APPENDIX IX - CONFORMITY ANALYSIS CERTIFICATION

PROJECT NAME: Clear Creek Management Area Resource Management Plan
PROJECT LOCATION: Southern Portion of San Benito County and Western Fresno County, CA, (Case File -)
Fresno County, CA – PM-2.5 nonattainment
Fresno County, CA – Serious PM-10 nonattainment
Fresno County, CA – Serious 8-hr Ozone (NOx/VOC) nonattainment

PROJECT DESCRIPTION: Establish or revise designations of vehicle use areas and routes.

POTENTIAL TOTAL (DIRECT AND INDIRECT) EMISSIONS (tons/year):

Carbon monoxide (CO):	[Not applicable-attainment]	n/a
Lead (Pb):	[Not applicable-attainment]	n/a
Nitrogen oxides (NO_x):	[Not applicable-de minimis]	0.6 tons/year
Particulate Matter (PM_{10}):	[Not applicable-de minimis]	66.5 tons/year
Particulate Matter ($PM_{2.5}$):	[Not applicable-de minimis]	10.0 tons/year
Sulfur dioxide (SO_2):	[Not applicable-attainment]	n/a
Volatile Organic Compounds re: Ozone (O_3):	[Not applicable-de minimis]	0.6 tons/year

MAXIMUM MODELED IMPACT ($\mu g/m^3$):

Carbon monoxide (CO):	[Not applicable-attainment]
Lead (Pb):	[Not applicable-attainment]
Nitrogen dioxide (NO_2):	[Not applicable-attainment]
Particulate Matter (PM_{10}):	[Not applicable-de minimis]
Particulate Matter ($PM_{2.5}$):	[Not applicable-de minimis]
Ozone (O_3):	[Not applicable-de minimis]
Sulfur dioxide (SO_2):	[Not applicable-attainment]

THIS PROJECT HAS BEEN DETERMINED TO CONFORM WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL AIR QUALITY LAWS, REGULATIONS AND STATUTES, AS DEFINED IN THE San Joaquin Valley, CA (Fresno County) Planning Area IMPLEMENTATION PLAN(s), FOR THE FOLLOWING REASON(s):

[ ] Action is covered within the approved Implementation Plan.
[ ] Action is excluded by the Regulatory Authority per:
[ ] Action is categorically excluded per (citation):
[X] Potential total emissions are below *de minimis* levels: Per 40 CFR 93.153(b)(1) <50 T/Y NOx ; <50 T/Y VOC (Serious Ozone NAA); <70 T/Y PM-10 (Serious PM-10 NAA); and <70 T/Y PM-2.5 (PM-2.5 NAA)
[ ] Potential total emissions are fully offset by:
[ ] Maximum modeled impacts are below applicable standards:
[X] Other (specify): Subject to implementation per December 6, 2005 Fresno County, California, Clear Creek Management Area Emission Spreadsheet and Assumptions.

SIGNED: _____
TITLE: Hollister Field Office Manager
DATE: _____

Fresno County, California, Clear Creek Management Area Emission Spreadsheet and Assumptions (December 6, 2005)

Citation: Archer, S.F. 2005. Microsoft Excel © Spreadsheet Estimate of Total and Fresno County Emissions by Alternative - Clear Creek Management Area EIS. BLM-National Science and Technology Center. Denver, Colorado. (See file: 051206_CCMA_Emissions)

Summary Table:

Total Annual	ALT A TPY
NOx	1.7
PM-2.5	28.4
PM-10	190.0
TSP	488.9
VOC	1.7

Fresno Co. Annual	ALT A TPY
NOx	0.6
PM-2.5	10.0
PM-10	66.5
TSP	171.1
VOC	0.6

Note: Assumes 35 per cent of Total Emission would occur within Fresno County (CA) nonattainment areas.

Note: Alternative A = No Action Alternative.

