construction Worker Commuting	--	--	--	0.00	0.00	--
	Haul Trucks	--	--	--	0.00	0.00	--
	Fugitive Dust	--	--	--	0.02	0.02	--
Agricultural Crossing 1 Subtotal		--	--	--	0.04	0.04	--
River Grading Site							
4	Offroad Construction Equipment Exhaust	--	--	--	0.03	0.03	--
	Construction Worker Commuting	--	--	--	0.01	0.01	--
	Haul Trucks	--	--	--	0.02	0.02	--
	Fugitive Dust	--	--	--	0.01	0.01	--
	Marine Equipment Exhaust	--	--	--	0.07	0.07	--
River Grading Site Subtotal		--	--	--	0.14	0.14	--
GRAND TOTAL		0.71	0.50	--	3.88	3.81	0.07
Yolo County Total		0.71	0.50	--	3.84	3.78	0.07
Sutter County Total		--	--	--	0.03	0.03	--

Table K-38. PM2.5 Detailed Summary (Alternative 6) - Unmitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.30	4.12	4.34	3.43	13.14	12.86	13.51	12.84	12.69	13.52	21.17	21.17	20.62	21.49	20.81	20.70	21.54	21.25	20.42
	Construction Worker Commuting	1.18	1.65	0.87	0.63	0.91	0.80	1.16	1.00	0.91	1.24	3.92	3.92	3.84	3.94	3.89	3.67	4.00	3.98	3.61
	Haul Trucks	0.55	0.63	0.41	0.35	0.12	--	0.06	--	--	0.35	12.18	12.18	12.15	12.09	12.19	11.83	12.18	12.24	11.85
	Fugitive Dust	--	1.73	1.73	1.69	20.62	20.62	9.21	7.83	7.83	7.83	42.89	42.89	42.89	42.89	42.89	42.89	42.89	42.89	42.89
Intake Channel, Headworks, and Outlet Channel Subtotal		2.04	8.12	7.35	6.10	34.79	34.28	23.94	21.67	21.43	22.95	80.15	80.15	79.50	80.41	79.78	79.09	80.61	80.36	78.76
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	0.12	0.45	0.09	0.54	2.40	1.55	1.68	0.13	0.17	0.15	0.15	0.28	0.44	0.34	0.09	0.09	0.08	0.08	0.09
	Construction Worker Commuting	0.10	0.12	0.22	0.11	0.10	0.25	0.69	0.05	0.44	0.10	0.09	0.11	0.17	0.07	0.22	0.02	0.05	0.05	0.02
	Haul Trucks	0.03	0.03	0.13	0.12	--	--	2.33	--	0.17	--	--	0.08	0.13	--	0.04	0.01	--	--	0.01
	Fugitive Dust	--	0.02	--	0.06	23.47	--	0.50	--	--	21.55	--	--	--	--	--	--	--	--	--
Supplemental Fish Passage East Subtotal		0.25	0.62	0.44	0.83	25.97	1.79	5.20	0.18	0.79	21.80	0.24	0.47	0.74	0.41	0.35	0.12	0.13	0.13	0.12
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.21	0.54	0.54	0.54	0.54	1.55	2.13	2.13	1.63	2.43	2.43	2.43	0.93	1.68	1.68	1.68	1.68	1.68	0.84
	Construction Worker Commuting	0.22	0.11	0.11	0.11	0.11	0.25	0.30	0.30	0.33	0.34	0.34	0.34	0.43	0.69	0.69	0.69	0.69	0.69	0.34
	Haul Trucks	0.12	0.12	0.12	--	--	--	--	--	0.04	--	--	--	1.71	3.35	3.35	3.35	3.35	3.35	1.67
	Fugitive Dust	--	0.06	0.06	0.06	0.06	11.27	12.64	12.64	11.27	12.61	12.61	12.61	0.25	0.50	0.50	0.50	0.50	0.50	0.25
Downstream Channel Subtotal		0.55	0.83	0.83	0.71	0.71	13.06	15.07	15.07	13.27	15.38	15.38	15.38	3.32	6.22	6.22	6.22	6.22	6.22	3.11
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.21	0.54	1.55	0.13	0.13	0.09	0.10	0.58	0.10	0.09	1.74	0.47	0.41	0.41	0.31	0.71	0.28	1.05	0.28
	Construction Worker Commuting	0.18	0.11	0.25	0.05	0.05	0.12	0.04	0.05	0.04	0.22	0.28	0.15	0.11	0.11	0.15	0.26	0.10	0.38	0.11
	Haul Trucks	0.07	0.09	--	--	--	--	0.02	1.63	0.02	0.08	--	--	--	--	--	0.04	0.06	0.08	0.12
	Fugitive Dust	--	0.02	11.27	--	--	--	--	1.34	--	--	11.27	--	--	--	--	--	--	--	--
Agricultural Crossing 1 Subtotal		0.47	0.77	13.06	0.18	0.18	0.21	0.16	3.60	0.16	0.38	13.29	0.62	0.53	0.53	0.45	1.01	0.44	1.50	0.51
GRAND TOTAL		3.30	10.34	21.68	7.83	61.65	49.34	44.37	40.53	35.64	60.52	109.06	96.63	84.08	87.57	86.80	86.44	87.40	88.21	82.50
Yolo County Total		3.30	10.34	21.68	7.83	61.65	49.34	44.37	40.53	35.64	60.52	109.06	96.63	84.08	87.57	86.80	86.44	87.40	88.21	82.50
Sutter County Total		2.04	8.12	7.35	6.10	34.79	34.28	23.94	21.67	21.43	22.95	80.15	80.15	79.50	80.41	79.78	79.09	80.61	80.36	78.76

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Table K-38. PM2.5 Detailed Summary (Alternative 6) -

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	21.38	11.77	3.77	4.58	1.31	1.11	1.11	0.69	0.26	0.94
	Construction Worker Commuting	4.13	3.73	1.61	1.81	1.37	0.43	0.43	0.33	1.07	0.17
	Haul Trucks	13.45	13.45	6.75	6.75	0.44	--	--	0.50	0.28	0.46
	Fugitive Dust	43.14	35.30	1.00	1.00	--	--	--	0.06	--	1.56
Intake Channel, Headworks, and Outlet Channel Subtotal		82.10	64.26	13.13	14.14	3.12	1.54	1.54	1.58	1.61	3.12
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.29	0.09	0.01
	Construction Worker Commuting	--	--	--	--	--	--	--	0.10	0.06	0.02
	Haul Trucks	--	--	--	--	--	--	--	0.50	0.03	0.00
	Fugitive Dust	--	--	--	--	--	--	--	0.06	--	0.01
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	0.94	0.18	0.04
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.13	0.13	0.09	0.29	0.09	--	--	--	--	0.08
	Construction Worker Commuting	0.05	0.05	0.16	0.10	0.02	--	--	--	--	0.02
	Haul Trucks	--	--	0.11	0.50	0.01	--	--	--	--	0.06
	Fugitive Dust	--	--	--	0.06	--	--	--	--	--	0.25
Downstream Channel Subtotal		0.18	0.18	0.35	0.94	0.12	--	--	--	--	0.41
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.37	--	0.37	0.09	--	--	--	--	--	0.01
	Construction Worker Commuting	0.09	--	0.16	0.02	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.25	0.01	--	--	--	--	--	0.00
	Fugitive Dust	--	--	0.02	--	--	--	--	--	--	0.02
Agricultural Crossing 1 Subtotal		0.46	--	0.80	0.12	--	--	--	--	--	0.04
GRAND TOTAL		82.74	64.44	14.29	15.21	3.24	1.54	1.54	2.52	1.79	3.60
Yolo County Total		82.74	64.44	14.29	15.21	3.24	1.54	1.54	2.52	1.79	3.60
Sutter County Total		82.10	64.26	13.13	14.14	3.12	1.54	1.54	1.58	1.61	3.12

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-39. GHG Detailed Summary (Alternative 1) - Unmitigated

#	Activity	Emissions , MTCO ₂ e/ project
Intake Channel, Headworks, and Outlet Channel		
1	Offroad Construction Equipment Exhaust Construction Worker Commuting Haul Trucks Fugitive Dust	1,867 119 877 n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		2,862
Supplemental Fish Passage West		
2	Offroad Construction Equipment Exhaust Construction Worker Commuting Haul Trucks Fugitive Dust	96 8 35 n/a
Supplemental Fish Passage West Subtotal		139
Downstream Channel		
3	Offroad Construction Equipment Exhaust Construction Worker Commuting Haul Trucks Fugitive Dust	1,008 57 662 n/a
Downstream Channel Subtotal		1,728
Agricultural Crossing 1		
4	Offroad Construction Equipment Exhaust Construction Worker Commuting Haul Trucks Fugitive Dust	95 9 34 n/a
Agricultural Crossing 1 Subtotal		137
GRAND TOTAL		4,866
Yolo County Total		4,727
Sutter County Total		139

Table K-40. GHG Detailed Summary (Alternative 2) - Unmitigated

#	Activity	Emissions , MTCO ₂ e/ project
Intake Channel, Headworks, and Outlet Channel		
1	Offroad Construction Equipment Exhaust	3,336
	Construction Worker Commuting	183
	Haul Trucks	1,780
	Fugitive Dust	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		5,299
Supplemental Fish Passage West		
2	Offroad Construction Equipment Exhaust	96
	Construction Worker Commuting	8
	Haul Trucks	35
	Fugitive Dust	n/a
Supplemental Fish Passage West Subtotal		139
Downstream Channel		
3	Offroad Construction Equipment Exhaust	1,008
	Construction Worker Commuting	57
	Haul Trucks	662
	Fugitive Dust	n/a
Downstream Channel Subtotal		1,728
Agricultural Crossing 1		
4	Offroad Construction Equipment Exhaust	95
	Construction Worker Commuting	9
	Haul Trucks	34
	Fugitive Dust	n/a
Agricultural Crossing 1 Subtotal		137
River Grading Site		
5	Offroad Construction Equipment Exhaust	417
	Construction Worker Commuting	45
	Haul Trucks	174
	Fugitive Dust	n/a
	Marine Equipment Exhaust	1,985
River Grading Site Subtotal		2,621
GRAND TOTAL		9,924
Yolo County Total		9,785
Sutter County Total		139

Table K-41. GHG Detailed Summary (Alternative 3) - Unmitigated

#	Activity	Emissions , MTCO ₂ e/ project
Intake Channel, Headworks, and Outlet Channel		
1	Offroad Construction Equipment Exhaust	4,570
	Construction Worker Commuting	233
	Haul Trucks	2,170
	Fugitive Dust	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		6,973
Supplemental Fish Passage East		
2	Offroad Construction Equipment Exhaust	115
	Construction Worker Commuting	10
	Haul Trucks	45
	Fugitive Dust	n/a
Supplemental Fish Passage East Subtotal		170
Downstream Channel		
3	Offroad Construction Equipment Exhaust	1,008
	Construction Worker Commuting	57
	Haul Trucks	662
	Fugitive Dust	n/a
Downstream Channel Subtotal		1,728
Agricultural Crossing 1		
4	Offroad Construction Equipment Exhaust	95
	Construction Worker Commuting	9
	Haul Trucks	34
	Fugitive Dust	n/a
Agricultural Crossing 1 Subtotal		137
GRAND TOTAL		9,008
Yolo County Total		9,008
Sutter County Total		6,973

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Table K-42. GHG Detailed Summary (Alternative 4) - Unmitigated

#	Activity	Emissions , MTCO ₂ e/ project
Intake Channel, Headworks, and Outlet Channel		
1	Offroad Construction Equipment Exhaust	4,563
	Construction Worker Commuting	233
	Haul Trucks	2,170
	Fugitive Dust	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		6,966
Supplemental Fish Passage East		
2	Offroad Construction Equipment Exhaust	115
	Construction Worker Commuting	10
	Haul Trucks	45
	Fugitive Dust	n/a
Supplemental Fish Passage East Subtotal		170
Downstream Channel		
3	Offroad Construction Equipment Exhaust	1,008
	Construction Worker Commuting	57
	Haul Trucks	662
	Fugitive Dust	n/a
Downstream Channel Subtotal		1,728
Agricultural Crossing 1		
4	Offroad Construction Equipment Exhaust	95
	Construction Worker Commuting	9
	Haul Trucks	34
	Fugitive Dust	n/a
Agricultural Crossing 1 Subtotal		137
Northern Water Control Structure Improvements		
5	Offroad Construction Equipment Exhaust	923
	Construction Worker Commuting	51
	Haul Trucks	1,180
	Fugitive Dust	n/a
Northern Water Control Structure Improvements Subtotal		2,154
Southern Water Control Structure Improvements		
6	Offroad Construction Equipment Exhaust	2,363
	Construction Worker Commuting	131
	Haul Trucks	4,385
	Fugitive Dust	n/a
Southern Water Control Structure Improvements Subtotal		6,879
GRAND TOTAL		18,034
Yolo County Total		18,034
Sutter County Total		6,966

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Table K-43. GHG Detailed Summary (Alternative 5) - Unmitigated

#	Activity	Emissions , MTCO ₂ e/ project	Year 1, MTCO ₂ e/yr	Year 2, MTCO ₂ e/yr
Intake Channel, Headworks, and Outlet Channel				
1	Offroad Construction Equipment Exhaust	14,363	13,901	462
	Construction Worker Commuting	392	347	45
	Haul Trucks	3,526	3,526	0
	Fugitive Dust	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		18,281	17,775	507
Supplemental Fish Passage West				
2	Offroad Construction Equipment Exhaust	96	96	0
	Construction Worker Commuting	8	8	0
	Haul Trucks	35	35	0
	Fugitive Dust	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		139	139	0
Agricultural Crossing 1				
3	Offroad Construction Equipment Exhaust	95	95	0
	Construction Worker Commuting	9	9	0
	Haul Trucks	34	34	0
	Fugitive Dust	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		137	137	0
River Grading Site				
4	Offroad Construction Equipment Exhaust	417	417	0
	Construction Worker Commuting	45	45	0
	Haul Trucks	174	174	0
	Fugitive Dust	n/a	n/a	n/a
	Marine Equipment Exhaust	1,985	1,985	0
River Grading Site Subtotal		2,621	2,621	0
GRAND TOTAL		21,179	20,672	507
Yolo County Total		21,040	20,533	507
Sutter County Total		139	139	0

Table K-44. GHG Detailed Summary (Alternative 6) - Unmitigated

#	Activity	Emissions , MTCO ₂ e/ project
Intake Channel, Headworks, and Outlet Channel		
1	Offroad Construction Equipment Exhaust	9,887
	Construction Worker Commuting	485
	Haul Trucks	5,261
	Fugitive Dust	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		15,634
Supplemental Fish Passage East		
2	Offroad Construction Equipment Exhaust	115
	Construction Worker Commuting	10
	Haul Trucks	45
	Fugitive Dust	n/a
Supplemental Fish Passage East Subtotal		170
Downstream Channel		
3	Offroad Construction Equipment Exhaust	1,008
	Construction Worker Commuting	57
	Haul Trucks	662
	Fugitive Dust	n/a
Downstream Channel Subtotal		1,728
Agricultural Crossing 1		
4	Offroad Construction Equipment Exhaust	95
	Construction Worker Commuting	9
	Haul Trucks	34
	Fugitive Dust	n/a
Agricultural Crossing 1 Subtotal		137
GRAND TOTAL		17,669
Yolo County Total		17,669
Sutter County Total		15,634

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Appendix K1
Air Quality Emission Calculations

Comparison of Emissions

Table K-45. Maximum Daily Mitigated Emissions

Alternative	Description	ROG, lbs/day	NOx, lbs/day	CO, lbs/day	SO2, lbs/day	PM10, lbs/day	PM2.5, lbs/day
1	East Side Small Gated Notch	45	541	228	2	199	31
	<i>Percent Reduction (Compared to Unmitigated)</i>	-10%	-19%	-13%	-1%	-57%	-48%
2	Central Small Gated Notch	58	748	357	3	265	36
	<i>Percent Reduction (Compared to Unmitigated)</i>	-9%	-19%	-17%	-1%	-56%	-55%
3	West Side Small Gated Notch	45	707	404	3	266	35
	<i>Percent Reduction (Compared to Unmitigated)</i>	-25%	-36%	-14%	-1%	-56%	-57%
4	Managed Flow	80	1,083	571	5	443	70
	<i>Percent Reduction (Compared to Unmitigated)</i>	-16%	-30%	-17%	-1%	-52%	-49%
5	Multiple Gates	134	815	671	4	478	68
	<i>Percent Reduction (Compared to Unmitigated)</i>	-7%	-46%	-21%	-1%	-54%	-57%
6	Large Gated Notch	57	1,057	596	4	344	56
	<i>Percent Reduction (Compared to Unmitigated)</i>	-35%	-34%	-13%	-1%	-51%	-49%
Yolo-Solano AQMD Significance Thresholds		n/a	n/a	n/a	n/a	80	n/a
Feather River AQMD Significance Thresholds		n/a	n/a	n/a	n/a	80	n/a

Table K-46. Annual Mitigated Emissions

Alternative	Description	ROG, tpy	NOx, tpy	CO, tpy	SO2, tpy	PM10, tpy	PM2.5, tpy	Emissions, MTCO2e/project
1	East Side Small Gated Notch	0.8	10.1	7.9	0.0	3.1	0.6	3,813
	<i>Percent Reduction (Compared to Unmitigated)</i>	-33%	-36%	-10%	-1%	-49%	-40%	-22%
2	Central Small Gated Notch	1.8	16.8	15.7	0.1	4.5	0.9	8,819
	<i>Percent Reduction (Compared to Unmitigated)</i>	-25%	-44%	-9%	-1%	-45%	-42%	-11%
3	West Side Small Gated Notch	1.3	18.3	13.5	0.1	5.7	1.1	7,773
	<i>Percent Reduction (Compared to Unmitigated)</i>	-38%	-40%	-13%	-1%	-47%	-46%	-14%
4	Managed Flow	2.4	38.1	23.6	0.2	9.4	2.1	12,269
	<i>Percent Reduction (Compared to Unmitigated)</i>	-34%	-33%	-12%	0%	-40%	-38%	-32%
5	Multiple Gates	3.8	29.4	38.3	0.2	8.4	2.0	6,804
	<i>Percent Reduction (Compared to Unmitigated)</i>	-41%	-60%	-16%	0%	-38%	-49%	-68%
6	Large Gated Notch	2.3	36.6	24.5	0.2	10.6	2.0	6,659
	<i>Percent Reduction (Compared to Unmitigated)</i>	-40%	-39%	-14%	-1%	-46%	-45%	-62%
Yolo-Solano AQMD Significance Thresholds		10	10	n/a	n/a	n/a	n/a	1,100
Feather River AQMD Significance Thresholds		2.5	2.5	n/a	n/a	n/a	n/a	1,100
Feather River AQMD Significance Thresholds (Alt 5)		3.6	3.6	n/a	n/a	n/a	n/a	1,100
General Conformity De Minimis Thresholds		25	25	100	100	100	100	n/a

Note: Emissions include construction of downstream reach.

Construction occurs over two dry seasons for Alternative 5 only.

Feather River AQMD NOx and ROG significance threshold equal to 25 lbs/day multiplied by project length, not to exceed 4.5 tons per year.

Only certain portions (certain urban areas) are designated maintenance for PM10 and CO; therefore, only the portion of emissions that occur in those areas are subject to general conformi

Construction Duration

200 days
6.7 months

Legend

Exceeds CEQA significance threshold
Exceeds general conformity de minimis

Construction Duration (Alternative 5)

284 days
9.5 months

Construction Season

	Year 1	Year 2
Start	15-Apr	15-Apr
End	1-Nov	8-Jul

Table K-47. ROG Detailed Summary (Alternative 1) - Mitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.40	22.98	23.20	22.71	2.85	2.76	5.18	4.48	5.16	4.88	3.62	4.15	6.53	7.99	9.46	8.80	5.64	6.64	0.30
	Construction Worker Commuting	0.10	0.08	0.18	0.07	0.07	0.06	0.13	0.12	0.12	0.11	0.09	0.14	0.18	0.19	0.24	0.23	0.14	0.19	0.07
	Haul Trucks	0.34	0.25	0.39	--	--	--	0.12	0.02	--	--	--	2.09	5.17	4.73	5.05	5.05	3.16	5.24	0.18
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		0.84	23.30	23.77	22.78	2.92	2.82	5.43	4.62	5.28	4.98	3.71	6.39	11.88	12.90	14.75	14.09	8.93	12.07	0.55
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	0.19	0.55	0.11	10.76	1.26	1.65	5.12	0.15	0.21	0.29	0.29	0.40	0.57	0.31	0.11	0.11	0.12	0.12	0.11
	Construction Worker Commuting	0.02	0.02	0.04	0.02	0.02	0.04	0.11	0.01	0.07	0.02	0.01	0.02	0.03	0.01	0.04	0.00	0.01	0.01	0.00
	Haul Trucks	0.03	0.03	0.12	0.12	--	--	2.28	--	0.16	--	--	0.08	0.12	--	0.04	0.01	--	--	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		0.24	0.60	0.27	10.90	1.28	1.69	7.52	0.16	0.45	0.30	0.30	0.50	0.72	0.33	0.18	0.12	0.13	0.13	0.12
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.30	10.76	10.76	10.76	10.76	1.65	1.97	1.97	1.65	2.15	2.48	2.48	2.67	5.12	5.12	5.12	5.12	5.12	2.56
	Construction Worker Commuting	0.04	0.02	0.02	0.02	0.02	0.04	0.05	0.05	0.06	0.06	0.06	0.06	0.07	0.11	0.11	0.11	0.11	0.11	0.06
	Haul Trucks	0.11	0.12	0.12	--	--	--	--	--	0.03	--	--	--	1.63	3.20	3.20	3.20	3.20	3.20	1.60
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.45	10.90	10.90	10.78	10.78	1.69	2.02	2.02	1.74	2.20	2.54	2.54	4.37	8.44	8.44	8.44	8.44	8.44	4.22
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.30	10.58	1.65	0.15	0.15	0.11	0.15	0.32	0.15	0.11	1.84	0.60	0.37	0.37	0.45	0.85	0.30	1.16	0.40
	Construction Worker Commuting	0.03	0.02	0.04	0.01	0.01	0.02	0.01	0.01	0.01	0.04	0.05	0.02	0.02	0.02	0.02	0.04	0.02	0.06	0.02
	Haul Trucks	0.07	0.09	--	--	--	--	0.02	1.56	0.02	0.07	--	--	--	--	--	0.04	0.06	0.07	0.11
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.39	10.68	1.69	0.16	0.16	0.13	0.18	1.89	0.18	0.22	1.89	0.62	0.38	0.38	0.47	0.93	0.37	1.30	0.54
GRAND TOTAL		1.91	45.49	36.62	44.62	15.13	6.33	15.15	8.68	7.65	7.71	8.44	10.05	17.36	22.06	23.84	23.58	17.87	21.93	5.43
Yolo County Total		1.68	44.89	36.36	33.72	13.86	4.64	7.63	8.53	7.20	7.40	8.14	9.55	16.63	21.73	23.66	23.46	17.75	21.81	5.31
Sutter County Total		0.24	0.60	0.27	10.90	1.28	1.69	7.52	0.16	0.45	0.30	0.30	0.50	0.72	0.33	0.18	0.12	0.13	0.13	0.12

Table K-47. ROG Detailed Summary (Alternative 1) - M

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	0.19	0.30	1.04	1.04	1.04	0.97	0.65	0.93	0.11	0.40
	Construction Worker Commuting	0.01	0.01	0.06	0.06	0.06	0.06	0.05	0.12	0.01	0.01
	Haul Trucks	--	0.00	--	--	--	--	--	0.61	0.03	0.07
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		0.20	0.31	1.10	1.10	1.10	1.03	0.70	1.67	0.14	0.48
Supplemental Fish Passage West											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.60	0.11	0.02
	Construction Worker Commuting	--	--	--	--	--	--	--	0.02	0.01	0.00
	Haul Trucks	--	--	--	--	--	--	--	0.48	0.03	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	1.10	0.14	0.02
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.15	0.15	0.11	0.60	0.11	--	--	--	--	0.24
	Construction Worker Commuting	0.01	0.01	0.03	0.02	0.00	--	--	--	--	0.00
	Haul Trucks	--	--	0.10	0.48	0.01	--	--	--	--	0.05
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.16	0.16	0.23	1.10	0.12	--	--	--	--	0.30
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.32	--	0.71	0.11	--	--	--	--	--	0.02
	Construction Worker Commuting	0.01	--	0.03	0.00	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.24	0.01	--	--	--	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.33	--	0.97	0.12	--	--	--	--	--	0.03
GRAND TOTAL		0.69	0.47	2.30	2.32	1.22	1.03	0.70	2.76	0.29	0.83
Yolo County Total		0.69	0.47	2.30	2.32	1.22	1.03	0.70	1.67	0.14	0.81
Sutter County Total		--	--	--	--	--	--	--	1.10	0.14	0.02

Table K-48. ROG Detailed Summary (Alternative 2) - Mitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.40	22.98	23.08	22.71	5.36	4.96	9.35	8.62	8.62	8.33	4.55	6.37	12.71	11.66	11.07	12.02	10.85	10.76	9.42
	Construction Worker Commuting	0.14	0.08	0.18	0.07	0.10	0.08	0.20	0.18	0.18	0.16	0.11	0.15	0.32	0.29	0.28	0.30	0.25	0.25	0.25
	Haul Trucks	0.39	0.26	0.39	--	0.11	--	0.06	--	--	--	--	3.22	7.39	7.39	7.38	7.32	7.16	7.06	5.42
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		0.93	23.31	23.65	22.78	5.58	5.04	9.62	8.79	8.79	8.49	4.67	9.74	20.42	19.34	18.72	19.63	18.26	18.08	15.08
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	0.19	0.55	0.11	10.76	1.26	1.65	5.12	0.15	0.21	0.29	0.29	0.40	0.57	0.31	0.11	0.11	0.12	0.12	0.11
	Construction Worker Commuting	0.02	0.02	0.04	0.02	0.02	0.04	0.11	0.01	0.07	0.02	0.01	0.02	0.03	0.01	0.04	0.00	0.01	0.01	0.00
	Haul Trucks	0.03	0.03	0.12	0.12	--	--	2.28	--	0.16	--	--	0.08	0.12	--	0.04	0.01	--	--	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		0.24	0.60	0.27	10.90	1.28	1.69	7.52	0.16	0.45	0.30	0.30	0.50	0.72	0.33	0.18	0.12	0.13	0.13	0.12
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.30	10.76	10.76	10.76	10.76	1.65	1.97	1.97	1.65	2.15	2.48	2.48	2.67	5.12	5.12	5.12	5.12	5.12	2.56
	Construction Worker Commuting	0.04	0.02	0.02	0.02	0.02	0.04	0.05	0.05	0.06	0.06	0.06	0.06	0.07	0.11	0.11	0.11	0.11	0.11	0.06
	Haul Trucks	0.11	0.12	0.12	--	--	--	--	--	0.03	--	--	--	1.63	3.20	3.20	3.20	3.20	3.20	1.60
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.45	10.90	10.90	10.78	10.78	1.69	2.02	2.02	1.74	2.20	2.54	2.54	4.37	8.44	8.44	8.44	8.44	8.44	4.22
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.30	10.58	1.65	0.15	0.15	0.11	0.15	0.32	0.15	0.11	1.84	0.60	0.37	0.37	0.45	0.85	0.30	1.16	0.40
	Construction Worker Commuting	0.03	0.02	0.04	0.01	0.01	0.02	0.01	0.01	0.01	0.04	0.05	0.02	0.02	0.02	0.02	0.04	0.02	0.06	0.02
	Haul Trucks	0.07	0.09	--	--	--	--	0.02	1.56	0.02	0.07	--	--	--	--	--	0.04	0.06	0.07	0.11
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.39	10.68	1.69	0.16	0.16	0.13	0.18	1.89	0.18	0.22	1.89	0.62	0.38	0.38	0.47	0.93	0.37	1.30	0.54
River Grading Site																				
5	Offroad Construction Equipment Exhaust	1.51	12.27	5.76	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73
	Construction Worker Commuting	--	--	0.03	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
	Haul Trucks	0.08	0.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	6.54	--	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27
River Grading Site Subtotal		8.13	12.30	9.06	7.04	7.03	7.03	7.03	7.03	7.03	7.03	7.03	7.03	7.03	7.03	7.03	7.03	7.03	7.03	7.03
GRAND TOTAL		10.13	57.79	45.57	51.66	24.82	15.58	26.36	19.89	18.19	18.25	16.42	20.43	32.93	35.52	34.85	36.15	34.23	34.97	26.99
Yolo County Total		9.90	57.19	45.30	40.76	23.55	13.89	18.84	19.73	17.74	17.94	16.12	19.93	32.21	35.19	34.67	36.03	34.10	34.85	26.87
Sutter County Total		0.24	0.60	0.27	10.90	1.28	1.69	7.52	0.16	0.45	0.30	0.30	0.50	0.72	0.33	0.18	0.12	0.13	0.13	0.12

Table K-48. ROG Detailed Summary (Alternative 2) - M

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	5.42	0.41	0.58	1.00	1.00	0.92	0.92	0.81	0.11	0.59
	Construction Worker Commuting	0.13	0.12	0.04	0.06	0.06	0.06	0.06	0.12	0.01	0.01
	Haul Trucks	3.91	0.31	--	--	--	--	--	0.63	0.03	0.15
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		9.46	0.84	0.62	1.06	1.06	0.98	0.98	1.56	0.14	0.75
Supplemental Fish Passage West											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.60	0.11	0.02
	Construction Worker Commuting	--	--	--	--	--	--	--	0.02	0.01	0.00
	Haul Trucks	--	--	--	--	--	--	--	0.48	0.03	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	1.10	0.14	0.02
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.15	0.15	0.11	0.60	0.11	--	--	--	--	0.24
	Construction Worker Commuting	0.01	0.01	0.03	0.02	0.00	--	--	--	--	0.00
	Haul Trucks	--	--	0.10	0.48	0.01	--	--	--	--	0.05
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.16	0.16	0.23	1.10	0.12	--	--	--	--	0.30
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.32	--	0.71	0.11	--	--	--	--	--	0.02
	Construction Worker Commuting	0.01	--	0.03	0.00	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.24	0.01	--	--	--	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.33	--	0.97	0.12	--	--	--	--	--	0.03
River Grading Site											
5	Offroad Construction Equipment Exhaust	3.73	5.86	0.10	0.10	--	1.51	--	--	--	0.12
	Construction Worker Commuting	0.03	0.09	0.06	0.07	0.01	--	--	--	--	0.00
	Haul Trucks	--	1.59	1.59	1.59	--	0.08	--	--	--	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	3.27	3.27	--	--	--	--	--	--	--	0.53
River Grading Site Subtotal		7.03	10.80	1.74	1.75	0.01	1.59	--	--	--	0.67
GRAND TOTAL		16.98	11.80	3.56	4.03	1.19	2.57	0.98	2.66	0.29	1.77
Yolo County Total		16.98	11.80	3.56	4.03	1.19	2.57	0.98	1.56	0.14	1.75
Sutter County Total		--	--	--	--	--	--	--	1.10	0.14	0.02

Table K-49. ROG Detailed Summary (Alternative 3) - Mitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.40	22.98	23.08	22.71	5.36	4.96	9.35	8.94	8.94	8.65	8.65	13.45	14.67	18.74	11.07	12.02	10.85	10.76	14.54
	Construction Worker Commuting	0.14	0.08	0.18	0.07	0.10	0.08	0.20	0.19	0.19	0.17	0.17	0.28	0.33	0.42	0.28	0.30	0.25	0.25	0.36
	Haul Trucks	0.39	0.25	0.39	--	0.11	--	0.06	--	--	--	--	3.23	3.55	6.74	6.73	6.68	6.52	6.42	8.21
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		0.93	23.31	23.65	22.78	5.58	5.04	9.62	9.12	9.12	8.82	8.82	16.97	18.55	25.90	18.08	18.99	17.62	17.44	23.11
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	0.19	0.55	0.11	10.76	1.26	1.65	5.12	0.15	0.21	0.29	0.29	0.40	0.57	0.31	0.11	0.11	0.12	0.12	0.11
	Construction Worker Commuting	0.02	0.02	0.04	0.02	0.02	0.04	0.11	0.01	0.07	0.02	0.01	0.02	0.03	0.01	0.04	0.00	0.01	0.01	0.00
	Haul Trucks	0.03	0.03	0.12	0.12	--	--	2.23	--	0.16	--	--	0.08	0.12	--	0.04	0.01	--	--	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		0.24	0.60	0.27	10.90	1.28	1.69	7.47	0.16	0.45	0.30	0.30	0.50	0.72	0.33	0.18	0.12	0.13	0.13	0.12
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.30	10.76	10.76	10.76	10.76	1.65	1.97	1.97	1.65	2.15	2.48	2.48	2.67	5.12	5.12	5.12	5.12	5.12	2.56
	Construction Worker Commuting	0.04	0.02	0.02	0.02	0.02	0.04	0.05	0.05	0.06	0.06	0.06	0.06	0.07	0.11	0.11	0.11	0.11	0.11	0.06
	Haul Trucks	0.11	0.12	0.12	--	--	--	--	--	0.03	--	--	--	1.63	3.20	3.20	3.20	3.20	3.20	1.60
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.45	10.90	10.90	10.78	10.78	1.69	2.02	2.02	1.74	2.20	2.54	2.54	4.37	8.44	8.44	8.44	8.44	8.44	4.22
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.30	10.58	1.65	0.15	0.15	0.11	0.15	0.32	0.15	0.11	1.84	0.60	0.37	0.37	0.45	0.85	0.30	1.16	0.40
	Construction Worker Commuting	0.03	0.02	0.04	0.01	0.01	0.02	0.01	0.01	0.01	0.04	0.05	0.02	0.02	0.02	0.02	0.04	0.02	0.06	0.02
	Haul Trucks	0.07	0.09	--	--	--	--	0.02	1.56	0.02	0.07	--	--	--	--	0.04	0.06	0.07	0.11	0.11
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.39	10.68	1.69	0.16	0.16	0.13	0.18	1.89	0.18	0.22	1.89	0.62	0.38	0.38	0.47	0.93	0.37	1.30	0.54
GRAND TOTAL		2.01	45.49	36.51	44.62	17.80	8.55	19.28	13.19	11.49	11.54	13.55	20.63	24.03	35.05	27.18	28.48	26.56	27.30	27.99
Yolo County Total		2.01	45.49	36.51	44.62	17.80	8.55	19.28	13.19	11.49	11.54	13.55	20.63	24.03	35.05	27.18	28.48	26.56	27.30	27.99
Sutter County Total		0.93	23.31	23.65	22.78	5.58	5.04	9.62	9.12	9.12	8.82	8.82	16.97	18.55	25.90	18.08	18.99	17.62	17.44	23.11

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

25.90

Table K-49. ROG Detailed Summary (Alternative 3) - M

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	10.65	5.42	5.70	1.00	1.00	0.92	0.92	0.81	0.11	0.79
	Construction Worker Commuting	0.35	0.12	0.15	0.06	0.06	0.06	0.06	0.12	0.01	0.01
	Haul Trucks	6.77	3.21	3.19	--	--	--	--	0.63	0.03	0.18
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		17.78	8.76	9.05	1.06	1.06	0.98	0.98	1.57	0.14	0.98
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.60	0.11	0.02
	Construction Worker Commuting	--	--	--	--	--	--	--	0.02	0.01	0.00
	Haul Trucks	--	--	--	--	--	--	--	0.48	0.03	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	1.09	0.14	0.03
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.15	0.15	0.11	0.60	0.11	--	--	--	--	0.24
	Construction Worker Commuting	0.01	0.01	0.03	0.02	0.00	--	--	--	--	0.00
	Haul Trucks	--	--	0.10	0.48	0.01	--	--	--	--	0.05
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.16	0.16	0.23	1.10	0.12	--	--	--	--	0.30
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.32	--	0.71	0.11	--	--	--	--	--	0.02
	Construction Worker Commuting	0.01	--	0.03	0.00	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.24	0.01	--	--	--	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.33	--	0.97	0.12	--	--	--	--	--	0.03
GRAND TOTAL		18.28	8.92	10.25	2.28	1.18	0.98	0.98	2.66	0.29	1.33
Yolo County Total		18.28	8.92	10.25	2.28	1.18	0.98	0.98	2.66	0.29	1.33
Sutter County Total		17.78	8.76	9.05	1.06	1.06	0.98	0.98	1.57	0.14	0.98

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-50. ROG Detailed Summary (Alternative 4) - Mitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.40	22.98	23.08	22.71	5.36	4.96	9.35	8.94	8.94	8.65	8.65	13.45	14.67	18.74	11.07	12.02	10.85	10.76	14.54
	Construction Worker Commuting	0.14	0.08	0.18	0.07	0.10	0.08	0.20	0.19	0.19	0.17	0.17	0.28	0.33	0.42	0.28	0.30	0.25	0.25	0.36
	Haul Trucks	0.39	0.25	0.39	--	0.11	--	0.06	--	--	--	--	3.23	3.55	6.74	6.73	6.68	6.52	6.42	8.21
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		0.93	23.31	23.65	22.78	5.58	5.04	9.62	9.12	9.12	8.82	8.82	16.97	18.55	25.90	18.08	18.99	17.62	17.44	23.11
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	0.19	0.55	0.11	10.76	1.26	1.65	5.12	0.15	0.21	0.29	0.29	0.40	0.57	0.31	0.11	0.11	0.12	0.12	0.11
	Construction Worker Commuting	0.02	0.02	0.04	0.02	0.02	0.04	0.11	0.01	0.07	0.02	0.01	0.02	0.03	0.01	0.04	0.00	0.01	0.01	0.00
	Haul Trucks	0.03	0.03	0.12	0.12	--	--	2.23	--	0.16	--	--	0.08	0.12	--	0.04	0.01	--	--	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		0.24	0.60	0.27	10.90	1.28	1.69	7.47	0.16	0.45	0.30	0.30	0.50	0.72	0.33	0.18	0.12	0.13	0.13	0.12
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.30	10.76	10.76	10.76	10.76	1.65	1.97	1.97	1.65	2.15	2.48	2.48	2.67	5.12	5.12	5.12	5.12	5.12	2.56
	Construction Worker Commuting	0.04	0.02	0.02	0.02	0.02	0.04	0.05	0.05	0.06	0.06	0.06	0.06	0.07	0.11	0.11	0.11	0.11	0.11	0.06
	Haul Trucks	0.11	0.12	0.12	--	--	--	--	--	0.03	--	--	--	1.63	3.20	3.20	3.20	3.20	3.20	1.60
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.45	10.90	10.90	10.78	10.78	1.69	2.02	2.02	1.74	2.20	2.54	2.54	4.37	8.44	8.44	8.44	8.44	8.44	4.22
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.30	10.58	1.65	0.15	0.15	0.11	0.15	0.32	0.15	0.11	1.84	0.60	0.37	0.37	0.45	0.85	0.30	1.16	0.40
	Construction Worker Commuting	0.03	0.02	0.04	0.01	0.01	0.02	0.01	0.01	0.01	0.04	0.05	0.02	0.02	0.02	0.02	0.04	0.02	0.06	0.02
	Haul Trucks	0.07	0.09	--	--	--	--	0.02	1.56	0.02	0.07	--	--	--	--	--	0.04	0.06	0.07	0.11
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.39	10.68	1.69	0.16	0.16	0.13	0.18	1.89	0.18	0.22	1.89	0.62	0.38	0.38	0.47	0.93	0.37	1.30	0.54
Northern Water Control Structure Improvements																				
5	Offroad Construction Equipment Exhaust	0.40	11.66	11.81	2.79	3.30	4.44	4.96	3.49	3.40	5.05	0.79	0.56	0.49	0.45	0.51	0.62	0.63	0.22	0.12
	Construction Worker Commuting	0.05	0.04	0.05	0.05	0.09	0.09	0.13	0.09	0.08	0.12	0.04	0.05	0.02	0.02	0.02	0.02	0.03	0.03	0.01
	Haul Trucks	0.15	0.09	0.12	3.53	3.68	3.53	3.59	3.53	3.53	4.59	0.03	0.18	--	0.13	--	0.01	--	0.07	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Northern Water Control Structure Improvements Subtotal		0.61	11.79	11.98	6.38	7.07	8.07	8.68	7.11	7.00	9.76	0.85	0.79	0.51	0.61	0.53	0.65	0.65	0.32	0.13
Southern Water Control Structure Improvements																				
6	Offroad Construction Equipment Exhaust	0.43	22.42	22.58	23.06	3.30	4.44	8.78	7.31	7.22	8.87	7.50	6.22	6.25	6.22	6.27	6.38	6.39	5.99	5.88
	Construction Worker Commuting	0.06	0.06	0.07	0.07	0.09	0.09	0.21	0.16	0.15	0.19	0.17	0.15	0.15	0.15	0.15	0.15	0.16	0.16	0.14
	Haul Trucks	0.18	0.23	0.26	4.93	5.08	4.93	5.00	4.93	4.93	8.40	8.40	8.51	8.40	8.53	8.40	8.41	8.40	8.48	8.40
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Southern Water Control Structure Improvements Subtotal		0.67	22.71	22.90	28.07	8.48	9.47	13.98	12.41	12.31	17.47	16.08	14.88	14.81	14.90	14.83	14.95	14.95	14.62	14.42
GRAND TOTAL		3.29	79.99	71.39	79.07	33.34	26.09	41.95	32.70	30.80	38.77	30.48	36.29	39.35	50.56	42.53	44.08	42.17	42.25	42.54
Yolo County Total		3.29	79.99	71.39	79.07	33.34	26.09	41.95	32.70	30.80	38.77	30.48	36.29	39.35	50.56	42.53	44.08	42.17	42.25	42.54
Sutter County Total		0.93	23.31	23.65	22.78	5.58	5.04	9.62	9.12	9.12	8.82	8.82	16.97	18.55	25.90	18.08	18.99	17.62	17.44	23.11

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Table K-50. ROG Detailed Summary (Alternative 4) - M

#	Activity	26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	Annual Emissions, tpy
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	10.65	5.42	5.70	1.04	1.04	0.97	0.97	0.81	0.11	0.79
	Construction Worker Commuting	0.35	0.12	0.15	0.06	0.06	0.06	0.06	0.12	0.01	0.01
	Haul Trucks	6.77	3.21	3.19	--	--	--	--	0.63	0.03	0.18
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		17.78	8.76	9.05	1.10	1.10	1.03	1.03	1.57	0.14	0.98
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.60	0.11	0.02
	Construction Worker Commuting	--	--	--	--	--	--	--	0.02	0.01	0.00
	Haul Trucks	--	--	--	--	--	--	--	0.48	0.03	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	1.09	0.14	0.03
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.15	0.15	0.11	0.60	0.11	--	--	--	--	0.24
	Construction Worker Commuting	0.01	0.01	0.03	0.02	0.00	--	--	--	--	0.00
	Haul Trucks	--	--	0.10	0.48	0.01	--	--	--	--	0.05
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.16	0.16	0.23	1.10	0.12	--	--	--	--	0.30
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.32	--	0.71	0.11	--	--	--	--	--	0.02
	Construction Worker Commuting	0.01	--	0.03	0.00	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.24	0.01	--	--	--	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.33	--	0.97	0.12	--	--	--	--	--	0.03
Northern Water Control Structure Improvements											
5	Offroad Construction Equipment Exhaust	0.19	0.19	0.71	0.11	--	--	--	--	--	0.17
	Construction Worker Commuting	0.02	0.02	0.02	0.00	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.57	0.01	--	--	--	--	--	0.10
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Northern Water Control Structure Improvements Subtotal		0.21	0.21	1.30	0.12	--	--	--	--	--	0.27
Southern Water Control Structure Improvements											
6	Offroad Construction Equipment Exhaust	0.98	0.94	0.86	0.13	--	--	--	--	--	0.47
	Construction Worker Commuting	0.04	0.07	0.03	0.00	--	--	--	--	--	0.01
	Haul Trucks	4.93	5.05	0.62	0.01	--	--	--	--	--	0.36
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Southern Water Control Structure Improvements Subtotal		5.96	6.05	1.51	0.15	--	--	--	--	--	0.84
GRAND TOTAL		24.44	15.17	13.06	2.59	1.22	1.03	1.03	2.66	0.29	2.44
Yolo County Total		24.44	15.17	13.06	2.59	1.22	1.03	1.03	2.66	0.29	2.44
Sutter County Total		17.78	8.76	9.05	1.10	1.10	1.03	1.03	1.57	0.14	0.98

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-51. ROG Detailed Summary (Alternative 5) - Mitigated

#	Activity	Ma																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	2.06	110.19	15.25	22.22	28.02	26.37	21.73	29.42	21.35	19.59	18.89	16.01	21.25	19.59	18.74	18.00	18.00	10.42	1.40
	Construction Worker Commuting	0.30	0.27	0.37	0.25	0.41	0.37	0.24	0.42	0.53	0.47	0.44	0.37	0.51	0.47	0.43	0.46	0.46	0.30	0.04
	Haul Trucks	0.96	0.35	0.34	--	0.11	0.11	0.11	5.79	11.40	11.33	11.33	11.33	11.33	11.33	11.33	12.00	12.00	6.37	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		3.32	110.81	15.96	22.47	28.54	26.85	22.09	35.63	33.28	31.40	30.66	27.71	33.09	31.40	30.50	30.45	30.45	17.08	1.44
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	0.19	0.55	0.11	10.76	1.26	1.65	5.12	0.15	0.21	0.29	0.29	0.40	0.57	0.31	0.11	0.11	0.12	0.12	0.11
	Construction Worker Commuting	0.02	0.02	0.04	0.02	0.02	0.04	0.11	0.01	0.07	0.02	0.01	0.02	0.03	0.01	0.04	0.00	0.01	0.01	0.00
	Haul Trucks	0.03	0.03	0.12	0.12	--	--	2.28	--	0.16	--	--	0.08	0.12	--	0.04	0.01	--	--	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		0.24	0.60	0.27	10.90	1.28	1.69	7.52	0.16	0.45	0.30	0.30	0.50	0.72	0.33	0.18	0.12	0.13	0.13	0.12
Agricultural Crossing 1																				
3	Offroad Construction Equipment Exhaust	0.30	10.58	1.65	0.15	0.15	0.11	0.15	0.32	0.15	0.11	1.84	0.60	0.37	0.37	0.45	0.85	0.30	1.16	0.40
	Construction Worker Commuting	0.03	0.02	0.04	0.01	0.01	0.02	0.01	0.01	0.01	0.04	0.05	0.02	0.02	0.02	0.02	0.04	0.02	0.06	0.02
	Haul Trucks	0.07	0.09	--	--	--	--	0.02	1.56	0.02	0.07	--	--	--	--	--	0.04	0.06	0.07	0.11
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.39	10.68	1.69	0.16	0.16	0.13	0.18	1.89	0.18	0.22	1.89	0.62	0.38	0.38	0.47	0.93	0.37	1.30	0.54
River Grading Site																				
4	Offroad Construction Equipment Exhaust	1.51	12.27	5.76	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73	3.73
	Construction Worker Commuting	--	--	0.03	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
	Haul Trucks	0.08	0.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	6.54	--	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27	3.27
River Grading Site Subtotal		8.13	12.30	9.06	7.04	7.03	7.03	7.03	7.03	7.03	7.03	7.03	7.03	7.03	7.03	7.03	7.03	7.03	7.03	7.03
GRAND TOTAL		12.08	134.39	26.98	40.56	37.01	35.70	36.81	44.70	40.93	38.95	39.88	35.87	41.23	39.14	38.19	38.53	37.98	25.53	9.13
Yolo County Total		11.84	133.79	26.71	29.67	35.73	34.01	29.29	44.54	40.49	38.65	39.58	35.37	40.51	38.82	38.00	38.41	37.86	25.41	9.01
Sutter County Total		0.24	0.60	0.27	10.90	1.28	1.69	7.52	0.16	0.45	0.30	0.30	0.50	0.72	0.33	0.18	0.12	0.13	0.13	0.12

Table K-51. ROG Detailed Summary (Alternative 5) - M

#	Activity	Maximum Daily Emissions, lbs/day																		
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.60	0.51	0.51	2.84	2.62	0.11	0.71	0.00	0.00	0.21	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.93
	Construction Worker Commuting	0.02	0.02	0.02	0.32	0.12	0.21	0.03	0.00	0.00	0.01	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.10
	Haul Trucks	0.06	--	--	1.47	0.66	0.25	0.54	--	--	0.27	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		0.68	0.54	0.54	4.63	3.40	0.57	1.27	--	--	0.49	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	2.03
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.60	0.11	--	--	--	--	--	--	--	--	--	--
	Construction Worker Commuting	--	--	--	--	--	--	--	0.02	0.01	--	--	--	--	--	--	--	--	--	--
	Haul Trucks	--	--	--	--	--	--	--	0.48	0.03	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	1.10	0.14	--	--	--	--	--	--	--	--	--	--
Agricultural Crossing 1																				
3	Offroad Construction Equipment Exhaust	0.32	--	0.71	0.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Construction Worker Commuting	0.01	--	0.03	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Haul Trucks	--	--	0.24	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.33	--	0.97	0.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
River Grading Site																				
4	Offroad Construction Equipment Exhaust	3.73	5.86	0.10	0.10	--	1.51	--	--	--	--	--	--	--	--	--	--	--	--	--
	Construction Worker Commuting	0.03	0.09	0.06	0.07	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Haul Trucks	--	1.59	1.59	1.59	--	0.08	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	3.27	3.27	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
River Grading Site Subtotal		7.03	10.80	1.74	1.75	0.01	1.59	--	--	--	--	--	--	--	--	--	--	--	--	--
GRAND TOTAL		8.04	11.34	3.24	6.50	3.41	2.16	1.27	1.10	0.14	0.49	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	2.03
Yolo County Total		8.04	11.34	3.24	6.50	3.41	2.16	1.27	--	--	0.49	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	2.03
Sutter County Total		--	--	--	--	--	--	--	1.10	0.14	--	--	--	--	--	--	--	--	--	--

Table K-51. ROG Detailed Summary (Alternative 5) - M

#	Activity	24-Jun	1-Jul	8-Jul	Annual Emissions, tpy	Year 1, tpy	Year 2, tpy
Intake Channel, Headworks, and Outlet Channel							
1	Offroad Construction Equipment Exhaust	0.65	0.21	0.00	2.81	2.76	0.05
	Construction Worker Commuting	0.05	0.01	0.00	0.02	0.02	0.00
	Haul Trucks	--	0.27	--	0.29	0.29	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		0.70	0.49	--	3.13	3.07	0.05
Supplemental Fish Passage West							
2	Offroad Construction Equipment Exhaust	--	--	--	0.02	0.02	--
	Construction Worker Commuting	--	--	--	0.00	0.00	--
	Haul Trucks	--	--	--	0.00	0.00	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	--
Supplemental Fish Passage West Subtotal		--	--	--	0.02	0.02	--
Agricultural Crossing 1							
3	Offroad Construction Equipment Exhaust	--	--	--	0.02	0.02	--
	Construction Worker Commuting	--	--	--	0.00	0.00	--
	Haul Trucks	--	--	--	0.00	0.00	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	--
Agricultural Crossing 1 Subtotal		--	--	--	0.03	0.03	--
River Grading Site							
4	Offroad Construction Equipment Exhaust	--	--	--	0.12	0.12	--
	Construction Worker Commuting	--	--	--	0.00	0.00	--
	Haul Trucks	--	--	--	0.01	0.01	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	--
	Marine Equipment Exhaust	--	--	--	0.53	0.53	--
River Grading Site Subtotal		--	--	--	0.67	0.67	--
GRAND TOTAL		0.70	0.49	--	3.85	3.79	0.05
Yolo County Total		0.70	0.49	--	3.82	3.77	0.05
Sutter County Total		--	--	--	0.02	0.02	--

Table K-52. ROG Detailed Summary (Alternative 6) - Mitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.40	34.40	34.86	33.76	8.18	7.78	9.11	8.69	8.40	9.61	29.33	29.33	28.74	29.69	29.04	28.44	29.65	29.44	28.22
	Construction Worker Commuting	0.20	0.27	0.15	0.10	0.15	0.13	0.19	0.17	0.15	0.21	0.65	0.65	0.64	0.66	0.65	0.61	0.67	0.66	0.60
	Haul Trucks	0.53	0.60	0.39	0.34	0.11	--	0.06	--	--	0.33	11.65	11.65	11.63	11.57	11.66	11.32	11.65	11.71	11.33
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		1.13	35.28	35.40	34.20	8.45	7.91	9.37	8.85	8.55	10.15	41.63	41.63	41.01	41.92	41.35	40.37	41.97	41.81	40.16
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	0.19	0.55	0.11	10.76	1.26	1.65	5.12	0.15	0.21	0.29	0.29	0.40	0.57	0.31	0.11	0.11	0.12	0.12	0.11
	Construction Worker Commuting	0.02	0.02	0.04	0.02	0.02	0.04	0.11	0.01	0.07	0.02	0.01	0.02	0.03	0.01	0.04	0.00	0.01	0.01	0.00
	Haul Trucks	0.03	0.03	0.12	0.12	--	--	2.23	--	0.16	--	--	0.08	0.12	--	0.04	0.01	--	--	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		0.24	0.60	0.27	10.90	1.28	1.69	7.47	0.16	0.45	0.30	0.30	0.50	0.72	0.33	0.18	0.12	0.13	0.13	0.12
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.30	10.76	10.76	10.76	10.76	1.65	1.97	1.97	1.65	2.15	2.48	2.48	2.67	5.12	5.12	5.12	5.12	5.12	2.56
	Construction Worker Commuting	0.04	0.02	0.02	0.02	0.02	0.04	0.05	0.05	0.06	0.06	0.06	0.06	0.07	0.11	0.11	0.11	0.11	0.11	0.06
	Haul Trucks	0.11	0.12	0.12	--	--	--	--	--	0.03	--	--	--	1.63	3.20	3.20	3.20	3.20	3.20	1.60
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.45	10.90	10.90	10.78	10.78	1.69	2.02	2.02	1.74	2.20	2.54	2.54	4.37	8.44	8.44	8.44	8.44	8.44	4.22
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.30	10.58	1.65	0.15	0.15	0.11	0.15	0.32	0.15	0.11	1.84	0.60	0.37	0.37	0.45	0.85	0.30	1.16	0.40
	Construction Worker Commuting	0.03	0.02	0.04	0.01	0.01	0.02	0.01	0.01	0.01	0.04	0.05	0.02	0.02	0.02	0.02	0.04	0.02	0.06	0.02
	Haul Trucks	0.07	0.09	--	--	--	--	0.02	1.56	0.02	0.07	--	--	--	--	--	0.04	0.06	0.07	0.11
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.39	10.68	1.69	0.16	0.16	0.13	0.18	1.89	0.18	0.22	1.89	0.62	0.38	0.38	0.47	0.93	0.37	1.30	0.54
GRAND TOTAL		2.20	57.46	48.26	56.04	20.66	11.42	19.03	12.92	10.92	12.88	46.36	45.30	46.49	51.07	50.45	49.86	50.91	51.67	45.04
Yolo County Total		2.20	57.46	48.26	56.04	20.66	11.42	19.03	12.92	10.92	12.88	46.36	45.30	46.49	51.07	50.45	49.86	50.91	51.67	45.04
Sutter County Total		1.13	35.28	35.40	34.20	8.45	7.91	9.37	8.85	8.55	10.15	41.63	41.63	41.01	41.92	41.35	40.37	41.97	41.81	40.16

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Table K-52. ROG Detailed Summary (Alternative 6) - M

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	31.06	26.03	10.83	11.61	1.46	1.28	1.28	1.18	0.32	1.49
	Construction Worker Commuting	0.69	0.62	0.27	0.30	0.23	0.07	0.07	0.06	0.18	0.03
	Haul Trucks	12.87	12.87	6.46	6.46	0.42	--	--	0.48	0.27	0.44
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		44.62	39.52	17.56	18.37	2.12	1.35	1.35	1.71	0.77	1.96
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.60	0.11	0.02
	Construction Worker Commuting	--	--	--	--	--	--	--	0.02	0.01	0.00
	Haul Trucks	--	--	--	--	--	--	--	0.48	0.03	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	1.09	0.14	0.03
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.15	0.15	0.11	0.60	0.11	--	--	--	--	0.24
	Construction Worker Commuting	0.01	0.01	0.03	0.02	0.00	--	--	--	--	0.00
	Haul Trucks	--	--	0.10	0.48	0.01	--	--	--	--	0.05
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.16	0.16	0.23	1.10	0.12	--	--	--	--	0.30
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.32	--	0.71	0.11	--	--	--	--	--	0.02
	Construction Worker Commuting	0.01	--	0.03	0.00	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.24	0.01	--	--	--	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.33	--	0.97	0.12	--	--	--	--	--	0.03
GRAND TOTAL		45.11	39.68	18.76	19.59	2.24	1.35	1.35	2.81	0.91	2.31
Yolo County Total		45.11	39.68	18.76	19.59	2.24	1.35	1.35	2.81	0.91	2.31
Sutter County Total		44.62	39.52	17.56	18.37	2.12	1.35	1.35	1.71	0.77	1.96

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-53. NOx Detailed Summary (Alternative 1) - Mitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	7.40	26.47	30.04	22.87	19.26	17.17	58.53	41.73	45.83	44.08	38.21	46.42	123.81	168.57	179.64	175.78	114.44	125.89	3.63
	Construction Worker Commuting	0.49	0.39	0.90	0.36	0.35	0.30	0.65	0.59	0.60	0.53	0.45	0.71	0.88	0.94	1.18	1.14	0.67	0.93	0.35
	Haul Trucks	9.78	7.34	11.25	--	--	--	3.59	0.56	--	--	--	61.03	150.75	137.95	147.40	147.40	92.12	152.92	5.38
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		17.68	34.20	42.19	23.22	19.60	17.47	62.77	42.88	46.43	44.61	38.66	108.16	275.43	307.46	328.22	324.33	207.24	279.74	9.36
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	3.24	5.36	2.08	6.79	5.86	23.51	109.96	0.96	4.17	1.75	1.75	4.10	5.62	3.02	2.08	2.08	1.02	1.02	2.08
	Construction Worker Commuting	0.08	0.10	0.18	0.09	0.08	0.20	0.57	0.04	0.37	0.08	0.07	0.09	0.14	0.06	0.18	0.02	0.04	0.04	0.02
	Haul Trucks	0.82	0.82	3.59	3.42	--	--	66.60	--	4.73	--	--	2.35	3.53	--	1.14	0.33	--	--	0.33
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		4.13	6.28	5.85	10.29	5.94	23.71	177.14	1.00	9.26	1.83	1.82	6.55	9.29	3.08	3.41	2.43	1.06	1.06	2.43
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	5.32	6.79	6.79	6.79	6.79	23.51	25.52	25.52	23.51	28.25	29.59	29.59	57.06	109.96	109.96	109.96	109.96	109.96	54.98
	Construction Worker Commuting	0.18	0.09	0.09	0.09	0.09	0.20	0.24	0.24	0.28	0.29	0.29	0.29	0.36	0.57	0.57	0.57	0.57	0.57	0.29
	Haul Trucks	3.26	3.42	3.42	--	--	--	--	--	0.98	--	--	--	47.68	93.43	93.43	93.43	93.43	93.43	46.73
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		8.76	10.29	10.29	6.88	6.88	23.71	25.77	25.77	24.76	28.53	29.87	29.87	105.10	203.96	203.96	203.96	203.96	203.96	102.00
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	5.32	4.88	23.51	0.96	0.96	2.08	2.13	2.01	2.13	2.08	25.06	5.65	2.91	2.91	5.00	8.44	3.63	10.04	4.10
	Construction Worker Commuting	0.15	0.09	0.20	0.04	0.04	0.10	0.03	0.04	0.03	0.18	0.23	0.12	0.09	0.09	0.12	0.21	0.08	0.32	0.09
	Haul Trucks	1.96	2.56	--	--	--	--	0.49	45.43	0.49	2.12	--	--	--	--	--	1.09	1.63	2.12	3.26
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		7.43	7.53	23.71	1.00	1.00	2.19	2.65	47.48	2.65	4.39	25.29	5.77	3.00	3.00	5.12	9.74	5.34	12.47	7.45
GRAND TOTAL		38.00	58.30	82.05	41.39	33.42	67.08	268.32	117.13	83.10	79.36	95.64	150.35	392.83	517.50	540.72	540.46	417.60	497.23	121.24
Yolo County Total		33.87	52.02	76.19	31.10	27.48	43.37	91.18	116.13	73.84	77.53	93.82	143.80	383.54	514.42	537.31	538.03	416.54	496.17	118.81
Sutter County Total		4.13	6.28	5.85	10.29	5.94	23.71	177.14	1.00	9.26	1.83	1.82	6.55	9.29	3.08	3.41	2.43	1.06	1.06	2.43

Table K-53. NOx Detailed Summary (Alternative 1) - M

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	1.55	3.63	7.69	7.69	7.69	6.80	3.78	18.73	2.08	3.36
	Construction Worker Commuting	0.03	0.05	0.30	0.30	0.30	0.30	0.23	0.61	0.05	0.03
	Haul Trucks	--	0.03	--	--	--	--	--	17.87	0.82	2.12
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		1.58	3.71	7.99	7.99	7.99	7.09	4.01	37.21	2.95	5.51
Supplemental Fish Passage West											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	13.08	2.08	0.17
	Construction Worker Commuting	--	--	--	--	--	--	--	0.08	0.05	0.01
	Haul Trucks	--	--	--	--	--	--	--	13.99	0.82	0.08
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	27.16	2.95	0.27
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.96	0.96	2.08	13.08	2.08	--	--	--	--	2.47
	Construction Worker Commuting	0.04	0.04	0.13	0.08	0.02	--	--	--	--	0.02
	Haul Trucks	--	--	2.93	13.99	0.33	--	--	--	--	1.60
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		1.00	1.00	5.15	27.16	2.43	--	--	--	--	4.09
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	2.94	--	15.16	2.08	--	--	--	--	--	0.14
	Construction Worker Commuting	0.07	--	0.13	0.02	--	--	--	--	--	0.00
	Haul Trucks	--	--	6.88	0.33	--	--	--	--	--	0.08
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		3.01	--	22.18	2.43	--	--	--	--	--	0.22
GRAND TOTAL		5.58	4.71	35.31	37.57	10.42	7.09	4.01	64.37	5.90	10.08
Yolo County Total		5.58	4.71	35.31	37.57	10.42	7.09	4.01	37.21	2.95	9.82
Sutter County Total		--	--	--	--	--	--	--	27.16	2.95	0.27

Table K-54. NOx Detailed Summary (Alternative 2) - Mitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	7.40	26.47	28.56	22.87	30.98	26.88	93.76	75.86	75.86	74.11	56.52	119.46	241.72	233.77	228.75	234.62	225.57	224.41	181.72
	Construction Worker Commuting	0.71	0.39	0.90	0.36	0.51	0.42	1.02	0.89	0.89	0.82	0.57	0.73	1.58	1.45	1.39	1.47	1.26	1.24	1.23
	Haul Trucks	11.25	7.48	11.39	--	3.19	--	1.79	--	--	--	--	93.80	215.57	215.57	215.17	213.54	208.81	206.09	158.15
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		19.37	34.34	40.85	23.22	34.68	27.30	96.58	76.75	76.75	74.92	57.09	213.99	458.88	450.79	445.31	449.63	435.64	431.74	341.11
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	3.24	5.36	2.08	6.79	5.86	23.51	109.96	0.96	4.17	1.75	1.75	4.10	5.62	3.02	2.08	2.08	1.02	1.02	2.08
	Construction Worker Commuting	0.08	0.10	0.18	0.09	0.08	0.20	0.57	0.04	0.37	0.08	0.07	0.09	0.14	0.06	0.18	0.02	0.04	0.04	0.02
	Haul Trucks	0.82	0.82	3.59	3.42	--	--	66.60	--	4.73	--	--	2.35	3.53	--	1.14	0.33	--	--	0.33
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		4.13	6.28	5.85	10.29	5.94	23.71	177.14	1.00	9.26	1.83	1.82	6.55	9.29	3.08	3.41	2.43	1.06	1.06	2.43
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	5.32	6.79	6.79	6.79	6.79	23.51	25.52	25.52	23.51	28.25	29.59	29.59	57.06	109.96	109.96	109.96	109.96	109.96	54.98
	Construction Worker Commuting	0.18	0.09	0.09	0.09	0.09	0.20	0.24	0.24	0.28	0.29	0.29	0.29	0.36	0.57	0.57	0.57	0.57	0.57	0.29
	Haul Trucks	3.26	3.42	3.42	--	--	--	--	--	0.98	--	--	--	47.68	93.43	93.43	93.43	93.43	93.43	46.73
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		8.76	10.29	10.29	6.88	6.88	23.71	25.77	25.77	24.76	28.53	29.87	29.87	105.10	203.96	203.96	203.96	203.96	203.96	102.00
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	5.32	4.88	23.51	0.96	0.96	2.08	2.13	2.01	2.13	2.08	25.06	5.65	2.91	2.91	5.00	8.44	3.63	10.04	4.10
	Construction Worker Commuting	0.15	0.09	0.20	0.04	0.04	0.10	0.03	0.04	0.03	0.18	0.23	0.12	0.09	0.09	0.12	0.21	0.08	0.32	0.09
	Haul Trucks	1.96	2.56	--	--	--	--	0.49	45.43	0.49	2.12	--	--	--	--	1.09	1.63	2.12	3.26	
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		7.43	7.53	23.71	1.00	1.00	2.19	2.65	47.48	2.65	4.39	25.29	5.77	3.00	3.00	5.12	9.74	5.34	12.47	7.45
River Grading Site																				
5	Offroad Construction Equipment Exhaust	7.73	6.72	73.62	57.19	57.19	57.19	57.19	57.19	57.19	57.19	57.19	57.19	57.19	57.19	57.19	57.19	57.19	57.19	57.19
	Construction Worker Commuting	--	--	0.15	0.19	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
	Haul Trucks	2.45	0.85	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	48.89	--	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45
River Grading Site Subtotal		59.06	7.58	98.22	81.83	81.79	81.79	81.79	81.79	81.79	81.79	81.79	81.79	81.79	81.79	81.79	81.79	81.79	81.79	81.79
GRAND TOTAL		98.76	66.03	178.93	123.23	130.29	158.71	383.92	232.79	195.21	191.47	195.86	337.97	658.06	742.63	739.59	747.55	727.80	731.03	534.79
Yolo County Total		94.63	59.75	173.07	112.93	124.35	134.99	206.78	231.79	185.95	189.64	194.04	331.42	648.77	739.55	736.18	745.12	726.74	729.97	532.35
Sutter County Total		4.13	6.28	5.85	10.29	5.94	23.71	177.14	1.00	9.26	1.83	1.82	6.55	9.29	3.08	3.41	2.43	1.06	1.06	2.43

Table K-54. NOx Detailed Summary (Alternative 2) - M

#	Activity	26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	Annual Emissions, tpy
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	113.59	5.71	3.71	7.49	7.49	6.59	6.59	17.25	2.08	6.17
	Construction Worker Commuting	0.65	0.59	0.19	0.30	0.30	0.30	0.30	0.61	0.05	0.05
	Haul Trucks	113.93	9.13	--	--	--	--	--	18.33	0.82	4.31
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		228.17	15.43	3.91	7.78	7.78	6.89	6.89	36.19	2.95	10.53
Supplemental Fish Passage West											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	13.08	2.08	0.17
	Construction Worker Commuting	--	--	--	--	--	--	--	0.08	0.05	0.01
	Haul Trucks	--	--	--	--	--	--	--	13.99	0.82	0.08
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	27.16	2.95	0.27
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.96	0.96	2.08	13.08	2.08	--	--	--	--	2.47
	Construction Worker Commuting	0.04	0.04	0.13	0.08	0.02	--	--	--	--	0.02
	Haul Trucks	--	--	2.93	13.99	0.33	--	--	--	--	1.60
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		1.00	1.00	5.15	27.16	2.43	--	--	--	--	4.09
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	2.94	--	15.16	2.08	--	--	--	--	--	0.14
	Construction Worker Commuting	0.07	--	0.13	0.02	--	--	--	--	--	0.00
	Haul Trucks	--	--	6.88	0.33	--	--	--	--	--	0.08
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		3.01	--	22.18	2.43	--	--	--	--	--	0.22
River Grading Site											
5	Offroad Construction Equipment Exhaust	57.19	73.70	0.09	0.09	--	7.73	--	--	--	0.71
	Construction Worker Commuting	0.15	0.44	0.29	0.33	0.04	--	--	--	--	0.01
	Haul Trucks	--	46.28	46.28	46.28	--	2.45	--	--	--	0.42
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	24.45	24.45	--	--	--	--	--	--	--	0.60
River Grading Site Subtotal		81.79	144.87	46.65	46.69	0.04	10.17	--	--	--	1.74
GRAND TOTAL		313.97	161.30	77.89	84.06	10.25	17.06	6.89	63.34	5.90	16.84
Yolo County Total		313.97	161.30	77.89	84.06	10.25	17.06	6.89	36.19	2.95	16.57
Sutter County Total		--	--	--	--	--	--	--	27.16	2.95	0.27

Table K-55. NOx Detailed Summary (Alternative 3) - Mitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	7.40	26.47	28.56	22.87	30.98	26.88	93.76	77.87	77.87	76.12	76.12	184.07	196.37	298.38	228.75	234.62	225.57	224.41	291.69
	Construction Worker Commuting	0.71	0.39	0.90	0.36	0.51	0.42	1.02	0.93	0.93	0.86	0.86	1.39	1.66	2.10	1.39	1.47	1.26	1.24	1.81
	Haul Trucks	11.25	7.39	11.30	--	3.26	--	1.79	--	--	--	--	94.31	103.61	196.67	196.44	194.81	190.09	187.37	239.45
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		19.37	34.25	40.76	23.22	34.75	27.30	96.58	78.80	78.80	76.98	76.98	279.76	301.64	497.15	426.58	430.90	416.92	413.02	532.94
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	3.24	5.36	2.08	6.79	5.86	23.51	109.96	0.96	4.17	1.75	1.75	4.10	5.62	3.02	2.08	2.08	1.02	1.02	2.08
	Construction Worker Commuting	0.08	0.10	0.18	0.09	0.08	0.20	0.57	0.04	0.37	0.08	0.07	0.09	0.14	0.06	0.18	0.02	0.04	0.04	0.02
	Haul Trucks	0.82	0.82	3.59	3.42	--	--	65.07	--	4.73	--	--	2.35	3.53	--	1.14	0.33	--	--	0.33
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		4.13	6.28	5.85	10.29	5.94	23.71	175.60	1.00	9.26	1.83	1.82	6.55	9.29	3.08	3.41	2.43	1.06	1.06	2.43
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	5.32	6.79	6.79	6.79	6.79	23.51	25.52	25.52	23.51	28.25	29.59	29.59	57.06	109.96	109.96	109.96	109.96	109.96	54.98
	Construction Worker Commuting	0.18	0.09	0.09	0.09	0.09	0.20	0.24	0.24	0.28	0.29	0.29	0.29	0.36	0.57	0.57	0.57	0.57	0.57	0.29
	Haul Trucks	3.26	3.42	3.42	--	--	--	--	--	0.98	--	--	--	47.68	93.43	93.43	93.43	93.43	93.43	46.73
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		8.76	10.29	10.29	6.88	6.88	23.71	25.77	25.77	24.76	28.53	29.87	29.87	105.10	203.96	203.96	203.96	203.96	203.96	102.00
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	5.32	4.88	23.51	0.96	0.96	2.08	2.13	2.01	2.13	2.08	25.06	5.65	2.91	2.91	5.00	8.44	3.63	10.04	4.10
	Construction Worker Commuting	0.15	0.09	0.20	0.04	0.04	0.10	0.03	0.04	0.03	0.18	0.23	0.12	0.09	0.09	0.12	0.21	0.08	0.32	0.09
	Haul Trucks	1.96	2.56	--	--	--	--	0.49	45.43	0.49	2.12	--	--	--	--	1.09	1.63	2.12	3.26	
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		7.43	7.53	23.71	1.00	1.00	2.19	2.65	47.48	2.65	4.39	25.29	5.77	3.00	3.00	5.12	9.74	5.34	12.47	7.45
GRAND TOTAL		39.69	58.36	80.62	41.39	48.57	76.92	300.59	153.05	115.47	111.73	133.96	321.95	419.03	707.19	639.08	647.03	627.28	630.52	644.82
Yolo County Total		39.69	58.36	80.62	41.39	48.57	76.92	300.59	153.05	115.47	111.73	133.96	321.95	419.03	707.19	639.08	647.03	627.28	630.52	644.82
Sutter County Total		19.37	34.25	40.76	23.22	34.75	27.30	96.58	78.80	78.80	76.98	76.98	279.76	301.64	497.15	426.58	430.90	416.92	413.02	532.94

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

532.94

Table K-55. NOx Detailed Summary (Alternative 3) - M

#	Activity	26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	Annual Emissions, tpy
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	225.64	113.59	113.68	7.49	7.49	6.59	6.59	17.25	2.08	8.33
	Construction Worker Commuting	1.76	0.62	0.77	0.30	0.30	0.30	0.30	0.61	0.05	0.07
	Haul Trucks	197.64	93.55	93.06	--	--	--	--	18.40	0.82	5.25
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		425.04	207.76	207.50	7.78	7.78	6.89	6.89	36.26	2.95	13.64
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	13.08	2.08	0.22
	Construction Worker Commuting	--	--	--	--	--	--	--	0.08	0.05	0.01
	Haul Trucks	--	--	--	--	--	--	--	13.93	0.82	0.11
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	27.09	2.95	0.34
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.96	0.96	2.08	13.08	2.08	--	--	--	--	2.47
	Construction Worker Commuting	0.04	0.04	0.13	0.08	0.02	--	--	--	--	0.02
	Haul Trucks	--	--	2.93	13.99	0.33	--	--	--	--	1.60
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		1.00	1.00	5.15	27.16	2.43	--	--	--	--	4.09
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	2.94	--	15.16	2.08	--	--	--	--	--	0.14
	Construction Worker Commuting	0.07	--	0.13	0.02	--	--	--	--	--	0.00
	Haul Trucks	--	--	6.88	0.33	--	--	--	--	--	0.08
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		3.01	--	22.18	2.43	--	--	--	--	--	0.22
GRAND TOTAL		429.05	208.76	234.83	37.37	10.21	6.89	6.89	63.34	5.90	18.29
Yolo County Total		429.05	208.76	234.83	37.37	10.21	6.89	6.89	63.34	5.90	18.29
Sutter County Total		425.04	207.76	207.50	7.78	7.78	6.89	6.89	36.26	2.95	13.64

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-56. NOx Detailed Summary (Alternative 4) - Mitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	7.40	26.47	28.56	22.87	30.98	26.88	93.76	77.87	77.87	76.12	76.12	184.07	196.37	298.38	228.75	234.62	225.57	224.41	291.69
	Construction Worker Commuting	0.71	0.39	0.90	0.36	0.51	0.42	1.02	0.93	0.93	0.86	0.86	1.39	1.66	2.10	1.39	1.47	1.26	1.24	1.81
	Haul Trucks	11.25	7.39	11.30	--	3.26	--	1.79	--	--	--	--	94.31	103.61	196.67	196.44	194.81	190.09	187.37	239.45
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		19.37	34.25	40.76	23.22	34.75	27.30	96.58	78.80	78.80	76.98	76.98	279.76	301.64	497.15	426.58	430.90	416.92	413.02	532.94
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	3.24	5.36	2.08	6.79	5.86	23.51	109.96	0.96	4.17	1.75	1.75	4.10	5.62	3.02	2.08	2.08	1.02	1.02	2.08
	Construction Worker Commuting	0.08	0.10	0.18	0.09	0.08	0.20	0.57	0.04	0.37	0.08	0.07	0.09	0.14	0.06	0.18	0.02	0.04	0.04	0.02
	Haul Trucks	0.82	0.82	3.59	3.42	--	--	65.07	--	4.73	--	--	2.35	3.53	--	1.14	0.33	--	--	0.33
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		4.13	6.28	5.85	10.29	5.94	23.71	175.60	1.00	9.26	1.83	1.82	6.55	9.29	3.08	3.41	2.43	1.06	1.06	2.43
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	5.32	6.79	6.79	6.79	6.79	23.51	25.52	25.52	23.51	28.25	29.59	29.59	57.06	109.96	109.96	109.96	109.96	109.96	54.98
	Construction Worker Commuting	0.18	0.09	0.09	0.09	0.09	0.20	0.24	0.24	0.28	0.29	0.29	0.29	0.36	0.57	0.57	0.57	0.57	0.57	0.29
	Haul Trucks	3.26	3.42	3.42	--	--	--	--	--	0.98	--	--	--	47.68	93.43	93.43	93.43	93.43	93.43	46.73
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		8.76	10.29	10.29	6.88	6.88	23.71	25.77	25.77	24.76	28.53	29.87	29.87	105.10	203.96	203.96	203.96	203.96	203.96	102.00
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	5.32	4.88	23.51	0.96	0.96	2.08	2.13	2.01	2.13	2.08	25.06	5.65	2.91	2.91	5.00	8.44	3.63	10.04	4.10
	Construction Worker Commuting	0.15	0.09	0.20	0.04	0.04	0.10	0.03	0.04	0.03	0.18	0.23	0.12	0.09	0.09	0.12	0.21	0.08	0.32	0.09
	Haul Trucks	1.96	2.56	--	--	--	--	0.49	45.43	0.49	2.12	--	--	--	--	1.09	1.63	2.12	3.26	
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		7.43	7.53	23.71	1.00	1.00	2.19	2.65	47.48	2.65	4.39	25.29	5.77	3.00	3.00	5.12	9.74	5.34	12.47	7.45
Northern Water Control Structure Improvements																				
5	Offroad Construction Equipment Exhaust	7.40	14.33	16.46	17.44	23.62	40.95	84.60	60.76	60.55	84.06	6.38	6.23	4.46	4.14	4.56	6.65	5.58	3.10	1.02
	Construction Worker Commuting	0.27	0.19	0.24	0.27	0.45	0.47	0.66	0.44	0.40	0.60	0.19	0.23	0.09	0.11	0.09	0.11	0.13	0.13	0.04
	Haul Trucks	4.40	2.64	3.45	102.95	107.24	102.95	104.74	102.95	102.95	133.88	0.82	5.27	--	3.80	--	0.33	--	2.12	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Northern Water Control Structure Improvements Subtotal		12.07	17.16	20.16	120.65	131.31	144.36	190.01	164.14	163.90	218.55	7.39	11.73	4.55	8.06	4.66	7.09	5.72	5.36	1.06
Southern Water Control Structure Improvements																				
6	Offroad Construction Equipment Exhaust	7.43	21.12	23.24	25.14	23.62	40.95	145.45	121.60	121.40	144.91	123.15	118.13	118.45	118.13	118.55	120.64	119.57	117.09	115.01
	Construction Worker Commuting	0.31	0.29	0.34	0.37	0.45	0.47	1.03	0.81	0.77	0.97	0.84	0.77	0.74	0.77	0.74	0.77	0.79	0.79	0.69
	Haul Trucks	5.38	6.73	7.55	143.94	148.23	143.94	145.73	143.94	143.94	245.14	245.14	248.13	245.14	248.95	245.14	245.47	245.14	247.26	245.14
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Southern Water Control Structure Improvements Subtotal		13.11	28.13	31.13	169.45	172.30	185.35	292.21	266.35	266.10	391.02	369.13	367.03	364.34	367.84	364.44	366.87	365.50	365.14	360.84
GRAND TOTAL		64.88	103.65	131.90	331.49	352.18	406.63	782.81	583.54	545.48	721.30	510.48	700.71	787.92	1083.10	1008.17	1020.99	998.50	1001.01	1006.72
Yolo County Total		64.88	103.65	131.90	331.49	352.18	406.63	782.81	583.54	545.48	721.30	510.48	700.71	787.92	1083.10	1008.17	1020.99	998.50	1001.01	1006.72
Sutter County Total		19.37	34.25	40.76	23.22	34.75	27.30	96.58	78.80	78.80	76.98	76.98	279.76	301.64	497.15	426.58	430.90	416.92	413.02	532.94

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

532.94

Table K-56. NOx Detailed Summary (Alternative 4) - M

#	Activity	26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	Annual Emissions, tpy
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	225.64	113.59	113.68	7.69	7.69	6.80	6.80	17.25	2.08	8.33
	Construction Worker Commuting	1.76	0.62	0.77	0.30	0.30	0.30	0.30	0.61	0.05	0.07
	Haul Trucks	197.64	93.55	93.06	--	--	--	--	18.40	0.82	5.25
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		425.04	207.76	207.50	7.99	7.99	7.09	7.09	36.26	2.95	13.64
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	13.08	2.08	0.22
	Construction Worker Commuting	--	--	--	--	--	--	--	0.08	0.05	0.01
	Haul Trucks	--	--	--	--	--	--	--	13.93	0.82	0.11
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	27.09	2.95	0.34
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.96	0.96	2.08	13.08	2.08	--	--	--	--	2.47
	Construction Worker Commuting	0.04	0.04	0.13	0.08	0.02	--	--	--	--	0.02
	Haul Trucks	--	--	2.93	13.99	0.33	--	--	--	--	1.60
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		1.00	1.00	5.15	27.16	2.43	--	--	--	--	4.09
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	2.94	--	15.16	2.08	--	--	--	--	--	0.14
	Construction Worker Commuting	0.07	--	0.13	0.02	--	--	--	--	--	0.00
	Haul Trucks	--	--	6.88	0.33	--	--	--	--	--	0.08
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		3.01	--	22.18	2.43	--	--	--	--	--	0.22
Northern Water Control Structure Improvements											
5	Offroad Construction Equipment Exhaust	1.08	1.08	15.16	2.08	--	--	--	--	--	1.47
	Construction Worker Commuting	0.08	0.08	0.10	0.02	--	--	--	--	--	0.01
	Haul Trucks	--	--	16.61	0.33	--	--	--	--	--	2.85
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Northern Water Control Structure Improvements Subtotal		1.17	1.17	31.87	2.43	--	--	--	--	--	4.34
Southern Water Control Structure Improvements											
6	Offroad Construction Equipment Exhaust	6.07	7.20	17.29	2.11	--	--	--	--	--	4.88
	Construction Worker Commuting	0.20	0.33	0.15	0.02	--	--	--	--	--	0.04
	Haul Trucks	143.94	147.20	18.16	0.33	--	--	--	--	--	10.61
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Southern Water Control Structure Improvements Subtotal		150.22	154.72	35.61	2.45	--	--	--	--	--	15.52
GRAND TOTAL		580.43	364.65	302.31	42.46	10.42	7.09	7.09	63.34	5.90	38.15
Yolo County Total		580.43	364.65	302.31	42.46	10.42	7.09	7.09	63.34	5.90	38.15
Sutter County Total		425.04	207.76	207.50	7.99	7.99	7.09	7.09	36.26	2.95	13.64

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-57. NOx Detailed Summary (Alternative 5) - Mitigated

#	Activity	Ma																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	23.48	91.48	84.33	187.02	241.99	218.48	183.58	348.52	386.13	360.54	356.25	334.14	384.05	360.54	355.29	356.03	356.03	193.17	10.46
	Construction Worker Commuting	1.51	1.33	1.87	1.22	2.06	1.86	1.21	2.07	2.65	2.36	2.18	1.86	2.56	2.36	2.14	2.30	2.30	1.48	0.20
	Haul Trucks	28.06	10.29	9.80	--	3.19	3.19	3.19	169.04	332.45	330.65	330.65	330.65	330.65	330.65	330.65	350.01	350.01	185.78	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		53.05	103.10	96.00	188.24	247.24	223.53	187.98	519.63	721.23	693.55	689.08	666.65	717.26	693.55	688.08	708.33	708.33	380.43	10.66
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	3.24	5.36	2.08	6.79	5.86	23.51	109.96	0.96	4.17	1.75	1.75	4.10	5.62	3.02	2.08	2.08	1.02	1.02	2.08
	Construction Worker Commuting	0.08	0.10	0.18	0.09	0.08	0.20	0.57	0.04	0.37	0.08	0.07	0.09	0.14	0.06	0.18	0.02	0.04	0.04	0.02
	Haul Trucks	0.82	0.82	3.59	3.42	--	--	66.60	--	4.73	--	--	2.35	3.53	--	1.14	0.33	--	--	0.33
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		4.13	6.28	5.85	10.29	5.94	23.71	177.14	1.00	9.26	1.83	1.82	6.55	9.29	3.08	3.41	2.43	1.06	1.06	2.43
Agricultural Crossing 1																				
3	Offroad Construction Equipment Exhaust	5.32	4.88	23.51	0.96	0.96	2.08	2.13	2.01	2.13	2.08	25.06	5.65	2.91	2.91	5.00	8.44	3.63	10.04	4.10
	Construction Worker Commuting	0.15	0.09	0.20	0.04	0.04	0.10	0.03	0.04	0.03	0.18	0.23	0.12	0.09	0.09	0.12	0.21	0.08	0.32	0.09
	Haul Trucks	1.96	2.56	--	--	--	--	0.49	45.43	0.49	2.12	--	--	--	--	--	1.09	1.63	2.12	3.26
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		7.43	7.53	23.71	1.00	1.00	2.19	2.65	47.48	2.65	4.39	25.29	5.77	3.00	3.00	5.12	9.74	5.34	12.47	7.45
River Grading Site																				
4	Offroad Construction Equipment Exhaust	7.73	6.72	73.62	57.19	57.19	57.19	57.19	57.19	57.19	57.19	57.19	57.19	57.19	57.19	57.19	57.19	57.19	57.19	57.19
	Construction Worker Commuting	--	--	0.15	0.19	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
	Haul Trucks	2.45	0.85	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	48.89	--	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45	24.45
River Grading Site Subtotal		59.06	7.58	98.22	81.83	81.79	81.79	81.79	81.79	81.79	81.79	81.79	81.79	81.79	81.79	81.79	81.79	81.79	81.79	81.79
GRAND TOTAL		123.67	124.49	223.78	281.37	335.97	331.22	449.55	649.90	814.93	781.56	797.99	760.75	811.35	781.42	778.41	802.29	796.52	475.76	102.33
Yolo County Total		119.54	118.21	217.93	271.07	330.03	307.50	272.42	648.91	805.67	779.73	796.16	754.21	802.06	778.34	775.00	799.86	795.46	474.70	99.90
Sutter County Total		4.13	6.28	5.85	10.29	5.94	23.71	177.14	1.00	9.26	1.83	1.82	6.55	9.29	3.08	3.41	2.43	1.06	1.06	2.43

Table K-57. NOx Detailed Summary (Alternative 5) - M

#	Activity	Maximum Daily Emissions, lbs/day																		
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	5.65	4.48	4.48	30.31	26.14	2.08	15.16	0.00	0.00	4.17	15.47	15.47	15.47	15.47	15.47	15.47	15.47	15.47	15.53
	Construction Worker Commuting	0.12	0.10	0.10	1.59	0.58	1.05	0.13	0.00	0.00	0.04	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.48
	Haul Trucks	1.63	--	--	42.99	19.35	7.34	15.72	--	--	7.82	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		7.40	4.58	4.58	74.89	46.08	10.47	31.02	--	--	12.03	15.90	15.90	15.90	15.90	15.90	15.90	15.90	15.90	16.01
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	13.08	2.08	--	--	--	--	--	--	--	--	--	--
	Construction Worker Commuting	--	--	--	--	--	--	--	0.08	0.05	--	--	--	--	--	--	--	--	--	--
	Haul Trucks	--	--	--	--	--	--	--	13.99	0.82	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	27.16	2.95	--	--	--	--	--	--	--	--	--	--
Agricultural Crossing 1																				
3	Offroad Construction Equipment Exhaust	2.94	--	15.16	2.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Construction Worker Commuting	0.07	--	0.13	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Haul Trucks	--	--	6.88	0.33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		3.01	--	22.18	2.43	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
River Grading Site																				
4	Offroad Construction Equipment Exhaust	57.19	73.70	0.09	0.09	--	7.73	--	--	--	--	--	--	--	--	--	--	--	--	--
	Construction Worker Commuting	0.15	0.44	0.29	0.33	0.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Haul Trucks	--	46.28	46.28	46.28	--	2.45	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	24.45	24.45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
River Grading Site Subtotal		81.79	144.87	46.65	46.69	0.04	10.17	--	--	--	--	--	--	--	--	--	--	--	--	--
GRAND TOTAL		92.20	149.45	73.41	124.02	46.12	20.64	31.02	27.16	2.95	12.03	15.90	15.90	15.90	15.90	15.90	15.90	15.90	15.90	16.01
Yolo County Total		92.20	149.45	73.41	124.02	46.12	20.64	31.02	--	--	12.03	15.90	15.90	15.90	15.90	15.90	15.90	15.90	15.90	16.01
Sutter County Total		--	--	--	--	--	--	--	27.16	2.95	--	--	--	--	--	--	--	--	--	--

