



Whitlock & Weinberger  
Transportation, Inc.

490 Mendocino Avenue  
Suite 201  
Santa Rosa, CA 95401

voice 707.542.9500  
fax 707.542.9590  
web [www.w-trans.com](http://www.w-trans.com)

April 7, 2010

Mr. Pat Allen  
Northern Aggregate, Inc.  
P.O. Box 1566  
Willits, CA 95490

### **Addendum to the *Updated Supplemental Traffic Impact Analysis for the Harris Quarry***

Dear Mr. Allen;

Whitlock & Weinberger Transportation (W-Trans) has recently completed the *Updated Supplemental Traffic Impact Analysis for the Harris Quarry* in the County of Mendocino. As part of the analysis, we completed an analysis of Vehicle Miles Traveled (VMT) associated with County-wide aggregate distribution based upon quarries that are likely to distribute within Mendocino County, which includes all quarries located in Mendocino County as well as quarries within neighboring parts of Sonoma County, Humboldt County and Lake County. This analysis was completed for existing conditions and projected conditions with the Harris Quarry expansion; however, it did not include the currently proposed Kunzler Quarry to be located north of Ukiah since it is still in the application process and has not yet been approved. We have been asked to provide an analysis with the Kunzler Quarry included in the VMT analysis.

A review of the Draft Environmental Impact Report for the Kunzler Quarry revealed that an analysis of that project's impact on VMT was not conducted. A new scenario, "Harris Quarry Project plus Near Term Cumulative" was developed in addition to the Base Permit and Project scenarios already analyzed using the same assumptions for the Kunzler Quarry as were applied to the Harris Quarry project.

The Kunzler Quarry site is located just north of the City of Ukiah, the largest population center in Mendocino County. In general quarries provide more aggregate to population centers that are closer to the quarry and correspondingly fewer trips to population centers of equal size that are further away. Likewise larger population sub-areas will have a greater demand potential than smaller sub-areas and will attract more trips.

For analysis purposes, it was necessary to hold demand equal over all scenarios to provide a common point of comparison. The number of trips and VMT from each quarry to each population center fulfilling the demand for aggregate within the County was calculated. Calculations are enclosed that should be considered part of Appendix F.

It is projected for Base Permit conditions that all supplying quarries will make a combined total of approximately 38,900 truck haul trips per year with a combined total of approximately 2.45 million miles traveled to provide aggregate within Mendocino County. With the increased production potential of the Harris Quarry to 200,000 cubic yards of material mined as well as including the Near Term Cumulative

increase in production, assuming that the demand for aggregate remains constant, it is projected that the total of truck hauls made countywide by all supplying quarries will remain constant at approximately 38,900 truck haul trips per year. There is a slight difference in truck trips per year between the three scenarios which is attributed to rounding in the calculations and accounts for about one-hundredth of one percent of all trips, so for the purpose of analysis these values are considered to be equal.

The increased production of the Harris Quarry project will not reduce the number of haul trips but will result in approximately 2.42 million vehicle miles traveled annually from all quarries and will result in 30,490 fewer VMT by aggregate haul trucks. Approval of the Kunzler Quarry together with the increased production at the Harris Quarry will not reduce the number of haul trips but will result in approximately 1.51 million vehicle miles traveled annually from all quarries, which is about 931,000 fewer VMT by aggregate haul trucks.

Although the number of aggregate haul trips is equivalent, the total VMT decreases because the Harris Quarry as well as the proposed Kunzler Quarry are closer to major population centers and geographical centers of the County, resulting in shorter trip lengths and correspondingly fewer vehicle miles traveled to transport the same amount of aggregate. These results are summarized in Table 8A, which is enclosed.

The proposed Kunzler Quarry would not produce asphalt concrete (AC) so this potential project did not affect the VMT calculation for AC production. For consistency with the report, VMT results for AC production are provided in Table 8A; however, this addendum does not change those results. Overall the Harris Quarry project has the potential to decrease the total VMT associated with hauling aggregate and AC within Mendocino County by approximately 183,500 VMT annually. When coupled with the near term cumulative increase in aggregate production associated with Kunzler Quarry, the two projects have the potential to reduce Countywide VMT for aggregate and AC distribution by 1.08 million miles annually.