VOC and NOx Emission Estimates:

ATV HC+NOx Ef (gm/km) = 1.5

Source: 40 CFR 1051.107

SUV NMHC Ef (gm/mi) = 0.31

SUV NOx Ef (gm/mi) = 0.6

Source: EPA 2000

MC HC+NOx Ef (gm/km) = 2.0

Source: 40 CFR 1051.105

	Total VMT	Winter VMT	Summer VMT
ATV	111180	67820	43360
SUV	96511	58872	37639
MC	86473	52748	33725

Note: VMT estimates for No Action Alternative are based on 2005 visitor use trends.

Total Annual	ALT A TPY
NOx	1.746
VOC	1.715

Note: ATV and MC emission were assumed to be equally distributed between NMHC and NOx

Note: VOC emission were assumed to be equivalent to NMHC and/or HC

Reference:

EPA. 2000. "California Certification Exhaust Emission Standards for Light-Duty Vehicles (Passenger Cars) and Light-Duty Trucks:

Federal Test Procedure (FTP) - LDT1 10 Years/100,000 Miles" EPA420-B-00-001. February 2000. Research Triangle Park, NC.
Available online at: http://www.epa.gov/otaq/cert/veh-cert/b00001f.pdf

Unpaved Road Emission Factors:

$Ef\ (lbs/VMT) = [(k) \times (s/12)^a \times (S/30)^d / (M/0.5)^c] - C$

Source: EPA 2003

Constants	PM-2.5	PM-10	TSP
k =	0.27	1.8	6.0
a =	1	1	1
d =	0.5	0.5	0.3
c =	0.2	0.2	0.3
C =	0.00036	0.00047	0.00047

Where:

s = silt (%)

S = vehicle speed (mph)

M = soil Moisture (%)

C = excess exhaust/brake/tire PM (lbs/VMT)

Soil moisture data source: NWS 2003

Assumptions	ATV	SUV	MC
S =	10	10	15
W =	0.3	2.5	0.2
w =	4	4	2

Where:

S = vehicle speed (mph)

W = vehicle weight (tons)

w = number of wheels

Precipitation correction factor

$Pcf = (d_t - d_{\geq 0.01in}) / (d_t)$

Where:

d_t = total number of days in season

$d_{\geq 0.01in}$ = days in season with ≥ 0.01 in precipitation

	Winter	Summer
d_t =	181	184
$d_{\geq 0.01in}$ =	42	6
Pcf =	0.77	0.97

Precipitation data source: WRCC 2003

Vehicle weight correction factor

$Wcf = (W/3)^{0.45}$

	ATV	SUV	MC
Wcf =	0.35	0.92	0.30

Unpaved Road Emission Factors (continued):

PM-2.5		Winter	Winter	Winter	Winter	Summer	Summer	Summer	Summer
		Soil	ATV	SUV	MC	Soil	ATV	SUV	MC
Soil Unit	Silt %	Moist %	lbs/VMT	lbs/VMT	lbs/VMT	Moist %	lbs/VMT	lbs/VMT	lbs/VMT
742	30.7	40.0	0.04514	0.11719	0.04608	28.0	0.06107	0.15857	0.06235
744	36.1	40.0	0.05309	0.13785	0.05420	28.0	0.07184	0.18652	0.07333
757	25.8	40.0	0.03792	0.09845	0.03871	28.0	0.05131	0.13321	0.05238
758	17.8	40.0	0.02613	0.06784	0.02668	28.0	0.03536	0.09180	0.03611
761	18.0	40.0	0.02642	0.06861	0.02698	28.0	0.03576	0.09284	0.03651
765	28.0	40.0	0.04116	0.10686	0.04202	28.0	0.05569	0.14459	0.05685
767	31.9	40.0	0.04691	0.12178	0.04788	28.0	0.06346	0.16478	0.06479
768	8.1	40.0	0.01184	0.03073	0.01210	28.0	0.01602	0.04160	0.01637
769	7.6	40.0	0.01110	0.02882	0.01135	28.0	0.01503	0.03901	0.01536
770	38.6	40.0	0.05678	0.14742	0.05796	28.0	0.07682	0.19945	0.07842
773	17.4	40.0	0.02554	0.06631	0.02608	28.0	0.03456	0.08973	0.03529
774	16.6	40.0	0.02436	0.06325	0.02488	28.0	0.03297	0.08559	0.03366