Table K-57. NOx Detailed Summary (Alternative 5) - M

#	Activity	24-Jun	1-Jul	8-Jul	Annual Emissions, tpy	Year 1, tpy	Year 2, tpy
Intake Channel, Headworks, and Outlet Channel							
1	Offroad Construction Equipment Exhaust	3.78	4.17	0.00	18.50	18.08	0.42
	Construction Worker Commuting	0.23	0.04	0.00	0.11	0.10	0.01
	Haul Trucks	--	7.82	--	8.53	8.53	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		4.01	12.03	--	27.14	26.71	0.44
Supplemental Fish Passage West							
2	Offroad Construction Equipment Exhaust	--	--	--	0.17	0.17	--
	Construction Worker Commuting	--	--	--	0.01	0.01	--
	Haul Trucks	--	--	--	0.08	0.08	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	--
Supplemental Fish Passage West Subtotal		--	--	--	0.27	0.27	--
Agricultural Crossing 1							
3	Offroad Construction Equipment Exhaust	--	--	--	0.14	0.14	--
	Construction Worker Commuting	--	--	--	0.00	0.00	--
	Haul Trucks	--	--	--	0.08	0.08	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	--
Agricultural Crossing 1 Subtotal		--	--	--	0.22	0.22	--
River Grading Site							
4	Offroad Construction Equipment Exhaust	--	--	--	0.71	0.71	--
	Construction Worker Commuting	--	--	--	0.01	0.01	--
	Haul Trucks	--	--	--	0.42	0.42	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	--
	Marine Equipment Exhaust	--	--	--	0.60	0.60	--
River Grading Site Subtotal		--	--	--	1.74	1.74	--
GRAND TOTAL		4.01	12.03	--	29.36	28.93	0.44
Yolo County Total		4.01	12.03	--	29.10	28.66	0.44
Sutter County Total		--	--	--	0.27	0.27	--

Table K-58. NOx Detailed Summary (Alternative 6) - Mitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	7.40	40.70	42.12	31.40	60.15	56.05	54.71	50.61	48.86	61.16	492.69	492.69	487.67	493.54	489.69	483.33	495.63	494.78	482.48
	Construction Worker Commuting	0.98	1.37	0.72	0.52	0.75	0.66	0.96	0.83	0.75	1.03	3.24	3.24	3.18	3.26	3.22	3.04	3.32	3.29	2.99
	Haul Trucks	15.49	17.48	11.45	9.80	3.26	--	1.79	--	--	9.74	339.87	339.87	339.15	337.52	340.24	330.14	339.87	341.50	330.62
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		23.87	59.55	54.29	41.72	64.17	56.71	57.46	51.43	49.61	71.92	835.81	835.81	830.00	834.33	833.15	816.50	838.82	839.57	816.09
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	3.24	5.36	2.08	6.79	5.86	23.51	109.96	0.96	4.17	1.75	1.75	4.10	5.62	3.02	2.08	2.08	1.02	1.02	2.08
	Construction Worker Commuting	0.08	0.10	0.18	0.09	0.08	0.20	0.57	0.04	0.37	0.08	0.07	0.09	0.14	0.06	0.18	0.02	0.04	0.04	0.02
	Haul Trucks	0.82	0.82	3.59	3.42	--	--	65.07	--	4.73	--	--	2.35	3.53	--	1.14	0.33	--	--	0.33
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		4.13	6.28	5.85	10.29	5.94	23.71	175.60	1.00	9.26	1.83	1.82	6.55	9.29	3.08	3.41	2.43	1.06	1.06	2.43
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	5.32	6.79	6.79	6.79	6.79	23.51	25.52	25.52	23.51	28.25	29.59	29.59	57.06	109.96	109.96	109.96	109.96	109.96	54.98
	Construction Worker Commuting	0.18	0.09	0.09	0.09	0.09	0.20	0.24	0.24	0.28	0.29	0.29	0.29	0.36	0.57	0.57	0.57	0.57	0.57	0.29
	Haul Trucks	3.26	3.42	3.42	--	--	--	--	--	0.98	--	--	--	47.68	93.43	93.43	93.43	93.43	93.43	46.73
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		8.76	10.29	10.29	6.88	6.88	23.71	25.77	25.77	24.76	28.53	29.87	29.87	105.10	203.96	203.96	203.96	203.96	203.96	102.00
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	5.32	4.88	23.51	0.96	0.96	2.08	2.13	2.01	2.13	2.08	25.06	5.65	2.91	2.91	5.00	8.44	3.63	10.04	4.10
	Construction Worker Commuting	0.15	0.09	0.20	0.04	0.04	0.10	0.03	0.04	0.03	0.18	0.23	0.12	0.09	0.09	0.12	0.21	0.08	0.32	0.09
	Haul Trucks	1.96	2.56	--	--	--	--	0.49	45.43	0.49	2.12	--	--	--	--	--	1.09	1.63	2.12	3.26
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		7.43	7.53	23.71	1.00	1.00	2.19	2.65	47.48	2.65	4.39	25.29	5.77	3.00	3.00	5.12	9.74	5.34	12.47	7.45
GRAND TOTAL		44.20	83.66	94.15	59.89	77.99	106.33	261.47	125.68	86.29	106.68	892.79	877.99	947.40	1044.37	1045.64	1032.64	1049.18	1057.07	927.97
Yolo County Total		44.20	83.66	94.15	59.89	77.99	106.33	261.47	125.68	86.29	106.68	892.79	877.99	947.40	1044.37	1045.64	1032.64	1049.18	1057.07	927.97
Sutter County Total		23.87	59.55	54.29	41.72	64.17	56.71	57.46	51.43	49.61	71.92	835.81	835.81	830.00	834.33	833.15	816.50	838.82	839.57	816.09

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Table K-58. NOx Detailed Summary (Alternative 6) - M

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	537.54	514.09	223.64	230.63	12.79	9.82	9.82	16.80	6.25	19.05
	Construction Worker Commuting	3.42	3.09	1.34	1.50	1.13	0.36	0.36	0.28	0.89	0.14
	Haul Trucks	375.48	375.48	188.53	188.53	12.39	--	--	13.99	7.82	12.73
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		916.44	892.66	413.50	420.66	26.32	10.17	10.17	31.06	14.97	31.92
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	13.08	2.08	0.22
	Construction Worker Commuting	--	--	--	--	--	--	--	0.08	0.05	0.01
	Haul Trucks	--	--	--	--	--	--	--	13.93	0.82	0.11
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	27.09	2.95	0.34
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.96	0.96	2.08	13.08	2.08	--	--	--	--	2.47
	Construction Worker Commuting	0.04	0.04	0.13	0.08	0.02	--	--	--	--	0.02
	Haul Trucks	--	--	2.93	13.99	0.33	--	--	--	--	1.60
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		1.00	1.00	5.15	27.16	2.43	--	--	--	--	4.09
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	2.94	--	15.16	2.08	--	--	--	--	--	0.14
	Construction Worker Commuting	0.07	--	0.13	0.02	--	--	--	--	--	0.00
	Haul Trucks	--	--	6.88	0.33	--	--	--	--	--	0.08
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		3.01	--	22.18	2.43	--	--	--	--	--	0.22
GRAND TOTAL		920.44	893.66	440.83	450.25	28.75	10.17	10.17	58.15	17.92	36.56
Yolo County Total		920.44	893.66	440.83	450.25	28.75	10.17	10.17	58.15	17.92	36.56
Sutter County Total		916.44	892.66	413.50	420.66	26.32	10.17	10.17	31.06	14.97	31.92

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-59. CO Detailed Summary (Alternative 1) - Mitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	12.79	102.66	110.17	93.21	67.42	70.54	100.26	85.80	101.72	97.22	68.88	69.71	67.65	78.37	99.27	83.70	55.87	71.71	8.17
	Construction Worker Commuting	4.92	3.90	9.03	3.59	3.49	2.97	6.57	5.95	6.05	5.33	4.51	7.18	8.82	9.44	11.90	11.49	6.77	9.34	3.49
	Haul Trucks	2.06	1.55	2.37	--	--	--	0.76	0.12	--	--	--	12.87	31.78	29.08	31.08	31.08	19.42	32.24	1.13
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		19.78	108.10	121.57	96.80	70.90	73.52	107.59	91.87	107.77	102.56	73.40	89.76	108.26	116.89	142.24	126.27	82.06	113.28	12.79
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	4.68	13.94	4.06	29.86	28.34	27.52	46.80	4.16	8.11	4.49	4.49	5.58	6.85	4.94	4.06	4.06	4.31	4.31	4.06
	Construction Worker Commuting	0.82	1.03	1.85	0.92	0.82	2.05	5.74	0.41	3.69	0.82	0.72	0.92	1.44	0.62	1.85	0.21	0.41	0.41	0.21
	Haul Trucks	0.17	0.17	0.76	0.72	--	--	14.04	--	1.00	--	--	0.50	0.74	--	0.24	0.07	--	--	0.07
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		5.67	15.14	6.66	31.50	29.16	29.57	66.59	4.57	12.80	5.31	5.21	7.00	9.03	5.56	6.14	4.33	4.72	4.72	4.33
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	8.74	29.86	29.86	29.86	29.86	27.52	36.23	36.23	27.52	35.68	43.52	43.52	27.46	46.80	46.80	46.80	46.80	46.80	23.40
	Construction Worker Commuting	1.85	0.92	0.92	0.92	0.92	2.05	2.46	2.46	2.77	2.87	2.87	2.87	3.59	5.74	5.74	5.74	5.74	5.74	2.87
	Haul Trucks	0.69	0.72	0.72	--	--	--	--	--	0.21	--	--	--	10.05	19.70	19.70	19.70	19.70	19.70	9.85
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		11.27	31.50	31.50	30.78	30.78	29.57	38.69	38.69	30.50	38.55	46.39	46.39	41.10	72.24	72.24	72.24	72.24	72.24	36.12
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	8.74	27.11	27.52	4.16	4.16	4.06	4.50	8.71	4.50	4.06	31.64	9.70	8.23	8.23	5.99	13.26	8.17	25.20	5.58
	Construction Worker Commuting	1.54	0.92	2.05	0.41	0.41	1.03	0.31	0.41	0.31	1.85	2.36	1.23	0.92	0.92	1.23	2.15	0.82	3.18	0.92
	Haul Trucks	0.41	0.54	--	--	--	--	0.10	9.58	0.10	0.45	--	--	--	--	--	0.23	0.34	0.45	0.69
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		10.69	28.57	29.57	4.57	4.57	5.08	4.91	18.70	4.91	6.35	34.00	10.93	9.15	9.15	7.23	15.64	9.34	28.83	7.19
GRAND TOTAL		47.41	183.31	189.30	163.64	135.41	137.75	217.77	153.83	155.97	152.77	159.00	154.07	167.53	203.85	227.85	218.48	168.36	219.07	60.44
Yolo County Total		41.74	168.17	182.64	132.15	106.25	108.18	151.18	149.26	143.17	147.46	153.79	147.07	158.51	198.29	221.71	214.15	163.64	214.35	56.11
Sutter County Total		5.67	15.14	6.66	31.50	29.16	29.57	66.59	4.57	12.80	5.31	5.21	7.00	9.03	5.56	6.14	4.33	4.72	4.72	4.33

Table K-59. CO Detailed Summary (Alternative 1) - Mit

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	4.12	8.17	23.15	23.15	23.15	19.66	14.71	17.00	4.06	4.09
	Construction Worker Commuting	0.31	0.51	2.97	2.97	2.97	2.97	2.36	6.16	0.51	0.34
	Haul Trucks	--	0.01	--	--	--	--	--	3.77	0.17	0.45
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		4.42	8.69	26.13	26.13	26.13	22.63	17.07	26.92	4.74	4.87
Supplemental Fish Passage West											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	5.43	4.06	0.20
	Construction Worker Commuting	--	--	--	--	--	--	--	0.82	0.51	0.10
	Haul Trucks	--	--	--	--	--	--	--	2.95	0.17	0.02
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	9.20	4.74	0.32
Downstream Channel											
3	Offroad Construction Equipment Exhaust	4.16	4.16	4.06	5.43	4.06	--	--	--	--	1.88
	Construction Worker Commuting	0.41	0.41	1.33	0.82	0.21	--	--	--	--	0.16
	Haul Trucks	--	--	0.62	2.95	0.07	--	--	--	--	0.34
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		4.57	4.57	6.01	9.20	4.33	--	--	--	--	2.38
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	4.95	--	9.49	4.06	--	--	--	--	--	0.28
	Construction Worker Commuting	0.72	--	1.33	0.21	--	--	--	--	--	0.02
	Haul Trucks	--	--	1.45	0.07	--	--	--	--	--	0.02
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		5.67	--	12.27	4.33	--	--	--	--	--	0.32
GRAND TOTAL		14.66	13.26	44.41	39.66	30.46	22.63	17.07	36.13	9.48	7.88
Yolo County Total		14.66	13.26	44.41	39.66	30.46	22.63	17.07	26.92	4.74	7.56
Sutter County Total		--	--	--	--	--	--	--	9.20	4.74	0.32

Table K-60. CO Detailed Summary (Alternative 2) - Mitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	12.79	102.66	106.71	93.21	124.09	118.52	184.47	169.82	169.82	165.33	80.31	72.06	135.60	114.45	105.58	122.67	103.29	102.67	96.01
	Construction Worker Commuting	7.18	3.90	9.03	3.59	5.13	4.21	10.26	8.92	8.92	8.21	5.74	7.39	15.90	14.57	13.95	14.77	12.72	12.52	12.41
	Haul Trucks	2.37	1.58	2.40	--	0.67	--	0.38	--	--	--	--	19.77	45.45	45.45	45.36	45.02	44.02	43.45	33.34
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		22.35	108.13	118.14	96.80	129.90	122.72	195.10	178.74	178.74	173.53	86.05	99.22	196.95	174.47	164.89	182.46	160.04	158.63	141.76
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	4.68	13.94	4.06	29.86	28.34	27.52	46.80	4.16	8.11	4.49	4.49	5.58	6.85	4.94	4.06	4.06	4.31	4.31	4.06
	Construction Worker Commuting	0.82	1.03	1.85	0.92	0.82	2.05	5.74	0.41	3.69	0.82	0.72	0.92	1.44	0.62	1.85	0.21	0.41	0.41	0.21
	Haul Trucks	0.17	0.17	0.76	0.72	--	--	14.04	--	1.00	--	--	0.50	0.74	--	0.24	0.07	--	--	0.07
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		5.67	15.14	6.66	31.50	29.16	29.57	66.59	4.57	12.80	5.31	5.21	7.00	9.03	5.56	6.14	4.33	4.72	4.72	4.33
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	8.74	29.86	29.86	29.86	29.86	27.52	36.23	36.23	27.52	35.68	43.52	43.52	27.46	46.80	46.80	46.80	46.80	46.80	23.40
	Construction Worker Commuting	1.85	0.92	0.92	0.92	0.92	2.05	2.46	2.46	2.77	2.87	2.87	2.87	3.59	5.74	5.74	5.74	5.74	5.74	2.87
	Haul Trucks	0.69	0.72	0.72	--	--	--	--	--	0.21	--	--	--	10.05	19.70	19.70	19.70	19.70	19.70	9.85
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		11.27	31.50	31.50	30.78	30.78	29.57	38.69	38.69	30.50	38.55	46.39	46.39	41.10	72.24	72.24	72.24	72.24	72.24	36.12
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	8.74	27.11	27.52	4.16	4.16	4.06	4.50	8.71	4.50	4.06	31.64	9.70	8.23	8.23	5.99	13.26	8.17	25.20	5.58
	Construction Worker Commuting	1.54	0.92	2.05	0.41	0.41	1.03	0.31	0.41	0.31	1.85	2.36	1.23	0.92	0.92	1.23	2.15	0.82	3.18	0.92
	Haul Trucks	0.41	0.54	--	--	--	--	0.10	9.58	0.10	0.45	--	--	--	--	--	0.23	0.34	0.45	0.69
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		10.69	28.57	29.57	4.57	4.57	5.08	4.91	18.70	4.91	6.35	34.00	10.93	9.15	9.15	7.23	15.64	9.34	28.83	7.19
River Grading Site																				
5	Offroad Construction Equipment Exhaust	16.46	33.87	47.43	26.68	26.68	26.68	26.68	26.68	26.68	26.68	26.68	26.68	26.68	26.68	26.68	26.68	26.68	26.68	26.68
	Construction Worker Commuting	--	--	1.54	1.95	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54
	Haul Trucks	0.52	0.18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	46.74	--	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37
River Grading Site Subtotal		63.71	34.05	72.34	52.00	51.59	51.59	51.59	51.59	51.59	51.59	51.59	51.59	51.59	51.59	51.59	51.59	51.59	51.59	51.59
GRAND TOTAL		113.70	217.39	258.21	215.64	245.99	238.54	356.87	292.28	278.54	275.33	223.24	215.12	307.81	313.01	302.09	326.26	297.92	316.01	240.99
Yolo County Total		108.02	202.26	251.56	184.14	216.83	208.96	290.29	287.72	265.73	270.02	218.03	208.12	298.79	307.45	295.95	321.93	293.20	311.29	236.66
Sutter County Total		5.67	15.14	6.66	31.50	29.16	29.57	66.59	4.57	12.80	5.31	5.21	7.00	9.03	5.56	6.14	4.33	4.72	4.72	4.33

Table K-60. CO Detailed Summary (Alternative 2) - Mit

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	54.97	12.23	14.05	21.99	21.99	18.50	18.50	13.54	4.06	6.42
	Construction Worker Commuting	6.57	5.95	1.95	2.97	2.97	2.97	2.97	6.16	0.51	0.52
	Haul Trucks	24.02	1.92	--	--	--	--	--	3.86	0.17	0.91
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		85.56	20.10	16.00	24.97	24.97	21.47	21.47	23.56	4.74	7.85
Supplemental Fish Passage West											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	5.43	4.06	0.20
	Construction Worker Commuting	--	--	--	--	--	--	--	0.82	0.51	0.10
	Haul Trucks	--	--	--	--	--	--	--	2.95	0.17	0.02
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	9.20	4.74	0.32
Downstream Channel											
3	Offroad Construction Equipment Exhaust	4.16	4.16	4.06	5.43	4.06	--	--	--	--	1.88
	Construction Worker Commuting	0.41	0.41	1.33	0.82	0.21	--	--	--	--	0.16
	Haul Trucks	--	--	0.62	2.95	0.07	--	--	--	--	0.34
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		4.57	4.57	6.01	9.20	4.33	--	--	--	--	2.38
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	4.95	--	9.49	4.06	--	--	--	--	--	0.28
	Construction Worker Commuting	0.72	--	1.33	0.21	--	--	--	--	--	0.02
	Haul Trucks	--	--	1.45	0.07	--	--	--	--	--	0.02
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		5.67	--	12.27	4.33	--	--	--	--	--	0.32
River Grading Site											
5	Offroad Construction Equipment Exhaust	26.68	48.31	0.88	0.88	--	16.46	--	--	--	0.78
	Construction Worker Commuting	1.54	4.41	2.87	3.28	0.41	--	--	--	--	0.11
	Haul Trucks	--	9.76	9.76	9.76	--	0.52	--	--	--	0.09
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	23.37	23.37	--	--	--	--	--	--	--	3.83
River Grading Site Subtotal		51.59	85.85	13.51	13.92	0.41	16.97	--	--	--	4.81
GRAND TOTAL		147.38	110.52	47.79	52.42	29.71	38.44	21.47	32.77	9.48	15.67
Yolo County Total		147.38	110.52	47.79	52.42	29.71	38.44	21.47	23.56	4.74	15.35
Sutter County Total		--	--	--	--	--	--	--	9.20	4.74	0.32

Table K-61. CO Detailed Summary (Alternative 3) - Mitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	12.79	102.66	106.71	93.21	124.09	118.52	184.47	178.53	178.53	174.03	174.03	212.13	228.86	254.52	105.58	122.67	103.29	102.67	142.81
	Construction Worker Commuting	7.18	3.90	9.03	3.59	5.13	4.21	10.26	9.34	9.34	8.62	8.62	13.95	16.72	21.13	13.95	14.77	12.72	12.52	18.16
	Haul Trucks	2.37	1.56	2.38	--	0.69	--	0.38	--	--	--	--	19.88	21.84	41.46	41.42	41.07	40.07	39.50	50.48
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		22.35	108.11	118.12	96.80	129.91	122.72	195.10	187.86	187.86	182.65	182.65	245.96	267.43	317.11	160.94	178.51	156.09	154.69	211.45
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	4.68	13.94	4.06	29.86	28.34	27.52	46.80	4.16	8.11	4.49	4.49	5.58	6.85	4.94	4.06	4.06	4.31	4.31	4.06
	Construction Worker Commuting	0.82	1.03	1.85	0.92	0.82	2.05	5.74	0.41	3.69	0.82	0.72	0.92	1.44	0.62	1.85	0.21	0.41	0.41	0.21
	Haul Trucks	0.17	0.17	0.76	0.72	--	--	13.72	--	1.00	--	--	0.50	0.74	--	0.24	0.07	--	--	0.07
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		5.67	15.14	6.66	31.50	29.16	29.57	66.26	4.57	12.80	5.31	5.21	7.00	9.03	5.56	6.14	4.33	4.72	4.72	4.33
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	8.74	29.86	29.86	29.86	29.86	27.52	36.23	36.23	27.52	35.68	43.52	43.52	27.46	46.80	46.80	46.80	46.80	46.80	23.40
	Construction Worker Commuting	1.85	0.92	0.92	0.92	0.92	2.05	2.46	2.46	2.77	2.87	2.87	2.87	3.59	5.74	5.74	5.74	5.74	5.74	2.87
	Haul Trucks	0.69	0.72	0.72	--	--	--	--	--	0.21	--	--	--	10.05	19.70	19.70	19.70	19.70	19.70	9.85
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		11.27	31.50	31.50	30.78	30.78	29.57	38.69	38.69	30.50	38.55	46.39	46.39	41.10	72.24	72.24	72.24	72.24	72.24	36.12
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	8.74	27.11	27.52	4.16	4.16	4.06	4.50	8.71	4.50	4.06	31.64	9.70	8.23	8.23	5.99	13.26	8.17	25.20	5.58
	Construction Worker Commuting	1.54	0.92	2.05	0.41	0.41	1.03	0.31	0.41	0.31	1.85	2.36	1.23	0.92	0.92	1.23	2.15	0.82	3.18	0.92
	Haul Trucks	0.41	0.54	--	--	--	--	0.10	9.58	0.10	0.45	--	--	--	--	--	0.23	0.34	0.45	0.69
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		10.69	28.57	29.57	4.57	4.57	5.08	4.91	18.70	4.91	6.35	34.00	10.93	9.15	9.15	7.23	15.64	9.34	28.83	7.19
GRAND TOTAL		49.98	183.32	185.85	163.64	194.42	186.95	304.96	249.82	236.07	232.86	268.25	310.27	326.70	404.07	246.56	270.73	242.39	260.48	259.09
Yolo County Total		49.98	183.32	185.85	163.64	194.42	186.95	304.96	249.82	236.07	232.86	268.25	310.27	326.70	404.07	246.56	270.73	242.39	260.48	259.09
Sutter County Total		22.35	108.11	118.12	96.80	129.91	122.72	195.10	187.86	187.86	182.65	182.65	245.96	267.43	317.11	160.94	178.51	156.09	154.69	211.45

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

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Table K-61. CO Detailed Summary (Alternative 3) - Mit

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	105.83	54.97	60.85	21.99	21.99	18.50	18.50	13.54	4.06	8.64
	Construction Worker Commuting	17.75	6.26	7.69	2.97	2.97	2.97	2.97	6.16	0.51	0.66
	Haul Trucks	41.67	19.72	19.62	--	--	--	--	3.88	0.17	1.11
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		165.24	80.95	88.17	24.97	24.97	21.47	21.47	23.58	4.74	10.41
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	5.43	4.06	0.26
	Construction Worker Commuting	--	--	--	--	--	--	--	0.82	0.51	0.13
	Haul Trucks	--	--	--	--	--	--	--	2.94	0.17	0.02
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	9.19	4.74	0.40
Downstream Channel											
3	Offroad Construction Equipment Exhaust	4.16	4.16	4.06	5.43	4.06	--	--	--	--	1.88
	Construction Worker Commuting	0.41	0.41	1.33	0.82	0.21	--	--	--	--	0.16
	Haul Trucks	--	--	0.62	2.95	0.07	--	--	--	--	0.34
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		4.57	4.57	6.01	9.20	4.33	--	--	--	--	2.38
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	4.95	--	9.49	4.06	--	--	--	--	--	0.28
	Construction Worker Commuting	0.72	--	1.33	0.21	--	--	--	--	--	0.02
	Haul Trucks	--	--	1.45	0.07	--	--	--	--	--	0.02
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		5.67	--	12.27	4.33	--	--	--	--	--	0.32
GRAND TOTAL		175.48	85.52	106.45	38.50	29.30	21.47	21.47	32.77	9.48	13.50
Yolo County Total		175.48	85.52	106.45	38.50	29.30	21.47	21.47	32.77	9.48	13.50
Sutter County Total		165.24	80.95	88.17	24.97	24.97	21.47	21.47	23.58	4.74	10.41

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-62. CO Detailed Summary (Alternative 4) - Mitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	12.79	102.66	106.71	93.21	124.09	118.52	184.47	178.53	178.53	174.03	174.03	212.13	228.86	254.52	105.58	122.67	103.29	102.67	142.81
	Construction Worker Commuting	7.18	3.90	9.03	3.59	5.13	4.21	10.26	9.34	9.34	8.62	8.62	13.95	16.72	21.13	13.95	14.77	12.72	12.52	18.16
	Haul Trucks	2.37	1.56	2.38	--	0.69	--	0.38	--	--	--	--	19.88	21.84	41.46	41.42	41.07	40.07	39.50	50.48
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		22.35	108.11	118.12	96.80	129.91	122.72	195.10	187.86	187.86	182.65	182.65	245.96	267.43	317.11	160.94	178.51	156.09	154.69	211.45
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	4.68	13.94	4.06	29.86	28.34	27.52	46.80	4.16	8.11	4.49	4.49	5.58	6.85	4.94	4.06	4.06	4.31	4.31	4.06
	Construction Worker Commuting	0.82	1.03	1.85	0.92	0.82	2.05	5.74	0.41	3.69	0.82	0.72	0.92	1.44	0.62	1.85	0.21	0.41	0.41	0.21
	Haul Trucks	0.17	0.17	0.76	0.72	--	--	13.72	--	1.00	--	--	0.50	0.74	--	0.24	0.07	--	--	0.07
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		5.67	15.14	6.66	31.50	29.16	29.57	66.26	4.57	12.80	5.31	5.21	7.00	9.03	5.56	6.14	4.33	4.72	4.72	4.33
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	8.74	29.86	29.86	29.86	29.86	27.52	36.23	36.23	27.52	35.68	43.52	43.52	27.46	46.80	46.80	46.80	46.80	46.80	23.40
	Construction Worker Commuting	1.85	0.92	0.92	0.92	0.92	2.05	2.46	2.46	2.77	2.87	2.87	2.87	3.59	5.74	5.74	5.74	5.74	5.74	2.87
	Haul Trucks	0.69	0.72	0.72	--	--	--	--	--	0.21	--	--	--	10.05	19.70	19.70	19.70	19.70	19.70	9.85
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		11.27	31.50	31.50	30.78	30.78	29.57	38.69	38.69	30.50	38.55	46.39	46.39	41.10	72.24	72.24	72.24	72.24	72.24	36.12
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	8.74	27.11	27.52	4.16	4.16	4.06	4.50	8.71	4.50	4.06	31.64	9.70	8.23	8.23	5.99	13.26	8.17	25.20	5.58
	Construction Worker Commuting	1.54	0.92	2.05	0.41	0.41	1.03	0.31	0.41	0.31	1.85	2.36	1.23	0.92	0.92	1.23	2.15	0.82	3.18	0.92
	Haul Trucks	0.41	0.54	--	--	--	--	0.10	9.58	0.10	0.45	--	--	--	--	0.23	0.34	0.45	0.69	0.69
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		10.69	28.57	29.57	4.57	4.57	5.08	4.91	18.70	4.91	6.35	34.00	10.93	9.15	9.15	7.23	15.64	9.34	28.83	7.19
Northern Water Control Structure Improvements																				
5	Offroad Construction Equipment Exhaust	12.79	58.86	63.36	74.76	84.40	102.28	72.39	45.31	44.93	72.45	17.26	10.07	8.85	6.02	9.06	13.11	13.37	8.37	4.31
	Construction Worker Commuting	2.67	1.95	2.46	2.67	4.51	4.72	6.67	4.41	4.00	6.05	1.95	2.36	0.92	1.13	0.92	1.13	1.33	1.33	0.41
	Haul Trucks	0.93	0.56	0.73	21.70	22.61	21.70	22.08	21.70	21.70	28.23	0.17	1.11	--	0.80	--	0.07	--	0.45	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Northern Water Control Structure Improvements Subtotal		16.39	61.37	66.55	99.13	111.52	128.71	101.14	71.42	70.64	106.73	19.38	13.55	9.77	7.95	9.98	14.31	14.70	10.15	4.72
Southern Water Control Structure Improvements																				
6	Offroad Construction Equipment Exhaust	13.01	88.72	93.21	106.13	84.40	102.28	124.13	97.05	96.67	124.19	101.16	70.23	73.07	70.23	73.27	77.33	77.58	72.58	68.53
	Construction Worker Commuting	3.08	2.87	3.39	3.69	4.51	4.72	10.36	8.10	7.69	9.75	8.41	7.69	7.49	7.69	7.49	7.69	7.90	7.90	6.98
	Haul Trucks	1.13	1.42	1.59	30.35	31.25	30.35	30.72	30.35	30.35	51.68	51.68	52.31	51.68	52.48	51.68	51.75	51.68	52.13	51.68
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Southern Water Control Structure Improvements Subtotal		17.23	93.01	98.19	140.17	120.16	137.35	165.22	135.50	134.71	185.62	161.26	130.24	132.24	130.41	132.45	136.78	137.17	132.61	127.18
GRAND TOTAL		83.59	337.70	350.59	402.95	426.10	453.01	571.33	456.74	441.41	525.22	448.89	454.06	468.71	542.43	388.98	421.81	394.26	403.23	390.99
Yolo County Total		83.59	337.70	350.59	402.95	426.10	453.01	571.33	456.74	441.41	525.22	448.89	454.06	468.71	542.43	388.98	421.81	394.26	403.23	390.99
Sutter County Total		22.35	108.11	118.12	96.80	129.91	122.72	195.10	187.86	187.86	182.65	182.65	245.96	267.43	317.11	160.94	178.51	156.09	154.69	211.45

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

317.11

Table K-62. CO Detailed Summary (Alternative 4) - Mit

#	Activity	26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	Annual Emissions, tpy
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	105.83	54.97	60.85	23.15	23.15	19.66	19.66	13.54	4.06	8.65
	Construction Worker Commuting	17.75	6.26	7.69	2.97	2.97	2.97	2.97	6.16	0.51	0.66
	Haul Trucks	41.67	19.72	19.62	--	--	--	--	3.88	0.17	1.11
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		165.24	80.95	88.17	26.13	26.13	22.63	22.63	23.58	4.74	10.42
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	5.43	4.06	0.26
	Construction Worker Commuting	--	--	--	--	--	--	--	0.82	0.51	0.13
	Haul Trucks	--	--	--	--	--	--	--	2.94	0.17	0.02
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	9.19	4.74	0.40
Downstream Channel											
3	Offroad Construction Equipment Exhaust	4.16	4.16	4.06	5.43	4.06	--	--	--	--	1.88
	Construction Worker Commuting	0.41	0.41	1.33	0.82	0.21	--	--	--	--	0.16
	Haul Trucks	--	--	0.62	2.95	0.07	--	--	--	--	0.34
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		4.57	4.57	6.01	9.20	4.33	--	--	--	--	2.38
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	4.95	--	9.49	4.06	--	--	--	--	--	0.28
	Construction Worker Commuting	0.72	--	1.33	0.21	--	--	--	--	--	0.02
	Haul Trucks	--	--	1.45	0.07	--	--	--	--	--	0.02
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		5.67	--	12.27	4.33	--	--	--	--	--	0.32
Northern Water Control Structure Improvements											
5	Offroad Construction Equipment Exhaust	4.97	4.97	9.49	4.06	--	--	--	--	--	2.13
	Construction Worker Commuting	0.82	0.82	1.03	0.21	--	--	--	--	--	0.14
	Haul Trucks	--	--	3.50	0.07	--	--	--	--	--	0.60
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Northern Water Control Structure Improvements Subtotal		5.79	5.79	14.02	4.33	--	--	--	--	--	2.87
Southern Water Control Structure Improvements											
6	Offroad Construction Equipment Exhaust	26.54	26.44	13.98	4.28	--	--	--	--	--	4.58
	Construction Worker Commuting	2.05	3.28	1.54	0.21	--	--	--	--	--	0.37
	Haul Trucks	30.35	31.03	3.83	0.07	--	--	--	--	--	2.24
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Southern Water Control Structure Improvements Subtotal		58.94	60.76	19.35	4.55	--	--	--	--	--	7.19
GRAND TOTAL		240.21	152.07	139.81	48.54	30.46	22.63	22.63	32.77	9.48	23.58
Yolo County Total		240.21	152.07	139.81	48.54	30.46	22.63	22.63	32.77	9.48	23.58
Sutter County Total		165.24	80.95	88.17	26.13	26.13	22.63	22.63	23.58	4.74	10.42

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-63. CO Detailed Summary (Alternative 5) - Mitigated

#	Activity	Ma																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	54.61	369.38	358.27	458.62	564.15	536.62	435.20	505.39	253.01	221.43	212.11	153.16	248.95	221.43	207.95	177.99	177.99	111.85	29.42
	Construction Worker Commuting	15.18	13.34	18.77	12.31	20.72	18.67	12.21	20.82	26.67	23.70	21.95	18.67	25.75	23.70	21.54	23.08	23.08	14.87	2.05
	Haul Trucks	5.92	2.17	2.07	--	0.67	0.67	0.67	35.64	70.09	69.71	69.71	69.71	69.71	69.71	69.71	73.79	73.79	39.17	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		75.71	384.89	379.11	470.93	585.54	555.97	448.08	561.86	349.77	314.84	303.77	241.54	344.41	314.84	299.21	274.86	274.86	165.89	31.47
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	4.68	13.94	4.06	29.86	28.34	27.52	46.80	4.16	8.11	4.49	4.49	5.58	6.85	4.94	4.06	4.06	4.31	4.31	4.06
	Construction Worker Commuting	0.82	1.03	1.85	0.92	0.82	2.05	5.74	0.41	3.69	0.82	0.72	0.92	1.44	0.62	1.85	0.21	0.41	0.41	0.21
	Haul Trucks	0.17	0.17	0.76	0.72	--	--	14.04	--	1.00	--	--	0.50	0.74	--	0.24	0.07	--	--	0.07
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		5.67	15.14	6.66	31.50	29.16	29.57	66.59	4.57	12.80	5.31	5.21	7.00	9.03	5.56	6.14	4.33	4.72	4.72	4.33
Agricultural Crossing 1																				
3	Offroad Construction Equipment Exhaust	8.74	27.11	27.52	4.16	4.16	4.06	4.50	8.71	4.50	4.06	31.64	9.70	8.23	8.23	5.99	13.26	8.17	25.20	5.58
	Construction Worker Commuting	1.54	0.92	2.05	0.41	0.41	1.03	0.31	0.41	0.31	1.85	2.36	1.23	0.92	0.92	1.23	2.15	0.82	3.18	0.92
	Haul Trucks	0.41	0.54	--	--	--	--	0.10	9.58	0.10	0.45	--	--	--	--	--	0.23	0.34	0.45	0.69
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		10.69	28.57	29.57	4.57	4.57	5.08	4.91	18.70	4.91	6.35	34.00	10.93	9.15	9.15	7.23	15.64	9.34	28.83	7.19
River Grading Site																				
4	Offroad Construction Equipment Exhaust	16.46	33.87	47.43	26.68	26.68	26.68	26.68	26.68	26.68	26.68	26.68	26.68	26.68	26.68	26.68	26.68	26.68	26.68	26.68
	Construction Worker Commuting	--	--	1.54	1.95	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54
	Haul Trucks	0.52	0.18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	46.74	--	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37
River Grading Site Subtotal		63.71	34.05	72.34	52.00	51.59	51.59	51.59	51.59	51.59	51.59	51.59	51.59	51.59	51.59	51.59	51.59	51.59	51.59	51.59
GRAND TOTAL		155.79	462.65	487.69	558.99	670.85	642.21	571.15	636.71	419.06	378.08	394.57	311.06	414.18	381.13	364.16	346.42	340.50	251.02	94.58
Yolo County Total		150.11	447.51	481.03	527.50	641.69	612.63	504.57	632.14	406.26	372.77	389.36	304.06	405.15	375.58	358.02	342.09	335.78	246.30	90.25
Sutter County Total		5.67	15.14	6.66	31.50	29.16	29.57	66.59	4.57	12.80	5.31	5.21	7.00	9.03	5.56	6.14	4.33	4.72	4.72	4.33

Table K-63. CO Detailed Summary (Alternative 5) - Mit

#	Activity	Maximum Daily Emissions, lbs/day																		
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	9.70	9.07	9.07	45.70	37.59	4.06	9.49	0.00	0.00	8.11	33.87	33.87	33.87	33.87	33.87	33.87	33.87	33.87	34.53
	Construction Worker Commuting	1.23	1.03	1.03	16.00	5.85	10.57	1.33	0.00	0.00	0.41	4.41	4.41	4.41	4.41	4.41	4.41	4.41	4.41	4.82
	Haul Trucks	0.34	--	--	9.06	4.08	1.55	3.31	--	--	1.65	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		11.27	10.10	10.10	70.77	47.52	16.17	14.14	--	--	10.17	38.28	38.28	38.28	38.28	38.28	38.28	38.28	38.28	39.35
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	5.43	4.06	--	--	--	--	--	--	--	--	--	--
	Construction Worker Commuting	--	--	--	--	--	--	--	0.82	0.51	--	--	--	--	--	--	--	--	--	--
	Haul Trucks	--	--	--	--	--	--	--	2.95	0.17	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	9.20	4.74	--	--	--	--	--	--	--	--	--	--
Agricultural Crossing 1																				
3	Offroad Construction Equipment Exhaust	4.95	--	9.49	4.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Construction Worker Commuting	0.72	--	1.33	0.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Haul Trucks	--	--	1.45	0.07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		5.67	--	12.27	4.33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
River Grading Site																				
4	Offroad Construction Equipment Exhaust	26.68	48.31	0.88	0.88	--	16.46	--	--	--	--	--	--	--	--	--	--	--	--	--
	Construction Worker Commuting	1.54	4.41	2.87	3.28	0.41	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Haul Trucks	--	9.76	9.76	9.76	--	0.52	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	23.37	23.37	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
River Grading Site Subtotal		51.59	85.85	13.51	13.92	0.41	16.97	--	--	--	--	--	--	--	--	--	--	--	--	--
GRAND TOTAL		68.53	95.95	35.88	89.02	47.93	33.14	14.14	9.20	4.74	10.17	38.28	38.28	38.28	38.28	38.28	38.28	38.28	38.28	39.35
Yolo County Total		68.53	95.95	35.88	89.02	47.93	33.14	14.14	--	--	10.17	38.28	38.28	38.28	38.28	38.28	38.28	38.28	38.28	39.35
Sutter County Total		--	--	--	--	--	--	--	9.20	4.74	--	--	--	--	--	--	--	--	--	--

Table K-63. CO Detailed Summary (Alternative 5) - Mit

#	Activity	24-Jun	1-Jul	8-Jul	Annual Emissions, tpy	Year 1, tpy	Year 2, tpy
Intake Channel, Headworks, and Outlet Channel							
1	Offroad Construction Equipment Exhaust	14.71	8.11	0.00	29.95	29.01	0.94
	Construction Worker Commuting	2.36	0.41	0.00	1.11	0.99	0.13
	Haul Trucks	--	1.65	--	1.80	1.80	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		17.07	10.17	--	32.86	31.80	1.07
Supplemental Fish Passage West							
2	Offroad Construction Equipment Exhaust	--	--	--	0.20	0.20	--
	Construction Worker Commuting	--	--	--	0.10	0.10	--
	Haul Trucks	--	--	--	0.02	0.02	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	--
Supplemental Fish Passage West Subtotal		--	--	--	0.32	0.32	--
Agricultural Crossing 1							
3	Offroad Construction Equipment Exhaust	--	--	--	0.28	0.28	--
	Construction Worker Commuting	--	--	--	0.02	0.02	--
	Haul Trucks	--	--	--	0.02	0.02	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	--
Agricultural Crossing 1 Subtotal		--	--	--	0.32	0.32	--
River Grading Site							
4	Offroad Construction Equipment Exhaust	--	--	--	0.78	0.78	--
	Construction Worker Commuting	--	--	--	0.11	0.11	--
	Haul Trucks	--	--	--	0.09	0.09	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	--
	Marine Equipment Exhaust	--	--	--	3.83	3.83	--
River Grading Site Subtotal		--	--	--	4.81	4.81	--
GRAND TOTAL		17.07	10.17	--	38.31	37.24	1.07
Yolo County Total		17.07	10.17	--	37.99	36.93	1.07
Sutter County Total		--	--	--	0.32	0.32	--

Table K-64. CO Detailed Summary (Alternative 6) - Mitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	12.79	150.51	155.43	127.56	179.58	174.00	198.17	185.40	180.91	197.65	380.58	380.58	371.70	388.79	373.23	368.80	385.53	384.63	367.90
	Construction Worker Commuting	9.85	13.75	7.28	5.23	7.59	6.67	9.64	8.31	7.59	10.36	32.62	32.62	32.01	32.83	32.42	30.57	33.34	33.14	30.06
	Haul Trucks	3.26	3.69	2.41	2.07	0.69	--	0.38	--	--	2.05	71.65	71.65	71.50	71.16	71.73	69.60	71.65	72.00	69.70
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		25.91	167.94	165.13	134.85	187.86	180.67	208.19	193.71	188.50	210.06	484.85	484.85	475.21	492.78	477.37	468.97	490.53	489.77	467.66
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	4.68	13.94	4.06	29.86	28.34	27.52	46.80	4.16	8.11	4.49	4.49	5.58	6.85	4.94	4.06	4.06	4.31	4.31	4.06
	Construction Worker Commuting	0.82	1.03	1.85	0.92	0.82	2.05	5.74	0.41	3.69	0.82	0.72	0.92	1.44	0.62	1.85	0.21	0.41	0.41	0.21
	Haul Trucks	0.17	0.17	0.76	0.72	--	--	13.72	--	1.00	--	--	0.50	0.74	--	0.24	0.07	--	--	0.07
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		5.67	15.14	6.66	31.50	29.16	29.57	66.26	4.57	12.80	5.31	5.21	7.00	9.03	5.56	6.14	4.33	4.72	4.72	4.33
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	8.74	29.86	29.86	29.86	29.86	27.52	36.23	36.23	27.52	35.68	43.52	43.52	27.46	46.80	46.80	46.80	46.80	46.80	23.40
	Construction Worker Commuting	1.85	0.92	0.92	0.92	0.92	2.05	2.46	2.46	2.77	2.87	2.87	2.87	3.59	5.74	5.74	5.74	5.74	5.74	2.87
	Haul Trucks	0.69	0.72	0.72	--	--	--	--	--	0.21	--	--	--	10.05	19.70	19.70	19.70	19.70	19.70	9.85
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		11.27	31.50	31.50	30.78	30.78	29.57	38.69	38.69	30.50	38.55	46.39	46.39	41.10	72.24	72.24	72.24	72.24	72.24	36.12
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	8.74	27.11	27.52	4.16	4.16	4.06	4.50	8.71	4.50	4.06	31.64	9.70	8.23	8.23	5.99	13.26	8.17	25.20	5.58
	Construction Worker Commuting	1.54	0.92	2.05	0.41	0.41	1.03	0.31	0.41	0.31	1.85	2.36	1.23	0.92	0.92	1.23	2.15	0.82	3.18	0.92
	Haul Trucks	0.41	0.54	--	--	--	--	0.10	9.58	0.10	0.45	--	--	--	--	--	0.23	0.34	0.45	0.69
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		10.69	28.57	29.57	4.57	4.57	5.08	4.91	18.70	4.91	6.35	34.00	10.93	9.15	9.15	7.23	15.64	9.34	28.83	7.19
GRAND TOTAL		53.54	243.15	232.86	201.70	252.37	244.90	318.05	255.67	236.71	260.28	570.45	549.17	534.49	579.73	562.98	561.18	576.82	595.56	515.30
Yolo County Total		53.54	243.15	232.86	201.70	252.37	244.90	318.05	255.67	236.71	260.28	570.45	549.17	534.49	579.73	562.98	561.18	576.82	595.56	515.30
Sutter County Total		25.91	167.94	165.13	134.85	187.86	180.67	208.19	193.71	188.50	210.06	484.85	484.85	475.21	492.78	477.37	468.97	490.53	489.77	467.66

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Table K-64. CO Detailed Summary (Alternative 6) - Mit

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	397.18	283.82	107.65	121.70	32.15	24.60	24.60	19.49	12.17	17.33
	Construction Worker Commuting	34.37	31.08	13.44	15.08	11.39	3.59	3.59	2.77	8.92	1.38
	Haul Trucks	79.16	79.16	39.75	39.75	2.61	--	--	2.95	1.65	2.68
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		510.71	394.07	160.84	176.52	46.15	28.19	28.19	25.21	22.74	21.39
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	5.43	4.06	0.26
	Construction Worker Commuting	--	--	--	--	--	--	--	0.82	0.51	0.13
	Haul Trucks	--	--	--	--	--	--	--	2.94	0.17	0.02
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	9.19	4.74	0.40
Downstream Channel											
3	Offroad Construction Equipment Exhaust	4.16	4.16	4.06	5.43	4.06	--	--	--	--	1.88
	Construction Worker Commuting	0.41	0.41	1.33	0.82	0.21	--	--	--	--	0.16
	Haul Trucks	--	--	0.62	2.95	0.07	--	--	--	--	0.34
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		4.57	4.57	6.01	9.20	4.33	--	--	--	--	2.38
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	4.95	--	9.49	4.06	--	--	--	--	--	0.28
	Construction Worker Commuting	0.72	--	1.33	0.21	--	--	--	--	--	0.02
	Haul Trucks	--	--	1.45	0.07	--	--	--	--	--	0.02
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		5.67	--	12.27	4.33	--	--	--	--	--	0.32
GRAND TOTAL		520.94	398.63	179.12	190.06	50.48	28.19	28.19	34.40	27.48	24.49
Yolo County Total		520.94	398.63	179.12	190.06	50.48	28.19	28.19	34.40	27.48	24.49
Sutter County Total		510.71	394.07	160.84	176.52	46.15	28.19	28.19	25.21	22.74	21.39

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-65. SO2 Detailed Summary (Alternative 1) - Mitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.04	0.20	0.22	0.18	0.29	0.31	0.45	0.41	0.48	0.45	0.30	0.29	0.35	0.44	0.55	0.48	0.32	0.36	0.02
	Construction Worker Commuting	0.02	0.02	0.04	0.01	0.01	0.01	0.03	0.02	0.02	0.02	0.02	0.03	0.03	0.04	0.05	0.04	0.03	0.04	0.01
	Haul Trucks	0.04	0.03	0.05	--	--	--	0.02	0.00	--	--	--	0.26	0.65	0.60	0.64	0.64	0.40	0.66	0.02
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		0.10	0.24	0.30	0.19	0.31	0.32	0.49	0.44	0.50	0.47	0.31	0.58	1.04	1.08	1.24	1.16	0.75	1.06	0.06
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	0.02	0.05	0.01	0.03	0.15	0.12	0.28	0.01	0.02	0.03	0.03	0.02	0.04	0.03	0.01	0.01	0.01	0.01	0.01
	Construction Worker Commuting	0.00	0.00	0.01	0.00	0.00	0.01	0.02	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00
	Haul Trucks	0.00	0.00	0.02	0.01	--	--	0.29	--	0.02	--	--	0.01	0.02	--	0.00	0.00	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		0.02	0.06	0.03	0.05	0.16	0.13	0.59	0.01	0.06	0.03	0.03	0.03	0.06	0.03	0.02	0.01	0.01	0.01	0.01
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.03	0.03	0.03	0.03	0.03	0.12	0.15	0.15	0.12	0.15	0.19	0.19	0.15	0.28	0.28	0.28	0.28	0.28	0.14
	Construction Worker Commuting	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01
	Haul Trucks	0.01	0.01	0.01	--	--	--	--	--	0.00	--	--	--	0.21	0.40	0.40	0.40	0.40	0.40	0.20
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.05	0.05	0.05	0.03	0.03	0.13	0.16	0.16	0.13	0.16	0.20	0.20	0.37	0.71	0.71	0.71	0.71	0.71	0.35
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.03	0.02	0.12	0.01	0.01	0.01	0.01	0.03	0.01	0.01	0.13	0.03	0.02	0.02	0.02	0.05	0.02	0.11	0.02
	Construction Worker Commuting	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00
	Haul Trucks	0.01	0.01	--	--	--	--	0.00	0.20	0.00	0.01	--	--	--	--	--	0.00	0.01	0.01	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.04	0.04	0.13	0.01	0.01	0.01	0.02	0.23	0.02	0.03	0.14	0.03	0.03	0.03	0.03	0.06	0.03	0.13	0.04
GRAND TOTAL		0.21	0.38	0.51	0.28	0.51	0.59	1.26	0.84	0.71	0.69	0.69	0.85	1.49	1.84	2.00	1.94	1.50	1.91	0.46
Yolo County Total		0.19	0.33	0.47	0.23	0.35	0.46	0.67	0.83	0.65	0.66	0.66	0.82	1.44	1.81	1.97	1.93	1.49	1.90	0.45
Sutter County Total		0.02	0.06	0.03	0.05	0.16	0.13	0.59	0.01	0.06	0.03	0.03	0.03	0.06	0.03	0.02	0.01	0.01	0.01	0.01

Table K-65. SO2 Detailed Summary (Alternative 1) - Mi

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	0.01	0.02	0.07	0.07	0.07	0.06	0.04	0.07	0.01	0.02
	Construction Worker Commuting	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.02	0.00	0.00
	Haul Trucks	--	0.00	--	--	--	--	--	0.08	0.00	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		0.01	0.02	0.08	0.08	0.08	0.07	0.05	0.17	0.02	0.03
Supplemental Fish Passage West											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.04	0.01	0.00
	Construction Worker Commuting	--	--	--	--	--	--	--	0.00	0.00	0.00
	Haul Trucks	--	--	--	--	--	--	--	0.06	0.00	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	0.10	0.02	0.00
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.01	0.01	0.01	0.04	0.01	--	--	--	--	0.01
	Construction Worker Commuting	0.00	0.00	0.01	0.00	0.00	--	--	--	--	0.00
	Haul Trucks	--	--	0.01	0.06	0.00	--	--	--	--	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.01	0.01	0.03	0.10	0.01	--	--	--	--	0.02
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.03	--	0.05	0.01	--	--	--	--	--	0.00
	Construction Worker Commuting	0.00	--	0.01	0.00	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.03	0.00	--	--	--	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.03	--	0.08	0.01	--	--	--	--	--	0.00
GRAND TOTAL		0.05	0.03	0.19	0.19	0.09	0.07	0.05	0.27	0.03	0.05
Yolo County Total		0.05	0.03	0.19	0.19	0.09	0.07	0.05	0.17	0.02	0.04
Sutter County Total		--	--	--	--	--	--	--	0.10	0.02	0.00

Table K-66. SO2 Detailed Summary (Alternative 2) - Mitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.04	0.20	0.21	0.18	0.60	0.58	0.88	0.83	0.83	0.81	0.34	0.39	0.73	0.63	0.61	0.69	0.59	0.60	0.52
	Construction Worker Commuting	0.03	0.02	0.04	0.01	0.02	0.02	0.04	0.03	0.03	0.03	0.02	0.03	0.06	0.06	0.05	0.06	0.05	0.05	0.05
	Haul Trucks	0.05	0.03	0.05	--	0.01	--	0.01	--	--	--	--	0.41	0.93	0.93	0.93	0.92	0.90	0.89	0.68
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		0.11	0.25	0.29	0.19	0.64	0.60	0.92	0.87	0.87	0.84	0.37	0.82	1.72	1.62	1.59	1.67	1.55	1.54	1.25
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	0.02	0.05	0.01	0.03	0.15	0.12	0.28	0.01	0.02	0.03	0.03	0.02	0.04	0.03	0.01	0.01	0.01	0.01	0.01
	Construction Worker Commuting	0.00	0.00	0.01	0.00	0.00	0.01	0.02	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00
	Haul Trucks	0.00	0.00	0.02	0.01	--	--	0.29	--	0.02	--	--	0.01	0.02	--	0.00	0.00	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		0.02	0.06	0.03	0.05	0.16	0.13	0.59	0.01	0.06	0.03	0.03	0.03	0.06	0.03	0.02	0.01	0.01	0.01	0.01
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.03	0.03	0.03	0.03	0.03	0.12	0.15	0.15	0.12	0.15	0.19	0.19	0.15	0.28	0.28	0.28	0.28	0.28	0.14
	Construction Worker Commuting	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01
	Haul Trucks	0.01	0.01	0.01	--	--	--	--	--	0.00	--	--	--	0.21	0.40	0.40	0.40	0.40	0.40	0.20
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.05	0.05	0.05	0.03	0.03	0.13	0.16	0.16	0.13	0.16	0.20	0.20	0.37	0.71	0.71	0.71	0.71	0.71	0.35
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.03	0.02	0.12	0.01	0.01	0.01	0.01	0.03	0.01	0.01	0.13	0.03	0.02	0.02	0.02	0.05	0.02	0.11	0.02
	Construction Worker Commuting	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00
	Haul Trucks	0.01	0.01	--	--	--	--	0.00	0.20	0.00	0.01	--	--	--	--	--	0.00	0.01	0.01	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.04	0.04	0.13	0.01	0.01	0.01	0.02	0.23	0.02	0.03	0.14	0.03	0.03	0.03	0.03	0.06	0.03	0.13	0.04
River Grading Site																				
5	Offroad Construction Equipment Exhaust	0.05	0.07	0.23	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
	Construction Worker Commuting	--	--	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Haul Trucks	0.01	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	0.13	--	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
River Grading Site Subtotal		0.20	0.08	0.30	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
GRAND TOTAL		0.42	0.46	0.80	0.50	1.06	1.09	1.92	1.49	1.30	1.28	0.96	1.31	2.40	2.61	2.57	2.68	2.52	2.61	1.88
Yolo County Total		0.40	0.41	0.77	0.46	0.90	0.96	1.32	1.48	1.24	1.25	0.93	1.28	2.34	2.58	2.55	2.67	2.51	2.60	1.87
Sutter County Total		0.02	0.06	0.03	0.05	0.16	0.13	0.59	0.01	0.06	0.03	0.03	0.03	0.06	0.03	0.02	0.01	0.01	0.01	0.01

Table K-66. SO2 Detailed Summary (Alternative 2) - Mi

#	Activity	26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	Annual Emissions, tpy
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	0.30	0.03	0.03	0.06	0.06	0.06	0.06	0.06	0.01	0.03
	Construction Worker Commuting	0.03	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.00	0.00
	Haul Trucks	0.49	0.04	--	--	--	--	--	0.08	0.00	0.02
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		0.82	0.09	0.04	0.07	0.07	0.07	0.07	0.16	0.02	0.05
Supplemental Fish Passage West											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.04	0.01	0.00
	Construction Worker Commuting	--	--	--	--	--	--	--	0.00	0.00	0.00
	Haul Trucks	--	--	--	--	--	--	--	0.06	0.00	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	0.10	0.02	0.00
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.01	0.01	0.01	0.04	0.01	--	--	--	--	0.01
	Construction Worker Commuting	0.00	0.00	0.01	0.00	0.00	--	--	--	--	0.00
	Haul Trucks	--	--	0.01	0.06	0.00	--	--	--	--	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.01	0.01	0.03	0.10	0.01	--	--	--	--	0.02
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.03	--	0.05	0.01	--	--	--	--	--	0.00
	Construction Worker Commuting	0.00	--	0.01	0.00	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.03	0.00	--	--	--	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.03	--	0.08	0.01	--	--	--	--	--	0.00
River Grading Site											
5	Offroad Construction Equipment Exhaust	0.15	0.23	0.00	0.00	--	0.05	--	--	--	0.00
	Construction Worker Commuting	0.01	0.02	0.01	0.01	0.00	--	--	--	--	0.00
	Haul Trucks	--	0.20	0.20	0.20	--	0.01	--	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	0.07	0.07	--	--	--	--	--	--	--	0.01
River Grading Site Subtotal		0.22	0.52	0.21	0.22	0.00	0.06	--	--	--	0.02
GRAND TOTAL		1.09	0.62	0.37	0.40	0.09	0.13	0.07	0.26	0.03	0.09
Yolo County Total		1.09	0.62	0.37	0.40	0.09	0.13	0.07	0.16	0.02	0.08
Sutter County Total		--	--	--	--	--	--	--	0.10	0.02	0.00

Table K-67. SO2 Detailed Summary (Alternative 3) - Mitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.04	0.20	0.21	0.18	0.60	0.58	0.88	0.87	0.87	0.84	0.84	1.09	1.15	1.34	0.61	0.69	0.59	0.60	0.80
	Construction Worker Commuting	0.03	0.02	0.04	0.01	0.02	0.02	0.04	0.04	0.04	0.03	0.03	0.05	0.07	0.08	0.05	0.06	0.05	0.05	0.07
	Haul Trucks	0.05	0.03	0.05	--	0.01	--	0.01	--	--	--	--	0.41	0.45	0.85	0.85	0.84	0.82	0.81	1.04
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		0.11	0.24	0.29	0.19	0.64	0.60	0.92	0.90	0.90	0.87	0.87	1.55	1.66	2.27	1.51	1.59	1.47	1.46	1.91
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	0.02	0.05	0.01	0.03	0.15	0.12	0.28	0.01	0.02	0.03	0.03	0.02	0.04	0.03	0.01	0.01	0.01	0.01	0.01
	Construction Worker Commuting	0.00	0.00	0.01	0.00	0.00	0.01	0.02	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00
	Haul Trucks	0.00	0.00	0.02	0.01	--	--	0.28	--	0.02	--	--	0.01	0.02	--	0.00	0.00	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		0.02	0.06	0.03	0.05	0.16	0.13	0.59	0.01	0.06	0.03	0.03	0.03	0.06	0.03	0.02	0.01	0.01	0.01	0.01
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.03	0.03	0.03	0.03	0.03	0.12	0.15	0.15	0.12	0.15	0.19	0.19	0.15	0.28	0.28	0.28	0.28	0.28	0.14
	Construction Worker Commuting	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01
	Haul Trucks	0.01	0.01	0.01	--	--	--	--	--	0.00	--	--	--	0.21	0.40	0.40	0.40	0.40	0.40	0.20
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.05	0.05	0.05	0.03	0.03	0.13	0.16	0.16	0.13	0.16	0.20	0.20	0.37	0.71	0.71	0.71	0.71	0.71	0.35
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.03	0.02	0.12	0.01	0.01	0.01	0.01	0.03	0.01	0.01	0.13	0.03	0.02	0.02	0.02	0.05	0.02	0.11	0.02
	Construction Worker Commuting	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00
	Haul Trucks	0.01	0.01	--	--	--	--	0.00	0.20	0.00	0.01	--	--	--	--	0.00	0.01	0.01	0.01	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.04	0.04	0.13	0.01	0.01	0.01	0.02	0.23	0.02	0.03	0.14	0.03	0.03	0.03	0.03	0.06	0.03	0.13	0.04
GRAND TOTAL		0.23	0.38	0.50	0.28	0.84	0.87	1.69	1.31	1.11	1.09	1.25	1.82	2.12	3.03	2.27	2.38	2.22	2.31	2.32
Yolo County Total		0.23	0.38	0.50	0.28	0.84	0.87	1.69	1.31	1.11	1.09	1.25	1.82	2.12	3.03	2.27	2.38	2.22	2.31	2.32
Sutter County Total		0.11	0.24	0.29	0.19	0.64	0.60	0.92	0.90	0.90	0.87	0.87	1.55	1.66	2.27	1.51	1.59	1.47	1.46	1.91

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Table K-67. SO2 Detailed Summary (Alternative 3) - Mi

#	Activity	26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	Annual Emissions, tpy
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	0.60	0.30	0.32	0.06	0.06	0.06	0.06	0.06	0.01	0.04
	Construction Worker Commuting	0.07	0.02	0.03	0.01	0.01	0.01	0.01	0.02	0.00	0.00
	Haul Trucks	0.85	0.40	0.40	--	--	--	--	0.08	0.00	0.02
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		1.52	0.73	0.75	0.07	0.07	0.07	0.07	0.16	0.02	0.07
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.04	0.01	0.00
	Construction Worker Commuting	--	--	--	--	--	--	--	0.00	0.00	0.00
	Haul Trucks	--	--	--	--	--	--	--	0.06	0.00	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	0.10	0.02	0.00
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.01	0.01	0.01	0.04	0.01	--	--	--	--	0.01
	Construction Worker Commuting	0.00	0.00	0.01	0.00	0.00	--	--	--	--	0.00
	Haul Trucks	--	--	0.01	0.06	0.00	--	--	--	--	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.01	0.01	0.03	0.10	0.01	--	--	--	--	0.02
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.03	--	0.05	0.01	--	--	--	--	--	0.00
	Construction Worker Commuting	0.00	--	0.01	0.00	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.03	0.00	--	--	--	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.03	--	0.08	0.01	--	--	--	--	--	0.00
GRAND TOTAL		1.56	0.74	0.86	0.19	0.09	0.07	0.07	0.26	0.03	0.09
Yolo County Total		1.56	0.74	0.86	0.19	0.09	0.07	0.07	0.26	0.03	0.09
Sutter County Total		1.52	0.73	0.75	0.07	0.07	0.07	0.07	0.16	0.02	0.07

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-68. SO2 Detailed Summary (Alternative 4) - Mitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.04	0.20	0.21	0.18	0.60	0.58	0.88	0.87	0.87	0.84	0.84	1.09	1.15	1.34	0.61	0.69	0.59	0.60	0.80
	Construction Worker Commuting	0.03	0.02	0.04	0.01	0.02	0.02	0.04	0.04	0.04	0.03	0.03	0.05	0.07	0.08	0.05	0.06	0.05	0.05	0.07
	Haul Trucks	0.05	0.03	0.05	--	0.01	--	0.01	--	--	--	--	0.41	0.45	0.85	0.85	0.84	0.82	0.81	1.04
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		0.11	0.24	0.29	0.19	0.64	0.60	0.92	0.90	0.90	0.87	0.87	1.55	1.66	2.27	1.51	1.59	1.47	1.46	1.91
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	0.02	0.05	0.01	0.03	0.15	0.12	0.28	0.01	0.02	0.03	0.03	0.02	0.04	0.03	0.01	0.01	0.01	0.01	0.01
	Construction Worker Commuting	0.00	0.00	0.01	0.00	0.00	0.01	0.02	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00
	Haul Trucks	0.00	0.00	0.02	0.01	--	--	0.28	--	0.02	--	--	0.01	0.02	--	0.00	0.00	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		0.02	0.06	0.03	0.05	0.16	0.13	0.59	0.01	0.06	0.03	0.03	0.03	0.06	0.03	0.02	0.01	0.01	0.01	0.01
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.03	0.03	0.03	0.03	0.03	0.12	0.15	0.15	0.12	0.15	0.19	0.19	0.15	0.28	0.28	0.28	0.28	0.28	0.14
	Construction Worker Commuting	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01
	Haul Trucks	0.01	0.01	0.01	--	--	--	--	--	0.00	--	--	--	0.21	0.40	0.40	0.40	0.40	0.40	0.20
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.05	0.05	0.05	0.03	0.03	0.13	0.16	0.16	0.13	0.16	0.20	0.20	0.37	0.71	0.71	0.71	0.71	0.71	0.35
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.03	0.02	0.12	0.01	0.01	0.01	0.01	0.03	0.01	0.01	0.13	0.03	0.02	0.02	0.02	0.05	0.02	0.11	0.02
	Construction Worker Commuting	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00
	Haul Trucks	0.01	0.01	--	--	--	--	0.00	0.20	0.00	0.01	--	--	--	--	0.00	0.01	0.01	0.01	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.04	0.04	0.13	0.01	0.01	0.01	0.02	0.23	0.02	0.03	0.14	0.03	0.03	0.03	0.03	0.06	0.03	0.13	0.04
Northern Water Control Structure Improvements																				
5	Offroad Construction Equipment Exhaust	0.04	0.12	0.13	0.31	0.34	0.43	0.34	0.23	0.22	0.34	0.06	0.03	0.04	0.02	0.04	0.05	0.05	0.02	0.01
	Construction Worker Commuting	0.01	0.01	0.01	0.01	0.02	0.02	0.03	0.02	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.00
	Haul Trucks	0.02	0.01	0.01	0.44	0.46	0.44	0.45	0.44	0.44	0.58	0.00	0.02	--	0.02	--	0.00	--	0.01	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Northern Water Control Structure Improvements Subtotal		0.07	0.14	0.16	0.77	0.82	0.90	0.82	0.70	0.68	0.94	0.07	0.06	0.04	0.04	0.04	0.05	0.05	0.03	0.01
Southern Water Control Structure Improvements																				
6	Offroad Construction Equipment Exhaust	0.04	0.15	0.16	0.22	0.34	0.43	0.63	0.53	0.51	0.63	0.54	0.37	0.39	0.37	0.38	0.40	0.39	0.37	0.36
	Construction Worker Commuting	0.01	0.01	0.01	0.01	0.02	0.02	0.04	0.03	0.03	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
	Haul Trucks	0.02	0.03	0.03	0.62	0.64	0.62	0.63	0.62	0.62	1.06	1.06	1.07	1.06	1.08	1.06	1.06	1.06	1.07	1.06
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Southern Water Control Structure Improvements Subtotal		0.07	0.19	0.21	0.85	1.00	1.07	1.30	1.18	1.16	1.73	1.63	1.47	1.48	1.48	1.47	1.49	1.48	1.47	1.44
GRAND TOTAL		0.37	0.71	0.87	1.90	2.66	2.84	3.81	3.19	2.95	3.76	2.95	3.36	3.64	4.55	3.79	3.92	3.75	3.81	3.77
Yolo County Total		0.37	0.71	0.87	1.90	2.66	2.84	3.81	3.19	2.95	3.76	2.95	3.36	3.64	4.55	3.79	3.92	3.75	3.81	3.77
Sutter County Total		0.11	0.24	0.29	0.19	0.64	0.60	0.92	0.90	0.90	0.87	0.87	1.55	1.66	2.27	1.51	1.59	1.47	1.46	1.91

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Table K-68. SO2 Detailed Summary (Alternative 4) - Mi

#	Activity	26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	Annual Emissions, tpy
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	0.60	0.30	0.32	0.07	0.07	0.06	0.06	0.06	0.01	0.04
	Construction Worker Commuting	0.07	0.02	0.03	0.01	0.01	0.01	0.01	0.02	0.00	0.00
	Haul Trucks	0.85	0.40	0.40	--	--	--	--	0.08	0.00	0.02
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		1.52	0.73	0.75	0.08	0.08	0.07	0.07	0.16	0.02	0.07
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.04	0.01	0.00
	Construction Worker Commuting	--	--	--	--	--	--	--	0.00	0.00	0.00
	Haul Trucks	--	--	--	--	--	--	--	0.06	0.00	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	0.10	0.02	0.00
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.01	0.01	0.01	0.04	0.01	--	--	--	--	0.01
	Construction Worker Commuting	0.00	0.00	0.01	0.00	0.00	--	--	--	--	0.00
	Haul Trucks	--	--	0.01	0.06	0.00	--	--	--	--	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.01	0.01	0.03	0.10	0.01	--	--	--	--	0.02
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.03	--	0.05	0.01	--	--	--	--	--	0.00
	Construction Worker Commuting	0.00	--	0.01	0.00	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.03	0.00	--	--	--	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.03	--	0.08	0.01	--	--	--	--	--	0.00
Northern Water Control Structure Improvements											
5	Offroad Construction Equipment Exhaust	0.01	0.01	0.05	0.01	--	--	--	--	--	0.01
	Construction Worker Commuting	0.00	0.00	0.00	0.00	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.07	0.00	--	--	--	--	--	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Northern Water Control Structure Improvements Subtotal		0.02	0.02	0.12	0.01	--	--	--	--	--	0.02
Southern Water Control Structure Improvements											
6	Offroad Construction Equipment Exhaust	0.09	0.09	0.06	0.01	--	--	--	--	--	0.02
	Construction Worker Commuting	0.01	0.01	0.01	0.00	--	--	--	--	--	0.00
	Haul Trucks	0.62	0.64	0.08	0.00	--	--	--	--	--	0.05
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Southern Water Control Structure Improvements Subtotal		0.72	0.74	0.14	0.01	--	--	--	--	--	0.07
GRAND TOTAL		2.30	1.50	1.13	0.22	0.09	0.07	0.07	0.26	0.03	0.17
Yolo County Total		2.30	1.50	1.13	0.22	0.09	0.07	0.07	0.26	0.03	0.17
Sutter County Total		1.52	0.73	0.75	0.08	0.08	0.07	0.07	0.16	0.02	0.07

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-69. SO2 Detailed Summary (Alternative 5) - Mitigated

#	Activity	Ma																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.18	0.52	1.79	2.27	2.75	2.63	2.20	2.62	1.36	1.23	1.16	0.89	1.35	1.23	1.15	0.98	0.98	0.56	0.12
	Construction Worker Commuting	0.06	0.05	0.07	0.05	0.08	0.07	0.05	0.08	0.10	0.09	0.09	0.07	0.10	0.09	0.08	0.09	0.09	0.06	0.01
	Haul Trucks	0.12	0.04	0.04	--	0.01	0.01	0.01	0.73	1.44	1.43	1.43	1.43	1.43	1.43	1.43	1.51	1.51	0.80	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		0.36	0.62	1.91	2.32	2.85	2.72	2.26	3.43	2.90	2.75	2.67	2.40	2.87	2.75	2.66	2.58	2.58	1.42	0.12
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	0.02	0.05	0.01	0.03	0.15	0.12	0.28	0.01	0.02	0.03	0.03	0.02	0.04	0.03	0.01	0.01	0.01	0.01	0.01
	Construction Worker Commuting	0.00	0.00	0.01	0.00	0.00	0.01	0.02	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00
	Haul Trucks	0.00	0.00	0.02	0.01	--	--	0.29	--	0.02	--	--	0.01	0.02	--	0.00	0.00	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		0.02	0.06	0.03	0.05	0.16	0.13	0.59	0.01	0.06	0.03	0.03	0.03	0.06	0.03	0.02	0.01	0.01	0.01	0.01
Agricultural Crossing 1																				
3	Offroad Construction Equipment Exhaust	0.03	0.02	0.12	0.01	0.01	0.01	0.01	0.03	0.01	0.01	0.13	0.03	0.02	0.02	0.02	0.05	0.02	0.11	0.02
	Construction Worker Commuting	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00
	Haul Trucks	0.01	0.01	--	--	--	--	0.00	0.20	0.00	0.01	--	--	--	--	--	0.00	0.01	0.01	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.04	0.04	0.13	0.01	0.01	0.01	0.02	0.23	0.02	0.03	0.14	0.03	0.03	0.03	0.03	0.06	0.03	0.13	0.04
River Grading Site																				
4	Offroad Construction Equipment Exhaust	0.05	0.07	0.23	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
	Construction Worker Commuting	--	--	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Haul Trucks	0.01	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	0.13	--	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
River Grading Site Subtotal		0.20	0.08	0.30	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
GRAND TOTAL		0.62	0.79	2.37	2.60	3.24	3.08	3.09	3.90	3.19	3.03	3.06	2.68	3.18	3.02	2.93	2.87	2.84	1.78	0.39
Yolo County Total		0.60	0.73	2.34	2.55	3.08	2.95	2.50	3.89	3.13	3.00	3.03	2.65	3.12	2.99	2.91	2.86	2.83	1.77	0.38
Sutter County Total		0.02	0.06	0.03	0.05	0.16	0.13	0.59	0.01	0.06	0.03	0.03	0.03	0.06	0.03	0.02	0.01	0.01	0.01	0.01

Table K-69. SO2 Detailed Summary (Alternative 5) - Mi

#	Activity	Maximum Daily Emissions, lbs/day																		
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.03	0.04	0.04	0.15	0.13	0.01	0.05	0.00	0.00	0.02	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
	Construction Worker Commuting	0.00	0.00	0.00	0.06	0.02	0.04	0.01	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	Haul Trucks	0.01	--	--	0.19	0.08	0.03	0.07	--	--	0.03	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		0.04	0.04	0.04	0.40	0.23	0.08	0.12	--	--	0.06	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.04	0.01	--	--	--	--	--	--	--	--	--	--
	Construction Worker Commuting	--	--	--	--	--	--	--	0.00	0.00	--	--	--	--	--	--	--	--	--	--
	Haul Trucks	--	--	--	--	--	--	--	0.06	0.00	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	0.10	0.02	--	--	--	--	--	--	--	--	--	--
Agricultural Crossing 1																				
3	Offroad Construction Equipment Exhaust	0.03	--	0.05	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Construction Worker Commuting	0.00	--	0.01	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Haul Trucks	--	--	0.03	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.03	--	0.08	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
River Grading Site																				
4	Offroad Construction Equipment Exhaust	0.15	0.23	0.00	0.00	--	0.05	--	--	--	--	--	--	--	--	--	--	--	--	--
	Construction Worker Commuting	0.01	0.02	0.01	0.01	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Haul Trucks	--	0.20	0.20	0.20	--	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Marine Equipment Exhaust	0.07	0.07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
River Grading Site Subtotal		0.22	0.52	0.21	0.22	0.00	0.06	--	--	--	--	--	--	--	--	--	--	--	--	--
GRAND TOTAL		0.29	0.56	0.34	0.63	0.24	0.15	0.12	0.10	0.02	0.06	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Yolo County Total		0.29	0.56	0.34	0.63	0.24	0.15	0.12	--	--	0.06	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Sutter County Total		--	--	--	--	--	--	--	0.10	0.02	--	--	--	--	--	--	--	--	--	--

Table K-69. SO2 Detailed Summary (Alternative 5) - Mi

#	Activity	24-Jun	1-Jul	8-Jul	Annual Emissions, tpy	Year 1, tpy	Year 2, tpy
Intake Channel, Headworks, and Outlet Channel							
1	Offroad Construction Equipment Exhaust	0.04	0.02	0.00	0.14	0.13	0.00
	Construction Worker Commuting	0.01	0.00	0.00	0.00	0.00	0.00
	Haul Trucks	--	0.03	--	0.04	0.04	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		0.05	0.06	--	0.18	0.17	0.00
Supplemental Fish Passage West							
2	Offroad Construction Equipment Exhaust	--	--	--	0.00	0.00	--
	Construction Worker Commuting	--	--	--	0.00	0.00	--
	Haul Trucks	--	--	--	0.00	0.00	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	--
Supplemental Fish Passage West Subtotal		--	--	--	0.00	0.00	--
Agricultural Crossing 1							
3	Offroad Construction Equipment Exhaust	--	--	--	0.00	0.00	--
	Construction Worker Commuting	--	--	--	0.00	0.00	--
	Haul Trucks	--	--	--	0.00	0.00	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	--
Agricultural Crossing 1 Subtotal		--	--	--	0.00	0.00	--
River Grading Site							
4	Offroad Construction Equipment Exhaust	--	--	--	0.00	0.00	--
	Construction Worker Commuting	--	--	--	0.00	0.00	--
	Haul Trucks	--	--	--	0.00	0.00	--
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	--
	Marine Equipment Exhaust	--	--	--	0.01	0.01	--
River Grading Site Subtotal		--	--	--	0.02	0.02	--
GRAND TOTAL		0.05	0.06	--	0.20	0.19	0.00
Yolo County Total		0.05	0.06	--	0.20	0.19	0.00
Sutter County Total		--	--	--	0.00	0.00	--

Table K-70. SO2 Detailed Summary (Alternative 6) - Mitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.04	0.29	0.33	0.23	0.86	0.84	0.99	0.94	0.92	0.97	2.03	2.03	2.01	2.09	2.02	2.00	2.06	2.05	1.99
	Construction Worker Commuting	0.04	0.05	0.03	0.02	0.03	0.03	0.04	0.03	0.03	0.04	0.13	0.13	0.12	0.13	0.13	0.12	0.13	0.13	0.12
	Haul Trucks	0.07	0.08	0.05	0.04	0.01	--	0.01	--	--	0.04	1.47	1.47	1.47	1.46	1.47	1.43	1.47	1.48	1.43
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		0.14	0.41	0.41	0.29	0.90	0.86	1.03	0.97	0.94	1.06	3.63	3.63	3.60	3.68	3.62	3.55	3.66	3.65	3.53
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	0.02	0.05	0.01	0.03	0.15	0.12	0.28	0.01	0.02	0.03	0.03	0.02	0.04	0.03	0.01	0.01	0.01	0.01	0.01
	Construction Worker Commuting	0.00	0.00	0.01	0.00	0.00	0.01	0.02	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00
	Haul Trucks	0.00	0.00	0.02	0.01	--	--	0.28	--	0.02	--	--	0.01	0.02	--	0.00	0.00	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		0.02	0.06	0.03	0.05	0.16	0.13	0.59	0.01	0.06	0.03	0.03	0.03	0.06	0.03	0.02	0.01	0.01	0.01	0.01
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.03	0.03	0.03	0.03	0.03	0.12	0.15	0.15	0.12	0.15	0.19	0.19	0.15	0.28	0.28	0.28	0.28	0.28	0.14
	Construction Worker Commuting	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01
	Haul Trucks	0.01	0.01	0.01	--	--	--	--	--	0.00	--	--	--	0.21	0.40	0.40	0.40	0.40	0.40	0.20
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.05	0.05	0.05	0.03	0.03	0.13	0.16	0.16	0.13	0.16	0.20	0.20	0.37	0.71	0.71	0.71	0.71	0.71	0.35
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.03	0.02	0.12	0.01	0.01	0.01	0.01	0.03	0.01	0.01	0.13	0.03	0.02	0.02	0.02	0.05	0.02	0.11	0.02
	Construction Worker Commuting	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00
	Haul Trucks	0.01	0.01	--	--	--	--	0.00	0.20	0.00	0.01	--	--	--	--	--	0.00	0.01	0.01	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.04	0.04	0.13	0.01	0.01	0.01	0.02	0.23	0.02	0.03	0.14	0.03	0.03	0.03	0.03	0.06	0.03	0.13	0.04
GRAND TOTAL		0.25	0.55	0.61	0.39	1.10	1.14	1.79	1.38	1.15	1.28	4.00	3.90	4.06	4.44	4.38	4.33	4.41	4.50	3.94
Yolo County Total		0.25	0.55	0.61	0.39	1.10	1.14	1.79	1.38	1.15	1.28	4.00	3.90	4.06	4.44	4.38	4.33	4.41	4.50	3.94
Sutter County Total		0.14	0.41	0.41	0.29	0.90	0.86	1.03	0.97	0.94	1.06	3.63	3.63	3.60	3.68	3.62	3.55	3.66	3.65	3.53

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Table K-70. SO2 Detailed Summary (Alternative 6) - Mi

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	2.14	1.52	0.60	0.66	0.11	0.09	0.09	0.07	0.03	0.09
	Construction Worker Commuting	0.13	0.12	0.05	0.06	0.04	0.01	0.01	0.01	0.03	0.01
	Haul Trucks	1.62	1.62	0.81	0.81	0.05	--	--	0.06	0.03	0.06
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		3.90	3.27	1.47	1.53	0.20	0.10	0.10	0.14	0.10	0.15
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.04	0.01	0.00
	Construction Worker Commuting	--	--	--	--	--	--	--	0.00	0.00	0.00
	Haul Trucks	--	--	--	--	--	--	--	0.06	0.00	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	0.10	0.02	0.00
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.01	0.01	0.01	0.04	0.01	--	--	--	--	0.01
	Construction Worker Commuting	0.00	0.00	0.01	0.00	0.00	--	--	--	--	0.00
	Haul Trucks	--	--	0.01	0.06	0.00	--	--	--	--	0.01
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Channel Subtotal		0.01	0.01	0.03	0.10	0.01	--	--	--	--	0.02
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.03	--	0.05	0.01	--	--	--	--	--	0.00
	Construction Worker Commuting	0.00	--	0.01	0.00	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.03	0.00	--	--	--	--	--	0.00
	Fugitive Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agricultural Crossing 1 Subtotal		0.03	--	0.08	0.01	--	--	--	--	--	0.00
GRAND TOTAL		3.94	3.28	1.58	1.65	0.22	0.10	0.10	0.24	0.12	0.17
Yolo County Total		3.94	3.28	1.58	1.65	0.22	0.10	0.10	0.24	0.12	0.17
Sutter County Total		3.90	3.27	1.47	1.53	0.20	0.10	0.10	0.14	0.10	0.15

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-71. PM10 Detailed Summary (Alternative 1) - Mitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.24	0.99	1.06	0.94	0.90	0.82	1.40	1.29	1.43	1.29	0.99	1.43	2.17	2.42	3.02	2.89	1.76	2.23	0.11
	Construction Worker Commuting	2.20	1.74	4.03	1.60	1.56	1.33	2.93	2.66	2.70	2.38	2.02	3.21	3.94	4.22	5.32	5.13	3.03	4.17	1.56
	Haul Trucks	1.15	0.86	1.32	--	--	--	0.42	0.07	--	--	--	7.18	17.74	16.23	17.35	17.35	10.84	18.00	0.63
	Fugitive Dust	--	3.72	3.72	3.59	8.22	10.96	100.33	51.32	53.87	53.87	48.83	46.27	1.65	3.30	3.30	3.30	3.30	3.30	--
Intake Channel, Headworks, and Outlet Channel Subtotal		3.59	7.31	10.14	6.13	10.68	13.10	105.08	55.33	58.01	57.55	51.84	58.09	25.50	26.16	28.98	28.67	18.92	27.69	2.30
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	0.13	0.19	0.06	0.26	0.30	0.44	1.54	0.06	0.12	0.14	0.14	0.19	0.27	0.10	0.06	0.06	0.05	0.05	0.06
	Construction Worker Commuting	0.37	0.46	0.83	0.41	0.37	0.92	2.57	0.18	1.65	0.37	0.32	0.41	0.64	0.28	0.83	0.09	0.18	0.18	0.09
	Haul Trucks	0.10	0.10	0.42	0.40	--	--	7.84	--	0.56	--	--	0.28	0.42	--	0.13	0.04	--	--	0.04
	Fugitive Dust	--	0.13	--	0.53	96.50	--	3.30	--	--	88.52	--	--	--	--	--	--	--	--	--
Supplemental Fish Passage West Subtotal		0.59	0.88	1.31	1.61	97.17	1.36	15.24	0.24	2.32	89.03	0.46	0.88	1.33	0.38	1.02	0.19	0.23	0.23	0.19
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.18	0.26	0.26	0.26	0.26	0.44	0.55	0.55	0.44	0.58	0.63	0.63	0.83	1.54	1.54	1.54	1.54	1.54	0.77
	Construction Worker Commuting	0.83	0.41	0.41	0.41	0.41	0.92	1.10	1.10	1.24	1.28	1.28	1.28	1.60	2.57	2.57	2.57	2.57	2.57	1.28
	Haul Trucks	0.38	0.40	0.40	--	--	--	--	--	0.12	--	--	--	5.61	11.00	11.00	11.00	11.00	11.00	5.50
	Fugitive Dust	--	0.53	0.53	0.53	0.53	46.27	49.33	49.33	46.27	49.15	49.15	49.15	1.65	3.30	3.30	3.30	3.30	3.30	1.65
Downstream Channel Subtotal		1.39	1.61	1.61	1.21	1.21	47.63	50.98	50.98	48.07	51.01	51.06	51.06	9.69	18.40	18.40	18.40	18.40	18.40	9.20
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.18	0.19	0.44	0.06	0.06	0.06	0.09	0.11	0.09	0.06	0.49	0.24	0.15	0.15	0.25	0.33	0.11	0.38	0.19
	Construction Worker Commuting	0.69	0.41	0.92	0.18	0.18	0.46	0.14	0.18	0.14	0.83	1.05	0.55	0.41	0.41	0.55	0.96	0.37	1.42	0.41
	Haul Trucks	0.23	0.30	--	--	--	--	0.06	5.35	0.06	0.25	--	--	--	--	--	0.13	0.19	0.25	0.38
	Fugitive Dust	--	0.21	46.27	--	--	--	--	2.74	--	--	46.27	--	--	--	--	--	--	--	--
Agricultural Crossing 1 Subtotal		1.10	1.11	47.63	0.24	0.24	0.52	0.28	8.37	0.28	1.13	47.82	0.79	0.56	0.56	0.80	1.42	0.67	2.05	0.99
GRAND TOTAL		6.68	10.91	60.68	9.19	109.30	62.60	171.58	114.93	108.68	198.72	151.18	110.83	37.09	45.50	49.19	48.67	38.22	48.37	12.68
Yolo County Total		6.09	10.04	59.38	7.58	12.13	61.25	156.34	114.68	106.35	109.69	150.72	109.95	35.76	45.13	48.17	48.48	37.99	48.14	12.49
Sutter County Total		0.59	0.88	1.31	1.61	97.17	1.36	15.24	0.24	2.32	89.03	0.46	0.88	1.33	0.38	1.02	0.19	0.23	0.23	0.19

Table K-71. PM10 Detailed Summary (Alternative 1) - I

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	0.05	0.11	0.39	0.39	0.39	0.37	0.27	0.33	0.06	0.08
	Construction Worker Commuting	0.14	0.23	1.33	1.33	1.33	1.33	1.05	2.75	0.23	0.15
	Haul Trucks	--	0.00	--	--	--	--	--	2.10	0.10	0.25
	Fugitive Dust	--	--	--	--	--	--	--	0.21	--	1.06
Intake Channel, Headworks, and Outlet Channel Subtotal		0.19	0.34	1.72	1.72	1.72	1.70	1.32	5.39	0.38	1.53
Supplemental Fish Passage West											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.21	0.06	0.00
	Construction Worker Commuting	--	--	--	--	--	--	--	0.37	0.23	0.04
	Haul Trucks	--	--	--	--	--	--	--	1.65	0.10	0.01
	Fugitive Dust	--	--	--	--	--	--	--	0.53	--	0.04
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	2.75	0.38	0.10
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.06	0.06	0.06	0.21	0.06	--	--	--	--	0.04
	Construction Worker Commuting	0.18	0.18	0.60	0.37	0.09	--	--	--	--	0.07
	Haul Trucks	--	--	0.35	1.65	0.04	--	--	--	--	0.19
	Fugitive Dust	--	--	--	0.53	--	--	--	--	--	1.03
Downstream Channel Subtotal		0.24	0.24	1.00	2.75	0.19	--	--	--	--	1.33
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.17	--	0.26	0.06	--	--	--	--	--	0.00
	Construction Worker Commuting	0.32	--	0.60	0.09	--	--	--	--	--	0.01
	Haul Trucks	--	--	0.81	0.04	--	--	--	--	--	0.01
	Fugitive Dust	--	--	0.21	--	--	--	--	--	--	0.07
Agricultural Crossing 1 Subtotal		0.49	--	1.88	0.19	--	--	--	--	--	0.10
GRAND TOTAL		0.92	0.59	4.60	4.66	1.91	1.70	1.32	8.14	0.77	3.06
Yolo County Total		0.92	0.59	4.60	4.66	1.91	1.70	1.32	5.39	0.38	2.96
Sutter County Total		--	--	--	--	--	--	--	2.75	0.38	0.10