It is anticipated that VMT related to aggregate demand will increase in the future as population and demand for aggregate increases in Mendocino County and the relationships developed based upon 2000 population data will remain valid in the future. As the demand for aggregate increases, while production levels within Mendocino County remain constant, the shortfall will be filled by out-of-County sources with these trips having greater travel distances, resulting in higher VMT overall. Conversely, the expansion of the Harris Quarry together with cumulative near term increase in production will result in fewer VMT in the future as a greater portion of the total demand will be met by quarries within Mendocino County and less by out-of-County sources.

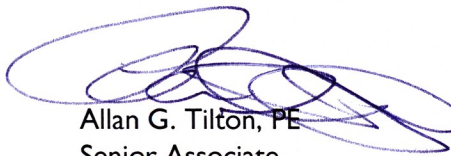
The increased aggregate production with the Harris Quarry project and the near term cumulative increase in regional aggregate production will reduce the need to import aggregate into the County as more of the demand will be met by local sources. However, this increase in aggregate production will not be expected to eliminate the need to import aggregate to meet current and future demand, but importation of aggregate will be significantly reduced and the local quarries will come closer to fulfilling the need for these products in Mendocino County.

Thank you for asking us to provide these services and we hope that this information addresses fully addresses VMT impacts for Harris Quarry. Please feel free to call if you have any questions.

Sincerely,

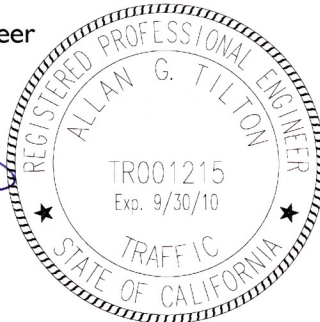


Tony Henderson, EIT  
Assistant Transportation Engineer



Allan G. Tilton, PE  
Senior Associate

AGT/tdh/MEX047.L3



Enclosure: Revised VMT Gravity Model Calculation (Revised Appendix F)  
Table 8A – Vehicle Miles Traveled Summary

Copy: Ms. Cathy McKeon, Rau and Associates

Vehicle Miles Traveled for Aggregate Production - Base Permit Conditions

Location	POPULATION 2000		A	D	T	F	P	J	K	A*K	Adjusted Trips	A*K*D
	Incorporated	Un-incorporated										
Boonville	943	2221	3164	74	86	0.000135	3720	0.502974581	0.137640275	435	89	6586
Boonville	943	2221	3164	98	138	0.000053	3720	0.195337114	0.053454499	169	312	30576
Boonville	943	2221	3164	87	126	0.000063	4960	0.312421265	0.085494875	271	487	42369
Boonville	943	2221	3164	119	160	0.000039	1240	0.04843755	0.013255045	42	119	14161
Boonville	943	2221	3164	205	250	0.000016	992	0.015872	0.004343413	14	53	10865
Boonville	943	2221	3164	53.2	74	0.000183	9920	1.811541271	0.495732882	1568	615	32718
Boonville	943	2221	3164	119	156	0.000041	2480	0.101906664	0.027887012	88	41	4879
Boonville	943	2221	3164	65	90	0.000123	2480	0.30617284	0.083784977	265	159	10335
Boonville	943	2221	3164	133	160	0.000039	2480	0.096875	0.02651009	84	36	4788
Boonville	943	2221	3164	205	250	0.000016	2480	0.039968	0.010858533	34	115	23575
Boonville	943	2221	3164	123	154	0.000042	744	0.031371226	0.008584816	27	11	1353
Boonville	943	2221	3164	153	202	0.000025	1240	0.030389178	0.008316076	26	65	9945
Boonville	943	2221	3164	105	124	0.000065	2480	0.161290323	0.044137507	140	384	40320
				1539.2	1970		38936	3.654268937		3163	2486	