PM-10		Winter	Winter	Winter	Winter	Summer	Summer	Summer	Summer
		Soil	ATV	SUV	MC	Soil	ATV	SUV	MC
Soil Unit	Silt %	Moist %	lbs/VMT	lbs/VMT	lbs/VMT	Moist %	lbs/VMT	lbs/VMT	lbs/VMT
742	30.7	40.0	0.30144	0.78266	0.30764	28.0	0.40781	1.05884	0.41620
744	36.1	40.0	0.35449	0.92038	0.36177	28.0	0.47957	1.24516	0.48943
757	25.8	40.0	0.25331	0.65768	0.25852	28.0	0.34270	0.88977	0.34975
758	17.8	40.0	0.17472	0.45365	0.17833	28.0	0.23638	0.61374	0.24126
761	18.0	40.0	0.17669	0.45875	0.18033	28.0	0.23904	0.62064	0.24397
765	28.0	40.0	0.27492	0.71379	0.28057	28.0	0.37193	0.96568	0.37958
767	31.9	40.0	0.31323	0.81326	0.31967	28.0	0.42376	1.10024	0.43247
768	8.1	40.0	0.07944	0.20625	0.08109	28.0	0.10748	0.27906	0.10971
769	7.6	40.0	0.07453	0.19350	0.07608	28.0	0.10084	0.26181	0.10293
770	38.6	40.0	0.37904	0.98414	0.38683	28.0	0.51280	1.33142	0.52333
773	17.4	40.0	0.17079	0.44345	0.17432	28.0	0.23107	0.59994	0.23583
774	16.6	40.0	0.16294	0.42304	0.16630	28.0	0.22044	0.57234	0.22498

Unpaved Road Emission Factors (continued):

TSP Soil Unit	Silt %	Winter Soil Moist %	Winter ATV lbs/VMT	Winter SUV lbs/VMT	Winter MC lbs/VMT	Summer Soil Moist %	Summer ATV lbs/VMT	Summer SUV lbs/VMT	Summer MC lbs/VMT
742	30.7	40.0	0.80782	2.09740	0.76016	28.0	1.13255	2.94052	1.06574
744	36.1	40.0	0.94993	2.46638	0.89389	28.0	1.33178	3.45782	1.25322
757	25.8	40.0	0.67886	1.76258	0.63882	28.0	0.95176	2.47112	0.89561
758	17.8	40.0	0.46832	1.21594	0.44070	28.0	0.65659	1.70475	0.61786
761	18.0	40.0	0.47358	1.22961	0.44565	28.0	0.66397	1.72391	0.62481
765	28.0	40.0	0.73676	1.91291	0.69330	28.0	1.03293	2.68187	0.97199
767	31.9	40.0	0.83940	2.17939	0.78988	28.0	1.17682	3.05548	1.10740
768	8.1	40.0	0.21304	0.55314	0.20049	28.0	0.29870	0.77553	0.28109
769	7.6	40.0	0.19988	0.51898	0.18810	28.0	0.28025	0.72763	0.26373
770	38.6	40.0	1.01572	2.63720	0.95580	28.0	1.42402	3.69731	1.34001
773	17.4	40.0	0.45779	1.18861	0.43080	28.0	0.64183	1.66643	0.60397
774	16.6	40.0	0.43674	1.13395	0.41098	28.0	0.61231	1.58980	0.57620

References:

EPA. 2003. Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume I: *Stationary Point and Area Sources*; Chapter 13, Miscellaneous Sources; 13.2.2 Unpaved Roads. December, 2003. Research Triangle Park, NC. Available online at: http://www.epa.gov/ttn/chief/ap42/ch13/final/c13s0202.pdf

National Weather Service (NWS). 2003. Monthly Soil Moisture Climatology - Soil Wetness: Calculated Soil Wetness Climatology (1971-2000) Maps. Climate Prediction Center. Camp Springs, MD. Available online at: http://www.cpc.ncep.noaa.gov/soilmst/wclim_wetness_frame.html