Table K-72. PM10 Detailed Summary (Alternative 2) - Mitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.24	0.99	1.05	0.94	1.49	1.30	2.43	2.28	2.28	2.14	1.25	1.91	4.03	3.71	3.52	3.78	3.32	3.29	3.10
	Construction Worker Commuting	3.21	1.74	4.03	1.60	2.29	1.88	4.58	3.99	3.99	3.67	2.57	3.30	7.10	6.51	6.23	6.60	5.68	5.59	5.55
	Haul Trucks	1.32	0.88	1.34	--	0.38	--	0.21	--	--	--	--	11.04	25.37	25.37	25.32	25.13	24.57	24.25	18.61
	Fugitive Dust	--	5.66	5.66	5.53	29.31	29.31	164.70	115.37	115.37	115.37	90.53	3.30	6.60	6.60	6.60	6.60	6.60	6.60	4.95
Intake Channel, Headworks, and Outlet Channel Subtotal		4.78	9.27	12.08	8.07	33.47	32.49	171.93	121.64	121.64	121.18	94.35	19.54	43.10	42.18	41.67	42.11	40.17	39.73	32.21
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	0.13	0.19	0.06	0.26	0.30	0.44	1.54	0.06	0.12	0.14	0.14	0.19	0.27	0.10	0.06	0.06	0.05	0.05	0.06
	Construction Worker Commuting	0.37	0.46	0.83	0.41	0.37	0.92	2.57	0.18	1.65	0.37	0.32	0.41	0.64	0.28	0.83	0.09	0.18	0.18	0.09
	Haul Trucks	0.10	0.10	0.42	0.40	--	--	7.84	--	0.56	--	--	0.28	0.42	--	0.13	0.04	--	--	0.04
	Fugitive Dust	--	0.13	--	0.53	96.50	--	3.30	--	--	88.52	--	--	--	--	--	--	--	--	--
Supplemental Fish Passage West Subtotal		0.59	0.88	1.31	1.61	97.17	1.36	15.24	0.24	2.32	89.03	0.46	0.88	1.33	0.38	1.02	0.19	0.23	0.23	0.19
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.18	0.26	0.26	0.26	0.26	0.44	0.55	0.55	0.44	0.58	0.63	0.63	0.83	1.54	1.54	1.54	1.54	1.54	0.77
	Construction Worker Commuting	0.83	0.41	0.41	0.41	0.41	0.92	1.10	1.10	1.24	1.28	1.28	1.28	1.60	2.57	2.57	2.57	2.57	2.57	1.28
	Haul Trucks	0.38	0.40	0.40	--	--	--	--	--	0.12	--	--	--	5.61	11.00	11.00	11.00	11.00	11.00	5.50
	Fugitive Dust	--	0.53	0.53	0.53	0.53	46.27	49.33	49.33	46.27	49.15	49.15	49.15	1.65	3.30	3.30	3.30	3.30	3.30	1.65
Downstream Channel Subtotal		1.39	1.61	1.61	1.21	1.21	47.63	50.98	50.98	48.07	51.01	51.06	51.06	9.69	18.40	18.40	18.40	18.40	18.40	9.20
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.18	0.19	0.44	0.06	0.06	0.06	0.09	0.11	0.09	0.06	0.49	0.24	0.15	0.15	0.25	0.33	0.11	0.38	0.19
	Construction Worker Commuting	0.69	0.41	0.92	0.18	0.18	0.46	0.14	0.18	0.14	0.83	1.05	0.55	0.41	0.41	0.55	0.96	0.37	1.42	0.41
	Haul Trucks	0.23	0.30	--	--	--	--	0.06	5.35	0.06	0.25	--	--	--	--	--	0.13	0.19	0.25	0.38
	Fugitive Dust	--	0.21	46.27	--	--	--	--	2.74	--	--	46.27	--	--	--	--	--	--	--	--
Agricultural Crossing 1 Subtotal		1.10	1.11	47.63	0.24	0.24	0.52	0.28	8.37	0.28	1.13	47.82	0.79	0.56	0.56	0.80	1.42	0.67	2.05	0.99
River Grading Site																				
5	Offroad Construction Equipment Exhaust	0.21	0.30	1.22	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
	Construction Worker Commuting	--	--	0.69	0.87	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
	Haul Trucks	0.29	0.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	0.53	6.29	6.29	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53
	Marine Equipment Exhaust	1.01	--	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51
River Grading Site Subtotal		2.04	6.68	8.71	2.73	2.54	2.54	2.54	2.54	2.54	2.54	2.54	2.54	2.54	2.54	2.54	2.54	2.54	2.54	2.54
GRAND TOTAL		9.90	19.55	71.34	13.86	134.63	84.53	240.98	183.79	174.86	264.90	196.23	74.83	57.22	64.06	64.43	64.66	62.01	62.95	45.13
Yolo County Total		9.31	18.68	70.03	12.25	37.46	83.18	225.74	183.54	172.53	175.87	195.77	73.94	55.89	63.68	63.41	64.47	61.78	62.72	44.94
Sutter County Total		0.59	0.88	1.31	1.61	97.17	1.36	15.24	0.24	2.32	89.03	0.46	0.88	1.33	0.38	1.02	0.19	0.23	0.23	0.19

Table K-72. PM10 Detailed Summary (Alternative 2) - I

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	1.65	0.17	0.23	0.39	0.39	0.37	0.37	0.32	0.06	0.13
	Construction Worker Commuting	2.93	2.66	0.87	1.33	1.33	1.33	1.33	2.75	0.23	0.23
	Haul Trucks	13.41	1.07	--	--	--	--	--	2.16	0.10	0.51
	Fugitive Dust	3.30	--	--	--	--	--	--	0.53	--	1.93
Intake Channel, Headworks, and Outlet Channel Subtotal		21.29	3.90	1.10	1.72	1.72	1.69	1.69	5.76	0.38	2.79
Supplemental Fish Passage West											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.21	0.06	0.00
	Construction Worker Commuting	--	--	--	--	--	--	--	0.37	0.23	0.04
	Haul Trucks	--	--	--	--	--	--	--	1.65	0.10	0.01
	Fugitive Dust	--	--	--	--	--	--	--	0.53	--	0.04
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	2.75	0.38	0.10
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.06	0.06	0.06	0.21	0.06	--	--	--	--	0.04
	Construction Worker Commuting	0.18	0.18	0.60	0.37	0.09	--	--	--	--	0.07
	Haul Trucks	--	--	0.35	1.65	0.04	--	--	--	--	0.19
	Fugitive Dust	--	--	--	0.53	--	--	--	--	--	1.03
Downstream Channel Subtotal		0.24	0.24	1.00	2.75	0.19	--	--	--	--	1.33
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.17	--	0.26	0.06	--	--	--	--	--	0.00
	Construction Worker Commuting	0.32	--	0.60	0.09	--	--	--	--	--	0.01
	Haul Trucks	--	--	0.81	0.04	--	--	--	--	--	0.01
	Fugitive Dust	--	--	0.21	--	--	--	--	--	--	0.07
Agricultural Crossing 1 Subtotal		0.49	--	1.88	0.19	--	--	--	--	--	0.10
River Grading Site											
5	Offroad Construction Equipment Exhaust	0.82	1.28	0.05	0.05	--	0.21	--	--	--	0.02
	Construction Worker Commuting	0.69	1.97	1.28	1.47	0.18	--	--	--	--	0.05
	Haul Trucks	--	5.45	5.45	5.45	--	0.29	--	--	--	0.05
	Fugitive Dust	0.53	6.29	--	--	--	0.53	--	--	--	0.01
	Marine Equipment Exhaust	0.51	0.51	--	--	--	--	--	--	--	0.07
River Grading Site Subtotal		2.54	15.49	6.78	6.97	0.18	1.03	--	--	--	0.21
GRAND TOTAL		24.56	19.64	10.76	11.62	2.09	2.73	1.69	8.51	0.77	4.52
Yolo County Total		24.56	19.64	10.76	11.62	2.09	2.73	1.69	5.76	0.38	4.42
Sutter County Total		--	--	--	--	--	--	--	2.75	0.38	0.10

Table K-73. PM10 Detailed Summary (Alternative 3) - Mitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.24	0.99	1.05	0.94	1.49	1.30	2.43	2.39	2.39	2.25	2.25	3.68	4.26	5.48	3.52	3.78	3.32	3.29	4.64
	Construction Worker Commuting	3.21	1.74	4.03	1.60	2.29	1.88	4.58	4.17	4.17	3.85	3.85	6.23	7.47	9.44	6.23	6.60	5.68	5.59	8.11
	Haul Trucks	1.32	0.87	1.33	--	0.38	--	0.21	--	--	--	--	11.10	12.19	23.14	23.12	22.93	22.37	22.05	28.18
	Fugitive Dust	--	5.66	5.66	5.53	29.31	29.31	164.70	118.43	118.43	118.43	118.43	118.67	118.67	121.97	6.60	6.60	6.60	6.60	8.24
Intake Channel, Headworks, and Outlet Channel Subtotal		4.78	9.26	12.07	8.07	33.48	32.49	171.93	125.00	125.00	124.54	124.54	139.68	142.60	160.03	39.47	39.91	37.97	37.53	49.18
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	0.13	0.19	0.06	0.26	0.30	0.44	1.54	0.06	0.12	0.14	0.14	0.19	0.27	0.10	0.06	0.06	0.05	0.05	0.06
	Construction Worker Commuting	0.37	0.46	0.83	0.41	0.37	0.92	2.57	0.18	1.65	0.37	0.32	0.41	0.64	0.28	0.83	0.09	0.18	0.18	0.09
	Haul Trucks	0.10	0.10	0.42	0.40	--	--	7.66	--	0.56	--	--	0.28	0.42	--	0.13	0.04	--	--	0.04
	Fugitive Dust	--	0.13	--	0.53	96.55	--	3.30	--	--	88.52	--	--	--	--	--	--	--	--	--
Supplemental Fish Passage East Subtotal		0.59	0.88	1.31	1.61	97.21	1.36	15.06	0.24	2.32	89.03	0.46	0.88	1.33	0.38	1.02	0.19	0.23	0.23	0.19
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.18	0.26	0.26	0.26	0.26	0.44	0.55	0.55	0.44	0.58	0.63	0.63	0.83	1.54	1.54	1.54	1.54	1.54	0.77
	Construction Worker Commuting	0.83	0.41	0.41	0.41	0.41	0.92	1.10	1.10	1.24	1.28	1.28	1.28	1.60	2.57	2.57	2.57	2.57	2.57	1.28
	Haul Trucks	0.38	0.40	0.40	--	--	--	--	--	0.12	--	--	--	5.61	11.00	11.00	11.00	11.00	11.00	5.50
	Fugitive Dust	--	0.53	0.53	0.53	0.53	46.27	49.33	49.33	46.27	49.15	49.15	49.15	1.65	3.30	3.30	3.30	3.30	3.30	1.65
Downstream Channel Subtotal		1.39	1.61	1.61	1.21	1.21	47.63	50.98	50.98	48.07	51.01	51.06	51.06	9.69	18.40	18.40	18.40	18.40	18.40	9.20
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.18	0.19	0.44	0.06	0.06	0.06	0.09	0.11	0.09	0.06	0.49	0.24	0.15	0.15	0.25	0.33	0.11	0.38	0.19
	Construction Worker Commuting	0.69	0.41	0.92	0.18	0.18	0.46	0.14	0.18	0.14	0.83	1.05	0.55	0.41	0.41	0.55	0.96	0.37	1.42	0.41
	Haul Trucks	0.23	0.30	--	--	--	--	0.06	5.35	0.06	0.25	--	--	--	--	--	0.13	0.19	0.25	0.38
	Fugitive Dust	--	0.21	46.27	--	--	--	--	2.74	--	--	46.27	--	--	--	--	--	--	--	--
Agricultural Crossing 1 Subtotal		1.10	1.11	47.63	0.24	0.24	0.52	0.28	8.37	0.28	1.13	47.82	0.79	0.56	0.56	0.80	1.42	0.67	2.05	0.99
GRAND TOTAL		7.86	12.86	62.62	11.13	132.14	81.99	238.25	184.60	175.67	265.71	223.87	192.42	154.18	179.37	59.69	59.91	57.26	58.21	59.56
Yolo County Total		7.86	12.86	62.62	11.13	132.14	81.99	238.25	184.60	175.67	265.71	223.87	192.42	154.18	179.37	59.69	59.91	57.26	58.21	59.56
Sutter County Total		4.78	9.26	12.07	8.07	33.48	32.49	171.93	125.00	125.00	124.54	124.54	139.68	142.60	160.03	39.47	39.91	37.97	37.53	49.18

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

171.93

Table K-73. PM10 Detailed Summary (Alternative 3) - I

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	3.24	1.65	1.77	0.39	0.39	0.37	0.37	0.32	0.06	0.16
	Construction Worker Commuting	7.93	2.80	3.44	1.33	1.33	1.33	1.33	2.75	0.23	0.30
	Haul Trucks	23.26	11.01	10.95	--	--	--	--	2.16	0.10	0.62
	Fugitive Dust	6.60	3.30	3.30	--	--	--	--	0.53	--	3.11
Intake Channel, Headworks, and Outlet Channel Subtotal		41.03	18.75	19.45	1.72	1.72	1.69	1.69	5.77	0.38	4.19
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.21	0.06	0.01
	Construction Worker Commuting	--	--	--	--	--	--	--	0.37	0.23	0.06
	Haul Trucks	--	--	--	--	--	--	--	1.64	0.10	0.01
	Fugitive Dust	--	--	--	--	--	--	--	0.53	--	0.05
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	2.74	0.38	0.12
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.06	0.06	0.06	0.21	0.06	--	--	--	--	0.04
	Construction Worker Commuting	0.18	0.18	0.60	0.37	0.09	--	--	--	--	0.07
	Haul Trucks	--	--	0.35	1.65	0.04	--	--	--	--	0.19
	Fugitive Dust	--	--	--	0.53	--	--	--	--	--	1.03
Downstream Channel Subtotal		0.24	0.24	1.00	2.75	0.19	--	--	--	--	1.33
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.17	--	0.26	0.06	--	--	--	--	--	0.00
	Construction Worker Commuting	0.32	--	0.60	0.09	--	--	--	--	--	0.01
	Haul Trucks	--	--	0.81	0.04	--	--	--	--	--	0.01
	Fugitive Dust	--	--	0.21	--	--	--	--	--	--	0.07
Agricultural Crossing 1 Subtotal		0.49	--	1.88	0.19	--	--	--	--	--	0.10
GRAND TOTAL		41.76	19.00	22.33	4.65	1.90	1.69	1.69	8.51	0.77	5.73
Yolo County Total		41.76	19.00	22.33	4.65	1.90	1.69	1.69	8.51	0.77	5.73
Sutter County Total		41.03	18.75	19.45	1.72	1.72	1.69	1.69	5.77	0.38	4.19

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-74. PM10 Detailed Summary (Alternative 4) - Mitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.24	0.99	1.05	0.94	1.49	1.30	2.43	2.39	2.39	2.25	2.25	3.68	4.26	5.48	3.52	3.78	3.32	3.29	4.64
	Construction Worker Commuting	3.21	1.74	4.03	1.60	2.29	1.88	4.58	4.17	4.17	3.85	3.85	6.23	7.47	9.44	6.23	6.60	5.68	5.59	8.11
	Haul Trucks	1.32	0.87	1.33	--	0.38	--	0.21	--	--	--	--	11.10	12.19	23.14	23.12	22.93	22.37	22.05	28.18
	Fugitive Dust	--	5.66	5.66	5.53	29.31	29.31	164.70	118.43	118.43	118.43	118.43	118.67	118.67	121.97	6.60	6.60	6.60	6.60	8.24
Intake Channel, Headworks, and Outlet Channel Subtotal		4.78	9.26	12.07	8.07	33.48	32.49	171.93	125.00	125.00	124.54	124.54	139.68	142.60	160.03	39.47	39.91	37.97	37.53	49.18
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	0.13	0.19	0.06	0.26	0.30	0.44	1.54	0.06	0.12	0.14	0.14	0.19	0.27	0.10	0.06	0.06	0.05	0.05	0.06
	Construction Worker Commuting	0.37	0.46	0.83	0.41	0.37	0.92	2.57	0.18	1.65	0.37	0.32	0.41	0.64	0.28	0.83	0.09	0.18	0.18	0.09
	Haul Trucks	0.10	0.10	0.42	0.40	--	--	7.66	--	0.56	--	--	0.28	0.42	--	0.13	0.04	--	--	0.04
	Fugitive Dust	--	0.13	--	0.53	96.55	--	3.30	--	--	88.52	--	--	--	--	--	--	--	--	--
Supplemental Fish Passage East Subtotal		0.59	0.88	1.31	1.61	97.21	1.36	15.06	0.24	2.32	89.03	0.46	0.88	1.33	0.38	1.02	0.19	0.23	0.23	0.19
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.18	0.26	0.26	0.26	0.26	0.44	0.55	0.55	0.44	0.58	0.63	0.63	0.83	1.54	1.54	1.54	1.54	1.54	0.77
	Construction Worker Commuting	0.83	0.41	0.41	0.41	0.41	0.92	1.10	1.10	1.24	1.28	1.28	1.28	1.60	2.57	2.57	2.57	2.57	2.57	1.28
	Haul Trucks	0.38	0.40	0.40	--	--	--	--	--	0.12	--	--	--	5.61	11.00	11.00	11.00	11.00	11.00	5.50
	Fugitive Dust	--	0.53	0.53	0.53	0.53	46.27	49.33	49.33	46.27	49.15	49.15	49.15	1.65	3.30	3.30	3.30	3.30	3.30	1.65
Downstream Channel Subtotal		1.39	1.61	1.61	1.21	1.21	47.63	50.98	50.98	48.07	51.01	51.06	51.06	9.69	18.40	18.40	18.40	18.40	18.40	9.20
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.18	0.19	0.44	0.06	0.06	0.06	0.09	0.11	0.09	0.06	0.49	0.24	0.15	0.15	0.25	0.33	0.11	0.38	0.19
	Construction Worker Commuting	0.69	0.41	0.92	0.18	0.18	0.46	0.14	0.18	0.14	0.83	1.05	0.55	0.41	0.41	0.55	0.96	0.37	1.42	0.41
	Haul Trucks	0.23	0.30	--	--	--	--	0.06	5.35	0.06	0.25	--	--	--	--	--	0.13	0.19	0.25	0.38
	Fugitive Dust	--	0.21	46.27	--	--	--	--	2.74	--	--	46.27	--	--	--	--	--	--	--	--
Agricultural Crossing 1 Subtotal		1.10	1.11	47.63	0.24	0.24	0.52	0.28	8.37	0.28	1.13	47.82	0.79	0.56	0.56	0.80	1.42	0.67	2.05	0.99
Northern Water Control Structure Improvements																				
5	Offroad Construction Equipment Exhaust	0.24	0.53	0.62	0.79	1.04	1.23	1.49	1.13	1.04	1.48	0.34	0.28	0.20	0.22	0.16	0.21	0.20	0.11	0.05
	Construction Worker Commuting	1.19	0.87	1.10	1.19	2.02	2.11	2.98	1.97	1.79	2.70	0.87	1.05	0.41	0.50	0.41	0.50	0.60	0.60	0.18
	Haul Trucks	0.52	0.31	0.41	12.12	12.62	12.12	12.33	12.12	12.12	15.76	0.10	0.62	--	0.45	--	0.04	--	0.25	--
	Fugitive Dust	--	5.00	5.00	22.00	22.00	68.27	56.68	10.41	10.41	56.68	--	--	--	--	--	--	--	--	--
Northern Water Control Structure Improvements Subtotal		1.95	6.72	7.13	36.09	37.68	83.72	73.48	25.62	25.35	76.62	1.30	1.95	0.62	1.17	0.57	0.76	0.80	0.95	0.23
Southern Water Control Structure Improvements																				
6	Offroad Construction Equipment Exhaust	0.26	0.80	0.89	1.02	1.04	1.23	2.55	2.19	2.11	2.55	2.24	1.98	1.96	1.98	1.91	1.97	1.96	1.86	1.81
	Construction Worker Commuting	1.38	1.28	1.51	1.65	2.02	2.11	4.63	3.62	3.44	4.35	3.76	3.44	3.35	3.44	3.35	3.44	3.53	3.53	3.12
	Haul Trucks	0.63	0.79	0.89	16.94	17.44	16.94	17.15	16.94	16.94	28.85	28.85	29.20	28.85	29.30	28.85	28.89	28.85	29.10	28.85
	Fugitive Dust	--	5.53	5.53	15.41	22.00	68.27	64.86	18.59	18.59	64.86	18.59	10.94	10.94	10.94	10.94	10.94	10.94	10.94	10.94
Southern Water Control Structure Improvements Subtotal		2.27	8.40	8.82	35.02	42.50	88.55	89.20	41.35	41.07	100.61	53.44	45.56	45.10	45.65	45.05	45.24	45.28	45.43	44.71
GRAND TOTAL		12.08	27.98	78.56	82.25	212.32	254.26	400.93	251.56	242.09	442.95	278.62	239.93	199.90	226.20	105.30	105.91	103.34	104.59	104.50
Yolo County Total		12.08	27.98	78.56	82.25	212.32	254.26	400.93	251.56	242.09	442.95	278.62	239.93	199.90	226.20	105.30	105.91	103.34	104.59	104.50
Sutter County Total		4.78	9.26	12.07	8.07	33.48	32.49	171.93	125.00	125.00	124.54	124.54	139.68	142.60	160.03	39.47	39.91	37.97	37.53	49.18

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

171.93

Table K-74. PM10 Detailed Summary (Alternative 4) - I

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	3.24	1.65	1.77	0.39	0.39	0.37	0.37	0.32	0.06	0.16
	Construction Worker Commuting	7.93	2.80	3.44	1.33	1.33	1.33	1.33	2.75	0.23	0.30
	Haul Trucks	23.26	11.01	10.95	--	--	--	--	2.16	0.10	0.62
	Fugitive Dust	6.60	3.30	3.30	--	--	--	--	0.53	--	3.11
Intake Channel, Headworks, and Outlet Channel Subtotal		41.03	18.75	19.45	1.72	1.72	1.70	1.70	5.77	0.38	4.19
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.21	0.06	0.01
	Construction Worker Commuting	--	--	--	--	--	--	--	0.37	0.23	0.06
	Haul Trucks	--	--	--	--	--	--	--	1.64	0.10	0.01
	Fugitive Dust	--	--	--	--	--	--	--	0.53	--	0.05
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	2.74	0.38	0.12
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.06	0.06	0.06	0.21	0.06	--	--	--	--	0.04
	Construction Worker Commuting	0.18	0.18	0.60	0.37	0.09	--	--	--	--	0.07
	Haul Trucks	--	--	0.35	1.65	0.04	--	--	--	--	0.19
	Fugitive Dust	--	--	--	0.53	--	--	--	--	--	1.03
Downstream Channel Subtotal		0.24	0.24	1.00	2.75	0.19	--	--	--	--	1.33
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.17	--	0.26	0.06	--	--	--	--	--	0.00
	Construction Worker Commuting	0.32	--	0.60	0.09	--	--	--	--	--	0.01
	Haul Trucks	--	--	0.81	0.04	--	--	--	--	--	0.01
	Fugitive Dust	--	--	0.21	--	--	--	--	--	--	0.07
Agricultural Crossing 1 Subtotal		0.49	--	1.88	0.19	--	--	--	--	--	0.10
Northern Water Control Structure Improvements											
5	Offroad Construction Equipment Exhaust	0.09	0.09	0.26	0.06	--	--	--	--	--	0.03
	Construction Worker Commuting	0.37	0.37	0.46	0.09	--	--	--	--	--	0.06
	Haul Trucks	--	--	1.95	0.04	--	--	--	--	--	0.34
	Fugitive Dust	--	--	0.53	--	--	--	--	--	--	0.70
Northern Water Control Structure Improvements Subtotal		0.46	0.46	3.21	0.19	--	--	--	--	--	1.13
Southern Water Control Structure Improvements											
6	Offroad Construction Equipment Exhaust	0.37	0.37	0.35	0.07	--	--	--	--	--	0.09
	Construction Worker Commuting	0.92	1.47	0.69	0.09	--	--	--	--	--	0.17
	Haul Trucks	16.94	17.32	2.14	0.04	--	--	--	--	--	1.25
	Fugitive Dust	9.88	9.88	0.53	--	--	--	--	--	--	1.03
Southern Water Control Structure Improvements Subtotal		28.11	29.04	3.71	0.20	--	--	--	--	--	2.53
GRAND TOTAL		70.32	48.49	29.24	5.05	1.91	1.70	1.70	8.51	0.77	9.39
Yolo County Total		70.32	48.49	29.24	5.05	1.91	1.70	1.70	8.51	0.77	9.39
Sutter County Total		41.03	18.75	19.45	1.72	1.72	1.70	1.70	5.77	0.38	4.19

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-75. PM10 Detailed Summary (Alternative 5) - Mitigated

#	Activity	Ma																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.81	3.48	3.87	5.63	7.50	7.06	5.56	7.86	6.54	6.04	5.69	4.86	6.48	6.04	5.62	5.82	5.82	3.58	0.43
	Construction Worker Commuting	6.78	5.96	8.39	5.50	9.26	8.34	5.45	9.30	11.92	10.59	9.81	8.34	11.50	10.59	9.63	10.31	10.31	6.65	0.92
	Haul Trucks	3.30	1.21	1.15	--	0.38	0.38	0.38	19.89	39.12	38.91	38.91	38.91	38.91	38.91	38.91	41.19	41.19	21.86	--
	Fugitive Dust	0.40	10.17	87.66	314.61	360.88	314.61	310.14	315.08	56.17	9.89	9.89	9.89	56.17	9.89	9.89	9.89	9.89	4.95	--
Intake Channel, Headworks, and Outlet Channel Subtotal		11.29	20.82	101.08	325.74	378.02	330.39	321.53	352.15	113.74	65.43	64.30	62.01	113.06	65.43	64.05	67.22	67.22	37.03	1.35
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	0.13	0.19	0.06	0.26	0.30	0.44	1.54	0.06	0.12	0.14	0.14	0.19	0.27	0.10	0.06	0.06	0.05	0.05	0.06
	Construction Worker Commuting	0.37	0.46	0.83	0.41	0.37	0.92	2.57	0.18	1.65	0.37	0.32	0.41	0.64	0.28	0.83	0.09	0.18	0.18	0.09
	Haul Trucks	0.10	0.10	0.42	0.40	--	--	7.84	--	0.56	--	--	0.28	0.42	--	0.13	0.04	--	--	0.04
	Fugitive Dust	--	0.13	--	0.53	96.50	--	3.30	--	--	88.52	--	--	--	--	--	--	--	--	--
Supplemental Fish Passage West Subtotal		0.59	0.88	1.31	1.61	97.17	1.36	15.24	0.24	2.32	89.03	0.46	0.88	1.33	0.38	1.02	0.19	0.23	0.23	0.19
Agricultural Crossing 1																				
3	Offroad Construction Equipment Exhaust	0.18	0.19	0.44	0.06	0.06	0.06	0.09	0.11	0.09	0.06	0.49	0.24	0.15	0.15	0.25	0.33	0.11	0.38	0.19
	Construction Worker Commuting	0.69	0.41	0.92	0.18	0.18	0.46	0.14	0.18	0.14	0.83	1.05	0.55	0.41	0.41	0.55	0.96	0.37	1.42	0.41
	Haul Trucks	0.23	0.30	--	--	--	--	0.06	5.35	0.06	0.25	--	--	--	--	--	0.13	0.19	0.25	0.38
	Fugitive Dust	--	0.21	46.27	--	--	--	--	2.74	--	--	46.27	--	--	--	--	--	--	--	--
Agricultural Crossing 1 Subtotal		1.10	1.11	47.63	0.24	0.24	0.52	0.28	8.37	0.28	1.13	47.82	0.79	0.56	0.56	0.80	1.42	0.67	2.05	0.99
River Grading Site																				
4	Offroad Construction Equipment Exhaust	0.21	0.30	1.22	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
	Construction Worker Commuting	--	--	0.69	0.87	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
	Haul Trucks	0.29	0.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	0.53	6.29	6.29	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53
	Marine Equipment Exhaust	1.01	--	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51
River Grading Site Subtotal		2.04	6.68	8.71	2.73	2.54	2.54	2.54	2.54	2.54	2.54	2.54	2.54	2.54	2.54	2.54	2.54	2.54	2.54	2.54
GRAND TOTAL		15.03	29.50	158.72	330.32	477.97	334.81	339.59	363.31	118.89	158.13	115.12	66.23	117.50	68.92	68.41	71.37	70.66	41.86	5.07
Yolo County Total		14.44	28.62	157.41	328.71	380.81	333.45	324.35	363.06	116.57	69.11	114.66	65.35	116.17	68.54	67.40	71.18	70.43	41.62	4.88
Sutter County Total		0.59	0.88	1.31	1.61	97.17	1.36	15.24	0.24	2.32	89.03	0.46	0.88	1.33	0.38	1.02	0.19	0.23	0.23	0.19

Table K-75. PM10 Detailed Summary (Alternative 5) - I

#	Activity	Maximum Daily Emissions, lbs/day																		
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.24	0.22	0.22	1.33	1.21	0.06	0.26	0.00	0.00	0.12	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.94
	Construction Worker Commuting	0.55	0.46	0.46	7.15	2.61	4.72	0.60	0.00	0.00	0.18	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	2.15
	Haul Trucks	0.19	--	--	5.06	2.28	0.86	1.85	--	--	0.92	--	--	--	--	--	--	--	--	--
	Fugitive Dust	--	--	--	--	--	--	0.53	--	--	--	--	--	--	--	--	--	--	--	--
Intake Channel, Headworks, and Outlet Channel Subtotal		0.99	0.68	0.68	13.54	6.10	5.64	3.24	--	--	1.22	2.87	2.87	2.87	2.87	2.87	2.87	2.87	2.87	3.09
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.21	0.06	--	--	--	--	--	--	--	--	--	--
	Construction Worker Commuting	--	--	--	--	--	--	--	0.37	0.23	--	--	--	--	--	--	--	--	--	--
	Haul Trucks	--	--	--	--	--	--	--	1.65	0.10	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	--	--	--	--	--	--	--	0.53	--	--	--	--	--	--	--	--	--	--	--
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	2.75	0.38	--	--	--	--	--	--	--	--	--	--
Agricultural Crossing 1																				
3	Offroad Construction Equipment Exhaust	0.17	--	0.26	0.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Construction Worker Commuting	0.32	--	0.60	0.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Haul Trucks	--	--	0.81	0.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	--	--	0.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Agricultural Crossing 1 Subtotal		0.49	--	1.88	0.19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
River Grading Site																				
4	Offroad Construction Equipment Exhaust	0.82	1.28	0.05	0.05	--	0.21	--	--	--	--	--	--	--	--	--	--	--	--	--
	Construction Worker Commuting	0.69	1.97	1.28	1.47	0.18	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Haul Trucks	--	5.45	5.45	5.45	--	0.29	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	0.53	6.29	--	--	--	0.53	--	--	--	--	--	--	--	--	--	--	--	--	--
	Marine Equipment Exhaust	0.51	0.51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
River Grading Site Subtotal		2.54	15.49	6.78	6.97	0.18	1.03	--	--	--	--	--	--	--	--	--	--	--	--	--
GRAND TOTAL		4.02	16.17	9.34	20.70	6.29	6.67	3.24	2.75	0.38	1.22	2.87	2.87	2.87	2.87	2.87	2.87	2.87	2.87	3.09
Yolo County Total		4.02	16.17	9.34	20.70	6.29	6.67	3.24	--	--	1.22	2.87	2.87	2.87	2.87	2.87	2.87	2.87	2.87	3.09
Sutter County Total		--	--	--	--	--	--	--	2.75	0.38	--	--	--	--	--	--	--	--	--	--

Table K-75. PM10 Detailed Summary (Alternative 5) - I

#	Activity	24-Jun	1-Jul	8-Jul	Annual Emissions, tpy	Year 1, tpy	Year 2, tpy
Intake Channel, Headworks, and Outlet Channel							
1	Offroad Construction Equipment Exhaust	0.27	0.12	--	0.46	0.44	0.02
	Construction Worker Commuting	1.05	0.18	--	0.50	0.44	0.06
	Haul Trucks	--	0.92	--	1.00	1.00	0.00
	Fugitive Dust	--	--	--	6.03	6.03	--
Intake Channel, Headworks, and Outlet Channel Subtotal		1.32	1.22	--	8.00	7.91	0.08
Supplemental Fish Passage West							
2	Offroad Construction Equipment Exhaust	--	--	--	0.00	0.00	--
	Construction Worker Commuting	--	--	--	0.04	0.04	--
	Haul Trucks	--	--	--	0.01	0.01	--
	Fugitive Dust	--	--	--	0.04	0.04	--
Supplemental Fish Passage West Subtotal		--	--	--	0.10	0.10	--
Agricultural Crossing 1							
3	Offroad Construction Equipment Exhaust	--	--	--	0.00	0.00	--
	Construction Worker Commuting	--	--	--	0.01	0.01	--
	Haul Trucks	--	--	--	0.01	0.01	--
	Fugitive Dust	--	--	--	0.07	0.07	--
Agricultural Crossing 1 Subtotal		--	--	--	0.10	0.10	--
River Grading Site							
4	Offroad Construction Equipment Exhaust	--	--	--	0.02	0.02	--
	Construction Worker Commuting	--	--	--	0.05	0.05	--
	Haul Trucks	--	--	--	0.05	0.05	--
	Fugitive Dust	--	--	--	0.01	0.01	--
	Marine Equipment Exhaust	--	--	--	0.08	0.08	--
River Grading Site Subtotal		--	--	--	0.21	0.21	--
GRAND TOTAL		1.32	1.22	--	8.41	8.32	0.08
Yolo County Total		1.32	1.22	--	8.31	8.22	0.08
Sutter County Total		--	--	--	0.10	0.10	--

Table K-76. PM10 Detailed Summary (Alternative 6) - Mitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.24	1.50	1.72	1.34	2.14	1.95	2.51	2.34	2.20	2.78	8.52	8.52	8.34	8.60	8.47	8.11	8.69	8.58	8.00
	Construction Worker Commuting	4.40	6.14	3.25	2.34	3.39	2.98	4.31	3.71	3.39	4.63	14.58	14.58	14.30	14.67	14.48	13.66	14.90	14.80	13.43
	Haul Trucks	1.82	2.06	1.35	1.15	0.38	--	0.21	--	--	1.15	40.00	40.00	39.91	39.72	40.04	38.85	40.00	40.19	38.91
	Fugitive Dust	--	6.33	6.33	6.06	83.86	83.86	36.18	33.12	33.12	33.12	181.47	181.47	181.47	181.47	181.47	181.47	181.47	181.47	181.47
Intake Channel, Headworks, and Outlet Channel Subtotal		6.47	16.03	12.65	10.89	89.78	88.79	43.21	39.17	38.71	41.68	244.56	244.56	244.02	244.46	244.46	242.09	245.05	245.04	241.81
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	0.13	0.19	0.06	0.26	0.30	0.44	1.54	0.06	0.12	0.14	0.14	0.19	0.27	0.10	0.06	0.06	0.05	0.05	0.06
	Construction Worker Commuting	0.37	0.46	0.83	0.41	0.37	0.92	2.57	0.18	1.65	0.37	0.32	0.41	0.64	0.28	0.83	0.09	0.18	0.18	0.09
	Haul Trucks	0.10	0.10	0.42	0.40	--	--	7.66	--	0.56	--	--	0.28	0.42	--	0.13	0.04	--	--	0.04
	Fugitive Dust	--	0.13	--	0.53	96.55	--	3.30	--	--	88.52	--	--	--	--	--	--	--	--	--
Supplemental Fish Passage East Subtotal		0.59	0.88	1.31	1.61	97.21	1.36	15.06	0.24	2.32	89.03	0.46	0.88	1.33	0.38	1.02	0.19	0.23	0.23	0.19
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.18	0.26	0.26	0.26	0.26	0.44	0.55	0.55	0.44	0.58	0.63	0.63	0.83	1.54	1.54	1.54	1.54	1.54	0.77
	Construction Worker Commuting	0.83	0.41	0.41	0.41	0.41	0.92	1.10	1.10	1.24	1.28	1.28	1.28	1.60	2.57	2.57	2.57	2.57	2.57	1.28
	Haul Trucks	0.38	0.40	0.40	--	--	--	--	--	0.12	--	--	--	5.61	11.00	11.00	11.00	11.00	11.00	5.50
	Fugitive Dust	--	0.53	0.53	0.53	0.53	46.27	49.33	49.33	46.27	49.15	49.15	49.15	1.65	3.30	3.30	3.30	3.30	3.30	1.65
Downstream Channel Subtotal		1.39	1.61	1.61	1.21	1.21	47.63	50.98	50.98	48.07	51.01	51.06	51.06	9.69	18.40	18.40	18.40	18.40	18.40	9.20
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.18	0.19	0.44	0.06	0.06	0.06	0.09	0.11	0.09	0.06	0.49	0.24	0.15	0.15	0.25	0.33	0.11	0.38	0.19
	Construction Worker Commuting	0.69	0.41	0.92	0.18	0.18	0.46	0.14	0.18	0.14	0.83	1.05	0.55	0.41	0.41	0.55	0.96	0.37	1.42	0.41
	Haul Trucks	0.23	0.30	--	--	--	--	0.06	5.35	0.06	0.25	--	--	--	--	--	0.13	0.19	0.25	0.38
	Fugitive Dust	--	0.21	46.27	--	--	--	--	2.74	--	--	46.27	--	--	--	--	--	--	--	--
Agricultural Crossing 1 Subtotal		1.10	1.11	47.63	0.24	0.24	0.52	0.28	8.37	0.28	1.13	47.82	0.79	0.56	0.56	0.80	1.42	0.67	2.05	0.99
GRAND TOTAL		9.55	19.62	63.19	13.95	188.44	138.29	109.53	98.77	89.38	182.85	343.90	297.30	255.60	263.79	264.68	262.09	264.35	265.72	252.19
Yolo County Total		9.55	19.62	63.19	13.95	188.44	138.29	109.53	98.77	89.38	182.85	343.90	297.30	255.60	263.79	264.68	262.09	264.35	265.72	252.19
Sutter County Total		6.47	16.03	12.65	10.89	89.78	88.79	43.21	39.17	38.71	41.68	244.56	244.56	244.02	244.46	244.46	242.09	245.05	245.04	241.81

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Table K-76. PM10 Detailed Summary (Alternative 6) - I

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	8.89	7.70	3.30	3.57	0.56	0.48	0.48	0.43	0.18	0.35
	Construction Worker Commuting	15.35	13.89	6.00	6.74	5.09	1.60	1.60	1.24	3.99	0.62
	Haul Trucks	44.19	44.19	22.19	22.19	1.46	--	--	1.65	0.92	1.50
	Fugitive Dust	183.12	150.00	6.60	6.60	--	--	--	0.53	--	6.59
Intake Channel, Headworks, and Outlet Channel Subtotal		251.55	215.77	38.09	39.09	7.10	2.08	2.08	3.85	5.09	9.06
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.21	0.06	0.01
	Construction Worker Commuting	--	--	--	--	--	--	--	0.37	0.23	0.06
	Haul Trucks	--	--	--	--	--	--	--	1.64	0.10	0.01
	Fugitive Dust	--	--	--	--	--	--	--	0.53	--	0.05
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	2.74	0.38	0.12
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.06	0.06	0.06	0.21	0.06	--	--	--	--	0.04
	Construction Worker Commuting	0.18	0.18	0.60	0.37	0.09	--	--	--	--	0.07
	Haul Trucks	--	--	0.35	1.65	0.04	--	--	--	--	0.19
	Fugitive Dust	--	--	--	0.53	--	--	--	--	--	1.03
Downstream Channel Subtotal		0.24	0.24	1.00	2.75	0.19	--	--	--	--	1.33
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.17	--	0.26	0.06	--	--	--	--	--	0.00
	Construction Worker Commuting	0.32	--	0.60	0.09	--	--	--	--	--	0.01
	Haul Trucks	--	--	0.81	0.04	--	--	--	--	--	0.01
	Fugitive Dust	--	--	0.21	--	--	--	--	--	--	0.07
Agricultural Crossing 1 Subtotal		0.49	--	1.88	0.19	--	--	--	--	--	0.10
GRAND TOTAL		252.28	216.01	40.97	42.03	7.29	2.08	2.08	6.59	5.47	10.60
Yolo County Total		252.28	216.01	40.97	42.03	7.29	2.08	2.08	6.59	5.47	10.60
Sutter County Total		251.55	215.77	38.09	39.09	7.10	2.08	2.08	3.85	5.09	9.06

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-77. PM2.5 Detailed Summary (Alternative 1) - Mitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.12	0.62	3.65	0.59	0.55	6.13	6.42	0.75	4.58	4.50	4.29	0.76	1.02	1.12	1.44	1.34	0.82	1.05	0.06
	Construction Worker Commuting	0.59	0.47	1.08	0.43	0.42	0.36	0.79	0.71	0.73	0.64	0.54	0.86	1.06	1.13	1.43	1.38	0.81	1.12	0.42
	Haul Trucks	0.35	0.26	0.40	--	--	--	0.13	0.02	--	--	--	2.19	5.40	4.94	5.28	5.28	3.30	5.48	0.19
	Fugitive Dust	--	1.45	1.45	1.42	2.99	4.33	12.20	6.24	7.55	7.55	5.94	4.63	0.25	0.50	0.50	0.50	0.50	0.50	--
Intake Channel, Headworks, and Outlet Channel Subtotal		1.06	2.79	6.58	2.44	3.96	10.81	19.54	7.72	12.85	12.69	10.77	8.44	7.73	7.69	8.65	8.51	5.43	8.15	0.67
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	0.06	0.10	0.03	0.17	0.21	0.23	0.70	0.03	0.06	0.07	0.07	0.10	0.14	0.06	0.03	0.03	0.03	0.03	0.03
	Construction Worker Commuting	0.10	0.12	0.22	0.11	0.10	0.25	0.69	0.05	0.44	0.10	0.09	0.11	0.17	0.07	0.22	0.02	0.05	0.05	0.02
	Haul Trucks	0.03	0.03	0.13	0.12	--	--	2.39	--	0.17	--	--	0.08	0.13	--	0.04	0.01	--	--	0.01
	Fugitive Dust	--	0.02	--	0.06	10.77	--	0.50	--	--	8.85	--	--	--	--	--	--	--	--	--
Supplemental Fish Passage West Subtotal		0.19	0.28	0.38	0.46	11.08	0.48	4.28	0.08	0.67	9.02	0.16	0.29	0.44	0.13	0.29	0.07	0.07	0.07	0.07
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.09	0.17	0.17	0.17	0.17	0.23	0.30	0.30	0.23	0.27	0.27	0.27	0.38	0.70	0.70	0.70	0.70	0.70	0.35
	Construction Worker Commuting	0.22	0.11	0.11	0.11	0.11	0.25	0.30	0.30	0.33	0.34	0.34	0.34	0.43	0.69	0.69	0.69	0.69	0.69	0.34
	Haul Trucks	0.12	0.12	0.12	--	--	--	--	--	0.04	--	--	--	1.71	3.35	3.35	3.35	3.35	3.35	1.67
	Fugitive Dust	--	0.06	0.06	0.06	0.06	4.63	6.00	6.00	4.63	5.98	5.98	5.98	0.25	0.50	0.50	0.50	0.50	0.50	0.25
Downstream Channel Subtotal		0.43	0.46	0.46	0.34	0.34	5.11	6.60	6.60	5.23	6.59	6.59	6.59	2.76	5.24	5.24	5.24	5.24	5.24	2.62
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.09	0.10	0.23	0.03	0.03	0.03	0.04	0.06	0.04	0.03	0.26	0.13	0.08	0.08	0.12	0.17	0.06	0.22	0.10
	Construction Worker Commuting	0.18	0.11	0.25	0.05	0.05	0.12	0.04	0.05	0.04	0.22	0.28	0.15	0.11	0.11	0.15	0.26	0.10	0.38	0.11
	Haul Trucks	0.07	0.09	--	--	--	--	0.02	1.63	0.02	0.08	--	--	--	--	--	0.04	0.06	0.08	0.12
	Fugitive Dust	--	0.02	4.63	--	--	--	--	1.34	--	--	4.63	--	--	--	--	--	--	--	--
Agricultural Crossing 1 Subtotal		0.34	0.33	5.11	0.08	0.08	0.15	0.10	3.08	0.10	0.33	5.17	0.27	0.19	0.19	0.27	0.47	0.22	0.68	0.32
GRAND TOTAL		2.02	3.87	12.54	3.33	15.45	16.55	30.51	17.48	18.85	28.63	22.69	15.59	11.12	13.25	14.44	14.28	10.96	14.14	3.68
Yolo County Total		1.83	3.59	12.16	2.86	4.38	16.07	26.23	17.40	18.18	19.61	22.54	15.30	10.69	13.12	14.15	14.21	10.89	14.07	3.62
Sutter County Total		0.19	0.28	0.38	0.46	11.08	0.48	4.28	0.08	0.67	9.02	0.16	0.29	0.44	0.13	0.29	0.07	0.07	0.07	0.07

Table K-77. PM2.5 Detailed Summary (Alternative 1) -

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	0.03	1.30	0.21	0.21	0.21	0.19	0.14	4.40	0.03	0.11
	Construction Worker Commuting	0.04	0.06	0.36	0.36	0.36	0.36	0.28	0.74	0.06	0.04
	Haul Trucks	--	0.00	--	--	--	--	--	0.64	0.03	0.08
	Fugitive Dust	--	--	--	--	--	--	--	0.02	--	0.15
Intake Channel, Headworks, and Outlet Channel Subtotal		0.07	1.37	0.56	0.56	0.56	0.55	0.42	5.80	0.12	0.38
Supplemental Fish Passage West											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.09	0.03	0.00
	Construction Worker Commuting	--	--	--	--	--	--	--	0.10	0.06	0.01
	Haul Trucks	--	--	--	--	--	--	--	0.50	0.03	0.00
	Fugitive Dust	--	--	--	--	--	--	--	0.06	--	0.00
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	0.75	0.12	0.02
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.03	0.03	0.03	0.09	0.03	--	--	--	--	0.02
	Construction Worker Commuting	0.05	0.05	0.16	0.10	0.02	--	--	--	--	0.02
	Haul Trucks	--	--	0.11	0.50	0.01	--	--	--	--	0.06
	Fugitive Dust	--	--	--	0.06	--	--	--	--	--	0.12
Downstream Channel Subtotal		0.08	0.08	0.29	0.75	0.07	--	--	--	--	0.22
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.09	--	0.12	0.03	--	--	--	--	--	0.00
	Construction Worker Commuting	0.09	--	0.16	0.02	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.25	0.01	--	--	--	--	--	0.00
	Fugitive Dust	--	--	0.02	--	--	--	--	--	--	0.01
Agricultural Crossing 1 Subtotal		0.17	--	0.55	0.07	--	--	--	--	--	0.02
GRAND TOTAL		0.32	1.45	1.41	1.38	0.63	0.55	0.42	6.56	0.24	0.63
Yolo County Total		0.32	1.45	1.41	1.38	0.63	0.55	0.42	5.80	0.12	0.61
Sutter County Total		--	--	--	--	--	--	--	0.75	0.12	0.02

Table K-78. PM2.5 Detailed Summary (Alternative 2) - Mitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.12	0.62	0.65	0.59	0.97	0.87	1.46	1.39	1.39	1.32	0.69	0.92	1.92	1.73	1.63	1.79	1.54	1.52	1.46
	Construction Worker Commuting	0.86	0.47	1.08	0.43	0.62	0.50	1.23	1.07	1.07	0.99	0.69	0.89	1.91	1.75	1.67	1.77	1.53	1.50	1.49
	Haul Trucks	0.40	0.27	0.41	--	0.11	--	0.06	--	--	--	--	3.36	7.72	7.72	7.71	7.65	7.48	7.38	5.67
	Fugitive Dust	--	1.65	1.65	1.63	7.40	7.40	20.93	14.93	14.93	14.93	9.05	0.50	1.00	1.00	1.00	1.00	1.00	1.00	0.75
Intake Channel, Headworks, and Outlet Channel Subtotal		1.38	3.01	3.79	2.65	9.10	8.77	23.69	17.40	17.40	17.24	10.43	5.67	12.55	12.20	12.01	12.21	11.54	11.41	9.37
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	0.06	0.10	0.03	0.17	0.21	0.23	0.70	0.03	0.06	0.07	0.07	0.10	0.14	0.06	0.03	0.03	0.03	0.03	0.03
	Construction Worker Commuting	0.10	0.12	0.22	0.11	0.10	0.25	0.69	0.05	0.44	0.10	0.09	0.11	0.17	0.07	0.22	0.02	0.05	0.05	0.02
	Haul Trucks	0.03	0.03	0.13	0.12	--	--	2.39	--	0.17	--	--	0.08	0.13	--	0.04	0.01	--	--	0.01
	Fugitive Dust	--	0.02	--	0.06	10.77	--	0.50	--	--	8.85	--	--	--	--	--	--	--	--	--
Supplemental Fish Passage West Subtotal		0.19	0.28	0.38	0.46	11.08	0.48	4.28	0.08	0.67	9.02	0.16	0.29	0.44	0.13	0.29	0.07	0.07	0.07	0.07
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.09	0.17	0.17	0.17	0.17	0.23	0.30	0.30	0.23	0.27	0.27	0.27	0.38	0.70	0.70	0.70	0.70	0.70	0.35
	Construction Worker Commuting	0.22	0.11	0.11	0.11	0.11	0.25	0.30	0.30	0.33	0.34	0.34	0.34	0.43	0.69	0.69	0.69	0.69	0.69	0.34
	Haul Trucks	0.12	0.12	0.12	--	--	--	--	--	0.04	--	--	--	1.71	3.35	3.35	3.35	3.35	3.35	1.67
	Fugitive Dust	--	0.06	0.06	0.06	0.06	4.63	6.00	6.00	4.63	5.98	5.98	5.98	0.25	0.50	0.50	0.50	0.50	0.50	0.25
Downstream Channel Subtotal		0.43	0.46	0.46	0.34	0.34	5.11	6.60	6.60	5.23	6.59	6.59	6.59	2.76	5.24	5.24	5.24	5.24	5.24	2.62
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.09	0.10	0.23	0.03	0.03	0.03	0.04	0.06	0.04	0.03	0.26	0.13	0.08	0.08	0.12	0.17	0.06	0.22	0.10
	Construction Worker Commuting	0.18	0.11	0.25	0.05	0.05	0.12	0.04	0.05	0.04	0.22	0.28	0.15	0.11	0.11	0.15	0.26	0.10	0.38	0.11
	Haul Trucks	0.07	0.09	--	--	--	--	0.02	1.63	0.02	0.08	--	--	--	--	--	0.04	0.06	0.08	0.12
	Fugitive Dust	--	0.02	4.63	--	--	--	--	1.34	--	--	4.63	--	--	--	--	--	--	--	--
Agricultural Crossing 1 Subtotal		0.34	0.33	5.11	0.08	0.08	0.15	0.10	3.08	0.10	0.33	5.17	0.27	0.19	0.19	0.27	0.47	0.22	0.68	0.32
River Grading Site																				
5	Offroad Construction Equipment Exhaust	0.17	0.20	0.62	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
	Construction Worker Commuting	--	--	0.18	0.23	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
	Haul Trucks	0.09	0.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	0.06	2.75	2.75	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
	Marine Equipment Exhaust	0.93	--	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47
River Grading Site Subtotal		1.25	2.99	4.02	1.16	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
GRAND TOTAL		3.59	7.07	13.77	4.69	21.70	15.62	35.77	28.26	24.50	34.28	23.46	13.93	17.05	18.87	18.92	19.09	18.18	18.51	13.49
Yolo County Total		3.40	6.79	13.39	4.23	10.63	15.14	31.49	28.18	23.83	25.26	23.30	13.64	16.61	18.74	18.63	19.03	18.11	18.43	13.42
Sutter County Total		0.19	0.28	0.38	0.46	11.08	0.48	4.28	0.08	0.67	9.02	0.16	0.29	0.44	0.13	0.29	0.07	0.07	0.07	0.07

Table K-78. PM2.5 Detailed Summary (Alternative 2) -

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	0.76	0.09	0.12	0.20	0.20	0.19	0.19	0.15	0.03	0.07
	Construction Worker Commuting	0.79	0.71	0.23	0.36	0.36	0.36	0.36	0.74	0.06	0.06
	Haul Trucks	4.08	0.33	--	--	--	--	--	0.66	0.03	0.15
	Fugitive Dust	0.50	--	--	--	--	--	--	0.06	--	0.28
Intake Channel, Headworks, and Outlet Channel Subtotal		6.13	1.13	0.35	0.56	0.56	0.54	0.54	1.61	0.12	0.56
Supplemental Fish Passage West											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.09	0.03	0.00
	Construction Worker Commuting	--	--	--	--	--	--	--	0.10	0.06	0.01
	Haul Trucks	--	--	--	--	--	--	--	0.50	0.03	0.00
	Fugitive Dust	--	--	--	--	--	--	--	0.06	--	0.00
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	0.75	0.12	0.02
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.03	0.03	0.03	0.09	0.03	--	--	--	--	0.02
	Construction Worker Commuting	0.05	0.05	0.16	0.10	0.02	--	--	--	--	0.02
	Haul Trucks	--	--	0.11	0.50	0.01	--	--	--	--	0.06
	Fugitive Dust	--	--	--	0.06	--	--	--	--	--	0.12
Downstream Channel Subtotal		0.08	0.08	0.29	0.75	0.07	--	--	--	--	0.22
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.09	--	0.12	0.03	--	--	--	--	--	0.00
	Construction Worker Commuting	0.09	--	0.16	0.02	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.25	0.01	--	--	--	--	--	0.00
	Fugitive Dust	--	--	0.02	--	--	--	--	--	--	0.01
Agricultural Crossing 1 Subtotal		0.17	--	0.55	0.07	--	--	--	--	--	0.02
River Grading Site											
5	Offroad Construction Equipment Exhaust	0.40	0.65	0.03	0.03	--	0.17	--	--	--	0.01
	Construction Worker Commuting	0.18	0.53	0.34	0.39	0.05	--	--	--	--	0.01
	Haul Trucks	--	1.66	1.66	1.66	--	0.09	--	--	--	0.02
	Fugitive Dust	0.06	2.75	--	--	--	0.06	--	--	--	0.01
	Marine Equipment Exhaust	0.47	0.47	--	--	--	--	--	--	--	0.07
River Grading Site Subtotal		1.11	6.05	2.03	2.08	0.05	0.32	--	--	--	0.13
GRAND TOTAL		7.49	7.26	3.23	3.45	0.67	0.86	0.54	2.36	0.24	0.94
Yolo County Total		7.49	7.26	3.23	3.45	0.67	0.86	0.54	1.61	0.12	0.92
Sutter County Total		--	--	--	--	--	--	--	0.75	0.12	0.02

Table K-79. PM2.5 Detailed Summary (Alternative 3) - Mitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.12	0.62	0.65	0.59	0.97	0.87	1.46	1.46	1.46	1.39	1.39	2.03	2.32	2.84	1.63	1.79	1.54	1.52	2.17
	Construction Worker Commuting	0.86	0.47	1.08	0.43	0.62	0.50	1.23	1.12	1.12	1.03	1.03	1.67	2.01	2.54	1.67	1.77	1.53	1.50	2.18
	Haul Trucks	0.40	0.26	0.40	--	0.12	--	0.06	--	--	--	--	3.38	3.71	7.05	7.04	6.98	6.81	6.71	8.58
	Fugitive Dust	--	1.65	1.65	1.63	7.40	7.40	20.93	16.31	16.31	16.31	16.31	15.43	15.43	15.93	1.00	1.00	1.00	1.00	1.25
Intake Channel, Headworks, and Outlet Channel Subtotal		1.38	3.01	3.79	2.65	9.10	8.77	23.69	18.88	18.88	18.73	18.73	22.51	23.47	28.35	11.34	11.54	10.87	10.74	14.17
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	0.06	0.10	0.03	0.17	0.21	0.23	0.70	0.03	0.06	0.07	0.07	0.10	0.14	0.06	0.03	0.03	0.03	0.03	0.03
	Construction Worker Commuting	0.10	0.12	0.22	0.11	0.10	0.25	0.69	0.05	0.44	0.10	0.09	0.11	0.17	0.07	0.22	0.02	0.05	0.05	0.02
	Haul Trucks	0.03	0.03	0.13	0.12	--	--	2.33	--	0.17	--	--	0.08	0.13	--	0.04	0.01	--	--	0.01
	Fugitive Dust	--	0.02	--	0.06	10.77	--	0.50	--	--	8.85	--	--	--	--	--	--	--	--	--
Supplemental Fish Passage East Subtotal		0.19	0.28	0.38	0.46	11.08	0.48	4.23	0.08	0.67	9.02	0.16	0.29	0.44	0.13	0.29	0.07	0.07	0.07	0.07
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.09	0.17	0.17	0.17	0.17	0.23	0.30	0.30	0.23	0.27	0.27	0.27	0.38	0.70	0.70	0.70	0.70	0.70	0.35
	Construction Worker Commuting	0.22	0.11	0.11	0.11	0.11	0.25	0.30	0.30	0.33	0.34	0.34	0.34	0.43	0.69	0.69	0.69	0.69	0.69	0.34
	Haul Trucks	0.12	0.12	0.12	--	--	--	--	--	0.04	--	--	--	1.71	3.35	3.35	3.35	3.35	3.35	1.67
	Fugitive Dust	--	0.06	0.06	0.06	0.06	4.63	6.00	6.00	4.63	5.98	5.98	5.98	0.25	0.50	0.50	0.50	0.50	0.50	0.25
Downstream Channel Subtotal		0.43	0.46	0.46	0.34	0.34	5.11	6.60	6.60	5.23	6.59	6.59	6.59	2.76	5.24	5.24	5.24	5.24	5.24	2.62
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.09	0.10	0.23	0.03	0.03	0.03	0.04	0.06	0.04	0.03	0.26	0.13	0.08	0.08	0.12	0.17	0.06	0.22	0.10
	Construction Worker Commuting	0.18	0.11	0.25	0.05	0.05	0.12	0.04	0.05	0.04	0.22	0.28	0.15	0.11	0.11	0.15	0.26	0.10	0.38	0.11
	Haul Trucks	0.07	0.09	--	--	--	--	0.02	1.63	0.02	0.08	--	--	--	--	--	0.04	0.06	0.08	0.12
	Fugitive Dust	--	0.02	4.63	--	--	--	--	1.34	--	--	4.63	--	--	--	--	--	--	--	--
Agricultural Crossing 1 Subtotal		0.34	0.33	5.11	0.08	0.08	0.15	0.10	3.08	0.10	0.33	5.17	0.27	0.19	0.19	0.27	0.47	0.22	0.68	0.32
GRAND TOTAL		2.34	4.08	9.74	3.54	20.61	14.52	34.61	28.64	24.88	34.66	30.65	29.66	26.86	33.91	17.14	17.32	16.40	16.73	17.19
Yolo County Total		2.34	4.08	9.74	3.54	20.61	14.52	34.61	28.64	24.88	34.66	30.65	29.66	26.86	33.91	17.14	17.32	16.40	16.73	17.19
Sutter County Total		1.38	3.01	3.79	2.65	9.10	8.77	23.69	18.88	18.88	18.73	18.73	22.51	23.47	28.35	11.34	11.54	10.87	10.74	14.17

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Table K-79. PM2.5 Detailed Summary (Alternative 3) -

#	Activity	26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	Annual Emissions, tpy
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	1.50	0.76	0.82	0.20	0.20	0.19	0.19	0.15	0.03	0.09
	Construction Worker Commuting	2.13	0.75	0.92	0.36	0.36	0.36	0.36	0.74	0.06	0.08
	Haul Trucks	7.08	3.35	3.33	--	--	--	--	0.66	0.03	0.19
	Fugitive Dust	1.00	0.50	0.50	--	--	--	--	0.06	--	0.45
Intake Channel, Headworks, and Outlet Channel Subtotal		11.71	5.37	5.58	0.56	0.56	0.54	0.54	1.61	0.12	0.80
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.09	0.03	0.00
	Construction Worker Commuting	--	--	--	--	--	--	--	0.10	0.06	0.02
	Haul Trucks	--	--	--	--	--	--	--	0.50	0.03	0.00
	Fugitive Dust	--	--	--	--	--	--	--	0.06	--	0.01
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	0.75	0.12	0.03
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.03	0.03	0.03	0.09	0.03	--	--	--	--	0.02
	Construction Worker Commuting	0.05	0.05	0.16	0.10	0.02	--	--	--	--	0.02
	Haul Trucks	--	--	0.11	0.50	0.01	--	--	--	--	0.06
	Fugitive Dust	--	--	--	0.06	--	--	--	--	--	0.12
Downstream Channel Subtotal		0.08	0.08	0.29	0.75	0.07	--	--	--	--	0.22
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.09	--	0.12	0.03	--	--	--	--	--	0.00
	Construction Worker Commuting	0.09	--	0.16	0.02	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.25	0.01	--	--	--	--	--	0.00
	Fugitive Dust	--	--	0.02	--	--	--	--	--	--	0.01
Agricultural Crossing 1 Subtotal		0.17	--	0.55	0.07	--	--	--	--	--	0.02
GRAND TOTAL		11.96	5.45	6.43	1.37	0.62	0.54	0.54	2.36	0.24	1.06
Yolo County Total		11.96	5.45	6.43	1.37	0.62	0.54	0.54	2.36	0.24	1.06
Sutter County Total		11.71	5.37	5.58	0.56	0.56	0.54	0.54	1.61	0.12	0.80

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-80. PM2.5 Detailed Summary (Alternative 4) - Mitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.12	0.62	0.65	0.59	0.97	0.87	1.46	1.46	1.46	1.39	1.39	2.03	2.32	2.84	1.63	1.79	1.54	1.52	2.17
	Construction Worker Commuting	0.86	0.47	1.08	0.43	0.62	0.50	1.23	1.12	1.12	1.03	1.03	1.67	2.01	2.54	1.67	1.77	1.53	1.50	2.18
	Haul Trucks	0.40	0.26	0.40	--	0.12	--	0.06	--	--	--	--	3.38	3.71	7.05	7.04	6.98	6.81	6.71	8.58
	Fugitive Dust	--	1.65	1.65	1.63	7.40	7.40	20.93	16.31	16.31	16.31	16.31	15.43	15.43	15.93	1.00	1.00	1.00	1.00	1.25
Intake Channel, Headworks, and Outlet Channel Subtotal		1.38	3.01	3.79	2.65	9.10	8.77	23.69	18.88	18.88	18.73	18.73	22.51	23.47	28.35	11.34	11.54	10.87	10.74	14.17
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	0.06	0.10	0.03	0.17	0.21	0.23	0.70	0.03	0.06	0.07	0.07	0.10	0.14	0.06	0.03	0.03	0.03	0.03	0.03
	Construction Worker Commuting	0.10	0.12	0.22	0.11	0.10	0.25	0.69	0.05	0.44	0.10	0.09	0.11	0.17	0.07	0.22	0.02	0.05	0.05	0.02
	Haul Trucks	0.03	0.03	0.13	0.12	--	--	2.33	--	0.17	--	--	0.08	0.13	--	0.04	0.01	--	--	0.01
	Fugitive Dust	--	0.02	--	0.06	10.77	--	0.50	--	--	8.85	--	--	--	--	--	--	--	--	--
Supplemental Fish Passage East Subtotal		0.19	0.28	0.38	0.46	11.08	0.48	4.23	0.08	0.67	9.02	0.16	0.29	0.44	0.13	0.29	0.07	0.07	0.07	0.07
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.09	0.17	0.17	0.17	0.17	0.23	0.30	0.30	0.23	0.27	0.27	0.27	0.38	0.70	0.70	0.70	0.70	0.70	0.35
	Construction Worker Commuting	0.22	0.11	0.11	0.11	0.11	0.25	0.30	0.30	0.33	0.34	0.34	0.34	0.43	0.69	0.69	0.69	0.69	0.69	0.34
	Haul Trucks	0.12	0.12	0.12	--	--	--	--	--	0.04	--	--	--	1.71	3.35	3.35	3.35	3.35	3.35	1.67
	Fugitive Dust	--	0.06	0.06	0.06	0.06	4.63	6.00	6.00	4.63	5.98	5.98	5.98	0.25	0.50	0.50	0.50	0.50	0.50	0.25
Downstream Channel Subtotal		0.43	0.46	0.46	0.34	0.34	5.11	6.60	6.60	5.23	6.59	6.59	6.59	2.76	5.24	5.24	5.24	5.24	5.24	2.62
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.09	0.10	0.23	0.03	0.03	0.03	0.04	0.06	0.04	0.03	0.26	0.13	0.08	0.08	0.12	0.17	0.06	0.22	0.10
	Construction Worker Commuting	0.18	0.11	0.25	0.05	0.05	0.12	0.04	0.05	0.04	0.22	0.28	0.15	0.11	0.11	0.15	0.26	0.10	0.38	0.11
	Haul Trucks	0.07	0.09	--	--	--	--	0.02	1.63	0.02	0.08	--	--	--	--	0.04	0.06	0.08	0.12	--
	Fugitive Dust	--	0.02	4.63	--	--	--	--	1.34	--	--	4.63	--	--	--	--	--	--	--	--
Agricultural Crossing 1 Subtotal		0.34	0.33	5.11	0.08	0.08	0.15	0.10	3.08	0.10	0.33	5.17	0.27	0.19	0.19	0.27	0.47	0.22	0.68	0.32
Northern Water Control Structure Improvements																				
5	Offroad Construction Equipment Exhaust	0.12	0.34	0.38	0.51	0.63	0.74	0.74	0.55	0.51	0.74	0.17	0.14	0.11	0.11	0.09	0.12	0.11	0.05	0.03
	Construction Worker Commuting	0.32	0.23	0.30	0.32	0.54	0.57	0.80	0.53	0.48	0.73	0.23	0.28	0.11	0.14	0.11	0.14	0.16	0.16	0.05
	Haul Trucks	0.16	0.09	0.12	3.69	3.84	3.69	3.75	3.69	3.69	4.80	0.03	0.19	--	0.14	--	0.01	--	0.08	--
	Fugitive Dust	--	1.58	1.58	6.70	6.70	11.33	8.01	3.38	3.38	8.01	--	--	--	--	--	--	--	--	--
Northern Water Control Structure Improvements Subtotal		0.60	2.25	2.38	11.22	11.72	16.33	13.30	8.15	8.06	14.27	0.44	0.61	0.22	0.38	0.20	0.26	0.27	0.29	0.07
Southern Water Control Structure Improvements																				
6	Offroad Construction Equipment Exhaust	0.12	0.51	0.56	0.64	0.63	0.74	1.31	1.12	1.07	1.31	1.15	0.94	0.94	0.94	0.92	0.95	0.94	0.89	0.86
	Construction Worker Commuting	0.37	0.34	0.41	0.44	0.54	0.57	1.24	0.97	0.92	1.17	1.01	0.92	0.90	0.92	0.90	0.92	0.95	0.95	0.84
	Haul Trucks	0.19	0.24	0.27	5.16	5.31	5.16	5.22	5.16	5.16	8.78	8.78	8.89	8.78	8.92	8.78	8.80	8.78	8.86	8.78
	Fugitive Dust	--	1.63	1.63	4.96	6.70	11.33	9.93	5.30	5.30	9.93	5.30	3.44	3.44	3.44	3.44	3.44	3.44	3.44	3.44
Southern Water Control Structure Improvements Subtotal		0.69	2.73	2.87	11.20	13.19	17.80	17.70	12.55	12.45	21.19	16.24	14.19	14.06	14.22	14.04	14.10	14.11	14.13	13.91
GRAND TOTAL		3.62	9.06	14.99	25.96	45.52	48.64	65.61	49.34	45.39	70.12	47.32	44.47	41.13	48.51	31.37	31.68	30.79	31.15	31.18
Yolo County Total		3.62	9.06	14.99	25.96	45.52	48.64	65.61	49.34	45.39	70.12	47.32	44.47	41.13	48.51	31.37	31.68	30.79	31.15	31.18
Sutter County Total		1.38	3.01	3.79	2.65	9.10	8.77	23.69	18.88	18.88	18.73	18.73	22.51	23.47	28.35	11.34	11.54	10.87	10.74	14.17

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Table K-80. PM2.5 Detailed Summary (Alternative 4) -

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	1.50	0.76	0.82	0.21	0.21	0.19	0.19	0.15	0.03	0.09
	Construction Worker Commuting	2.13	0.75	0.92	0.36	0.36	0.36	0.36	0.74	0.06	0.08
	Haul Trucks	7.08	3.35	3.33	--	--	--	--	0.66	0.03	0.19
	Fugitive Dust	1.00	0.50	0.50	--	--	--	--	0.06	--	0.45
Intake Channel, Headworks, and Outlet Channel Subtotal		11.71	5.37	5.58	0.56	0.56	0.55	0.55	1.61	0.12	0.80
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.09	0.03	0.00
	Construction Worker Commuting	--	--	--	--	--	--	--	0.10	0.06	0.02
	Haul Trucks	--	--	--	--	--	--	--	0.50	0.03	0.00
	Fugitive Dust	--	--	--	--	--	--	--	0.06	--	0.01
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	0.75	0.12	0.03
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.03	0.03	0.03	0.09	0.03	--	--	--	--	0.02
	Construction Worker Commuting	0.05	0.05	0.16	0.10	0.02	--	--	--	--	0.02
	Haul Trucks	--	--	0.11	0.50	0.01	--	--	--	--	0.06
	Fugitive Dust	--	--	--	0.06	--	--	--	--	--	0.12
Downstream Channel Subtotal		0.08	0.08	0.29	0.75	0.07	--	--	--	--	0.22
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.09	--	0.12	0.03	--	--	--	--	--	0.00
	Construction Worker Commuting	0.09	--	0.16	0.02	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.25	0.01	--	--	--	--	--	0.00
	Fugitive Dust	--	--	0.02	--	--	--	--	--	--	0.01
Agricultural Crossing 1 Subtotal		0.17	--	0.55	0.07	--	--	--	--	--	0.02
Northern Water Control Structure Improvements											
5	Offroad Construction Equipment Exhaust	0.04	0.04	0.12	0.03	--	--	--	--	--	0.02
	Construction Worker Commuting	0.10	0.10	0.12	0.02	--	--	--	--	--	0.02
	Haul Trucks	--	--	0.60	0.01	--	--	--	--	--	0.10
	Fugitive Dust	--	--	0.06	--	--	--	--	--	--	0.15
Northern Water Control Structure Improvements Subtotal		0.14	0.14	0.90	0.07	--	--	--	--	--	0.29
Southern Water Control Structure Improvements											
6	Offroad Construction Equipment Exhaust	0.20	0.20	0.17	0.04	--	--	--	--	--	0.05
	Construction Worker Commuting	0.25	0.39	0.18	0.02	--	--	--	--	--	0.04
	Haul Trucks	5.16	5.27	0.65	0.01	--	--	--	--	--	0.38
	Fugitive Dust	3.32	3.32	0.06	--	--	--	--	--	--	0.25
Southern Water Control Structure Improvements Subtotal		8.93	9.19	1.06	0.07	--	--	--	--	--	0.72
GRAND TOTAL		21.03	14.78	8.38	1.52	0.63	0.55	0.55	2.36	0.24	2.06
Yolo County Total		21.03	14.78	8.38	1.52	0.63	0.55	0.55	2.36	0.24	2.06
Sutter County Total		11.71	5.37	5.58	0.56	0.56	0.55	0.55	1.61	0.12	0.80

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-81. PM2.5 Detailed Summary (Alternative 5) - Mitigated

#	Activity	Ma																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.43	2.22	2.63	3.56	4.60	4.37	3.49	4.55	3.19	2.92	2.74	2.25	3.16	2.92	2.71	2.73	2.73	1.70	0.25
	Construction Worker Commuting	1.82	1.60	2.25	1.48	2.49	2.24	1.47	2.50	3.20	2.84	2.64	2.24	3.09	2.84	2.59	2.77	2.77	1.79	0.25
	Haul Trucks	1.01	0.37	0.35	--	0.11	0.11	0.11	0.11	0.06	11.85	11.85	11.85	11.85	11.85	11.85	12.54	12.54	6.66	--
	Fugitive Dust	0.06	2.15	21.17	43.84	48.47	43.84	42.32	43.07	6.13	1.50	1.50	1.50	6.13	1.50	1.50	1.50	1.50	0.75	--
Intake Channel, Headworks, and Outlet Channel Subtotal		3.32	6.34	26.40	48.88	55.67	50.56	47.39	50.23	12.58	19.11	18.72	17.83	24.22	19.11	18.64	19.54	19.54	10.89	0.50
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	0.06	0.10	0.03	0.17	0.21	0.23	0.70	0.03	0.06	0.07	0.07	0.10	0.14	0.06	0.03	0.03	0.03	0.03	0.03
	Construction Worker Commuting	0.10	0.12	0.22	0.11	0.10	0.25	0.69	0.05	0.44	0.10	0.09	0.11	0.17	0.07	0.22	0.02	0.05	0.05	0.02
	Haul Trucks	0.03	0.03	0.13	0.12	--	--	2.39	--	0.17	--	--	0.08	0.13	--	0.04	0.01	--	--	0.01
	Fugitive Dust	--	0.02	--	0.06	10.77	--	0.50	--	--	8.85	--	--	--	--	--	--	--	--	--
Supplemental Fish Passage West Subtotal		0.19	0.28	0.38	0.46	11.08	0.48	4.28	0.08	0.67	9.02	0.16	0.29	0.44	0.13	0.29	0.07	0.07	0.07	0.07
Agricultural Crossing 1																				
3	Offroad Construction Equipment Exhaust	0.09	0.10	0.23	0.03	0.03	0.03	0.04	0.06	0.04	0.03	0.26	0.13	0.08	0.08	0.12	0.17	0.06	0.22	0.10
	Construction Worker Commuting	0.18	0.11	0.25	0.05	0.05	0.12	0.04	0.05	0.04	0.22	0.28	0.15	0.11	0.11	0.15	0.26	0.10	0.38	0.11
	Haul Trucks	0.07	0.09	--	--	--	--	0.02	1.63	0.02	0.08	--	--	--	--	0.04	0.06	0.08	0.12	--
	Fugitive Dust	--	0.02	4.63	--	--	--	--	1.34	--	--	4.63	--	--	--	--	--	--	--	--
Agricultural Crossing 1 Subtotal		0.34	0.33	5.11	0.08	0.08	0.15	0.10	3.08	0.10	0.33	5.17	0.27	0.19	0.19	0.27	0.47	0.22	0.68	0.32
River Grading Site																				
4	Offroad Construction Equipment Exhaust	0.17	0.20	0.62	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
	Construction Worker Commuting	--	--	0.18	0.23	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
	Haul Trucks	0.09	0.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	0.06	2.75	2.75	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
	Marine Equipment Exhaust	0.93	--	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47
River Grading Site Subtotal		1.25	2.99	4.02	1.16	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
GRAND TOTAL		5.09	9.93	35.91	50.58	67.93	52.30	52.87	54.50	14.45	29.57	25.16	19.51	25.95	20.54	20.30	21.17	20.93	12.74	1.99
Yolo County Total		4.91	9.66	35.53	50.12	56.86	51.82	48.59	54.42	13.78	20.55	25.00	19.21	25.52	20.41	20.01	21.11	20.86	12.67	1.93
Sutter County Total		0.19	0.28	0.38	0.46	11.08	0.48	4.28	0.08	0.67	9.02	0.16	0.29	0.44	0.13	0.29	0.07	0.07	0.07	0.07

Table K-81. PM2.5 Detailed Summary (Alternative 5) -

#	Activity	Maximum Daily Emissions, lbs/day																		
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.13	0.11	0.11	0.67	0.61	0.03	0.12	0.00	0.00	0.06	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.48
	Construction Worker Commuting	0.15	0.12	0.12	1.92	0.70	1.27	0.16	0.00	0.00	0.05	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.58
	Haul Trucks	0.06	--	--	1.54	0.69	0.26	0.56	--	--	0.28	--	--	--	--	--	--	--	--	--
	Fugitive Dust	--	--	--	--	--	--	0.06	--	--	--	--	--	--	--	--	--	--	--	--
Intake Channel, Headworks, and Outlet Channel Subtotal		0.33	0.24	0.24	4.13	2.01	1.56	0.90	--	--	0.39	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	1.06
Supplemental Fish Passage West																				
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.09	0.03	--	--	--	--	--	--	--	--	--	--
	Construction Worker Commuting	--	--	--	--	--	--	--	0.10	0.06	--	--	--	--	--	--	--	--	--	--
	Haul Trucks	--	--	--	--	--	--	--	0.50	0.03	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	--	--	--	--	--	--	--	0.06	--	--	--	--	--	--	--	--	--	--	--
Supplemental Fish Passage West Subtotal		--	--	--	--	--	--	--	0.75	0.12	--	--	--	--	--	--	--	--	--	--
Agricultural Crossing 1																				
3	Offroad Construction Equipment Exhaust	0.09	--	0.12	0.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Construction Worker Commuting	0.09	--	0.16	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Haul Trucks	--	--	0.25	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	--	--	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Agricultural Crossing 1 Subtotal		0.17	--	0.55	0.07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
River Grading Site																				
4	Offroad Construction Equipment Exhaust	0.40	0.65	0.03	0.03	--	0.17	--	--	--	--	--	--	--	--	--	--	--	--	--
	Construction Worker Commuting	0.18	0.53	0.34	0.39	0.05	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Haul Trucks	--	1.66	1.66	1.66	--	0.09	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fugitive Dust	0.06	2.75	--	--	--	0.06	--	--	--	--	--	--	--	--	--	--	--	--	--
	Marine Equipment Exhaust	0.47	0.47	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
River Grading Site Subtotal		1.11	6.05	2.03	2.08	0.05	0.32	--	--	--	--	--	--	--	--	--	--	--	--	--
GRAND TOTAL		1.61	6.29	2.82	6.27	2.06	1.88	0.90	0.75	0.12	0.39	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	1.06
Yolo County Total		1.61	6.29	2.82	6.27	2.06	1.88	0.90	--	--	0.39	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	1.06
Sutter County Total		--	--	--	--	--	--	--	0.75	0.12	--	--	--	--	--	--	--	--	--	--

Table K-81. PM2.5 Detailed Summary (Alternative 5) -

#	Activity	24-Jun	1-Jul	8-Jul	Annual Emissions, tpy	Year 1, tpy	Year 2, tpy
Intake Channel, Headworks, and Outlet Channel							
1	Offroad Construction Equipment Exhaust	0.14	0.06	--	0.27	0.25	0.01
	Construction Worker Commuting	0.28	0.05	--	0.13	0.12	0.02
	Haul Trucks	--	0.28	--	0.31	0.31	0.00
	Fugitive Dust	--	--	--	1.11	1.11	--
Intake Channel, Headworks, and Outlet Channel Subtotal		0.42	0.39	--	1.81	1.78	0.03
Supplemental Fish Passage West							
2	Offroad Construction Equipment Exhaust	--	--	--	0.00	0.00	0.00
	Construction Worker Commuting	--	--	--	0.01	0.01	0.00
	Haul Trucks	--	--	--	0.00	0.00	0.00
	Fugitive Dust	--	--	--	0.00	0.00	0.00
Supplemental Fish Passage West Subtotal		--	--	--	0.02	0.02	--
Agricultural Crossing 1							
3	Offroad Construction Equipment Exhaust	--	--	--	0.00	0.00	0.00
	Construction Worker Commuting	--	--	--	0.00	0.00	0.00
	Haul Trucks	--	--	--	0.00	0.00	0.00
	Fugitive Dust	--	--	--	0.01	0.01	0.00
Agricultural Crossing 1 Subtotal		--	--	--	0.02	0.02	--
River Grading Site							
4	Offroad Construction Equipment Exhaust	--	--	--	0.01	0.01	0.00
	Construction Worker Commuting	--	--	--	0.01	0.01	0.00
	Haul Trucks	--	--	--	0.02	0.02	0.00
	Fugitive Dust	--	--	--	0.01	0.01	0.00
	Marine Equipment Exhaust	--	--	--	0.07	0.07	0.00
River Grading Site Subtotal		--	--	--	0.13	0.13	--
GRAND TOTAL		0.42	0.39	--	1.98	1.95	0.03
Yolo County Total		0.42	0.39	--	1.95	1.93	0.03
Sutter County Total		--	--	--	0.02	0.02	--

Table K-82. PM2.5 Detailed Summary (Alternative 6) - Mitigated

#	Activity	Maximum Daily Emissions, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
Intake Channel, Headworks, and Outlet Channel																				
1	Offroad Construction Equipment Exhaust	0.12	0.93	1.04	0.83	1.37	1.28	1.61	1.51	1.44	1.73	4.34	4.34	4.24	4.40	4.31	4.13	4.42	4.37	4.08
	Construction Worker Commuting	1.18	1.65	0.87	0.63	0.91	0.80	1.16	1.00	0.91	1.24	3.92	3.92	3.84	3.94	3.89	3.67	4.00	3.98	3.61
	Haul Trucks	0.55	0.63	0.41	0.35	0.12	--	0.06	--	--	0.35	12.18	12.18	12.15	12.09	12.19	11.83	12.18	12.24	11.85
	Fugitive Dust	--	1.73	1.73	1.69	13.98	13.98	9.21	7.83	7.83	7.83	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26	23.26
Intake Channel, Headworks, and Outlet Channel Subtotal		1.85	4.93	4.06	3.50	16.39	16.06	12.04	10.35	10.19	11.16	43.70	43.70	43.50	43.70	43.65	42.90	43.87	43.85	42.80
Supplemental Fish Passage East																				
2	Offroad Construction Equipment Exhaust	0.06	0.10	0.03	0.17	0.21	0.23	0.70	0.03	0.06	0.07	0.07	0.10	0.14	0.06	0.03	0.03	0.03	0.03	0.03
	Construction Worker Commuting	0.10	0.12	0.22	0.11	0.10	0.25	0.69	0.05	0.44	0.10	0.09	0.11	0.17	0.07	0.22	0.02	0.05	0.05	0.02
	Haul Trucks	0.03	0.03	0.13	0.12	--	--	2.33	--	0.17	--	--	0.08	0.13	--	0.04	0.01	--	--	0.01
	Fugitive Dust	--	0.02	--	0.06	10.77	--	0.50	--	--	8.85	--	--	--	--	--	--	--	--	--
Supplemental Fish Passage East Subtotal		0.19	0.28	0.38	0.46	11.08	0.48	4.23	0.08	0.67	9.02	0.16	0.29	0.44	0.13	0.29	0.07	0.07	0.07	0.07
Downstream Channel																				
3	Offroad Construction Equipment Exhaust	0.09	0.17	0.17	0.17	0.17	0.23	0.30	0.30	0.23	0.27	0.27	0.27	0.38	0.70	0.70	0.70	0.70	0.70	0.35
	Construction Worker Commuting	0.22	0.11	0.11	0.11	0.11	0.25	0.30	0.30	0.33	0.34	0.34	0.34	0.43	0.69	0.69	0.69	0.69	0.69	0.34
	Haul Trucks	0.12	0.12	0.12	--	--	--	--	--	0.04	--	--	--	1.71	3.35	3.35	3.35	3.35	3.35	1.67
	Fugitive Dust	--	0.06	0.06	0.06	0.06	4.63	6.00	6.00	4.63	5.98	5.98	5.98	0.25	0.50	0.50	0.50	0.50	0.50	0.25
Downstream Channel Subtotal		0.43	0.46	0.46	0.34	0.34	5.11	6.60	6.60	5.23	6.59	6.59	6.59	2.76	5.24	5.24	5.24	5.24	5.24	2.62
Agricultural Crossing 1																				
4	Offroad Construction Equipment Exhaust	0.09	0.10	0.23	0.03	0.03	0.03	0.04	0.06	0.04	0.03	0.26	0.13	0.08	0.08	0.12	0.17	0.06	0.22	0.10
	Construction Worker Commuting	0.18	0.11	0.25	0.05	0.05	0.12	0.04	0.05	0.04	0.22	0.28	0.15	0.11	0.11	0.15	0.26	0.10	0.38	0.11
	Haul Trucks	0.07	0.09	--	--	--	--	0.02	1.63	0.02	0.08	--	--	--	--	0.04	0.06	0.08	0.12	0.12
	Fugitive Dust	--	0.02	4.63	--	--	--	--	1.34	--	--	4.63	--	--	--	--	--	--	--	--
Agricultural Crossing 1 Subtotal		0.34	0.33	5.11	0.08	0.08	0.15	0.10	3.08	0.10	0.33	5.17	0.27	0.19	0.19	0.27	0.47	0.22	0.68	0.32
GRAND TOTAL		2.81	6.00	10.01	4.39	27.89	21.80	22.96	20.11	16.19	27.10	55.62	50.85	46.89	49.26	49.45	48.67	49.40	49.84	45.81
Yolo County Total		2.81	6.00	10.01	4.39	27.89	21.80	22.96	20.11	16.19	27.10	55.62	50.85	46.89	49.26	49.45	48.67	49.40	49.84	45.81
Sutter County Total		1.85	4.93	4.06	3.50	16.39	16.06	12.04	10.35	10.19	11.16	43.70	43.70	43.50	43.70	43.65	42.90	43.87	43.85	42.80

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Table K-82. PM2.5 Detailed Summary (Alternative 6) -

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
Intake Channel, Headworks, and Outlet Channel											
1	Offroad Construction Equipment Exhaust	4.49	3.64	1.53	1.67	0.29	0.25	0.25	0.21	0.09	0.18
	Construction Worker Commuting	4.13	3.73	1.61	1.81	1.37	0.43	0.43	0.33	1.07	0.17
	Haul Trucks	13.45	13.45	6.75	6.75	0.44	--	--	0.50	0.28	0.46
	Fugitive Dust	23.51	15.68	1.00	1.00	--	--	--	0.06	--	0.91
Intake Channel, Headworks, and Outlet Channel Subtotal		45.58	36.51	10.89	11.24	2.10	0.68	0.68	1.10	1.44	1.71
Supplemental Fish Passage East											
2	Offroad Construction Equipment Exhaust	--	--	--	--	--	--	--	0.09	0.03	0.00
	Construction Worker Commuting	--	--	--	--	--	--	--	0.10	0.06	0.02
	Haul Trucks	--	--	--	--	--	--	--	0.50	0.03	0.00
	Fugitive Dust	--	--	--	--	--	--	--	0.06	--	0.01
Supplemental Fish Passage East Subtotal		--	--	--	--	--	--	--	0.75	0.12	0.03
Downstream Channel											
3	Offroad Construction Equipment Exhaust	0.03	0.03	0.03	0.09	0.03	--	--	--	--	0.02
	Construction Worker Commuting	0.05	0.05	0.16	0.10	0.02	--	--	--	--	0.02
	Haul Trucks	--	--	0.11	0.50	0.01	--	--	--	--	0.06
	Fugitive Dust	--	--	--	0.06	--	--	--	--	--	0.12
Downstream Channel Subtotal		0.08	0.08	0.29	0.75	0.07	--	--	--	--	0.22
Agricultural Crossing 1											
4	Offroad Construction Equipment Exhaust	0.09	--	0.12	0.03	--	--	--	--	--	0.00
	Construction Worker Commuting	0.09	--	0.16	0.02	--	--	--	--	--	0.00
	Haul Trucks	--	--	0.25	0.01	--	--	--	--	--	0.00
	Fugitive Dust	--	--	0.02	--	--	--	--	--	--	0.01
Agricultural Crossing 1 Subtotal		0.17	--	0.55	0.07	--	--	--	--	--	0.02
GRAND TOTAL		45.83	36.59	11.74	12.05	2.17	0.68	0.68	1.85	1.56	1.97
Yolo County Total		45.83	36.59	11.74	12.05	2.17	0.68	0.68	1.85	1.56	1.97
Sutter County Total		45.58	36.51	10.89	11.24	2.10	0.68	0.68	1.10	1.44	1.71

Note: Construction of the intake channel, headworks, and outlet channel would

Table K-83. GHG Detailed Summary (Alternative 1) - Mitigated

#	Activity	Emissions , MTCO ₂ e/ project
Intake Channel, Headworks, and Outlet Channel		
1	Offroad Construction Equipment Exhaust	1,827.82
	Construction Worker Commuting	118.77
	Haul Trucks	876.88
	Fugitive Dust	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		2,823.47
Supplemental Fish Passage West		
2	Offroad Construction Equipment Exhaust	91.45
	Construction Worker Commuting	7.97
	Haul Trucks	34.64
	Fugitive Dust	n/a
Supplemental Fish Passage West Subtotal		134.05
Downstream Channel		
3	Offroad Construction Equipment Exhaust	0.17
	Construction Worker Commuting	57.20
	Haul Trucks	662.50
	Fugitive Dust	n/a
Downstream Channel Subtotal		719.87
Agricultural Crossing 1		
4	Offroad Construction Equipment Exhaust	93.19
	Construction Worker Commuting	8.75
	Haul Trucks	33.77
	Fugitive Dust	n/a
Agricultural Crossing 1 Subtotal		135.71
GRAND TOTAL		3,813.10
Yolo County Total		3,679.04
Sutter County Total		134.05

Table K-84. GHG Detailed Summary (Alternative 2) - Mitigated

#	Activity	Emissions , MTCO ₂ e/ project
Intake Channel, Headworks, and Outlet Channel		
1	Offroad Construction Equipment Exhaust	3,253.59
	Construction Worker Commuting	182.51
	Haul Trucks	1,780.25
	Fugitive Dust	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		5,216.36
Supplemental Fish Passage West		
2	Offroad Construction Equipment Exhaust	91.45
	Construction Worker Commuting	7.97
	Haul Trucks	34.64
	Fugitive Dust	n/a
Supplemental Fish Passage West Subtotal		134.05
Downstream Channel		
3	Offroad Construction Equipment Exhaust	0.17
	Construction Worker Commuting	57.20
	Haul Trucks	662.50
	Fugitive Dust	n/a
Downstream Channel Subtotal		719.87
Agricultural Crossing 1		
4	Offroad Construction Equipment Exhaust	93.19
	Construction Worker Commuting	8.75
	Haul Trucks	33.77
	Fugitive Dust	n/a
Agricultural Crossing 1 Subtotal		135.71
River Grading Site		
5	Offroad Construction Equipment Exhaust	408.77
	Construction Worker Commuting	45.18
	Haul Trucks	173.89
	Fugitive Dust	n/a
	Marine Equipment Exhaust	1,984.78
River Grading Site Subtotal		2,612.62
GRAND TOTAL		8,818.61
Yolo County Total		8,684.55
Sutter County Total		134.05

Table K-85. GHG Detailed Summary (Alternative 3) - Mitigated

#	Activity	Emissions , MTCO ₂ e/ project
Intake Channel, Headworks, and Outlet Channel		
1	Offroad Construction Equipment Exhaust	4,459.50
	Construction Worker Commuting	232.85
	Haul Trucks	2,169.97
	Fugitive Dust	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		6,862.32
Supplemental Fish Passage East		
2	Offroad Construction Equipment Exhaust	0.17
	Construction Worker Commuting	10.07
	Haul Trucks	45.31
	Fugitive Dust	n/a
Supplemental Fish Passage East Subtotal		55.55
Downstream Channel		
3	Offroad Construction Equipment Exhaust	0.17
	Construction Worker Commuting	57.20
	Haul Trucks	662.50
	Fugitive Dust	n/a
Downstream Channel Subtotal		719.87
Agricultural Crossing 1		
4	Offroad Construction Equipment Exhaust	93.19
	Construction Worker Commuting	8.75
	Haul Trucks	33.77
	Fugitive Dust	n/a
Agricultural Crossing 1 Subtotal		135.71
GRAND TOTAL		7,773.45
Yolo County Total		7,773.45
Sutter County Total		6,862.32

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Table K-86. GHG Detailed Summary (Alternative 4) - Mitigated

#	Activity	Emissions , MTCO ₂ e/ project
Intake Channel, Headworks, and Outlet Channel		
1	Offroad Construction Equipment Exhaust	0.59
	Construction Worker Commuting	232.85
	Haul Trucks	2,169.97
	Fugitive Dust	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		2,403.41
Supplemental Fish Passage East		
2	Offroad Construction Equipment Exhaust	0.17
	Construction Worker Commuting	10.07
	Haul Trucks	45.31
	Fugitive Dust	n/a
Supplemental Fish Passage East Subtotal		55.55
Downstream Channel		
3	Offroad Construction Equipment Exhaust	0.17
	Construction Worker Commuting	57.20
	Haul Trucks	662.50
	Fugitive Dust	n/a
Downstream Channel Subtotal		719.87
Agricultural Crossing 1		
4	Offroad Construction Equipment Exhaust	93.19
	Construction Worker Commuting	8.75
	Haul Trucks	33.77
	Fugitive Dust	n/a
Agricultural Crossing 1 Subtotal		135.71
Northern Water Control Structure Improvements		
5	Offroad Construction Equipment Exhaust	906.84
	Construction Worker Commuting	50.53
	Haul Trucks	1,179.77
	Fugitive Dust	n/a
Northern Water Control Structure Improvements Subtotal		2,137.14
Southern Water Control Structure Improvements		
6	Offroad Construction Equipment Exhaust	2,301.49
	Construction Worker Commuting	130.59
	Haul Trucks	4,385.31
	Fugitive Dust	n/a
Southern Water Control Structure Improvements Subtotal		6,817.39
GRAND TOTAL		12,269.07
Yolo County Total		12,269.07
Sutter County Total		2,403.41

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Table K-87. GHG Detailed Summary (Alternative 5) - Mitigated

#	Activity	Emissions , MTCO ₂ e/ project
Intake Channel, Headworks, and Outlet Channel		
1	Offroad Construction Equipment Exhaust	3.56
	Construction Worker Commuting	392.31
	Haul Trucks	3,526.21
	Fugitive Dust	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		3922.09
Supplemental Fish Passage West		
2	Offroad Construction Equipment Exhaust	91.45
	Construction Worker Commuting	7.97
	Haul Trucks	34.64
	Fugitive Dust	n/a
Supplemental Fish Passage West Subtotal		134.05
Agricultural Crossing 1		
3	Offroad Construction Equipment Exhaust	93.19
	Construction Worker Commuting	8.75
	Haul Trucks	33.77
	Fugitive Dust	n/a
Agricultural Crossing 1 Subtotal		135.71
River Grading Site		
4	Offroad Construction Equipment Exhaust	408.77
	Construction Worker Commuting	45.18
	Haul Trucks	173.89
	Fugitive Dust	n/a
	Marine Equipment Exhaust	1,984.78
River Grading Site Subtotal		2,612.62
GRAND TOTAL		6,804.47
Yolo County Total		6,670.42
Sutter County Total		134.05

Table K-88. GHG Detailed Summary (Alternative 6) - Mitigated

#	Activity	Emissions , MTCO ₂ e/ project
Intake Channel, Headworks, and Outlet Channel		
1	Offroad Construction Equipment Exhaust	0.83
	Construction Worker Commuting	485.45
	Haul Trucks	5,261.49
	Fugitive Dust	n/a
Intake Channel, Headworks, and Outlet Channel Subtotal		5,747.77
Supplemental Fish Passage East		
2	Offroad Construction Equipment Exhaust	0.17
	Construction Worker Commuting	10.07
	Haul Trucks	45.31
	Fugitive Dust	n/a
Supplemental Fish Passage East Subtotal		55.55
Downstream Channel		
3	Offroad Construction Equipment Exhaust	0.17
	Construction Worker Commuting	57.20
	Haul Trucks	662.50
	Fugitive Dust	n/a
Downstream Channel Subtotal		719.87
Agricultural Crossing 1		
4	Offroad Construction Equipment Exhaust	93.19
	Construction Worker Commuting	8.75
	Haul Trucks	33.77
	Fugitive Dust	n/a
Agricultural Crossing 1 Subtotal		135.71
GRAND TOTAL		6,658.89
Yolo County Total		6,658.89
Sutter County Total		5,747.77

Note: Construction of the intake channel, headworks, and outlet channel would be located in both counties. To provide a worst-case estimate of emissions by county, 100% of these emissions were added to each county total.