Location	POPULATION 2000		A	D	T	F	P	J	K	A*K	Adjusted Trips	A*K*D
	Incorporated	Un-incorporated										
Covelo	1838	536	2374	95	142	0.000050	3720	0.184487205	0.131208885	311	64	6080
Covelo	1838	536	2374	175	244	0.000017	3720	0.062483203	0.044438591	105	194	33950
Covelo	1838	536	2374	189	258	0.000015	4960	0.074514753	0.052995532	126	226	42714
Covelo	1838	536	2374	207	274	0.000013	1240	0.016516597	0.011746745	28	79	16353
Covelo	1838	536	2374	124	174	0.000033	992	0.032765227	0.02302911	55	208	25792
Covelo	1838	536	2374	144	206	0.000024	9920	0.233763785	0.166254813	395	155	22320
Covelo	1838	536	2374	105	194	0.000027	2480	0.065894356	0.046864633	111	52	5460
Covelo	1838	536	2374	166	224	0.000020	2480	0.04942602	0.03515221	83	50	8300
Covelo	1838	536	2374	48	76	0.000173	2480	0.429362881	0.30536657	725	306	14688
Covelo	1838	536	2374	125	174	0.000033	2480	0.081913066	0.058252777	138	466	56250
Covelo	1838	536	2374	114	192	0.000027	744	0.020182292	0.014353819	34	14	1596
Covelo	1838	536	2374	52	100	0.000100	1240	0.124	0.088189865	209	526	27352
Covelo	1838	536	2374	234	284	0.000012	2480	0.030747867	0.021868148	52	143	33462
				1778	2542		38936	1.406057253		2372	2483	

Location	POPULATION 2000		A	D	T	F	P	J	K	A*K	Adjusted Trips	A*K*D
	Incorporated	Un-incorporated										
FT Bragg/Mendocino	6771	3203	9974	81	100	0.000100	3720	0.372	0.093802153	936	192	15552
FT Bragg/Mendocino	6771	3203	9974	160	204	0.000024	3720	0.089388697	0.022539925	225	416	66560
FT Bragg/Mendocino	6771	3203	9974	174	218	0.000021	4960	0.104368319	0.026317132	262	471	81954
FT Bragg/Mendocino	6771	3203	9974	192	234	0.000018	1240	0.02264592	0.005710312	57	161	30912
FT Bragg/Mendocino	6771	3203	9974	116	164	0.000037	992	0.036882808	0.009300233	93	352	40832
FT Bragg/Mendocino	6771	3203	9974	129	166	0.000036	9920	0.359994194	0.090774813	905	355	45795
FT Bragg/Mendocino	6771	3203	9974	21	36	0.000772	2480	1.913580247	0.482521361	4813	2238	46998
FT Bragg/Mendocino	6771	3203	9974	152	182	0.000030	2480	0.074870185	0.018878991	188	113	14776
FT Bragg/Mendocino	6771	3203	9974	86	126	0.000063	2480	0.156210632	0.039389499	393	166	17216
FT Bragg/Mendocino	6771	3203	9974	116	144	0.000048	2480	0.119598765	0.030157585	301	1017	117972
FT Bragg/Mendocino	6771	3203	9974	25	34	0.000865	744	0.643598616	0.162287461	1619	676	16900
FT Bragg/Mendocino	6771	3203	9974	136	200	0.000025	1240	0.031	0.007816846	78	196	26656
FT Bragg/Mendocino	6771	3203	9974	219	244	0.000017	2480	0.041655469	0.01050369	105	288	63072
				1607	2052		38936	3.965793852		9975	6641	