Western Regional Climate Center (WRCC). 2003. Historical Climate Information: Priest Valley, California (047150); 1948 to 2003. Reno, NV. Available online at: http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?caprie+sca

VMT by Soil Unit for Alternative A: No Action Alternative

	Total VMT	Winter VMT	Summer VMT
ATV	111180	67820	43360
SUV	96511	58872	37639
MC	864738	527490	337248

Note: VMT estimates were assumed to remain constant regardless of management Alternative

Fractional Use By Soil Unit	ALT A ATV VMT	ALT A SUV VMT	ALT A MC VMT
742	0.000	0.008	0.009
744	0.073	0.063	0.044
757	0.000	0.006	0.007
758	0.001	0.001	0.001
761	0.036	0.034	0.037
765	0.209	0.246	0.276
767	0.569	0.414	0.494
768	0.028	0.060	0.028
769	0.077	0.088	0.081
770	0.000	0.030	0.000
773	0.000	0.020	0.006
774	0.007	0.030	0.017
TOTAL	1.000	1.000	1.000

VMT by Soil Unit for Alternative A: No Action Alternative (continued):

ALT A Soil Unit	Full Year Total VMT	Winter Total VMT	Winter ATV VMT	Winter SUV VMT	Winter MC VMT	Summer Total VMT	Summer ATV VMT	Summer SUV VMT	Summer MC VMT
742			0.0	471.0	4747.4		0.0	301.1	3035.2
744			4950.9	3708.9	23209.6		3165.3	2371.3	14838.9
757			0.0	353.2	3692.4		0.0	225.8	2360.7
758			67.8	58.9	527.5		43.4	37.6	337.2
761			2441.5	2001.6	19517.1		1561.0	1279.7	12478.2
765			14174.4	14482.5	145587.2		9062.2	9259.2	93080.4
767			38589.6	24373.0	260580.1		24671.8	15582.5	166600.5
768			1899.0	3532.3	14769.7		1214.1	2258.3	9442.9
769			5222.1	5180.7	42726.7		3338.7	3312.2	27317.1
770			0.0	1766.2	0.0		0.0	1129.2	0.0
773			0.0	1177.4	3164.9		0.0	752.8	2023.5
774			474.7	1766.2	8967.3		303.5	1129.2	5733.2
TOTAL			67820	58872	527490		43360	37639	337248

Total PM Emissions for Alternative A: No Action Alternative

Total Annual	ALT A TPY
PM-2.5	28
PM-10	190
TSP	489

Emissions By Soil Unit	ALT A PM-2.5 TPY	ALT A PM-10 TPY	ALT A TSP TPY
742	0	2	4
744	2	13	33
757	0	1	3
758	0	0	0
761	1	5	12
765	8	51	132
767	16	107	276
768	0	2	5
769	1	4	11
770	0	2	4
773	0	1	3
774	0	2	6
TOTAL	28	190	489

Total PM Emissions for Alternative A: No Action Alternative (continued):

ALT A Soil Unit	Full Year PM-2.5 TPY	Full Year PM-10 TPY	Full Year TSP TPY	Winter PM-2.5 TPY	Winter PM-10 TPY	Winter TSP TPY	Summer PM-2.5 TPY	Summer PM-10 TPY	Summer TSP TPY
742				0.1	0.9	2.3	0.1	0.8	2.1
744				1.0	6.8	17.3	0.9	5.9	15.5
757				0.1	0.6	1.5	0.1	0.5	1.3
758				0.0	0.1	0.2	0.0	0.1	0.2
761				0.4	2.4	6.2	0.3	2.1	5.5
765				4.1	27.5	69.5	3.6	23.8	62.3
767				8.6	57.6	145.7	7.5	49.8	130.6
768				0.2	1.0	2.7	0.1	0.9	2.4
769				0.3	2.3	5.9	0.3	2.0	5.3
770				0.1	0.9	2.3	0.1	0.8	2.1
773				0.1	0.5	1.4	0.1	0.5	1.2
774				0.2	1.2	2.9	0.1	1.0	2.6
TOTAL	28	190	489	15	102	258	13	88	231