Offroad Exhaust Emissions Summary

Table K-89. Maximum Daily Offroad Construction Equipment Emissions (Alternative 1)

Phase	ROG lbs/day	NOx lbs/day	CO lbs/day	SO2 lbs/day	PM10 lbs/day	PM2.5 lbs/day
02 - Relocations	1.07	20.99	14.88	0.05	0.57	0.45
09 - Channels and Canals	22.44	226.37	85.82	0.43	5.22	4.54
11 - Levees and Floodwalls	2.10	23.35	19.36	0.07	1.00	0.88
15 - Floodway Control and Diversion Structures	4.93	59.98	44.88	0.17	2.56	1.99
08 - Roads, Railroads, and Bridges	2.29	25.87	22.55	0.10	1.16	0.96
19 - Buildings, Grounds, and Utilities	3.67	42.91	39.08	0.11	2.11	1.78
20 -Permanent Operating Equipment	0.60	3.68	11.36	0.03	0.35	1.43
Peak Day Construction Exhaust Emissions Total	26.65	261.69	128.72	0.56	7.44	6.41

Notes:

Construction total will not add to the sum of each phase because not all tasks overlap on the same day.

Table K-90. Annual Offroad Construction Equipment Emissions (Alternative 1)

Phase	ROG tpy	NOx tpy	CO tpy	SO2 tpy	PM10 tpy	PM2.5 tpy	CO2e MT/yr
02 - Relocations	0.01	0.12	0.11	0.00	0.00	0.00	40.24
09 - Channels and Canals	0.48	5.12	2.80	0.01	0.14	0.11	1,231.61
11 - Levees and Floodwalls	0.01	0.15	0.13	0.00	0.01	0.01	47.01
15 - Floodway Control and Diversion Structures	0.10	1.02	0.93	0.00	0.05	0.04	353.39
08 - Roads, Railroads, and Bridges	0.00	0.05	0.04	0.00	0.00	0.00	16.44
19 - Buildings, Grounds, and Utilities	0.05	0.56	0.51	0.00	0.03	0.02	132.61
20 -Permanent Operating Equipment	0.01	0.06	0.17	0.00	0.01	0.00	45.37
Annual Construction Exhaust Emissions Total	0.66	7.09	4.69	0.02	0.24	0.19	1,866.66

Notes:

Total may not add exactly because of rounding.

Table K-91. ROG Exhaust Emissions from Offroad Construction Equipment (Alternative 1) - Unmitigated

#	Activity	Quantity	Unit	Crew / Equipment	OFFROAD Name	Equipment Quantity per Crew	Size (hp)	Crew Daily Output	No. of Crews	Total Daily Output	Estimated Duration, Days	Emission Factor	Units
02 - Relocations													
1	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	3.1225 0.0580 1.4797 0.0000	g/hr g/hp-hr g/hr g/hr
												Mobilization and Demobilization Subtotal	
2	Fremont Weir Demo	450	CY	3.5 CY Hydraulic Excavator 3.5 CY Front End Loader Wheel 0.8 CY Loader/Backhoe, Wheel 4000 gallon Water Truck 16 CY 3 Axle Dump Truck Pickup Truck Conventional	Excavators Rubber Tired Loaders Tractors/Loaders/Backhoes n/a - onroad n/a - onroad n/a - onroad	1 1 1 1 1 6	359 164 97 MHDT HHDT LDT2	40	1	40	12	0.0451 0.1035 0.0901 3.1225 6.9998 1.4797	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr g/hr
												Fremont Weir Demo Subtotal	
3	Levee O&M Road Regrading (6" AB)	119,000	SF	12' Blade Grader 4000 gallon Water Truck Pickup Truck Conventional 16 CY 3 Axle Dump Truck	Graders n/a - onroad n/a - onroad n/a - onroad	1 1 1 5	187 MHDT LDT2 HHDT	39,400	1	39,400	4	0.1131 3.1225 1.4797 6.9998	g/hp-hr g/hr g/hr g/hr
												Levee O&M Road Regrading (6" AB) Subtotal	
4	Temporary Electrical Power	100	LF	Flatbed Truck Pickup Truck Conventional	n/a - onroad n/a - onroad	1 2	MHDT LDT2	1,500	1	1,500	1	3.1225 1.4797	g/hr g/hr
												Temporary Electrical Power Subtotal	
												02 - Relocations Total	
09 - Channels and Canals													
5	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	3.1225 0.0580 1.4797 0.0000	g/hr g/hp-hr g/hr g/hr
												Mobilization and Demobilization Subtotal	
6	Clearing and Grubbing	61	ACR	1.5 CY Front End Loader Crawler Trailer Mounted Brush Chipper Chainsaw 4000 gallon Water Truck Pickup Truck Conventional 16 CY 3 Axle Dump Truck	Crawler Tractors Shredders Chainsaws n/a - onroad n/a - onroad n/a - onroad	1 1 1 1 6 1	110 140 8 MHDT LDT2 HHDT	2	2	4	16	0.2384 0.0754 72.5631 3.1225 1.4797 6.9998	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr g/hr
												Clearing and Grubbing Subtotal	
7	Excavation (Wet Conditions)	61,810	CY	4.5 CY Hydraulic Excavator 300 HP Dozer 3.5 CY Front End Loader Wheel 16 CY 3 Axle Dump Truck Pickup Truck Conventional	Excavators Rubber Tired Dozers Rubber Tired Loaders n/a - onroad n/a - onroad	1 2 2 9 7	429 300 164 HHDT LDT2	1,800	1	1,800	35	0.0451 0.1608 0.1035 6.9998 1.4797	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr
												Excavation (Wet Conditions) Subtotal	
8	Excavation/Grading (Dry Conditions)	118,960	CY	300 HP Dozer 21 CY Scrapers 12' Blade Grader 4000 gallon Water Truck Pickup Truck Conventional	Rubber Tired Dozers Scrapers Graders n/a - onroad n/a - onroad	1 4 1 1 7	300 407 187 MHDT LDT2	3,500	1	3,500	34	0.1608 0.1193 0.1131 3.1225 1.4797	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr
												Excavation/Grading (Dry Conditions) Subtotal	
9	Earthen Backfill	8,950	CY	300 HP Dozer 4000 gallon Water Truck 10 TN Smooth Roller Pickup Truck Conventional	Rubber Tired Dozers n/a - onroad Rollers n/a - onroad	1 1 1 3	300 MHDT 157 LDT2	1,000	1	1,000	9	0.1608 3.1225 0.0598 1.4797	g/hp-hr g/hr g/hp-hr g/hr
												Earthen Backfill Subtotal	

Table K-91. ROG Exhaust Emissions from Offroad Con

#	Activity	Maximum Daily Emissions, lbs/day																			
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug	26-Aug
02 - Relocations																					
1	Mobilization and Demobilization	0.06 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		0.10 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		0.03 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		0.18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2	Fremont Weir Demo	--	0.29	0.29 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	0.30	0.30 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	0.15	0.15 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	0.06	0.06 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	0.12	0.12 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	0.16	0.16 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	1.07	1.07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3	Levee O&M Road Regrading (6" AB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4	Temporary Electrical Power	0.06 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		0.05 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		0.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		0.29	1.07	1.07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
09 - Channels and Canals																					
5	Mobilization and Demobilization	0.06 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.06 --
		0.10 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.10 --
		0.03 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.03 --
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		0.18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.18
6	Clearing and Grubbing	--	0.93	0.93	0.93 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	0.37	0.37	0.37 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	20.48	20.48	20.48 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	0.11	0.11	0.11 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	0.31	0.31	0.31 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	0.25	0.25	0.25 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	22.44	22.44	22.44	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7	Excavation (Wet Conditions)	--	--	--	--	--	--	0.34	0.34	0.34	0.34	0.34	0.34	0.34 --	--	--	--	--	--	--	--
		--	--	--	--	--	--	1.70	1.70	1.70	1.70	1.70	1.70 --	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	0.60	0.60	0.60	0.60	0.60	0.60 --	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	1.11	1.11	1.11	1.11	1.11 --	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	0.18	0.18	0.18	0.18	0.18 --	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	3.94	3.94	3.94	3.94	3.94	3.94	--	--	--	--	--	--	--	--
8	Excavation/Grading (Dry Conditions)	--	--	--	--	0.85	0.85	0.85	0.85	0.85	0.85 --	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	3.42	3.42	3.42	3.42	3.42 --	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	0.37	0.37	0.37	0.37	0.37 --	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	0.06	0.06	0.06	0.06	0.06 --	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	0.18	0.18	0.18	0.18	0.18 --	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	4.89	4.89	4.89	4.89	4.89	4.89	4.89	--	--	--	--	--	--	--	--	--
9	Earthen Backfill	--	--	--	--	--	0.85	0.85	0.85 --	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	0.06	0.06	0.06 --	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	0.17	0.17	0.17 --	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	0.08	0.08	0.08 --	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	1.15	1.15	1.15	--	--	--	--	--	--	--	--	--	--	--	--

Table K-91. ROG Exhaust Emissions from Offroad Con

#	Activity									Annual Emissions, tpy
		2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
02 - Relocations										
1	Mobilization and Demobilization	--	--	--	--	--	--	--	0.06	0.0001
		--	--	--	--	--	--	--	0.10	0.0001
		--	--	--	--	--	--	--	0.03	0.0000
		--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	0.18	0.0002
2	Fremont Weir Demo	--	--	--	--	--	--	--	--	0.0017
		--	--	--	--	--	--	--	--	0.0018
		--	--	--	--	--	--	--	--	0.0009
		--	--	--	--	--	--	--	--	0.0003
		--	--	--	--	--	--	--	--	0.0007
3	Levee O&M Road Regrading (6" AB)	--	--	--	--	--	--	0.37	--	0.0007
		--	--	--	--	--	--	0.06	--	0.0001
		--	--	--	--	--	--	0.03	--	0.0001
		--	--	--	--	--	--	0.62	--	0.0012
		--	--	--	--	--	--	1.07	--	0.0021
4	Temporary Electrical Power	--	--	--	--	--	--	--	--	0.0000
		--	--	--	--	--	--	--	--	0.0000
		--	--	--	--	--	--	--	--	0.0001
		--	--	--	--	--	--	1.07	0.18	0.0088
		--	--	--	--	--	--	--	--	0.0001
09 - Channels and Canals										
5	Mobilization and Demobilization	--	--	--	--	--	--	--	--	0.0001
		--	--	--	--	--	--	--	--	0.0001
		--	--	--	--	--	--	--	--	0.0000
		--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	0.0002
6	Clearing and Grubbing	--	--	--	--	--	--	--	--	0.0074
		--	--	--	--	--	--	--	--	0.0030
		--	--	--	--	--	--	--	--	0.1638
		--	--	--	--	--	--	--	--	0.0009
		--	--	--	--	--	--	--	--	0.0025
7	Excavation (Wet Conditions)	--	--	--	--	--	--	--	--	0.0020
		--	--	--	--	--	--	--	--	0.1796
		--	--	--	--	--	--	--	--	0.0060
		--	--	--	--	--	--	--	--	0.0298
		--	--	--	--	--	--	--	--	0.0105
8	Excavation/Grading (Dry Conditions)	--	--	--	--	--	--	--	--	0.0194
		--	--	--	--	--	--	--	--	0.0032
		--	--	--	--	--	--	--	--	0.0689
		--	--	--	--	--	--	--	--	0.0145
		--	--	--	--	--	--	--	--	0.0582
9	Earthen Backfill	--	--	--	--	--	--	--	--	0.0063
		--	--	--	--	--	--	--	--	0.0009
		--	--	--	--	--	--	--	--	0.0031
		--	--	--	--	--	--	--	--	0.0831
		--	--	--	--	--	--	--	--	0.0038
0.0052										

Table K-91. ROG Exhaust Emissions from Offroad Construction Equipment (Alternative 1) - Unmitigated

#	Activity	Quantity	Unit	Crew / Equipment	OFFROAD Name	Equipment Quantity per Crew	Size (hp)	Crew Daily Output	No. of Crews	Total Daily Output	Estimated Duration, Days	Emission Factor	Units
10	Riprap - Class 2	24,940	TN	2.5 CY Hydraulic Excavator 300 HP Dozer Crawler 16 CY 3 Axle Dump Truck Pickup Truck Conventional	Excavators Crawler Tractors n/a - onroad n/a - onroad	2 1 23 5	257 300 HHDT LDT2	1,000	1	1,000	25	0.0451 0.1004 6.9998 1.4797	g/hp-hr g/hp-hr g/hr g/hr
Riprap - Class 2 Subtotal													
11	Riprap - Class 3	9,420	TN	2.5 CY Hydraulic Excavator 300 HP Dozer Crawler 16 CY 3 Axle Dump Truck Pickup Truck Conventional	Excavators Crawler Tractors n/a - onroad n/a - onroad	2 1 23 5	257 300 HHDT LDT2	1,000	1	1,000	10	0.0451 0.1004 6.9998 1.4797	g/hp-hr g/hp-hr g/hr g/hr
Riprap - Class 3 Subtotal													
12	RSP Bedding Material	36,150	TN	2.5 CY Hydraulic Excavator 300 HP Dozer Crawler Pickup Truck Conventional 16 CY 3 Axle Dump Truck	Excavators Crawler Tractors n/a - onroad n/a - onroad	2 1 5 23	257 300 LDT2 HHDT	1,000	2	2,000	19	0.0451 0.1004 1.4797 6.9998	g/hp-hr g/hp-hr g/hr g/hr
RSP Bedding Material Subtotal													
13	Erosion Control Seeding	31	ACR	0.8 CY Front End Loader Wheel Pickup Truck Conventional	Tractors/Loaders/Backhoes n/a - onroad	1 4	97 LDT2	2	1	2	16	0.0901 1.4797	g/hp-hr g/hr
Erosion Control Seeding Subtotal													
09 - Channels and Canals Total													
11 - Levees and Floodwalls													
14	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	3.1225 0.0580 1.4797 0.0000	g/hr g/hp-hr g/hr g/hr
Mobilization and Demobilization Subtotal													
15	Soil Cement Bentonite Cutoff Wall	84,480	SF	4.5 CY Hydraulic Excavator 300 HP Dozer 2.5 CY Hydraulic Excavator 16 CY 3 Axle Dump Truck Flash Mixer Slurry Pump Pickup Truck Conventional	Excavators Rubber Tired Dozers Excavators n/a - onroad Cement and Mortar Mixers Pumps n/a - onroad	1 1 1 1 1 1 5	429 300 257 HHDT 9 84 LDT2	7,000	1	7,000	13	0.0451 0.1608 0.0451 6.9998 0.3705 0.2640 1.4797	g/hp-hr g/hp-hr g/hp-hr g/hr g/hp-hr g/hp-hr g/hr
Soil Cement Bentonite Cutoff Wall Subtotal													
11 - Levees and Floodwalls Total													
15 - Floodway Control and Diversion Structures													
16	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	3.1225 0.0580 1.4797 0.0000	g/hr g/hp-hr g/hr g/hr
Mobilization and Demobilization Subtotal													
17	Construction Site Dewatering (Temporary Cofferdam)	21,000	SF	Flatbed Truck 75 TN Crane Crawler Pile Hammer Pickup Truck Conventional	n/a - onroad Bore/Drill Rigs n/a - onroad	1 1 6	MHDT 221 LDT2	1,200	1	1,200	18	3.1225 0.0550 1.4797	g/hr g/hp-hr g/hr
Construction Site Dewatering (Temporary Cofferdam) Subtotal													
18	Construction Site Dewatering (Pumping)	-	-	6" Dia. Pump Engine Drive Pickup Truck Conventional	Pumps n/a - onroad	1 3	84 LDT2	-	1	1	120	0.2640 1.4797	g/hp-hr g/hr
Construction Site Dewatering (Pumping) Subtotal													
19	Excavation (Wet Conditions)	6,130	CY	4.5 CY Hydraulic Excavator 300 HP Dozer 3.5 CY Front End Loader Wheel 16 CY 3 Axle Dump Truck Pickup Truck Conventional	Excavators Rubber Tired Dozers Rubber Tired Loaders n/a - onroad n/a - onroad	1 2 2 9 7	429 300 164 HHDT LDT2	1,800	1	1,800	4	0.0451 0.1608 0.1035 6.9998 1.4797	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr
Excavation (Wet Conditions) Subtotal													

Table K-91. ROG Exhaust Emissions from Offroad Con

#	Activity	Maximum Daily Emissions, lbs/day																			
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug	26-Aug
10	Riprap - Class 2	--	--	--	--	--	--	--	--	--	--	--	--	--	0.41	0.41	0.41	0.41	0.41	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.53	0.53	0.53	0.53	0.53	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	2.84	2.84	2.84	2.84	2.84	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.13	0.13	0.13	0.13	0.13	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	3.91	3.91	3.91	3.91	3.91	--	--
11	Riprap - Class 3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.41	0.41	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.53	0.53	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.84	2.84	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.13	0.13	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.91	3.91	--	--
12	RSP Bedding Material	--	--	--	--	--	--	--	--	--	--	--	--	0.82	0.82	0.82	0.82	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	1.06	1.06	1.06	1.06	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	0.26	0.26	0.26	0.26	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	5.68	5.68	5.68	5.68	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	7.82	7.82	7.82	7.82	--	--	--	--
13	Erosion Control Seeding	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		0.18	22.44	22.44	22.44	4.89	6.04	9.97	8.82	8.82	8.82	3.94	3.94	7.82	11.73	11.73	11.73	7.82	7.82	0.18	--
11 - Levees and Floodwalls																					
14	Mobilization and Demobilization	--	--	--	--	--	--	--	0.06	--	--	--	0.06	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	0.10	--	--	--	0.10	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	0.03	--	--	--	0.03	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	0.18	--	--	--	0.18	--	--	--	--	--	--	--	--
15	Soil Cement Bentonite Cutoff Wall	--	--	--	--	--	--	--	--	0.34	0.34	0.34	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	0.85	0.85	0.85	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	0.20	0.20	0.20	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	0.12	0.12	0.12	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	0.06	0.06	0.06	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	0.39	0.39	0.39	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	0.13	0.13	0.13	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	2.10	2.10	2.10	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	0.18	2.10	2.10	2.10	0.18	--	--	--	--	--	--	--	--
15 - Floodway Control and Diversion Structures																					
16	Mobilization and Demobilization	--	--	0.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	0.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	0.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	0.18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17	Construction Site Dewatering (Temporary Cofferdam)	--	--	--	0.06	0.06	0.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	0.21	0.21	0.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	0.16	0.16	0.16	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	0.43	0.43	0.43	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18	Construction Site Dewatering (Pumping)	--	--	--	--	--	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
		--	--	--	--	--	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
		--	--	--	--	--	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47
19	Excavation (Wet Conditions)	--	--	--	--	--	0.34	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	1.70	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	0.60	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	1.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	0.18	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	3.94	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table K-91. ROG Exhaust Emissions from Offroad Con

#	Activity									Annual Emissions, tpy
		2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
10	Riprap - Class 2	--	--	--	--	--	--	--	--	0.0051
		--	--	--	--	--	--	--	--	0.0066
		--	--	--	--	--	--	--	--	0.0355
		--	--	--	--	--	--	--	--	0.0016
		--	--	--	--	--	--	--	0.0489	
11	Riprap - Class 3	--	--	--	--	--	--	--	--	0.0020
		--	--	--	--	--	--	--	--	0.0027
		--	--	--	--	--	--	--	--	0.0142
		--	--	--	--	--	--	--	--	0.0007
		--	--	--	--	--	--	--	0.0195	
12	RSP Bedding Material	--	--	--	--	--	--	--	--	0.0078
		--	--	--	--	--	--	--	--	0.0101
		--	--	--	--	--	--	--	--	0.0025
		--	--	--	--	--	--	--	--	0.0539
		--	--	--	--	--	--	--	0.0743	
13	Erosion Control Seeding	--	0.15	0.15	0.15	--	--	--	--	0.0012
		--	0.10	0.10	0.10	--	--	--	--	0.0008
		--	0.26	0.26	0.26	--	--	--	--	0.0021
		--	0.26	0.26	0.26	--	--	--	0.4816	
11 - Levees and Floodwalls										
14	Mobilization and Demobilization	--	--	--	--	--	--	--	--	0.0001
		--	--	--	--	--	--	--	--	0.0001
		--	--	--	--	--	--	--	--	0.0000
		--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	0.0002	
15	Soil Cement Bentonite Cutoff Wall	--	--	--	--	--	--	--	--	0.0022
		--	--	--	--	--	--	--	--	0.0055
		--	--	--	--	--	--	--	--	0.0013
		--	--	--	--	--	--	--	--	0.0008
		--	--	--	--	--	--	--	--	0.0004
		--	--	--	--	--	--	--	--	0.0025
		--	--	--	--	--	--	--	0.0008	
		--	--	--	--	--	--	--	0.0137	
		--	--	--	--	--	--	--	0.0138	
15 - Floodway Control and Diversion Structures										
16	Mobilization and Demobilization	--	--	--	--	--	--	0.06	--	0.0001
		--	--	--	--	--	--	0.10	--	0.0001
		--	--	--	--	--	--	0.03	--	0.0000
		--	--	--	--	--	--	--	--	--
		--	--	--	--	--	0.18	--	0.0002	
17	Construction Site Dewatering (Temporary Cofferdam)	--	--	--	--	--	--	--	--	0.0005
		--	--	--	--	--	--	--	--	0.0019
		--	--	--	--	--	--	--	--	0.0014
		--	--	--	--	--	--	--	0.0038	
18	Construction Site Dewatering (Pumping)	0.39	0.39	0.39	0.39	0.39	0.39	--	--	0.0235
		0.08	0.08	0.08	0.08	0.08	0.08	--	--	0.0047
		0.47	0.47	0.47	0.47	0.47	0.47	--	--	0.0282
19	Excavation (Wet Conditions)	--	--	--	--	--	--	--	--	0.0007
		--	--	--	--	--	--	--	--	0.0034
		--	--	--	--	--	--	--	--	0.0012
		--	--	--	--	--	--	--	--	0.0022
		--	--	--	--	--	--	--	--	0.0004
		--	--	--	--	--	--	--	0.0079	

Table K-91. ROG Exhaust Emissions from Offroad Construction Equipment (Alternative 1) - Unmitigated

#	Activity	Quantity	Unit	Crew / Equipment	OFFROAD Name	Equipment Quantity per Crew	Size (hp)	Crew Daily Output	No. of Crews	Total Daily Output	Estimated Duration, Days	Emission Factor	Units
20	Sheet Pile Wall	7,790	SF	Flatbed Truck 75 TN Crane Crawler Pile Hammer Pickup Truck Conventional	n/a - onroad Bore/Drill Rigs n/a - onroad	1 1 6	MHDT 221 LDT2	1,200	1	1,200	7	3.1225 g/hr 0.0550 g/hp-hr 1.4797 g/hr	
Sheet Pile Wall Subtotal													
21	Headworks Structure Concrete Piles	5,040	LF	40 TN Truck-mounted Hydraulic Crane 100 FT Auger Track-mounted Drill Rig Concrete Pump Boom Truck Mounted Concrete Mixer Truck 0.8 CY Backhoe Loader 24 TN Truck End Dump Pickup Truck Conventional	Cranes Bore/Drill Rigs Pumps n/a - onroad Tractors/Loaders/Backhoes Off-Highway Trucks n/a - onroad	1 1 1 3 1 2 8	300 221 84 MHDT 97 314 LDT2	180	1	180	28	0.0703 g/hp-hr 0.0550 g/hp-hr 0.2640 g/hp-hr 3.1225 g/hr 0.0901 g/hp-hr 0.0710 g/hp-hr 1.4797 g/hr	
Headworks Structure Concrete Piles Subtotal													
22	Headworks Structure	3,080	CY	Concrete Pump Boom Truck Mounted 2.5" Dia. Concrete Vibrator Concrete Mixer Truck Pickup Truck Conventional	Pumps Plate Compactors n/a - onroad n/a - onroad	1 1 2 7	84 8 MHDT LDT2	60	3	180	18	0.2640 g/hp-hr 0.2845 g/hp-hr 3.1225 g/hr 1.4797 g/hr	
Headworks Structure Subtotal													
23	Headworks Channel Transition	1,330	CY	2.5" Dia. Concrete Vibrator Concrete Mixer Truck Pickup Truck Conventional	Plate Compactors n/a - onroad n/a - onroad	1 2 6	8 MHDT LDT2	70	2	140	10	0.2845 g/hp-hr 3.1225 g/hr 1.4797 g/hr	
Headworks Channel Transition Subtotal													
24	Hinged Bottom Gates	3	EA	90 TN Truck-mounted Hydraulic Crane Haul Truck Oversize Transport Pickup Truck Conventional	Cranes n/a - onroad n/a - onroad	1 1 4	450 HHDT LDT2	0.2	1	0.2	15	0.0703 g/hp-hr 6.9998 g/hr 1.4797 g/hr	
Hinged Bottom Gates Subtotal													
15 - Floodway Control and Diversion Structures Total													
08 - Roads, Railroads, and Bridges													
25	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	3.1225 g/hr 0.0580 g/hp-hr 1.4797 g/hr 0.0000 g/hr	
Mobilization and Demobilization Subtotal													
26	Pedestrian Bridge Concrete Piles	320	LF	40 TN Truck-mounted Hydraulic Crane 100 FT Auger Track-mounted Drill Rig Concrete Pump Boom Truck Mounted Concrete Mixer Truck 0.8 CY Backhoe Loader 24 TN Truck End Dump Pickup Truck Conventional	Cranes Bore/Drill Rigs Pumps n/a - onroad Tractors/Loaders/Backhoes Off-Highway Trucks n/a - onroad	1 1 1 3 1 2 8	300 221 84 MHDT 97 314 LDT2	180	1	180	2	0.0703 g/hp-hr 0.0550 g/hp-hr 0.2640 g/hp-hr 3.1225 g/hr 0.0901 g/hp-hr 0.0710 g/hp-hr 1.4797 g/hr	
Pedestrian Bridge Concrete Piles Subtotal													
27	Pedestrian Bridge Concrete Abutments and Wingwalls	24	CY	Concrete Pump Boom Truck Mounted 2.5" Dia. Concrete Vibrator Concrete Mixer Truck Pickup Truck Conventional	Pumps Plate Compactors n/a - onroad n/a - onroad	1 1 2 7	84 8 MHDT LDT2	60	1	60	1	0.2640 g/hp-hr 0.2845 g/hp-hr 3.1225 g/hr 1.4797 g/hr	
Pedestrian Bridge Concrete Abutments and Wingwalls Subtotal													
28	Pedestrian Bridge Span Installation	1,040	SF	90 TN Truck-mounted Hydraulic Crane Flatbed Truck Pickup Truck Conventional	Cranes n/a - onroad n/a - onroad	1 2 5	450 MHDT LDT2	390	1	390	3	0.0703 g/hp-hr 3.1225 g/hr 1.4797 g/hr	
Pedestrian Bridge Span Installation Subtotal													
08 - Roads, Railroads, and Bridges Total													

Table K-91. ROG Exhaust Emissions from Offroad Con

#	Activity	Maximum Daily Emissions, lbs/day																			
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug	26-Aug
20	Sheet Pile Wall	--	--	--	--	--	--	--	0.06	0.06	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	0.21	0.21	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	0.16	0.16	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	0.43	0.43	--	--	--	--	--	--	--	--	--	--	
21	Headworks Structure Concrete Piles	--	--	--	--	--	--	--	0.37	0.37	0.37	0.37	0.37	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	0.21	0.21	0.21	0.21	0.21	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	0.39	0.39	0.39	0.39	0.39	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	0.17	0.17	0.17	0.17	0.17	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	0.15	0.15	0.15	0.15	0.15	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	0.79	0.79	0.79	0.79	0.79	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	0.21	0.21	0.21	0.21	0.21	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	2.29	2.29	2.29	2.29	2.29	--	--	--	--	--	--	--	
22	Headworks Structure	--	--	--	--	--	--	--	--	--	--	--	1.17	1.17	--	--	--	--	1.17	--	
		--	--	--	--	--	--	--	--	--	--	--	0.12	0.12	--	--	--	--	0.12	--	
		--	--	--	--	--	--	--	--	--	--	--	0.33	0.33	--	--	--	--	0.33	--	
		--	--	--	--	--	--	--	--	--	--	--	0.55	0.55	--	--	--	--	0.55	--	
		--	--	--	--	--	--	--	--	--	--	--	2.17	2.17	--	--	--	--	2.17	--	
23	Headworks Channel Transition	--	--	--	--	--	--	--	--	--	--	--	--	--	0.08	0.08	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.22	0.22	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.31	0.31	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.61	0.61	--	--	--	--	
24	Hinged Bottom Gates	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	0.18	0.43	0.43	0.43	4.41	3.19	3.19	2.76	2.76	4.93	2.64	0.47	1.08	1.08	0.47	2.64	0.47	0.47
08 - Roads, Railroads, and Bridges																					
25	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	--	--	--	0.06	--	--	--	0.06	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.10	--	--	--	0.10	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.03	--	--	--	0.03	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.18	--	--	--	0.18	--	
26	Pedestrian Bridge Concete Piles	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.21	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.39	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.17	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.15	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.79	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.21	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	2.29	--	--	--	--	--	
27	Pedestrian Bridge Concrete Abutments and Wingwalls	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.39	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.04	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.11	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.18	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.72	--	--	--	--	--	
28	Pedestrian Bridge Span Installation	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.56	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.11	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.13	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.80	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.18	2.29	0.72	0.80	0.18	--	

Table K-91. ROG Exhaust Emissions from Offroad Con

#	Activity									Annual Emissions, tpy
		2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
20	Sheet Pile Wall	--	--	--	--	--	--	--	--	0.0002
		--	--	--	--	--	--	--	--	0.0008
		--	--	--	--	--	--	--	--	0.0005
		--	--	--	--	--	--	--	--	0.0015
21	Headworks Structure Concrete Piles	--	--	--	--	--	--	--	--	0.0052
		--	--	--	--	--	--	--	--	0.0030
		--	--	--	--	--	--	--	--	0.0055
		--	--	--	--	--	--	--	--	0.0023
		--	--	--	--	--	--	--	--	0.0022
		--	--	--	--	--	--	--	--	0.0110
		--	--	--	--	--	--	--	0.0029	
		--	--	--	--	--	--	--	0.0321	
22	Headworks Structure	--	--	--	--	--	--	--	--	0.0106
		--	--	--	--	--	--	--	--	0.0011
		--	--	--	--	--	--	--	--	0.0030
		--	--	--	--	--	--	--	--	0.0049
		--	--	--	--	--	--	--	0.0196	
23	Headworks Channel Transition	--	--	--	--	--	--	--	--	0.0004
		--	--	--	--	--	--	--	--	0.0011
		--	--	--	--	--	--	--	--	0.0016
		--	--	--	--	--	--	--	0.0031	
24	Hinged Bottom Gates	--	0.56	0.56	0.56	0.56	--	--	--	0.0042
		--	0.12	0.12	0.12	0.12	--	--	--	0.0009
		--	0.10	0.10	0.10	0.10	--	--	--	0.0008
		--	0.79	0.79	0.79	0.79	--	--	0.0059	
		0.47	1.26	1.26	1.26	1.26	0.47	0.18	0.1021	
08 - Roads, Railroads, and Bridges										
25	Mobilization and Demobilization	--	--	--	--	--	--	--	--	0.0001
		--	--	--	--	--	--	--	--	0.0001
		--	--	--	--	--	--	--	--	0.0000
		--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	0.0002	
26	Pedestrian Bridge Concete Piles	--	--	--	--	--	--	--	--	0.0004
		--	--	--	--	--	--	--	--	0.0002
		--	--	--	--	--	--	--	--	0.0004
		--	--	--	--	--	--	--	--	0.0002
		--	--	--	--	--	--	--	--	0.0002
		--	--	--	--	--	--	--	--	0.0008
		--	--	--	--	--	--	--	0.0002	
		--	--	--	--	--	--	--	0.0023	
27	Pedestrian Bridge Concrete Abutments and Wingwalls	--	--	--	--	--	--	--	--	0.0002
		--	--	--	--	--	--	--	--	0.0000
		--	--	--	--	--	--	--	--	0.0001
		--	--	--	--	--	--	--	--	0.0001
		--	--	--	--	--	--	--	0.0004	
28	Pedestrian Bridge Span Installation	--	--	--	--	--	--	--	--	0.0008
		--	--	--	--	--	--	--	--	0.0002
		--	--	--	--	--	--	--	--	0.0002
		--	--	--	--	--	--	--	0.0012	
		--	--	--	--	--	--	--	0.0040	

Table K-91. ROG Exhaust Emissions from Offroad Construction Equipment (Alternative 1) - Unmitigated

#	Activity	Quantity	Unit	Crew / Equipment	OFFROAD Name	Equipment Quantity per Crew	Size (hp)	Crew Daily Output	No. of Crews	Total Daily Output	Estimated Duration, Days	Emission Factor	Units
19 - Buildings, Grounds, and Utilities													
29	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	3.1225 0.0580 1.4797 0.0000	g/hr g/hp-hr g/hr g/hr
												Mobilization and Demobilization Subtotal	
30	CMU Building and Earthwork Pad Construction	1	EA	165 HP Dozer Scraper Motor Grader Compactor 4000 gallon Water Truck 10 TN Smooth Roller Pickup Truck Conventional Concrete Pump Boom Truck Mounted 2.5" Dia. Concrete Vibrator Extended Boom Pallet Loader Concrete Mixer Truck	Rubber Tired Dozers Scrapers Graders Rollers n/a - onroad Rollers n/a - onroad Pumps Plate Compactors Rough Terrain Forklifts n/a - onroad	1 1 1 1 1 1 7 1 1 1 1	165 367 187 80 MHDT 157 LDT2 84 8 100 MHDT	-	1	1	30	0.2258 0.1193 0.1131 0.1096 3.1225 0.0598 1.4797 0.2640 0.2845 0.0580 3.1225	g/hp-hr g/hp-hr g/hp-hr g/hp-hr g/hr g/hp-hr g/hr g/hp-hr g/hp-hr g/hp-hr g/hp-hr g/hr
												CMU Building and Earthwork Pad Construction Subtotal	
31	Concrete Duct Banc	190	CY	Concrete Pump Boom Truck Mounted 2.5" Dia. Concrete Vibrator Concrete Mixer Truck Pickup Truck Conventional	Pumps Plate Compactors n/a - onroad n/a - onroad	1 1 2 7	84 8 MHDT LDT2	60	1	60	4	0.2640 0.2845 3.1225 1.4797	g/hp-hr g/hp-hr g/hr g/hr
												Concrete Duct Banc Subtotal	
												19 - Buildings, Grounds, and Utilities Total	
20 -Permanent Operating Equipment													
32	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	3.1225 0.0580 1.4797 0.0000	g/hr g/hp-hr g/hr g/hr
												Mobilization and Demobilization Subtotal	
33	Mechanical Hydraulic Cylinders & Housing	-	-	Extended Boom Pallet Loader Pickup Truck Conventional	Rough Terrain Forklifts n/a - onroad	1 3	100 LDT2	-	1	1	30	0.0580 1.4797	g/hp-hr g/hr
												Mechanical Hydraulic Cylinders & Housing Subtotal	
34	CMU Building Mechanical Equipment	-	-	Extended Boom Pallet Loader Pickup Truck Conventional	Rough Terrain Forklifts n/a - onroad	1 3	100 LDT2	-	1	1	30	0.0580 1.4797	g/hp-hr g/hr
												CMU Building Mechanical Equipment Subtotal	
35	Electrical Control Equipment CMU Building	-	-	Pickup Truck Conventional	n/a - onroad	3	LDT2	-	1	1	30	1.4797	g/hr
												Electrical Control Equipment CMU Building Subtotal	
36	Electrical Power Equipment CMU Building	-	-	Pickup Truck Conventional	n/a - onroad	3	LDT2	-	1	1	30	1.4797	g/hr
												Electrical Power Equipment CMU Building Subtotal	
37	Communication Equipment	-	-	Pickup Truck Conventional	n/a - onroad	3	LDT2	-	1	1	12	1.4797	g/hr
												Communication Equipment Subtotal	
												20 -Permanent Operating Equipment Total	
GRAND TOTAL													

Table K-91. ROG Exhaust Emissions from Offroad Con

#	Activity	Maximum Daily Emissions, lbs/day																			
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug	26-Aug
19 - Buildings, Grounds, and Utilities																					
29	Mobilization and Demobilization	0.06	--	--	--	--	--	0.06	--	--	--	--	--	--	--	--	--	--	--	--	--
		0.10	--	--	--	--	--	0.10	--	--	--	--	--	--	--	--	--	--	--	--	--
		0.03	--	--	--	--	--	0.03	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		0.18	--	--	--	--	--	0.18	--	--	--	--	--	--	--	--	--	--	--	--	--
30	CMU Building and Earthwork Pad Construction	--	0.66	0.66	0.66	0.66	0.66	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	0.77	0.77	0.77	0.77	0.77	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	0.37	0.37	0.37	0.37	0.37	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	0.15	0.15	0.15	0.15	0.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	0.06	0.06	0.06	0.06	0.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	0.17	0.17	0.17	0.17	0.17	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	0.18	0.18	0.18	0.18	0.18	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	0.39	0.39	0.39	0.39	0.39	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	0.04	0.04	0.04	0.04	0.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	0.10	0.10	0.10	0.10	0.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	0.06	0.06	0.06	0.06	0.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	2.95	2.95	2.95	2.95	2.95	--	--	--	--	--	--	--	--	--	--	--	--	--	--
31	Concrete Duct Banc	--	--	--	--	0.39	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	0.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	0.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	0.18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	0.72	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		0.18	2.95	2.95	2.95	3.67	2.95	0.18	--	--	--	--	--	--	--	--	--	--	--	--	--
20 -Permanent Operating Equipment																					
32	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
33	Mechanical Hydraulic Cylinders & Housing	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
34	CMU Building Mechanical Equipment	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
35	Electrical Control Equipment CMU Building	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
36	Electrical Power Equipment CMU Building	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
37	Communication Equipment	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GRAND TOTAL		0.66	26.47	26.65	25.82	8.99	9.41	14.56	12.19	14.11	13.68	8.80	9.05	10.46	12.38	15.11	13.54	9.09	10.65	0.65	0.47

Table K-91. ROG Exhaust Emissions from Offroad Con

#	Activity									Annual Emissions, tpy
		2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
19 - Buildings, Grounds, and Utilities										
29	Mobilization and Demobilization	--	--	--	--	--	--	--	--	0.0001
		--	--	--	--	--	--	--	--	0.0001
		--	--	--	--	--	--	--	--	0.0000
		--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	0.0002
30	CMU Building and Earthwork Pad Construction	--	--	--	--	--	--	--	--	0.0099
		--	--	--	--	--	--	--	--	0.0116
		--	--	--	--	--	--	--	--	0.0056
		--	--	--	--	--	--	--	--	0.0023
		--	--	--	--	--	--	--	--	0.0008
		--	--	--	--	--	--	--	--	0.0025
		--	--	--	--	--	--	--	--	0.0027
		--	--	--	--	--	--	--	--	0.0059
		--	--	--	--	--	--	--	--	0.0006
		--	--	--	--	--	--	--	--	0.0015
		--	--	--	--	--	--	--	--	0.0008
		--	--	--	--	--	--	--	--	0.0442
31	Concrete Duct Banc	--	--	--	--	--	--	--	--	0.0008
		--	--	--	--	--	--	--	--	0.0001
		--	--	--	--	--	--	--	--	0.0002
		--	--	--	--	--	--	--	--	0.0004
		--	--	--	--	--	--	--	--	0.0014
		--	--	--	--	--	--	--	--	0.0459
20 -Permanent Operating Equipment										
32	Mobilization and Demobilization	0.06	--	--	--	--	--	0.06	--	0.0001
		0.10	--	--	--	--	--	0.10	--	0.0001
		0.03	--	--	--	--	--	0.03	--	0.0000
		--	--	--	--	--	--	--	--	--
		0.18	--	--	--	--	--	0.18	--	0.0002
33	Mechanical Hydraulic Cylinders & Housing	--	0.10	0.10	0.10	0.10	0.10	--	--	0.0015
		--	0.08	0.08	0.08	0.08	0.08	--	--	0.0012
		--	0.18	0.18	0.18	0.18	0.18	--	--	0.0027
34	CMU Building Mechanical Equipment	--	0.10	0.10	0.10	0.10	0.10	--	--	0.0015
		--	0.08	0.08	0.08	0.08	0.08	--	--	0.0012
		--	0.18	0.18	0.18	0.18	0.18	--	--	0.0027
35	Electrical Control Equipment CMU Building	--	0.08	0.08	0.08	0.08	0.08	--	--	0.0012
		--	0.08	0.08	0.08	0.08	0.08	--	--	0.0012
36	Electrical Power Equipment CMU Building	--	0.08	0.08	0.08	0.08	0.08	--	--	0.0012
		--	0.08	0.08	0.08	0.08	0.08	--	--	0.0012
37	Communication Equipment	--	--	--	--	0.08	0.08	--	--	0.0005
		--	--	--	--	0.08	0.08	--	--	0.0005
		0.18	0.52	0.52	0.52	0.60	0.60	0.18	--	0.0084
GRAND TOTAL		0.65	2.03	2.03	2.03	1.85	1.07	1.44	0.18	0.6648

Table K-92. NOx Exhaust Emissions from Offroad Construction Equipment (Alternative 1) - Unmitigated

#	Activity	Quantity	Unit	Crew / Equipment	OFFROAD Name	Equipment Quantity per Crew	Size (hp)	Crew Daily Output	No. of Crews	Total Daily Output	Estimated Duration, Days	Emission Factor	Units	15-Apr
02 - Relocations														
1	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	73.7154 0.9187 1.6515 0.0000	g/hr g/hp-hr g/hr g/hr	1.30 1.62 0.03 --
Mobilization and Demobilization Subtotal														2.95
2	Fremont Weir Demo	450	CY	3.5 CY Hydraulic Excavator 3.5 CY Front End Loader Wheel 0.8 CY Loader/Backhoe, Wheel 4000 gallon Water Truck 16 CY 3 Axle Dump Truck Pickup Truck Conventional	Excavators Rubber Tired Loaders Tractors/Loaders/Backhoes n/a - onroad n/a - onroad n/a - onroad	1 1 1 1 1 6	359 164 97 MHDT HHDT LDT2	40	1	40	12	0.5086 1.1284 1.1037 73.7154 155.9699 1.6515	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr g/hr	-- -- -- -- -- --
Fremont Weir Demo Subtotal														--
3	Levee O&M Road Regrading (6" AB)	119,000	SF	12' Blade Grader 4000 gallon Water Truck Pickup Truck Conventional 16 CY 3 Axle Dump Truck	Graders n/a - onroad n/a - onroad n/a - onroad	1 1 1 5	187 MHDT LDT2 HHDT	39,400	1	39,400	4	1.7907 73.7154 1.6515 155.9699	g/hp-hr g/hr g/hr g/hr	-- -- -- --
Levee O&M Road Regrading (6" AB) Subtotal														--
4	Temporary Electrical Power	100	LF	Flatbed Truck Pickup Truck Conventional	n/a - onroad n/a - onroad	1 2	MHDT LDT2	1,500	1	1,500	1	73.7154 1.6515	g/hr g/hr	1.30 0.06
Temporary Electrical Power Subtotal														1.36
02 - Relocations Total														4.31
09 - Channels and Canals														
5	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	73.7154 0.9187 1.6515 0.0000	g/hr g/hp-hr g/hr g/hr	1.30 1.62 0.03 --
Mobilization and Demobilization Subtotal														2.95
6	Clearing and Grubbing	61	ACR	1.5 CY Front End Loader Crawler Trailer Mounted Brush Chipper Chainsaw 4000 gallon Water Truck Pickup Truck Conventional 16 CY 3 Axle Dump Truck	Crawler Tractors Shredders Chainsaws n/a - onroad n/a - onroad n/a - onroad	1 1 1 1 6 1	110 140 8 MHDT LDT2 HHDT	2	2	4	16	2.4260 0.7727 1.2873 73.7154 1.6515 155.9699	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr g/hr	-- -- -- -- -- --
Clearing and Grubbing Subtotal														--
7	Excavation (Wet Conditions)	61,810	CY	4.5 CY Hydraulic Excavator 300 HP Dozer 3.5 CY Front End Loader Wheel 16 CY 3 Axle Dump Truck Pickup Truck Conventional	Excavators Rubber Tired Dozers Rubber Tired Loaders n/a - onroad n/a - onroad	1 2 2 9 7	429 300 164 HHDT LDT2	1,800	1	1,800	35	0.5086 2.0086 1.1284 155.9699 1.6515	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr	-- -- -- -- --
Excavation (Wet Conditions) Subtotal														--
8	Excavation/Grading (Dry Conditions)	118,960	CY	300 HP Dozer 21 CY Scrapers 12' Blade Grader 4000 gallon Water Truck Pickup Truck Conventional	Rubber Tired Dozers Scrapers Graders n/a - onroad n/a - onroad	1 4 1 1 7	300 407 187 MHDT LDT2	3,500	1	3,500	34	2.0086 1.6618 1.7907 73.7154 1.6515	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr	-- -- -- -- --
Excavation/Grading (Dry Conditions) Subtotal														--
9	Earthen Backfill	8,950	CY	300 HP Dozer 4000 gallon Water Truck 10 TN Smooth Roller Pickup Truck Conventional	Rubber Tired Dozers n/a - onroad Rollers n/a - onroad	1 1 1 3	300 MHDT 157 LDT2	1,000	1	1,000	9	2.0086 73.7154 0.7943 1.6515	g/hp-hr g/hr g/hp-hr g/hr	-- -- -- --
Earthen Backfill Subtotal														--

Table K-92. NOx Exhaust Emissions from Offroad (

#	Activity	Maximum Daily Emissions, lbs/day																		
		22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug	26-Aug
02 - Relocations																				
1	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		3.22	3.22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		3.26	3.26	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		1.89	1.89	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		1.30	1.30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		2.75	2.75	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		0.17	0.17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12.60	12.60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3	Levee O&M Road Regrading (6" AB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12.60	12.60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
09 - Channels and Canals																				
5	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.30	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.62	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.03	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		9.41	9.41	9.41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		3.82	3.82	3.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		0.36	0.36	0.36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		2.60	2.60	2.60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		0.35	0.35	0.35	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		5.50	5.50	5.50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		22.04	22.04	22.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7	Excavation (Wet Conditions)	--	--	--	--	--	3.85	3.85	3.85	3.85	3.85	3.85	--	--	--	--	--	--	--	--
		--	--	--	--	--	21.25	21.25	21.25	21.25	21.25	21.25	--	--	--	--	--	--	--	--
		--	--	--	--	--	6.53	6.53	6.53	6.53	6.53	6.53	--	--	--	--	--	--	--	--
		--	--	--	--	--	24.76	24.76	24.76	24.76	24.76	24.76	--	--	--	--	--	--	--	--
		--	--	--	--	--	0.20	0.20	0.20	0.20	0.20	0.20	--	--	--	--	--	--	--	--
		--	--	--	--	--	56.59	56.59	56.59	56.59	56.59	56.59	--	--	--	--	--	--	--	--
8	Excavation/Grading (Dry Conditions)	--	--	--	10.63	10.63	10.63	10.63	10.63	10.63	--	--	--	--	--	--	--	--	--	--
		--	--	--	47.71	47.71	47.71	47.71	47.71	47.71	--	--	--	--	--	--	--	--	--	--
		--	--	--	5.91	5.91	5.91	5.91	5.91	5.91	--	--	--	--	--	--	--	--	--	--
		--	--	--	1.30	1.30	1.30	1.30	1.30	1.30	--	--	--	--	--	--	--	--	--	--
		--	--	--	0.20	0.20	0.20	0.20	0.20	0.20	--	--	--	--	--	--	--	--	--	--
		--	--	--	65.75	65.75	65.75	65.75	65.75	65.75	--	--	--	--	--	--	--	--	--	--
9	Earthen Backfill	--	--	--	--	10.63	10.63	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	1.30	1.30	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	2.20	2.20	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	0.09	0.09	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	14.21	14.21	--	--	--	--	--	--	--	--	--	--	--	--	--

Table K-92. NOx Exhaust Emissions from Offroad (

#	Activity								Annual Emissions, tpy	
		9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct		
02 - Relocations										
1	Mobilization and Demobilization	--	--	--	--	--	--	1.30	0.0013	
		--	--	--	--	--	--	1.62	0.0016	
		--	--	--	--	--	--	0.03	0.0000	
		--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	2.95	0.0029	
2	Fremont Weir Demo	--	--	--	--	--	--	--	0.0193	
		--	--	--	--	--	--	--	0.0196	
		--	--	--	--	--	--	--	0.0113	
		--	--	--	--	--	--	--	0.0078	
		--	--	--	--	--	--	--	0.0165	
		--	--	--	--	--	--	0.0010	0.0756	
3	Levee O&M Road Regrading (6" AB)	--	--	--	--	--	5.91	--	0.0118	
		--	--	--	--	--	1.30	--	0.0026	
		--	--	--	--	--	0.03	--	0.0001	
		--	--	--	--	--	13.75	--	0.0275	
		--	--	--	--	--	20.99	--	0.0420	
4	Temporary Electrical Power	--	--	--	--	--	--	--	0.0007	
		--	--	--	--	--	--	--	0.0000	
		--	--	--	--	--	--	--	0.0007	
		--	--	--	--	--	20.99	2.95	0.1212	
09 - Channels and Canals										
5	Mobilization and Demobilization	--	--	--	--	--	--	--	0.0013	
		--	--	--	--	--	--	--	0.0016	
		--	--	--	--	--	--	--	0.0000	
		--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	0.0029	
6	Clearing and Grubbing	--	--	--	--	--	--	--	0.0753	
		--	--	--	--	--	--	--	0.0305	
		--	--	--	--	--	--	--	0.0029	
		--	--	--	--	--	--	--	0.0208	
		--	--	--	--	--	--	--	0.0028	
		--	--	--	--	--	--	0.0440	0.1763	
7	Excavation (Wet Conditions)	--	--	--	--	--	--	--	0.0673	
		--	--	--	--	--	--	--	0.3720	
		--	--	--	--	--	--	--	0.1142	
		--	--	--	--	--	--	--	0.4332	
		--	--	--	--	--	--	--	0.0036	
		--	--	--	--	--	--	--	0.9904	
8	Excavation/Grading (Dry Conditions)	--	--	--	--	--	--	--	0.1807	
		--	--	--	--	--	--	--	0.8111	
		--	--	--	--	--	--	--	0.1004	
		--	--	--	--	--	--	--	0.0221	
		--	--	--	--	--	--	--	0.0035	1.1178
9	Earthen Backfill	--	--	--	--	--	--	--	0.0478	
		--	--	--	--	--	--	--	0.0059	
		--	--	--	--	--	--	--	0.0099	
		--	--	--	--	--	--	--	0.0004	
		--	--	--	--	--	--	--	0.0640	

Table K-92. NOx Exhaust Emissions from Offroad Construction Equipment (Alternative 1) - Unmitigated

#	Activity	Quantity	Unit	Crew / Equipment	OFFROAD Name	Equipment Quantity per Crew	Size (hp)	Crew Daily Output	No. of Crews	Total Daily Output	Estimated Duration, Days	Emission Factor	Units	15-Apr
10	Riprap - Class 2	24,940	TN	2.5 CY Hydraulic Excavator 300 HP Dozer Crawler 16 CY 3 Axle Dump Truck Pickup Truck Conventional	Excavators Crawler Tractors n/a - onroad n/a - onroad	2 1 23 5	257 300 HHDT LDT2	1,000	1	1,000	25	0.5086 1.4049 155.9699 1.6515	g/hp-hr g/hp-hr g/hr g/hr	--
Riprap - Class 2 Subtotal														--
11	Riprap - Class 3	9,420	TN	2.5 CY Hydraulic Excavator 300 HP Dozer Crawler 16 CY 3 Axle Dump Truck Pickup Truck Conventional	Excavators Crawler Tractors n/a - onroad n/a - onroad	2 1 23 5	257 300 HHDT LDT2	1,000	1	1,000	10	0.5086 1.4049 155.9699 1.6515	g/hp-hr g/hp-hr g/hr g/hr	--
Riprap - Class 3 Subtotal														--
12	RSP Bedding Material	36,150	TN	2.5 CY Hydraulic Excavator 300 HP Dozer Crawler Pickup Truck Conventional 16 CY 3 Axle Dump Truck	Excavators Crawler Tractors n/a - onroad n/a - onroad	2 1 5 23	257 300 LDT2 HHDT	1,000	2	2,000	19	0.5086 1.4049 1.6515 155.9699	g/hp-hr g/hp-hr g/hr g/hr	--
RSP Bedding Material Subtotal														--
13	Erosion Control Seeding	31	ACR	0.8 CY Front End Loader Wheel Pickup Truck Conventional	Tractors/Loaders/Backhoes n/a - onroad	1 4	97 LDT2	2	1	2	16	1.1037 1.6515	g/hp-hr g/hr	--
Erosion Control Seeding Subtotal														--
09 - Channels and Canals Total														2.95
11 - Levees and Floodwalls														
14	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	73.7154 0.9187 1.6515 0.0000	g/hr g/hp-hr g/hr g/hr	--
Mobilization and Demobilization Subtotal														--
15	Soil Cement Bentonite Cutoff Wall	84,480	SF	4.5 CY Hydraulic Excavator 300 HP Dozer 2.5 CY Hydraulic Excavator 16 CY 3 Axle Dump Truck Flash Mixer Slurry Pump Pickup Truck Conventional	Excavators Rubber Tired Dozers Excavators n/a - onroad Cement and Mortar Mixers Pumps n/a - onroad	1 1 1 1 1 1 5	429 300 257 HHDT 9 84 LDT2	7,000	1	7,000	13	0.5086 2.0086 0.5086 155.9699 2.3200 2.2288 1.6515	g/hp-hr g/hp-hr g/hp-hr g/hr g/hp-hr g/hp-hr g/hr	--
Soil Cement Bentonite Cutoff Wall Subtotal														--
11 - Levees and Floodwalls Total														--
15 - Floodway Control and Diversion Structures														
16	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	73.7154 0.9187 1.6515 0.0000	g/hr g/hp-hr g/hr g/hr	--
Mobilization and Demobilization Subtotal														--
17	Construction Site Dewatering (Temporary Cofferdam)	21,000	SF	Flatbed Truck 75 TN Crane Crawler Pile Hammer Pickup Truck Conventional	n/a - onroad Bore/Drill Rigs n/a - onroad	1 1 6	MHDT 221 LDT2	1,200	1	1,200	18	73.7154 0.7794 1.6515	g/hr g/hp-hr g/hr	--
Construction Site Dewatering (Temporary Cofferdam) Subtotal														--
18	Construction Site Dewatering (Pumping)	-	-	6" Dia. Pump Engine Drive Pickup Truck Conventional	Pumps n/a - onroad	1 3	84 LDT2	-	1	1	120	2.2288 1.6515	g/hp-hr g/hr	--
Construction Site Dewatering (Pumping) Subtotal														--
19	Excavation (Wet Conditions)	6,130	CY	4.5 CY Hydraulic Excavator 300 HP Dozer 3.5 CY Front End Loader Wheel 16 CY 3 Axle Dump Truck Pickup Truck Conventional	Excavators Rubber Tired Dozers Rubber Tired Loaders n/a - onroad n/a - onroad	1 2 2 9 7	429 300 164 HHDT LDT2	1,800	1	1,800	4	0.5086 2.0086 1.1284 155.9699 1.6515	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr	--
Excavation (Wet Conditions) Subtotal														--

Table K-92. NOx Exhaust Emissions from Offroad (

#	Activity	Maximum Daily Emissions, lbs/day																			
		22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug	26-Aug	2-Sep
10	Riprap - Class 2	--	--	--	--	--	--	--	--	--	--	--	--	4.61	4.61	4.61	4.61	4.61	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	7.43	7.43	7.43	7.43	7.43	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	63.27	63.27	63.27	63.27	63.27	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	0.15	0.15	0.15	0.15	0.15	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	75.46	75.46	75.46	75.46	75.46	--	--	
11	Riprap - Class 3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.61	4.61	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.43	7.43	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	63.27	63.27	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.15	0.15	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	75.46	75.46	--	--	
12	RSP Bedding Material	--	--	--	--	--	--	--	--	--	--	--	9.22	9.22	9.22	9.22	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	14.87	14.87	14.87	14.87	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	0.29	0.29	0.29	0.29	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	126.54	126.54	126.54	126.54	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	150.92	150.92	150.92	150.92	--	--	--	--	
13	Erosion Control Seeding	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		22.04	22.04	22.04	65.75	79.97	136.56	122.34	122.34	122.34	56.59	56.59	150.92	226.37	226.37	226.37	150.92	150.92	2.95	--	
11 - Levees and Floodwalls																					
14	Mobilization and Demobilization	--	--	--	--	--	--	1.30	--	--	--	1.30	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	1.62	--	--	--	1.62	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	0.03	--	--	--	0.03	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	2.95	--	--	--	2.95	--	--	--	--	--	--	--	--	
15	Soil Cement Bentonite Cutoff Wall	--	--	--	--	--	--	--	3.85	3.85	3.85	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	10.63	10.63	10.63	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	2.31	2.31	2.31	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	2.75	2.75	2.75	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	0.37	0.37	0.37	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	3.30	3.30	3.30	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	0.15	0.15	0.15	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	23.35	23.35	23.35	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	2.95	23.35	23.35	23.35	2.95	--	--	--	--	--	--	--	--	
15 - Floodway Control and Diversion Structures																					
16	Mobilization and Demobilization	--	1.30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	1.62	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	2.95	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
17	Construction Site Dewatering (Temporary Cofferdam)	--	--	1.30	1.30	1.30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	3.04	3.04	3.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	0.17	0.17	0.17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	4.51	4.51	4.51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
18	Construction Site Dewatering (Pumping)	--	--	--	--	--	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	
		--	--	--	--	--	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	
		--	--	--	--	--	3.39	3.39	3.39	3.39	3.39	3.39	3.39	3.39	3.39	3.39	3.39	3.39	3.39	3.39	
19	Excavation (Wet Conditions)	--	--	--	--	--	3.85	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	21.25	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	6.53	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	24.76	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	0.20	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	56.59	--	--	--	--	--	--	--	--	--	--	--	--	--	

Table K-92. NOx Exhaust Emissions from Offroad (

#	Activity	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	Annual Emissions, tpy
10	Riprap - Class 2	--	--	--	--	--	--	--	0.0576
		--	--	--	--	--	--	--	0.0929
		--	--	--	--	--	--	--	0.7909
		--	--	--	--	--	--	--	0.0018
		--	--	--	--	--	--	--	0.9432
11	Riprap - Class 3	--	--	--	--	--	--	--	0.0231
		--	--	--	--	--	--	--	0.0372
		--	--	--	--	--	--	--	0.3163
		--	--	--	--	--	--	--	0.0007
		--	--	--	--	--	--	--	0.3773
12	RSP Bedding Material	--	--	--	--	--	--	--	0.0876
		--	--	--	--	--	--	--	0.1412
		--	--	--	--	--	--	--	0.0028
		--	--	--	--	--	--	--	1.2021
		--	--	--	--	--	--	--	1.4337
13	Erosion Control Seeding	1.89	1.89	1.89	--	--	--	--	0.0151
		0.12	0.12	0.12	--	--	--	--	0.0009
		2.00	2.00	2.00	--	--	--	--	0.0160
		2.00	2.00	2.00	--	--	--	--	5.1216
11 - Levees and Floodwalls									
14	Mobilization and Demobilization	--	--	--	--	--	--	--	0.0013
		--	--	--	--	--	--	--	0.0016
		--	--	--	--	--	--	--	0.0000
		--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	0.0029
15	Soil Cement Bentonite Cutoff Wall	--	--	--	--	--	--	--	0.0250
		--	--	--	--	--	--	--	0.0691
		--	--	--	--	--	--	--	0.0150
		--	--	--	--	--	--	--	0.0179
		--	--	--	--	--	--	--	0.0024
		--	--	--	--	--	--	--	0.0215
		--	--	--	--	--	--	--	0.0009
		--	--	--	--	--	--	0.1518	
		--	--	--	--	--	--	--	0.1547
15 - Floodway Control and Diversion Structures									
16	Mobilization and Demobilization	--	--	--	--	--	1.30	--	0.0013
		--	--	--	--	--	1.62	--	0.0016
		--	--	--	--	--	0.03	--	0.0000
		--	--	--	--	--	--	--	--
		--	--	--	--	--	2.95	--	0.0029
17	Construction Site Dewatering (Temporary Cofferdam)	--	--	--	--	--	--	--	0.0117
		--	--	--	--	--	--	--	0.0273
		--	--	--	--	--	--	--	0.0016
		--	--	--	--	--	--	--	0.0406
18	Construction Site Dewatering (Pumping)	3.30	3.30	3.30	3.30	3.30	--	--	0.1981
		0.09	0.09	0.09	0.09	0.09	--	--	0.0052
		3.39	3.39	3.39	3.39	3.39	--	--	0.2034
19	Excavation (Wet Conditions)	--	--	--	--	--	--	--	0.0077
		--	--	--	--	--	--	--	0.0425
		--	--	--	--	--	--	--	0.0131
		--	--	--	--	--	--	--	0.0495
		--	--	--	--	--	--	--	0.0004
		--	--	--	--	--	--	--	0.1132

Table K-92. NOx Exhaust Emissions from Offroad Construction Equipment (Alternative 1) - Unmitigated

#	Activity	Quantity	Unit	Crew / Equipment	OFFROAD Name	Equipment Quantity per Crew	Size (hp)	Crew Daily Output	No. of Crews	Total Daily Output	Estimated Duration, Days	Emission Factor	Units	15-Apr
20	Sheet Pile Wall	7,790	SF	Flatbed Truck 75 TN Crane Crawler Pile Hammer Pickup Truck Conventional	n/a - onroad Bore/Drill Rigs n/a - onroad	1 1 6	MHDT 221 LDT2	1,200	1	1,200	7	73.7154 0.7794 1.6515	g/hr g/hp-hr g/hr	--
Sheet Pile Wall Subtotal														--
21	Headworks Structure Concrete Piles	5,040	LF	40 TN Truck-mounted Hydraulic Crane 100 FT Auger Track-mounted Drill Rig Concrete Pump Boom Truck Mounted Concrete Mixer Truck 0.8 CY Backhoe Loader 24 TN Truck End Dump Pickup Truck Conventional	Cranes Bore/Drill Rigs Pumps n/a - onroad Tractors/Loaders/Backhoes Off-Highway Trucks n/a - onroad	1 1 1 3 1 2 8	300 221 84 MHDT 97 314 LDT2	180	1	180	28	0.9918 0.7794 2.2288 73.7154 1.1037 0.7461 1.6515	g/hp-hr g/hp-hr g/hp-hr g/hr g/hp-hr g/hp-hr g/hr	--
Headworks Structure Concrete Piles Subtotal														--
22	Headworks Structure	3,080	CY	Concrete Pump Boom Truck Mounted 2.5" Dia. Concrete Vibrator Concrete Mixer Truck Pickup Truck Conventional	Pumps Plate Compactors n/a - onroad n/a - onroad	1 1 2 7	84 8 MHDT LDT2	60	3	180	18	2.2288 1.7814 73.7154 1.6515	g/hp-hr g/hp-hr g/hr g/hr	--
Headworks Structure Subtotal														--
23	Headworks Channel Transition	1,330	CY	2.5" Dia. Concrete Vibrator Concrete Mixer Truck Pickup Truck Conventional	Plate Compactors n/a - onroad n/a - onroad	1 2 6	8 MHDT LDT2	70	2	140	10	1.7814 73.7154 1.6515	g/hp-hr g/hr g/hr	--
Headworks Channel Transition Subtotal														--
24	Hinged Bottom Gates	3	EA	90 TN Truck-mounted Hydraulic Crane Haul Truck Oversize Transport Pickup Truck Conventional	Cranes n/a - onroad n/a - onroad	1 1 4	450 HHDT LDT2	0.2	1	0.2	15	0.9918 155.9699 1.6515	g/hp-hr g/hr g/hr	--
Hinged Bottom Gates Subtotal														--
15 - Floodway Control and Diversion Structures Total														--
08 - Roads, Railroads, and Bridges														
25	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	73.7154 0.9187 1.6515 0.0000	g/hr g/hp-hr g/hr g/hr	--
Mobilization and Demobilization Subtotal														--
26	Pedestrian Bridge Concrete Piles	320	LF	40 TN Truck-mounted Hydraulic Crane 100 FT Auger Track-mounted Drill Rig Concrete Pump Boom Truck Mounted Concrete Mixer Truck 0.8 CY Backhoe Loader 24 TN Truck End Dump Pickup Truck Conventional	Cranes Bore/Drill Rigs Pumps n/a - onroad Tractors/Loaders/Backhoes Off-Highway Trucks n/a - onroad	1 1 1 3 1 2 8	300 221 84 MHDT 97 314 LDT2	180	1	180	2	0.9918 0.7794 2.2288 73.7154 1.1037 0.7461 1.6515	g/hp-hr g/hp-hr g/hp-hr g/hr g/hp-hr g/hp-hr g/hr	--
Pedestrian Bridge Concrete Piles Subtotal														--
27	Pedestrian Bridge Concrete Abutments and Wingwalls	24	CY	Concrete Pump Boom Truck Mounted 2.5" Dia. Concrete Vibrator Concrete Mixer Truck Pickup Truck Conventional	Pumps Plate Compactors n/a - onroad n/a - onroad	1 1 2 7	84 8 MHDT LDT2	60	1	60	1	2.2288 1.7814 73.7154 1.6515	g/hp-hr g/hp-hr g/hr g/hr	--
Pedestrian Bridge Concrete Abutments and Wingwalls Subtotal														--
28	Pedestrian Bridge Span Installation	1,040	SF	90 TN Truck-mounted Hydraulic Crane Flatbed Truck Pickup Truck Conventional	Cranes n/a - onroad n/a - onroad	1 2 5	450 MHDT LDT2	390	1	390	3	0.9918 73.7154 1.6515	g/hp-hr g/hr g/hr	--
Pedestrian Bridge Span Installation Subtotal														--
08 - Roads, Railroads, and Bridges Total														--

Table K-92. NOx Exhaust Emissions from Offroad (

#	Activity	Maximum Daily Emissions, lbs/day																			
		22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug	26-Aug	2-Sep
20	Sheet Pile Wall	--	--	--	--	--	--	1.30	1.30	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	3.04	3.04	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	0.17	0.17	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	4.51	4.51	--	--	--	--	--	--	--	--	--	--	--	--
21	Headworks Structure Concrete Piles	--	--	--	--	--	--	5.25	5.25	5.25	5.25	5.25	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	3.04	3.04	3.04	3.04	3.04	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	3.30	3.30	3.30	3.30	3.30	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	3.90	3.90	3.90	3.90	3.90	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	1.89	1.89	1.89	1.89	1.89	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	8.26	8.26	8.26	8.26	8.26	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	0.23	0.23	0.23	0.23	0.23	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	25.87	25.87	25.87	25.87	25.87	--	--	--	--	--	--	--	--	--
22	Headworks Structure	--	--	--	--	--	--	--	--	--	--	9.91	9.91	--	--	--	--	9.91	--	--	--
		--	--	--	--	--	--	--	--	--	--	0.75	0.75	--	--	--	--	0.75	--	--	--
		--	--	--	--	--	--	--	--	--	--	7.80	7.80	--	--	--	--	7.80	--	--	--
		--	--	--	--	--	--	--	--	--	--	0.61	0.61	--	--	--	--	0.61	--	--	--
		--	--	--	--	--	--	--	--	--	--	19.07	19.07	--	--	--	--	19.07	--	--	--
23	Headworks Channel Transition	--	--	--	--	--	--	--	--	--	--	--	--	0.50	0.50	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	5.20	5.20	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	0.35	0.35	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	6.05	6.05	--	--	--	--	--	--
24	Hinged Bottom Gates	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	2.95	4.51	4.51	4.51	59.98	33.77	33.77	29.26	29.26	48.33	22.46	3.39	9.44	9.44	3.39	22.46	3.39	3.39	3.39
08 - Roads, Railroads, and Bridges																					
25	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	--	--	1.30	--	--	--	1.30	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	1.62	--	--	--	1.62	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	0.03	--	--	--	0.03	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	2.95	--	--	--	2.95	--	--	--
26	Pedestrian Bridge Concrete Piles	--	--	--	--	--	--	--	--	--	--	--	--	5.25	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	3.04	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	3.30	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	3.90	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	1.89	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	8.26	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	0.23	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	25.87	--	--	--	--	--	--	--
27	Pedestrian Bridge Concrete Abutments and Wingwalls	--	--	--	--	--	--	--	--	--	--	--	--	--	3.30	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	0.25	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	2.60	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	0.20	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	6.36	--	--	--	--	--	--	--
28	Pedestrian Bridge Span Installation	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.87	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	2.60	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	0.15	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	10.62	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	2.95	25.87	6.36	10.62	2.95	--	--	--	--

Table K-92. NOx Exhaust Emissions from Offroad (

#	Activity								Annual Emissions, tpy
		9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
20	Sheet Pile Wall	--	--	--	--	--	--	--	0.0046
		--	--	--	--	--	--	--	0.0106
		--	--	--	--	--	--	--	0.0006
		--	--	--	--	--	--	--	0.0158
21	Headworks Structure Concrete Piles	--	--	--	--	--	--	--	0.0735
		--	--	--	--	--	--	--	0.0425
		--	--	--	--	--	--	--	0.0462
		--	--	--	--	--	--	--	0.0546
		--	--	--	--	--	--	--	0.0264
		--	--	--	--	--	--	--	0.1157
		--	--	--	--	--	--	--	0.0033
		--	--	--	--	--	--	--	0.3622
22	Headworks Structure	--	--	--	--	--	--	--	0.0892
		--	--	--	--	--	--	--	0.0068
		--	--	--	--	--	--	--	0.0702
		--	--	--	--	--	--	--	0.0055
		--	--	--	--	--	--	--	0.1716
23	Headworks Channel Transition	--	--	--	--	--	--	--	0.0025
		--	--	--	--	--	--	--	0.0260
		--	--	--	--	--	--	--	0.0017
		--	--	--	--	--	--	--	0.0303
24	Hinged Bottom Gates	7.87	7.87	7.87	7.87	--	--	--	0.0590
		2.75	2.75	2.75	2.75	--	--	--	0.0206
		0.12	0.12	0.12	0.12	--	--	--	0.0009
		10.74	10.74	10.74	10.74	--	--	--	0.0805
		14.13	14.13	14.13	14.13	3.39	2.95	--	1.0206
08 - Roads, Railroads, and Bridges									
25	Mobilization and Demobilization	--	--	--	--	--	--	--	0.0013
		--	--	--	--	--	--	--	0.0016
		--	--	--	--	--	--	--	0.0000
		--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	0.0029
26	Pedestrian Bridge Concrete Piles	--	--	--	--	--	--	--	0.0052
		--	--	--	--	--	--	--	0.0030
		--	--	--	--	--	--	--	0.0033
		--	--	--	--	--	--	--	0.0039
		--	--	--	--	--	--	--	0.0019
		--	--	--	--	--	--	--	0.0083
		--	--	--	--	--	--	--	0.0002
		--	--	--	--	--	--	--	0.0259
27	Pedestrian Bridge Concrete Abutments and Wingwalls	--	--	--	--	--	--	--	0.0017
		--	--	--	--	--	--	--	0.0001
		--	--	--	--	--	--	--	0.0013
		--	--	--	--	--	--	--	0.0001
		--	--	--	--	--	--	--	0.0032
28	Pedestrian Bridge Span Installation	--	--	--	--	--	--	--	0.0118
		--	--	--	--	--	--	--	0.0039
		--	--	--	--	--	--	--	0.0002
		--	--	--	--	--	--	--	0.0159
		--	--	--	--	--	--	--	0.0479

Table K-92. NOx Exhaust Emissions from Offroad Construction Equipment (Alternative 1) - Unmitigated

#	Activity	Quantity	Unit	Crew / Equipment	OFFROAD Name	Equipment Quantity per Crew	Size (hp)	Crew Daily Output	No. of Crews	Total Daily Output	Estimated Duration, Days	Emission Factor	Units	15-Apr
19 - Buildings, Grounds, and Utilities														
29	Mobilization and Demobilization	-	-	Flatbed Truck	n/a - onroad	1	MHDT	-	1	1	2	73.7154	g/hr	1.30
				Extended Boom Pallet Loader	Rough Terrain Forklifts	1	100	-				0.9187	g/hp-hr	1.62
				Pickup Truck Conventional	n/a - onroad	1	LDT2	-				1.6515	g/hr	0.03
				Temp. Mobile Office Building	n/a - onroad	1	n/a	-				0.0000	g/hr	--
														Mobilization and Demobilization Subtotal
														2.95
30	CMU Building and Earthwork Pad Construction	1	EA	165 HP Dozer	Rubber Tired Dozers	1	165	-	1	1	30	2.6843	g/hp-hr	--
				Scraper	Scrapers	1	367	-				1.6618	g/hp-hr	--
				Motor Grader	Graders	1	187	-				1.7907	g/hp-hr	--
				Compactor	Rollers	1	80	-				1.3466	g/hp-hr	--
				4000 gallon Water Truck	n/a - onroad	1	MHDT	-				73.7154	g/hr	--
				10 TN Smooth Roller	Rollers	1	157	-				0.7943	g/hp-hr	--
				Pickup Truck Conventional	n/a - onroad	7	LDT2	-				1.6515	g/hr	--
				Concrete Pump Boom Truck Mounted	Pumps	1	84	-				2.2288	g/hp-hr	--
				2.5" Dia. Concrete Vibrator	Plate Compactors	1	8	-				1.7814	g/hp-hr	--
				Extended Boom Pallet Loader	Rough Terrain Forklifts	1	100	-				0.9187	g/hp-hr	--
				Concrete Mixer Truck	n/a - onroad	1	MHDT	-				73.7154	g/hr	--
														CMU Building and Earthwork Pad Construction Subtotal
														--
31	Concrete Duct Banc	190	CY	Concrete Pump Boom Truck Mounted	Pumps	1	84	60	1	60	4	2.2288	g/hp-hr	--
				2.5" Dia. Concrete Vibrator	Plate Compactors	1	8	-				1.7814	g/hp-hr	--
				Concrete Mixer Truck	n/a - onroad	2	MHDT	-				73.7154	g/hr	--
				Pickup Truck Conventional	n/a - onroad	7	LDT2	-				1.6515	g/hr	--
														Concrete Duct Banc Subtotal
														--
														19 - Buildings, Grounds, and Utilities Total
														2.95
20 -Permanent Operating Equipment														
32	Mobilization and Demobilization	-	-	Flatbed Truck	n/a - onroad	1	MHDT	-	1	1	2	73.7154	g/hr	--
				Extended Boom Pallet Loader	Rough Terrain Forklifts	1	100	-				0.9187	g/hp-hr	--
				Pickup Truck Conventional	n/a - onroad	1	LDT2	-				1.6515	g/hr	--
				Temp. Mobile Office Building	n/a - onroad	1	n/a	-				0.0000	g/hr	--
														Mobilization and Demobilization Subtotal
														--
33	Mechanical Hydraulic Cylinders & Housing	-	-	Extended Boom Pallet Loader	Rough Terrain Forklifts	1	100	-	1	1	30	0.9187	g/hp-hr	--
				Pickup Truck Conventional	n/a - onroad	3	LDT2	-				1.6515	g/hr	--
														Mechanical Hydraulic Cylinders & Housing Subtotal
														--
34	CMU Building Mechanical Equipment	-	-	Extended Boom Pallet Loader	Rough Terrain Forklifts	1	100	-	1	1	30	0.9187	g/hp-hr	--
				Pickup Truck Conventional	n/a - onroad	3	LDT2	-				1.6515	g/hr	--
														CMU Building Mechanical Equipment Subtotal
														--
35	Electrical Control Equipment CMU Building	-	-	Pickup Truck Conventional	n/a - onroad	3	LDT2	-	1	1	30	1.6515	g/hr	--
														Electrical Control Equipment CMU Building Subtotal
														--
36	Electrical Power Equipment CMU Building	-	-	Pickup Truck Conventional	n/a - onroad	3	LDT2	-	1	1	30	1.6515	g/hr	--
														Electrical Power Equipment CMU Building Subtotal
														--
37	Communication Equipment	-	-	Pickup Truck Conventional	n/a - onroad	3	LDT2	-	1	1	12	1.6515	g/hr	--
														Communication Equipment Subtotal
														--
														20 -Permanent Operating Equipment Total
														--
GRAND TOTAL														10.21

Table K-92. NOx Exhaust Emissions from Offroad (

#	Activity	Maximum Daily Emissions, lbs/day																			
		22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug	26-Aug	2-Sep
19 - Buildings, Grounds, and Utilities																					
29	Mobilization and Demobilization	--	--	--	--	--	1.30	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	1.62	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	0.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	2.95	--	--	--	--	--	--	--	--	--	--	--	--	--	--
30	CMU Building and Earthwork Pad Construction	7.81	7.81	7.81	7.81	7.81	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		10.76	10.76	10.76	10.76	10.76	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		5.91	5.91	5.91	5.91	5.91	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		1.90	1.90	1.90	1.90	1.90	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		1.30	1.30	1.30	1.30	1.30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		2.20	2.20	2.20	2.20	2.20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		0.20	0.20	0.20	0.20	0.20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		3.30	3.30	3.30	3.30	3.30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		0.25	0.25	0.25	0.25	0.25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		1.62	1.62	1.62	1.62	1.62	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		1.30	1.30	1.30	1.30	1.30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		36.55	36.55	36.55	36.55	36.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
31	Concrete Duct Banc	--	--	--	3.30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	0.25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	2.60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	0.20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	6.36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		36.55	36.55	36.55	42.91	36.55	2.95	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20 -Permanent Operating Equipment																					
32	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.30
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.62
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.03
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.95
33	Mechanical Hydraulic Cylinders & Housing	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
34	CMU Building Mechanical Equipment	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
35	Electrical Control Equipment CMU Building	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
36	Electrical Power Equipment CMU Building	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
37	Communication Equipment	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.95
GRAND TOTAL		71.19	74.14	63.11	113.17	121.03	199.49	159.07	179.46	174.95	109.20	107.87	173.38	232.71	261.69	242.17	164.92	176.33	6.34	3.39	6.34

Table K-92. NOx Exhaust Emissions from Offroad (

#	Activity								Annual Emissions, tpy
		9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
19 - Buildings, Grounds, and Utilities									
29	Mobilization and Demobilization	--	--	--	--	--	--	--	0.0013
		--	--	--	--	--	--	--	0.0016
		--	--	--	--	--	--	--	0.0000
		--	--	--	--	--	--	--	--
		--	--	--	--	--	--	0.0029	
30	CMU Building and Earthwork Pad Construction	--	--	--	--	--	--	--	0.1172
		--	--	--	--	--	--	--	0.1613
		--	--	--	--	--	--	--	0.0886
		--	--	--	--	--	--	--	0.0285
		--	--	--	--	--	--	--	0.0195
		--	--	--	--	--	--	--	0.0330
		--	--	--	--	--	--	--	0.0031
		--	--	--	--	--	--	--	0.0495
		--	--	--	--	--	--	--	0.0038
		--	--	--	--	--	--	--	0.0243
		--	--	--	--	--	--	0.5483	
31	Concrete Duct Banc	--	--	--	--	--	--	--	0.0066
		--	--	--	--	--	--	--	0.0005
		--	--	--	--	--	--	--	0.0052
		--	--	--	--	--	--	--	0.0004
		--	--	--	--	--	--	0.0127	
		--	--	--	--	--	--	0.5639	
20 -Permanent Operating Equipment									
32	Mobilization and Demobilization	--	--	--	--	--	1.30	--	0.0013
		--	--	--	--	--	1.62	--	0.0016
		--	--	--	--	--	0.03	--	0.0000
		--	--	--	--	--	--	--	--
		--	--	--	--	--	2.95	--	0.0029
33	Mechanical Hydraulic Cylinders & Housing	1.62	1.62	1.62	1.62	1.62	--	--	0.0243
		0.09	0.09	0.09	0.09	0.09	--	--	0.0013
		1.71	1.71	1.71	1.71	1.71	--	--	0.0256
34	CMU Building Mechanical Equipment	1.62	1.62	1.62	1.62	1.62	--	--	0.0243
		0.09	0.09	0.09	0.09	0.09	--	--	0.0013
		1.71	1.71	1.71	1.71	1.71	--	--	0.0256
35	Electrical Control Equipment CMU Building	0.09	0.09	0.09	0.09	0.09	--	--	0.0013
		0.09	0.09	0.09	0.09	0.09	--	--	0.0013
36	Electrical Power Equipment CMU Building	0.09	0.09	0.09	0.09	0.09	--	--	0.0013
		0.09	0.09	0.09	0.09	0.09	--	--	0.0013
37	Communication Equipment	--	--	--	0.09	0.09	--	--	0.0005
		--	--	--	0.09	0.09	--	--	0.0005
		3.59	3.59	3.59	3.68	3.68	2.95	--	0.0573
GRAND TOTAL		19.72	19.72	19.72	17.81	7.07	26.89	2.95	7.0873

Table K-93. CO Exhaust Emissions from Offroad Construction Equipment (Alternative 1) - Unmitigated

#	Activity	Quantity	Unit	Crew / Equipment	OFFROAD Name	Equipment Quantity per Crew	Size (hp)	Crew Daily Output	No. of Crews	Total Daily Output	Estimated Duration, Days	Emission Factor	Units
02 - Relocations													
1	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	12.0888 2.2556 12.8680 0.0000	g/hr g/hp-hr g/hr g/hr
											Mobilization and Demobilization Subtotal		
2	Fremont Weir Demo	450	CY	3.5 CY Hydraulic Excavator 3.5 CY Front End Loader Wheel 0.8 CY Loader/Backhoe, Wheel 4000 gallon Water Truck 16 CY 3 Axle Dump Truck Pickup Truck Conventional	Excavators Rubber Tired Loaders Tractors/Loaders/Backhoes n/a - onroad n/a - onroad n/a - onroad	1 1 1 1 1 6	359 164 97 MHDT HHDT LDT2	40	1	40	12	0.6321 1.7927 2.0507 12.0888 34.6908 12.8680	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr g/hr
											Fremont Weir Demo Subtotal		
3	Levee O&M Road Regrading (6" AB)	119,000	SF	12' Blade Grader 4000 gallon Water Truck Pickup Truck Conventional 16 CY 3 Axle Dump Truck	Graders n/a - onroad n/a - onroad n/a - onroad	1 1 1 5	187 MHDT LDT2 HHDT	39,400	1	39,400	4	0.7344 12.0888 12.8680 34.6908	g/hp-hr g/hr g/hr g/hr
											Levee O&M Road Regrading (6" AB) Subtotal		
4	Temporary Electrical Power	100	LF	Flatbed Truck Pickup Truck Conventional	n/a - onroad n/a - onroad	1 2	MHDT LDT2	1,500	1	1,500	1	12.0888 12.8680	g/hr g/hr
											Temporary Electrical Power Subtotal		
											02 - Relocations Total		
09 - Channels and Canals													
5	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	12.0888 2.2556 12.8680 0.0000	g/hr g/hp-hr g/hr g/hr
											Mobilization and Demobilization Subtotal		
6	Clearing and Grubbing	61	ACR	1.5 CY Front End Loader Crawler Trailer Mounted Brush Chipper Chainsaw 4000 gallon Water Truck Pickup Truck Conventional 16 CY 3 Axle Dump Truck	Crawler Tractors Shredders Chainsaws n/a - onroad n/a - onroad n/a - onroad	1 1 1 1 6 1	110 140 8 MHDT LDT2 HHDT	2	2	4	16	2.5463 1.1116 146.1720 12.0888 12.8680 34.6908	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr g/hr
											Clearing and Grubbing Subtotal		
7	Excavation (Wet Conditions)	61,810	CY	4.5 CY Hydraulic Excavator 300 HP Dozer 3.5 CY Front End Loader Wheel 16 CY 3 Axle Dump Truck Pickup Truck Conventional	Excavators Rubber Tired Dozers Rubber Tired Loaders n/a - onroad n/a - onroad	1 2 2 9 7	429 300 164 HHDT LDT2	1,800	1	1,800	35	0.6321 1.1166 1.7927 34.6908 12.8680	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr
											Excavation (Wet Conditions) Subtotal		
8	Excavation/Grading (Dry Conditions)	118,960	CY	300 HP Dozer 21 CY Scrapers 12' Blade Grader 4000 gallon Water Truck Pickup Truck Conventional	Rubber Tired Dozers Scrapers Graders n/a - onroad n/a - onroad	1 4 1 1 7	300 407 187 MHDT LDT2	3,500	1	3,500	34	1.1166 1.0393 0.7344 12.0888 12.8680	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr
											Excavation/Grading (Dry Conditions) Subtotal		
9	Earthen Backfill	8,950	CY	300 HP Dozer 4000 gallon Water Truck 10 TN Smooth Roller Pickup Truck Conventional	Rubber Tired Dozers n/a - onroad Rollers n/a - onroad	1 1 1 3	300 MHDT 157 LDT2	1,000	1	1,000	9	1.1166 12.0888 1.7974 12.8680	g/hp-hr g/hr g/hp-hr g/hr
											Earthen Backfill Subtotal		