Vehicle Miles Traveled for Aggregate Production - Base Permit Conditions

POPULATION 2000		Un-incorporated	Attractions	Roundtrip Distance	Travel Time	1/T <sup>1/2</sup>	Productions	F-P	F-P/Sum F-P	Trips	Miles Traveled	
Incorporated	1005											
Hopland	Harris Quarry Base	1229	2234	60	63	0.000252	3720	0.937263794	0.039450489	88	18	1080
Hopland	Davis Pit	1229	2234	45	62	0.000260	3720	0.967741935	0.040733348	91	168	7560
Hopland	Keithly Ranch	1229	2234	33	50	0.000400	4960	1.984	0.063508795	187	336	11088
Hopland	DNA River	1229	2234	66	82	0.000149	1240	0.184414039	0.007762195	17	48	3168
Hopland	Cooks Humboldt	1229	2234	191	230	0.000019	992	0.018752363	0.000789308	2	8	1528
Hopland	Ford Gravel	1229	2234	23	40	0.000625	9920	6.2	0.260964985	583	229	5267
Hopland	Ten Mile	1229	2234	163	204	0.000024	2480	0.059592464	0.002508314	6	3	489
Hopland	Pieta	1229	2234	11	14	0.0005102	2480	12.65306122	0.532581601	1190	713	7843
Hopland	Layton Rock	1229	2234	119	140	0.000051	2480	0.126530612	0.005325816	12	5	595
Hopland	Cooks Valley	1229	2234	191	130	0.000059	2480	0.146745562	0.006176686	14	47	8977
Hopland	Wisley Ranch	1229	2234	166	202	0.000025	744	0.018233507	0.000767469	2	1	166
Hopland	Coal Mine	1229	2234	138	196	0.000026	1240	0.032278217	0.001358627	3	8	1104
Hopland	Syar Healdsburg	1229	2234	79	76	0.000173	2480	0.429362881	0.018072367	40	110	8690
				1285	1489		38936	23.7579766		1	1694	

POPULATION 2000		Un-incorporated	Attractions	Roundtrip Distance	Travel Time	1/T <sup>1/2</sup>	Productions	F-P	F-P/Sum F-P	Trips	Miles Traveled	
Incorporated	1310											
Laytonville	Harris Quarry Base	2695	4005	58	72	0.000193	3720	0.717592593	0.013503886	54	11	638
Laytonville	Davis Pit	2695	4005	137	174	0.000033	3720	0.1228696	0.002312165	9	17	2329
Laytonville	Keithly Ranch	2695	4005	151	190	0.000028	4960	0.137396122	0.002585526	10	18	2718
Laytonville	DNA River	2695	4005	189	206	0.000024	1240	0.029220473	0.000549872	2	6	1014
Laytonville	Cooks Humboldt	2695	4005	73	90	0.000123	992	0.122469136	0.002304629	9	34	2482
Laytonville	Ford Gravel	2695	4005	106	138	0.000053	9920	0.52098971	0.009802298	39	15	1590
Laytonville	Ten Mile	2695	4005	53	110	0.000083	2480	0.204958678	0.003856921	15	7	371
Laytonville	Pieta	2695	4005	129	154	0.000042	2480	0.104570754	0.001967817	8	5	645
Laytonville	Layton Rock	2695	4005	5	7	0.020408	2480	50.6122449	0.952423239	3814	1612	8060
Laytonville	Cooks Valley	2695	4005	73	90	0.000123	2480	0.30617284	0.005761573	23	78	5694
Laytonville	Wisley Ranch	2695	4005	63	100	0.000100	744	0.0744	0.001400062	6	3	189
Laytonville	Coal Mine	2695	4005	49	96	0.000109	1240	0.134548611	0.002531941	10	25	1225
Laytonville	Syar Healdsburg	2695	4005	196	216	0.000021	2480	0.053155007	0.001000273	4	11	2156
				1262	1643		4003	53.14049768		1	1842	

