

Short-Term Construction Emissions									
Phase 1									
Light Duty TR (grams/mile)									
HH TR Diesel (grams/mile)									
Assumptions: EMFAC2002 emission factors for 2008 conditions based on an average trip speed of 30 mph, 60%/40% cold/hot start, and 75 degrees Fahrenheit.									
Mobile Equipment									
	Number	Hours/Day	Total Hours	ROG	NOx	PM10			
Bulldozer	1.00	7.00	7.00	3.15	22.67	1.14			8.00
Compactor	1.00	7.00	7.00	1.82	10.03	0.54			
Backhoe	1.00	7.00	7.00	0.50	4.50	0.37			
Motor Grader	1.00	7.00	7.00	1.05	9.72	0.52			
Sterco 480 (other equip)	1.00	7.00	7.00	1.82	10.03	0.54			
Subtotal				8.44	56.95	3.11			lbs/day
Assumptions: Emission factors from the SMOGAD Road Construction Model Version 5.1.									
Stationary Equipment									
	Number	Hours/Day	Total Hours	ROG	NOx	PM10			
Stationary Equipment	2.00	7.00	14.00	2.57	19.76	0.75			
Assumptions: Emission factors from the SMOGAD Air Quality Guidelines (SMOQAD 2004) based on 2 phases of stationary equipment working 7 hrs/day.									
Con. Employee Trips									
	Total 1-way Trips/Day	Miles/Trip	Total Miles/Day	ROG	NOx	PM10			
	24.00	15.00	360.00	0.21	0.53	0.03			lbs/day
Assumptions: employee trips based on project description (12 person comm working 7 hours/day), an average trip length of 15.0 miles and EMFAC2002 emission factors for 2008 conditions based on an average trip speed of 30 mph, 60%/40% cold/hot start, and 75 degrees Fahrenheit (SMOQAD 2004).									
Material Delivery									
	Total 1-way Trips/Day	Miles/Trip	Total Miles/Day	ROG	NOx	PM10			
	2.00	15.00	30.00	0.05	0.66	0.02			lbs/day
Assumptions: Based on 2 deliveries for materials, an average trip length of 15.0 miles and EMFAC2002 emission factors for 2008 conditions based on an average trip speed of 30 mph, 60%/40% cold/hot start, and 75 degrees Fahrenheit (SMOQAD 1994).									
Fugitive PM10									
	Area (acre)								
	0.50								30.38
Assumptions: SMOGAD emission factor of 60.77 lbs/acre/day (SMOQAD 1994), which includes 1 Storage Pile on 15 acres and 3 phases of heavy equipment operating 8 hrs/day/10 acres, maximum daily average disturbance based on square footage of storage areas (150 x 100 and 200 x 140) which total 1.3 acres to be disturbed over one week (3 acres/day) and the total area of 6.3 acres to be disturbed over 80 day									
Total (Phase 1)-unmitigated									
				11.28	77.90	34.25			
Total (Phase 1)-mitigated									

Road Construction Emissions Model, Version 5.1

Emission Estimates for -> North Fork Trail						
Project Phases (English Units)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)
Grubbing/Land Clearing	11	72	67	4	4	0
Grading/Excavation	11	72	59	3	3	0
Drainage/Utilities/Sub-Grade	1	22	2	0	0	0
Paving	1	22	2	0	0	0
Maximum (pounds/day)	11	72	67	4	4	0
Total (tons/construction project)	3	12	21	1	1	0

Notes: Project Start Year -> 2006

Project Length (months) -> 21

Total Project Area (acres) -> 15

Maximum Area Disturbed/Day (acres) -> 0

Total Soil Imported/Exported (yd³/day)-> 466

PM10 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I.

Emission Estimates for -> North Fork Trail						
Project Phases (Metric Units)	ROG (kgs/day)	CO (kgs/day)	NOx (kgs/day)	PM10 (kgs/day)	Exhaust PM10 (kgs/day)	Fugitive Dust PM10 (kgs/day)
Grubbing/Land Clearing	5	33	30	2	2	0
Grading/Excavation	5	33	27	1	1	0
Drainage/Utilities/Sub-Grade	1	10	1	0	0	0
Paving	1	10	1	0	0	0
Maximum (kilograms/day)	5	33	30	2	2	0
Total (megagrams/construction project)	2	11	19	1	1	0

Notes: Project Start Year -> 2006

Project Length (months) -> 21

Total Project Area (hectares) -> 6

Maximum Area Disturbed/Day (hectares) -> 0

Total Soil Imported/Exported (meters³/day)-> 356

PM10 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I.