Table K-93. CO Exhaust Emissions from Offroad (

#	Activity	Maximum Daily Emissions, lbs/day																							
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug	26-Aug	2-Sep	9-Sep	16-Sep	
02 - Relocations																									
1	Mobilization and Demobilization	0.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		3.98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		0.23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		4.42	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2	Fremont Weir Demo	--	4.00	4.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	5.19	5.19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	3.51	3.51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.21	0.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.61	0.61	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	1.36	1.36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	14.88	14.88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
3	Levee O&M Road Regrading (6" AB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4	Temporary Electrical Power	0.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		0.45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		0.67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		5.09	14.88	14.88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
09 - Channels and Canals																									
5	Mobilization and Demobilization	0.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.21	--	--	--	
		3.98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.98	--	--	--	
		0.23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.23	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		4.42	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.42	--	--	--	
6	Clearing and Grubbing	--	9.88	9.88	9.88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	5.49	5.49	5.49	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	41.25	41.25	41.25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.43	0.43	0.43	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	2.72	2.72	2.72	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	1.22	1.22	1.22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	60.99	60.99	60.99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
7	Excavation (Wet Conditions)	--	--	--	--	--	--	4.78	4.78	4.78	4.78	4.78	4.78	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	11.82	11.82	11.82	11.82	11.82	11.82	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	10.37	10.37	10.37	10.37	10.37	10.37	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	5.51	5.51	5.51	5.51	5.51	5.51	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	1.59	1.59	1.59	1.59	1.59	1.59	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	34.06	34.06	34.06	34.06	34.06	34.06	--	--	--	--	--	--	--	--	--	--	--	
8	Excavation/Grading (Dry Conditions)	--	--	--	--	5.91	5.91	5.91	5.91	5.91	5.91	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	29.84	29.84	29.84	29.84	29.84	29.84	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	2.42	2.42	2.42	2.42	2.42	2.42	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	0.21	0.21	0.21	0.21	0.21	0.21	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	1.59	1.59	1.59	1.59	1.59	1.59	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	39.97	39.97	39.97	39.97	39.97	39.97	--	--	--	--	--	--	--	--	--	--	--	--	--	
9	Earthen Backfill	--	--	--	--	--	5.91	5.91	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	0.21	0.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	4.98	4.98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	0.68	0.68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	11.78	11.78	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Table K-93. CO Exhaust Emissions from Offroad (

#	Activity						Annual Emissions , tpy
		23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
02 - Relocations							
1	Mobilization and Demobilization	--	--	--	--	0.21	0.0002
		--	--	--	--	3.98	0.0040
		--	--	--	--	0.23	0.0002
		--	--	--	--	--	--
		--	--	--	--	4.42	0.0044
2	Fremont Weir Demo	--	--	--	--	--	0.0240
		--	--	--	--	--	0.0311
		--	--	--	--	--	0.0210
		--	--	--	--	--	0.0013
		--	--	--	--	--	0.0037
		--	--	--	--	0.0082	
		--	--	--	--	--	0.0893
3	Levee O&M Road Regrading (6" AB)	--	--	--	2.42	--	0.0048
		--	--	--	0.21	--	0.0004
		--	--	--	0.23	--	0.0005
		--	--	--	3.06	--	0.0061
		--	--	--	5.92	--	0.0118
4	Temporary Electrical Power	--	--	--	--	--	0.0001
		--	--	--	--	--	0.0002
		--	--	--	--	--	0.0003
		--	--	--	5.92	4.42	0.1059
09 - Channels and Canals							
5	Mobilization and Demobilization	--	--	--	--	--	0.0002
		--	--	--	--	--	0.0040
		--	--	--	--	--	0.0002
		--	--	--	--	--	--
		--	--	--	--	--	0.0044
6	Clearing and Grubbing	--	--	--	--	--	0.0790
		--	--	--	--	--	0.0439
		--	--	--	--	--	0.3300
		--	--	--	--	--	0.0034
		--	--	--	--	--	0.0218
		--	--	--	--	0.0098	
		--	--	--	--	--	0.4879
7	Excavation (Wet Conditions)	--	--	--	--	--	0.0837
		--	--	--	--	--	0.2068
		--	--	--	--	--	0.1815
		--	--	--	--	--	0.0964
		--	--	--	--	0.0278	
		--	--	--	--	--	0.5961
8	Excavation/Grading (Dry Conditions)	--	--	--	--	--	0.1004
		--	--	--	--	--	0.5073
		--	--	--	--	--	0.0412
		--	--	--	--	--	0.0036
		--	--	--	--	0.0270	
		--	--	--	--	--	0.6795
9	Earthen Backfill	--	--	--	--	--	0.0266
		--	--	--	--	--	0.0010
		--	--	--	--	--	0.0224
		--	--	--	--	--	0.0031
		--	--	--	--	--	0.0530

Table K-93. CO Exhaust Emissions from Offroad Construction Equipment (Alternative 1) - Unmitigated

#	Activity	Quantity	Unit	Crew / Equipment	OFFROAD Name	Equipment Quantity per Crew	Size (hp)	Crew Daily Output	No. of Crews	Total Daily Output	Estimated Duration, Days	Emission Factor	Units
10	Riprap - Class 2	24,940	TN	2.5 CY Hydraulic Excavator 300 HP Dozer Crawler 16 CY 3 Axle Dump Truck Pickup Truck Conventional	Excavators Crawler Tractors n/a - onroad n/a - onroad	2 1 23 5	257 300 HHDT LDT2	1,000	1	1,000	25	0.6321 0.9049 34.6908 12.8680	g/hp-hr g/hp-hr g/hr g/hr
Riprap - Class 2 Subtotal													
11	Riprap - Class 3	9,420	TN	2.5 CY Hydraulic Excavator 300 HP Dozer Crawler 16 CY 3 Axle Dump Truck Pickup Truck Conventional	Excavators Crawler Tractors n/a - onroad n/a - onroad	2 1 23 5	257 300 HHDT LDT2	1,000	1	1,000	10	0.6321 0.9049 34.6908 12.8680	g/hp-hr g/hp-hr g/hr g/hr
Riprap - Class 3 Subtotal													
12	RSP Bedding Material	36,150	TN	2.5 CY Hydraulic Excavator 300 HP Dozer Crawler Pickup Truck Conventional 16 CY 3 Axle Dump Truck	Excavators Crawler Tractors n/a - onroad n/a - onroad	2 1 5 23	257 300 LDT2 HHDT	1,000	2	2,000	19	0.6321 0.9049 12.8680 34.6908	g/hp-hr g/hp-hr g/hr g/hr
RSP Bedding Material Subtotal													
13	Erosion Control Seeding	31	ACR	0.8 CY Front End Loader Wheel Pickup Truck Conventional	Tractors/Loaders/Backhoes n/a - onroad	1 4	97 LDT2	2	1	2	16	2.0507 12.8680	g/hp-hr g/hr
Erosion Control Seeding Subtotal													
09 - Channels and Canals Total													
11 - Levees and Floodwalls													
14	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	12.0888 2.2556 12.8680 0.0000	g/hr g/hp-hr g/hr g/hr
Mobilization and Demobilization Subtotal													
15	Soil Cement Bentonite Cutoff Wall	84,480	SF	4.5 CY Hydraulic Excavator 300 HP Dozer 2.5 CY Hydraulic Excavator 16 CY 3 Axle Dump Truck Flash Mixer Slurry Pump Pickup Truck Conventional	Excavators Rubber Tired Dozers Excavators n/a - onroad Cement and Mortar Mixers Pumps n/a - onroad	1 1 1 1 1 1 5	429 300 257 HHDT 9 84 LDT2	7,000	1	7,000	13	0.6321 1.1166 0.6321 34.6908 1.9432 2.5278 12.8680	g/hp-hr g/hp-hr g/hp-hr g/hr g/hp-hr g/hp-hr g/hr
Soil Cement Bentonite Cutoff Wall Subtotal													
11 - Levees and Floodwalls Total													
15 - Floodway Control and Diversion Structures													
16	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	12.0888 2.2556 12.8680 0.0000	g/hr g/hp-hr g/hr g/hr
Mobilization and Demobilization Subtotal													
17	Construction Site Dewatering (Temporary Cofferdam)	21,000	SF	Flatbed Truck 75 TN Crane Crawler Pile Hammer Pickup Truck Conventional	n/a - onroad Bore/Drill Rigs n/a - onroad	1 1 6	MHDT 221 LDT2	1,200	1	1,200	18	12.0888 0.7762 12.8680	g/hr g/hp-hr g/hr
Construction Site Dewatering (Temporary Cofferdam) Subtotal													
18	Construction Site Dewatering (Pumping)	-	-	6" Dia. Pump Engine Drive Pickup Truck Conventional	Pumps n/a - onroad	1 3	84 LDT2	-	1	1	120	2.5278 12.8680	g/hp-hr g/hr
Construction Site Dewatering (Pumping) Subtotal													
19	Excavation (Wet Conditions)	6,130	CY	4.5 CY Hydraulic Excavator 300 HP Dozer 3.5 CY Front End Loader Wheel 16 CY 3 Axle Dump Truck Pickup Truck Conventional	Excavators Rubber Tired Dozers Rubber Tired Loaders n/a - onroad n/a - onroad	1 2 2 9 7	429 300 164 HHDT LDT2	1,800	1	1,800	4	0.6321 1.1166 1.7927 34.6908 12.8680	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr
Excavation (Wet Conditions) Subtotal													
20	Sheet Pile Wall	7,790	SF	Flatbed Truck 75 TN Crane Crawler Pile Hammer Pickup Truck Conventional	n/a - onroad Bore/Drill Rigs n/a - onroad	1 1 6	MHDT 221 LDT2	1,200	1	1,200	7	12.0888 0.7762 12.8680	g/hr g/hp-hr g/hr
Sheet Pile Wall Subtotal													

Table K-93. CO Exhaust Emissions from Offroad (

#	Activity	Maximum Daily Emissions, lbs/day																							
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug	26-Aug	2-Sep	9-Sep	16-Sep	
10	Riprap - Class 2	--	--	--	--	--	--	--	--	--	--	--	--	--	5.73	5.73	5.73	5.73	5.73	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	4.79	4.79	4.79	4.79	4.79	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	14.07	14.07	14.07	14.07	14.07	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	1.13	1.13	1.13	1.13	1.13	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	25.72	25.72	25.72	25.72	25.72	--	--	--	--	--	
11	Riprap - Class 3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.73	5.73	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.79	4.79	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	14.07	14.07	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.13	1.13	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	25.72	25.72	--	--	--	--	--	
12	RSP Bedding Material	--	--	--	--	--	--	--	--	--	--	--	--	11.46	11.46	11.46	11.46	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	9.58	9.58	9.58	9.58	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	2.27	2.27	2.27	2.27	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	28.14	28.14	28.14	28.14	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	51.45	51.45	51.45	51.45	--	--	--	--	--	--	--	
13	Erosion Control Seeding	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.51	3.51		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.91	0.91		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.42	4.42		
		4.42	60.99	60.99	60.99	39.97	51.75	85.82	74.04	74.04	74.04	34.06	34.06	51.45	77.17	77.17	77.17	51.45	51.45	4.42	--	--	4.42	4.42	
11 - Levees and Floodwalls																									
14	Mobilization and Demobilization	--	--	--	--	--	--	--	0.21	--	--	--	0.21	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	3.98	--	--	--	3.98	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	0.23	--	--	--	0.23	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	4.42	--	--	4.42	--	--	--	--	--	--	--	--	--	--	--	
15	Soil Cement Bentonite Cutoff Wall	--	--	--	--	--	--	--	--	4.78	4.78	4.78	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	5.91	5.91	5.91	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	2.87	2.87	2.87	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	0.61	0.61	0.61	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	0.31	0.31	0.31	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	3.74	3.74	3.74	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	1.13	1.13	1.13	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	19.36	19.36	19.36	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	4.42	19.36	19.36	19.36	4.42	--	--	--	--	--	--	--	--	--	--	--	
15 - Floodway Control and Diversion Structures																									
16	Mobilization and Demobilization	--	--	0.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	3.98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	0.23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	4.42	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
17	Construction Site Dewatering (Temporary Cofferdam)	--	--	--	0.21	0.21	0.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	3.03	3.03	3.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	1.36	1.36	1.36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	4.60	4.60	4.60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
18	Construction Site Dewatering (Pumping)	--	--	--	--	--	--	3.74	3.74	3.74	3.74	3.74	3.74	3.74	3.74	3.74	3.74	3.74	3.74	3.74	3.74	3.74	3.74		
		--	--	--	--	--	--	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68		
		--	--	--	--	--	--	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43	4.43		
19	Excavation (Wet Conditions)	--	--	--	--	--	--	4.78	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	11.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	10.37	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	5.51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	1.59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	34.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
20	Sheet Pile Wall	--	--	--	--	--	--	0.21	0.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	3.03	3.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	1.36	1.36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	4.60	4.60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Table K-93. CO Exhaust Emissions from Offroad (

#	Activity	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	Annual Emissions
							, tpy
10	Riprap - Class 2	--	--	--	--	--	0.0716
		--	--	--	--	--	0.0598
		--	--	--	--	--	0.1759
		--	--	--	--	--	0.0142
		--	--	--	--	--	0.3216
11	Riprap - Class 3	--	--	--	--	--	0.0287
		--	--	--	--	--	0.0239
		--	--	--	--	--	0.0704
		--	--	--	--	--	0.0057
		--	--	--	--	--	0.1286
12	RSP Bedding Material	--	--	--	--	--	0.1089
		--	--	--	--	--	0.0910
		--	--	--	--	--	0.0216
		--	--	--	--	--	0.2674
		--	--	--	--	--	0.4888
13	Erosion Control Seeding	3.51	--	--	--	--	0.0281
		0.91	--	--	--	--	0.0073
		4.42	--	--	--	--	0.0353
		4.42	--	--	--	--	2.7953
11 - Levees and Floodwalls							
14	Mobilization and Demobilization	--	--	--	--	--	0.0002
		--	--	--	--	--	0.0040
		--	--	--	--	--	0.0002
		--	--	--	--	--	--
		--	--	--	--	--	0.0044
15	Soil Cement Bentonite Cutoff Wall	--	--	--	--	--	0.0311
		--	--	--	--	--	0.0384
		--	--	--	--	--	0.0186
		--	--	--	--	--	0.0040
		--	--	--	--	--	0.0020
		--	--	--	--	--	0.0243
		--	--	--	--	--	0.0074
		--	--	--	--	--	0.1258
		--	--	--	--	--	0.1302
15 - Floodway Control and Diversion Structures							
16	Mobilization and Demobilization	--	--	--	0.21	--	0.0002
		--	--	--	3.98	--	0.0040
		--	--	--	0.23	--	0.0002
		--	--	--	--	--	--
		--	--	--	4.42	--	0.0044
17	Construction Site Dewatering (Temporary Cofferdam)	--	--	--	--	--	0.0019
		--	--	--	--	--	0.0272
		--	--	--	--	--	0.0123
		--	--	--	--	--	0.0414
18	Construction Site Dewatering (Pumping)	3.74	3.74	3.74	--	--	0.2247
		0.68	0.68	0.68	--	--	0.0409
		4.43	4.43	4.43	--	--	0.2655
19	Excavation (Wet Conditions)	--	--	--	--	--	0.0096
		--	--	--	--	--	0.0236
		--	--	--	--	--	0.0207
		--	--	--	--	--	0.0110
		--	--	--	--	--	0.0032
		--	--	--	--	--	0.0681
20	Sheet Pile Wall	--	--	--	--	--	0.0007
		--	--	--	--	--	0.0106
		--	--	--	--	--	0.0048
		--	--	--	--	--	0.0161

Table K-93. CO Exhaust Emissions from Offroad Construction Equipment (Alternative 1) - Unmitigated

#	Activity	Quantity	Unit	Crew / Equipment	OFFROAD Name	Equipment Quantity per Crew	Size (hp)	Crew Daily Output	No. of Crews	Total Daily Output	Estimated Duration, Days	Emission Factor	Units
21	Headworks Structure Concrete Piles	5,040	LF	40 TN Truck-mounted Hydraulic Crane 100 FT Auger Track-mounted Drill Rig Concrete Pump Boom Truck Mounted Concrete Mixer Truck 0.8 CY Backhoe Loader 24 TN Truck End Dump Pickup Truck Conventional	Cranes Bore/Drill Rigs Pumps n/a - onroad Tractors/Loaders/Backhoes Off-Highway Trucks n/a - onroad	1 1 1 3 1 2 8	300 221 84 MHDT 97 314 LDT2	180	1	180	28	0.5082 0.7762 2.5278 12.0888 2.0507 0.6431 12.8680	g/hp-hr g/hp-hr g/hp-hr g/hr g/hp-hr g/hp-hr g/hr
Headworks Structure Concrete Piles Subtotal													
22	Headworks Structure	3,080	CY	Concrete Pump Boom Truck Mounted 2.5" Dia. Concrete Vibrator Concrete Mixer Truck Pickup Truck Conventional	Pumps Plate Compactors n/a - onroad n/a - onroad	1 1 2 7	84 8 MHDT LDT2	60	3	180	18	2.5278 1.4921 12.0888 12.8680	g/hp-hr g/hp-hr g/hr g/hr
Headworks Structure Subtotal													
23	Headworks Channel Transition	1,330	CY	2.5" Dia. Concrete Vibrator Concrete Mixer Truck Pickup Truck Conventional	Plate Compactors n/a - onroad n/a - onroad	1 2 6	8 MHDT LDT2	70	2	140	10	1.4921 12.0888 12.8680	g/hp-hr g/hr g/hr
Headworks Channel Transition Subtotal													
24	Hinged Bottom Gates	3	EA	90 TN Truck-mounted Hydraulic Crane Haul Truck Oversize Transport Pickup Truck Conventional	Cranes n/a - onroad n/a - onroad	1 1 4	450 HHDT LDT2	0.2	1	0.2	15	0.5082 34.6908 12.8680	g/hp-hr g/hr g/hr
Hinged Bottom Gates Subtotal													
15 - Floodway Control and Diversion Structures Total													
08 - Roads, Railroads, and Bridges													
25	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	12.0888 2.2556 12.8680 0.0000	g/hr g/hp-hr g/hr g/hr
Mobilization and Demobilization Subtotal													
26	Pedestrian Bridge Concrete Piles	320	LF	40 TN Truck-mounted Hydraulic Crane 100 FT Auger Track-mounted Drill Rig Concrete Pump Boom Truck Mounted Concrete Mixer Truck 0.8 CY Backhoe Loader 24 TN Truck End Dump Pickup Truck Conventional	Cranes Bore/Drill Rigs Pumps n/a - onroad Tractors/Loaders/Backhoes Off-Highway Trucks n/a - onroad	1 1 1 3 1 2 8	300 221 84 MHDT 97 314 LDT2	180	1	180	2	0.5082 0.7762 2.5278 12.0888 2.0507 0.6431 12.8680	g/hp-hr g/hp-hr g/hp-hr g/hr g/hp-hr g/hp-hr g/hr
Pedestrian Bridge Concrete Piles Subtotal													
27	Pedestrian Bridge Concrete Abutments and Wingwalls	24	CY	Concrete Pump Boom Truck Mounted 2.5" Dia. Concrete Vibrator Concrete Mixer Truck Pickup Truck Conventional	Pumps Plate Compactors n/a - onroad n/a - onroad	1 1 2 7	84 8 MHDT LDT2	60	1	60	1	2.5278 1.4921 12.0888 12.8680	g/hp-hr g/hp-hr g/hr g/hr
Pedestrian Bridge Concrete Abutments and Wingwalls Subtotal													
28	Pedestrian Bridge Span Installation	1,040	SF	90 TN Truck-mounted Hydraulic Crane Flatbed Truck Pickup Truck Conventional	Cranes n/a - onroad n/a - onroad	1 2 5	450 MHDT LDT2	390	1	390	3	0.5082 12.0888 12.8680	g/hp-hr g/hr g/hr
Pedestrian Bridge Span Installation Subtotal													
08 - Roads, Railroads, and Bridges Total													
19 - Buildings, Grounds, and Utilities													
29	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	12.0888 2.2556 12.8680 0.0000	g/hr g/hp-hr g/hr g/hr
Mobilization and Demobilization Subtotal													

Table K-93. CO Exhaust Emissions from Offroad (

#	Activity	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	Annual Emissions, tpy
21	Headworks Structure Concrete Piles	--	--	--	--	--	0.0376
		--	--	--	--	--	0.0424
		--	--	--	--	--	0.0524
		--	--	--	--	--	0.0090
		--	--	--	--	--	0.0491
		--	--	--	--	--	0.0997
		--	--	--	--	--	0.0254
		--	--	--	--	--	0.3156
22	Headworks Structure	--	--	--	--	--	0.1011
		--	--	--	--	--	0.0057
		--	--	--	--	--	0.0115
		--	--	--	--	--	0.0429
		--	--	--	--	--	0.1612
23	Headworks Channel Transition	--	--	--	--	--	0.0021
		--	--	--	--	--	0.0043
		--	--	--	--	--	0.0136
		--	--	--	--	--	0.0200
24	Hinged Bottom Gates	4.03	4.03	--	--	--	0.0303
		0.61	0.61	--	--	--	0.0046
		0.91	0.91	--	--	--	0.0068
		5.55	5.55	--	--	--	0.0416
		9.98	9.98	4.43	4.42	--	0.9341
08 - Roads, Railroads, and Bridges							
25	Mobilization and Demobilization	--	--	--	--	--	0.0002
		--	--	--	--	--	0.0040
		--	--	--	--	--	0.0002
		--	--	--	--	--	--
		--	--	--	--	--	0.0044
26	Pedestrian Bridge Concrete Piles	--	--	--	--	--	0.0027
		--	--	--	--	--	0.0030
		--	--	--	--	--	0.0037
		--	--	--	--	--	0.0006
		--	--	--	--	--	0.0035
		--	--	--	--	--	0.0071
		--	--	--	--	--	0.0018
		--	--	--	--	--	0.0225
27	Pedestrian Bridge Concrete Abutments and Wingwalls	--	--	--	--	--	0.0019
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0002
		--	--	--	--	--	0.0008
		--	--	--	--	--	0.0030
28	Pedestrian Bridge Span Installation	--	--	--	--	--	0.0061
		--	--	--	--	--	0.0006
		--	--	--	--	--	0.0017
		--	--	--	--	--	0.0084
		--	--	--	--	--	0.0383
19 - Buildings, Grounds, and Utilities							
29	Mobilization and Demobilization	--	--	--	--	--	0.0002
		--	--	--	--	--	0.0040
		--	--	--	--	--	0.0002
		--	--	--	--	--	--
		--	--	--	--	--	0.0044

Table K-93. CO Exhaust Emissions from Offroad Construction Equipment (Alternative 1) - Unmitigated

#	Activity	Quantity	Unit	Crew / Equipment	OFFROAD Name	Equipment Quantity per Crew	Size (hp)	Crew Daily Output	No. of Crews	Total Daily Output	Estimated Duration, Days	Emission Factor	Units	
30	CMU Building and Earthwork Pad Construction	1	EA	165 HP Dozer	Rubber Tired Dozers	1	165	-	1	1	30	2.0968	g/hp-hr	
				Scraper	Scrapers	1	367						1.0393	g/hp-hr
				Motor Grader	Graders	1	187						0.7344	g/hp-hr
				Compactor	Rollers	1	80						2.0792	g/hp-hr
				4000 gallon Water Truck	n/a - onroad	1	MHDT						12.0888	g/hr
				10 TN Smooth Roller	Rollers	1	157						1.7974	g/hp-hr
				Pickup Truck Conventional	n/a - onroad	7	LDT2						12.8680	g/hr
				Concrete Pump Boom Truck Mounted	Pumps	1	84						2.5278	g/hp-hr
				2.5" Dia. Concrete Vibrator	Plate Compactors	1	8						1.4921	g/hp-hr
				Extended Boom Pallet Loader	Rough Terrain Forklifts	1	100						2.2556	g/hp-hr
				Concrete Mixer Truck	n/a - onroad	1	MHDT						12.0888	g/hr
				CMU Building and Earthwork Pad Construction Subtotal										
31	Concrete Duct Banc	190	CY	Concrete Pump Boom Truck Mounted	Pumps	1	84	60	1	60	4	2.5278	g/hp-hr	
				2.5" Dia. Concrete Vibrator	Plate Compactors	1	8						1.4921	g/hp-hr
				Concrete Mixer Truck	n/a - onroad	2	MHDT						12.0888	g/hr
				Pickup Truck Conventional	n/a - onroad	7	LDT2						12.8680	g/hr
Concrete Duct Banc Subtotal														
19 - Buildings, Grounds, and Utilities Total														
20 -Permanent Operating Equipment														
32	Mobilization and Demobilization	-	-	Flatbed Truck	n/a - onroad	1	MHDT	-	1	1	2	12.0888	g/hr	
				Extended Boom Pallet Loader	Rough Terrain Forklifts	1	100						2.2556	g/hp-hr
				Pickup Truck Conventional	n/a - onroad	1	LDT2						12.8680	g/hr
				Temp. Mobile Office Building	n/a - onroad	1	n/a						0.0000	g/hr
Mobilization and Demobilization Subtotal														
33	Mechanical Hydraulic Cylinders & Housing	-	-	Extended Boom Pallet Loader	Rough Terrain Forklifts	1	100	-	1	1	30	2.2556	g/hp-hr	
				Pickup Truck Conventional	n/a - onroad	3	LDT2						12.8680	g/hr
Mechanical Hydraulic Cylinders & Housing Subtotal														
34	CMU Building Mechanical Equipment	-	-	Extended Boom Pallet Loader	Rough Terrain Forklifts	1	100	-	1	1	30	2.2556	g/hp-hr	
				Pickup Truck Conventional	n/a - onroad	3	LDT2						12.8680	g/hr
CMU Building Mechanical Equipment Subtotal														
35	Electrical Control Equipment CMU Building	-	-	Pickup Truck Conventional	n/a - onroad	3	LDT2	-	1	1	30	12.8680	g/hr	
Electrical Control Equipment CMU Building Subtotal														
36	Electrical Power Equipment CMU Building	-	-	Pickup Truck Conventional	n/a - onroad	3	LDT2	-	1	1	30	12.8680	g/hr	
Electrical Power Equipment CMU Building Subtotal														
37	Communication Equipment	-	-	Pickup Truck Conventional	n/a - onroad	3	LDT2	-	1	1	12	12.8680	g/hr	
Communication Equipment Subtotal														
20 -Permanent Operating Equipment Total														
GRAND TOTAL														

Table K-93. CO Exhaust Emissions from Offroad (

#	Activity	Maximum Daily Emissions, lbs/day																							
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug	26-Aug	2-Sep	9-Sep	16-Sep	
30	CMU Building and Earthwork Pad Construction	--	6.10	6.10	6.10	6.10	6.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	6.73	6.73	6.73	6.73	6.73	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	2.42	2.42	2.42	2.42	2.42	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	2.93	2.93	2.93	2.93	2.93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.21	0.21	0.21	0.21	0.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	4.98	4.98	4.98	4.98	4.98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	1.59	1.59	1.59	1.59	1.59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	3.74	3.74	3.74	3.74	3.74	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.21	0.21	0.21	0.21	0.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	3.98	3.98	3.98	3.98	3.98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	33.11	33.11	33.11	33.11	33.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
31	Concrete Duct Banc	--	--	--	--	3.74	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
		--	--	--	--	0.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
		--	--	--	--	0.43	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
		--	--	--	--	1.59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
		--	--	--	--	5.97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		4.42	33.11	33.11	33.11	39.08	33.11	4.42	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
20 -Permanent Operating Equipment																									
32	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.21	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.98	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.23	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.42	--			
33	Mechanical Hydraulic Cylinders & Housing	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.98	3.98		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.68	0.68		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.66	4.66		
34	CMU Building Mechanical Equipment	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.98	3.98		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.68	0.68		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.66	4.66		
35	Electrical Control Equipment CMU Building	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.68	0.68		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.68	0.68		
36	Electrical Power Equipment CMU Building	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.68	0.68		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.68	0.68		
37	Communication Equipment	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.42	10.68		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	10.68	25.07		
GRAND TOTAL		13.92	108.98	113.40	98.70	83.65	89.46	128.72	110.03	124.96	120.36	80.39	83.37	73.79	86.02	108.14	91.57	61.47	78.21	8.84	4.43	8.84	25.07		

Table K-93. CO Exhaust Emissions from Offroad (

#	Activity	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	Annual Emissions
							, tpy
30	CMU Building and Earthwork Pad Construction	--	--	--	--	--	0.0915
		--	--	--	--	--	0.1009
		--	--	--	--	--	0.0363
		--	--	--	--	--	0.0440
		--	--	--	--	--	0.0032
		--	--	--	--	--	0.0747
		--	--	--	--	--	0.0238
		--	--	--	--	--	0.0562
		--	--	--	--	--	0.0032
		--	--	--	--	--	0.0597
		--	--	--	--	--	0.0032
		--	--	--	--	--	0.4967
31	Concrete Duct Banc	--	--	--	--	--	0.0075
		--	--	--	--	--	0.0004
		--	--	--	--	--	0.0009
		--	--	--	--	--	0.0032
		--	--	--	--	--	0.0119
		--	--	--	--	--	0.5130
20 -Permanent Operating Equipment							
32	Mobilization and Demobilization	--	--	--	0.21	--	0.0002
		--	--	--	3.98	--	0.0040
		--	--	--	0.23	--	0.0002
		--	--	--	--	--	--
		--	--	--	4.42	--	0.0044
33	Mechanical Hydraulic Cylinders & Housing	3.98	3.98	3.98	--	--	0.0597
		0.68	0.68	0.68	--	--	0.0102
		4.66	4.66	4.66	--	--	0.0699
34	CMU Building Mechanical Equipment	3.98	3.98	3.98	--	--	0.0597
		0.68	0.68	0.68	--	--	0.0102
		4.66	4.66	4.66	--	--	0.0699
35	Electrical Control Equipment CMU Building	0.68	0.68	0.68	--	--	0.0102
		0.68	0.68	0.68	--	--	0.0102
36	Electrical Power Equipment CMU Building	0.68	0.68	0.68	--	--	0.0102
		0.68	0.68	0.68	--	--	0.0102
37	Communication Equipment	--	0.68	0.68	--	--	0.0041
		--	0.68	0.68	--	--	0.0041
		10.68	11.36	11.36	4.42	--	0.1687
GRAND TOTAL		25.07	21.34	15.79	14.76	4.42	4.6855

Table K-94. SO2 Exhaust Emissions from Offroad Construction Equipment (Alternative 1) - Unmitigated

#	Activity	Quantity	Unit	Crew / Equipment	OFFROAD Name	Equipment Quantity per Crew	Size (hp)	Crew Daily Output	No. of Crews	Total Daily Output	Estimated Duration, Days	Emission Factor	Units
02 - Relocations													
1	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	0.1721 0.0040 0.0474 0.0000	g/hr g/hp-hr g/hr g/hr
											Mobilization and Demobilization Subtotal		
2	Fremont Weir Demo	450	CY	3.5 CY Hydraulic Excavator 3.5 CY Front End Loader Wheel 0.8 CY Loader/Backhoe, Wheel 4000 gallon Water Truck 16 CY 3 Axle Dump Truck Pickup Truck Conventional	Excavators Rubber Tired Loaders Tractors/Loaders/Backhoes n/a - onroad n/a - onroad n/a - onroad	1 1 1 1 1 6	359 164 97 MHDT HHDT LDT2	40	1	40	12	0.0032 0.0035 0.0037 0.1721 0.2281 0.0474	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr g/hr
											Fremont Weir Demo Subtotal		
3	Levee O&M Road Regrading (6" AB)	119,000	SF	12' Blade Grader 4000 gallon Water Truck Pickup Truck Conventional 16 CY 3 Axle Dump Truck	Graders n/a - onroad n/a - onroad n/a - onroad	1 1 1 5	187 MHDT LDT2 HHDT	39,400	1	39,400	4	0.0039 0.1721 0.0474 0.2281	g/hp-hr g/hr g/hr g/hr
											Levee O&M Road Regrading (6" AB) Subtotal		
4	Temporary Electrical Power	100	LF	Flatbed Truck Pickup Truck Conventional	n/a - onroad n/a - onroad	1 2	MHDT LDT2	1,500	1	1,500	1	0.1721 0.0474	g/hr g/hr
											Temporary Electrical Power Subtotal		
											02 - Relocations Total		
09 - Channels and Canals													
5	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	0.1721 0.0040 0.0474 0.0000	g/hr g/hp-hr g/hr g/hr
											Mobilization and Demobilization Subtotal		
6	Clearing and Grubbing	61	ACR	1.5 CY Front End Loader Crawler Trailer Mounted Brush Chipper Chainsaw 4000 gallon Water Truck Pickup Truck Conventional 16 CY 3 Axle Dump Truck	Crawler Tractors Shredders Chainsaws n/a - onroad n/a - onroad n/a - onroad	1 1 1 1 6 1	110 140 8 MHDT LDT2 HHDT	2	2	4	16	0.0043 0.0026 0.0163 0.1721 0.0474 0.2281	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr g/hr
											Clearing and Grubbing Subtotal		
7	Excavation (Wet Conditions)	61,810	CY	4.5 CY Hydraulic Excavator 300 HP Dozer 3.5 CY Front End Loader Wheel 16 CY 3 Axle Dump Truck Pickup Truck Conventional	Excavators Rubber Tired Dozers Rubber Tired Loaders n/a - onroad n/a - onroad	1 2 2 9 7	429 300 164 HHDT LDT2	1,800	1	1,800	35	0.0032 0.0033 0.0035 0.2281 0.0474	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr
											Excavation (Wet Conditions) Subtotal		
8	Excavation/Grading (Dry Conditions)	118,960	CY	300 HP Dozer 21 CY Scrapers 12' Blade Grader 4000 gallon Water Truck Pickup Truck Conventional	Rubber Tired Dozers Scrapers Graders n/a - onroad n/a - onroad	1 4 1 1 7	300 407 187 MHDT LDT2	3,500	1	3,500	34	0.0033 0.0040 0.0039 0.1721 0.0474	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr
											Excavation/Grading (Dry Conditions) Subtotal		
9	Earthen Backfill	8,950	CY	300 HP Dozer 4000 gallon Water Truck 10 TN Smooth Roller Pickup Truck Conventional	Rubber Tired Dozers n/a - onroad Rollers n/a - onroad	1 1 1 3	300 MHDT 157 LDT2	1,000	1	1,000	9	0.0033 0.1721 0.0036 0.0474	g/hp-hr g/hr g/hp-hr g/hr
											Earthen Backfill Subtotal		

Table K-94. SO2 Exhaust Emissions from Offroad

#	Activity	Maximum Daily Emissions, lbs/day																							
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug	26-Aug	2-Sep	9-Sep	16-Sep	
02 - Relocations																									
1	Mobilization and Demobilization	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2	Fremont Weir Demo	--	0.02	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.01	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.01	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.00	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.00	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.01	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.05	0.05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
3	Levee O&M Road Regrading (6" AB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4	Temporary Electrical Power	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		0.02	0.05	0.05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
09 - Channels and Canals																									
5	Mobilization and Demobilization	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00	--	--	--	--	
		0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01	--	--	--	--	
		0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01	--	--	--	--	
6	Clearing and Grubbing	--	0.02	0.02	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.01	0.01	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.00	0.00	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.01	0.01	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.01	0.01	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.01	0.01	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.06	0.06	0.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
7	Excavation (Wet Conditions)	--	--	--	--	--	--	0.02	0.02	0.02	0.02	0.02	0.02	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	0.03	0.03	0.03	0.03	0.03	0.03	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	0.02	0.02	0.02	0.02	0.02	0.02	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	0.04	0.04	0.04	0.04	0.04	0.04	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	0.01	0.01	0.01	0.01	0.01	0.01	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	0.12	0.12	0.12	0.12	0.12	0.12	--	--	--	--	--	--	--	--	--	--	--	
8	Excavation/Grading (Dry Conditions)	--	--	--	--	0.02	0.02	0.02	0.02	0.02	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	0.12	0.12	0.12	0.12	0.12	0.12	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	0.01	0.01	0.01	0.01	0.01	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	0.01	0.01	0.01	0.01	0.01	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	0.15	0.15	0.15	0.15	0.15	0.15	--	--	--	--	--	--	--	--	--	--	--	--	--	
9	Earthen Backfill	--	--	--	--	--	0.02	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	0.00	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	0.01	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	0.00	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	0.03	0.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Table K-94. SO2 Exhaust Emissions from Offroad

#	Activity	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	Annual Emissions
							, tpy
02 - Relocations							
1	Mobilization and Demobilization	--	--	--	--	0.00	0.0000
		--	--	--	--	0.01	0.0000
		--	--	--	--	0.00	0.0000
		--	--	--	--	--	--
		--	--	--	--	0.01	0.0000
2	Fremont Weir Demo	--	--	--	--	--	0.0001
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0003
3	Levee O&M Road Regrading (6" AB)	--	--	--	0.01	--	0.0000
		--	--	--	0.00	--	0.0000
		--	--	--	0.00	--	0.0000
		--	--	--	0.02	--	0.0000
		--	--	--	0.04	--	0.0001
4	Temporary Electrical Power	--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	0.04	0.01	0.0004
09 - Channels and Canals							
5	Mobilization and Demobilization	--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	--	--
		--	--	--	--	--	0.0000
6	Clearing and Grubbing	--	--	--	--	--	0.0001
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0005
7	Excavation (Wet Conditions)	--	--	--	--	--	0.0004
		--	--	--	--	--	0.0006
		--	--	--	--	--	0.0003
		--	--	--	--	--	0.0006
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0021
8	Excavation/Grading (Dry Conditions)	--	--	--	--	--	0.0003
		--	--	--	--	--	0.0020
		--	--	--	--	--	0.0002
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0026
9	Earthen Backfill	--	--	--	--	--	0.0001
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0001

Table K-94. SO2 Exhaust Emissions from Offroad Construction Equipment (Alternative 1) - Unmitigated

#	Activity	Quantity	Unit	Crew / Equipment	OFFROAD Name	Equipment Quantity per Crew	Size (hp)	Crew Daily Output	No. of Crews	Total Daily Output	Estimated Duration, Days	Emission Factor	Units
10	Riprap - Class 2	24,940	TN	2.5 CY Hydraulic Excavator 300 HP Dozer Crawler 16 CY 3 Axle Dump Truck Pickup Truck Conventional	Excavators Crawler Tractors n/a - onroad n/a - onroad	2 1 23 5	257 300 HHDT LDT2	1,000	1	1,000	25	0.0032 0.0036 0.2281 0.0474	g/hp-hr g/hp-hr g/hr g/hr
Riprap - Class 2 Subtotal													
11	Riprap - Class 3	9,420	TN	2.5 CY Hydraulic Excavator 300 HP Dozer Crawler 16 CY 3 Axle Dump Truck Pickup Truck Conventional	Excavators Crawler Tractors n/a - onroad n/a - onroad	2 1 23 5	257 300 HHDT LDT2	1,000	1	1,000	10	0.0032 0.0036 0.2281 0.0474	g/hp-hr g/hp-hr g/hr g/hr
Riprap - Class 3 Subtotal													
12	RSP Bedding Material	36,150	TN	2.5 CY Hydraulic Excavator 300 HP Dozer Crawler Pickup Truck Conventional 16 CY 3 Axle Dump Truck	Excavators Crawler Tractors n/a - onroad n/a - onroad	2 1 5 23	257 300 LDT2 HHDT	1,000	2	2,000	19	0.0032 0.0036 0.0474 0.2281	g/hp-hr g/hp-hr g/hr g/hr
RSP Bedding Material Subtotal													
13	Erosion Control Seeding	31	ACR	0.8 CY Front End Loader Wheel Pickup Truck Conventional	Tractors/Loaders/Backhoes n/a - onroad	1 4	97 LDT2	2	1	2	16	0.0037 0.0474	g/hp-hr g/hr
Erosion Control Seeding Subtotal													
09 - Channels and Canals Total													
11 - Levees and Floodwalls													
14	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	0.1721 0.0040 0.0474 0.0000	g/hr g/hp-hr g/hr g/hr
Mobilization and Demobilization Subtotal													
15	Soil Cement Bentonite Cutoff Wall	84,480	SF	4.5 CY Hydraulic Excavator 300 HP Dozer 2.5 CY Hydraulic Excavator 16 CY 3 Axle Dump Truck Flash Mixer Slurry Pump Pickup Truck Conventional	Excavators Rubber Tired Dozers Excavators n/a - onroad Cement and Mortar Mixers Pumps n/a - onroad	1 1 1 1 1 1 5	429 300 257 HHDT 9 84 LDT2	7,000	1	7,000	13	0.0032 0.0033 0.0032 0.2281 0.0050 0.0049 0.0474	g/hp-hr g/hp-hr g/hp-hr g/hr g/hp-hr g/hp-hr g/hr
Soil Cement Bentonite Cutoff Wall Subtotal													
11 - Levees and Floodwalls Total													
15 - Floodway Control and Diversion Structures													
16	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	0.1721 0.0040 0.0474 0.0000	g/hr g/hp-hr g/hr g/hr
Mobilization and Demobilization Subtotal													
17	Construction Site Dewatering (Temporary Cofferdam)	21,000	SF	Flatbed Truck 75 TN Crane Crawler Pile Hammer Pickup Truck Conventional	n/a - onroad Bore/Drill Rigs n/a - onroad	1 1 6	MHDT 221 LDT2	1,200	1	1,200	18	0.1721 0.0048 0.0474	g/hr g/hp-hr g/hr
Construction Site Dewatering (Temporary Cofferdam) Subtotal													
18	Construction Site Dewatering (Pumping)	-	-	6" Dia. Pump Engine Drive Pickup Truck Conventional	Pumps n/a - onroad	1 3	84 LDT2	-	1	1	120	0.0049 0.0474	g/hp-hr g/hr
Construction Site Dewatering (Pumping) Subtotal													
19	Excavation (Wet Conditions)	6,130	CY	4.5 CY Hydraulic Excavator 300 HP Dozer 3.5 CY Front End Loader Wheel 16 CY 3 Axle Dump Truck Pickup Truck Conventional	Excavators Rubber Tired Dozers Rubber Tired Loaders n/a - onroad n/a - onroad	1 2 2 9 7	429 300 164 HHDT LDT2	1,800	1	1,800	4	0.0032 0.0033 0.0035 0.2281 0.0474	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr
Excavation (Wet Conditions) Subtotal													
20	Sheet Pile Wall	7,790	SF	Flatbed Truck 75 TN Crane Crawler Pile Hammer Pickup Truck Conventional	n/a - onroad Bore/Drill Rigs n/a - onroad	1 1 6	MHDT 221 LDT2	1,200	1	1,200	7	0.1721 0.0048 0.0474	g/hr g/hp-hr g/hr
Sheet Pile Wall Subtotal													

Table K-94. SO2 Exhaust Emissions from Offroad

#	Activity	Maximum Daily Emissions, lbs/day																							
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug	26-Aug	2-Sep	9-Sep	16-Sep	
10	Riprap - Class 2	--	--	--	--	--	--	--	--	--	--	--	--	--	0.03	0.03	0.03	0.03	0.03	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.02	0.02	0.02	0.02	0.02	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.09	0.09	0.09	0.09	0.09	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.00	0.00	0.00	0.00	0.00	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	0.14	0.14	0.14	0.14	0.14	--	--	--	--	--		
11	Riprap - Class 3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.03	0.03	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02	0.02	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.09	0.09	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00	0.00	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.14	0.14	--	--	--	--	--		
12	RSP Bedding Material	--	--	--	--	--	--	--	--	--	--	--	--	0.06	0.06	0.06	0.06	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	0.04	0.04	0.04	0.04	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	0.01	0.01	0.01	0.01	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	0.19	0.19	0.19	0.19	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	0.29	0.29	0.29	0.29	--	--	--	--	--	--			
13	Erosion Control Seeding	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01	0.01		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00	0.00		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01	0.01		
		0.01	0.06	0.06	0.06	0.15	0.19	0.31	0.28	0.28	0.28	0.12	0.12	0.29	0.43	0.43	0.43	0.29	0.29	0.01	--	--	0.01	0.01	
14	Mobilization and Demobilization	--	--	--	--	--	--	--	0.00	--	--	--	0.00	--	--	--	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	0.01	--	--	--	0.01	--	--	--	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	0.00	--	--	--	0.00	--	--	--	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
		--	--	--	--	--	--	0.01	--	--	--	0.01	--	--	--	--	--	--	--	--	--	--			
15	Soil Cement Bentonite Cutoff Wall	--	--	--	--	--	--	--	0.02	0.02	0.02	--	--	--	--	--	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	0.02	0.02	0.02	--	--	--	--	--	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	0.01	0.01	0.01	--	--	--	--	--	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	0.00	0.00	0.00	--	--	--	--	--	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	0.00	0.00	0.00	--	--	--	--	--	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	0.01	0.01	0.01	--	--	--	--	--	--	--	--	--	--	--	--		
		--	--	--	--	--	--	0.07	0.07	0.07	0.07	0.01	--	--	--	--	--	--	--	--	--	--			
		--	--	--	--	--	--	0.01	0.07	0.07	0.07	0.01	--	--	--	--	--	--	--	--	--	--			
15 - Floodway Control and Diversion Structures																									
16	Mobilization and Demobilization	--	--	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
		--	--	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
		--	--	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
		--	--	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
17	Construction Site Dewatering (Temporary Cofferdam)	--	--	--	0.00	0.00	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		--	--	--	0.02	0.02	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		--	--	--	0.01	0.01	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		--	--	--	0.03	0.03	0.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
18	Construction Site Dewatering (Pumping)	--	--	--	--	--	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01			
		--	--	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
		--	--	--	--	--	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01			
19	Excavation (Wet Conditions)	--	--	--	--	--	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		--	--	--	--	--	0.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		--	--	--	--	--	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		--	--	--	--	--	0.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		--	--	--	--	--	0.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
20	Sheet Pile Wall	--	--	--	--	--	0.00	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		--	--	--	--	--	0.02	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		--	--	--	--	--	0.01	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		--	--	--	--	--	0.03	0.03	--	--	--	--	--	--	--	--	--	--	--	--	--				

Table K-94. SO2 Exhaust Emissions from Offroad

#	Activity	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	Annual Emissions, tpy
10	Riprap - Class 2	--	--	--	--	--	0.0004
		--	--	--	--	--	0.0002
		--	--	--	--	--	0.0012
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0018
11	Riprap - Class 3	--	--	--	--	--	0.0001
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0005
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0007
12	RSP Bedding Material	--	--	--	--	--	0.0005
		--	--	--	--	--	0.0004
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0018
		--	--	--	--	--	0.0027
13	Erosion Control Seeding	0.01	--	--	--	--	0.0001
		0.00	--	--	--	--	0.0000
		0.01	--	--	--	--	0.0001
		0.01	--	--	--	--	0.0107
11 - Levees and Floodwalls							
14	Mobilization and Demobilization	--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	--	--
		--	--	--	--	--	0.0000
15	Soil Cement Bentonite Cutoff Wall	--	--	--	--	--	0.0002
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0005
		--	--	--	--	--	0.0005
15 - Floodway Control and Diversion Structures							
16	Mobilization and Demobilization	--	--	--	0.00	--	0.0000
		--	--	--	0.01	--	0.0000
		--	--	--	0.00	--	0.0000
		--	--	--	--	--	--
		--	--	--	0.01	--	0.0000
17	Construction Site Dewatering (Temporary Cofferdam)	--	--	--	--	--	0.0000
		--	--	--	--	--	0.0002
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0002
18	Construction Site Dewatering (Pumping)	0.01	0.01	0.01	--	--	0.0004
		0.00	0.00	0.00	--	--	0.0002
		0.01	0.01	0.01	--	--	0.0006
19	Excavation (Wet Conditions)	--	--	--	--	--	0.0000
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0002
20	Sheet Pile Wall	--	--	--	--	--	0.0000
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0001

Table K-94. SO2 Exhaust Emissions from Offroad Construction Equipment (Alternative 1) - Unmitigated

#	Activity	Quantity	Unit	Crew / Equipment	OFFROAD Name	Equipment Quantity per Crew	Size (hp)	Crew Daily Output	No. of Crews	Total Daily Output	Estimated Duration, Days	Emission Factor	Units
21	Headworks Structure Concrete Piles	5,040	LF	40 TN Truck-mounted Hydraulic Crane 100 FT Auger Track-mounted Drill Rig Concrete Pump Boom Truck Mounted Concrete Mixer Truck 0.8 CY Backhoe Loader 24 TN Truck End Dump Pickup Truck Conventional	Cranes Bore/Drill Rigs Pumps n/a - onroad Tractors/Loaders/Backhoes Off-Highway Trucks n/a - onroad	1 1 1 3 1 2 8	300 221 84 MHDT 97 314 LDT2	180	1	180	28	0.0024 0.0048 0.0049 0.1721 0.0037 0.0032 0.0474	g/hp-hr g/hp-hr g/hp-hr g/hr g/hp-hr g/hp-hr g/hr
Headworks Structure Concrete Piles Subtotal													
22	Headworks Structure	3,080	CY	Concrete Pump Boom Truck Mounted 2.5" Dia. Concrete Vibrator Concrete Mixer Truck Pickup Truck Conventional	Pumps Plate Compactors n/a - onroad n/a - onroad	1 1 2 7	84 8 MHDT LDT2	60	3	180	18	0.0049 0.0038 0.1721 0.0474	g/hp-hr g/hp-hr g/hr g/hr
Headworks Structure Subtotal													
23	Headworks Channel Transition	1,330	CY	2.5" Dia. Concrete Vibrator Concrete Mixer Truck Pickup Truck Conventional	Plate Compactors n/a - onroad n/a - onroad	1 2 6	8 MHDT LDT2	70	2	140	10	0.0038 0.1721 0.0474	g/hp-hr g/hr g/hr
Headworks Channel Transition Subtotal													
24	Hinged Bottom Gates	3	EA	90 TN Truck-mounted Hydraulic Crane Haul Truck Oversize Transport Pickup Truck Conventional	Cranes n/a - onroad n/a - onroad	1 1 4	450 HHDT LDT2	0.2	1	0.2	15	0.0024 0.2281 0.0474	g/hp-hr g/hr g/hr
Hinged Bottom Gates Subtotal													
15 - Floodway Control and Diversion Structures Total													
08 - Roads, Railroads, and Bridges													
25	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	0.1721 0.0040 0.0474 0.0000	g/hr g/hp-hr g/hr g/hr
Mobilization and Demobilization Subtotal													
26	Pedestrian Bridge Concrete Piles	320	LF	40 TN Truck-mounted Hydraulic Crane 100 FT Auger Track-mounted Drill Rig Concrete Pump Boom Truck Mounted Concrete Mixer Truck 0.8 CY Backhoe Loader 24 TN Truck End Dump Pickup Truck Conventional	Cranes Bore/Drill Rigs Pumps n/a - onroad Tractors/Loaders/Backhoes Off-Highway Trucks n/a - onroad	1 1 1 3 1 2 8	300 221 84 MHDT 97 314 LDT2	180	1	180	2	0.0024 0.0048 0.0049 0.1721 0.0037 0.0032 0.0474	g/hp-hr g/hp-hr g/hp-hr g/hr g/hp-hr g/hp-hr g/hr
Pedestrian Bridge Concrete Piles Subtotal													
27	Pedestrian Bridge Concrete Abutments and Wingwalls	24	CY	Concrete Pump Boom Truck Mounted 2.5" Dia. Concrete Vibrator Concrete Mixer Truck Pickup Truck Conventional	Pumps Plate Compactors n/a - onroad n/a - onroad	1 1 2 7	84 8 MHDT LDT2	60	1	60	1	0.0049 0.0038 0.1721 0.0474	g/hp-hr g/hp-hr g/hr g/hr
Pedestrian Bridge Concrete Abutments and Wingwalls Subtotal													
28	Pedestrian Bridge Span Installation	1,040	SF	90 TN Truck-mounted Hydraulic Crane Flatbed Truck Pickup Truck Conventional	Cranes n/a - onroad n/a - onroad	1 2 5	450 MHDT LDT2	390	1	390	3	0.0024 0.1721 0.0474	g/hp-hr g/hr g/hr
Pedestrian Bridge Span Installation Subtotal													
08 - Roads, Railroads, and Bridges Total													
19 - Buildings, Grounds, and Utilities													
29	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	0.1721 0.0040 0.0474 0.0000	g/hr g/hp-hr g/hr g/hr
Mobilization and Demobilization Subtotal													

Table K-94. SO2 Exhaust Emissions from Offroad

#	Activity						Annual Emissions, tpy
		2-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
21	Headworks Structure Concrete Piles	--	--	--	--	--	0.0002
		--	--	--	--	--	0.0003
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0005
		--	--	--	--	0.0001	
		--	--	--	--	0.0013	
22	Headworks Structure	--	--	--	--	--	0.0002
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0002
		--	--	--	--	--	0.0002
		--	--	--	--	0.0005	
23	Headworks Channel Transition	--	--	--	--	--	0.0000
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0001
		--	--	--	--	0.0001	
24	Hinged Bottom Gates	0.02	0.02	--	--	--	0.0001
		0.00	0.00	--	--	--	0.0000
		0.00	0.00	--	--	--	0.0000
		0.03	0.03	--	--	--	0.0002
		0.04	0.04	0.01	0.01	--	0.0034
08 - Roads, Railroads, and Bridges							
25	Mobilization and Demobilization	--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	--	--
		--	--	--	--	0.0000	
26	Pedestrian Bridge Concrete Piles	--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	0.0001	
27	Pedestrian Bridge Concrete Abutments and Wingwalls	--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	0.0000	
28	Pedestrian Bridge Span Installation	--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	0.0000	
		--	--	--	--	0.0002	
19 - Buildings, Grounds, and Utilities							
29	Mobilization and Demobilization	--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	--	--
		--	--	--	--	0.0000	

Table K-94. SO2 Exhaust Emissions from Offroad Construction Equipment (Alternative 1) - Unmitigated

#	Activity	Quantity	Unit	Crew / Equipment	OFFROAD Name	Equipment Quantity per Crew	Size (hp)	Crew Daily Output	No. of Crews	Total Daily Output	Estimated Duration, Days	Emission Factor	Units
30	CMU Building and Earthwork Pad Construction	1	EA	165 HP Dozer	Rubber Tired Dozers	1	165	-	1	1	30	0.0038	g/hp-hr
				Scraper	Scrapers	1	367					0.0040	g/hp-hr
				Motor Grader	Graders	1	187					0.0039	g/hp-hr
				Compactor	Rollers	1	80					0.0037	g/hp-hr
				4000 gallon Water Truck	n/a - onroad	1	MHDT					0.1721	g/hr
				10 TN Smooth Roller	Rollers	1	157					0.0036	g/hp-hr
				Pickup Truck Conventional	n/a - onroad	7	LDT2					0.0474	g/hr
				Concrete Pump Boom Truck Mounted	Pumps	1	84					0.0049	g/hp-hr
				2.5" Dia. Concrete Vibrator	Plate Compactors	1	8					0.0038	g/hp-hr
				Extended Boom Pallet Loader	Rough Terrain Forklifts	1	100					0.0040	g/hp-hr
				Concrete Mixer Truck	n/a - onroad	1	MHDT					0.1721	g/hr
CMU Building and Earthwork Pad Construction Subtotal													
31	Concrete Duct Banc	190	CY	Concrete Pump Boom Truck Mounted	Pumps	1	84	60	1	60	4	0.0049	g/hp-hr
				2.5" Dia. Concrete Vibrator	Plate Compactors	1	8					0.0038	g/hp-hr
				Concrete Mixer Truck	n/a - onroad	2	MHDT					0.1721	g/hr
				Pickup Truck Conventional	n/a - onroad	7	LDT2					0.0474	g/hr
Concrete Duct Banc Subtotal													
19 - Buildings, Grounds, and Utilities Total													
20 -Permanent Operating Equipment													
32	Mobilization and Demobilization	-	-	Flatbed Truck	n/a - onroad	1	MHDT	-	1	1	2	0.1721	g/hr
				Extended Boom Pallet Loader	Rough Terrain Forklifts	1	100					0.0040	g/hp-hr
				Pickup Truck Conventional	n/a - onroad	1	LDT2					0.0474	g/hr
				Temp. Mobile Office Building	n/a - onroad	1	n/a					0.0000	g/hr
Mobilization and Demobilization Subtotal													
33	Mechanical Hydraulic Cylinders & Housing	-	-	Extended Boom Pallet Loader	Rough Terrain Forklifts	1	100	-	1	1	30	0.0040	g/hp-hr
				Pickup Truck Conventional	n/a - onroad	3	LDT2					0.0474	g/hr
Mechanical Hydraulic Cylinders & Housing Subtotal													
34	CMU Building Mechanical Equipment	-	-	Extended Boom Pallet Loader	Rough Terrain Forklifts	1	100	-	1	1	30	0.0040	g/hp-hr
				Pickup Truck Conventional	n/a - onroad	3	LDT2					0.0474	g/hr
CMU Building Mechanical Equipment Subtotal													
35	Electrical Control Equipment CMU Building	-	-	Pickup Truck Conventional	n/a - onroad	3	LDT2	-	1	1	30	0.0474	g/hr
Electrical Control Equipment CMU Building Subtotal													
36	Electrical Power Equipment CMU Building	-	-	Pickup Truck Conventional	n/a - onroad	3	LDT2	-	1	1	30	0.0474	g/hr
Electrical Power Equipment CMU Building Subtotal													
37	Communication Equipment	-	-	Pickup Truck Conventional	n/a - onroad	3	LDT2	-	1	1	12	0.0474	g/hr
Communication Equipment Subtotal													
20 -Permanent Operating Equipment Total													
GRAND TOTAL													

Table K-94. SO2 Exhaust Emissions from Offroad

#	Activity						Annual Emissions, tpy
		2-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
30	CMU Building and Earthwork Pad Construction	--	--	--	--	--	0.0002
		--	--	--	--	--	0.0004
		--	--	--	--	--	0.0002
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0001
		--	--	--	--	0.0014	
31	Concrete Duct Banc	--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	0.0000	
		--	--	--	--	0.0014	
20 -Permanent Operating Equipment							
32	Mobilization and Demobilization	--	--	--	0.00	--	0.0000
		--	--	--	0.01	--	0.0000
		--	--	--	0.00	--	0.0000
		--	--	--	--	--	--
		--	--	--	0.01	--	0.0000
33	Mechanical Hydraulic Cylinders & Housing	0.01	0.01	0.01	--	--	0.0001
		0.00	0.00	0.00	--	--	0.0000
		0.01	0.01	0.01	--	--	0.0001
34	CMU Building Mechanical Equipment	0.01	0.01	0.01	--	--	0.0001
		0.00	0.00	0.00	--	--	0.0000
		0.01	0.01	0.01	--	--	0.0001
35	Electrical Control Equipment CMU Building	0.00	0.00	0.00	--	--	0.0000
		0.00	0.00	0.00	--	--	0.0000
36	Electrical Power Equipment CMU Building	0.00	0.00	0.00	--	--	0.0000
		0.00	0.00	0.00	--	--	0.0000
37	Communication Equipment	--	0.00	0.00	--	--	0.0000
		--	0.00	0.00	--	--	0.0000
		0.02	0.03	0.03	0.01	--	0.0004
GRAND TOTAL		0.07	0.06	0.04	0.06	0.01	0.0169

Table K-95. PM10 Exhaust Emissions from Offroad Construction Equipment (Alternative 1) - Unmitigated

#	Activity	Quantity	Unit	Crew / Equipment	OFFROAD Name	Equipment Quantity per Crew	Size (hp)	Crew Daily Output	No. of Crews	Total Daily Output	Estimated Duration, Days	Emission Factor	Units
02 - Relocations													
1	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	2.4742 0.0356 0.8623 0.0000	g/hr g/hp-hr g/hr g/hr
Mobilization and Demobilization Subtotal													
2	Fremont Weir Demo	450	CY	3.5 CY Hydraulic Excavator 3.5 CY Front End Loader Wheel 0.8 CY Loader/Backhoe, Wheel 4000 gallon Water Truck 16 CY 3 Axle Dump Truck Pickup Truck Conventional	Excavators Rubber Tired Loaders Tractors/Loaders/Backhoes n/a - onroad n/a - onroad n/a - onroad	1 1 1 1 1 6	359 164 97 MHDT HHDT LDT2	40	1	40	12	0.0170 0.0617 0.0651 2.4742 1.8973 0.8623	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr g/hr
Fremont Weir Demo Subtotal													
3	Levee O&M Road Regrading (6" AB)	119,000	SF	12' Blade Grader 4000 gallon Water Truck Pickup Truck Conventional 16 CY 3 Axle Dump Truck	Graders n/a - onroad n/a - onroad n/a - onroad	1 1 1 5	187 MHDT LDT2 HHDT	39,400	1	39,400	4	0.0567 2.4742 0.8623 1.8973	g/hp-hr g/hr g/hr g/hr
Levee O&M Road Regrading (6" AB) Subtotal													
4	Temporary Electrical Power	100	LF	Flatbed Truck Pickup Truck Conventional	n/a - onroad n/a - onroad	1 2	MHDT LDT2	1,500	1	1,500	1	2.4742 0.8623	g/hr g/hr
Temporary Electrical Power Subtotal													
02 - Relocations Total													
09 - Channels and Canals													
5	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	2.4742 0.0356 0.8623 0.0000	g/hr g/hp-hr g/hr g/hr
Mobilization and Demobilization Subtotal													
6	Clearing and Grubbing	61	ACR	1.5 CY Front End Loader Crawler Trailer Mounted Brush Chipper Chainsaw 4000 gallon Water Truck Pickup Truck Conventional 16 CY 3 Axle Dump Truck	Crawler Tractors Shredders Chainsaws n/a - onroad n/a - onroad n/a - onroad	1 1 1 1 6 1	110 140 8 MHDT LDT2 HHDT	2	2	4	16	0.1997 0.0303 0.2300 2.4742 0.8623 1.8973	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr g/hr
Clearing and Grubbing Subtotal													
7	Excavation (Wet Conditions)	61,810	CY	4.5 CY Hydraulic Excavator 300 HP Dozer 3.5 CY Front End Loader Wheel 16 CY 3 Axle Dump Truck Pickup Truck Conventional	Excavators Rubber Tired Dozers Rubber Tired Loaders n/a - onroad n/a - onroad	1 2 2 9 7	429 300 164 HHDT LDT2	1,800	1	1,800	35	0.0170 0.0917 0.0617 1.8973 0.8623	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr
Excavation (Wet Conditions) Subtotal													
8	Excavation/Grading (Dry Conditions)	118,960	CY	300 HP Dozer 21 CY Scrapers 12' Blade Grader 4000 gallon Water Truck Pickup Truck Conventional	Rubber Tired Dozers Scrapers Graders n/a - onroad n/a - onroad	1 4 1 1 7	300 407 187 MHDT LDT2	3,500	1	3,500	34	0.0917 0.0647 0.0567 2.4742 0.8623	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr
Excavation/Grading (Dry Conditions) Subtotal													
9	Earthen Backfill	8,950	CY	300 HP Dozer 4000 gallon Water Truck 10 TN Smooth Roller Pickup Truck Conventional	Rubber Tired Dozers n/a - onroad Rollers n/a - onroad	1 1 1 3	300 MHDT 157 LDT2	1,000	1	1,000	9	0.0917 2.4742 0.0365 0.8623	g/hp-hr g/hr g/hp-hr g/hr
Earthen Backfill Subtotal													

Table K-95. PM10 Exhaust Emissions from Offroa

#	Activity	Maximum Daily Emissions, lbs/day																							
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug	26-Aug	2-Sep	9-Sep	16-Sep	
02 - Relocations																									
1	Mobilization and Demobilization	0.04 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		0.06 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		0.02 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		0.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2	Fremont Weir Demo	--	0.11	0.11 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.18	0.18 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.11	0.11 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.04	0.04 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.03	0.03 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.09	0.09 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.57	0.57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
3	Levee O&M Road Regrading (6" AB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4	Temporary Electrical Power	0.04 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		0.03 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		0.07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		0.20	0.57	0.57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
09 - Channels and Canals																									
5	Mobilization and Demobilization	0.04 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.04 --	--	
		0.06 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.06 --	--	--	
		0.02 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02 --	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		0.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.12	--	--	
6	Clearing and Grubbing	--	0.77	0.77 --	0.77 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.15	0.15 --	0.15 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.06	0.06 --	0.06 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.09	0.09 --	0.09 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.18	0.18 --	0.18 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.07	0.07 --	0.07 --	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	1.33	1.33	1.33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
7	Excavation (Wet Conditions)	--	--	--	--	--	--	0.13	0.13	0.13	0.13	0.13	0.13	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	0.97	0.97	0.97	0.97	0.97	0.97	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	0.36	0.36	0.36	0.36	0.36	0.36	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	0.30	0.30	0.30	0.30	0.30	0.30	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	0.11	0.11	0.11	0.11	0.11	0.11	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	1.86	1.86	1.86	1.86	1.86	1.86	--	--	--	--	--	--	--	--	--	--	--	
8	Excavation/Grading (Dry Conditions)	--	--	--	--	0.49	0.49	0.49	0.49	0.49	0.49	0.49	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	1.86	1.86	1.86	1.86	1.86	1.86	1.86	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	0.19	0.19	0.19	0.19	0.19	0.19	0.19	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	0.04	0.04	0.04	0.04	0.04	0.04	0.04	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	0.11	0.11	0.11	0.11	0.11	0.11	0.11	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	2.68	2.68	2.68	2.68	2.68	2.68	2.68	--	--	--	--	--	--	--	--	--	--	--	--	
9	Earthen Backfill	--	--	--	--	0.49	0.49	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	0.04	0.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	0.10	0.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	0.05	0.05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	0.68	0.68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Table K-95. PM10 Exhaust Emissions from Offroad

#	Activity						Annual Emissions, tpy
		23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
02 - Relocations							
1	Mobilization and Demobilization	--	--	--	--	0.04	0.0000
		--	--	--	--	0.06	0.0001
		--	--	--	--	0.02	0.0000
		--	--	--	--	--	--
		--	--	--	--	0.12	0.0001
2	Fremont Weir Demo	--	--	--	--	--	0.0006
		--	--	--	--	--	0.0011
		--	--	--	--	--	0.0007
		--	--	--	--	--	0.0003
		--	--	--	--	--	0.0002
		--	--	--	--	0.0005	
		--	--	--	--	0.0034	
3	Levee O&M Road Regrading (6" AB)	--	--	--	0.19	--	0.0004
		--	--	--	0.04	--	0.0001
		--	--	--	0.02	--	0.0000
		--	--	--	0.17	--	0.0003
		--	--	--	0.41	--	0.0008
4	Temporary Electrical Power	--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	0.41	0.12	0.0044
09 - Channels and Canals							
5	Mobilization and Demobilization	--	--	--	--	--	0.0000
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0000
		--	--	--	--	--	--
		--	--	--	--	--	0.0001
6	Clearing and Grubbing	--	--	--	--	--	0.0062
		--	--	--	--	--	0.0012
		--	--	--	--	--	0.0005
		--	--	--	--	--	0.0007
		--	--	--	--	--	0.0015
		--	--	--	--	0.0005	
		--	--	--	--	--	0.0106
7	Excavation (Wet Conditions)	--	--	--	--	--	0.0023
		--	--	--	--	--	0.0170
		--	--	--	--	--	0.0062
		--	--	--	--	--	0.0053
		--	--	--	--	0.0019	
		--	--	--	--	--	0.0326
8	Excavation/Grading (Dry Conditions)	--	--	--	--	--	0.0083
		--	--	--	--	--	0.0316
		--	--	--	--	--	0.0032
		--	--	--	--	--	0.0007
		--	--	--	--	--	0.0018
		--	--	--	--	0.0455	
9	Earthen Backfill	--	--	--	--	--	0.0022
		--	--	--	--	--	0.0002
		--	--	--	--	--	0.0005
		--	--	--	--	0.0002	
		--	--	--	--	--	0.0030

Table K-95. PM10 Exhaust Emissions from Offroad Construction Equipment (Alternative 1) - Unmitigated

#	Activity	Quantity	Unit	Crew / Equipment	OFFROAD Name	Equipment Quantity per Crew	Size (hp)	Crew Daily Output	No. of Crews	Total Daily Output	Estimated Duration, Days	Emission Factor	Units
10	Riprap - Class 2	24,940	TN	2.5 CY Hydraulic Excavator 300 HP Dozer Crawler 16 CY 3 Axle Dump Truck Pickup Truck Conventional	Excavators Crawler Tractors n/a - onroad n/a - onroad	2 1 23 5	257 300 HHDT LDT2	1,000	1	1,000	25	0.0170 0.0553 1.8973 0.8623	g/hp-hr g/hp-hr g/hr g/hr
Riprap - Class 2 Subtotal													
11	Riprap - Class 3	9,420	TN	2.5 CY Hydraulic Excavator 300 HP Dozer Crawler 16 CY 3 Axle Dump Truck Pickup Truck Conventional	Excavators Crawler Tractors n/a - onroad n/a - onroad	2 1 23 5	257 300 HHDT LDT2	1,000	1	1,000	10	0.0170 0.0553 1.8973 0.8623	g/hp-hr g/hp-hr g/hr g/hr
Riprap - Class 3 Subtotal													
12	RSP Bedding Material	36,150	TN	2.5 CY Hydraulic Excavator 300 HP Dozer Crawler Pickup Truck Conventional 16 CY 3 Axle Dump Truck	Excavators Crawler Tractors n/a - onroad n/a - onroad	2 1 5 23	257 300 LDT2 HHDT	1,000	2	2,000	19	0.0170 0.0553 0.8623 1.8973	g/hp-hr g/hp-hr g/hr g/hr
RSP Bedding Material Subtotal													
13	Erosion Control Seeding	31	ACR	0.8 CY Front End Loader Wheel Pickup Truck Conventional	Tractors/Loaders/Backhoes n/a - onroad	1 4	97 LDT2	2	1	2	16	0.0651 0.8623	g/hp-hr g/hr
Erosion Control Seeding Subtotal													
09 - Channels and Canals Total													
11 - Levees and Floodwalls													
14	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	2.4742 0.0356 0.8623 0.0000	g/hr g/hp-hr g/hr g/hr
Mobilization and Demobilization Subtotal													
15	Soil Cement Bentonite Cutoff Wall	84,480	SF	4.5 CY Hydraulic Excavator 300 HP Dozer 2.5 CY Hydraulic Excavator 16 CY 3 Axle Dump Truck Flash Mixer Slurry Pump Pickup Truck Conventional	Excavators Rubber Tired Dozers Excavators n/a - onroad Cement and Mortar Mixers Pumps n/a - onroad	1 1 1 1 1 1 5	429 300 257 HHDT 9 84 LDT2	7,000	1	7,000	13	0.0170 0.0917 0.0170 1.8973 0.0906 0.1259 0.8623	g/hp-hr g/hp-hr g/hp-hr g/hr g/hp-hr g/hp-hr g/hr
Soil Cement Bentonite Cutoff Wall Subtotal													
11 - Levees and Floodwalls Total													
15 - Floodway Control and Diversion Structures													
16	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	2.4742 0.0356 0.8623 0.0000	g/hr g/hp-hr g/hr g/hr
Mobilization and Demobilization Subtotal													
17	Construction Site Dewatering (Temporary Cofferdam)	21,000	SF	Flatbed Truck 75 TN Crane Crawler Pile Hammer Pickup Truck Conventional	n/a - onroad Bore/Drill Rigs n/a - onroad	1 1 6	MHDT 221 LDT2	1,200	1	1,200	18	2.4742 0.0236 0.8623	g/hr g/hp-hr g/hr
Construction Site Dewatering (Temporary Cofferdam) Subtotal													
18	Construction Site Dewatering (Pumping)	-	-	6" Dia. Pump Engine Drive Pickup Truck Conventional	Pumps n/a - onroad	1 3	84 LDT2	-	1	1	120	0.1259 0.8623	g/hp-hr g/hr
Construction Site Dewatering (Pumping) Subtotal													
19	Excavation (Wet Conditions)	6,130	CY	4.5 CY Hydraulic Excavator 300 HP Dozer 3.5 CY Front End Loader Wheel 16 CY 3 Axle Dump Truck Pickup Truck Conventional	Excavators Rubber Tired Dozers Rubber Tired Loaders n/a - onroad n/a - onroad	1 2 2 9 7	429 300 164 HHDT LDT2	1,800	1	1,800	4	0.0170 0.0917 0.0617 1.8973 0.8623	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr
Excavation (Wet Conditions) Subtotal													
20	Sheet Pile Wall	7,790	SF	Flatbed Truck 75 TN Crane Crawler Pile Hammer Pickup Truck Conventional	n/a - onroad Bore/Drill Rigs n/a - onroad	1 1 6	MHDT 221 LDT2	1,200	1	1,200	7	2.4742 0.0236 0.8623	g/hr g/hp-hr g/hr
Sheet Pile Wall Subtotal													

Table K-95. PM10 Exhaust Emissions from Offroa

#	Activity	Maximum Daily Emissions, lbs/day																							
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug	26-Aug	2-Sep	9-Sep	16-Sep	
10	Riprap - Class 2	--	--	--	--	--	--	--	--	--	--	--	--	--	0.15	0.15	0.15	0.15	0.15	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.29	0.29	0.29	0.29	0.29	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.77	0.77	0.77	0.77	0.77	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.08	0.08	0.08	0.08	0.08	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	1.29	1.29	1.29	1.29	1.29	--	--	--	--	--	
11	Riprap - Class 3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.15	0.15	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.29	0.29	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.77	0.77	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.08	0.08	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	1.29	1.29	1.29	1.29	1.29	--	--	--	--	--	
12	RSP Bedding Material	--	--	--	--	--	--	--	--	--	--	--	--	0.31	0.31	0.31	0.31	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	0.59	0.59	0.59	0.59	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	0.15	0.15	0.15	0.15	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	1.54	1.54	1.54	1.54	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	2.59	2.59	2.59	2.59	--	--	--	--	--	--	--	
13	Erosion Control Seeding	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.11	0.11		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.06	0.06		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.17	0.17		
		0.12	1.33	1.33	1.33	2.68	3.35	5.22	4.54	4.54	4.54	1.86	1.86	2.59	3.88	3.88	3.88	2.59	2.59	0.12	--	--	0.17	0.17	
11 - Levees and Floodwalls																									
14	Mobilization and Demobilization	--	--	--	--	--	--	--	0.04	--	--	--	0.04	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	0.06	--	--	--	0.06	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	0.02	--	--	--	0.02	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	0.12	--	--	--	0.12	--	--	--	--	--	--	--	--	--	--	--	
15	Soil Cement Bentonite Cutoff Wall	--	--	--	--	--	--	--	--	0.13	0.13	0.13	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	0.49	0.49	0.49	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	0.08	0.08	0.08	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	0.03	0.03	0.03	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	0.01	0.01	0.01	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	0.19	0.19	0.19	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	0.08	0.08	0.08	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	1.00	1.00	1.00	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	0.12	1.00	1.00	1.00	0.12	--	--	--	--	--	--	--	--	--	--	--	
15 - Floodway Control and Diversion Structures																									
16	Mobilization and Demobilization	--	--	0.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	0.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	0.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
17	Construction Site Dewatering (Temporary Cofferdam)	--	--	--	0.04	0.04	0.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	0.09	0.09	0.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	0.09	0.09	0.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	0.23	0.23	0.23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
18	Construction Site Dewatering (Pumping)	--	--	--	--	--	--	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19		
		--	--	--	--	--	--	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05		
		--	--	--	--	--	--	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23		
19	Excavation (Wet Conditions)	--	--	--	--	--	--	0.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	0.97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	0.36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	0.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	1.86	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
20	Sheet Pile Wall	--	--	--	--	--	--	0.04	0.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	0.09	0.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	0.09	0.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	0.23	0.23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Table K-95. PM10 Exhaust Emissions from Offroad

#	Activity						Annual Emissions, tpy
		2-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
10	Riprap - Class 2	--	--	--	--	--	0.0019
		--	--	--	--	--	0.0037
		--	--	--	--	--	0.0096
		--	--	--	--	--	0.0010
		--	--	--	--	--	0.0162
11	Riprap - Class 3	--	--	--	--	--	0.0008
		--	--	--	--	--	0.0015
		--	--	--	--	--	0.0038
		--	--	--	--	--	0.0004
		--	--	--	--	--	0.0065
12	RSP Bedding Material	--	--	--	--	--	0.0029
		--	--	--	--	--	0.0056
		--	--	--	--	--	0.0014
		--	--	--	--	--	0.0146
		--	--	--	--	--	0.0246
13	Erosion Control Seeding	0.11	--	--	--	--	0.0009
		0.06	--	--	--	--	0.0005
		0.17	--	--	--	--	0.0014
		0.17	--	--	--	--	0.1405
11 - Levees and Floodwalls							
14	Mobilization and Demobilization	--	--	--	--	--	0.0000
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0000
		--	--	--	--	--	--
		--	--	--	--	--	0.0001
15	Soil Cement Bentonite Cutoff Wall	--	--	--	--	--	0.0008
		--	--	--	--	--	0.0032
		--	--	--	--	--	0.0005
		--	--	--	--	--	0.0002
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0012
		--	--	--	--	--	0.0005
		--	--	--	--	--	0.0065
		--	--	--	--	--	0.0066
15 - Floodway Control and Diversion Structures							
16	Mobilization and Demobilization	--	--	--	0.04	--	0.0000
		--	--	--	0.06	--	0.0001
		--	--	--	0.02	--	0.0000
		--	--	--	--	--	--
		--	--	--	0.12	--	0.0001
17	Construction Site Dewatering (Temporary Cofferdam)	--	--	--	--	--	0.0004
		--	--	--	--	--	0.0008
		--	--	--	--	--	0.0008
		--	--	--	--	--	0.0020
18	Construction Site Dewatering (Pumping)	0.19	0.19	0.19	--	--	0.0112
		0.05	0.05	0.05	--	--	0.0027
		0.23	0.23	0.23	--	--	0.0139
19	Excavation (Wet Conditions)	--	--	--	--	--	0.0003
		--	--	--	--	--	0.0019
		--	--	--	--	--	0.0007
		--	--	--	--	--	0.0006
		--	--	--	--	--	0.0002
		--	--	--	--	--	0.0037
20	Sheet Pile Wall	--	--	--	--	--	0.0002
		--	--	--	--	--	0.0003
		--	--	--	--	--	0.0003
		--	--	--	--	--	0.0008

Table K-95. PM10 Exhaust Emissions from Offroad Construction Equipment (Alternative 1) - Unmitigated

#	Activity	Quantity	Unit	Crew / Equipment	OFFROAD Name	Equipment Quantity per Crew	Size (hp)	Crew Daily Output	No. of Crews	Total Daily Output	Estimated Duration, Days	Emission Factor	Units
21	Headworks Structure Concrete Piles	5,040	LF	40 TN Truck-mounted Hydraulic Crane	Cranes	1	300	180	1	180	28	0.0399	g/hp-hr
				100 FT Auger Track-mounted Drill Rig	Bore/Drill Rigs	1	221					0.0236	g/hp-hr
				Concrete Pump Boom Truck Mounted	Pumps	1	84					0.1259	g/hp-hr
				Concrete Mixer Truck	n/a - onroad	3	MHDT					2.4742	g/hr
				0.8 CY Backhoe Loader	Tractors/Loaders/Backhoes	1	97					0.0651	g/hp-hr
				24 TN Truck End Dump	Off-Highway Trucks	2	314					0.0274	g/hp-hr
				Pickup Truck Conventional	n/a - onroad	8	LDT2					0.8623	g/hr
				Headworks Structure Concrete Piles Subtotal									
22	Headworks Structure	3,080	CY	Concrete Pump Boom Truck Mounted	Pumps	1	84	60	3	180	18	0.1259	g/hp-hr
				2.5" Dia. Concrete Vibrator	Plate Compactors	1	8					0.0696	g/hp-hr
				Concrete Mixer Truck	n/a - onroad	2	MHDT					2.4742	g/hr
				Pickup Truck Conventional	n/a - onroad	7	LDT2					0.8623	g/hr
Headworks Structure Subtotal													
23	Headworks Channel Transition	1,330	CY	2.5" Dia. Concrete Vibrator	Plate Compactors	1	8	70	2	140	10	0.0696	g/hp-hr
				Concrete Mixer Truck	n/a - onroad	2	MHDT					2.4742	g/hr
				Pickup Truck Conventional	n/a - onroad	6	LDT2					0.8623	g/hr
Headworks Channel Transition Subtotal													
24	Hinged Bottom Gates	3	EA	90 TN Truck-mounted Hydraulic Crane	Cranes	1	450	0.2	1	0.2	15	0.0399	g/hp-hr
				Haul Truck Oversize Transport	n/a - onroad	1	HHTD					1.8973	g/hr
				Pickup Truck Conventional	n/a - onroad	4	LDT2					0.8623	g/hr
Hinged Bottom Gates Subtotal													
15 - Floodway Control and Diversion Structures Total													
08 - Roads, Railroads, and Bridges													
25	Mobilization and Demobilization	-	-	Flatbed Truck	n/a - onroad	1	MHDT	-	1	1	2	2.4742	g/hr
				Extended Boom Pallet Loader	Rough Terrain Forklifts	1	100					0.0356	g/hp-hr
				Pickup Truck Conventional	n/a - onroad	1	LDT2					0.8623	g/hr
				Temp. Mobile Office Building	n/a - onroad	1	n/a					0.0000	g/hr
Mobilization and Demobilization Subtotal													
26	Pedestrian Bridge Concrete Piles	320	LF	40 TN Truck-mounted Hydraulic Crane	Cranes	1	300	180	1	180	2	0.0399	g/hp-hr
				100 FT Auger Track-mounted Drill Rig	Bore/Drill Rigs	1	221					0.0236	g/hp-hr
				Concrete Pump Boom Truck Mounted	Pumps	1	84					0.1259	g/hp-hr
				Concrete Mixer Truck	n/a - onroad	3	MHDT					2.4742	g/hr
				0.8 CY Backhoe Loader	Tractors/Loaders/Backhoes	1	97					0.0651	g/hp-hr
				24 TN Truck End Dump	Off-Highway Trucks	2	314					0.0274	g/hp-hr
				Pickup Truck Conventional	n/a - onroad	8	LDT2					0.8623	g/hr
				Pedestrian Bridge Concrete Piles Subtotal									
27	Pedestrian Bridge Concrete Abutments and Wingwalls	24	CY	Concrete Pump Boom Truck Mounted	Pumps	1	84	60	1	60	1	0.1259	g/hp-hr
				2.5" Dia. Concrete Vibrator	Plate Compactors	1	8					0.0696	g/hp-hr
				Concrete Mixer Truck	n/a - onroad	2	MHDT					2.4742	g/hr
				Pickup Truck Conventional	n/a - onroad	7	LDT2					0.8623	g/hr
Pedestrian Bridge Concrete Abutments and Wingwalls Subtotal													
28	Pedestrian Bridge Span Installation	1,040	SF	90 TN Truck-mounted Hydraulic Crane	Cranes	1	450	390	1	390	3	0.0399	g/hp-hr
				Flatbed Truck	n/a - onroad	2	MHDT					2.4742	g/hr
				Pickup Truck Conventional	n/a - onroad	5	LDT2					0.8623	g/hr
Pedestrian Bridge Span Installation Subtotal													
08 - Roads, Railroads, and Bridges Total													
19 - Buildings, Grounds, and Utilities													
29	Mobilization and Demobilization	-	-	Flatbed Truck	n/a - onroad	1	MHDT	-	1	1	2	2.4742	g/hr
				Extended Boom Pallet Loader	Rough Terrain Forklifts	1	100					0.0356	g/hp-hr
				Pickup Truck Conventional	n/a - onroad	1	LDT2					0.8623	g/hr
				Temp. Mobile Office Building	n/a - onroad	1	n/a					0.0000	g/hr
Mobilization and Demobilization Subtotal													

Table K-95. PM10 Exhaust Emissions from Offroa

#	Activity	Maximum Daily Emissions, lbs/day																							
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug	26-Aug	2-Sep	9-Sep	16-Sep	
21	Headworks Structure Concrete Piles	--	--	--	--	--	--	--	0.21	0.21	0.21	0.21	0.21	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	0.09	0.09	0.09	0.09	0.09	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	0.19	0.19	0.19	0.19	0.19	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	0.13	0.13	0.13	0.13	0.13	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	0.11	0.11	0.11	0.11	0.11	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	0.30	0.30	0.30	0.30	0.30	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	0.12	0.12	0.12	0.12	0.12	--	--	--	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	1.16	1.16	1.16	1.16	1.16	--	--	--	--	--	--	--	--	--	--		
22	Headworks Structure	--	--	--	--	--	--	--	--	--	--	--	0.56	0.56	--	--	--	--	0.56	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	0.03	0.03	--	--	--	--	0.03	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	0.26	0.26	--	--	--	--	0.26	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	0.32	0.32	--	--	--	--	0.32	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	1.17	1.17	--	--	--	--	1.17	--	--	--	--			
23	Headworks Channel Transition	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02	0.02	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.17	0.17	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.18	0.18	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.38	0.38	--	--	--	--	--	--			
24	Hinged Bottom Gates	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.32	0.32		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.03	0.03		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.06	0.06		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.41	0.41			
		--	--	0.12	0.23	0.23	0.23	2.10	1.62	1.62	1.39	1.39	2.56	1.40	0.23	0.61	0.61	0.23	1.40	0.23	0.23	0.23	0.64	0.64	
08 - Roads, Railroads, and Bridges																									
25	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	--	--	--	0.04	--	--	--	0.04	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.06	--	--	--	0.06	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.02	--	--	--	0.02	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.12	--	--	--	0.12	--	--	--	--		
26	Pedestrian Bridge Concrete Piles	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.21	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.09	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.19	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.13	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.11	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	0.12	--	--	--	--	--	--	--				
		--	--	--	--	--	--	--	--	--	--	--	--	--	1.16	--	--	--	--	--	--	--			
27	Pedestrian Bridge Concrete Abutments and Wingwalls	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.19	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.09	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.11	--	--	--	--	--	--	--			
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.39	--	--	--	--	--	--	--			
28	Pedestrian Bridge Span Installation	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.32	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.09	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.08	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.48	--	--	--	--	--			
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.12	1.16	0.39	0.48	0.12	--	--	--	--		
19 - Buildings, Grounds, and Utilities																									
29	Mobilization and Demobilization	0.04	--	--	--	--	--	0.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
		0.06	--	--	--	--	--	0.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
		0.02	--	--	--	--	--	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
		0.12	--	--	--	--	--	0.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table K-95. PM10 Exhaust Emissions from Offroad

#	Activity	Date					Annual Emissions, tpy
		2-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
21	Headworks Structure Concrete Piles	--	--	--	--	--	0.0030
		--	--	--	--	--	0.0013
		--	--	--	--	--	0.0026
		--	--	--	--	--	0.0018
		--	--	--	--	--	0.0016
		--	--	--	--	--	0.0042
		--	--	--	--	--	0.0017
		--	--	--	--	0.0162	
22	Headworks Structure	--	--	--	--	--	0.0050
		--	--	--	--	--	0.0003
		--	--	--	--	--	0.0024
		--	--	--	--	--	0.0029
		--	--	--	--	0.0105	
23	Headworks Channel Transition	--	--	--	--	--	0.0001
		--	--	--	--	--	0.0009
		--	--	--	--	--	0.0009
		--	--	--	--	0.0019	
24	Hinged Bottom Gates	0.32	0.32	--	--	--	0.0024
		0.03	0.03	--	--	--	0.0003
		0.06	0.06	--	--	--	0.0005
		0.41	0.41	--	--	--	0.0031
		0.64	0.64	0.23	0.12	--	0.0523
08 - Roads, Railroads, and Bridges							
25	Mobilization and Demobilization	--	--	--	--	--	0.0000
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0000
		--	--	--	--	--	--
		--	--	--	--	--	0.0001
26	Pedestrian Bridge Concrete Piles	--	--	--	--	--	0.0002
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0002
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0003
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0012
27	Pedestrian Bridge Concrete Abutments and Wingwalls	--	--	--	--	--	0.0001
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0002
28	Pedestrian Bridge Span Installation	--	--	--	--	--	0.0005
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0007
		--	--	--	--	--	0.0022
19 - Buildings, Grounds, and Utilities							
29	Mobilization and Demobilization	--	--	--	--	--	0.0000
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0000
		--	--	--	--	--	--
		--	--	--	--	--	0.0001

Table K-95. PM10 Exhaust Emissions from Offroad Construction Equipment (Alternative 1) - Unmitigated