POPULATION 2000		Un-incorporated	Attractions	Roundtrip Distance	Travel Time	1/T <sup>1/2</sup>	Productions	F-P	F-P/Sum F-P	Trips	Miles Traveled	
Incorporated	1275											
Potter Valley	Harris Quarry Base	616	1891	44	62	0.000260	3720	0.967741935	0.235807562	446	91	4004
Potter Valley	Davis Pit	616	1891	63	94	0.000113	3720	0.42100498	0.102585363	194	359	22617
Potter Valley	Keithly Ranch	616	1891	79	112	0.000080	4960	0.395408163	0.096348243	182	327	25833
Potter Valley	DNA River	616	1891	96	124	0.000065	1240	0.080645161	0.01965063	37	105	10080
Potter Valley	Cooks Humboldt	616	1891	175	226	0.000020	992	0.019422038	0.004732525	9	34	5950
Potter Valley	Ford Gravel	616	1891	51	80	0.000156	9920	1.55	0.377685111	714	280	14280
Potter Valley	Ten Mile	616	1891	147	200	0.000025	2480	0.062	0.015107404	29	13	1911
Potter Valley	Pieta	616	1891	74	96	0.000109	2480	0.269097222	0.065570332	124	74	5476
Potter Valley	Layton Rock	616	1891	103	134	0.000056	2480	0.138115393	0.033654276	64	27	2781
Potter Valley	Cooks Valley	616	1891	175	226	0.000020	2480	0.048555094	0.011831314	22	74	12950
Potter Valley	Wisley Ranch	616	1891	150	198	0.000026	744	0.018977655	0.004624244	9	4	600
Potter Valley	Coal Mine	616	1891	122	124	0.000027	1240	0.033637153	0.008196291	15	38	4636
Potter Valley	Syar Healdsburg	616	1891	142	158	0.000040	2480	0.099343054	0.024206705	46	126	17892
				1421	1902		1891	4.103947849		1	1552	

Vehicle Miles Traveled for Aggregate Production - Base Permit Conditions

Location	POPULATION 2000		Attractions	Roundtrip Distance	Travel Time	1/T^2	Productions	F-P	F-P/Sum F-P	Trips	Miles Traveled
	Incorporated	Un-incorporated									
Redwood Valley	4992	2624	7616	19	26	0.001479	3720	5.50295868	0.483384384	3681	754
Redwood Valley	4992	2624	7616	61	86	0.000135	3720	0.502974581	0.044181699	336	621
Redwood Valley	4992	2624	7616	78	104	0.000092	4960	0.458579882	0.040282032	307	552
Redwood Valley	4992	2624	7616	94	116	0.000074	1240	0.0921522	0.008094725	62	176
Redwood Valley	4992	2624	7616	149	190	0.000028	992	0.027479224	0.002413798	18	68
Redwood Valley	4992	2624	7616	33	52	0.000370	9920	3.668639053	0.322256256	2454	962
Redwood Valley	4992	2624	7616	121	164	0.000037	2480	0.09220702	0.00809954	62	29
Redwood Valley	4992	2624	7616	56	70	0.000204	2480	0.506122449	0.04445821	339	203
Redwood Valley	4992	2624	7616	78	102	0.000096	2480	0.238369858	0.020938603	159	67
Redwood Valley	4992	2624	7616	149	190	0.000028	2480	0.068698061	0.006034494	46	155
Redwood Valley	4992	2624	7616	125	162	0.000038	744	0.028349337	0.002490229	19	8
Redwood Valley	4992	2624	7616	96	156	0.000041	1240	0.05095332	0.004475781	34	86
Redwood Valley	4992	2624	7616	124	130	0.000059	2480	0.146745562	0.01289025	98	269
Redwood Valley	4992	2624	7616	1183	1548			11.38422913		7615	3950

Location	POPULATION 2000		Attractions	Roundtrip Distance	Travel Time	1/T^2	Productions	F-P	F-P/Sum F-P	Trips	Miles Traveled
	Incorporated	Un-incorporated									
Ukiah	24762	3935	28697	32	36	0.000772	3720	2.87037037	0.186326304	5347	1095
Ukiah	24762	3935	28697	72	94	0.000113	3720	0.42100498	0.027328983	784	1449
Ukiah	24762	3935	28697	62	84	0.000142	4960	0.702947846	0.045630931	1309	2352
Ukiah	24762	3935	28697	95	116	0.000074	1240	0.0921522	0.005981938	172	487
Ukiah	24762	3935	28697	163	200	0.000025	992	0.0248	0.001609859	46	174
Ukiah	24762	3935	28697	17	32	0.000977	9920	9.6875	0.628851275	18046	7078
Ukiah	24762	3935	28697	135	176	0.000032	2480	0.080061983	0.005197118	149	69
Ukiah	24762	3935	28697	39	50	0.000400	2480	0.992	0.064394371	1848	1106
Ukiah	24762	3935	28697	91	112	0.000080	2480	0.197704082	0.012833699	368	156
Ukiah	24762	3935	28697	163	200	0.000025	2480	0.062	0.004024648	115	389
Ukiah	24762	3935	28697	138	174	0.000033	744	0.02457392	0.001595184	46	19
Ukiah	24762	3935	28697	110	166	0.000036	1240	0.044999274	0.002921068	84	211
Ukiah	24762	3935	28697	107	110	0.000083	2480	0.204958678	0.013304622	382	1049
Ukiah	24762	3935	28697	1224	1550			15.40507333		28696	15634