#	Activity	Quantity	Unit	Crew / Equipment	OFFROAD Name	Equipment Quantity per Crew	Size (hp)	Crew Daily Output	No. of Crews	Total Daily Output	Estimated Duration, Days	Emission Factor	Units
30	CMU Building and Earthwork Pad Construction	1	EA	165 HP Dozer	Rubber Tired Dozers	1	165	-	1	1	30	0.1527	g/hp-hr
				Scraper	Scrapers	1	367					0.0647	g/hp-hr
				Motor Grader	Graders	1	187					0.0567	g/hp-hr
				Compactor	Rollers	1	80					0.0823	g/hp-hr
				4000 gallon Water Truck	n/a - onroad	1	MHDT					2.4742	g/hr
				10 TN Smooth Roller	Rollers	1	157					0.0365	g/hp-hr
				Pickup Truck Conventional	n/a - onroad	7	LDT2					0.8623	g/hr
				Concrete Pump Boom Truck Mounted	Pumps	1	84					0.1259	g/hp-hr
				2.5" Dia. Concrete Vibrator	Plate Compactors	1	8					0.0696	g/hp-hr
				Extended Boom Pallet Loader	Rough Terrain Forklifts	1	100					0.0356	g/hp-hr
				Concrete Mixer Truck	n/a - onroad	1	MHDT					2.4742	g/hr
CMU Building and Earthwork Pad Construction Subtotal													
31	Concrete Duct Banc	190	CY	Concrete Pump Boom Truck Mounted	Pumps	1	84	60	1	60	4	0.1259	g/hp-hr
				2.5" Dia. Concrete Vibrator	Plate Compactors	1	8					0.0696	g/hp-hr
				Concrete Mixer Truck	n/a - onroad	2	MHDT					2.4742	g/hr
				Pickup Truck Conventional	n/a - onroad	7	LDT2					0.8623	g/hr
Concrete Duct Banc Subtotal													
19 - Buildings, Grounds, and Utilities Total													
20 -Permanent Operating Equipment													
32	Mobilization and Demobilization	-	-	Flatbed Truck	n/a - onroad	1	MHDT	-	1	1	2	2.4742	g/hr
				Extended Boom Pallet Loader	Rough Terrain Forklifts	1	100					0.0356	g/hp-hr
				Pickup Truck Conventional	n/a - onroad	1	LDT2					0.8623	g/hr
				Temp. Mobile Office Building	n/a - onroad	1	n/a					0.0000	g/hr
Mobilization and Demobilization Subtotal													
33	Mechanical Hydraulic Cylinders & Housing	-	-	Extended Boom Pallet Loader	Rough Terrain Forklifts	1	100	-	1	1	30	0.0356	g/hp-hr
				Pickup Truck Conventional	n/a - onroad	3	LDT2					0.8623	g/hr
Mechanical Hydraulic Cylinders & Housing Subtotal													
34	CMU Building Mechanical Equipment	-	-	Extended Boom Pallet Loader	Rough Terrain Forklifts	1	100	-	1	1	30	0.0356	g/hp-hr
				Pickup Truck Conventional	n/a - onroad	3	LDT2					0.8623	g/hr
CMU Building Mechanical Equipment Subtotal													
35	Electrical Control Equipment CMU Building	-	-	Pickup Truck Conventional	n/a - onroad	3	LDT2	-	1	1	30	0.8623	g/hr
Electrical Control Equipment CMU Building Subtotal													
36	Electrical Power Equipment CMU Building	-	-	Pickup Truck Conventional	n/a - onroad	3	LDT2	-	1	1	30	0.8623	g/hr
Electrical Power Equipment CMU Building Subtotal													
37	Communication Equipment	-	-	Pickup Truck Conventional	n/a - onroad	3	LDT2	-	1	1	12	0.8623	g/hr
Communication Equipment Subtotal													
20 -Permanent Operating Equipment Total													
GRAND TOTAL													

Table K-95. PM10 Exhaust Emissions from Offroad

#	Activity						Annual Emissions, tpy
		2-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
30	CMU Building and Earthwork Pad Construction	--	--	--	--	--	0.0067
		--	--	--	--	--	0.0063
		--	--	--	--	--	0.0028
		--	--	--	--	--	0.0017
		--	--	--	--	--	0.0007
		--	--	--	--	--	0.0015
		--	--	--	--	--	0.0016
		--	--	--	--	--	0.0028
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0009
		--	--	--	--	0.0007	
		--	--	--	--	0.0258	
31	Concrete Duct Banc	--	--	--	--	--	0.0004
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0002
		--	--	--	--	--	0.0002
		--	--	--	--	0.0008	
		--	--	--	--	0.0267	
20 -Permanent Operating Equipment							
32	Mobilization and Demobilization	--	--	--	0.04	--	0.0000
		--	--	--	0.06	--	0.0001
		--	--	--	0.02	--	0.0000
		--	--	--	--	--	--
		--	--	--	0.12	--	0.0001
33	Mechanical Hydraulic Cylinders & Housing	0.06	0.06	0.06	--	--	0.0009
		0.05	0.05	0.05	--	--	0.0007
		0.11	0.11	0.11	--	--	0.0016
34	CMU Building Mechanical Equipment	0.06	0.06	0.06	--	--	0.0009
		0.05	0.05	0.05	--	--	0.0007
		0.11	0.11	0.11	--	--	0.0016
35	Electrical Control Equipment CMU Building	0.05	0.05	0.05	--	--	0.0007
		0.05	0.05	0.05	--	--	0.0007
36	Electrical Power Equipment CMU Building	0.05	0.05	0.05	--	--	0.0007
		0.05	0.05	0.05	--	--	0.0007
37	Communication Equipment	--	0.05	0.05	--	--	0.0003
		--	0.05	0.05	--	--	0.0003
		0.31	0.35	0.35	0.12	--	0.0050
GRAND TOTAL		1.12	1.00	0.59	0.66	0.12	0.2377

Table K-96. PM2.5 Exhaust Emissions from Offroad Construction Equipment (Alternative 1) - Unmitigated

#	Activity	Quantity	Unit	Crew / Equipment	OFFROAD Name	Equipment Quantity per Crew	Size (hp)	Crew Daily Output	No. of Crews	Total Daily Output	Estimated Duration, Days	Emission Factor	Units
02 - Relocations													
1	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	1.2073 0.0327 0.4490 0.0000	g/hr g/hp-hr g/hr g/hr
Mobilization and Demobilization Subtotal													
2	Fremont Weir Demo	450	CY	3.5 CY Hydraulic Excavator 3.5 CY Front End Loader Wheel 0.8 CY Loader/Backhoe, Wheel 4000 gallon Water Truck 16 CY 3 Axle Dump Truck Pickup Truck Conventional	Excavators Rubber Tired Loaders Tractors/Loaders/Backhoes n/a - onroad n/a - onroad n/a - onroad	1 1 1 1 1 6	359 164 97 MHDT HHDT LDT2	40	1	40	12	0.0157 0.0568 0.0599 1.2073 0.9593 0.4490	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr g/hr
Fremont Weir Demo Subtotal													
3	Levee O&M Road Regrading (6" AB)	119,000	SF	12' Blade Grader 4000 gallon Water Truck Pickup Truck Conventional 16 CY 3 Axle Dump Truck	Graders n/a - onroad n/a - onroad n/a - onroad	1 1 1 5	187 MHDT LDT2 HHDT	39,400	1	39,400	4	0.0522 1.2073 0.4490 0.9593	g/hp-hr g/hr g/hr g/hr
Levee O&M Road Regrading (6" AB) Subtotal													
4	Temporary Electrical Power	100	LF	Flatbed Truck Pickup Truck Conventional	n/a - onroad n/a - onroad	1 2	MHDT LDT2	1,500	1	1,500	1	1.2073 0.4490	g/hr g/hr
Temporary Electrical Power Subtotal													
02 - Relocations Total													
09 - Channels and Canals													
5	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	1.2073 0.0327 0.4490 0.0000	g/hr g/hp-hr g/hr g/hr
Mobilization and Demobilization Subtotal													
6	Clearing and Grubbing	61	ACR	1.5 CY Front End Loader Crawler Trailer Mounted Brush Chipper Chainsaw 4000 gallon Water Truck Pickup Truck Conventional 16 CY 3 Axle Dump Truck	Crawler Tractors Shredders Chainsaws n/a - onroad n/a - onroad n/a - onroad	1 1 1 1 6 1	110 140 8 MHDT LDT2 HHDT	2	2	4	16	0.1837 0.0279 0.2116 1.2073 0.4490 0.9593	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr g/hr
Clearing and Grubbing Subtotal													
7	Excavation (Wet Conditions)	61,810	CY	4.5 CY Hydraulic Excavator 300 HP Dozer 3.5 CY Front End Loader Wheel 16 CY 3 Axle Dump Truck Pickup Truck Conventional	Excavators Rubber Tired Dozers Rubber Tired Loaders n/a - onroad n/a - onroad	1 2 2 9 7	429 300 164 HHDT LDT2	1,800	1	1,800	35	0.0157 0.0844 0.0568 0.9593 0.4490	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr
Excavation (Wet Conditions) Subtotal													
8	Excavation/Grading (Dry Conditions)	118,960	CY	300 HP Dozer 21 CY Scrapers 12' Blade Grader 4000 gallon Water Truck Pickup Truck Conventional	Rubber Tired Dozers Scrapers Graders n/a - onroad n/a - onroad	1 4 1 1 7	300 407 187 MHDT LDT2	3,500	1	3,500	34	0.0844 0.0595 0.0522 1.2073 0.4490	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr
Excavation/Grading (Dry Conditions) Subtotal													
9	Earthen Backfill	8,950	CY	300 HP Dozer 4000 gallon Water Truck 10 TN Smooth Roller Pickup Truck Conventional	Rubber Tired Dozers n/a - onroad Rollers n/a - onroad	1 1 1 3	300 MHDT 157 LDT2	1,000	1	1,000	9	0.0844 1.2073 0.0336 0.4490	g/hp-hr g/hr g/hp-hr g/hr
Earthen Backfill Subtotal													

Table K-96. PM2.5 Exhaust Emissions from Offroad

#	Activity	Maximum Daily Emissions, lbs/day																							
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug	26-Aug	2-Sep	9-Sep	16-Sep	
02 - Relocations																									
1	Mobilization and Demobilization	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		0.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		0.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2	Fremont Weir Demo	--	0.10	0.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.16	0.16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.10	0.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.02	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.02	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.05	0.05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.45	0.45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
3	Levee O&M Road Regrading (6" AB)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4	Temporary Electrical Power	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		0.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		0.12	0.45	0.45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
09 - Channels and Canals																									
5	Mobilization and Demobilization	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02	--	
		0.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.06	--	--	
		0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		0.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.09	--	--	
6	Clearing and Grubbing	--	0.71	0.71	0.71	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.14	0.14	0.14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.06	0.06	0.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.04	0.04	0.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.10	0.10	0.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.03	0.03	0.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	1.08	1.08	1.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
7	Excavation (Wet Conditions)	--	--	--	--	--	--	0.12	0.12	0.12	0.12	0.12	0.12	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	0.89	0.89	0.89	0.89	0.89	0.89	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	0.33	0.33	0.33	0.33	0.33	0.33	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	0.15	0.15	0.15	0.15	0.15	0.15	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	0.06	0.06	0.06	0.06	0.06	0.06	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	1.55	1.55	1.55	1.55	1.55	1.55	--	--	--	--	--	--	--	--	--	--	--	
8	Excavation/Grading (Dry Conditions)	--	--	--	--	0.45	0.45	0.45	0.45	0.45	0.45	0.45	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	1.71	1.71	1.71	1.71	1.71	1.71	1.71	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	0.17	0.17	0.17	0.17	0.17	0.17	0.17	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	0.02	0.02	0.02	0.02	0.02	0.02	0.02	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	0.06	0.06	0.06	0.06	0.06	0.06	0.06	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	2.40	2.40	2.40	2.40	2.40	2.40	2.40	--	--	--	--	--	--	--	--	--	--	--	--	
9	Earthen Backfill	--	--	--	--	0.45	0.45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	0.02	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	0.09	0.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	0.02	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	0.58	0.58	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Table K-96. PM2.5 Exhaust Emissions from Offroad

#	Activity						Annual Emissions, tpy
		23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
02 - Relocations							
1	Mobilization and Demobilization	--	--	--	--	0.02	0.0000
		--	--	--	--	0.06	0.0001
		--	--	--	--	0.01	0.0000
		--	--	--	--	--	--
		--	--	--	--	0.09	0.0001
2	Fremont Weir Demo	--	--	--	--	--	0.0006
		--	--	--	--	--	0.0010
		--	--	--	--	--	0.0006
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0001
							0.0003
							0.0027
3	Levee O&M Road Regrading (6" AB)	--	--	--	0.17	--	0.0003
		--	--	--	0.02	--	0.0000
		--	--	--	0.01	--	0.0000
		--	--	--	0.08	--	0.0002
							0.0006
4	Temporary Electrical Power	--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
							0.0000
							0.0034
09 - Channels and Canals							
5	Mobilization and Demobilization	--	--	--	--	--	0.0000
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0000
		--	--	--	--	--	--
							0.0001
6	Clearing and Grubbing	--	--	--	--	--	0.0057
		--	--	--	--	--	0.0011
		--	--	--	--	--	0.0005
		--	--	--	--	--	0.0003
		--	--	--	--	--	0.0008
							0.0003
							0.0087
7	Excavation (Wet Conditions)	--	--	--	--	--	0.0021
		--	--	--	--	--	0.0156
		--	--	--	--	--	0.0057
		--	--	--	--	--	0.0027
		--	--	--	--	--	0.0010
							0.0271
8	Excavation/Grading (Dry Conditions)	--	--	--	--	--	0.0076
		--	--	--	--	--	0.0290
		--	--	--	--	--	0.0029
		--	--	--	--	--	0.0004
		--	--	--	--	--	0.0009
							0.0409
9	Earthen Backfill	--	--	--	--	--	0.0020
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0004
		--	--	--	--	--	0.0001
							0.0026

Table K-96. PM2.5 Exhaust Emissions from Offroad Construction Equipment (Alternative 1) - Unmitigated

#	Activity	Quantity	Unit	Crew / Equipment	OFFROAD Name	Equipment Quantity per Crew	Size (hp)	Crew Daily Output	No. of Crews	Total Daily Output	Estimated Duration, Days	Emission Factor	Units
10	Riprap - Class 2	24,940	TN	2.5 CY Hydraulic Excavator 300 HP Dozer Crawler 16 CY 3 Axle Dump Truck Pickup Truck Conventional	Excavators Crawler Tractors n/a - onroad n/a - onroad	2 1 23 5	257 300 HHDT LDT2	1,000	1	1,000	25	0.0157 0.0509 0.9593 0.4490	g/hp-hr g/hp-hr g/hr g/hr
Riprap - Class 2 Subtotal													
11	Riprap - Class 3	9,420	TN	2.5 CY Hydraulic Excavator 300 HP Dozer Crawler 16 CY 3 Axle Dump Truck Pickup Truck Conventional	Excavators Crawler Tractors n/a - onroad n/a - onroad	2 1 23 5	257 300 HHDT LDT2	1,000	1	1,000	10	0.0157 0.0509 0.9593 0.4490	g/hp-hr g/hp-hr g/hr g/hr
Riprap - Class 3 Subtotal													
12	RSP Bedding Material	36,150	TN	2.5 CY Hydraulic Excavator 300 HP Dozer Crawler Pickup Truck Conventional 16 CY 3 Axle Dump Truck	Excavators Crawler Tractors n/a - onroad n/a - onroad	2 1 5 23	257 300 LDT2 HHDT	1,000	2	2,000	19	0.0157 0.0509 0.4490 0.9593	g/hp-hr g/hp-hr g/hr g/hr
RSP Bedding Material Subtotal													
13	Erosion Control Seeding	31	ACR	0.8 CY Front End Loader Wheel Pickup Truck Conventional	Tractors/Loaders/Backhoes n/a - onroad	1 4	97 LDT2	2	1	2	16	0.0599 0.4490	g/hp-hr g/hr
Erosion Control Seeding Subtotal													
09 - Channels and Canals Total													
11 - Levees and Floodwalls													
14	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	1.2073 0.0327 0.4490 0.0000	g/hr g/hp-hr g/hr g/hr
Mobilization and Demobilization Subtotal													
15	Soil Cement Bentonite Cutoff Wall	84,480	SF	4.5 CY Hydraulic Excavator 300 HP Dozer 2.5 CY Hydraulic Excavator 16 CY 3 Axle Dump Truck Flash Mixer Slurry Pump Pickup Truck Conventional	Excavators Rubber Tired Dozers Excavators n/a - onroad Cement and Mortar Mixers Pumps n/a - onroad	1 1 1 1 1 1 5	429 300 257 HHDT 9 84 LDT2	7,000	1	7,000	13	0.0157 0.0844 0.0157 0.9593 0.0833 0.1159 0.4490	g/hp-hr g/hp-hr g/hp-hr g/hr g/hp-hr g/hp-hr g/hr
Soil Cement Bentonite Cutoff Wall Subtotal													
11 - Levees and Floodwalls Total													
15 - Floodway Control and Diversion Structures													
16	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	1.2073 0.0327 0.4490 0.0000	g/hr g/hp-hr g/hr g/hr
Mobilization and Demobilization Subtotal													
17	Construction Site Dewatering (Temporary Cofferdam)	21,000	SF	Flatbed Truck 75 TN Crane Crawler Pile Hammer Pickup Truck Conventional	n/a - onroad Bore/Drill Rigs n/a - onroad	1 1 6	MHDT 221 LDT2	1,200	1	1,200	18	1.2073 0.0217 0.4490	g/hr g/hp-hr g/hr
Construction Site Dewatering (Temporary Cofferdam) Subtotal													
18	Construction Site Dewatering (Pumping)	-	-	6" Dia. Pump Engine Drive Pickup Truck Conventional	Pumps n/a - onroad	1 3	84 LDT2	-	1	1	120	0.1159 0.4490	g/hp-hr g/hr
Construction Site Dewatering (Pumping) Subtotal													
19	Excavation (Wet Conditions)	6,130	CY	4.5 CY Hydraulic Excavator 300 HP Dozer 3.5 CY Front End Loader Wheel 16 CY 3 Axle Dump Truck Pickup Truck Conventional	Excavators Rubber Tired Dozers Rubber Tired Loaders n/a - onroad n/a - onroad	1 2 2 9 7	429 300 164 HHDT LDT2	1,800	1	1,800	4	0.0157 0.0844 0.0568 0.9593 0.4490	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr
Excavation (Wet Conditions) Subtotal													
20	Sheet Pile Wall	7,790	SF	Flatbed Truck 75 TN Crane Crawler Pile Hammer Pickup Truck Conventional	n/a - onroad Bore/Drill Rigs n/a - onroad	1 1 6	MHDT 221 LDT2	1,200	1	1,200	7	1.2073 0.0217 0.4490	g/hr g/hp-hr g/hr
Sheet Pile Wall Subtotal													

Table K-96. PM2.5 Exhaust Emissions from Offroad

#	Activity	Maximum Daily Emissions, lbs/day																							
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug	26-Aug	2-Sep	9-Sep	16-Sep	
10	Riprap - Class 2	--	--	--	--	--	--	--	--	--	--	--	--	--	0.14	0.14	0.14	0.14	0.14	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.27	0.27	0.27	0.27	0.27	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.39	0.39	0.39	0.39	0.39	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.04	0.04	0.04	0.04	0.04	--	--	--	--	--	
															0.84	0.84	0.84	0.84	0.84	--	--	--	--	--	
11	Riprap - Class 3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.14	0.14	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.27	0.27	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.39	0.39	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.04	0.04	--	--	--	--	--	
																	0.84	0.84	--	--	--	--	--	--	
12	RSP Bedding Material	--	--	--	--	--	--	--	--	--	--	--	--	0.28	0.28	0.28	0.28	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	0.54	0.54	0.54	0.54	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	0.08	0.08	0.08	0.08	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	0.78	0.78	0.78	0.78	--	--	--	--	--	--	--	
														1.68	1.68	1.68	1.68	--	--	--	--	--	--	--	
13	Erosion Control Seeding	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.10	0.10		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.03	0.03		
																						0.13	0.13		
		0.09	1.08	1.08	1.08	2.40	2.99	4.54	3.95	3.95	3.95	1.55	1.55	1.68	2.52	2.52	2.52	1.68	1.68	0.09	--	--	0.13	0.13	
11 - Levees and Floodwalls																									
14	Mobilization and Demobilization	--	--	--	--	--	--	--	0.02	--	--	--	0.02	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	0.06	--	--	--	0.06	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	0.01	--	--	--	0.01	--	--	--	--	--	--	--	--	--	--	--	
									0.09	--	--	--	0.09	--	--	--	--	--	--	--	--	--	--	--	
15	Soil Cement Bentonite Cutoff Wall	--	--	--	--	--	--	--	--	0.12	0.12	0.12	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	0.45	0.45	0.45	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	0.07	0.07	0.07	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	0.02	0.02	0.02	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	0.01	0.01	0.01	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	0.17	0.17	0.17	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	0.04	0.04	0.04	--	--	--	--	--	--	--	--	--	--	--	--	
									0.88	0.88	0.88	0.09	--	--	--	--	--	--	--	--	--	--	--	--	
									0.09	0.88	0.88	0.88	0.09	--	--	--	--	--	--	--	--	--	--	--	
15 - Floodway Control and Diversion Structures																									
16	Mobilization and Demobilization	--	--	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	0.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
				0.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
17	Construction Site Dewatering (Temporary Cofferdam)	--	--	--	0.02	0.02	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	0.08	0.08	0.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	0.05	0.05	0.05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
					0.15	0.15	0.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
18	Construction Site Dewatering (Pumping)	--	--	--	--	--	--	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17		
		--	--	--	--	--	--	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02		
								0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20		
19	Excavation (Wet Conditions)	--	--	--	--	--	--	0.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	0.89	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	0.33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	0.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	0.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
								1.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
20	Sheet Pile Wall	--	--	--	--	--	--	0.02	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	0.08	0.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	0.05	0.05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
								0.15	0.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Table K-96. PM2.5 Exhaust Emissions from Offroad

#	Activity						Annual Emissions, tpy
		2-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
10	Riprap - Class 2	--	--	--	--	--	0.0018
		--	--	--	--	--	0.0034
		--	--	--	--	--	0.0049
		--	--	--	--	--	0.0005
		--	--	--	--	--	0.0105
11	Riprap - Class 3	--	--	--	--	--	0.0007
		--	--	--	--	--	0.0013
		--	--	--	--	--	0.0019
		--	--	--	--	--	0.0002
		--	--	--	--	--	0.0042
12	RSP Bedding Material	--	--	--	--	--	0.0027
		--	--	--	--	--	0.0051
		--	--	--	--	--	0.0008
		--	--	--	--	--	0.0074
		--	--	--	--	--	0.0160
13	Erosion Control Seeding	0.10	--	--	--	--	0.0008
		0.03	--	--	--	--	0.0003
		0.13	--	--	--	--	0.0011
		0.13	--	--	--	--	0.1110
11 - Levees and Floodwalls							
14	Mobilization and Demobilization	--	--	--	--	--	0.0000
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0000
		--	--	--	--	--	--
		--	--	--	--	--	0.0001
15	Soil Cement Bentonite Cutoff Wall	--	--	--	--	--	0.0008
		--	--	--	--	--	0.0029
		--	--	--	--	--	0.0005
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0011
		--	--	--	--	--	0.0003
		--	--	--	--	--	0.0057
		--	--	--	--	--	0.0058
15 - Floodway Control and Diversion Structures							
16	Mobilization and Demobilization	--	--	--	0.02	--	0.0000
		--	--	--	0.06	--	0.0001
		--	--	--	0.01	--	0.0000
		--	--	--	--	--	--
		--	--	--	0.09	--	0.0001
17	Construction Site Dewatering (Temporary Cofferdam)	--	--	--	--	--	0.0002
		--	--	--	--	--	0.0008
		--	--	--	--	--	0.0004
		--	--	--	--	--	0.0014
18	Construction Site Dewatering (Pumping)	0.17	0.17	0.17	--	--	0.0103
		0.02	0.02	0.02	--	--	0.0014
		0.20	0.20	0.20	--	--	0.0117
19	Excavation (Wet Conditions)	--	--	--	--	--	0.0002
		--	--	--	--	--	0.0018
		--	--	--	--	--	0.0007
		--	--	--	--	--	0.0003
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0031
20	Sheet Pile Wall	--	--	--	--	--	0.0001
		--	--	--	--	--	0.0003
		--	--	--	--	--	0.0002
		--	--	--	--	--	0.0005

Table K-96. PM2.5 Exhaust Emissions from Offroad Construction Equipment (Alternative 1) - Unmitigated

#	Activity	Quantity	Unit	Crew / Equipment	OFFROAD Name	Equipment Quantity per Crew	Size (hp)	Crew Daily Output	No. of Crews	Total Daily Output	Estimated Duration, Days	Emission Factor	Units
21	Headworks Structure Concrete Piles	5,040	LF	40 TN Truck-mounted Hydraulic Crane	Cranes	1	300	180	1	180	28	0.0367	g/hp-hr
				100 FT Auger Track-mounted Drill Rig	Bore/Drill Rigs	1	221					0.0217	g/hp-hr
				Concrete Pump Boom Truck Mounted	Pumps	1	84					0.1159	g/hp-hr
				Concrete Mixer Truck	n/a - onroad	3	MHDT					1.2073	g/hr
				0.8 CY Backhoe Loader	Tractors/Loaders/Backhoes	1	97					0.0599	g/hp-hr
				24 TN Truck End Dump	Off-Highway Trucks	2	314					0.0252	g/hp-hr
				Pickup Truck Conventional	n/a - onroad	8	LDT2					0.4490	g/hr
				Headworks Structure Concrete Piles Subtotal									
22	Headworks Structure	3,080	CY	Concrete Pump Boom Truck Mounted	Pumps	1	84	60	3	180	18	0.1159	g/hp-hr
				2.5" Dia. Concrete Vibrator	Plate Compactors	1	8					0.0640	g/hp-hr
				Concrete Mixer Truck	n/a - onroad	2	MHDT					1.2073	g/hr
				Pickup Truck Conventional	n/a - onroad	7	LDT2					0.4490	g/hr
Headworks Structure Subtotal													
23	Headworks Channel Transition	1,330	CY	2.5" Dia. Concrete Vibrator	Plate Compactors	1	8	70	2	140	10	0.0640	g/hp-hr
				Concrete Mixer Truck	n/a - onroad	2	MHDT					1.2073	g/hr
				Pickup Truck Conventional	n/a - onroad	6	LDT2					0.4490	g/hr
Headworks Channel Transition Subtotal													
24	Hinged Bottom Gates	3	EA	90 TN Truck-mounted Hydraulic Crane	Cranes	1	450	0.2	1	0.2	15	0.0367	g/hp-hr
				Haul Truck Oversize Transport	n/a - onroad	1	HHDT					0.9593	g/hr
				Pickup Truck Conventional	n/a - onroad	4	LDT2					0.4490	g/hr
				Hinged Bottom Gates Subtotal									
15 - Floodway Control and Diversion Structures Total													
08 - Roads, Railroads, and Bridges													
25	Mobilization and Demobilization	-	-	Flatbed Truck	n/a - onroad	1	MHDT	-	1	1	2	1.2073	g/hr
				Extended Boom Pallet Loader	Rough Terrain Forklifts	1	100					0.0327	g/hp-hr
				Pickup Truck Conventional	n/a - onroad	1	LDT2					0.4490	g/hr
				Temp. Mobile Office Building	n/a - onroad	1	n/a					0.0000	g/hr
				Mobilization and Demobilization Subtotal									
26	Pedestrian Bridge Concrete Piles	320	LF	40 TN Truck-mounted Hydraulic Crane	Cranes	1	300	180	1	180	2	0.0367	g/hp-hr
				100 FT Auger Track-mounted Drill Rig	Bore/Drill Rigs	1	221					0.0217	g/hp-hr
				Concrete Pump Boom Truck Mounted	Pumps	1	84					0.1159	g/hp-hr
				Concrete Mixer Truck	n/a - onroad	3	MHDT					1.2073	g/hr
				0.8 CY Backhoe Loader	Tractors/Loaders/Backhoes	1	97					0.0599	g/hp-hr
				24 TN Truck End Dump	Off-Highway Trucks	2	314					0.0252	g/hp-hr
				Pickup Truck Conventional	n/a - onroad	8	LDT2					0.4490	g/hr
				Pedestrian Bridge Concrete Piles Subtotal									
27	Pedestrian Bridge Concrete Abutments and Wingwalls	24	CY	Concrete Pump Boom Truck Mounted	Pumps	1	84	60	1	60	1	0.1159	g/hp-hr
				2.5" Dia. Concrete Vibrator	Plate Compactors	1	8					0.0640	g/hp-hr
				Concrete Mixer Truck	n/a - onroad	2	MHDT					1.2073	g/hr
				Pickup Truck Conventional	n/a - onroad	7	LDT2					0.4490	g/hr
Pedestrian Bridge Concrete Abutments and Wingwalls Subtotal													
28	Pedestrian Bridge Span Installation	1,040	SF	90 TN Truck-mounted Hydraulic Crane	Cranes	1	450	390	1	390	3	0.0367	g/hp-hr
				Flatbed Truck	n/a - onroad	2	MHDT					1.2073	g/hr
				Pickup Truck Conventional	n/a - onroad	5	LDT2					0.4490	g/hr
Pedestrian Bridge Span Installation Subtotal													
08 - Roads, Railroads, and Bridges Total													
19 - Buildings, Grounds, and Utilities													
29	Mobilization and Demobilization	-	-	Flatbed Truck	n/a - onroad	1	MHDT	-	1	1	2	1.2073	g/hr
				Extended Boom Pallet Loader	Rough Terrain Forklifts	1	100					0.0595	g/hp-hr
				Pickup Truck Conventional	n/a - onroad	1	LDT2					0.4490	g/hr
				Temp. Mobile Office Building	n/a - onroad	1	n/a					0.0000	g/hr
				Mobilization and Demobilization Subtotal									

Table K-96. PM2.5 Exhaust Emissions from Offroa

#	Activity	Maximum Daily Emissions, lbs/day																							
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug	26-Aug	2-Sep	9-Sep	16-Sep	
21	Headworks Structure Concrete Piles	--	--	--	--	--	--	--	0.19	0.19	0.19	0.19	0.19	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	0.08	0.08	0.08	0.08	0.08	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	0.17	0.17	0.17	0.17	0.17	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	0.06	0.06	0.06	0.06	0.06	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	0.10	0.10	0.10	0.10	0.10	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	0.28	0.28	0.28	0.28	0.28	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	0.06	0.06	0.06	0.06	0.06	--	--	--	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	0.96	0.96	0.96	0.96	0.96	--	--	--	--	--	--	--	--	--	--		
22	Headworks Structure	--	--	--	--	--	--	--	--	--	--	--	0.51	0.51	--	--	--	--	0.51	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	0.03	0.03	--	--	--	--	0.03	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	0.13	0.13	--	--	--	--	0.13	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	0.17	0.17	--	--	--	--	0.17	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	0.84	0.84	--	--	--	--	0.84	--	--	--	--			
23	Headworks Channel Transition	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02	0.02	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.09	0.09	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.10	0.10	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	0.20	0.20	--	--	--	--	--	--	--			
24	Hinged Bottom Gates	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.29	0.29		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02	0.02		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.03	0.03		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.34	0.34		
		--	--	0.09	0.15	0.15	0.15	1.74	1.31	1.31	1.15	1.15	1.99	1.03	0.20	0.39	0.39	0.20	1.03	0.20	0.20	0.20	0.54	0.54	
08 - Roads, Railroads, and Bridges																									
25	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02	--	--	--	0.02	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.06	--	--	--	0.06	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.01	--	--	--	0.01	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.09	--	--	--	0.09	--	--	--	--		
26	Pedestrian Bridge Concrete Piles	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.19	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.08	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.17	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.06	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.10	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.28	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.06	--	--	--	--	--	--	--			
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.96	--	--	--	--	--	--	--			
27	Pedestrian Bridge Concrete Abutments and Wingwalls	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.17	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.04	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.06	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	0.28	--	--	--	--	--	--	--			
28	Pedestrian Bridge Span Installation	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.29	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.04	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.04	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37	--	--	--	--	--	--			
		--	--	--	--	--	--	--	--	--	--	--	--	0.09	0.96	0.28	0.37	0.09	--	--	--	--			
19 - Buildings, Grounds, and Utilities																									
29	Mobilization and Demobilization	0.02	--	--	--	--	--	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
		0.10	--	--	--	--	--	0.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
		0.01	--	--	--	--	--	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
		0.13	--	--	--	--	0.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

Table K-96. PM2.5 Exhaust Emissions from Offroad

#	Activity						Annual Emissions, tpy
		23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
21	Headworks Structure Concrete Piles	--	--	--	--	--	0.0027
		--	--	--	--	--	0.0012
		--	--	--	--	--	0.0024
		--	--	--	--	--	0.0009
		--	--	--	--	--	0.0014
		--	--	--	--	--	0.0039
		--	--	--	--	--	0.0009
		--	--	--	--	--	0.0134
22	Headworks Structure	--	--	--	--	--	0.0046
		--	--	--	--	--	0.0002
		--	--	--	--	--	0.0011
		--	--	--	--	--	0.0015
		--	--	--	--	--	0.0075
23	Headworks Channel Transition	--	--	--	--	--	0.0001
		--	--	--	--	--	0.0004
		--	--	--	--	--	0.0005
		--	--	--	--	--	0.0010
24	Hinged Bottom Gates	0.29	0.29	--	--	--	0.0022
		0.02	0.02	--	--	--	0.0001
		0.03	0.03	--	--	--	0.0002
		0.34	0.34	--	--	--	0.0025
		0.54	0.54	0.20	0.09	--	0.0413
08 - Roads, Railroads, and Bridges							
25	Mobilization and Demobilization	--	--	--	--	--	0.0000
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0000
		--	--	--	--	--	--
		--	--	--	--	--	0.0001
26	Pedestrian Bridge Concete Piles	--	--	--	--	--	0.0002
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0002
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0003
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0010
27	Pedestrian Bridge Concrete Abutments and Wingwalls	--	--	--	--	--	0.0001
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0001
28	Pedestrian Bridge Span Installation	--	--	--	--	--	0.0004
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0006
		--	--	--	--	--	0.0017
19 - Buildings, Grounds, and Utilities							
29	Mobilization and Demobilization	--	--	--	--	--	0.0000
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0000
		--	--	--	--	--	--
		--	--	--	--	--	0.0001

Table K-96. PM2.5 Exhaust Emissions from Offroad Construction Equipment (Alternative 1) - Unmitigated

#	Activity	Quantity	Unit	Crew / Equipment	OFFROAD Name	Equipment Quantity per Crew	Size (hp)	Crew Daily Output	No. of Crews	Total Daily Output	Estimated Duration, Days	Emission Factor	Units
30	CMU Building and Earthwork Pad Construction	1	EA	165 HP Dozer	Rubber Tired Dozers	1	165	-	1	1	30	0.1405	g/hp-hr
				Scraper	Scrapers	1	367					0.0595	g/hp-hr
				Motor Grader	Graders	1	187					0.0522	g/hp-hr
				Compactor	Rollers	1	80					0.0757	g/hp-hr
				4000 gallon Water Truck	n/a - onroad	1	MHDT					1.2073	g/hr
				10 TN Smooth Roller	Rollers	1	157					0.0336	g/hp-hr
				Pickup Truck Conventional	n/a - onroad	7	LDT2					0.4490	g/hr
				Concrete Pump Boom Truck Mounted	Pumps	1	84					0.1159	g/hp-hr
				2.5" Dia. Concrete Vibrator	Plate Compactors	1	8					0.0640	g/hp-hr
				Extended Boom Pallet Loader	Rough Terrain Forklifts	1	100					0.0327	g/hp-hr
				Concrete Mixer Truck	n/a - onroad	1	MHDT					1.2073	g/hr
CMU Building and Earthwork Pad Construction Subtotal													
31	Concrete Duct Banc	190	CY	Concrete Pump Boom Truck Mounted	Pumps	1	84	60	1	60	4	0.1159	g/hp-hr
				2.5" Dia. Concrete Vibrator	Plate Compactors	1	8					0.0640	g/hp-hr
				Concrete Mixer Truck	n/a - onroad	2	MHDT					1.2073	g/hr
				Pickup Truck Conventional	n/a - onroad	7	LDT2					0.4490	g/hr
Concrete Duct Banc Subtotal													
19 - Buildings, Grounds, and Utilities Total													
20 -Permanent Operating Equipment													
32	Mobilization and Demobilization	-	-	Flatbed Truck	n/a - onroad	1	MHDT	-	1	1	2	1.2073	g/hr
				Extended Boom Pallet Loader	Rough Terrain Forklifts	1	100					0.7933	g/hp-hr
				Pickup Truck Conventional	n/a - onroad	1	LDT2					0.4490	g/hr
				Temp. Mobile Office Building	n/a - onroad	1	n/a					0.0000	g/hr
Mobilization and Demobilization Subtotal													
33	Mechanical Hydraulic Cylinders & Housing	-	-	Extended Boom Pallet Loader	Rough Terrain Forklifts	1	100	-	1	1	30	0.0327	g/hp-hr
				Pickup Truck Conventional	n/a - onroad	3	LDT2					0.4490	g/hr
Mechanical Hydraulic Cylinders & Housing Subtotal													
34	CMU Building Mechanical Equipment	-	-	Extended Boom Pallet Loader	Rough Terrain Forklifts	1	100	-	1	1	30	0.0327	g/hp-hr
				Pickup Truck Conventional	n/a - onroad	3	LDT2					0.4490	g/hr
CMU Building Mechanical Equipment Subtotal													
35	Electrical Control Equipment CMU Building	-	-	Pickup Truck Conventional	n/a - onroad	3	LDT2	-	1	1	30	0.4490	g/hr
Electrical Control Equipment CMU Building Subtotal													
36	Electrical Power Equipment CMU Building	-	-	Pickup Truck Conventional	n/a - onroad	3	LDT2	-	1	1	30	0.4490	g/hr
Electrical Power Equipment CMU Building Subtotal													
37	Communication Equipment	-	-	Pickup Truck Conventional	n/a - onroad	3	LDT2	-	1	1	12	0.4490	g/hr
Communication Equipment Subtotal													
20 -Permanent Operating Equipment Total													
GRAND TOTAL													

Table K-96. PM2.5 Exhaust Emissions from Offroad

#	Activity	Maximum Daily Emissions, lbs/day																							
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug	26-Aug	2-Sep	9-Sep	16-Sep	
30	CMU Building and Earthwork Pad Construction	--	0.41	0.41	0.41	0.41	0.41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.38	0.38	0.38	0.38	0.38	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.17	0.17	0.17	0.17	0.17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.11	0.11	0.11	0.11	0.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.02	0.02	0.02	0.02	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.09	0.09	0.09	0.09	0.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.06	0.06	0.06	0.06	0.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.17	0.17	0.17	0.17	0.17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.01	0.01	0.01	0.01	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.06	0.06	0.06	0.06	0.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	0.02	0.02	0.02	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		--	1.50	1.50	1.50	1.50	1.50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
31	Concrete Duct Banc	--	--	--	--	0.17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		--	--	--	--	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		--	--	--	--	0.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		--	--	--	--	0.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
		--	--	--	--	0.28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
		0.13	1.50	1.50	1.50	1.78	1.50	0.13	--	--	--	--	--	--	--	--	--	--	--	--	--				
20 -Permanent Operating Equipment																									
32	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.40	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01	--		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.43	--			
33	Mechanical Hydraulic Cylinders & Housing	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.06	0.06		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02	0.02		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.08	0.08		
34	CMU Building Mechanical Equipment	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.06	0.06		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02	0.02		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.08	0.08		
35	Electrical Control Equipment CMU Building	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02	0.02		
36	Electrical Power Equipment CMU Building	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02	0.02		
37	Communication Equipment	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02	0.02		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.43	0.21		
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.21	0.21		
GRAND TOTAL		0.35	3.04	3.12	2.74	4.34	4.64	6.41	5.35	6.14	5.98	3.58	3.63	2.71	2.80	3.87	3.19	2.25	2.80	0.28	0.20	1.62	0.88		

Table K-96. PM2.5 Exhaust Emissions from Offroad

#	Activity						Annual Emissions, tpy
		23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
30	CMU Building and Earthwork Pad Construction	--	--	--	--	--	0.0061
		--	--	--	--	--	0.0058
		--	--	--	--	--	0.0026
		--	--	--	--	--	0.0016
		--	--	--	--	--	0.0003
		--	--	--	--	--	0.0014
		--	--	--	--	--	0.0008
		--	--	--	--	--	0.0026
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0009
		--	--	--	--	0.0003	
		--	--	--	--	0.0225	
31	Concrete Duct Banc	--	--	--	--	--	0.0003
		--	--	--	--	--	0.0000
		--	--	--	--	--	0.0001
		--	--	--	--	--	0.0001
		--	--	--	--	0.0006	
		--	--	--	--	0.0232	
20 -Permanent Operating Equipment							
32	Mobilization and Demobilization	--	--	--	0.02	--	0.0000
		--	--	--	1.40	--	0.0014
		--	--	--	0.01	--	0.0000
		--	--	--	--	--	--
		--	--	--	1.43	--	0.0014
33	Mechanical Hydraulic Cylinders & Housing	0.06	0.06	0.06	--	--	0.0009
		0.02	0.02	0.02	--	--	0.0004
		0.08	0.08	0.08	--	--	0.0012
34	CMU Building Mechanical Equipment	0.06	0.06	0.06	--	--	0.0009
		0.02	0.02	0.02	--	--	0.0004
		0.08	0.08	0.08	--	--	0.0012
35	Electrical Control Equipment CMU Building	0.02	0.02	0.02	--	--	0.0004
		0.02	0.02	0.02	--	--	0.0004
36	Electrical Power Equipment CMU Building	0.02	0.02	0.02	--	--	0.0004
		0.02	0.02	0.02	--	--	0.0004
37	Communication Equipment	--	0.02	0.02	--	--	0.0001
		--	0.02	0.02	--	--	0.0001
		0.21	0.23	0.23	1.43	--	0.0047
GRAND TOTAL		0.88	0.77	0.43	1.80	0.09	0.1912

Table K-97. GHG Exhaust Emissions from Offroad Construction Equipment (Alternative 1) - Unmitigated

#	Activity	Quantity	Unit	Crew / Equipment	OFFROAD Name	Equipment Quantity per Crew	Size (hp)	Crew Daily Output	No. of Crews	Total Daily Output	Estimated Duration, Days	Emission Factors					Annual Emissions, MTCO2e/yr
												CO2	CH4	N2O	CO2e	Units	
02 - Relocations																	
1	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	24743.4 340.9857 8716.749 0	0 0.022723 0 0	0 0 0 0	24743.4 341.5538 8716.749 0	g/hr g/hp-hr g/hr g/hr	0.40 0.55 0.14 0.00
												Mobilization and Demobilization Subtotal			1.08		
2	Fremont Weir Demo	450	CY	3.5 CY Hydraulic Excavator 3.5 CY Front End Loader Wheel 0.8 CY Loader/Backhoe, Wheel 4000 gallon Water Truck 16 CY 3 Axle Dump Truck Pickup Truck Conventional	Excavators Rubber Tired Loaders Tractors/Loaders/Backhoes n/a - onroad n/a - onroad n/a - onroad	1 1 1 1 1 6	359 164 97 MHDT HHDT LDT2	40	1	40	12	323.9364 306.8872 312.5702 24743.4 36496.53 8716.749	0.014208 0.018567 0.018542 0 0 0	0 0 0 0 0 0	324.2916 307.3513 313.0337 24743.4 36496.53 8716.749	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr g/hr	11.18 4.84 2.91 2.38 3.50 5.02
												Fremont Weir Demo Subtotal			29.83		
3	Levee O&M Road Regrading (6" AB)	119,000	SF	12' Blade Grader 4000 gallon Water Truck Pickup Truck Conventional 16 CY 3 Axle Dump Truck	Graders n/a - onroad n/a - onroad n/a - onroad	1 1 1 5	187 MHDT LDT2 HHDT	39,400	1	39,400	4	346.6688 24743.4 8716.749 36496.53	0.017223 0 0 0	0 0 0 0	347.0993 24743.4 8716.749 36496.53	g/hp-hr g/hr g/hr g/hr	2.08 0.79 0.28 5.84
												Levee O&M Road Regrading (6" AB) Subtotal			8.99		
4	Temporary Electrical Power	100	LF	Flatbed Truck Pickup Truck Conventional	n/a - onroad n/a - onroad	1 2	MHDT LDT2	1,500	1	1,500	1	24743.4 8716.749	0 0	0 0	24743.4 8716.749	g/hr g/hr	0.20 0.14
												Temporary Electrical Power Subtotal			0.34		
												02 - Relocations Total			40.24		
09 - Channels and Canals																	
5	Mobilization and Demobilization	-	-	Flatbed Truck Extended Boom Pallet Loader Pickup Truck Conventional Temp. Mobile Office Building	n/a - onroad Rough Terrain Forklifts n/a - onroad n/a - onroad	1 1 1 1	MHDT 100 LDT2 n/a	-	1	1	2	24743.4 340.9857 8716.749 0	0 0.022723 0 0	0 0 0 0	24743.4 341.5538 8716.749 0	g/hr g/hp-hr g/hr g/hr	0.40 0.55 0.14 0.00
												Mobilization and Demobilization Subtotal			1.08		
6	Clearing and Grubbing	61	ACR	1.5 CY Front End Loader Crawler Trailer Mounted Brush Chipper Chainsaw 4000 gallon Water Truck Pickup Truck Conventional 16 CY 3 Axle Dump Truck	Crawler Tractors Shredders Chainsaws n/a - onroad n/a - onroad n/a - onroad	1 1 1 1 6 1	110 140 8 MHDT LDT2 HHDT	2	2	4	16	363.718 227.3238 395.0912 24743.4 8716.749 36496.53	0.038979 0.0068 0 0 0 0	0 0 0 0 0 0	364.6925 227.4937 395.0912 24743.4 8716.749 36496.53	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr g/hr	10.27 8.15 0.81 6.33 13.39 9.34
												Clearing and Grubbing Subtotal			48.30		
7	Excavation (Wet Conditions)	61,810	CY	4.5 CY Hydraulic Excavator 300 HP Dozer 3.5 CY Front End Loader Wheel 16 CY 3 Axle Dump Truck Pickup Truck Conventional	Excavators Rubber Tired Dozers Rubber Tired Loaders n/a - onroad n/a - onroad	1 2 2 9 7	429 300 164 HHDT LDT2	1,800	1	1,800	35	323.9364 335.3025 306.8872 36496.53 8716.749	0.014208 0.024926 0.018567 0 0	0 0 0 0 0	324.2916 335.9257 307.3513 36496.53 8716.749	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr	38.95 56.44 28.23 91.97 17.08
												Excavation (Wet Conditions) Subtotal			232.67		
8	Excavation/Grading (Dry Conditions)	118,960	CY	300 HP Dozer 21 CY Scrapers 12' Blade Grader 4000 gallon Water Truck Pickup Truck Conventional	Rubber Tired Dozers Scrapers Graders n/a - onroad n/a - onroad	1 4 1 1 7	300 407 187 MHDT LDT2	3,500	1	3,500	34	335.3025 409.1827 346.6688 24743.4 8716.749	0.024926 0.024151 0.017223 0 0	0 0 0 0 0	335.9257 409.7865 347.0993 24743.4 8716.749	g/hp-hr g/hp-hr g/hp-hr g/hr g/hr	27.41 181.46 17.65 6.73 16.60
												Excavation/Grading (Dry Conditions) Subtotal			249.85		
9	Earthen Backfill	8,950	CY	300 HP Dozer 4000 gallon Water Truck 10 TN Smooth Roller Pickup Truck Conventional	Rubber Tired Dozers n/a - onroad Rollers n/a - onroad	1 1 1 3	300 MHDT 157 LDT2	1,000	1	1,000	9	335.3025 24743.4 318.2533 8716.749	0.024926 0 0.019107 0	0 0 0 0	335.9257 24743.4 318.731 8716.749	g/hp-hr g/hr g/hp-hr g/hr	7.26 1.78 3.60 1.88
												Earthen Backfill Subtotal			14.52		
10	Riprap - Class 2	24,940	TN	2.5 CY Hydraulic Excavator 300 HP Dozer Crawler 16 CY 3 Axle Dump Truck Pickup Truck Conventional	Excavators Crawler Tractors n/a - onroad n/a - onroad	2 1 23 5	257 300 HHDT LDT2	1,000	1	1,000	25	323.9364 363.718 36496.53 8716.749	0.014208 0.021139 0 0	0 0 0 0	324.2916 364.2464 36496.53 8716.749	g/hp-hr g/hp-hr g/hr g/hr	33.34 21.85 167.88 8.72
												Riprap - Class 2 Subtotal			231.79		

Table K-97. GHG Exhaust Emissions from Offroad Construction Equipment (Alternative 1) - Unmitigated

#	Activity	Quantity	Unit	Crew / Equipment	OFFROAD Name	Equipment Quantity per Crew	Size (hp)	Crew Daily Output	No. of Crews	Total Daily Output	Estimated Duration, Days	Emission Factors					Annual Emissions, MTCO2e/yr			
												CO2	CH4	N2O	CO2e	Units				
11	Riprap - Class 3	9,420	TN	2.5 CY Hydraulic Excavator	Excavators	2	257	1,000	1	1,000	10	323.9364	0.014208	0	324.2916	g/hp-hr	13.33			
				300 HP Dozer Crawler	Crawler Tractors	1	300								363.718	0.021139	0	364.2464	g/hp-hr	8.74
				16 CY 3 Axle Dump Truck	n/a - onroad	23	HHDT								36496.53	0	0	36496.53	g/hr	67.15
				Pickup Truck Conventional	n/a - onroad	5	LDT2								8716.749	0	0	8716.749	g/hr	3.49
												Riprap - Class 3 Subtotal			92.72					
12	RSP Bedding Material	36,150	TN	2.5 CY Hydraulic Excavator	Excavators	2	257	1,000	2	2,000	19	323.9364	0.014208	0	324.2916	g/hp-hr	50.67			
				300 HP Dozer Crawler	Crawler Tractors	1	300								363.718	0.021139	0	364.2464	g/hp-hr	33.22
				Pickup Truck Conventional	n/a - onroad	5	LDT2								8716.749	0	0	8716.749	g/hr	13.25
				16 CY 3 Axle Dump Truck	n/a - onroad	23	HHDT								36496.53	0	0	36496.53	g/hr	255.18
												RSP Bedding Material Subtotal			352.32					
13	Erosion Control Seeding	31	ACR	0.8 CY Front End Loader Wheel	Tractors/Loaders/Backhoes	1	97	2	1	2	16	312.5702	0.018542	0	313.0337	g/hp-hr	3.89			
				Pickup Truck Conventional	n/a - onroad	4	LDT2								8716.749	0	0	8716.749	g/hr	4.46
												Erosion Control Seeding Subtotal			8.35					
												09 - Channels and Canals Total			1,231.61					
11 - Levees and Floodwalls																				
14	Mobilization and Demobilization	-	-	Flatbed Truck	n/a - onroad	1	MHDT	-	1	1	2	24743.4	0	0	24743.4	g/hr	0.40			
				Extended Boom Pallet Loader	Rough Terrain Forklifts	1	100								340.9857	0.022723	0	341.5538	g/hp-hr	0.55
				Pickup Truck Conventional	n/a - onroad	1	LDT2								8716.749	0	0	8716.749	g/hr	0.14
				Temp. Mobile Office Building	n/a - onroad	1	n/a								0	0	0	0	g/hr	0.00
												Mobilization and Demobilization Subtotal			1.08					
15	Soil Cement Bentonite Cutoff Wall	84,480	SF	4.5 CY Hydraulic Excavator	Excavators	1	429	7,000	1	7,000	13	323.9364	0.014208	0	324.2916	g/hp-hr	14.47			
				300 HP Dozer	Rubber Tired Dozers	1	300								335.3025	0.024926	0	335.9257	g/hp-hr	10.48
				2.5 CY Hydraulic Excavator	Excavators	1	257								323.9364	0.014208	0	324.2916	g/hp-hr	8.67
				16 CY 3 Axle Dump Truck	n/a - onroad	1	HHDT								36496.53	0	0	36496.53	g/hr	3.80
				Flash Mixer	Cement and Mortar Mixers	1	9								318.2531	0.033426	0	319.0887	g/hp-hr	0.30
				Slurry Pump	Pumps	1	84								420.549	0.023822	0	421.1446	g/hp-hr	3.68
				Pickup Truck Conventional	n/a - onroad	5	LDT2								8716.749	0	0	8716.749	g/hr	4.53
												Soil Cement Bentonite Cutoff Wall Subtotal			45.92					
												11 - Levees and Floodwalls Total			47.01					
15 - Floodway Control and Diversion Structures																				
16	Mobilization and Demobilization	-	-	Flatbed Truck	n/a - onroad	1	MHDT	-	1	1	2	24743.4	0	0	24743.4	g/hr	0.40			
				Extended Boom Pallet Loader	Rough Terrain Forklifts	1	100								340.9857	0.022723	0	341.5538	g/hp-hr	0.55
				Pickup Truck Conventional	n/a - onroad	1	LDT2								8716.749	0	0	8716.749	g/hr	0.14
				Temp. Mobile Office Building	n/a - onroad	1	n/a								0	0	0	0	g/hr	0.00
												Mobilization and Demobilization Subtotal			1.08					
17	Construction Site Dewatering (Temporary Cofferdam)	21,000	SF	Flatbed Truck	n/a - onroad	1	MHDT	1,200	1	1,200	18	24743.4	0	0	24743.4	g/hr	3.56			
				75 TN Crane Crawler Pile Hammer	Bore/Drill Rigs	1	221								426.2321	0.009312	0	426.4649	g/hp-hr	13.57
				Pickup Truck Conventional	n/a - onroad	6	LDT2								8716.749	0	0	8716.749	g/hr	7.53
												Construction Site Dewatering (Temporary Cofferdam) Subtotal			24.67					
18	Construction Site Dewatering (Pumping)	-	-	6" Dia. Pump Engine Drive	Pumps	1	84	-	1	1	120	420.549	0.023822	0	421.1446	g/hp-hr	33.96			
				Pickup Truck Conventional	n/a - onroad	3	LDT2								8716.749	0	0	8716.749	g/hr	25.10
												Construction Site Dewatering (Pumping) Subtotal			59.07					
19	Excavation (Wet Conditions)	6,130	CY	4.5 CY Hydraulic Excavator	Excavators	1	429	1,800	1	1,800	4	323.9364	0.014208	0	324.2916	g/hp-hr	4.45			
				300 HP Dozer	Rubber Tired Dozers	2	300								335.3025	0.024926	0	335.9257	g/hp-hr	6.45
				3.5 CY Front End Loader Wheel	Rubber Tired Loaders	2	164								306.8872	0.018567	0	307.3513	g/hp-hr	3.23
				16 CY 3 Axle Dump Truck	n/a - onroad	9	HHDT								36496.53	0	0	36496.53	g/hr	10.51
				Pickup Truck Conventional	n/a - onroad	7	LDT2								8716.749	0	0	8716.749	g/hr	1.95
												Excavation (Wet Conditions) Subtotal			26.59					
20	Sheet Pile Wall	7,790	SF	Flatbed Truck	n/a - onroad	1	MHDT	1,200	1	1,200	7	24743.4	0	0	24743.4	g/hr	1.39			
				75 TN Crane Crawler Pile Hammer	Bore/Drill Rigs	1	221								426.2321	0.009312	0	426.4649	g/hp-hr	5.28
				Pickup Truck Conventional	n/a - onroad	6	LDT2								8716.749	0	0	8716.749	g/hr	2.93
												Sheet Pile Wall Subtotal			9.59					
21	Headworks Structure Concrete Piles	5,040	LF	40 TN Truck-mounted Hydraulic Crane	Cranes	1	300	180	1	180	28	244.373	0.012663	0	244.6896	g/hp-hr	16.44			
				100 FT Auger Track-mounted Drill Rig	Bore/Drill Rigs	1	221								426.2321	0.009312	0	426.4649	g/hp-hr	21.11
				Concrete Pump Boom Truck Mounted	Pumps	1	84								420.549	0.023822	0	421.1446	g/hp-hr	7.92
				Concrete Mixer Truck	n/a - onroad	3	MHDT								24743.4	0	0	24743.4	g/hr	16.63
				0.8 CY Backhoe Loader	Tractors/Loaders/Backhoes	1	97								312.5702	0.018542	0	313.0337	g/hp-hr	6.80
				24 TN Truck End Dump	Off-Highway Trucks	2	314								323.9364	0.015181	0	324.3159	g/hp-hr	45.62
				Pickup Truck Conventional	n/a - onroad	8	LDT2								8716.749	0	0	8716.749	g/hr	15.62
												Headworks Structure Concrete Piles Subtotal			130.15					

Table K-97. GHG Exhaust Emissions from Offroad Construction Equipment (Alternative 1) - Unmitigated

#	Activity	Quantity	Unit	Crew / Equipment	OFFROAD Name	Equipment Quantity per Crew	Size (hp)	Crew Daily Output	No. of Crews	Total Daily Output	Estimated Duration, Days	Emission Factors					Annual Emissions, MTCO2e/yr					
												CO2	CH4	N2O	CO2e	Units						
22	Headworks Structure	3,080	CY	Concrete Pump Boom Truck Mounted	Pumps	1	84	60	3	180	18	420.549	0.023822	0	421.1446	g/hp-hr	15.28					
				2.5" Dia. Concrete Vibrator	Plate Compactors	1	8					244.3731	0.025667	0	245.0148	g/hp-hr	0.85					
				Concrete Mixer Truck	n/a - onroad	2	MHDT					24743.4	0	0	24743.4	g/hr	21.38					
				Pickup Truck Conventional	n/a - onroad	7	LDT2					8716.749	0	0	8716.749	g/hr	26.36					
												Headworks Structure Subtotal		63.87								
23	Headworks Channel Transition	1,330	CY	2.5" Dia. Concrete Vibrator	Plate Compactors	1	8	70	2	140	10	244.3731	0.025667	0	245.0148	g/hp-hr	0.31					
				Concrete Mixer Truck	n/a - onroad	2	MHDT					24743.4	0	0	24743.4	g/hr	7.92					
				Pickup Truck Conventional	n/a - onroad	6	LDT2					8716.749	0	0	8716.749	g/hr	8.37					
												Headworks Channel Transition Subtotal		16.60								
24	Hinged Bottom Gates	3	EA	90 TN Truck-mounted Hydraulic Crane	Cranes	1	450	0.2	1	0.2	15	244.373	0.012663	0	244.6896	g/hp-hr	13.21					
				Haul Truck Oversize Transport	n/a - onroad	1	HHDT					36496.53	0	0	36496.53	g/hr	4.38					
				Pickup Truck Conventional	n/a - onroad	4	LDT2					8716.749	0	0	8716.749	g/hr	4.18					
																Hinged Bottom Gates Subtotal		21.78				
												15 - Floodway Control and Diversion Structures Total		353.39								
08 - Roads, Railroads, and Bridges																						
25	Mobilization and Demobilization			Flatbed Truck	n/a - onroad	1	MHDT		1	1	2	24743.4	0	0	24743.4	g/hr	0.40					
				Extended Boom Pallet Loader	Rough Terrain Forklifts	1	100					340.9857	0.022723	0	341.5538	g/hp-hr	0.55					
				Pickup Truck Conventional	n/a - onroad	1	LDT2					8716.749	0	0	8716.749	g/hr	0.14					
				Temp. Mobile Office Building	n/a - onroad	1	n/a					0	0	0	0	g/hr	0.00					
																Mobilization and Demobilization Subtotal		1.08				
26	Pedestrian Bridge Concrete Piles	320	LF	40 TN Truck-mounted Hydraulic Crane	Cranes	1	300	180	1	180	2	244.373	0.012663	0	244.6896	g/hp-hr	1.17					
				100 FT Auger Track-mounted Drill Rig	Bore/Drill Rigs	1	221					426.2321	0.009312	0	426.4649	g/hp-hr	1.51					
				Concrete Pump Boom Truck Mounted	Pumps	1	84					420.549	0.023822	0	421.1446	g/hp-hr	0.57					
				Concrete Mixer Truck	n/a - onroad	3	MHDT					24743.4	0	0	24743.4	g/hr	1.19					
				0.8 CY Backhoe Loader	Tractors/Loaders/Backhoes	1	97					312.5702	0.018542	0	313.0337	g/hp-hr	0.49					
				24 TN Truck End Dump	Off-Highway Trucks	2	314					323.9364	0.015181	0	324.3159	g/hp-hr	3.26					
				Pickup Truck Conventional	n/a - onroad	8	LDT2					8716.749	0	0	8716.749	g/hr	1.12					
																Pedestrian Bridge Concrete Piles Subtotal		9.30				
27	Pedestrian Bridge Concrete Abutments and Wingwalls	24	CY	Concrete Pump Boom Truck Mounted	Pumps	1	84	60	1	60	1	420.549	0.023822	0	421.1446	g/hp-hr	0.28					
				2.5" Dia. Concrete Vibrator	Plate Compactors	1	8					244.3731	0.025667	0	245.0148	g/hp-hr	0.02					
				Concrete Mixer Truck	n/a - onroad	2	MHDT					24743.4	0	0	24743.4	g/hr	0.40					
				Pickup Truck Conventional	n/a - onroad	7	LDT2					8716.749	0	0	8716.749	g/hr	0.49					
																Pedestrian Bridge Concrete Abutments and Wingwalls Subtotal		1.18				
28	Pedestrian Bridge Span Installation	1,040	SF	90 TN Truck-mounted Hydraulic Crane	Cranes	1	450	390	1	390	3	244.373	0.012663	0	244.6896	g/hp-hr	2.64					
				Flatbed Truck	n/a - onroad	2	MHDT					24743.4	0	0	24743.4	g/hr	1.19					
				Pickup Truck Conventional	n/a - onroad	5	LDT2					8716.749	0	0	8716.749	g/hr	1.05					
												Pedestrian Bridge Span Installation Subtotal		4.88								
												08 - Roads, Railroads, and Bridges Total		16.44								
19 - Buildings, Grounds, and Utilities																						
29	Mobilization and Demobilization			Flatbed Truck	n/a - onroad	1	MHDT		1	1	2	24743.4	0	0	24743.4	g/hr	0.40					
				Extended Boom Pallet Loader	Rough Terrain Forklifts	1	100					340.9857	0.022723	0	341.5538	g/hp-hr	0.55					
				Pickup Truck Conventional	n/a - onroad	1	LDT2					8716.749	0	0	8716.749	g/hr	0.14					
				Temp. Mobile Office Building	n/a - onroad	1	n/a					0	0	0	0	g/hr	0.00					
																Mobilization and Demobilization Subtotal		1.08				
30	CMU Building and Earthwork Pad Construction	1	EA	165 HP Dozer	Rubber Tired Dozers	1	165	-	1	1	30	335.3026	0.033526	0	336.1408	g/hp-hr	13.31					
				Scraper	Scrapers	1	367					409.1827	0.024151	0	409.7865	g/hp-hr	36.09					
				Motor Grader	Graders	1	187					346.6688	0.017223	0	347.0993	g/hp-hr	15.58					
				Compactor	Rollers	1	80					318.2532	0.025783	0	318.8977	g/hp-hr	6.12					
				4000 gallon Water Truck	n/a - onroad	1	MHDT					24743.4	0	0	24743.4	g/hr	5.94					
				10 TN Smooth Roller	Rollers	1	157					318.2533	0.019107	0	318.731	g/hp-hr	12.01					
				Pickup Truck Conventional	n/a - onroad	7	LDT2					8716.749	0	0	8716.749	g/hr	14.64					
				Concrete Pump Boom Truck Mounted	Pumps	1	84					420.549	0.023822	0	421.1446	g/hp-hr	8.49					
				2.5" Dia. Concrete Vibrator	Plate Compactors	1	8					244.3731	0.025667	0	245.0148	g/hp-hr	0.47					
				Extended Boom Pallet Loader	Rough Terrain Forklifts	1	100					340.9857	0.022723	0	341.5538	g/hp-hr	8.20					
				Concrete Mixer Truck	n/a - onroad	1	MHDT					24743.4	0	0	24743.4	g/hr	5.94					
																CMU Building and Earthwork Pad Construction Subtotal		126.79				

Table K-97. GHG Exhaust Emissions from Offroad Construction Equipment (Alternative 1) - Unmitigated

#	Activity	Quantity	Unit	Crew / Equipment	OFFROAD Name	Equipment Quantity per Crew	Size (hp)	Crew Daily Output	No. of Crews	Total Daily Output	Estimated Duration, Days	Emission Factors					Annual Emissions, MTCO2e/yr			
												CO2	CH4	N2O	CO2e	Units				
31	Concrete Duct Banc	190	CY	Concrete Pump Boom Truck Mounted	Pumps	1	84	60	1	60	4	420.549	0.023822	0	421.1446	g/hp-hr	1.13			
				2.5" Dia. Concrete Vibrator	Plate Compactors	1	8								244.3731	0.025667	0	245.0148	g/hp-hr	0.06
				Concrete Mixer Truck	n/a - onroad	2	MHDT								24743.4	0	0	24743.4	g/hr	1.58
				Pickup Truck Conventional	n/a - onroad	7	LDT2								8716.749	0	0	8716.749	g/hr	1.95
												Concrete Duct Banc Subtotal					4.73			
												19 - Buildings, Grounds, and Utilities Total					132.61			
20 -Permanent Operating Equipment																				
32	Mobilization and Demobilization			Flatbed Truck	n/a - onroad	1	MHDT	-	1	1	2	24743.4	0	0	24743.4	g/hr	0.40			
				Extended Boom Pallet Loader	Rough Terrain Forklifts	1	100								340.9857	0.022723	0	341.5538	g/hp-hr	0.55
				Pickup Truck Conventional	n/a - onroad	3	LDT2								8716.749	0	0	8716.749	g/hr	0.42
				Temp. Mobile Office Building	n/a - onroad	1	n/a								0	0	0	0	g/hr	0.00
												Mobilization and Demobilization Subtotal					1.36			
33	Mechanical Hydraulic Cylinders & Housing			Extended Boom Pallet Loader	Rough Terrain Forklifts	1	100	-	1	1	30	340.9857	0.022723	0	341.5538	g/hp-hr	8.20			
				Pickup Truck Conventional	n/a - onroad	3	LDT2							8716.749	0	0	8716.749	g/hr	6.28	
												Mechanical Hydraulic Cylinders & Housing Subtotal					14.47			
34	CMU Building Mechanical Equipment			Extended Boom Pallet Loader	Rough Terrain Forklifts	1	100	-	1	1	30	340.9857	0.022723	0	341.5538	g/hp-hr	8.20			
				Pickup Truck Conventional	n/a - onroad	3	LDT2							8716.749	0	0	8716.749	g/hr	6.28	
												CMU Building Mechanical Equipment Subtotal					14.47			
35	Electrical Control Equipment CMU Building			Pickup Truck Conventional	n/a - onroad	3	LDT2	-	1	1	30	8716.749	0	0	8716.749	g/hr	6.28			
												Electrical Control Equipment CMU Building Subtotal					6.28			
36	Electrical Power Equipment CMU Building			Pickup Truck Conventional	n/a - onroad	3	LDT2	-	1	1	30	8716.749	0	0	8716.749	g/hr	6.28			
												Electrical Power Equipment CMU Building Subtotal					6.28			
37	Communication Equipment			Pickup Truck Conventional	n/a - onroad	3	LDT2	-	1	1	12	8716.749	0	0	8716.749	g/hr	2.51			
												Communication Equipment Subtotal					2.51			
												20 -Permanent Operating Equipment Total					45.37			
GRAND TOTAL																	1,866.66			

Construction Worker Commuting Exhaust Emissions Summary

Table K-98. Maximum Daily Construction Worker Commuting Emissions (Alternative 1)

Phase	ROG lbs/day	NOx lbs/day	CO lbs/day	SO2 lbs/day	PM10 lbs/day	PM2.5 lbs/day
02 - Relocations	0.02	0.10	1.03	0.00	0.46	0.12
09 - Channels and Canals	0.17	0.86	8.62	0.03	3.85	1.03
11 - Levees and Floodwalls	0.02	0.08	0.82	0.00	0.37	0.10
15 - Floodway Control and Diversion Structures	0.10	0.51	5.13	0.02	2.29	0.62
08 - Roads, Railroads, and Bridges	0.03	0.13	1.33	0.01	0.60	0.16
19 - Buildings, Grounds, and Utilities	0.04	0.19	1.95	0.01	0.87	0.23
20 -Permanent Operating Equipment	0.04	0.20	2.05	0.01	0.92	0.25
Peak Day Construction Exhaust Emissions Total	0.24	1.18	11.90	0.05	5.32	1.43

Notes:

Construction total will not add to the sum of each phase because not all tasks overlap on the same day.

PM10 and PM2.5 emissions include exhaust, tire wear, brake wear, and paved road dust.

Table K-99. Annual Construction Worker Commuting Emissions (Alternative 1)

Phase	ROG tpy	NOx tpy	CO tpy	SO2 tpy	PM10 tpy	PM2.5 tpy	CO2e MT/yr
02 - Relocations	0.00	0.00	0.01	0.00	0.00	0.00	2.98
09 - Channels and Canals	0.00	0.02	0.18	0.00	0.08	0.02	62.66
11 - Levees and Floodwalls	0.00	0.00	0.01	0.00	0.00	0.00	2.13
15 - Floodway Control and Diversion Structures	0.00	0.01	0.10	0.00	0.04	0.01	33.79
08 - Roads, Railroads, and Bridges	0.00	0.00	0.00	0.00	0.00	0.00	1.19
19 - Buildings, Grounds, and Utilities	0.00	0.00	0.02	0.00	0.01	0.00	6.40
20 -Permanent Operating Equipment	0.00	0.00	0.03	0.00	0.01	0.00	9.62
Annual Construction Exhaust Emissions Total	0.01	0.03	0.34	0.00	0.15	0.04	118.77

Notes:

Total may not add exactly because of rounding.

PM10 and PM2.5 emissions include exhaust, tire wear, brake wear, and paved road dust.

Table K-100. ROG Emissions from Construction Worker Commuting (Alternative 1)

#	Activity	Estimated Duration, Days	Emission Factor (g/mi)	Maximum Daily Emissions, lbs/day																		
				15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
02 - Relocations																						
1	Mobilization and Demobilization	2	1.55E-02	0.0102	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2	Fremont Weir Concrete Demo	12	1.55E-02	--	0.0205	0.0205	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
3	Levee O&M Road Regrading (6" AB)	4	1.55E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4	Temporary Electrical Power	1	1.55E-02	0.0061	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
02 - Relocations Total				0.0164	0.0205	0.0205	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
09 - Channels and Canals																						
5	Mobilization and Demobilization	2	1.55E-02	0.0635	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0635	
6	Clearing and Grubbing	16	1.55E-02	--	0.0369	0.0369	0.0369	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
7	Excavation (Wet Conditions)	35	1.55E-02	--	--	--	--	--	0.0410	0.0410	0.0410	0.0410	0.0410	0.0410	--	--	--	--	--	--	--	
8	Excavation/Grading (Dry Conditions)	34	1.55E-02	--	--	--	--	0.0164	0.0164	0.0164	0.0164	0.0164	0.0164	--	--	--	--	--	--	--	--	
9	Earthen Backfill	9	1.55E-02	--	--	--	--	--	0.0082	0.0082	--	--	--	--	--	--	--	--	--	--	--	
10	Riprap - Class 2	25	1.55E-02	--	--	--	--	--	--	--	--	--	--	--	--	0.0574	0.0574	0.0574	0.0574	0.0574	--	
11	Riprap - Class 3	10	1.55E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0574	0.0574	--	
12	RSP Bedding Material	19	1.55E-02	--	--	--	--	--	--	--	--	--	--	--	--	0.1148	0.1148	0.1148	0.1148	--	--	
13	Erosion Control Seeding	16	1.55E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
09 - Channels and Canals Total				0.0635	0.0369	0.0369	0.0369	0.0164	0.0246	0.0656	0.0574	0.0574	0.0574	0.0410	0.0410	0.1148	0.1721	0.1721	0.1721	0.1148	0.1148	0.0635
11 - Levees and Floodwalls																						
14	Mobilization and Demobilization	2	1.55E-02	--	--	--	--	--	--	--	0.0143	--	--	--	0.0143	--	--	--	--	--	--	
15	Soil Cement Bentonite Cutoff Wall	13	1.55E-02	--	--	--	--	--	--	--	--	0.0164	0.0164	0.0164	--	--	--	--	--	--	--	
11 - Levees and Floodwalls Total				--	--	--	--	--	--	--	0.0143	0.0164	0.0164	0.0164	0.0143	--	--	--	--	--	--	
15 - Floodway Control and Diversion Structures																						
16	Mobilization and Demobilization	2	1.55E-02	--	--	0.1025	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
17	Construction Site Dewatering (Temporary Co	18	1.55E-02	--	--	--	0.0143	0.0143	0.0143	--	--	--	--	--	--	--	--	--	--	--	--	
18	Construction Site Dewatering (Pumping)	120	1.55E-02	--	--	--	--	--	0.0061	0.0061	0.0061	0.0061	0.0061	0.0061	0.0061	0.0061	0.0061	0.0061	0.0061	0.0061	0.0061	
19	Excavation (Wet Conditions)	4	1.55E-02	--	--	--	--	--	0.0410	--	--	--	--	--	--	--	--	--	--	--	--	
20	Sheet Pile Wall	7	1.55E-02	--	--	--	--	--	--	0.0143	0.0143	--	--	--	--	--	--	--	--	--	--	
21	Headworks Structure Concrete Piles	28	1.55E-02	--	--	--	--	--	--	0.0266	0.0266	0.0266	0.0266	0.0266	--	--	--	--	--	--	--	
22	Headworks Structure	18	1.55E-02	--	--	--	--	--	--	--	--	--	--	0.0553	0.0553	--	--	--	--	0.0553	--	
23	Headworks Channel Transition	10	1.55E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0328	0.0328	--	--	--	
24	Hinged Bottom Gates	24	1.55E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
15 - Floodway Control and Diversion Structures Total				--	--	0.1025	0.0143	0.0143	0.0143	0.0471	0.0471	0.0471	0.0328	0.0328	0.0881	0.0615	0.0061	0.0389	0.0389	0.0061	0.0615	0.0061
08 - Roads, Railroads, and Bridges																						
25	Mobilization and Demobilization	2	1.55E-02	--	--	--	--	--	--	--	--	--	--	--	--	0.0102	--	--	--	0.0102	--	
26	Pedestrian Bridge Concrete Piles	2	1.55E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0266	--	--	--	--	
27	Pedestrian Bridge Concrete Abutments and	1	1.55E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0184	--	--	--	
28	Pedestrian Bridge Span Installation	3	1.55E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0143	--	--	
08 - Roads, Railroads, and Bridges Total				--	--	--	--	--	--	--	--	--	--	--	--	0.0102	0.0266	0.0184	0.0143	0.0102	--	
19 - Buildings, Grounds, and Utilities																						
29	Mobilization and Demobilization	2	1.55E-02	0.0184	--	--	--	--	--	0.0184	--	--	--	--	--	--	--	--	--	--	--	
30	CMU Building and Earthwork Pad Constructi	30	1.55E-02	--	0.0205	0.0205	0.0205	0.0205	0.0205	--	--	--	--	--	--	--	--	--	--	--	--	
31	Concrete Duct Bank	4	1.55E-02	--	--	--	--	0.0184	--	--	--	--	--	--	--	--	--	--	--	--	--	
19 - Buildings, Grounds, and Utilities Total				0.0184	0.0205	0.0205	0.0205	0.0389	0.0205	0.0184	--	--	--	--	--	--	--	--	--	--	--	--
20 -Permanent Operating Equipment																						
32	Mobilization and Demobilization	2	1.55E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
33	Mechanical Hydraulic Cylinders & Housing	30	1.55E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
34	CMU Building Mechanical Equipment	30	1.55E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
35	Electrical Control Equipment CMU Building	30	1.55E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
36	Electrical Power Equipment CMU Building	30	1.55E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
37	Communication Equipment	12	1.55E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
20 -Permanent Operating Equipment Total				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GRAND TOTAL				0.0984	0.0779	0.1803	0.0717	0.0697	0.0594	0.1311	0.1189	0.1209	0.1066	0.0902	0.1434	0.1762	0.1885	0.2377	0.2295	0.1352	0.1865	0.0697

Table K-100. ROG Emissions from Co

#	Activity										Annual Emissions, tpy	
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct		
02 - Relocations												
1	Mobilization and Demobilization	--	--	--	--	--	--	--	--	0.0102	--	0.0000
2	Fremont Weir Concrete Demo	--	--	--	--	--	--	--	--	--	--	0.0001
3	Levee O&M Road Regrading (6" AB)	--	--	--	--	--	--	--	0.0164	--	--	0.0000
4	Temporary Electrical Power	--	--	--	--	--	--	--	--	--	--	0.0000
		--	--	--	--	--	--	--	0.0164	0.0102	--	0.0002
09 - Channels and Canals												
5	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	0.0001
6	Clearing and Grubbing	--	--	--	--	--	--	--	--	--	--	0.0003
7	Excavation (Wet Conditions)	--	--	--	--	--	--	--	--	--	--	0.0007
8	Excavation/Grading (Dry Conditions)	--	--	--	--	--	--	--	--	--	--	0.0003
9	Earthen Backfill	--	--	--	--	--	--	--	--	--	--	0.0000
10	Riprap - Class 2	--	--	--	--	--	--	--	--	--	--	0.0007
11	Riprap - Class 3	--	--	--	--	--	--	--	--	--	--	0.0003
12	RSP Bedding Material	--	--	--	--	--	--	--	--	--	--	0.0011
13	Erosion Control Seeding	--	--	0.0082	0.0082	0.0082	--	--	--	--	--	0.0001
	09 - Cha	--	--	0.0082	0.0082	0.0082	--	--	--	--	--	0.0036
11 - Levees and Floodwalls												
14	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	0.0000
15	Soil Cement Bentonite Cutoff Wall	--	--	--	--	--	--	--	--	--	--	0.0001
	11 - Levee	--	--	--	--	--	--	--	--	--	--	0.0001
15 - Floodway Control and Diversion Structure												
16	Mobilization and Demobilization	--	--	--	--	--	--	--	0.1025	--	--	0.0001
17	Construction Site Dewatering (TemporaryCo	--	--	--	--	--	--	--	--	--	--	0.0001
18	Construction Site Dewatering (Pumping)	0.0061	0.0061	0.0061	0.0061	0.0061	0.0061	0.0061	--	--	--	0.0004
19	Excavation (Wet Conditions)	--	--	--	--	--	--	--	--	--	--	0.0001
20	Sheet Pile Wall	--	--	--	--	--	--	--	--	--	--	0.0001
21	Headworks Structure Concrete Piles	--	--	--	--	--	--	--	--	--	--	0.0004
22	Headworks Structure	--	--	--	--	--	--	--	--	--	--	0.0005
23	Headworks Channel Transition	--	--	--	--	--	--	--	--	--	--	0.0002
24	Hinged Bottom Gates	--	--	0.0123	0.0123	0.0123	0.0123	--	--	--	--	0.0001
	15 - Floodway Control and Div	0.0061	0.0061	0.0184	0.0184	0.0184	0.0184	0.0061	0.1025	--	--	0.0019
08 - Roads, Railroads, and Bridges												
25	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	0.0000
26	Pedestrian Bridge Concrete Piles	--	--	--	--	--	--	--	--	--	--	0.0000
27	Pedestrian Bridge Concrete Abutments and	--	--	--	--	--	--	--	--	--	--	0.0000
28	Pedestrian Bridge Span Installation	--	--	--	--	--	--	--	--	--	--	0.0000
	08 - Roads, Railro	--	--	--	--	--	--	--	--	--	--	0.0001
19 - Buildings, Grounds, and Utilities												
29	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	0.0000
30	CMU Building and Earthwork Pad Constructi	--	--	--	--	--	--	--	--	--	--	0.0003
31	Concrete Duct Bank	--	--	--	--	--	--	--	--	--	--	0.0000
	19 - Buildings, Grou	--	--	--	--	--	--	--	--	--	--	0.0004
20 -Permanent Operating Equipment												
32	Mobilization and Demobilization	--	0.0041	--	--	--	--	--	0.0041	--	--	0.0000
33	Mechanical Hydraulic Cylinders & Housing	--	--	0.0082	0.0082	0.0082	0.0082	0.0082	--	--	--	0.0001
34	CMU Building Mechanical Equipment	--	--	0.0082	0.0082	0.0082	0.0082	0.0082	--	--	--	0.0001
35	Electrical Control Equipment CMU Building	--	--	0.0082	0.0082	0.0082	0.0082	0.0082	--	--	--	0.0001
36	Electrical Power Equipment CMU Building	--	--	0.0082	0.0082	0.0082	0.0082	0.0082	--	--	--	0.0001
37	Communication Equipment	--	--	--	--	--	0.0082	0.0082	--	--	--	0.0000
	20 -Permanent Ope	--	0.0041	0.0328	0.0328	0.0328	0.0410	0.0410	0.0041	--	--	0.0005
GRAND TOTAL		0.0061	0.0102	0.0594	0.0594	0.0594	0.0594	0.0471	0.1229	0.0102	--	0.0067

Table K-101. NOx Emissions from Construction Worker Commuting (Alternative 1)

#	Activity	Estimated Duration, Days	Emission Factor (g/mi)	Maximum Daily Emissions, lbs/day																			
				15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug	
02 - Relocations																							
1	Mobilization and Demobilization	2	7.71E-02	0.0510	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2	Fremont Weir Concrete Demo	12	7.71E-02	--	0.1020	0.1020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
3	Levee O&M Road Regrading (6" AB)	4	7.71E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4	Temporary Electrical Power	1	7.71E-02	0.0306	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
02 - Relocations Total				0.0816	0.1020	0.1020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
09 - Channels and Canals																							
5	Mobilization and Demobilization	2	7.71E-02	0.3162	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.3162	
6	Clearing and Grubbing	16	7.71E-02	--	0.1836	0.1836	0.1836	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
7	Excavation (Wet Conditions)	35	7.71E-02	--	--	--	--	--	0.2040	0.2040	0.2040	0.2040	0.2040	0.2040	--	--	--	--	--	--	--	--	
8	Excavation/Grading (Dry Conditions)	34	7.71E-02	--	--	--	--	0.0816	0.0816	0.0816	0.0816	0.0816	0.0816	--	--	--	--	--	--	--	--	--	
9	Earthen Backfill	9	7.71E-02	--	--	--	--	--	0.0408	0.0408	--	--	--	--	--	--	--	--	--	--	--	--	
10	Riprap - Class 2	25	7.71E-02	--	--	--	--	--	--	--	--	--	--	--	--	0.2856	0.2856	0.2856	0.2856	0.2856	0.2856	--	
11	Riprap - Class 3	10	7.71E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2856	0.2856	--	--	
12	RSP Bedding Material	19	7.71E-02	--	--	--	--	--	--	--	--	--	--	--	--	0.5713	0.5713	0.5713	0.5713	--	--	--	
13	Erosion Control Seeding	16	7.71E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
09 - Channels and Canals Total				0.3162	0.1836	0.1836	0.1836	0.0816	0.1224	0.3264	0.2856	0.2856	0.2856	0.2040	0.2040	0.5713	0.8569	0.8569	0.8569	0.5713	0.5713	0.3162	
11 - Levees and Floodwalls																							
14	Mobilization and Demobilization	2	7.71E-02	--	--	--	--	--	--	0.0714	--	--	--	0.0714	--	--	--	--	--	--	--	--	
15	Soil Cement Bentonite Cutoff Wall	13	7.71E-02	--	--	--	--	--	--	--	0.0816	0.0816	0.0816	--	--	--	--	--	--	--	--	--	
11 - Levees and Floodwalls Total				--	--	--	--	--	--	0.0714	0.0816	0.0816	0.0816	0.0714	--	--	--	--	--	--	--	--	
15 - Floodway Control and Diversion Structures																							
16	Mobilization and Demobilization	2	7.71E-02	--	--	0.5101	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
17	Construction Site Dewatering (Temporary Co	18	7.71E-02	--	--	--	0.0714	0.0714	0.0714	--	--	--	--	--	--	--	--	--	--	--	--	--	
18	Construction Site Dewatering (Pumping)	120	7.71E-02	--	--	--	--	--	0.0306	0.0306	0.0306	0.0306	0.0306	0.0306	0.0306	0.0306	0.0306	0.0306	0.0306	0.0306	0.0306	0.0306	
19	Excavation (Wet Conditions)	4	7.71E-02	--	--	--	--	--	0.2040	--	--	--	--	--	--	--	--	--	--	--	--	--	
20	Sheet Pile Wall	7	7.71E-02	--	--	--	--	--	--	0.0714	0.0714	--	--	--	--	--	--	--	--	--	--	--	
21	Headworks Structure Concrete Piles	28	7.71E-02	--	--	--	--	--	--	0.1326	0.1326	0.1326	0.1326	0.1326	--	--	--	--	--	--	--	--	
22	Headworks Structure	18	7.71E-02	--	--	--	--	--	--	--	--	--	--	0.2754	0.2754	--	--	--	--	--	0.2754	--	
23	Headworks Channel Transition	10	7.71E-02	--	--	--	--	--	--	--	--	--	--	--	--	0.1632	0.1632	--	--	--	--	--	
24	Hinged Bottom Gates	24	7.71E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
15 - Floodway Control and Diversion Structures Total				--	--	0.5101	0.0714	0.0714	0.0714	0.2346	0.2346	0.2346	0.1632	0.1632	0.4387	0.3060	0.0306	0.1938	0.1938	0.0306	0.3060	0.0306	
08 - Roads, Railroads, and Bridges																							
25	Mobilization and Demobilization	2	7.71E-02	--	--	--	--	--	--	--	--	--	--	--	--	0.0510	--	--	--	--	0.0510	--	
26	Pedestrian Bridge Concrete Piles	2	7.71E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	0.1326	--	--	--	--	--	
27	Pedestrian Bridge Concrete Abutments and	1	7.71E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0918	--	--	--	--	
28	Pedestrian Bridge Span Installation	3	7.71E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0714	--	--	--	
08 - Roads, Railroads, and Bridges Total				--	--	--	--	--	--	--	--	--	--	--	--	0.0510	0.1326	0.0918	0.0714	0.0510	--	--	
19 - Buildings, Grounds, and Utilities																							
29	Mobilization and Demobilization	2	7.71E-02	0.0918	--	--	--	--	--	0.0918	--	--	--	--	--	--	--	--	--	--	--	--	
30	CMU Building and Earthwork Pad Constructi	30	7.71E-02	--	0.1020	0.1020	0.1020	0.1020	0.1020	--	--	--	--	--	--	--	--	--	--	--	--	--	
31	Concrete Duct Bank	4	7.71E-02	--	--	--	--	0.0918	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
19 - Buildings, Grounds, and Utilities Total				0.0918	0.1020	0.1020	0.1020	0.1938	0.1020	0.0918	--	--	--	--	--	--	--	--	--	--	--	--	--
20 -Permanent Operating Equipment																							
32	Mobilization and Demobilization	2	7.71E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
33	Mechanical Hydraulic Cylinders & Housing	30	7.71E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
34	CMU Building Mechanical Equipment	30	7.71E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
35	Electrical Control Equipment CMU Building	30	7.71E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
36	Electrical Power Equipment CMU Building	30	7.71E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
37	Communication Equipment	12	7.71E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
20 -Permanent Operating Equipment Total				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
GRAND TOTAL				0.4897	0.3876	0.8977	0.3570	0.3468	0.2958	0.6529	0.5917	0.6019	0.5305	0.4489	0.7141	0.8773	0.9385	1.1833	1.1425	0.6733	0.9283	0.3468	

Table K-101. NOx Emissions from Co

#	Activity	26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	Annual Emissions, tpy
02 - Relocations											
1	Mobilization and Demobilization	--	--	--	--	--	--	--	--	0.0510	0.0001
2	Fremont Weir Concrete Demo	--	--	--	--	--	--	--	--	--	0.0006
3	Levee O&M Road Regrading (6" AB)	--	--	--	--	--	--	--	0.0816	--	0.0002
4	Temporary Electrical Power	--	--	--	--	--	--	--	--	--	0.0000
		--	--	--	--	--	--	--	0.0816	0.0510	0.0008
09 - Channels and Canals											
5	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	0.0003
6	Clearing and Grubbing	--	--	--	--	--	--	--	--	--	0.0015
7	Excavation (Wet Conditions)	--	--	--	--	--	--	--	--	--	0.0036
8	Excavation/Grading (Dry Conditions)	--	--	--	--	--	--	--	--	--	0.0014
9	Earthen Backfill	--	--	--	--	--	--	--	--	--	0.0002
10	Riprap - Class 2	--	--	--	--	--	--	--	--	--	0.0036
11	Riprap - Class 3	--	--	--	--	--	--	--	--	--	0.0014
12	RSP Bedding Material	--	--	--	--	--	--	--	--	--	0.0054
13	Erosion Control Seeding	--	--	0.0408	0.0408	0.0408	--	--	--	--	0.0003
	09 - Cha	--	--	0.0408	0.0408	0.0408	--	--	--	--	0.0177
11 - Levees and Floodwalls											
14	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	0.0001
15	Soil Cement Bentonite Cutoff Wall	--	--	--	--	--	--	--	--	--	0.0005
	11 - Levee	--	--	--	--	--	--	--	--	--	0.0006
15 - Floodway Control and Diversion Structure											
16	Mobilization and Demobilization	--	--	--	--	--	--	--	0.5101	--	0.0005
17	Construction Site Dewatering (Temporary Co	--	--	--	--	--	--	--	--	--	0.0006
18	Construction Site Dewatering (Pumping)	0.0306	0.0306	0.0306	0.0306	0.0306	0.0306	0.0306	--	--	0.0018
19	Excavation (Wet Conditions)	--	--	--	--	--	--	--	--	--	0.0004
20	Sheet Pile Wall	--	--	--	--	--	--	--	--	--	0.0002
21	Headworks Structure Concrete Piles	--	--	--	--	--	--	--	--	--	0.0019
22	Headworks Structure	--	--	--	--	--	--	--	--	--	0.0025
23	Headworks Channel Transition	--	--	--	--	--	--	--	--	--	0.0008
24	Hinged Bottom Gates	--	--	0.0612	0.0612	0.0612	0.0612	--	--	--	0.0007
	15 - Floodway Control and Div	0.0306	0.0306	0.0918	0.0918	0.0918	0.0918	0.0306	0.5101	--	0.0095
08 - Roads, Railroads, and Bridges											
25	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	0.0001
26	Pedestrian Bridge Concrete Piles	--	--	--	--	--	--	--	--	--	0.0001
27	Pedestrian Bridge Concrete Abutments and	--	--	--	--	--	--	--	--	--	0.0000
28	Pedestrian Bridge Span Installation	--	--	--	--	--	--	--	--	--	0.0001
	08 - Roads, Railro	--	--	--	--	--	--	--	--	--	0.0003
19 - Buildings, Grounds, and Utilities											
29	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	0.0001
30	CMU Building and Earthwork Pad Constructi	--	--	--	--	--	--	--	--	--	0.0015
31	Concrete Duct Bank	--	--	--	--	--	--	--	--	--	0.0002
	19 - Buildings, Grou	--	--	--	--	--	--	--	--	--	0.0018
20 -Permanent Operating Equipment											
32	Mobilization and Demobilization	--	0.0204	--	--	--	--	--	0.0204	--	0.0000
33	Mechanical Hydraulic Cylinders & Housing	--	--	0.0408	0.0408	0.0408	0.0408	0.0408	--	--	0.0006
34	CMU Building Mechanical Equipment	--	--	0.0408	0.0408	0.0408	0.0408	0.0408	--	--	0.0006
35	Electrical Control Equipment CMU Building	--	--	0.0408	0.0408	0.0408	0.0408	0.0408	--	--	0.0006
36	Electrical Power Equipment CMU Building	--	--	0.0408	0.0408	0.0408	0.0408	0.0408	--	--	0.0006
37	Communication Equipment	--	--	--	--	--	0.0408	0.0408	--	--	0.0002
	20 -Permanent Ope	--	0.0204	0.1632	0.1632	0.1632	0.2040	0.2040	0.0204	--	0.0027
GRAND TOTAL		0.0306	0.0510	0.2958	0.2958	0.2958	0.2958	0.2346	0.6121	0.0510	0.0335

Table K-102. CO Emissions from Construction Worker Commuting (Alternative 1)

#	Activity	Estimated Duration, Days	Emission Factor (g/mi)	Maximum Daily Emissions, lbs/day																		
				15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
02 - Relocations																						
1	Mobilization and Demobilization	2	7.76E-01	0.5129	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2	Fremont Weir Concrete Demo	12	7.76E-01	--	1.0259	1.0259	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
3	Levee O&M Road Regrading (6" AB)	4	7.76E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4	Temporary Electrical Power	1	7.76E-01	0.3078	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
02 - Relocations Total				0.8207	1.0259	1.0259	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
09 - Channels and Canals																						
5	Mobilization and Demobilization	2	7.76E-01	3.1802	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.1802	
6	Clearing and Grubbing	16	7.76E-01	--	1.8465	1.8465	1.8465	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
7	Excavation (Wet Conditions)	35	7.76E-01	--	--	--	--	--	2.0517	2.0517	2.0517	2.0517	2.0517	2.0517	--	--	--	--	--	--	--	
8	Excavation/Grading (Dry Conditions)	34	7.76E-01	--	--	--	--	0.8207	0.8207	0.8207	0.8207	0.8207	0.8207	--	--	--	--	--	--	--	--	
9	Earthen Backfill	9	7.76E-01	--	--	--	--	--	0.4103	0.4103	--	--	--	--	--	--	--	--	--	--	--	
10	Riprap - Class 2	25	7.76E-01	--	--	--	--	--	--	--	--	--	--	--	--	2.8724	2.8724	2.8724	2.8724	2.8724	--	
11	Riprap - Class 3	10	7.76E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.8724	2.8724	--	
12	RSP Bedding Material	19	7.76E-01	--	--	--	--	--	--	--	--	--	--	--	--	5.7448	5.7448	5.7448	5.7448	--	--	
13	Erosion Control Seeding	16	7.76E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
09 - Channels and Canals Total				3.1802	1.8465	1.8465	1.8465	0.8207	1.2310	3.2827	2.8724	2.8724	2.8724	2.0517	2.0517	5.7448	8.6172	8.6172	8.6172	5.7448	5.7448	3.1802
11 - Levees and Floodwalls																						
14	Mobilization and Demobilization	2	7.76E-01	--	--	--	--	--	--	--	0.7181	--	--	--	0.7181	--	--	--	--	--	--	
15	Soil Cement Bentonite Cutoff Wall	13	7.76E-01	--	--	--	--	--	--	--	--	0.8207	0.8207	0.8207	--	--	--	--	--	--	--	
11 - Levees and Floodwalls Total				--	--	--	--	--	--	--	0.7181	0.8207	0.8207	0.8207	0.7181	--	--	--	--	--	--	--
15 - Floodway Control and Diversion Structures																						
16	Mobilization and Demobilization	2	7.76E-01	--	--	5.1293	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
17	Construction Site Dewatering (Temporary Co	18	7.76E-01	--	--	--	0.7181	0.7181	0.7181	--	--	--	--	--	--	--	--	--	--	--	--	
18	Construction Site Dewatering (Pumping)	120	7.76E-01	--	--	--	--	--	0.3078	0.3078	0.3078	0.3078	0.3078	0.3078	0.3078	0.3078	0.3078	0.3078	0.3078	0.3078	0.3078	
19	Excavation (Wet Conditions)	4	7.76E-01	--	--	--	--	--	2.0517	--	--	--	--	--	--	--	--	--	--	--	--	
20	Sheet Pile Wall	7	7.76E-01	--	--	--	--	--	--	0.7181	0.7181	--	--	--	--	--	--	--	--	--	--	
21	Headworks Structure Concrete Piles	28	7.76E-01	--	--	--	--	--	--	1.3336	1.3336	1.3336	1.3336	1.3336	--	--	--	--	--	--	--	
22	Headworks Structure	18	7.76E-01	--	--	--	--	--	--	--	--	--	--	2.7698	2.7698	--	--	--	--	--	2.7698	
23	Headworks Channel Transition	10	7.76E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	1.6414	1.6414	--	--	--	
24	Hinged Bottom Gates	24	7.76E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
15 - Floodway Control and Diversion Structures Total				--	--	5.1293	0.7181	0.7181	0.7181	2.3595	2.3595	2.3595	1.6414	1.6414	4.4112	3.0776	0.3078	1.9491	1.9491	0.3078	3.0776	0.3078
08 - Roads, Railroads, and Bridges																						
25	Mobilization and Demobilization	2	7.76E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	0.5129	--	--	--	0.5129	
26	Pedestrian Bridge Concrete Piles	2	7.76E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.3336	--	--	--	
27	Pedestrian Bridge Concrete Abutments and	1	7.76E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.9233	--	--	
28	Pedestrian Bridge Span Installation	3	7.76E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.7181	--	
08 - Roads, Railroads, and Bridges Total				--	--	--	--	--	--	--	--	--	--	--	--	--	0.5129	1.3336	0.9233	0.7181	0.5129	--
19 - Buildings, Grounds, and Utilities																						
29	Mobilization and Demobilization	2	7.76E-01	0.9233	--	--	--	--	--	0.9233	--	--	--	--	--	--	--	--	--	--	--	
30	CMU Building and Earthwork Pad Constructi	30	7.76E-01	--	1.0259	1.0259	1.0259	1.0259	1.0259	--	--	--	--	--	--	--	--	--	--	--	--	
31	Concrete Duct Bank	4	7.76E-01	--	--	--	--	0.9233	--	--	--	--	--	--	--	--	--	--	--	--	--	
19 - Buildings, Grounds, and Utilities Total				0.9233	1.0259	1.0259	1.0259	1.9491	1.0259	0.9233	--	--	--	--	--	--	--	--	--	--	--	--
20 -Permanent Operating Equipment																						
32	Mobilization and Demobilization	2	7.76E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
33	Mechanical Hydraulic Cylinders & Housing	30	7.76E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
34	CMU Building Mechanical Equipment	30	7.76E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
35	Electrical Control Equipment CMU Building	30	7.76E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
36	Electrical Power Equipment CMU Building	30	7.76E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
37	Communication Equipment	12	7.76E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
20 -Permanent Operating Equipment Total				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GRAND TOTAL				4.9241	3.8983	9.0276	3.5905	3.4879	2.9750	6.5655	5.9500	6.0526	5.3345	4.5138	7.1810	8.8224	9.4379	11.9000	11.4896	6.7707	9.3353	3.4879

Table K-102. CO Emissions from Con

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
02 - Relocations											
1	Mobilization and Demobilization	--	--	--	--	--	--	--	--	0.5129	0.0005
2	Fremont Weir Concrete Demo	--	--	--	--	--	--	--	--	--	0.0062
3	Levee O&M Road Regrading (6" AB)	--	--	--	--	--	--	--	0.8207	--	0.0016
4	Temporary Electrical Power	--	--	--	--	--	--	--	--	--	0.0002
		--	--	--	--	--	--	--	0.8207	0.5129	0.0085
09 - Channels and Canals											
5	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	0.0032
6	Clearing and Grubbing	--	--	--	--	--	--	--	--	--	0.0148
7	Excavation (Wet Conditions)	--	--	--	--	--	--	--	--	--	0.0359
8	Excavation/Grading (Dry Conditions)	--	--	--	--	--	--	--	--	--	0.0140
9	Earthen Backfill	--	--	--	--	--	--	--	--	--	0.0018
10	Riprap - Class 2	--	--	--	--	--	--	--	--	--	0.0359
11	Riprap - Class 3	--	--	--	--	--	--	--	--	--	0.0144
12	RSP Bedding Material	--	--	--	--	--	--	--	--	--	0.0546
13	Erosion Control Seeding	--	--	0.4103	0.4103	0.4103	--	--	--	--	0.0033
	09 - Cha	--	--	0.4103	0.4103	0.4103	--	--	--	--	0.1778
11 - Levees and Floodwalls											
14	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	0.0007
15	Soil Cement Bentonite Cutoff Wall	--	--	--	--	--	--	--	--	--	0.0053
	11 - Levee	--	--	--	--	--	--	--	--	--	0.0061
15 - Floodway Control and Diversion Structure											
16	Mobilization and Demobilization	--	--	--	--	--	--	--	5.1293	--	0.0051
17	Construction Site Dewatering (Temporary Co	--	--	--	--	--	--	--	--	--	0.0065
18	Construction Site Dewatering (Pumping)	0.3078	0.3078	0.3078	0.3078	0.3078	0.3078	0.3078	--	--	0.0185
19	Excavation (Wet Conditions)	--	--	--	--	--	--	--	--	--	0.0041
20	Sheet Pile Wall	--	--	--	--	--	--	--	--	--	0.0025
21	Headworks Structure Concrete Piles	--	--	--	--	--	--	--	--	--	0.0187
22	Headworks Structure	--	--	--	--	--	--	--	--	--	0.0249
23	Headworks Channel Transition	--	--	--	--	--	--	--	--	--	0.0082
24	Hinged Bottom Gates	--	--	0.6155	0.6155	0.6155	0.6155	--	--	--	0.0074
	15 - Floodway Control and Div	0.3078	0.3078	0.9233	0.9233	0.9233	0.9233	0.3078	5.1293	--	0.0959
08 - Roads, Railroads, and Bridges											
25	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	0.0005
26	Pedestrian Bridge Concrete Piles	--	--	--	--	--	--	--	--	--	0.0013
27	Pedestrian Bridge Concrete Abutments and	--	--	--	--	--	--	--	--	--	0.0005
28	Pedestrian Bridge Span Installation	--	--	--	--	--	--	--	--	--	0.0011
	08 - Roads, Railro	--	--	--	--	--	--	--	--	--	0.0034
19 - Buildings, Grounds, and Utilities											
29	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	0.0009
30	CMU Building and Earthwork Pad Constructi	--	--	--	--	--	--	--	--	--	0.0154
31	Concrete Duct Bank	--	--	--	--	--	--	--	--	--	0.0018
	19 - Buildings, Grou	--	--	--	--	--	--	--	--	--	0.0182
20 -Permanent Operating Equipment											
32	Mobilization and Demobilization	--	0.2052	--	--	--	--	--	0.2052	--	0.0002
33	Mechanical Hydraulic Cylinders & Housing	--	--	0.4103	0.4103	0.4103	0.4103	0.4103	--	--	0.0062
34	CMU Building Mechanical Equipment	--	--	0.4103	0.4103	0.4103	0.4103	0.4103	--	--	0.0062
35	Electrical Control Equipment CMU Building	--	--	0.4103	0.4103	0.4103	0.4103	0.4103	--	--	0.0062
36	Electrical Power Equipment CMU Building	--	--	0.4103	0.4103	0.4103	0.4103	0.4103	--	--	0.0062
37	Communication Equipment	--	--	--	--	--	0.4103	0.4103	--	--	0.0025
	20 -Permanent Ope	--	0.2052	1.6414	1.6414	1.6414	2.0517	2.0517	0.2052	--	0.0273
GRAND TOTAL		0.3078	0.5129	2.9750	2.9750	2.9750	2.9750	2.3595	6.1552	0.5129	0.3370

Table K-103. SOx Emissions from Construction Worker Commuting (Alternative 1)

#	Activity	Estimated Duration, Days	Emission Factor (g/mi)	Maximum Daily Emissions, lbs/day																		
				15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
02 - Relocations																						
1	Mobilization and Demobilization	2	3.02E-03	0.0020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2	Fremont Weir Concrete Demo	12	3.02E-03	--	0.0040	0.0040	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
3	Levee O&M Road Regrading (6" AB)	4	3.02E-03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4	Temporary Electrical Power	1	3.02E-03	0.0012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
02 - Relocations Total				0.0032	0.0040	0.0040	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
09 - Channels and Canals																						
5	Mobilization and Demobilization	2	3.02E-03	0.0124	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0124	
6	Clearing and Grubbing	16	3.02E-03	--	0.0072	0.0072	0.0072	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
7	Excavation (Wet Conditions)	35	3.02E-03	--	--	--	--	--	0.0080	0.0080	0.0080	0.0080	0.0080	0.0080	--	--	--	--	--	--	--	
8	Excavation/Grading (Dry Conditions)	34	3.02E-03	--	--	--	--	0.0032	0.0032	0.0032	0.0032	0.0032	0.0032	--	--	--	--	--	--	--	--	
9	Earthen Backfill	9	3.02E-03	--	--	--	--	--	0.0016	0.0016	--	--	--	--	--	--	--	--	--	--	--	
10	Riprap - Class 2	25	3.02E-03	--	--	--	--	--	--	--	--	--	--	--	--	0.0112	0.0112	0.0112	0.0112	0.0112	--	
11	Riprap - Class 3	10	3.02E-03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0112	0.0112	--	
12	RSP Bedding Material	19	3.02E-03	--	--	--	--	--	--	--	--	--	--	--	--	0.0224	0.0224	0.0224	0.0224	--	--	
13	Erosion Control Seeding	16	3.02E-03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
09 - Channels and Canals Total				0.0124	0.0072	0.0072	0.0072	0.0032	0.0048	0.0128	0.0112	0.0112	0.0112	0.0080	0.0080	0.0224	0.0335	0.0335	0.0335	0.0224	0.0224	
11 - Levees and Floodwalls																						
14	Mobilization and Demobilization	2	3.02E-03	--	--	--	--	--	--	0.0028	--	--	--	0.0028	--	--	--	--	--	--	--	
15	Soil Cement Bentonite Cutoff Wall	13	3.02E-03	--	--	--	--	--	--	--	0.0032	0.0032	0.0032	--	--	--	--	--	--	--	--	
11 - Levees and Floodwalls Total				--	--	--	--	--	--	0.0028	0.0032	0.0032	0.0032	0.0028	--	--	--	--	--	--	--	
15 - Floodway Control and Diversion Structures																						
16	Mobilization and Demobilization	2	3.02E-03	--	--	0.0200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
17	Construction Site Dewatering (Temporary Co	18	3.02E-03	--	--	--	0.0028	0.0028	0.0028	--	--	--	--	--	--	--	--	--	--	--	--	
18	Construction Site Dewatering (Pumping)	120	3.02E-03	--	--	--	--	--	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	
19	Excavation (Wet Conditions)	4	3.02E-03	--	--	--	--	--	0.0080	--	--	--	--	--	--	--	--	--	--	--	--	
20	Sheet Pile Wall	7	3.02E-03	--	--	--	--	--	--	0.0028	0.0028	--	--	--	--	--	--	--	--	--	--	
21	Headworks Structure Concrete Piles	28	3.02E-03	--	--	--	--	--	--	0.0052	0.0052	0.0052	0.0052	0.0052	--	--	--	--	--	--	--	
22	Headworks Structure	18	3.02E-03	--	--	--	--	--	--	--	--	--	--	0.0108	0.0108	--	--	--	--	0.0108	--	
23	Headworks Channel Transition	10	3.02E-03	--	--	--	--	--	--	--	--	--	--	--	--	0.0064	0.0064	--	--	--	--	
24	Hinged Bottom Gates	24	3.02E-03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
15 - Floodway Control and Diversion Structures Total				--	--	0.0200	0.0028	0.0028	0.0028	0.0092	0.0092	0.0092	0.0064	0.0064	0.0172	0.0120	0.0012	0.0076	0.0076	0.0012	0.0120	
08 - Roads, Railroads, and Bridges																						
25	Mobilization and Demobilization	2	3.02E-03	--	--	--	--	--	--	--	--	--	--	--	--	0.0020	--	--	--	0.0020	--	
26	Pedestrian Bridge Concrete Piles	2	3.02E-03	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0052	--	--	--	--	
27	Pedestrian Bridge Concrete Abutments and	1	3.02E-03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0036	--	--	--	
28	Pedestrian Bridge Span Installation	3	3.02E-03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0028	--	--	
08 - Roads, Railroads, and Bridges Total				--	--	--	--	--	--	--	--	--	--	--	--	0.0020	0.0052	0.0036	0.0028	0.0020	--	
19 - Buildings, Grounds, and Utilities																						
29	Mobilization and Demobilization	2	3.02E-03	0.0036	--	--	--	--	--	0.0036	--	--	--	--	--	--	--	--	--	--	--	
30	CMU Building and Earthwork Pad Constructi	30	3.02E-03	--	0.0040	0.0040	0.0040	0.0040	0.0040	--	--	--	--	--	--	--	--	--	--	--	--	
31	Concrete Duct Bank	4	3.02E-03	--	--	--	--	0.0036	--	--	--	--	--	--	--	--	--	--	--	--	--	
19 - Buildings, Grounds, and Utilities Total				0.0036	0.0040	0.0040	0.0040	0.0076	0.0040	0.0036	--	--	--	--	--	--	--	--	--	--	--	
20 -Permanent Operating Equipment																						
32	Mobilization and Demobilization	2	3.02E-03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
33	Mechanical Hydraulic Cylinders & Housing	30	3.02E-03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
34	CMU Building Mechanical Equipment	30	3.02E-03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
35	Electrical Control Equipment CMU Building	30	3.02E-03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
36	Electrical Power Equipment CMU Building	30	3.02E-03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
37	Communication Equipment	12	3.02E-03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
20 -Permanent Operating Equipment Total				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
GRAND TOTAL				0.0192	0.0152	0.0351	0.0140	0.0136	0.0116	0.0256	0.0232	0.0236	0.0208	0.0176	0.0280	0.0343	0.0367	0.0463	0.0447	0.0264	0.0363	0.0136

Table K-103. SOx Emissions from Co

#	Activity	26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	Annual Emissions, tpy
02 - Relocations											
1	Mobilization and Demobilization	--	--	--	--	--	--	--	--	0.0020	0.0000
2	Fremont Weir Concrete Demo	--	--	--	--	--	--	--	--	--	0.0000
3	Levee O&M Road Regrading (6" AB)	--	--	--	--	--	--	--	0.0032	--	0.0000
4	Temporary Electrical Power	--	--	--	--	--	--	--	--	--	0.0000
		--	--	--	--	--	--	--	0.0032	0.0020	0.0000
09 - Channels and Canals											
5	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	0.0000
6	Clearing and Grubbing	--	--	--	--	--	--	--	--	--	0.0001
7	Excavation (Wet Conditions)	--	--	--	--	--	--	--	--	--	0.0001
8	Excavation/Grading (Dry Conditions)	--	--	--	--	--	--	--	--	--	0.0001
9	Earthen Backfill	--	--	--	--	--	--	--	--	--	0.0000
10	Riprap - Class 2	--	--	--	--	--	--	--	--	--	0.0001
11	Riprap - Class 3	--	--	--	--	--	--	--	--	--	0.0001
12	RSP Bedding Material	--	--	--	--	--	--	--	--	--	0.0002
13	Erosion Control Seeding	--	--	0.0016	0.0016	0.0016	--	--	--	--	0.0000
	09 - Cha	--	--	0.0016	0.0016	0.0016	--	--	--	--	0.0007
11 - Levees and Floodwalls											
14	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	0.0000
15	Soil Cement Bentonite Cutoff Wall	--	--	--	--	--	--	--	--	--	0.0000
	11 - Levee	--	--	--	--	--	--	--	--	--	0.0000
15 - Floodway Control and Diversion Structure											
16	Mobilization and Demobilization	--	--	--	--	--	--	--	0.0200	--	0.0000
17	Construction Site Dewatering (Temporary Co	--	--	--	--	--	--	--	--	--	0.0000
18	Construction Site Dewatering (Pumping)	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	0.0012	--	--	0.0001
19	Excavation (Wet Conditions)	--	--	--	--	--	--	--	--	--	0.0000
20	Sheet Pile Wall	--	--	--	--	--	--	--	--	--	0.0000
21	Headworks Structure Concrete Piles	--	--	--	--	--	--	--	--	--	0.0001
22	Headworks Structure	--	--	--	--	--	--	--	--	--	0.0001
23	Headworks Channel Transition	--	--	--	--	--	--	--	--	--	0.0000
24	Hinged Bottom Gates	--	--	0.0024	0.0024	0.0024	0.0024	--	--	--	0.0000
	15 - Floodway Control and Div	0.0012	0.0012	0.0036	0.0036	0.0036	0.0036	0.0012	0.0200	--	0.0004
08 - Roads, Railroads, and Bridges											
25	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	0.0000
26	Pedestrian Bridge Concrete Piles	--	--	--	--	--	--	--	--	--	0.0000
27	Pedestrian Bridge Concrete Abutments and	--	--	--	--	--	--	--	--	--	0.0000
28	Pedestrian Bridge Span Installation	--	--	--	--	--	--	--	--	--	0.0000
	08 - Roads, Railro	--	--	--	--	--	--	--	--	--	0.0000
19 - Buildings, Grounds, and Utilities											
29	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	0.0000
30	CMU Building and Earthwork Pad Constructi	--	--	--	--	--	--	--	--	--	0.0001
31	Concrete Duct Bank	--	--	--	--	--	--	--	--	--	0.0000
	19 - Buildings, Grou	--	--	--	--	--	--	--	--	--	0.0001
20 -Permanent Operating Equipment											
32	Mobilization and Demobilization	--	0.0008	--	--	--	--	--	0.0008	--	0.0000
33	Mechanical Hydraulic Cylinders & Housing	--	--	0.0016	0.0016	0.0016	0.0016	0.0016	--	--	0.0000
34	CMU Building Mechanical Equipment	--	--	0.0016	0.0016	0.0016	0.0016	0.0016	--	--	0.0000
35	Electrical Control Equipment CMU Building	--	--	0.0016	0.0016	0.0016	0.0016	0.0016	--	--	0.0000
36	Electrical Power Equipment CMU Building	--	--	0.0016	0.0016	0.0016	0.0016	0.0016	--	--	0.0000
37	Communication Equipment	--	--	--	--	--	0.0016	0.0016	--	--	0.0000
	20 -Permanent Ope	--	0.0008	0.0064	0.0064	0.0064	0.0080	0.0080	0.0008	--	0.0001
GRAND TOTAL		0.0012	0.0020	0.0116	0.0116	0.0116	0.0116	0.0092	0.0240	0.0020	0.0013

Table K-104. PM10 Emissions from Construction Worker Commuting (Alternative 1)

#	Activity	Estimated Duration, Days	Emission Factor (g/mi)	Maximum Daily Emissions, lbs/day																		
				15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
02 - Relocations																						
1	Mobilization and Demobilization	2	3.47E-01	0.2292	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2	Fremont Weir Concrete Demo	12	3.47E-01	--	0.4583	0.4583	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
3	Levee O&M Road Regrading (6" AB)	4	3.47E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4	Temporary Electrical Power	1	3.47E-01	0.1375	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
02 - Relocations Total				0.3667	0.4583	0.4583	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
09 - Channels and Canals																						
5	Mobilization and Demobilization	2	3.47E-01	1.4208	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.4208	
6	Clearing and Grubbing	16	3.47E-01	--	0.8250	0.8250	0.8250	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
7	Excavation (Wet Conditions)	35	3.47E-01	--	--	--	--	--	0.9167	0.9167	0.9167	0.9167	0.9167	0.9167	--	--	--	--	--	--	--	
8	Excavation/Grading (Dry Conditions)	34	3.47E-01	--	--	--	--	0.3667	0.3667	0.3667	0.3667	0.3667	0.3667	--	--	--	--	--	--	--	--	
9	Earthen Backfill	9	3.47E-01	--	--	--	--	--	0.1833	0.1833	--	--	--	--	--	--	--	--	--	--	--	
10	Riprap - Class 2	25	3.47E-01	--	--	--	--	--	--	--	--	--	--	--	--	1.2833	1.2833	1.2833	1.2833	1.2833	--	
11	Riprap - Class 3	10	3.47E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.2833	1.2833	--	
12	RSP Bedding Material	19	3.47E-01	--	--	--	--	--	--	--	--	--	--	--	--	2.5667	2.5667	2.5667	2.5667	--	--	
13	Erosion Control Seeding	16	3.47E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
09 - Channels and Canals Total				1.4208	0.8250	0.8250	0.8250	0.3667	0.5500	1.4667	1.2833	1.2833	1.2833	0.9167	0.9167	2.5667	3.8500	3.8500	3.8500	2.5667	2.5667	1.4208
11 - Levees and Floodwalls																						
14	Mobilization and Demobilization	2	3.47E-01	--	--	--	--	--	--	0.3208	--	--	--	0.3208	--	--	--	--	--	--	--	
15	Soil Cement Bentonite Cutoff Wall	13	3.47E-01	--	--	--	--	--	--	--	0.3667	0.3667	0.3667	--	--	--	--	--	--	--	--	
11 - Levees and Floodwalls Total				--	--	--	--	--	--	0.3208	0.3667	0.3667	0.3667	0.3208	--	--	--	--	--	--	--	--
15 - Floodway Control and Diversion Structures																						
16	Mobilization and Demobilization	2	3.47E-01	--	--	2.2917	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
17	Construction Site Dewatering (Temporary Co	18	3.47E-01	--	--	--	0.3208	0.3208	0.3208	--	--	--	--	--	--	--	--	--	--	--	--	
18	Construction Site Dewatering (Pumping)	120	3.47E-01	--	--	--	--	--	0.1375	0.1375	0.1375	0.1375	0.1375	0.1375	0.1375	0.1375	0.1375	0.1375	0.1375	0.1375	0.1375	
19	Excavation (Wet Conditions)	4	3.47E-01	--	--	--	--	--	0.9167	--	--	--	--	--	--	--	--	--	--	--	--	
20	Sheet Pile Wall	7	3.47E-01	--	--	--	--	--	--	0.3208	0.3208	--	--	--	--	--	--	--	--	--	--	
21	Headworks Structure Concrete Piles	28	3.47E-01	--	--	--	--	--	--	0.5958	0.5958	0.5958	0.5958	0.5958	--	--	--	--	--	--	--	
22	Headworks Structure	18	3.47E-01	--	--	--	--	--	--	--	--	--	--	1.2375	1.2375	--	--	--	--	1.2375	--	
23	Headworks Channel Transition	10	3.47E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	0.7333	0.7333	--	--	--	
24	Hinged Bottom Gates	24	3.47E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
15 - Floodway Control and Diversion Structures Total				--	--	2.2917	0.3208	0.3208	0.3208	1.0542	1.0542	1.0542	0.7333	0.7333	1.9709	1.3750	0.1375	0.8708	0.8708	0.1375	1.3750	0.1375
08 - Roads, Railroads, and Bridges																						
25	Mobilization and Demobilization	2	3.47E-01	--	--	--	--	--	--	--	--	--	--	--	--	0.2292	--	--	--	0.2292	--	
26	Pedestrian Bridge Concrete Piles	2	3.47E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	0.5958	--	--	--	--	
27	Pedestrian Bridge Concrete Abutments and	1	3.47E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.4125	--	--	--	
28	Pedestrian Bridge Span Installation	3	3.47E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.3208	--	--	
08 - Roads, Railroads, and Bridges Total				--	--	--	--	--	--	--	--	--	--	--	--	0.2292	0.5958	0.4125	0.3208	0.2292	--	
19 - Buildings, Grounds, and Utilities																						
29	Mobilization and Demobilization	2	3.47E-01	0.4125	--	--	--	--	--	0.4125	--	--	--	--	--	--	--	--	--	--	--	
30	CMU Building and Earthwork Pad Constructi	30	3.47E-01	--	0.4583	0.4583	0.4583	0.4583	0.4583	--	--	--	--	--	--	--	--	--	--	--	--	
31	Concrete Duct Bank	4	3.47E-01	--	--	--	--	0.4125	--	--	--	--	--	--	--	--	--	--	--	--	--	
19 - Buildings, Grounds, and Utilities Total				0.4125	0.4583	0.4583	0.4583	0.8708	0.4583	0.4125	--	--	--	--	--	--	--	--	--	--	--	--
20 -Permanent Operating Equipment																						
32	Mobilization and Demobilization	2	3.47E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
33	Mechanical Hydraulic Cylinders & Housing	30	3.47E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
34	CMU Building Mechanical Equipment	30	3.47E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
35	Electrical Control Equipment CMU Building	30	3.47E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
36	Electrical Power Equipment CMU Building	30	3.47E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
37	Communication Equipment	12	3.47E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
20 -Permanent Operating Equipment Total				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GRAND TOTAL				2.2000	1.7417	4.0334	1.6042	1.5583	1.3292	2.9334	2.6584	2.7042	2.3834	2.0167	3.2084	3.9417	4.2167	5.3167	5.1334	3.0250	4.1709	1.5583

Table K-104. PM10 Emissions from C

#	Activity										Annual Emissions, tpy	
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct		
02 - Relocations												
1	Mobilization and Demobilization	--	--	--	--	--	--	--	--	0.2292	--	0.0002
2	Fremont Weir Concrete Demo	--	--	--	--	--	--	--	--	--	--	0.0028
3	Levee O&M Road Regrading (6" AB)	--	--	--	--	--	--	--	0.3667	--	--	0.0007
4	Temporary Electrical Power	--	--	--	--	--	--	--	--	--	--	0.0001
		--	--	--	--	--	--	--	0.3667	0.2292	--	0.0038
09 - Channels and Canals												
5	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	0.0014
6	Clearing and Grubbing	--	--	--	--	--	--	--	--	--	--	0.0066
7	Excavation (Wet Conditions)	--	--	--	--	--	--	--	--	--	--	0.0160
8	Excavation/Grading (Dry Conditions)	--	--	--	--	--	--	--	--	--	--	0.0062
9	Earthen Backfill	--	--	--	--	--	--	--	--	--	--	0.0008
10	Riprap - Class 2	--	--	--	--	--	--	--	--	--	--	0.0160
11	Riprap - Class 3	--	--	--	--	--	--	--	--	--	--	0.0064
12	RSP Bedding Material	--	--	--	--	--	--	--	--	--	--	0.0244
13	Erosion Control Seeding	--	--	0.1833	0.1833	0.1833	--	--	--	--	--	0.0015
	09 - C	--	--	0.1833	0.1833	0.1833	--	--	--	--	--	0.0794
11 - Levees and Floodwalls												
14	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	0.0003
15	Soil Cement Bentonite Cutoff Wall	--	--	--	--	--	--	--	--	--	--	0.0024
	11 - Le	--	--	--	--	--	--	--	--	--	--	0.0027
15 - Floodway Control and Diversion Structur												
16	Mobilization and Demobilization	--	--	--	--	--	--	--	2.2917	--	--	0.0023
17	Construction Site Dewatering (Temporary Co	--	--	--	--	--	--	--	--	--	--	0.0029
18	Construction Site Dewatering (Pumping)	0.1375	0.1375	0.1375	0.1375	0.1375	0.1375	0.1375	--	--	--	0.0083
19	Excavation (Wet Conditions)	--	--	--	--	--	--	--	--	--	--	0.0018
20	Sheet Pile Wall	--	--	--	--	--	--	--	--	--	--	0.0011
21	Headworks Structure Concrete Piles	--	--	--	--	--	--	--	--	--	--	0.0083
22	Headworks Structure	--	--	--	--	--	--	--	--	--	--	0.0111
23	Headworks Channel Transition	--	--	--	--	--	--	--	--	--	--	0.0037
24	Hinged Bottom Gates	--	--	0.2750	0.2750	0.2750	0.2750	--	--	--	--	0.0033
	15 - Floodway Control and	0.1375	0.1375	0.4125	0.4125	0.4125	0.4125	0.1375	2.2917	--	--	0.0428
08 - Roads, Railroads, and Bridges												
25	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	0.0002
26	Pedestrian Bridge Concrete Piles	--	--	--	--	--	--	--	--	--	--	0.0006
27	Pedestrian Bridge Concrete Abutments and	--	--	--	--	--	--	--	--	--	--	0.0002
28	Pedestrian Bridge Span Installation	--	--	--	--	--	--	--	--	--	--	0.0005
	08 - Roads, Ra	--	--	--	--	--	--	--	--	--	--	0.0015
19 - Buildings, Grounds, and Utilities												
29	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	0.0004
30	CMU Building and Earthwork Pad Constructi	--	--	--	--	--	--	--	--	--	--	0.0069
31	Concrete Duct Bank	--	--	--	--	--	--	--	--	--	--	0.0008
	19 - Buildings, G	--	--	--	--	--	--	--	--	--	--	0.0081
20 -Permanent Operating Equipment												
32	Mobilization and Demobilization	--	0.0917	--	--	--	--	--	0.0917	--	--	0.0001
33	Mechanical Hydraulic Cylinders & Housing	--	--	0.1833	0.1833	0.1833	0.1833	0.1833	--	--	--	0.0028
34	CMU Building Mechanical Equipment	--	--	0.1833	0.1833	0.1833	0.1833	0.1833	--	--	--	0.0028
35	Electrical Control Equipment CMU Building	--	--	0.1833	0.1833	0.1833	0.1833	0.1833	--	--	--	0.0028
36	Electrical Power Equipment CMU Building	--	--	0.1833	0.1833	0.1833	0.1833	0.1833	--	--	--	0.0028
37	Communication Equipment	--	--	--	--	--	0.1833	0.1833	--	--	--	0.0011
	20 -Permanent O	--	0.0917	0.7333	0.7333	0.7333	0.9167	0.9167	0.0917	--	--	0.0122
GRAND TOTAL		0.1375	0.2292	1.3292	1.3292	1.3292	1.3292	1.0542	2.7500	0.2292	--	0.1506

Table K-105. PM2.5 Emissions from Construction Worker Commuting (Alternative 1)

#	Activity	Estimated Duration, Days	Emission Factor (g/mi)	Maximum Daily Emissions, lbs/day																		
				15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
02 - Relocations																						
1	Mobilization and Demobilization	2	9.31E-02	0.0616	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2	Fremont Weir Concrete Demo	12	9.31E-02	--	0.1232	0.1232	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
3	Levee O&M Road Regrading (6" AB)	4	9.31E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4	Temporary Electrical Power	1	9.31E-02	0.0369	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
02 - Relocations Total				0.0985	0.1232	0.1232	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
09 - Channels and Canals																						
5	Mobilization and Demobilization	2	9.31E-02	0.3818	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.3818	
6	Clearing and Grubbing	16	9.31E-02	--	0.2217	0.2217	0.2217	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
7	Excavation (Wet Conditions)	35	9.31E-02	--	--	--	--	--	0.2463	0.2463	0.2463	0.2463	0.2463	0.2463	--	--	--	--	--	--	--	
8	Excavation/Grading (Dry Conditions)	34	9.31E-02	--	--	--	--	0.0985	0.0985	0.0985	0.0985	0.0985	0.0985	--	--	--	--	--	--	--	--	
9	Earthen Backfill	9	9.31E-02	--	--	--	--	0.0493	0.0493	--	--	--	--	--	--	--	--	--	--	--	--	
10	Riprap - Class 2	25	9.31E-02	--	--	--	--	--	--	--	--	--	--	--	0.3448	0.3448	0.3448	0.3448	0.3448	0.3448	--	
11	Riprap - Class 3	10	9.31E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.3448	0.3448	--	--	
12	RSP Bedding Material	19	9.31E-02	--	--	--	--	--	--	--	--	--	--	--	0.6897	0.6897	0.6897	0.6897	--	--	--	
13	Erosion Control Seeding	16	9.31E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
09 - Channels and Canals Total				0.3818	0.2217	0.2217	0.2217	0.0985	0.1478	0.3941	0.3448	0.3448	0.3448	0.2463	0.2463	0.6897	1.0345	1.0345	1.0345	0.6897	0.6897	0.3818
11 - Levees and Floodwalls																						
14	Mobilization and Demobilization	2	9.31E-02	--	--	--	--	--	--	0.0862	--	--	--	0.0862	--	--	--	--	--	--	--	
15	Soil Cement Bentonite Cutoff Wall	13	9.31E-02	--	--	--	--	--	--	--	0.0985	0.0985	0.0985	--	--	--	--	--	--	--	--	
11 - Levees and Floodwalls Total				--	--	--	--	--	--	0.0862	0.0985	0.0985	0.0985	0.0862	--	--	--	--	--	--	--	
15 - Floodway Control and Diversion Structures																						
16	Mobilization and Demobilization	2	9.31E-02	--	--	0.6158	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
17	Construction Site Dewatering (Temporary Co	18	9.31E-02	--	--	--	0.0862	0.0862	0.0862	--	--	--	--	--	--	--	--	--	--	--	--	
18	Construction Site Dewatering (Pumping)	120	9.31E-02	--	--	--	--	--	0.0369	0.0369	0.0369	0.0369	0.0369	0.0369	0.0369	0.0369	0.0369	0.0369	0.0369	0.0369	0.0369	
19	Excavation (Wet Conditions)	4	9.31E-02	--	--	--	--	--	0.2463	--	--	--	--	--	--	--	--	--	--	--	--	
20	Sheet Pile Wall	7	9.31E-02	--	--	--	--	--	--	0.0862	0.0862	--	--	--	--	--	--	--	--	--	--	
21	Headworks Structure Concrete Piles	28	9.31E-02	--	--	--	--	--	--	0.1601	0.1601	0.1601	0.1601	0.1601	--	--	--	--	--	--	--	
22	Headworks Structure	18	9.31E-02	--	--	--	--	--	--	--	--	--	--	0.3325	0.3325	--	--	--	--	0.3325	--	
23	Headworks Channel Transition	10	9.31E-02	--	--	--	--	--	--	--	--	--	--	--	--	0.1970	0.1970	--	--	--	--	
24	Hinged Bottom Gates	24	9.31E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
15 - Floodway Control and Diversion Structures Total				--	--	0.6158	0.0862	0.0862	0.0862	0.2833	0.2833	0.2833	0.1970	0.1970	0.5296	0.3695	0.0369	0.2340	0.2340	0.0369	0.3695	0.0369
08 - Roads, Railroads, and Bridges																						
25	Mobilization and Demobilization	2	9.31E-02	--	--	--	--	--	--	--	--	--	--	--	--	0.0616	--	--	--	0.0616	--	
26	Pedestrian Bridge Concrete Piles	2	9.31E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	0.1601	--	--	--	--	
27	Pedestrian Bridge Concrete Abutments and	1	9.31E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.1108	--	--	--	
28	Pedestrian Bridge Span Installation	3	9.31E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0862	--	--	
08 - Roads, Railroads, and Bridges Total				--	--	--	--	--	--	--	--	--	--	--	--	0.0616	0.1601	0.1108	0.0862	0.0616	--	
19 - Buildings, Grounds, and Utilities																						
29	Mobilization and Demobilization	2	9.31E-02	0.1108	--	--	--	--	--	0.1108	--	--	--	--	--	--	--	--	--	--	--	
30	CMU Building and Earthwork Pad Constructi	30	9.31E-02	--	0.1232	0.1232	0.1232	0.1232	0.1232	--	--	--	--	--	--	--	--	--	--	--	--	
31	Concrete Duct Bank	4	9.31E-02	--	--	--	--	0.1108	--	--	--	--	--	--	--	--	--	--	--	--	--	
19 - Buildings, Grounds, and Utilities Total				0.1108	0.1232	0.1232	0.1232	0.2340	0.1232	0.1108	--	--	--	--	--	--	--	--	--	--	--	--
20 -Permanent Operating Equipment																						
32	Mobilization and Demobilization	2	9.31E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
33	Mechanical Hydraulic Cylinders & Housing	30	9.31E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
34	CMU Building Mechanical Equipment	30	9.31E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
35	Electrical Control Equipment CMU Building	30	9.31E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
36	Electrical Power Equipment CMU Building	30	9.31E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
37	Communication Equipment	12	9.31E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
20 -Permanent Operating Equipment Total				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
GRAND TOTAL				0.5911	0.4680	1.0838	0.4310	0.4187	0.3571	0.7882	0.7143	0.7266	0.6404	0.5419	0.8621	1.0591	1.1330	1.4286	1.3793	0.8128	1.1207	0.4187

Table K-105. PM2.5 Emissions from C

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
02 - Relocations											
1	Mobilization and Demobilization	--	--	--	--	--	--	--	--	0.0616	0.0001
2	Fremont Weir Concrete Demo	--	--	--	--	--	--	--	--	--	0.0007
3	Levee O&M Road Regrading (6" AB)	--	--	--	--	--	--	--	0.0985	--	0.0002
4	Temporary Electrical Power	--	--	--	--	--	--	--	--	--	0.0000
		--	--	--	--	--	--	--	0.0985	0.0616	0.0010
09 - Channels and Canals											
5	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	0.0004
6	Clearing and Grubbing	--	--	--	--	--	--	--	--	--	0.0018
7	Excavation (Wet Conditions)	--	--	--	--	--	--	--	--	--	0.0043
8	Excavation/Grading (Dry Conditions)	--	--	--	--	--	--	--	--	--	0.0017
9	Earthen Backfill	--	--	--	--	--	--	--	--	--	0.0002
10	Riprap - Class 2	--	--	--	--	--	--	--	--	--	0.0043
11	Riprap - Class 3	--	--	--	--	--	--	--	--	--	0.0017
12	RSP Bedding Material	--	--	--	--	--	--	--	--	--	0.0066
13	Erosion Control Seeding	--	--	0.0493	0.0493	0.0493	--	--	--	--	0.0004
	09 - Cha	--	--	0.0493	0.0493	0.0493	--	--	--	--	0.0213
11 - Levees and Floodwalls											
14	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	0.0001
15	Soil Cement Bentonite Cutoff Wall	--	--	--	--	--	--	--	--	--	0.0006
	11 - Levee	--	--	--	--	--	--	--	--	--	0.0007
15 - Floodway Control and Diversion Structur											
16	Mobilization and Demobilization	--	--	--	--	--	--	--	0.6158	--	0.0006
17	Construction Site Dewatering (Temporary Co	--	--	--	--	--	--	--	--	--	0.0008
18	Construction Site Dewatering (Pumping)	0.0369	0.0369	0.0369	0.0369	0.0369	0.0369	0.0369	--	--	0.0022
19	Excavation (Wet Conditions)	--	--	--	--	--	--	--	--	--	0.0005
20	Sheet Pile Wall	--	--	--	--	--	--	--	--	--	0.0003
21	Headworks Structure Concrete Piles	--	--	--	--	--	--	--	--	--	0.0022
22	Headworks Structure	--	--	--	--	--	--	--	--	--	0.0030
23	Headworks Channel Transition	--	--	--	--	--	--	--	--	--	0.0010
24	Hinged Bottom Gates	--	--	0.0739	0.0739	0.0739	0.0739	--	--	--	0.0009
	15 - Floodway Control and Div	0.0369	0.0369	0.1108	0.1108	0.1108	0.1108	0.0369	0.6158	--	0.0115
08 - Roads, Railroads, and Bridges											
25	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	0.0001
26	Pedestrian Bridge Concete Piles	--	--	--	--	--	--	--	--	--	0.0002
27	Pedestrian Bridge Concrete Abutments and	--	--	--	--	--	--	--	--	--	0.0001
28	Pedestrian Bridge Span Installation	--	--	--	--	--	--	--	--	--	0.0001
	08 - Roads, Railro	--	--	--	--	--	--	--	--	--	0.0004
19 - Buildings, Grounds, and Utilities											
29	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	0.0001
30	CMU Building and Earthwork Pad Constructi	--	--	--	--	--	--	--	--	--	0.0018
31	Concrete Duct Bank	--	--	--	--	--	--	--	--	--	0.0002
	19 - Buildings, Grou	--	--	--	--	--	--	--	--	--	0.0022
20 -Permanent Operating Equipment											
32	Mobilization and Demobilization	--	0.0246	--	--	--	--	--	0.0246	--	0.0000
33	Mechanical Hydraulic Cylinders & Housing	--	--	0.0493	0.0493	0.0493	0.0493	0.0493	--	--	0.0007
34	CMU Building Mechanical Equipment	--	--	0.0493	0.0493	0.0493	0.0493	0.0493	--	--	0.0007
35	Electrical Control Equipment CMU Building	--	--	0.0493	0.0493	0.0493	0.0493	0.0493	--	--	0.0007
36	Electrical Power Equipment CMU Building	--	--	0.0493	0.0493	0.0493	0.0493	0.0493	--	--	0.0007
37	Communication Equipment	--	--	--	--	--	0.0493	0.0493	--	--	0.0003
	20 -Permanent Ope	--	0.0246	0.1970	0.1970	0.1970	0.2463	0.2463	0.0246	--	0.0033
GRAND TOTAL		0.0369	0.0616	0.3571	0.3571	0.3571	0.3571	0.2833	0.7389	0.0616	0.0405

Table K-106. GHG Emissions from Construction Worker Commuting (Alternative 1)

#	Activity	Estimated Duration, Days	CO2 Emission Factor, (g/mi)	Annual Emissions, MTCO2e/yr
02 - Relocations				
1	Mobilization and Demobilization	2	301.29	0.18
2	Fremont Weir Concrete Demo	12	301.29	2.17
3	Levee O&M Road Regrading (6" AB)	4	301.29	0.58
4	Temporary Electrical Power	1	301.29	0.05
02 - Relocations Total				2.98
09 - Channels and Canals				
5	Mobilization and Demobilization	2	301.29	1.12
6	Clearing and Grubbing	16	301.29	5.21
7	Excavation (Wet Conditions)	35	301.29	12.65
8	Excavation/Grading (Dry Conditions)	34	301.29	4.92
9	Earthen Backfill	9	301.29	0.65
10	Riprap - Class 2	25	301.29	12.65
11	Riprap - Class 3	10	301.29	5.06
12	RSP Bedding Material	19	301.29	19.23
13	Erosion Control Seeding	16	301.29	1.16
09 - Channels and Canals Total				62.66
11 - Levees and Floodwalls				
14	Mobilization and Demobilization	2	301.29	0.25
15	Soil Cement Bentonite Cutoff Wall	13	301.29	1.88
11 - Levees and Floodwalls Total				2.13
15 - Floodway Control and Diversion Structures				
16	Mobilization and Demobilization	2	301.29	1.81
17	Construction Site Dewatering (TemporaryCo	18	301.29	2.28
18	Construction Site Dewatering (Pumping)	120	301.29	6.51
19	Excavation (Wet Conditions)	4	301.29	1.45
20	Sheet Pile Wall	7	301.29	0.89
21	Headworks Structure Concrete Piles	28	301.29	6.58
22	Headworks Structure	18	301.29	8.79
23	Headworks Channel Transition	10	301.29	2.89
24	Hinged Bottom Gates	24	301.29	2.60
15 - Floodway Control and Diversion Structures Total				33.79
08 - Roads, Railroads, and Bridges				
25	Mobilization and Demobilization	2	301.29	0.18
26	Pedestrian Bridge Concrete Piles	2	301.29	0.47
27	Pedestrian Bridge Concrete Abutments and	1	301.29	0.16
28	Pedestrian Bridge Span Installation	3	301.29	0.38
08 - Roads, Railroads, and Bridges Total				1.19
19 - Buildings, Grounds, and Utilities				
29	Mobilization and Demobilization	2	301.29	0.33
30	CMU Building and Earthwork Pad Constructi	30	301.29	5.42
31	Concrete Duct Bank	4	301.29	0.65
19 - Buildings, Grounds, and Utilities Total				6.40
20 -Permanent Operating Equipment				
32	Mobilization and Demobilization	2	301.29	0.07
33	Mechanical Hydraulic Cylinders & Housing	30	301.29	2.17
34	CMU Building Mechanical Equipment	30	301.29	2.17
35	Electrical Control Equipment CMU Building	30	301.29	2.17
36	Electrical Power Equipment CMU Building	30	301.29	2.17
37	Communication Equipment	12	301.29	0.87
20 -Permanent Operating Equipment Total				9.62
GRAND TOTAL				118.77

Haul Truck Exhaust Emissions Summary

Table K-107. Maximum Daily Haul Truck Emissions (Alternative 1)

Phase	ROG lbs/day	NOx lbs/day	CO lbs/day	SO2 lbs/day	PM10 lbs/day	PM2.5 lbs/day
02 - Relocations	0.48	13.93	2.94	0.06	1.64	0.50
09 - Channels and Canals	4.72	137.62	29.01	0.59	16.20	4.93
11 - Levees and Floodwalls	0.02	0.56	0.12	0.00	0.07	0.02
15 - Floodway Control and Diversion Structures	2.07	60.47	12.75	0.26	7.12	2.17
08 - Roads, Railroads, and Bridges	0.01	0.33	0.07	0.00	0.04	0.01
19 - Buildings, Grounds, and Utilities	0.12	3.59	0.76	0.02	0.42	0.13
20 -Permanent Operating Equipment	0.00	0.03	0.01	0.00	0.00	0.00
Peak Day Construction Exhaust Emissions Total	5.24	152.92	32.24	0.66	18.00	5.48

Notes:

Construction total will not add to the sum of each phase because not all tasks overlap on the same day.

PM10 and PM2.5 emissions include exhaust, tire wear, brake wear, and paved road dust.

Table K-108. Annual Haul Truck Emissions (Alternative 1)

Phase	ROG tpy	NOx tpy	CO tpy	SO2 tpy	PM10 tpy	PM2.5 tpy	CO2e MT/yr
02 - Relocations	0.00	0.03	0.01	0.00	0.00	0.00	13.90
09 - Channels and Canals	0.06	1.73	0.36	0.01	0.20	0.06	715.43
11 - Levees and Floodwalls	0.00	0.00	0.00	0.00	0.00	0.00	0.23
15 - Floodway Control and Diversion Structures	0.01	0.35	0.07	0.00	0.04	0.01	145.71
08 - Roads, Railroads, and Bridges	0.00	0.00	0.00	0.00	0.00	0.00	0.67
19 - Buildings, Grounds, and Utilities	0.00	0.00	0.00	0.00	0.00	0.00	0.74
20 -Permanent Operating Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.20
Annual Construction Exhaust Emissions Total	0.07	2.12	0.45	0.01	0.25	0.08	876.88

Notes:

Total may not add exactly because of rounding.

PM10 and PM2.5 emissions include exhaust, tire wear, brake wear, and paved road dust.

Table K-109. ROG Emissions from Haul Trucks (Alternative 1)

#	Activity	Quantity	Unit	Total Truck Trips	Trip Distance (mi)	Estimated Duration, Days	Emission Factor (g/mi)	Maximum Daily Emissions, lbs/day																						
								15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug						
02 - Relocations																														
1	Mobilization and Demobilization	-	-	10	21	2	0.1207	0.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
2	Fremont Weir Demo	450	CY	58	22	12	0.1207	--	0.03	0.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
3	Levee O&M Road Regrading (6" AB)	119,000	SF	276	26	4	0.1207	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
4	Temporary Electrical Power	100	LF	n/a	n/a	1	0.1207	n/a	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
02 - Relocations Total								0.03	0.03	0.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
09 - Channels and Canals																														
5	Mobilization and Demobilization	-	-	66	21	2	0.1207	0.18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
6	Clearing and Grubbing	61	ACR	610	22	16	0.1207	--	0.22	0.22	0.22	--	--	--	--	--	--	--	--	--	--	--	--	--						
7	Excavation (Wet Conditions)	61,810	CY	n/a	n/a	35	0.1207	--	--	--	--	--	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	--	--	--	--						
8	Excavation/Grading (Dry Conditions)	118,960	CY	n/a	n/a	34	0.1207	--	--	--	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	--	--	--	--	--						
9	Earthen Backfill	8,950	CY	n/a	n/a	9	0.1207	--	--	--	--	n/a	n/a	--	--	--	--	--	--	--	--	--	--	--						
10	Riprap - Class 2	24,940	TN	2,310	66	25	0.1207	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.62	1.62	1.62	1.62					
11	Riprap - Class 3	9,420	TN	874	66	10	0.1207	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.53						
12	RSP Bedding Material	36,150	TN	3,348	66	19	0.1207	--	--	--	--	--	--	--	--	--	--	--	3.09	3.09	3.09	3.09	--	--	--					
13	Erosion Control Seeding	31	ACR	n/a	n/a	16	0.1207	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
09 - Channels and Canals Total								0.18	0.22	0.22	--	--	--	--	--	--	--	--	--	3.09	4.72	4.72	4.72	4.72	3.16	--				
11 - Levees and Floodwalls																														
14	Mobilization and Demobilization	-	-	12	12	2	0.1207	--	--	--	--	--	--	--	0.02	--	--	0.02	--	--	--	--	--	--	--					
15	Soil Cement Bentonite Cutoff Wall	84,480	SF	n/a	n/a	13	0.1207	--	--	--	--	--	--	--	n/a	n/a	n/a	--	--	--	--	--	--	--	--					
11 - Levees and Floodwalls Total								--	--	--	--	--	--	0.02	--	--	--	0.02	--	--	--	--	--	--	--	--	--			
15 - Floodway Control and Diversion Structures																														
14	Mobilization and Demobilization	-	-	48	21	2	0.1207	--	--	0.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
15	Construction Site Dewatering (Temporary C	84,480	SF	n/a	n/a	13	0.1207	--	--	n/a	n/a	n/a	--	--	--	--	--	--	--	--	--	--	--	--	--					
16	Construction Site Dewatering (Pumping)	-	-	n/a	n/a	2	0.1207	--	--	--	--	--	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a					
17	Excavation (Wet Conditions)	21,000	SF	n/a	n/a	18	0.1207	--	--	--	--	--	n/a	--	--	--	--	--	--	--	--	--	--	--	--					
18	Sheet Pile Wall	-	-	n/a	35	120	0.1207	--	--	--	--	--	--	n/a	n/a	--	--	--	--	--	--	--	--	--	--					
19	Headworks Structure Concrete Piles	6,130	CY	n/a	35	4	0.1207	--	--	--	--	--	--	n/a	n/a	n/a	n/a	n/a	n/a	--	--	--	--	--	--					
20	Headworks Structure	7,790	SF	1,558	35	7	0.1207	--	--	--	--	--	--	--	--	--	--	2.07	2.07	--	--	--	--	--	--					
21	Headworks Channel Transition	5,040	LF	1,008	35	28	0.1207	--	--	--	--	--	--	--	--	--	--	--	--	--	0.34	0.34	--	--	--					
22	Hinged Bottom Gates	3,080	CY	n/a	n/a	18	0.1207	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
15 - Floodway Control and Diversion Structures Total								--	--	0.13	--	--	--	--	--	--	--	--	2.07	2.07	--	0.34	0.34	--	--	--				
08 - Roads, Railroads, and Bridges																														
23	Mobilization and Demobilization	1,330	CY	20	21	10	0.1207	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01	--	--	--	--					
24	Pedestrian Bridge Concrete Piles	3	EA	n/a	35	15	0.1207	--	--	--	--	--	--	--	--	--	--	--	--	--	--	n/a	--	--	--					
25	Pedestrian Bridge Concrete Abutments and	-	-	n/a	35	2	0.1207	--	--	--	--	--	--	--	--	--	--	--	--	--	--	n/a	--	--	--					
26	Pedestrian Bridge Span Installation	320	LF	n/a	35	2	0.1207	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	n/a	--	--					
08 - Roads, Railroads, and Bridges Total								--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01	--	--	--	--	--	--		
19 - Buildings, Grounds, and Utilities																														
27	Mobilization and Demobilization	24	CY	22	21	1	0.1207	0.12	--	--	--	--	--	0.12	--	--	--	--	--	--	--	--	--	--	--					
28	CMU Building	1,040	SF	n/a	35	3	0.1207	--	n/a	n/a	n/a	n/a	--	--	--	--	--	--	--	--	--	--	--	--	--					
29	Concrete Duct Banc	-	-	n/a	35	2	0.1207	--	--	--	n/a	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
19 - Buildings, Grounds, and Utilities Total								0.12	--	--	--	--	--	0.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20 -Permanent Operating Equipment																														
30	Mobilization and Demobilization	1	EA	6	21	30	0.1207	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
31	Mechanical Hydraulic Cylinders & Housing	190	CY	n/a	n/a	4	0.1207	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
32	CMU Building Mechanical Equipment	-	-	n/a	n/a	2	0.1207	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
33	Electrical Control Equipment CMU Building	-	-	n/a	n/a	30	0.1207	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
34	Electrical Power Equipment CMU Building	-	-	n/a	n/a	30	0.1207	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
35	Communication Equipment	-	-	n/a	n/a	30	0.1207	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
20 -Permanent Operating Equipment Total								--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
GRAND TOTAL								0.34	0.25	0.39	--	--	--	0.12	0.02	--	--	--	2.09	5.17	4.73	5.05	5.05	3.16	--	--	--	--		

Table K-109. ROG Emissions from Haul Tr

#	Activity												Annual Emissions, tpy
		12-Aug	19-Aug	26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
02 - Relocations													
1	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	0.03	0.0000
2	Fremont Weir Demo	--	--	--	--	--	--	--	--	--	--	--	0.0002
3	Levee O&M Road Regrading (6" AB)	--	--	--	--	--	--	--	--	--	0.48	--	0.0010
4	Temporary Electrical Power	--	--	--	--	--	--	--	--	--	--	--	n/a
		--	--	--	--	--	--	--	--	--	0.48	0.03	0.0012
09 - Channels and Canals													
5	Mobilization and Demobilization	--	0.18	--	--	--	--	--	--	--	--	--	0.0002
6	Clearing and Grubbing	--	--	--	--	--	--	--	--	--	--	--	0.0018
7	Excavation (Wet Conditions)	--	--	--	--	--	--	--	--	--	--	--	n/a
8	Excavation/Grading (Dry Conditions)	--	--	--	--	--	--	--	--	--	--	--	n/a
9	Earthen Backfill	--	--	--	--	--	--	--	--	--	--	--	n/a
10	Riprap - Class 2	1.62	--	--	--	--	--	--	--	--	--	--	0.0203
11	Riprap - Class 3	1.53	--	--	--	--	--	--	--	--	--	--	0.0077
12	RSP Bedding Material	--	--	--	--	--	--	--	--	--	--	--	0.0294
13	Erosion Control Seeding	--	--	--	--	n/a	n/a	n/a	--	--	--	--	n/a
		3.16	0.18	--	--	--	--	--	--	--	--	--	0.0593
11 - Levees and Floodwalls													
14	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	--	0.0000
15	Soil Cement Bentonite Cutoff Wall	--	--	--	--	--	--	--	--	--	--	--	n/a
		--	--	--	--	--	--	--	--	--	--	--	0.0000
15 - Floodway Control and Diversion Structures													
14	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	0.13	--	0.0001
15	Construction Site Dewatering (Temporary C	--	--	--	--	--	--	--	--	--	--	--	n/a
16	Construction Site Dewatering (Pumping)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	--	--	n/a
17	Excavation (Wet Conditions)	--	--	--	--	--	--	--	--	--	--	--	n/a
18	Sheet Pile Wall	--	--	--	--	--	--	--	--	--	--	--	n/a
19	Headworks Structure Concrete Piles	--	--	--	--	--	--	--	--	--	--	--	n/a
20	Headworks Structure	2.07	--	--	--	--	--	--	--	--	--	--	0.0073
21	Headworks Channel Transition	--	--	--	--	--	--	--	--	--	--	--	0.0047
22	Hinged Bottom Gates	--	--	--	--	n/a	n/a	n/a	n/a	--	--	--	n/a
		2.07	--	--	--	--	--	--	--	--	0.13	--	0.0121
08 - Roads, Railroads, and Bridges													
23	Mobilization and Demobilization	0.01	--	--	--	--	--	--	--	--	--	--	0.0001
24	Pedestrian Bridge Concete Piles	--	--	--	--	--	--	--	--	--	--	--	n/a
25	Pedestrian Bridge Concrete Abutments and	--	--	--	--	--	--	--	--	--	--	--	n/a
26	Pedestrian Bridge Span Installation	--	--	--	--	--	--	--	--	--	--	--	n/a
		0.01	--	--	--	--	--	--	--	--	--	--	0.0001
19 - Buildings, Grounds, and Utilities													
27	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	--	0.0001
28	CMU Building	--	--	--	--	--	--	--	--	--	--	--	n/a
29	Concrete Duct Banc	--	--	--	--	--	--	--	--	--	--	--	n/a
		--	--	--	--	--	--	--	--	--	--	--	0.0001
20 -Permanent Operating Equipment													
30	Mobilization and Demobilization	--	--	--	0.00	--	--	--	--	--	0.00	--	0.0000
31	Mechanical Hydraulic Cylinders & Housing	--	--	--	--	n/a	n/a	n/a	n/a	n/a	--	--	n/a
32	CMU Building Mechanical Equipment	--	--	--	--	n/a	n/a	n/a	n/a	n/a	--	--	n/a
33	Electrical Control Equipment CMU Building	--	--	--	--	n/a	n/a	n/a	n/a	n/a	--	--	n/a
34	Electrical Power Equipment CMU Building	--	--	--	--	n/a	n/a	n/a	n/a	n/a	--	--	n/a
35	Communication Equipment	--	--	--	--	--	--	n/a	n/a	--	--	--	n/a
		--	--	--	0.00	--	--	--	--	--	0.00	--	0.0000
GRAND TOTAL		5.24	0.18	--	0.00	--	--	--	--	--	0.61	0.03	0.0727

Table K-110. NOx Emissions from Haul Trucks (Alternative 1)

#	Activity	Quantity	Unit	Total Truck Trips	Trip Distance (mi)	Estimated Duration, Days	Emission Factor (g/mi)	Maximum Daily Emissions, lbs/day																		
								15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug		
02 - Relocations																										
1	Mobilization and Demobilization	-	-	10	21	2	3.5212	0.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
2	Fremont Weir Demo	450	CY	58	22	12	3.5212	--	0.83	0.83	--	--	--	--	--	--	--	--	--	--	--	--				
3	Levee O&M Road Regrading (6" AB)	119,000	SF	276	26	4	3.5212	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
4	Temporary Electrical Power	100	LF	n/a	n/a	1	3.5212	n/a	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
02 - Relocations Total								0.82	0.83	0.83	--	--	--	--	--	--	--	--	--	--	--	--	--			
09 - Channels and Canals																										
5	Mobilization and Demobilization	-	-	66	21	2	3.5212	5.38	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
6	Clearing and Grubbing	61	ACR	610	22	16	3.5212	--	6.51	6.51	6.51	--	--	--	--	--	--	--	--	--	--	--				
7	Excavation (Wet Conditions)	61,810	CY	n/a	n/a	35	3.5212	--	--	--	--	--	n/a	n/a	n/a	n/a	n/a	n/a	n/a	--	--	--				
8	Excavation/Grading (Dry Conditions)	118,960	CY	n/a	n/a	34	3.5212	--	--	--	n/a	n/a	n/a	n/a	n/a	n/a	n/a	--	--	--	--	--				
9	Earthen Backfill	8,950	CY	n/a	n/a	9	3.5212	--	--	--	--	n/a	n/a	--	--	--	--	--	--	--	--	--				
10	Riprap - Class 2	24,940	TN	2,310	66	25	3.5212	--	--	--	--	--	--	--	--	--	--	--	--	47.34	47.34	47.34	47.34			
11	Riprap - Class 3	9,420	TN	874	66	10	3.5212	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	44.78			
12	RSP Bedding Material	36,150	TN	3,348	66	19	3.5212	--	--	--	--	--	--	--	--	--	--	90.28	90.28	90.28	90.28	--	--			
13	Erosion Control Seeding	31	ACR	n/a	n/a	16	3.5212	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
09 - Channels and Canals Total								5.38	6.51	6.51	--	--	--	--	--	--	--	--	--	90.28	137.62	137.62	137.62	92.12		
11 - Levees and Floodwalls																										
14	Mobilization and Demobilization	-	-	12	12	2	3.5212	--	--	--	--	--	--	--	0.56	--	--	0.56	--	--	--	--				
15	Soil Cement Bentonite Cutoff Wall	84,480	SF	n/a	n/a	13	3.5212	--	--	--	--	--	--	--	n/a	n/a	n/a	--	--	--	--	--				
11 - Levees and Floodwalls Total								--	--	--	--	--	--	0.56	--	--	0.56	--	--	--	--	--	--	--		
15 - Floodway Control and Diversion Structures																										
14	Mobilization and Demobilization	-	-	48	21	2	3.5212	--	--	3.91	--	--	--	--	--	--	--	--	--	--	--	--				
15	Construction Site Dewatering (Temporary C)	84,480	SF	n/a	n/a	13	3.5212	--	--	n/a	n/a	n/a	--	--	--	--	--	--	--	--	--	--				
16	Construction Site Dewatering (Pumping)	-	-	n/a	n/a	2	3.5212	--	--	--	--	--	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a				
17	Excavation (Wet Conditions)	21,000	SF	n/a	n/a	18	3.5212	--	--	--	--	--	n/a	--	--	--	--	--	--	--	--	--				
18	Sheet Pile Wall	-	-	n/a	35	120	3.5212	--	--	--	--	--	--	n/a	n/a	--	--	--	--	--	--	--				
19	Headworks Structure Concrete Piles	6,130	CY	n/a	35	4	3.5212	--	--	--	--	--	--	n/a	n/a	n/a	n/a	--	--	--	--	--				
20	Headworks Structure	7,790	SF	1,558	35	7	3.5212	--	--	--	--	--	--	--	--	--	60.47	60.47	--	--	--	--				
21	Headworks Channel Transition	5,040	LF	1,008	35	28	3.5212	--	--	--	--	--	--	--	--	--	--	--	--	9.78	9.78	--				
22	Hinged Bottom Gates	3,080	CY	n/a	n/a	18	3.5212	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
15 - Floodway Control and Diversion Structures Total								--	--	3.91	--	--	--	--	--	--	--	--	60.47	60.47	--	9.78	9.78	--		
08 - Roads, Railroads, and Bridges																										
23	Mobilization and Demobilization	1,330	CY	20	21	10	3.5212	--	--	--	--	--	--	--	--	--	--	--	--	0.33	--	--				
24	Pedestrian Bridge Concrete Piles	3	EA	n/a	35	15	3.5212	--	--	--	--	--	--	--	--	--	--	--	--	--	n/a	--				
25	Pedestrian Bridge Concrete Abutments and	-	-	n/a	35	2	3.5212	--	--	--	--	--	--	--	--	--	--	--	--	--	n/a	--				
26	Pedestrian Bridge Span Installation	320	LF	n/a	35	2	3.5212	--	--	--	--	--	--	--	--	--	--	--	--	--	--	n/a				
08 - Roads, Railroads, and Bridges Total								--	--	--	--	--	--	--	--	--	--	--	--	--	0.33	--	--	--		
19 - Buildings, Grounds, and Utilities																										
27	Mobilization and Demobilization	24	CY	22	21	1	3.5212	3.59	--	--	--	--	--	3.59	--	--	--	--	--	--	--	--				
28	CMU Building	1,040	SF	n/a	35	3	3.5212	--	n/a	n/a	n/a	n/a	--	--	--	--	--	--	--	--	--	--				
29	Concrete Duct Banc	-	-	n/a	35	2	3.5212	--	--	--	n/a	--	--	--	--	--	--	--	--	--	--	--				
19 - Buildings, Grounds, and Utilities Total								3.59	--	--	--	--	--	3.59	--	--	--	--	--	--	--	--	--	--	--	
20 -Permanent Operating Equipment																										
30	Mobilization and Demobilization	1	EA	6	21	30	3.5212	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
31	Mechanical Hydraulic Cylinders & Housing	190	CY	n/a	n/a	4	3.5212	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
32	CMU Building Mechanical Equipment	-	-	n/a	n/a	2	3.5212	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
33	Electrical Control Equipment CMU Building	-	-	n/a	n/a	30	3.5212	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
34	Electrical Power Equipment CMU Building	-	-	n/a	n/a	30	3.5212	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
35	Communication Equipment	-	-	n/a	n/a	30	3.5212	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
20 -Permanent Operating Equipment Total								--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
GRAND TOTAL								9.78	7.34	11.25	--	--	--	3.59	0.56	--	--	--	61.03	150.75	137.95	147.40	147.40	92.12		

Table K-110. NOx Emissions from Haul Tr

#	Activity	12-Aug	19-Aug	26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	Annual Emissions, tpy
02 - Relocations													
1	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	0.82	0.0008
2	Fremont Weir Demo	--	--	--	--	--	--	--	--	--	--	--	0.0050
3	Levee O&M Road Regrading (6" AB)	--	--	--	--	--	--	--	--	--	13.93	--	0.0279
4	Temporary Electrical Power	--	--	--	--	--	--	--	--	--	--	--	n/a
		--	--	--	--	--	--	--	--	--	13.93	0.82	0.0336
09 - Channels and Canals													
5	Mobilization and Demobilization	--	5.38	--	--	--	--	--	--	--	--	--	0.0054
6	Clearing and Grubbing	--	--	--	--	--	--	--	--	--	--	--	0.0521
7	Excavation (Wet Conditions)	--	--	--	--	--	--	--	--	--	--	--	n/a
8	Excavation/Grading (Dry Conditions)	--	--	--	--	--	--	--	--	--	--	--	n/a
9	Earthen Backfill	--	--	--	--	--	--	--	--	--	--	--	n/a
10	Riprap - Class 2	47.34	--	--	--	--	--	--	--	--	--	--	0.5918
11	Riprap - Class 3	44.78	--	--	--	--	--	--	--	--	--	--	0.2239
12	RSP Bedding Material	--	--	--	--	n/a	n/a	n/a	--	--	--	--	0.8577
13	Erosion Control Seeding	--	--	--	--	n/a	n/a	n/a	--	--	--	--	n/a
		92.12	5.38	--	--	--	--	--	--	--	--	--	1.7308
11 - Levees and Floodwalls													
14	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	--	0.0006
15	Soil Cement Bentonite Cutoff Wall	--	--	--	--	--	--	--	--	--	--	--	n/a
		--	--	--	--	--	--	--	--	--	--	--	0.0006
15 - Floodway Control and Diversion Structures													
14	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	3.91	--	0.0039
15	Construction Site Dewatering (Temporary C	--	--	--	--	--	--	--	--	--	--	--	n/a
16	Construction Site Dewatering (Pumping)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	--	--	n/a
17	Excavation (Wet Conditions)	--	--	--	--	--	--	--	--	--	--	--	n/a
18	Sheet Pile Wall	--	--	--	--	--	--	--	--	--	--	--	n/a
19	Headworks Structure Concrete Piles	--	--	--	--	--	--	--	--	--	--	--	n/a
20	Headworks Structure	60.47	--	--	--	--	--	--	--	--	--	--	0.2117
21	Headworks Channel Transition	--	--	--	--	--	--	--	--	--	--	--	0.1369
22	Hinged Bottom Gates	--	--	--	--	n/a	n/a	n/a	n/a	--	--	--	n/a
		60.47	--	--	--	--	--	--	--	--	3.91	--	0.3525
08 - Roads, Railroads, and Bridges													
23	Mobilization and Demobilization	0.33	--	--	--	--	--	--	--	--	--	--	0.0016
24	Pedestrian Bridge Concrete Piles	--	--	--	--	--	--	--	--	--	--	--	n/a
25	Pedestrian Bridge Concrete Abutments and	--	--	--	--	--	--	--	--	--	--	--	n/a
26	Pedestrian Bridge Span Installation	--	--	--	--	--	--	--	--	--	--	--	n/a
		0.33	--	--	--	--	--	--	--	--	--	--	0.0016
19 - Buildings, Grounds, and Utilities													
27	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	--	0.0018
28	CMU Building	--	--	--	--	--	--	--	--	--	--	--	n/a
29	Concrete Duct Banc	--	--	--	--	--	--	--	--	--	--	--	n/a
		--	--	--	--	--	--	--	--	--	--	--	0.0018
20 -Permanent Operating Equipment													
30	Mobilization and Demobilization	--	--	--	0.03	--	--	--	--	--	0.03	--	0.0005
31	Mechanical Hydraulic Cylinders & Housing	--	--	--	--	n/a	n/a	n/a	n/a	n/a	--	--	n/a
32	CMU Building Mechanical Equipment	--	--	--	--	n/a	n/a	n/a	n/a	n/a	--	--	n/a
33	Electrical Control Equipment CMU Building	--	--	--	--	n/a	n/a	n/a	n/a	n/a	--	--	n/a
34	Electrical Power Equipment CMU Building	--	--	--	--	n/a	n/a	n/a	n/a	n/a	--	--	n/a
35	Communication Equipment	--	--	--	--	--	--	--	n/a	n/a	--	--	n/a
		--	--	--	0.03	--	--	--	--	--	0.03	--	0.0005
GRAND TOTAL		152.92	5.38	--	0.03	--	--	--	--	--	17.87	0.82	2.1214

Table K-111. CO Emissions from Haul Trucks (Alternative 1)

#	Activity	Quantity	Unit	Total Truck Trips	Trip Distance (mi)	Estimated Duration, Days	Emission Factor (g/mi)	Maximum Daily Emissions, lbs/day																			
								15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug			
02 - Relocations																											
1	Mobilization and Demobilization	-	-	10	21	2	0.7423	0.17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
2	Fremont Weir Demo	450	CY	58	22	12	0.7423	--	0.17	0.17	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
3	Levee O&M Road Regrading (6" AB)	119,000	SF	276	26	4	0.7423	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
4	Temporary Electrical Power	100	LF	n/a	n/a	1	0.7423	n/a	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
02 - Relocations Total								0.17	0.17	0.17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
09 - Channels and Canals																											
5	Mobilization and Demobilization	-	-	66	21	2	0.7423	1.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
6	Clearing and Grubbing	61	ACR	610	22	16	0.7423	--	1.37	1.37	1.37	--	--	--	--	--	--	--	--	--	--	--	--	--			
7	Excavation (Wet Conditions)	61,810	CY	n/a	n/a	35	0.7423	--	--	--	--	--	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	--	--	--	--			
8	Excavation/Grading (Dry Conditions)	118,960	CY	n/a	n/a	34	0.7423	--	--	--	--	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	--	--	--	--	--			
9	Earthen Backfill	8,950	CY	n/a	n/a	9	0.7423	--	--	--	--	--	n/a	n/a	--	--	--	--	--	--	--	--	--	--			
10	Riprap - Class 2	24,940	TN	2,310	66	25	0.7423	--	--	--	--	--	--	--	--	--	--	--	--	--	--	9.98	9.98	9.98	9.98		
11	Riprap - Class 3	9,420	TN	874	66	10	0.7423	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	9.44			
12	RSP Bedding Material	36,150	TN	3,348	66	19	0.7423	--	--	--	--	--	--	--	--	--	--	--	--	19.03	19.03	19.03	19.03	--			
13	Erosion Control Seeding	31	ACR	n/a	n/a	16	0.7423	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
09 - Channels and Canals Total								1.13	1.37	1.37	--	--	--	--	--	--	--	--	--	--	19.03	29.01	29.01	29.01	19.42		
11 - Levees and Floodwalls																											
14	Mobilization and Demobilization	-	-	12	12	2	0.7423	--	--	--	--	--	--	--	0.12	--	--	0.12	--	--	--	--	--	--			
15	Soil Cement Bentonite Cutoff Wall	84,480	SF	n/a	n/a	13	0.7423	--	--	--	--	--	--	--	n/a	n/a	n/a	--	--	--	--	--	--	--			
11 - Levees and Floodwalls Total								--	--	--	--	--	--	--	0.12	--	--	--	0.12	--	--	--	--	--	--	--	
15 - Floodway Control and Diversion Structures																											
14	Mobilization and Demobilization	-	-	48	21	2	0.7423	--	--	0.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
15	Construction Site Dewatering (Temporary C	84,480	SF	n/a	n/a	13	0.7423	--	--	--	n/a	n/a	n/a	--	--	--	--	--	--	--	--	--	--	--			
16	Construction Site Dewatering (Pumping)	-	-	n/a	n/a	2	0.7423	--	--	--	--	--	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a			
17	Excavation (Wet Conditions)	21,000	SF	n/a	n/a	18	0.7423	--	--	--	--	--	n/a	--	--	--	--	--	--	--	--	--	--	--			
18	Sheet Pile Wall	-	-	n/a	35	120	0.7423	--	--	--	--	--	--	n/a	n/a	--	--	--	--	--	--	--	--	--			
19	Headworks Structure Concrete Piles	6,130	CY	n/a	35	4	0.7423	--	--	--	--	--	--	n/a	n/a	n/a	n/a	n/a	--	--	--	--	--	--			
20	Headworks Structure	7,790	SF	1,558	35	7	0.7423	--	--	--	--	--	--	--	--	--	--	12.75	12.75	--	--	--	--	--			
21	Headworks Channel Transition	5,040	LF	1,008	35	28	0.7423	--	--	--	--	--	--	--	--	--	--	--	--	--	2.06	2.06	--	--			
22	Hinged Bottom Gates	3,080	CY	n/a	n/a	18	0.7423	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
15 - Floodway Control and Diversion Structures Total								--	--	0.82	--	--	--	--	--	--	--	--	12.75	12.75	--	2.06	2.06	--	--		
08 - Roads, Railroads, and Bridges																											
23	Mobilization and Demobilization	1,330	CY	20	21	10	0.7423	--	--	--	--	--	--	--	--	--	--	--	--	0.07	--	--	--	--			
24	Pedestrian Bridge Concrete Piles	3	EA	n/a	35	15	0.7423	--	--	--	--	--	--	--	--	--	--	--	--	--	n/a	--	--	--			
25	Pedestrian Bridge Concrete Abutments and	-	-	n/a	35	2	0.7423	--	--	--	--	--	--	--	--	--	--	--	--	--	--	n/a	--	--			
26	Pedestrian Bridge Span Installation	320	LF	n/a	35	2	0.7423	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	n/a	--			
08 - Roads, Railroads, and Bridges Total								--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.07	--	--	--	--	
19 - Buildings, Grounds, and Utilities																											
27	Mobilization and Demobilization	24	CY	22	21	1	0.7423	0.76	--	--	--	--	--	0.76	--	--	--	--	--	--	--	--	--	--			
28	CMU Building	1,040	SF	n/a	35	3	0.7423	--	n/a	n/a	n/a	n/a	n/a	--	--	--	--	--	--	--	--	--	--	--			
29	Concrete Duct Banc	-	-	n/a	35	2	0.7423	--	--	--	--	n/a	--	--	--	--	--	--	--	--	--	--	--	--			
19 - Buildings, Grounds, and Utilities Total								0.76	--	--	--	--	--	0.76	--	--	--	--	--	--	--	--	--	--	--	--	--
20 -Permanent Operating Equipment																											
30	Mobilization and Demobilization	1	EA	6	21	30	0.7423	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
31	Mechanical Hydraulic Cylinders & Housing	190	CY	n/a	n/a	4	0.7423	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
32	CMU Building Mechanical Equipment	-	-	n/a	n/a	2	0.7423	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
33	Electrical Control Equipment CMU Building	-	-	n/a	n/a	30	0.7423	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
34	Electrical Power Equipment CMU Building	-	-	n/a	n/a	30	0.7423	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
35	Communication Equipment	-	-	n/a	n/a	30	0.7423	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
20 -Permanent Operating Equipment Total								--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
GRAND TOTAL								2.06	1.55	2.37	--	--	--	0.76	0.12	--	--	--	12.87	31.78	29.08	31.08	31.08	19.42			

Table K-111. CO Emissions from Haul Tru

#	Activity												Annual Emissions, tpy
		12-Aug	19-Aug	26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
02 - Relocations													
1	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	0.17	0.0002
2	Fremont Weir Demo	--	--	--	--	--	--	--	--	--	--	--	0.0010
3	Levee O&M Road Regrading (6" AB)	--	--	--	--	--	--	--	--	--	2.94	--	0.0059
4	Temporary Electrical Power	--	--	--	--	--	--	--	--	--	--	--	n/a
		--	--	--	--	--	--	--	--	--	2.94	0.17	0.0071
09 - Channels and Canals													
5	Mobilization and Demobilization	--	1.13	--	--	--	--	--	--	--	--	--	0.0011
6	Clearing and Grubbing	--	--	--	--	--	--	--	--	--	--	--	0.0110
7	Excavation (Wet Conditions)	--	--	--	--	--	--	--	--	--	--	--	n/a
8	Excavation/Grading (Dry Conditions)	--	--	--	--	--	--	--	--	--	--	--	n/a
9	Earthen Backfill	--	--	--	--	--	--	--	--	--	--	--	n/a
10	Riprap - Class 2	9.98	--	--	--	--	--	--	--	--	--	--	0.1248
11	Riprap - Class 3	9.44	--	--	--	--	--	--	--	--	--	--	0.0472
12	RSP Bedding Material	--	--	--	--	n/a	n/a	n/a	--	--	--	--	0.1808
13	Erosion Control Seeding	--	--	--	--	n/a	n/a	n/a	--	--	--	--	n/a
		19.42	1.13	--	--	--	--	--	--	--	--	--	0.3649
11 - Levees and Floodwalls													
14	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	--	0.0001
15	Soil Cement Bentonite Cutoff Wall	--	--	--	--	--	--	--	--	--	--	--	n/a
		--	--	--	--	--	--	--	--	--	--	--	0.0001
15 - Floodway Control and Diversion Structures													
14	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	0.82	--	0.0008
15	Construction Site Dewatering (Temporary C	--	--	--	--	--	--	--	--	--	--	--	n/a
16	Construction Site Dewatering (Pumping)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	--	--	n/a
17	Excavation (Wet Conditions)	--	--	--	--	--	--	--	--	--	--	--	n/a
18	Sheet Pile Wall	--	--	--	--	--	--	--	--	--	--	--	n/a
19	Headworks Structure Concrete Piles	--	--	--	--	--	--	--	--	--	--	--	n/a
20	Headworks Structure	12.75	--	--	--	--	--	--	--	--	--	--	0.0446
21	Headworks Channel Transition	--	--	--	--	--	--	--	--	--	--	--	0.0289
22	Hinged Bottom Gates	--	--	--	--	n/a	n/a	n/a	n/a	--	--	--	n/a
		12.75	--	--	--	--	--	--	--	--	0.82	--	0.0743
08 - Roads, Railroads, and Bridges													
23	Mobilization and Demobilization	0.07	--	--	--	--	--	--	--	--	--	--	0.0003
24	Pedestrian Bridge Concrete Piles	--	--	--	--	--	--	--	--	--	--	--	n/a
25	Pedestrian Bridge Concrete Abutments and	--	--	--	--	--	--	--	--	--	--	--	n/a
26	Pedestrian Bridge Span Installation	--	--	--	--	--	--	--	--	--	--	--	n/a
		0.07	--	--	--	--	--	--	--	--	--	--	0.0003
19 - Buildings, Grounds, and Utilities													
27	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	--	0.0004
28	CMU Building	--	--	--	--	--	--	--	--	--	--	--	n/a
29	Concrete Duct Banc	--	--	--	--	--	--	--	--	--	--	--	n/a
		--	--	--	--	--	--	--	--	--	--	--	0.0004
20 -Permanent Operating Equipment													
30	Mobilization and Demobilization	--	--	--	0.01	--	--	--	--	--	0.01	--	0.0001
31	Mechanical Hydraulic Cylinders & Housing	--	--	--	--	n/a	n/a	n/a	n/a	n/a	--	--	n/a
32	CMU Building Mechanical Equipment	--	--	--	--	n/a	n/a	n/a	n/a	n/a	--	--	n/a
33	Electrical Control Equipment CMU Building	--	--	--	--	n/a	n/a	n/a	n/a	n/a	--	--	n/a
34	Electrical Power Equipment CMU Building	--	--	--	--	n/a	n/a	n/a	n/a	n/a	--	--	n/a
35	Communication Equipment	--	--	--	--	--	--	n/a	n/a	n/a	--	--	n/a
		--	--	--	0.01	--	--	--	--	--	0.01	--	0.0001
GRAND TOTAL		32.24	1.13	--	0.01	--	--	--	--	--	3.77	0.17	0.4472

Table K-112. SOx Emissions from Haul Trucks (Alternative 1)

#	Activity	Quantity	Unit	Total Truck Trips	Trip Distance (mi)	Estimated Duration, Days	Emission Factor (g/mi)	Maximum Daily Emissions, lbs/day																				
								15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug				
02 - Relocations																												
1	Mobilization and Demobilization	-	-	10	21	2	0.0152	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
2	Fremont Weir Demo	450	CY	58	22	12	0.0152	--	0.00	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
3	Levee O&M Road Regrading (6" AB)	119,000	SF	276	26	4	0.0152	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
4	Temporary Electrical Power	100	LF	n/a	n/a	1	0.0152	n/a	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
02 - Relocations Total								0.00	0.00	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
09 - Channels and Canals																												
5	Mobilization and Demobilization	-	-	66	21	2	0.0152	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
6	Clearing and Grubbing	61	ACR	610	22	16	0.0152	--	0.03	0.03	0.03	--	--	--	--	--	--	--	--	--	--	--	--	--				
7	Excavation (Wet Conditions)	61,810	CY	n/a	n/a	35	0.0152	--	--	--	--	--	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	--	--	--	--				
8	Excavation/Grading (Dry Conditions)	118,960	CY	n/a	n/a	34	0.0152	--	--	--	--	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	--	--	--	--				
9	Earthen Backfill	8,950	CY	n/a	n/a	9	0.0152	--	--	--	--	--	n/a	n/a	--	--	--	--	--	--	--	--	--	--				
10	Riprap - Class 2	24,940	TN	2,310	66	25	0.0152	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.20	0.20	0.20	0.20			
11	Riprap - Class 3	9,420	TN	874	66	10	0.0152	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.19				
12	RSP Bedding Material	36,150	TN	3,348	66	19	0.0152	--	--	--	--	--	--	--	--	--	--	--	--	0.39	0.39	0.39	0.39	--				
13	Erosion Control Seeding	31	ACR	n/a	n/a	16	0.0152	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
09 - Channels and Canals Total								0.02	0.03	0.03	--	--	--	--	--	--	--	--	--	--	0.39	0.59	0.59	0.59	0.59	0.40		
11 - Levees and Floodwalls																												
14	Mobilization and Demobilization	-	-	12	12	2	0.0152	--	--	--	--	--	--	--	0.00	--	--	--	0.00	--	--	--	--	--				
15	Soil Cement Bentonite Cutoff Wall	84,480	SF	n/a	n/a	13	0.0152	--	--	--	--	--	--	--	n/a	n/a	n/a	--	--	--	--	--	--	--				
11 - Levees and Floodwalls Total								--	--	--	--	--	--	--	0.00	--	--	--	0.00	--	--	--	--	--	--	--		
15 - Floodway Control and Diversion Structures																												
14	Mobilization and Demobilization	-	-	48	21	2	0.0152	--	--	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
15	Construction Site Dewatering (Temporary C	84,480	SF	n/a	n/a	13	0.0152	--	--	--	n/a	n/a	n/a	--	--	--	--	--	--	--	--	--	--	--				
16	Construction Site Dewatering (Pumping)	-	-	n/a	n/a	2	0.0152	--	--	--	--	--	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a				
17	Excavation (Wet Conditions)	21,000	SF	n/a	n/a	18	0.0152	--	--	--	--	--	n/a	--	--	--	--	--	--	--	--	--	--	--				
18	Sheet Pile Wall	-	-	n/a	35	120	0.0152	--	--	--	--	--	--	n/a	n/a	--	--	--	--	--	--	--	--	--				
19	Headworks Structure Concrete Piles	6,130	CY	n/a	35	4	0.0152	--	--	--	--	--	--	n/a	n/a	n/a	n/a	n/a	n/a	--	--	--	--	--				
20	Headworks Structure	7,790	SF	1,558	35	7	0.0152	--	--	--	--	--	--	--	--	--	--	--	0.26	0.26	--	--	--	--				
21	Headworks Channel Transition	5,040	LF	1,008	35	28	0.0152	--	--	--	--	--	--	--	--	--	--	--	--	--	0.04	0.04	--	--				
22	Hinged Bottom Gates	3,080	CY	n/a	n/a	18	0.0152	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
15 - Floodway Control and Diversion Structures Total								--	--	0.02	--	--	--	--	--	--	--	--	--	0.26	0.26	--	0.04	0.04	--	--		
08 - Roads, Railroads, and Bridges																												
23	Mobilization and Demobilization	1,330	CY	20	21	10	0.0152	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00	--	--				
24	Pedestrian Bridge Concrete Piles	3	EA	n/a	35	15	0.0152	--	--	--	--	--	--	--	--	--	--	--	--	--	--	n/a	--					
25	Pedestrian Bridge Concrete Abutments and	-	-	n/a	35	2	0.0152	--	--	--	--	--	--	--	--	--	--	--	--	--	--	n/a	--					
26	Pedestrian Bridge Span Installation	320	LF	n/a	35	2	0.0152	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	n/a					
08 - Roads, Railroads, and Bridges Total								--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00	--	--	--		
19 - Buildings, Grounds, and Utilities																												
27	Mobilization and Demobilization	24	CY	22	21	1	0.0152	0.02	--	--	--	--	--	0.02	--	--	--	--	--	--	--	--	--	--				
28	CMU Building	1,040	SF	n/a	35	3	0.0152	--	n/a	n/a	n/a	n/a	n/a	--	--	--	--	--	--	--	--	--	--	--				
29	Concrete Duct Banc	-	-	n/a	35	2	0.0152	--	--	--	--	n/a	--	--	--	--	--	--	--	--	--	--	--	--				
19 - Buildings, Grounds, and Utilities Total								0.02	--	--	--	--	--	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20 -Permanent Operating Equipment																												
30	Mobilization and Demobilization	1	EA	6	21	30	0.0152	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
31	Mechanical Hydraulic Cylinders & Housing	190	CY	n/a	n/a	4	0.0152	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
32	CMU Building Mechanical Equipment	-	-	n/a	n/a	2	0.0152	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
33	Electrical Control Equipment CMU Building	-	-	n/a	n/a	30	0.0152	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
34	Electrical Power Equipment CMU Building	-	-	n/a	n/a	30	0.0152	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
35	Communication Equipment	-	-	n/a	n/a	30	0.0152	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
20 -Permanent Operating Equipment Total								--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
GRAND TOTAL								0.04	0.03	0.05	--	--	--	0.02	0.00	--	--	--	0.26	0.65	0.60	0.64	0.64	0.64	0.64	0.40		