Location	POPULATION 2000		Attractions	Roundtrip Distance	Travel Time	1/T^2	Productions	F-P	F-P/Sum F-P	Trips	Miles Traveled
	Incorporated	Un-incorporated									
Willits/Brooktrails	5336	2893	8229	11	14	0.005102	3720	18.97959184	0.833617016	6660	1405
Willits/Brooktrails	5336	2893	8229	91	116	0.000074	3720	0.276456599	0.01214246	100	185
Willits/Brooktrails	5336	2893	8229	105	130	0.000059	4960	0.293491124	0.012890646	106	190
Willits/Brooktrails	5336	2893	8229	122	146	0.000047	1240	0.058172265	0.002555028	21	59
Willits/Brooktrails	5336	2893	8229	119	148	0.000046	992	0.045288532	0.001989152	16	61
Willits/Brooktrails	5336	2893	8229	59	78	0.000164	9920	1.630506246	0.071614699	589	231
Willits/Brooktrails	5336	2893	8229	91	122	0.000067	2480	0.166621876	0.007318326	60	28
Willits/Brooktrails	5336	2893	8229	82	96	0.000109	2480	0.269097222	0.011819223	97	58
Willits/Brooktrails	5336	2893	8229	48	60	0.000278	2480	0.688888889	0.03025721	249	105
Willits/Brooktrails	5336	2893	8229	112	148	0.000046	2480	0.113221329	0.00497288	41	139
Willits/Brooktrails	5336	2893	8229	94	120	0.000069	744	0.051666667	0.002269291	19	8
Willits/Brooktrails	5336	2893	8229	66	114	0.000077	1240	0.095413974	0.004190749	34	86
Willits/Brooktrails	5336	2893	8229	150	158	0.000040	2480	0.099343054	0.004363321	36	99
Willits/Brooktrails	5336	2893	8229	1150	1450			22.767760		8228	2654

Vehicle Miles Traveled for Aggregate Production - Project Conditions

POPULATION 2000	A	D	T	F	P	J	K	A*K	Initial	Reduction	Final	VMT	
													Incorporated
Boonville	Harris Quarry Base	3164	74	86	0.000135	10160	1.373715522	0.303562878	961	326	127	199	14726
Boonville	Davis Pit	3164	98	138	0.000053	3720	0.195337114	0.043168329	137	348	18	330	32340
Boonville	Kethly Ranch	3164	87	126	0.000063	4960	0.312421265	0.069043223	218	525	29	496	43152
Boonville	DNA River	3164	119	160	0.000039	1240	0.0484375	0.010704397	34	131	4	127	15113
Boonville	Cooks Humboldt	3164	205	250	0.000016	992	0.015872	0.003507617	11	53	1	52	10660
Boonville	Ford Gravel	3164	53.2	74	0.000183	9920	1.811541271	0.400339738	1267	673	167	506	26919.2
Boonville	Ten Mile	3164	119	156	0.000041	2480	0.101906664	0.022520755	71	39	9	30	3570
Boonville	Pieta	3164	65	90	0.000123	2480	0.30617284	0.067662356	214	162	28	134	8710
Boonville	Layton Rock	3164	133	160	0.000039	2480	0.098875	0.021408793	32	9	9	23	3059
Boonville	Cooks Valley	3164	205	250	0.000016	2480	0.039968	0.008769042	68	120	4	116	23780
Boonville	Wisley Ranch	3164	123	154	0.000042	744	0.031371226	0.006932853	22	3	3	8	984
Boonville	Coal Mine	3164	153	202	0.000025	1240	0.030389178	0.006715826	21	69	3	66	10098
Boonville	Syar Healdsburg	3164	105	124	0.000065	2480	0.161230323	0.035644192	113	414	15	389	41895
										2903			
										2486			
										417			
										Total Base Trips			
										Trips to be Reduced			