Table K-112. SOx Emissions from Haul Tr

#	Activity												Annual Emissions, tpy
		12-Aug	19-Aug	26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
02 - Relocations													
1	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	0.00	0.0000
2	Fremont Weir Demo	--	--	--	--	--	--	--	--	--	--	--	0.0000
3	Levee O&M Road Regrading (6" AB)	--	--	--	--	--	--	--	--	--	0.06	--	0.0001
4	Temporary Electrical Power	--	--	--	--	--	--	--	--	--	--	--	n/a
		--	--	--	--	--	--	--	--	--	0.06	0.00	0.0001
09 - Channels and Canals													
5	Mobilization and Demobilization	--	0.02	--	--	--	--	--	--	--	--	--	0.0000
6	Clearing and Grubbing	--	--	--	--	--	--	--	--	--	--	--	0.0002
7	Excavation (Wet Conditions)	--	--	--	--	--	--	--	--	--	--	--	n/a
8	Excavation/Grading (Dry Conditions)	--	--	--	--	--	--	--	--	--	--	--	n/a
9	Earthen Backfill	--	--	--	--	--	--	--	--	--	--	--	n/a
10	Riprap - Class 2	0.20	--	--	--	--	--	--	--	--	--	--	0.0026
11	Riprap - Class 3	0.19	--	--	--	--	--	--	--	--	--	--	0.0010
12	RSP Bedding Material	--	--	--	--	n/a	n/a	n/a	--	--	--	--	0.0037
13	Erosion Control Seeding	--	--	--	--	n/a	n/a	n/a	--	--	--	--	n/a
		0.40	0.02	--	--	--	--	--	--	--	--	--	0.0075
11 - Levees and Floodwalls													
14	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	--	0.0000
15	Soil Cement Bentonite Cutoff Wall	--	--	--	--	--	--	--	--	--	--	--	n/a
		--	--	--	--	--	--	--	--	--	--	--	0.0000
15 - Floodway Control and Diversion Structures													
14	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	0.02	--	0.0000
15	Construction Site Dewatering (Temporary C	--	--	--	--	--	--	--	--	--	--	--	n/a
16	Construction Site Dewatering (Pumping)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	--	--	n/a
17	Excavation (Wet Conditions)	--	--	--	--	--	--	--	--	--	--	--	n/a
18	Sheet Pile Wall	--	--	--	--	--	--	--	--	--	--	--	n/a
19	Headworks Structure Concrete Piles	--	--	--	--	--	--	--	--	--	--	--	n/a
20	Headworks Structure	0.26	--	--	--	--	--	--	--	--	--	--	0.0009
21	Headworks Channel Transition	--	--	--	--	--	--	--	--	--	--	--	0.0006
22	Hinged Bottom Gates	--	--	--	--	n/a	n/a	n/a	n/a	--	--	--	n/a
		0.26	--	--	--	--	--	--	--	--	0.02	--	0.0015
08 - Roads, Railroads, and Bridges													
23	Mobilization and Demobilization	0.00	--	--	--	--	--	--	--	--	--	--	0.0000
24	Pedestrian Bridge Concrete Piles	--	--	--	--	--	--	--	--	--	--	--	n/a
25	Pedestrian Bridge Concrete Abutments and	--	--	--	--	--	--	--	--	--	--	--	n/a
26	Pedestrian Bridge Span Installation	--	--	--	--	--	--	--	--	--	--	--	n/a
		0.00	--	--	--	--	--	--	--	--	--	--	0.0000
19 - Buildings, Grounds, and Utilities													
27	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	--	0.0000
28	CMU Building	--	--	--	--	--	--	--	--	--	--	--	n/a
29	Concrete Duct Banc	--	--	--	--	--	--	--	--	--	--	--	n/a
		--	--	--	--	--	--	--	--	--	--	--	0.0000
20 -Permanent Operating Equipment													
30	Mobilization and Demobilization	--	--	--	0.00	--	--	--	--	--	0.00	--	0.0000
31	Mechanical Hydraulic Cylinders & Housing	--	--	--	--	n/a	n/a	n/a	n/a	n/a	--	--	n/a
32	CMU Building Mechanical Equipment	--	--	--	--	n/a	n/a	n/a	n/a	n/a	--	--	n/a
33	Electrical Control Equipment CMU Building	--	--	--	--	n/a	n/a	n/a	n/a	n/a	--	--	n/a
34	Electrical Power Equipment CMU Building	--	--	--	--	n/a	n/a	n/a	n/a	n/a	--	--	n/a
35	Communication Equipment	--	--	--	--	--	--	n/a	n/a	n/a	--	--	n/a
		--	--	--	0.00	--	--	--	--	--	0.00	--	0.0000
GRAND TOTAL		0.66	0.02	--	0.00	--	--	--	--	--	0.08	0.00	0.0092

Table K-113. PM10 Emissions from Haul Trucks (Alternative 1)

#	Activity	Quantity	Unit	Total Truck Trips	Trip Distance (mi)	Estimated Duration, Days	Emission Factor (g/mi)	Maximum Daily Emissions, lbs/day																					
								15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug					
02 - Relocations																													
1	Mobilization and Demobilization	-	-	10	21	2	0.4144	0.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
2	Fremont Weir Demo	450	CY	58	22	12	0.4144	--	0.10	0.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
3	Levee O&M Road Regrading (6" AB)	119,000	SF	276	26	4	0.4144	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
4	Temporary Electrical Power	100	LF	n/a	n/a	1	0.4144	n/a	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
02 - Relocations Total								0.10	0.10	0.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
09 - Channels and Canals																													
5	Mobilization and Demobilization	-	-	66	21	2	0.4144	0.63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
6	Clearing and Grubbing	61	ACR	610	22	16	0.4144	--	0.77	0.77	0.77	--	--	--	--	--	--	--	--	--	--	--	--	--					
7	Excavation (Wet Conditions)	61,810	CY	n/a	n/a	35	0.4144	--	--	--	--	--	n/a	n/a	n/a	n/a	n/a	n/a	n/a	--	--	--	--	--					
8	Excavation/Grading (Dry Conditions)	118,960	CY	n/a	n/a	34	0.4144	--	--	--	--	n/a	n/a	n/a	n/a	n/a	n/a	n/a	--	--	--	--	--	--					
9	Earthen Backfill	8,950	CY	n/a	n/a	9	0.4144	--	--	--	--	--	n/a	n/a	--	--	--	--	--	--	--	--	--	--					
10	Riprap - Class 2	24,940	TN	2,310	66	25	0.4144	--	--	--	--	--	--	--	--	--	--	--	--	--	5.57	5.57	5.57	5.57					
11	Riprap - Class 3	9,420	TN	874	66	10	0.4144	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.27					
12	RSP Bedding Material	36,150	TN	3,348	66	19	0.4144	--	--	--	--	--	--	--	--	--	--	--	--	10.62	10.62	10.62	10.62	--					
13	Erosion Control Seeding	31	ACR	n/a	n/a	16	0.4144	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
09 - Channels and Canals Total								0.63	0.77	0.77	--	--	--	--	--	--	--	--	--	--	10.62	16.20	16.20	16.20	16.20	10.84			
11 - Levees and Floodwalls																													
14	Mobilization and Demobilization	-	-	12	12	2	0.4144	--	--	--	--	--	--	--	0.07	--	--	--	0.07	--	--	--	--	--					
15	Soil Cement Bentonite Cutoff Wall	84,480	SF	n/a	n/a	13	0.4144	--	--	--	--	--	--	--	n/a	n/a	n/a	--	--	--	--	--	--	--					
11 - Levees and Floodwalls Total								--	--	--	--	--	--	--	0.07	--	--	--	0.07	--	--	--	--	--	--	--			
15 - Floodway Control and Diversion Structures																													
14	Mobilization and Demobilization	-	-	48	21	2	0.4144	--	--	0.46	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
15	Construction Site Dewatering (Temporary C	84,480	SF	n/a	n/a	13	0.4144	--	--	n/a	n/a	n/a	--	--	--	--	--	--	--	--	--	--	--	--					
16	Construction Site Dewatering (Pumping)	-	-	n/a	n/a	2	0.4144	--	--	--	--	--	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a					
17	Excavation (Wet Conditions)	21,000	SF	n/a	n/a	18	0.4144	--	--	--	--	--	n/a	--	--	--	--	--	--	--	--	--	--	--					
18	Sheet Pile Wall	-	-	n/a	35	120	0.4144	--	--	--	--	--	--	n/a	n/a	--	--	--	--	--	--	--	--	--					
19	Headworks Structure Concrete Piles	6,130	CY	n/a	35	4	0.4144	--	--	--	--	--	--	n/a	n/a	n/a	n/a	n/a	--	--	--	--	--	--					
20	Headworks Structure	7,790	SF	1,558	35	7	0.4144	--	--	--	--	--	--	--	--	--	--	--	7.12	7.12	--	--	--	--					
21	Headworks Channel Transition	5,040	LF	1,008	35	28	0.4144	--	--	--	--	--	--	--	--	--	--	--	--	--	1.15	1.15	--	--					
22	Hinged Bottom Gates	3,080	CY	n/a	n/a	18	0.4144	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
15 - Floodway Control and Diversion Structures Total								--	--	0.46	--	--	--	--	--	--	--	--	--	7.12	7.12	--	1.15	1.15	--				
08 - Roads, Railroads, and Bridges																													
23	Mobilization and Demobilization	1,330	CY	20	21	10	0.4144	--	--	--	--	--	--	--	--	--	--	--	--	--	0.04	--	--	--					
24	Pedestrian Bridge Concrete Piles	3	EA	n/a	35	15	0.4144	--	--	--	--	--	--	--	--	--	--	--	--	--	--	n/a	--	--					
25	Pedestrian Bridge Concrete Abutments and	-	-	n/a	35	2	0.4144	--	--	--	--	--	--	--	--	--	--	--	--	--	--	n/a	--	--					
26	Pedestrian Bridge Span Installation	320	LF	n/a	35	2	0.4144	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	n/a	--					
08 - Roads, Railroads, and Bridges Total								--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.04	--	--	--	--		
19 - Buildings, Grounds, and Utilities																													
27	Mobilization and Demobilization	24	CY	22	21	1	0.4144	0.42	--	--	--	--	--	0.42	--	--	--	--	--	--	--	--	--	--					
28	CMU Building	1,040	SF	n/a	35	3	0.4144	--	n/a	n/a	n/a	n/a	--	--	--	--	--	--	--	--	--	--	--	--					
29	Concrete Duct Banc	-	-	n/a	35	2	0.4144	--	--	--	n/a	--	--	--	--	--	--	--	--	--	--	--	--	--					
19 - Buildings, Grounds, and Utilities Total								0.42	--	--	--	--	--	0.42	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20 -Permanent Operating Equipment																													
30	Mobilization and Demobilization	1	EA	6	21	30	0.4144	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
31	Mechanical Hydraulic Cylinders & Housing	190	CY	n/a	n/a	4	0.4144	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
32	CMU Building Mechanical Equipment	-	-	n/a	n/a	2	0.4144	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
33	Electrical Control Equipment CMU Building	-	-	n/a	n/a	30	0.4144	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
34	Electrical Power Equipment CMU Building	-	-	n/a	n/a	30	0.4144	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
35	Communication Equipment	-	-	n/a	n/a	30	0.4144	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--					
20 -Permanent Operating Equipment Total								--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
GRAND TOTAL								1.15	0.86	1.32	--	--	--	0.42	0.07	--	--	--	--	--	7.18	17.74	16.23	17.35	17.35	10.84	--		

Table K-113. PM10 Emissions from Haul T

#	Activity												Annual Emissions, tpy
		12-Aug	19-Aug	26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
02 - Relocations													
1	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	0.10	0.0001
2	Fremont Weir Demo	--	--	--	--	--	--	--	--	--	--	--	0.0006
3	Levee O&M Road Regrading (6" AB)	--	--	--	--	--	--	--	--	--	1.64	--	0.0033
4	Temporary Electrical Power	--	--	--	--	--	--	--	--	--	--	--	n/a
		--	--	--	--	--	--	--	--	--	1.64	0.10	0.0040
09 - Channels and Canals													
5	Mobilization and Demobilization	--	0.63	--	--	--	--	--	--	--	--	--	0.0006
6	Clearing and Grubbing	--	--	--	--	--	--	--	--	--	--	--	0.0061
7	Excavation (Wet Conditions)	--	--	--	--	--	--	--	--	--	--	--	n/a
8	Excavation/Grading (Dry Conditions)	--	--	--	--	--	--	--	--	--	--	--	n/a
9	Earthen Backfill	--	--	--	--	--	--	--	--	--	--	--	n/a
10	Riprap - Class 2	5.57	--	--	--	--	--	--	--	--	--	--	0.0696
11	Riprap - Class 3	5.27	--	--	--	--	--	--	--	--	--	--	0.0263
12	RSP Bedding Material	--	--	--	--	n/a	n/a	n/a	--	--	--	--	0.1009
13	Erosion Control Seeding	--	--	--	--	n/a	n/a	n/a	--	--	--	--	n/a
		10.84	0.63	--	--	--	--	--	--	--	--	--	0.2037
11 - Levees and Floodwalls													
14	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	--	0.0001
15	Soil Cement Bentonite Cutoff Wall	--	--	--	--	--	--	--	--	--	--	--	n/a
		--	--	--	--	--	--	--	--	--	--	--	0.0001
15 - Floodway Control and Diversion Structures													
14	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	0.46	--	0.0005
15	Construction Site Dewatering (Temporary C	--	--	--	--	--	--	--	--	--	--	--	n/a
16	Construction Site Dewatering (Pumping)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	--	--	n/a
17	Excavation (Wet Conditions)	--	--	--	--	--	--	--	--	--	--	--	n/a
18	Sheet Pile Wall	--	--	--	--	--	--	--	--	--	--	--	n/a
19	Headworks Structure Concrete Piles	--	--	--	--	--	--	--	--	--	--	--	n/a
20	Headworks Structure	7.12	--	--	--	--	--	--	--	--	--	--	0.0249
21	Headworks Channel Transition	--	--	--	--	--	--	--	--	--	--	--	0.0161
22	Hinged Bottom Gates	--	--	--	--	n/a	n/a	n/a	n/a	--	--	--	n/a
		7.12	--	--	--	--	--	--	--	--	0.46	--	0.0415
08 - Roads, Railroads, and Bridges													
23	Mobilization and Demobilization	0.04	--	--	--	--	--	--	--	--	--	--	0.0002
24	Pedestrian Bridge Concrete Piles	--	--	--	--	--	--	--	--	--	--	--	n/a
25	Pedestrian Bridge Concrete Abutments and	--	--	--	--	--	--	--	--	--	--	--	n/a
26	Pedestrian Bridge Span Installation	--	--	--	--	--	--	--	--	--	--	--	n/a
		0.04	--	--	--	--	--	--	--	--	--	--	0.0002
19 - Buildings, Grounds, and Utilities													
27	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	--	0.0002
28	CMU Building	--	--	--	--	--	--	--	--	--	--	--	n/a
29	Concrete Duct Banc	--	--	--	--	--	--	--	--	--	--	--	n/a
		--	--	--	--	--	--	--	--	--	--	--	0.0002
20 -Permanent Operating Equipment													
30	Mobilization and Demobilization	--	--	--	0.00	--	--	--	--	--	0.00	--	0.0001
31	Mechanical Hydraulic Cylinders & Housing	--	--	--	--	n/a	n/a	n/a	n/a	n/a	--	--	n/a
32	CMU Building Mechanical Equipment	--	--	--	--	n/a	n/a	n/a	n/a	n/a	--	--	n/a
33	Electrical Control Equipment CMU Building	--	--	--	--	n/a	n/a	n/a	n/a	n/a	--	--	n/a
34	Electrical Power Equipment CMU Building	--	--	--	--	n/a	n/a	n/a	n/a	n/a	--	--	n/a
35	Communication Equipment	--	--	--	--	--	--	--	n/a	n/a	--	--	n/a
		--	--	--	0.00	--	--	--	--	--	0.00	--	0.0001
GRAND TOTAL		18.00	0.63	--	0.00	--	--	--	--	--	2.10	0.10	0.2496

Table K-114. PM2.5 Emissions from Haul Trucks (Alternative 1)

#	Activity	Quantity	Unit	Total Truck Trips	Trip Distance (mi)	Estimated Duration, Days	Emission Factor (g/mi)													Maximum	
								15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	
02 - Relocations																					
1	Mobilization and Demobilization	-	-	10	21	2	0.1262	0.03	--	--	--	--	--	--	--	--	--	--	--		
2	Fremont Weir Demo	450	CY	58	22	12	0.1262	--	0.03	0.03	--	--	--	--	--	--	--	--	--		
3	Levee O&M Road Regrading (6" AB)	119,000	SF	276	26	4	0.1262	--	--	--	--	--	--	--	--	--	--	--	--		
4	Temporary Electrical Power	100	LF	n/a	n/a	1	0.1262	n/a	--	--	--	--	--	--	--	--	--	--	--		
02 - Relocations Total								0.03	0.03	0.03	--	--	--	--	--	--	--	--	--		
09 - Channels and Canals																					
5	Mobilization and Demobilization	-	-	66	21	2	0.1262	0.19	--	--	--	--	--	--	--	--	--	--	--		
6	Clearing and Grubbing	61	ACR	610	22	16	0.1262	--	0.23	0.23	0.23	--	--	--	--	--	--	--	--		
7	Excavation (Wet Conditions)	61,810	CY	n/a	n/a	35	0.1262	--	--	--	--	--	n/a	n/a	n/a	n/a	n/a	n/a	--		
8	Excavation/Grading (Dry Conditions)	118,960	CY	n/a	n/a	34	0.1262	--	--	--	n/a	n/a	n/a	n/a	n/a	n/a	n/a	--	--		
9	Earthen Backfill	8,950	CY	n/a	n/a	9	0.1262	--	--	--	--	n/a	n/a	--	--	--	--	--	--		
10	Riprap - Class 2	24,940	TN	2,310	66	25	0.1262	--	--	--	--	--	--	--	--	--	--	--	--		
11	Riprap - Class 3	9,420	TN	874	66	10	0.1262	--	--	--	--	--	--	--	--	--	--	--	--		
12	RSP Bedding Material	36,150	TN	3,348	66	19	0.1262	--	--	--	--	--	--	--	--	--	--	--	3.23		
13	Erosion Control Seeding	31	ACR	n/a	n/a	16	0.1262	--	--	--	--	--	--	--	--	--	--	--	--		
09 - Channels and Canals Total								0.19	0.23	0.23	--	--	--	--	--	--	--	--	3.23		
11 - Levees and Floodwalls																					
14	Mobilization and Demobilization	-	-	12	12	2	0.1262	--	--	--	--	--	--	--	0.02	--	--	--	0.02		
15	Soil Cement Bentonite Cutoff Wall	84,480	SF	n/a	n/a	13	0.1262	--	--	--	--	--	--	--	n/a	n/a	n/a	--	--		
11 - Levees and Floodwalls Total								--	--	--	--	--	--	0.02	--	--	--	0.02	--		
15 - Floodway Control and Diversion Structures																					
14	Mobilization and Demobilization	-	-	48	21	2	0.1262	--	--	0.14	--	--	--	--	--	--	--	--	--		
15	Construction Site Dewatering (Temporary Co	84,480	SF	n/a	n/a	13	0.1262	--	--	--	n/a	n/a	n/a	--	--	--	--	--	--		
16	Construction Site Dewatering (Pumping)	-	-	n/a	n/a	2	0.1262	--	--	--	--	--	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
17	Excavation (Wet Conditions)	21,000	SF	n/a	n/a	18	0.1262	--	--	--	--	--	n/a	--	--	--	--	--	--		
18	Sheet Pile Wall	-	-	n/a	35	120	0.1262	--	--	--	--	--	--	n/a	n/a	n/a	n/a	--	--		
19	Headworks Structure Concrete Piles	6,130	CY	n/a	35	4	0.1262	--	--	--	--	--	--	n/a	n/a	n/a	n/a	n/a	--		
20	Headworks Structure	7,790	SF	1,558	35	7	0.1262	--	--	--	--	--	--	--	--	--	--	2.17	2.17		
21	Headworks Channel Transition	5,040	LF	1,008	35	28	0.1262	--	--	--	--	--	--	--	--	--	--	--	--		
22	Hinged Bottom Gates	3,080	CY	n/a	n/a	18	0.1262	--	--	--	--	--	--	--	--	--	--	--	--		
15 - Floodway Control and Diversion Structures Total								--	--	0.14	--	--	--	--	--	--	--	2.17	2.17		
08 - Roads, Railroads, and Bridges																					
23	Mobilization and Demobilization	1,330	CY	20	21	10	0.1262	--	--	--	--	--	--	--	--	--	--	--	--		
24	Pedestrian Bridge Concrete Piles	3	EA	n/a	35	15	0.1262	--	--	--	--	--	--	--	--	--	--	--	--		
25	Pedestrian Bridge Concrete Abutments and	-	-	n/a	35	2	0.1262	--	--	--	--	--	--	--	--	--	--	--	--		
26	Pedestrian Bridge Span Installation	320	LF	n/a	35	2	0.1262	--	--	--	--	--	--	--	--	--	--	--	--		
08 - Roads, Railroads, and Bridges Total								--	--	--	--	--	--	--	--	--	--	--	--		
19 - Buildings, Grounds, and Utilities																					
27	Mobilization and Demobilization	24	CY	22	21	1	0.1262	0.13	--	--	--	--	--	0.13	--	--	--	--	--		
28	CMU Building	1,040	SF	n/a	35	3	0.1262	--	n/a	n/a	n/a	n/a	n/a	--	--	--	--	--	--		
29	Concrete Duct Banc	-	-	n/a	35	2	0.1262	--	--	--	--	n/a	--	--	--	--	--	--	--		
19 - Buildings, Grounds, and Utilities Total								0.13	--	--	--	--	--	0.13	--	--	--	--	--		
20 -Permanent Operating Equipment																					
30	Mobilization and Demobilization	1	EA	6	21	30	0.1262	--	--	--	--	--	--	--	--	--	--	--	--		
31	Mechanical Hydraulic Cylinders & Housing	190	CY	n/a	n/a	4	0.1262	--	--	--	--	--	--	--	--	--	--	--	--		
32	CMU Building Mechanical Equipment	-	-	n/a	n/a	2	0.1262	--	--	--	--	--	--	--	--	--	--	--	--		
33	Electrical Control Equipment CMU Building	-	-	n/a	n/a	30	0.1262	--	--	--	--	--	--	--	--	--	--	--	--		
34	Electrical Power Equipment CMU Building	-	-	n/a	n/a	30	0.1262	--	--	--	--	--	--	--	--	--	--	--	--		
35	Communication Equipment	-	-	n/a	n/a	30	0.1262	--	--	--	--	--	--	--	--	--	--	--	--		
20 -Permanent Operating Equipment Total								--	--	--	--	--	--	--	--	--	--	--			
GRAND TOTAL								0.35	0.26	0.40	--	--	--	0.13	0.02	--	--	--	2.19	5.40	

Table K-114. PM2.5 Emissions from Haul T

#	Activity	Daily Emissions, lbs/day															Annual Emissions, tpy
		15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug	26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
02 - Relocations																	
1	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.03	0.0000
2	Fremont Weir Demo	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0002
3	Levee O&M Road Regrading (6" AB)	--	--	--	--	--	--	--	--	--	--	--	--	0.50	--	0.0010	
4	Temporary Electrical Power	--	--	--	--	--	--	--	--	--	--	--	--	--	--	n/a	
		--	--	--	--	--	--	--	--	--	--	--	--	0.50	0.03	0.0012	
09 - Channels and Canals																	
5	Mobilization and Demobilization	--	--	--	--	--	0.19	--	--	--	--	--	--	--	--	0.0002	
6	Clearing and Grubbing	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0019	
7	Excavation (Wet Conditions)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	n/a	
8	Excavation/Grading (Dry Conditions)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	n/a	
9	Earthen Backfill	--	--	--	--	--	--	--	--	--	--	--	--	--	--	n/a	
10	Riprap - Class 2	1.70	1.70	1.70	1.70	1.70	--	--	--	--	--	--	--	--	--	0.0212	
11	Riprap - Class 3	--	--	--	1.60	1.60	--	--	--	--	--	--	--	--	--	0.0080	
12	RSP Bedding Material	3.23	3.23	3.23	--	--	--	--	--	--	--	--	--	--	--	0.0307	
13	Erosion Control Seeding	--	--	--	--	--	--	--	n/a	n/a	n/a	--	--	--	--	n/a	
		4.93	4.93	4.93	3.30	3.30	0.19	--	--	--	--	--	--	--	--	0.0620	
11 - Levees and Floodwalls																	
14	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0000	
15	Soil Cement Bentonite Cutoff Wall	--	--	--	--	--	--	--	--	--	--	--	--	--	--	n/a	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0000	
15 - Floodway Control and Diversion Structures																	
14	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	--	--	0.14	--	0.0001	
15	Construction Site Dewatering (Temporary Co-	--	--	--	--	--	--	--	--	--	--	--	--	--	--	n/a	
16	Construction Site Dewatering (Pumping)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	--	--	n/a	
17	Excavation (Wet Conditions)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	n/a	
18	Sheet Pile Wall	--	--	--	--	--	--	--	--	--	--	--	--	--	--	n/a	
19	Headworks Structure Concrete Piles	--	--	--	--	--	--	--	--	--	--	--	--	--	--	n/a	
20	Headworks Structure	--	--	--	--	2.17	--	--	--	--	--	--	--	--	--	0.0076	
21	Headworks Channel Transition	--	0.35	0.35	--	--	--	--	--	--	--	--	--	--	--	0.0049	
22	Hinged Bottom Gates	--	--	--	--	--	--	--	n/a	n/a	n/a	n/a	--	--	--	n/a	
		--	0.35	0.35	--	2.17	--	--	--	--	--	--	--	0.14	--	0.0126	
08 - Roads, Railroads, and Bridges																	
23	Mobilization and Demobilization	0.01	--	--	--	0.01	--	--	--	--	--	--	--	--	--	0.0001	
24	Pedestrian Bridge Concrete Piles	--	n/a	--	--	--	--	--	--	--	--	--	--	--	--	n/a	
25	Pedestrian Bridge Concrete Abutments and	--	--	n/a	--	--	--	--	--	--	--	--	--	--	--	n/a	
26	Pedestrian Bridge Span Installation	--	--	--	n/a	--	--	--	--	--	--	--	--	--	--	n/a	
		0.01	--	--	--	0.01	--	--	--	--	--	--	--	--	--	0.0001	
19 - Buildings, Grounds, and Utilities																	
27	Mobilization and Demobilization	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0001	
28	CMU Building	--	--	--	--	--	--	--	--	--	--	--	--	--	--	n/a	
29	Concrete Duct Banc	--	--	--	--	--	--	--	--	--	--	--	--	--	--	n/a	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0001	
20 -Permanent Operating Equipment																	
30	Mobilization and Demobilization	--	--	--	--	--	--	0.00	--	--	--	--	--	0.00	--	0.0000	
31	Mechanical Hydraulic Cylinders & Housing	--	--	--	--	--	--	--	n/a	n/a	n/a	n/a	n/a	--	--	n/a	
32	CMU Building Mechanical Equipment	--	--	--	--	--	--	--	n/a	n/a	n/a	n/a	n/a	--	--	n/a	
33	Electrical Control Equipment CMU Building	--	--	--	--	--	--	--	n/a	n/a	n/a	n/a	n/a	--	--	n/a	
34	Electrical Power Equipment CMU Building	--	--	--	--	--	--	--	n/a	n/a	n/a	n/a	n/a	--	--	n/a	
35	Communication Equipment	--	--	--	--	--	--	--	--	--	--	n/a	n/a	--	--	n/a	
		--	--	--	--	--	--	0.00	--	--	--	--	--	0.00	--	0.0000	
GRAND TOTAL		4.94	5.28	5.28	3.30	5.48	0.19	--	0.00	--	--	--	--	0.64	0.03	0.0760	

Table K-115. GHG Emissions from Haul Trucks (Alternative 1)

#	Activity	Quantity	Unit	Total Truck Trips	Trip Distance (mi)	Estimated Duration, Days	CO2 Emission Factor (g/mi)	Annual Emissions, MTCO2e/yr
02 - Relocations								
1	Mobilization and Demobilization	-	-	10	21	2	1604.388845	0.34
2	Fremont Weir Demo	450	CY	58	22	12	1604.388845	2.05
3	Levee O&M Road Regrading (6" AB)	119,000	SF	276	26	4	1604.388845	11.51
4	Temporary Electrical Power	100	LF	n/a	n/a	1	1604.388845	n/a
02 - Relocations Total								13.90
09 - Channels and Canals								
5	Mobilization and Demobilization	-	-	66	21	2	1604.388845	2.22
6	Clearing and Grubbing	61	ACR	610	22	16	1604.388845	21.53
7	Excavation (Wet Conditions)	61,810	CY	n/a	n/a	35	1604.388845	n/a
8	Excavation/Grading (Dry Conditions)	118,960	CY	n/a	n/a	34	1604.388845	n/a
9	Earthen Backfill	8,950	CY	n/a	n/a	9	1604.388845	n/a
10	Riprap - Class 2	24,940	TN	2,310	66	25	1604.388845	244.61
11	Riprap - Class 3	9,420	TN	874	66	10	1604.388845	92.55
12	RSP Bedding Material	36,150	TN	3,348	66	19	1604.388845	354.52
13	Erosion Control Seeding	31	ACR	n/a	n/a	16	1604.388845	n/a
09 - Channels and Canals Total								715.43
11 - Levees and Floodwalls								
14	Mobilization and Demobilization	-	-	12	12	2	1604.388845	0.23
15	Soil Cement Bentonite Cutoff Wall	84,480	SF	n/a	n/a	13	1604.388845	n/a
11 - Levees and Floodwalls Total								0.23
15 - Floodway Control and Diversion Structures								
14	Mobilization and Demobilization	-	-	48	21	2	1604.388845	1.62
15	Construction Site Dewatering (TemporaryCo	84,480	SF	n/a	n/a	13	1604.388845	n/a
16	Construction Site Dewatering(Pumping)	-	-	n/a	n/a	2	1604.388845	n/a
17	Excavation (Wet Conditions)	21,000	SF	n/a	n/a	18	1604.388845	n/a
18	Sheet Pile Wall	-	-	n/a	35	120	1604.388845	n/a
19	Headworks Structure Concrete Piles	6,130	CY	n/a	35	4	1604.388845	n/a
20	Headworks Structure	7,790	SF	1,558	35	7	1604.388845	87.49
21	Headworks Channel Transition	5,040	LF	1,008	35	28	1604.388845	56.60
22	Hinged Bottom Gates	3,080	CY	n/a	n/a	18	1604.388845	n/a
15 - Floodway Control and Diversion Structures Total								145.71

Table K-115. GHG Emissions from Haul Trucks (Alternative 1)

#	Activity	Quantity	Unit	Total Truck Trips	Trip Distance (mi)	Estimated Duration, Days	CO2 Emission Factor (g/mi)	Annual Emissions, MTCO2e/yr
08 - Roads, Railroads, and Bridges								
23	Mobilization and Demobilization	1,330	CY	20	21	10	1604.388845	0.67
24	Pedestrian Bridge Concrete Piles	3	EA	n/a	35	15	1604.388845	n/a
25	Pedestrian Bridge Concrete Abutments and	-	-	n/a	35	2	1604.388845	n/a
26	Pedestrian Bridge Span Installation	320	LF	n/a	35	2	1604.388845	n/a
08 - Roads, Railroads, and Bridges Total								0.67
19 - Buildings, Grounds, and Utilities								
27	Mobilization and Demobilization	24	CY	22	21	1	1604.388845	0.74
28	CMU Building	1,040	SF	n/a	35	3	1604.388845	n/a
29	Concrete Duct Banc	-	-	n/a	35	2	1604.388845	n/a
19 - Buildings, Grounds, and Utilities Total								0.74
20 -Permanent Operating Equipment								
30	Mobilization and Demobilization	1	EA	6	21	30	1604.388845	0.20
31	Mechanical Hydraulic Cylinders & Housing	190	CY	n/a	n/a	4	1604.388845	n/a
32	CMU Building Mechanical Equipment	-	-	n/a	n/a	2	1604.388845	n/a
33	Electrical Control Equipment CMUBuilding	-	-	n/a	n/a	30	1604.388845	n/a
34	Electrical Power Equipment CMUBuilding	-	-	n/a	n/a	30	1604.388845	n/a
35	Communication Equipment	-	-	n/a	n/a	30	1604.388845	n/a
20 -Permanent Operating Equipment Total								0.20
GRAND TOTAL								876.88

Table K-116. PM10 Emissions Summary from Fugitive Dust (Alternative 1)

#	Activity	PM10 Daily Emissions Summary, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
02 - Relocations																				
1	Mobilization and Demobilization	n/a																		
	Material Handling	n/a																		
	Grading	n/a																		
	Bulldozing	n/a																		
	Unpaved Road Dust	n/a																		
	Paved Road Dust	n/a																		
	Mobilization and Demobilization Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2	Fremont Weir Demo																			
	Material Handling		0.13	0.13																
	Grading	n/a	n/a																	
	Bulldozing	n/a	n/a																	
	Unpaved Road Dust	n/a	n/a																	
	Paved Road Dust	n/a	n/a																	
	Fremont Weir Demo Subtotal	--	0.13	0.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3	Levee O&M Road Regrading (6" AB)																			
	Material Handling																			
	Grading																			
	Bulldozing																			
	Unpaved Road Dust																			
	Paved Road Dust																			
	Levee O&M Road Regrading (6" AB) Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4	Temporary Electrical Power																			
	Material Handling	n/a																		
	Grading	n/a																		
	Bulldozing	n/a																		
	Unpaved Road Dust	n/a																		
	Paved Road Dust	n/a																		
	Temporary Electrical Power Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02 - Relocations Total	--	0.13	0.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
09 - Channels and Canals																				
5	Mobilization and Demobilization																			
	Material Handling	n/a																		n/a
	Grading	n/a																		n/a
	Bulldozing	n/a																		n/a
	Unpaved Road Dust	n/a																		n/a
	Paved Road Dust	n/a																		n/a
	Mobilization and Demobilization Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6	Clearing and Grubbing																			
	Material Handling	n/a																		
	Grading		0.41	0.41	0.41															
	Bulldozing	n/a	n/a	n/a																
	Unpaved Road Dust	n/a	n/a	n/a																
	Paved Road Dust	n/a	n/a	n/a																
	Clearing and Grubbing Subtotal	--	0.41	0.41	0.41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table K-116. PM10 Emissions Summary from Fugitive D

#	Activity	26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	Annual Emissions, tpy
02 - Relocations											
1	Mobilization and Demobilization										
	Material Handling									n/a	n/a
	Grading									n/a	n/a
	Bulldozing									n/a	n/a
	Unpaved Road Dust									n/a	n/a
	Paved Road Dust									n/a	n/a
	Mobilization and Demobilization Subtotal	--	--	--	--	--	--	--	--	--	--
2	Fremont Weir Demo										0.00
	Material Handling										n/a
	Grading										n/a
	Bulldozing										n/a
	Unpaved Road Dust										n/a
	Paved Road Dust										n/a
	Fremont Weir Demo Subtotal	--	--	--	--	--	--	--	--	--	0.00
3	Levee O&M Road Regrading (6" AB)										
	Material Handling								n/a		n/a
	Grading								0.21		0.00
	Bulldozing								n/a		n/a
	Unpaved Road Dust								n/a		n/a
	Paved Road Dust								n/a		n/a
	Levee O&M Road Regrading (6" AB) Subtotal	--	--	--	--	--	--	--	0.21	--	0.00
4	Temporary Electrical Power										
	Material Handling										n/a
	Grading										n/a
	Bulldozing										n/a
	Unpaved Road Dust										n/a
	Paved Road Dust										n/a
	Temporary Electrical Power Subtotal	--	--	--	--	--	--	--	--	--	--
	02 - Relocations Total	--	--	--	--	--	--	--	0.21	--	0.00
09 - Channels and Canals											
5	Mobilization and Demobilization										
	Material Handling										n/a
	Grading										n/a
	Bulldozing										n/a
	Unpaved Road Dust										n/a
	Paved Road Dust										n/a
	Mobilization and Demobilization Subtotal	--	--	--	--	--	--	--	--	--	--
6	Clearing and Grubbing										
	Material Handling										n/a
	Grading										0.00
	Bulldozing										n/a
	Unpaved Road Dust										n/a
	Paved Road Dust										n/a
	Clearing and Grubbing Subtotal	--	--	--	--	--	--	--	--	--	0.00

Table K-116. PM10 Emissions Summary from Fugitive Dust (Alternative 1)

#	Activity	PM10 Daily Emissions Summary, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
7	Excavation (Wet Conditions)																			
	Material Handling							n/a	n/a	n/a	n/a	n/a	n/a							
	Grading							n/a	n/a	n/a	n/a	n/a	n/a							
	Bulldozing							n/a	n/a	n/a	n/a	n/a	n/a							
	Unpaved Road Dust							112.65	112.65	112.65	112.65	112.65	112.65							
	Paved Road Dust																			
	Excavation (Wet Conditions) Subtotal	--	--	--	--	--	--	112.65	112.65	112.65	112.65	112.65	112.65	--	--	--	--	--	--	--
8	Excavation/Grading (Dry Conditions)																			
	Material Handling					0.63	0.63	0.63	0.63	0.63	0.63									
	Grading					2.07	2.07	2.07	2.07	2.07	2.07									
	Bulldozing					2.35	2.35	2.35	2.35	2.35	2.35									
	Unpaved Road Dust				n/a	n/a	n/a	n/a	n/a	n/a	n/a									
	Paved Road Dust																			
	Excavation/Grading (Dry Conditions) Subtotal	--	--	--	--	5.05	5.05	5.05	5.05	5.05	5.05	--	--	--	--	--	--	--	--	--
9	Earthen Backfill																			
	Material Handling						n/a	n/a												
	Grading						0.21	0.21												
	Bulldozing						2.35	2.35												
	Unpaved Road Dust					n/a	n/a													
	Paved Road Dust																			
	Earthen Backfill Subtotal	--	--	--	--	--	2.56	2.56	--	--	--	--	--	--	--	--	--	--	--	--
10	Riprap - Class 2																			
	Material Handling													1.65	1.65	1.65	1.65	1.65	1.65	
	Grading													n/a	n/a	n/a	n/a	n/a	n/a	
	Bulldozing													n/a	n/a	n/a	n/a	n/a	n/a	
	Unpaved Road Dust													n/a	n/a	n/a	n/a	n/a	n/a	
	Paved Road Dust																			
	Riprap - Class 2 Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	1.65	1.65	1.65	1.65	1.65	1.65	--
11	Riprap - Class 3																			
	Material Handling																	1.65	1.65	
	Grading																	n/a	n/a	
	Bulldozing																	n/a	n/a	
	Unpaved Road Dust																	n/a	n/a	
	Paved Road Dust																			
	Riprap - Class 3 Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.65	1.65	--
12	RSP Bedding Material																			
	Material Handling													1.65	1.65	1.65	1.65			
	Grading													n/a	n/a	n/a	n/a			
	Bulldozing													n/a	n/a	n/a	n/a			
	Unpaved Road Dust													n/a	n/a	n/a	n/a			
	Paved Road Dust																			
	RSP Bedding Material Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	1.65	1.65	1.65	1.65	--	--	--
13	Erosion Control Seeding																			
	Material Handling																			
	Grading																			
	Bulldozing																			
	Unpaved Road Dust																			
	Paved Road Dust																			
	Erosion Control Seeding Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	09 - Channels and Canals Total	--	0.41	0.41	0.41	5.05	7.60	120.25	117.70	117.70	117.70	112.65	112.65	1.65	3.30	3.30	3.30	3.30	3.30	--

Table K-116. PM10 Emissions Summary from Fugitive D

#	Activity	26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	Annual Emissions, tpy
7	Excavation (Wet Conditions)										n/a
	Material Handling										n/a
	Grading										n/a
	Bulldozing										
	Unpaved Road Dust										1.89
	Paved Road Dust										
	Excavation (Wet Conditions) Subtotal	--	--	--	--	--	--	--	--	--	1.89
8	Excavation/Grading (Dry Conditions)										0.01
	Material Handling										0.04
	Grading										0.04
	Bulldozing										n/a
	Unpaved Road Dust										
	Paved Road Dust										
	Excavation/Grading (Dry Conditions) Subtotal	--	--	--	--	--	--	--	--	--	0.09
9	Earthen Backfill										n/a
	Material Handling										0.00
	Grading										0.01
	Bulldozing										n/a
	Unpaved Road Dust										
	Paved Road Dust										
	Earthen Backfill Subtotal	--	--	--	--	--	--	--	--	--	0.01
10	Riprap - Class 2										0.01
	Material Handling										n/a
	Grading										n/a
	Bulldozing										n/a
	Unpaved Road Dust										
	Paved Road Dust										
	Riprap - Class 2 Subtotal	--	--	--	--	--	--	--	--	--	0.01
11	Riprap - Class 3										0.02
	Material Handling										n/a
	Grading										n/a
	Bulldozing										n/a
	Unpaved Road Dust										
	Paved Road Dust										
	Riprap - Class 3 Subtotal	--	--	--	--	--	--	--	--	--	0.02
12	RSP Bedding Material										0.01
	Material Handling										n/a
	Grading										n/a
	Bulldozing										n/a
	Unpaved Road Dust										
	Paved Road Dust										
	RSP Bedding Material Subtotal	--	--	--	--	--	--	--	--	--	0.01
13	Erosion Control Seeding										n/a
	Material Handling			n/a	n/a	n/a					n/a
	Grading			n/a	n/a	n/a					n/a
	Bulldozing			n/a	n/a	n/a					n/a
	Unpaved Road Dust			n/a	n/a	n/a					n/a
	Paved Road Dust										
	Erosion Control Seeding Subtotal	--	--	--	--	--	--	--	--	--	--
	09 - Channels and Canals Total	--	--	--	--	--	--	--	--	--	2.03

Table K-116. PM10 Emissions Summary from Fugitive Dust (Alternative 1)

#	Activity	PM10 Daily Emissions Summary, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
11 - Levees and Floodwalls																				
14	Mobilization and Demobilization																			
	Material Handling									n/a			n/a							
	Grading									n/a			n/a							
	Bulldozing									n/a			n/a							
	Unpaved Road Dust									n/a			n/a							
	Paved Road Dust																			
	Mobilization and Demobilization Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15	Soil Cement Bentonite Cutoff Wall																			
	Material Handling									n/a		n/a								
	Grading										0.21	0.21	0.21							
	Bulldozing										2.35	2.35	2.35							
	Unpaved Road Dust									n/a	n/a	n/a								
	Paved Road Dust																			
	Soil Cement Bentonite Cutoff Wall Subtotal	--	--	--	--	--	--	--	--	--	2.56	2.56	2.56	--	--	--	--	--	--	--
	11 - Levees and Floodwalls Total	--	--	--	--	--	--	--	--	--	2.56	2.56	2.56	--	--	--	--	--	--	--
15 - Floodway Control and Diversion Structures																				
16	Mobilization and Demobilization																			
	Material Handling																			
	Grading																			
	Bulldozing																			
	Unpaved Road Dust																			
	Paved Road Dust																			
	Mobilization and Demobilization Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17	Construction Site Dewatering (Temporary Cofferdam)																			
	Material Handling				n/a	n/a	n/a													
	Grading				n/a	n/a	n/a													
	Bulldozing				n/a	n/a	n/a													
	Unpaved Road Dust				n/a	n/a	n/a													
	Paved Road Dust																			
	Construction Site Dewatering (Temporary Cofferdam) Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18	Construction Site Dewatering (Pumping)																			
	Material Handling								n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Grading								n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Bulldozing								n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Unpaved Road Dust								n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Paved Road Dust																			
	Construction Site Dewatering (Pumping) Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19	Excavation (Wet Conditions)																			
	Material Handling									n/a										
	Grading									n/a										
	Bulldozing									n/a										
	Unpaved Road Dust									112.65										
	Paved Road Dust																			
	Excavation (Wet Conditions) Subtotal	--	--	--	--	--	--	--	--	112.65	--	--	--	--	--	--	--	--	--	--
20	Sheet Pile Wall																			
	Material Handling									n/a	n/a									
	Grading									n/a	n/a									
	Bulldozing									n/a	n/a									
	Unpaved Road Dust									n/a	n/a									
	Paved Road Dust																			
	Sheet Pile Wall Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table K-116. PM10 Emissions Summary from Fugitive D

#	Activity	26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	Annual Emissions, tpy
11 - Levees and Floodwalls											
14	Mobilization and Demobilization										n/a
	Material Handling										n/a
	Grading										n/a
	Bulldozing										n/a
	Unpaved Road Dust										n/a
	Paved Road Dust										n/a
	Mobilization and Demobilization Subtotal	--	--	--	--	--	--	--	--	--	--
15	Soil Cement Bentonite Cutoff Wall										n/a
	Material Handling										0.00
	Grading										0.02
	Bulldozing										n/a
	Unpaved Road Dust										n/a
	Paved Road Dust										n/a
	Soil Cement Bentonite Cutoff Wall Subtotal	--	--	--	--	--	--	--	--	--	0.02
	11 - Levees and Floodwalls Total	--	--	--	--	--	--	--	--	--	0.02
15 - Floodway Control and Diversion Structures											
16	Mobilization and Demobilization										n/a
	Material Handling								n/a		n/a
	Grading								n/a		n/a
	Bulldozing								n/a		n/a
	Unpaved Road Dust								n/a		n/a
	Paved Road Dust								n/a		n/a
	Mobilization and Demobilization Subtotal	--	--	--	--	--	--	--	--	--	--
17	Construction Site Dewatering (Temporary Cofferdam)										n/a
	Material Handling										n/a
	Grading										n/a
	Bulldozing										n/a
	Unpaved Road Dust										n/a
	Paved Road Dust										n/a
	Construction Site Dewatering (Temporary Cofferdam) Sub	--	--	--	--	--	--	--	--	--	--
18	Construction Site Dewatering (Pumping)										n/a
	Material Handling	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		n/a
	Grading	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		n/a
	Bulldozing	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		n/a
	Unpaved Road Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		n/a
	Paved Road Dust										n/a
	Construction Site Dewatering (Pumping) Subtotal	--	--	--	--	--	--	--	--	--	--
19	Excavation (Wet Conditions)										n/a
	Material Handling										n/a
	Grading										n/a
	Bulldozing										n/a
	Unpaved Road Dust										0.19
	Paved Road Dust										n/a
	Excavation (Wet Conditions) Subtotal	--	--	--	--	--	--	--	--	--	0.19
20	Sheet Pile Wall										n/a
	Material Handling										n/a
	Grading										n/a
	Bulldozing										n/a
	Unpaved Road Dust										n/a
	Paved Road Dust										n/a
	Sheet Pile Wall Subtotal	--	--	--	--	--	--	--	--	--	--

Table K-116. PM10 Emissions Summary from Fugitive Dust (Alternative 1)

#	Activity	PM10 Daily Emissions Summary, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
21	Headworks Structure Concrete Piles																			
	Material Handling								n/a	n/a	n/a	n/a	n/a							
	Grading								n/a	n/a	n/a	n/a	n/a							
	Bulldozing								n/a	n/a	n/a	n/a	n/a							
	Unpaved Road Dust								n/a	n/a	n/a	n/a	n/a							
	Paved Road Dust																			
	Headworks Structure Concrete Piles Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22	Headworks Structure																			
	Material Handling												n/a	n/a					n/a	
	Grading												n/a	n/a					n/a	
	Bulldozing												n/a	n/a					n/a	
	Unpaved Road Dust												n/a	n/a					n/a	
	Paved Road Dust																			
	Headworks Structure Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
23	Headworks Channel Transition																			
	Material Handling														n/a	n/a				
	Grading														n/a	n/a				
	Bulldozing														n/a	n/a				
	Unpaved Road Dust														n/a	n/a				
	Paved Road Dust																			
	Headworks Channel Transition Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24	Hinged Bottom Gates																			
	Material Handling																			
	Grading																			
	Bulldozing																			
	Unpaved Road Dust																			
	Paved Road Dust																			
	Hinged Bottom Gates Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	15 - Floodway Control and Diversion Structures Total	--	--	--	--	--	--	112.65	--	--	--	--	--	--	--	--	--	--	--	--
08 - Roads, Railroads, and Bridges																				
25	Mobilization and Demobilization																			
	Material Handling														n/a				n/a	
	Grading														n/a				n/a	
	Bulldozing														n/a				n/a	
	Unpaved Road Dust														n/a				n/a	
	Paved Road Dust																			
	Mobilization and Demobilization Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26	Pedestrian Bridge Concete Piles																			
	Material Handling															n/a				
	Grading															n/a				
	Bulldozing															n/a				
	Unpaved Road Dust															n/a				
	Paved Road Dust																			
	Pedestrian Bridge Concete Piles Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27	Pedestrian Bridge Concrete Abutments and Wingwalls																			
	Material Handling																		n/a	
	Grading																		n/a	
	Bulldozing																		n/a	
	Unpaved Road Dust																		n/a	
	Paved Road Dust																			
	Pedestrian Bridge Concrete Abutments and Wingwalls Su	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table K-116. PM10 Emissions Summary from Fugitive D

#	Activity										Annual Emissions, tpy
		26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
21	Headworks Structure Concrete Piles										n/a
	Material Handling										n/a
	Grading										n/a
	Bulldozing										n/a
	Unpaved Road Dust										n/a
	Paved Road Dust										n/a
Headworks Structure Concrete Piles Subtotal		--	--	--	--	--	--	--	--	--	--
22	Headworks Structure										n/a
	Material Handling										n/a
	Grading										n/a
	Bulldozing										n/a
	Unpaved Road Dust										n/a
	Paved Road Dust										n/a
Headworks Structure Subtotal		--	--	--	--	--	--	--	--	--	--
23	Headworks Channel Transition										n/a
	Material Handling										n/a
	Grading										n/a
	Bulldozing										n/a
	Unpaved Road Dust										n/a
	Paved Road Dust										n/a
Headworks Channel Transition Subtotal		--	--	--	--	--	--	--	--	--	--
24	Hinged Bottom Gates										n/a
	Material Handling			n/a	n/a	n/a	n/a				n/a
	Grading			n/a	n/a	n/a	n/a				n/a
	Bulldozing			n/a	n/a	n/a	n/a				n/a
	Unpaved Road Dust			n/a	n/a	n/a	n/a				n/a
	Paved Road Dust										n/a
Hinged Bottom Gates Subtotal		--	--	--	--	--	--	--	--	--	--
15 - Floodway Control and Diversion Structures Total		--	--	--	--	--	--	--	--	--	0.19
08 - Roads, Railroads, and Bridges											
25	Mobilization and Demobilization										n/a
	Material Handling										n/a
	Grading										n/a
	Bulldozing										n/a
	Unpaved Road Dust										n/a
	Paved Road Dust										n/a
Mobilization and Demobilization Subtotal		--	--	--	--	--	--	--	--	--	--
26	Pedestrian Bridge Concete Piles										n/a
	Material Handling										n/a
	Grading										n/a
	Bulldozing										n/a
	Unpaved Road Dust										n/a
	Paved Road Dust										n/a
Pedestrian Bridge Concete Piles Subtotal		--	--	--	--	--	--	--	--	--	--
27	Pedestrian Bridge Concrete Abutments and Wingwalls										n/a
	Material Handling										n/a
	Grading										n/a
	Bulldozing										n/a
	Unpaved Road Dust										n/a
	Paved Road Dust										n/a
Pedestrian Bridge Concrete Abutments and Wingwalls Su		--	--	--	--	--	--	--	--	--	--

Table K-116. PM10 Emissions Summary from Fugitive Dust (Alternative 1)

#	Activity	PM10 Daily Emissions Summary, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
28	Pedestrian Bridge Span Installation																			
	Material Handling																			n/a
	Grading																			n/a
	Bulldozing																			n/a
	Unpaved Road Dust																			n/a
	Paved Road Dust																			n/a
	Pedestrian Bridge Span Installation Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08 - Roads, Railroads, and Bridges Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19 - Buildings, Grounds, and Utilities																				
29	Mobilization and Demobilization																			
	Material Handling	n/a																		n/a
	Grading	n/a																		n/a
	Bulldozing	n/a																		n/a
	Unpaved Road Dust	n/a																		n/a
	Paved Road Dust																			
	Mobilization and Demobilization Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
30	CMU Building and Earthwork Pad Construction																			
	Material Handling		n/a	n/a	n/a	n/a	n/a													
	Grading		0.83	0.83	0.83	0.83	0.83	0.83												
	Bulldozing		2.35	2.35	2.35	2.35	2.35	2.35												
	Unpaved Road Dust		n/a	n/a	n/a	n/a	n/a	n/a												
	Paved Road Dust																			
	CMU Building and Earthwork Pad Construction Subtotal	--	3.18	3.18	3.18	3.18	3.18	3.18	--	--	--	--	--	--	--	--	--	--	--	--
31	Concrete Duct Banc																			
	Material Handling							n/a												
	Grading							n/a												
	Bulldozing							n/a												
	Unpaved Road Dust							n/a												
	Paved Road Dust																			
	Concrete Duct Banc Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	19 - Buildings, Grounds, and Utilities Total	--	3.18	3.18	3.18	3.18	3.18	3.18	--	--	--	--	--	--	--	--	--	--	--	--
20 -Permanent Operating Equipment																				
32	Mobilization and Demobilization																			
	Material Handling																			
	Grading																			
	Bulldozing																			
	Unpaved Road Dust																			
	Paved Road Dust																			
	Mobilization and Demobilization Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
33	Mechanical Hydraulic Cylinders & Housing																			
	Material Handling																			
	Grading																			
	Bulldozing																			
	Unpaved Road Dust																			
	Paved Road Dust																			
	Mechanical Hydraulic Cylinders & Housing Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table K-116. PM10 Emissions Summary from Fugitive D

#	Activity	26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	Annual Emissions, tpy
28	Pedestrian Bridge Span Installation										n/a
	Material Handling										n/a
	Grading										n/a
	Bulldozing										n/a
	Unpaved Road Dust										n/a
	Paved Road Dust										n/a
Pedestrian Bridge Span Installation Subtotal		--	--	--	--	--	--	--	--	--	--
08 - Roads, Railroads, and Bridges Total		--	--	--	--	--	--	--	--	--	--
19 - Buildings, Grounds, and Utilities											
29	Mobilization and Demobilization										n/a
	Material Handling										n/a
	Grading										n/a
	Bulldozing										n/a
	Unpaved Road Dust										n/a
	Paved Road Dust										n/a
Mobilization and Demobilization Subtotal		--	--	--	--	--	--	--	--	--	--
30	CMU Building and Earthwork Pad Construction										n/a
	Material Handling										0.01
	Grading										0.04
	Bulldozing										n/a
	Unpaved Road Dust										n/a
	Paved Road Dust										n/a
CMU Building and Earthwork Pad Construction Subtotal		--	--	--	--	--	--	--	--	--	0.05
31	Concrete Duct Banc										n/a
	Material Handling										n/a
	Grading										n/a
	Bulldozing										n/a
	Unpaved Road Dust										n/a
	Paved Road Dust										n/a
Concrete Duct Banc Subtotal		--	--	--	--	--	--	--	--	--	--
19 - Buildings, Grounds, and Utilities Total		--	--	--	--	--	--	--	--	--	0.05
20 -Permanent Operating Equipment											
32	Mobilization and Demobilization										n/a
	Material Handling		n/a						n/a		n/a
	Grading		n/a						n/a		n/a
	Bulldozing		n/a						n/a		n/a
	Unpaved Road Dust		n/a						n/a		n/a
	Paved Road Dust										n/a
Mobilization and Demobilization Subtotal		--	--	--	--	--	--	--	--	--	--
33	Mechanical Hydraulic Cylinders & Housing										n/a
	Material Handling			n/a	n/a	n/a	n/a	n/a			n/a
	Grading			n/a	n/a	n/a	n/a	n/a			n/a
	Bulldozing			n/a	n/a	n/a	n/a	n/a			n/a
	Unpaved Road Dust			n/a	n/a	n/a	n/a	n/a			n/a
	Paved Road Dust										n/a
Mechanical Hydraulic Cylinders & Housing Subtotal		--	--	--	--	--	--	--	--	--	--

Table K-116. PM10 Emissions Summary from Fugitive Dust (Alternative 1)

#	Activity	PM10 Daily Emissions Summary, lbs/day																		
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug
34	CMU Building Mechanical Equipment Material Handling Grading Bulldozing Unpaved Road Dust Paved Road Dust																			
	CMU Building Mechanical Equipment Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
35	Electrical Control Equipment CMU Building Material Handling Grading Bulldozing Unpaved Road Dust Paved Road Dust																			
	Electrical Control Equipment CMU Building Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
36	Electrical Power Equipment CMU Building Material Handling Grading Bulldozing Unpaved Road Dust Paved Road Dust																			
	Electrical Power Equipment CMU Building Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
37	Communication Equipment Material Handling Grading Bulldozing Unpaved Road Dust Paved Road Dust																			
	Communication Equipment Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	20 -Permanent Operating Equipment Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	GRAND TOTAL	--	3.72	3.72	3.59	8.22	10.78	232.91	117.70	120.25	120.25	115.21	112.65	1.65	3.30	3.30	3.30	3.30	3.30	--

Table K-116. PM10 Emissions Summary from Fugitive D

#	Activity	26-Aug	2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	Annual Emissions , tpy
34	CMU Building Mechanical Equipment										
	Material Handling			n/a	n/a	n/a	n/a	n/a			n/a
	Grading			n/a	n/a	n/a	n/a	n/a			n/a
	Bulldozing			n/a	n/a	n/a	n/a	n/a			n/a
	Unpaved Road Dust			n/a	n/a	n/a	n/a	n/a			n/a
	Paved Road Dust										
CMU Building Mechanical Equipment Subtotal		--	--	--	--	--	--	--	--	--	--
35	Electrical Control Equipment CMU Building										
	Material Handling			n/a	n/a	n/a	n/a	n/a			n/a
	Grading			n/a	n/a	n/a	n/a	n/a			n/a
	Bulldozing			n/a	n/a	n/a	n/a	n/a			n/a
	Unpaved Road Dust			n/a	n/a	n/a	n/a	n/a			n/a
	Paved Road Dust										
Electrical Control Equipment CMU Building Subtotal		--	--	--	--	--	--	--	--	--	--
36	Electrical Power Equipment CMU Building										
	Material Handling			n/a	n/a	n/a	n/a	n/a			n/a
	Grading			n/a	n/a	n/a	n/a	n/a			n/a
	Bulldozing			n/a	n/a	n/a	n/a	n/a			n/a
	Unpaved Road Dust			n/a	n/a	n/a	n/a	n/a			n/a
	Paved Road Dust										
Electrical Power Equipment CMU Building Subtotal		--	--	--	--	--	--	--	--	--	--
37	Communication Equipment										
	Material Handling						n/a	n/a			n/a
	Grading						n/a	n/a			n/a
	Bulldozing						n/a	n/a			n/a
	Unpaved Road Dust						n/a	n/a			n/a
	Paved Road Dust										
Communication Equipment Subtotal		--	--	--	--	--	--	--	--	--	--
20 -Permanent Operating Equipment Total		--	--	--	--	--	--	--	--	--	--
GRAND TOTAL		--	--	--	--	--	--	--	0.21	--	2.28

Table K-117. PM2.5 Emissions Summary from Fugitive Dust (Alternative 1)

#	Activity	PM2.5 Daily Emissions Summary, lbs/day																			
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug	26-Aug
02 - Relocations																					
1	Mobilization and Demobilization	n/a																			
	Material Handling	n/a																			
	Grading	n/a																			
	Bulldozing	n/a																			
	Unpaved Road Dust	n/a																			
	Paved Road Dust	n/a																			
	Mobilization and Demobilization Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2	Fremont Weir Demo																				
	Material Handling		0.02	0.02																	
	Grading	n/a	n/a																		
	Bulldozing	n/a	n/a																		
	Unpaved Road Dust	n/a	n/a																		
	Paved Road Dust																				
	Fremont Weir Demo Subtotal	--	0.02	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3	Levee O&M Road Regrading (6" AB)																				
	Material Handling																				
	Grading																				
	Bulldozing																				
	Unpaved Road Dust																				
	Paved Road Dust																				
	Levee O&M Road Regrading (6" AB) Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4	Temporary Electrical Power																				
	Material Handling	n/a																			
	Grading	n/a																			
	Bulldozing	n/a																			
	Unpaved Road Dust	n/a																			
	Paved Road Dust	n/a																			
	Temporary Electrical Power Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	02 - Relocations Total	--	0.02	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
09 - Channels and Canals																					
5	Mobilization and Demobilization																				
	Material Handling	n/a																			n/a
	Grading	n/a																			n/a
	Bulldozing	n/a																			n/a
	Unpaved Road Dust	n/a																			n/a
	Paved Road Dust	n/a																			n/a
	Mobilization and Demobilization Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6	Clearing and Grubbing																				
	Material Handling	n/a	n/a	n/a																	
	Grading		0.04	0.04	0.04																
	Bulldozing	n/a	n/a	n/a																	
	Unpaved Road Dust	n/a	n/a	n/a																	
	Paved Road Dust																				
	Clearing and Grubbing Subtotal	--	0.04	0.04	0.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table K-117. PM2.5 Emissions Summary from Fugitive D

#	Activity									Annual Emissions, tpy	
		2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct		
02 - Relocations											
1	Mobilization and Demobilization										n/a
	Material Handling										n/a
	Grading										n/a
	Bulldozing										n/a
	Unpaved Road Dust										n/a
	Paved Road Dust										n/a
	Mobilization and Demobilization Subtotal	--	--	--	--	--	--	--	--	--	--
2	Fremont Weir Demo										0.00
	Material Handling										n/a
	Grading										n/a
	Bulldozing										n/a
	Unpaved Road Dust										n/a
	Paved Road Dust										n/a
	Fremont Weir Demo Subtotal	--	--	--	--	--	--	--	--	--	0.00
3	Levee O&M Road Regrading (6" AB)										n/a
	Material Handling							n/a			n/a
	Grading							0.02			0.00
	Bulldozing							n/a			n/a
	Unpaved Road Dust							n/a			n/a
	Paved Road Dust										n/a
	Levee O&M Road Regrading (6" AB) Subtotal	--	--	--	--	--	--	0.02	--	--	0.00
4	Temporary Electrical Power										n/a
	Material Handling										n/a
	Grading										n/a
	Bulldozing										n/a
	Unpaved Road Dust										n/a
	Paved Road Dust										n/a
	Temporary Electrical Power Subtotal	--	--	--	--	--	--	--	--	--	--
	02 - Relocations Total	--	--	--	--	--	--	0.02	--	--	0.00
09 - Channels and Canals											
5	Mobilization and Demobilization										n/a
	Material Handling										n/a
	Grading										n/a
	Bulldozing										n/a
	Unpaved Road Dust										n/a
	Paved Road Dust										n/a
	Mobilization and Demobilization Subtotal	--	--	--	--	--	--	--	--	--	--
6	Clearing and Grubbing										n/a
	Material Handling										0.00
	Grading										n/a
	Bulldozing										n/a
	Unpaved Road Dust										n/a
	Paved Road Dust										n/a
	Clearing and Grubbing Subtotal	--	--	--	--	--	--	--	--	--	0.00

Table K-117. PM2.5 Emissions Summary from Fugitive Dust (Alternative 1)

#	Activity	PM2.5 Daily Emissions Summary, lbs/day																			
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug	26-Aug
7	Excavation (Wet Conditions)																				
	Material Handling							n/a	n/a	n/a	n/a	n/a	n/a								
	Grading							n/a	n/a	n/a	n/a	n/a	n/a								
	Bulldozing							n/a	n/a	n/a	n/a	n/a	n/a								
	Unpaved Road Dust								11.27	11.27	11.27	11.27	11.27	11.27							
	Paved Road Dust																				
	Excavation (Wet Conditions) Subtotal	--	--	--	--	--	--	11.27	11.27	11.27	11.27	11.27	11.27	--	--	--	--	--	--	--	
8	Excavation/Grading (Dry Conditions)																				
	Material Handling					0.10	0.10	0.10	0.10	0.10	0.10										
	Grading					0.22	0.22	0.22	0.22	0.22	0.22										
	Bulldozing					1.29	1.29	1.29	1.29	1.29	1.29										
	Unpaved Road Dust				n/a	n/a	n/a	n/a	n/a	n/a	n/a										
	Paved Road Dust																				
	Excavation/Grading (Dry Conditions) Subtotal	--	--	--	--	1.61	1.61	1.61	1.61	1.61	1.61	--	--	--	--	--	--	--	--	--	
9	Earthen Backfill																				
	Material Handling							n/a	n/a												
	Grading							0.02	0.02												
	Bulldozing							1.29	1.29												
	Unpaved Road Dust							n/a	n/a												
	Paved Road Dust																				
	Earthen Backfill Subtotal	--	--	--	--	--	1.31	1.31	--	--	--	--	--	--	--	--	--	--	--	--	
10	Riprap - Class 2																				
	Material Handling														0.25	0.25	0.25	0.25	0.25		
	Grading														n/a	n/a	n/a	n/a	n/a		
	Bulldozing														n/a	n/a	n/a	n/a	n/a		
	Unpaved Road Dust														n/a	n/a	n/a	n/a	n/a		
	Paved Road Dust																				
	Riprap - Class 2 Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	0.25	0.25	0.25	0.25	0.25	--	
11	Riprap - Class 3																				
	Material Handling																	0.25	0.25		
	Grading																	n/a	n/a		
	Bulldozing																	n/a	n/a		
	Unpaved Road Dust																	n/a	n/a		
	Paved Road Dust																				
	Riprap - Class 3 Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.25	0.25	--	
12	RSP Bedding Material																				
	Material Handling														0.25	0.25	0.25	0.25			
	Grading														n/a	n/a	n/a	n/a			
	Bulldozing														n/a	n/a	n/a	n/a			
	Unpaved Road Dust														n/a	n/a	n/a	n/a			
	Paved Road Dust																				
	RSP Bedding Material Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	0.25	0.25	0.25	0.25	--	--	
13	Erosion Control Seeding																				
	Material Handling																				
	Grading																				
	Bulldozing																				
	Unpaved Road Dust																				
	Paved Road Dust																				
	Erosion Control Seeding Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	09 - Channels and Canals Total	--	0.04	0.04	0.04	1.61	2.92	14.19	12.87	12.87	12.87	11.27	11.27	0.25	0.50	0.50	0.50	0.50	0.50	--	

Table K-117. PM2.5 Emissions Summary from Fugitive D

#	Activity									Annual Emissions , tpy
		2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
7	Excavation (Wet Conditions)									n/a
	Material Handling									n/a
	Grading									n/a
	Bulldozing									
	Unpaved Road Dust									0.19
	Paved Road Dust									
	Excavation (Wet Conditions) Subtotal	--	--	--	--	--	--	--	--	0.19
8	Excavation/Grading (Dry Conditions)									0.00
	Material Handling									0.00
	Grading									0.02
	Bulldozing									
	Unpaved Road Dust									n/a
	Paved Road Dust									
	Excavation/Grading (Dry Conditions) Subtotal	--	--	--	--	--	--	--	--	0.03
9	Earthen Backfill									n/a
	Material Handling									0.00
	Grading									0.01
	Bulldozing									
	Unpaved Road Dust									n/a
	Paved Road Dust									
	Earthen Backfill Subtotal	--	--	--	--	--	--	--	--	0.01
10	Riprap - Class 2									0.00
	Material Handling									n/a
	Grading									n/a
	Bulldozing									n/a
	Unpaved Road Dust									n/a
	Paved Road Dust									
	Riprap - Class 2 Subtotal	--	--	--	--	--	--	--	--	0.00
11	Riprap - Class 3									0.00
	Material Handling									n/a
	Grading									n/a
	Bulldozing									n/a
	Unpaved Road Dust									n/a
	Paved Road Dust									
	Riprap - Class 3 Subtotal	--	--	--	--	--	--	--	--	0.00
12	RSP Bedding Material									0.00
	Material Handling									n/a
	Grading									n/a
	Bulldozing									n/a
	Unpaved Road Dust									n/a
	Paved Road Dust									
	RSP Bedding Material Subtotal	--	--	--	--	--	--	--	--	0.00
13	Erosion Control Seeding									n/a
	Material Handling		n/a	n/a	n/a					n/a
	Grading		n/a	n/a	n/a					n/a
	Bulldozing		n/a	n/a	n/a					n/a
	Unpaved Road Dust		n/a	n/a	n/a					n/a
	Paved Road Dust									
	Erosion Control Seeding Subtotal	--	--	--	--	--	--	--	--	--
	09 - Channels and Canals Total	--	--	--	--	--	--	--	--	0.23

Table K-117. PM2.5 Emissions Summary from Fugitive Dust (Alternative 1)

#	Activity	PM2.5 Daily Emissions Summary, lbs/day																			
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug	26-Aug
11 - Levees and Floodwalls																					
14	Mobilization and Demobilization																				
	Material Handling									n/a			n/a								
	Grading									n/a			n/a								
	Bulldozing									n/a			n/a								
	Unpaved Road Dust									n/a			n/a								
	Paved Road Dust																				
	Mobilization and Demobilization Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15	Soil Cement Bentonite Cutoff Wall																				
	Material Handling										n/a		n/a		n/a						
	Grading											0.02		0.02		0.02					
	Bulldozing											1.29		1.29		1.29					
	Unpaved Road Dust											n/a		n/a		n/a					
	Paved Road Dust																				
	Soil Cement Bentonite Cutoff Wall Subtotal	--	--	--	--	--	--	--	--	--	1.31	1.31	1.31	--	--	--	--	--	--	--	--
	11 - Levees and Floodwalls Total	--	--	--	--	--	--	--	--	--	1.31	1.31	1.31	--	--	--	--	--	--	--	--
15 - Floodway Control and Diversion Structures																					
16	Mobilization and Demobilization																				
	Material Handling			n/a																	
	Grading			n/a																	
	Bulldozing			n/a																	
	Unpaved Road Dust			n/a																	
	Paved Road Dust																				
	Mobilization and Demobilization Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17	Construction Site Dewatering (Temporary Cofferdam)																				
	Material Handling				n/a	n/a	n/a														
	Grading				n/a	n/a	n/a														
	Bulldozing				n/a	n/a	n/a														
	Unpaved Road Dust				n/a	n/a	n/a														
	Paved Road Dust																				
	Construction Site Dewatering (Temporary Cofferdam) Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18	Construction Site Dewatering (Pumping)																				
	Material Handling							n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Grading							n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Bulldozing							n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Unpaved Road Dust							n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Paved Road Dust																				
	Construction Site Dewatering (Pumping) Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19	Excavation (Wet Conditions)																				
	Material Handling								n/a												
	Grading								n/a												
	Bulldozing								n/a												
	Unpaved Road Dust									11.27											
	Paved Road Dust																				
	Excavation (Wet Conditions) Subtotal	--	--	--	--	--	--	--	11.27	--	--	--	--	--	--	--	--	--	--	--	--
20	Sheet Pile Wall																				
	Material Handling									n/a	n/a										
	Grading									n/a	n/a										
	Bulldozing									n/a	n/a										
	Unpaved Road Dust									n/a	n/a										
	Paved Road Dust																				
	Sheet Pile Wall Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table K-117. PM2.5 Emissions Summary from Fugitive D

#	Activity									Annual Emissions, tpy	
		2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct		
11 - Levees and Floodwalls											
14	Mobilization and Demobilization										n/a
	Material Handling										n/a
	Grading										n/a
	Bulldozing										n/a
	Unpaved Road Dust										n/a
	Paved Road Dust										n/a
	Mobilization and Demobilization Subtotal	--	--	--	--	--	--	--	--	--	--
15	Soil Cement Bentonite Cutoff Wall										n/a
	Material Handling										0.00
	Grading										0.01
	Bulldozing										n/a
	Unpaved Road Dust										n/a
	Paved Road Dust										n/a
	Soil Cement Bentonite Cutoff Wall Subtotal	--	--	--	--	--	--	--	--	--	0.01
	11 - Levees and Floodwalls Total	--	--	--	--	--	--	--	--	--	0.01
15 - Floodway Control and Diversion Structures											
16	Mobilization and Demobilization										n/a
	Material Handling							n/a			n/a
	Grading							n/a			n/a
	Bulldozing							n/a			n/a
	Unpaved Road Dust							n/a			n/a
	Paved Road Dust							n/a			n/a
	Mobilization and Demobilization Subtotal	--	--	--	--	--	--	--	--	--	--
17	Construction Site Dewatering (Temporary Cofferdam)										n/a
	Material Handling										n/a
	Grading										n/a
	Bulldozing										n/a
	Unpaved Road Dust										n/a
	Paved Road Dust										n/a
	Construction Site Dewatering (Temporary Cofferdam) Sub	--	--	--	--	--	--	--	--	--	--
18	Construction Site Dewatering (Pumping)										n/a
	Material Handling	n/a	n/a	n/a	n/a	n/a	n/a	n/a			n/a
	Grading	n/a	n/a	n/a	n/a	n/a	n/a	n/a			n/a
	Bulldozing	n/a	n/a	n/a	n/a	n/a	n/a	n/a			n/a
	Unpaved Road Dust	n/a	n/a	n/a	n/a	n/a	n/a	n/a			n/a
	Paved Road Dust										n/a
	Construction Site Dewatering (Pumping) Subtotal	--	--	--	--	--	--	--	--	--	--
19	Excavation (Wet Conditions)										n/a
	Material Handling										n/a
	Grading										n/a
	Bulldozing										n/a
	Unpaved Road Dust										0.02
	Paved Road Dust										n/a
	Excavation (Wet Conditions) Subtotal	--	--	--	--	--	--	--	--	--	0.02
20	Sheet Pile Wall										n/a
	Material Handling										n/a
	Grading										n/a
	Bulldozing										n/a
	Unpaved Road Dust										n/a
	Paved Road Dust										n/a
	Sheet Pile Wall Subtotal	--	--	--	--	--	--	--	--	--	--

Table K-117. PM2.5 Emissions Summary from Fugitive Dust (Alternative 1)

#	Activity	PM2.5 Daily Emissions Summary, lbs/day																			
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug	26-Aug
21	Headworks Structure Concrete Piles																				
	Material Handling								n/a	n/a	n/a	n/a	n/a								
	Grading								n/a	n/a	n/a	n/a	n/a								
	Bulldozing								n/a	n/a	n/a	n/a	n/a								
	Unpaved Road Dust								n/a	n/a	n/a	n/a	n/a								
	Paved Road Dust																				
	Headworks Structure Concrete Piles Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22	Headworks Structure																				
	Material Handling												n/a	n/a					n/a		
	Grading												n/a	n/a					n/a		
	Bulldozing												n/a	n/a					n/a		
	Unpaved Road Dust												n/a	n/a					n/a		
	Paved Road Dust																				
	Headworks Structure Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
23	Headworks Channel Transition																				
	Material Handling															n/a	n/a				
	Grading															n/a	n/a				
	Bulldozing															n/a	n/a				
	Unpaved Road Dust															n/a	n/a				
	Paved Road Dust																				
	Headworks Channel Transition Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24	Hinged Bottom Gates																				
	Material Handling																				
	Grading																				
	Bulldozing																				
	Unpaved Road Dust																				
	Paved Road Dust																				
	Hinged Bottom Gates Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	15 - Floodway Control and Diversion Structures Total	--	--	--	--	--	--	--	11.27	--	--	--	--	--	--	--	--	--	--	--	--
08 - Roads, Railroads, and Bridges																					
25	Mobilization and Demobilization																				
	Material Handling															n/a			n/a		
	Grading															n/a			n/a		
	Bulldozing															n/a			n/a		
	Unpaved Road Dust															n/a			n/a		
	Paved Road Dust																				
	Mobilization and Demobilization Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26	Pedestrian Bridge Concrete Piles																				
	Material Handling																		n/a		
	Grading																		n/a		
	Bulldozing																		n/a		
	Unpaved Road Dust																		n/a		
	Paved Road Dust																				
	Pedestrian Bridge Concrete Piles Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27	Pedestrian Bridge Concrete Abutments and Wingwalls																				
	Material Handling																			n/a	
	Grading																		n/a		
	Bulldozing																		n/a		
	Unpaved Road Dust																		n/a		
	Paved Road Dust																				
	Pedestrian Bridge Concrete Abutments and Wingwalls Su	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table K-117. PM2.5 Emissions Summary from Fugitive D

#	Activity									Annual Emissions, tpy
		2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
21	Headworks Structure Concrete Piles									
	Material Handling									n/a
	Grading									n/a
	Bulldozing									n/a
	Unpaved Road Dust									n/a
	Paved Road Dust									n/a
	Headworks Structure Concrete Piles Subtotal	--	--	--	--	--	--	--	--	--
22	Headworks Structure									
	Material Handling									n/a
	Grading									n/a
	Bulldozing									n/a
	Unpaved Road Dust									n/a
	Paved Road Dust									n/a
	Headworks Structure Subtotal	--	--	--	--	--	--	--	--	--
23	Headworks Channel Transition									
	Material Handling									n/a
	Grading									n/a
	Bulldozing									n/a
	Unpaved Road Dust									n/a
	Paved Road Dust									n/a
	Headworks Channel Transition Subtotal	--	--	--	--	--	--	--	--	--
24	Hinged Bottom Gates									
	Material Handling		n/a	n/a	n/a	n/a				n/a
	Grading		n/a	n/a	n/a	n/a				n/a
	Bulldozing		n/a	n/a	n/a	n/a				n/a
	Unpaved Road Dust		n/a	n/a	n/a	n/a				n/a
	Paved Road Dust									n/a
	Hinged Bottom Gates Subtotal	--	--	--	--	--	--	--	--	--
	15 - Floodway Control and Diversion Structures Total	--	--	--	--	--	--	--	--	0.02
08 - Roads, Railroads, and Bridges										
25	Mobilization and Demobilization									
	Material Handling									n/a
	Grading									n/a
	Bulldozing									n/a
	Unpaved Road Dust									n/a
	Paved Road Dust									n/a
	Mobilization and Demobilization Subtotal	--	--	--	--	--	--	--	--	--
26	Pedestrian Bridge Concrete Piles									
	Material Handling									n/a
	Grading									n/a
	Bulldozing									n/a
	Unpaved Road Dust									n/a
	Paved Road Dust									n/a
	Pedestrian Bridge Concrete Piles Subtotal	--	--	--	--	--	--	--	--	--
27	Pedestrian Bridge Concrete Abutments and Wingwalls									
	Material Handling									n/a
	Grading									n/a
	Bulldozing									n/a
	Unpaved Road Dust									n/a
	Paved Road Dust									n/a
	Pedestrian Bridge Concrete Abutments and Wingwalls Subtotal	--	--	--	--	--	--	--	--	--

Table K-117. PM2.5 Emissions Summary from Fugitive Dust (Alternative 1)

#	Activity	PM2.5 Daily Emissions Summary, lbs/day																			
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug	26-Aug
28	Pedestrian Bridge Span Installation																				
	Material Handling																				n/a
	Grading																				n/a
	Bulldozing																				n/a
	Unpaved Road Dust																				n/a
	Paved Road Dust																				
	Pedestrian Bridge Span Installation Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	08 - Roads, Railroads, and Bridges Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19 - Buildings, Grounds, and Utilities																					
29	Mobilization and Demobilization																				
	Material Handling	n/a																			n/a
	Grading	n/a																			n/a
	Bulldozing	n/a																			n/a
	Unpaved Road Dust	n/a																			n/a
	Paved Road Dust																				
	Mobilization and Demobilization Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
30	CMU Building and Earthwork Pad Construction																				
	Material Handling		n/a	n/a	n/a	n/a	n/a														
	Grading		0.09	0.09	0.09	0.09	0.09	0.09													
	Bulldozing		1.29	1.29	1.29	1.29	1.29	1.29													
	Unpaved Road Dust		n/a	n/a	n/a	n/a	n/a														
	Paved Road Dust																				
	CMU Building and Earthwork Pad Construction Subtotal	--	1.38	1.38	1.38	1.38	1.38	1.38	--	--	--	--	--	--	--	--	--	--	--	--	--
31	Concrete Duct Banc																				
	Material Handling																				n/a
	Grading																				n/a
	Bulldozing																				n/a
	Unpaved Road Dust																				n/a
	Paved Road Dust																				
	Concrete Duct Banc Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	19 - Buildings, Grounds, and Utilities Total	--	1.38	1.38	1.38	1.38	1.38	1.38	--	--	--	--	--	--	--	--	--	--	--	--	--
20 -Permanent Operating Equipment																					
32	Mobilization and Demobilization																				
	Material Handling																				
	Grading																				
	Bulldozing																				
	Unpaved Road Dust																				
	Paved Road Dust																				
	Mobilization and Demobilization Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
33	Mechanical Hydraulic Cylinders & Housing																				
	Material Handling																				
	Grading																				
	Bulldozing																				
	Unpaved Road Dust																				
	Paved Road Dust																				
	Mechanical Hydraulic Cylinders & Housing Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
34	CMU Building Mechanical Equipment																				
	Material Handling																				
	Grading																				
	Bulldozing																				
	Unpaved Road Dust																				
	Paved Road Dust																				
	CMU Building Mechanical Equipment Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table K-117. PM2.5 Emissions Summary from Fugitive D

#	Activity									Annual Emissions, tpy
		2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
28	Pedestrian Bridge Span Installation									n/a
	Material Handling									n/a
	Grading									n/a
	Bulldozing									n/a
	Unpaved Road Dust									n/a
	Paved Road Dust									n/a
	Pedestrian Bridge Span Installation Subtotal	--	--	--	--	--	--	--	--	--
	08 - Roads, Railroads, and Bridges Total	--	--	--	--	--	--	--	--	--
19 - Buildings, Grounds, and Utilities										
29	Mobilization and Demobilization									n/a
	Material Handling									n/a
	Grading									n/a
	Bulldozing									n/a
	Unpaved Road Dust									n/a
	Paved Road Dust									n/a
	Mobilization and Demobilization Subtotal	--	--	--	--	--	--	--	--	--
30	CMU Building and Earthwork Pad Construction									n/a
	Material Handling									0.00
	Grading									0.02
	Bulldozing									n/a
	Unpaved Road Dust									n/a
	Paved Road Dust									n/a
	CMU Building and Earthwork Pad Construction Subtotal	--	--	--	--	--	--	--	--	0.02
31	Concrete Duct Banc									n/a
	Material Handling									n/a
	Grading									n/a
	Bulldozing									n/a
	Unpaved Road Dust									n/a
	Paved Road Dust									n/a
	Concrete Duct Banc Subtotal	--	--	--	--	--	--	--	--	--
	19 - Buildings, Grounds, and Utilities Total	--	--	--	--	--	--	--	--	0.02
20 -Permanent Operating Equipment										
32	Mobilization and Demobilization									n/a
	Material Handling	n/a						n/a		n/a
	Grading	n/a						n/a		n/a
	Bulldozing	n/a						n/a		n/a
	Unpaved Road Dust	n/a						n/a		n/a
	Paved Road Dust									n/a
	Mobilization and Demobilization Subtotal	--	--	--	--	--	--	--	--	--
33	Mechanical Hydraulic Cylinders & Housing									n/a
	Material Handling		n/a	n/a	n/a	n/a	n/a			n/a
	Grading		n/a	n/a	n/a	n/a	n/a			n/a
	Bulldozing		n/a	n/a	n/a	n/a	n/a			n/a
	Unpaved Road Dust		n/a	n/a	n/a	n/a	n/a			n/a
	Paved Road Dust									n/a
	Mechanical Hydraulic Cylinders & Housing Subtotal	--	--	--	--	--	--	--	--	--
34	CMU Building Mechanical Equipment									n/a
	Material Handling		n/a	n/a	n/a	n/a	n/a			n/a
	Grading		n/a	n/a	n/a	n/a	n/a			n/a
	Bulldozing		n/a	n/a	n/a	n/a	n/a			n/a
	Unpaved Road Dust		n/a	n/a	n/a	n/a	n/a			n/a
	Paved Road Dust									n/a
	CMU Building Mechanical Equipment Subtotal	--	--	--	--	--	--	--	--	--

Table K-117. PM2.5 Emissions Summary from Fugitive Dust (Alternative 1)

#	Activity	PM2.5 Daily Emissions Summary, lbs/day																			
		15-Apr	22-Apr	29-Apr	6-May	13-May	20-May	27-May	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug	26-Aug
35	Electrical Control Equipment CMU Building Material Handling Grading Bulldozing Unpaved Road Dust Paved Road Dust																				
	Electrical Control Equipment CMU Building Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
36	Electrical Power Equipment CMU Building Material Handling Grading Bulldozing Unpaved Road Dust Paved Road Dust																				
	Electrical Power Equipment CMU Building Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
37	Communication Equipment Material Handling Grading Bulldozing Unpaved Road Dust Paved Road Dust																				
	Communication Equipment Subtotal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	20 -Permanent Operating Equipment Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	GRAND TOTAL	--	1.45	1.45	1.42	2.99	4.30	25.45	12.87	14.19	14.19	12.58	11.27	0.25	0.50	0.50	0.50	0.50	0.50	--	--

Table K-117. PM2.5 Emissions Summary from Fugitive D

#	Activity									Annual Emissions , tpy
		2-Sep	9-Sep	16-Sep	23-Sep	30-Sep	7-Oct	14-Oct	21-Oct	
35	Electrical Control Equipment CMU Building									
	Material Handling	n/a	n/a	n/a	n/a	n/a	n/a			n/a
	Grading	n/a	n/a	n/a	n/a	n/a	n/a			n/a
	Bulldozing	n/a	n/a	n/a	n/a	n/a	n/a			n/a
	Unpaved Road Dust	n/a	n/a	n/a	n/a	n/a	n/a			n/a
	Paved Road Dust									
	Electrical Control Equipment CMU Building Subtotal	--	--	--	--	--	--	--	--	--
36	Electrical Power Equipment CMU Building									
	Material Handling	n/a	n/a	n/a	n/a	n/a	n/a			n/a
	Grading	n/a	n/a	n/a	n/a	n/a	n/a			n/a
	Bulldozing	n/a	n/a	n/a	n/a	n/a	n/a			n/a
	Unpaved Road Dust	n/a	n/a	n/a	n/a	n/a	n/a			n/a
	Paved Road Dust									
	Electrical Power Equipment CMU Building Subtotal	--	--	--	--	--	--	--	--	--
37	Communication Equipment									
	Material Handling					n/a	n/a			n/a
	Grading					n/a	n/a			n/a
	Bulldozing					n/a	n/a			n/a
	Unpaved Road Dust					n/a	n/a			n/a
	Paved Road Dust									
	Communication Equipment Subtotal	--	--	--	--	--	--	--	--	--
	20 -Permanent Operating Equipment Total	--	--	--	--	--	--	--	--	--
GRAND TOTAL		--	--	--	--	--	--	0.02	--	0.28