POPULATION 2000	A	D	T	F	P	J	K	A*K	Initial	Reduction	Final	VMT	
													Incorporated
Covelo	Harris Quarry Base	2374	95	142	0.000050	10160	0.50386828	0.29202335	693	235	83	152	14440
Covelo	Davis Pit	2374	175	244	0.000017	3720	0.062483203	0.036212945	86	218	10	208	36400
Covelo	Kethly Ranch	2374	189	258	0.000015	4960	0.074514753	0.043185984	103	248	12	236	44604
Covelo	DNA River	2374	207	274	0.000033	1240	0.016516597	0.009572406	23	88	3	85	17595
Covelo	Cooks Humboldt	2374	336	374	0.000013	992	0.032765227	0.018989509	45	218	5	213	26412
Covelo	Ford Gravel	2374	144	206	0.00024	9920	0.233763785	0.135480812	322	171	38	133	19152
Covelo	Ten Mile	2374	105	194	0.000027	2480	0.065894556	0.038189923	91	50	11	39	4095
Covelo	Pieta	2374	166	224	0.000020	2480	0.04942602	0.028645487	68	51	8	43	7138
Covelo	Layton Rock	2374	48	76	0.000173	2480	0.429362881	0.248842786	591	279	71	208	9984
Covelo	Cooks Valley	2374	125	174	0.000033	2480	0.081913066	0.047473772	113	482	13	469	58625
Covelo	Wisley Ranch	2374	114	192	0.000027	744	0.020182292	0.011696907	28	14	3	11	1254
Covelo	Coal Mine	2374	52	100	0.000100	1240	0.1124	0.071865797	171	559	20	539	28028
Covelo	Syar Healdsburg	2374	234	284	0.000012	2480	0.030747867	0.017620323	42	154	5	149	34866
										2767			
										2483			
										284			
										Total Base Trips			
										Trips to be Reduced			

POPULATION 2000	A	D	T	F	P	J	K	A*K	Initial	Reduction	Final	VMT	
													Incorporated
Ft Bragg/Mendocino	Harris Quarry Base	9974	81	100	0.000100	10160	1.016	0.220400311	2198	745	226	519	42039
Ft Bragg/Mendocino	Davis Pit	9974	160	204	0.000024	3720	0.089388697	0.01939104	193	490	20	470	75200
Ft Bragg/Mendocino	Kethly Ranch	9974	174	218	0.000021	4960	0.104368319	0.022840561	226	544	23	521	90654
Ft Bragg/Mendocino	DNA River	9974	192	234	0.000018	1240	0.02264592	0.004912567	49	188	5	183	35136
Ft Bragg/Mendocino	Cooks Humboldt	9974	3203	364	0.000037	992	0.036882808	0.008000967	80	387	8	379	43964
Ft Bragg/Mendocino	Ford Gravel	9974	129	166	0.000036	9920	0.359994194	0.078093339	779	414	80	334	43086
Ft Bragg/Mendocino	Ten Mile	9974	21	36	0.000772	2480	1.913580247	0.415111892	4140	2275	426	1849	38829
Ft Bragg/Mendocino	Pieta	9974	152	182	0.000030	2480	0.074870185	0.016241547	162	123	17	106	16112
Ft Bragg/Mendocino	Layton Rock	9974	86	126	0.000063	2480	0.156210632	0.033886685	338	160	35	125	10750
Ft Bragg/Mendocino	Cooks Valley	9974	116	144	0.000048	2480	0.11958765	0.025944493	259	1106	27	1079	125164
Ft Bragg/Mendocino	Wisley Ranch	9974	25	34	0.000065	744	0.643598616	0.139615488	1393	687	143	544	13600
Ft Bragg/Mendocino	Coal Mine	9974	136	200	0.000025	1240	0.031	0.006724813	67	219	7	212	28832
Ft Bragg/Mendocino	Syar Healdsburg	9974	219	244	0.000017	2480	0.041655469	0.009036298	90	330	9	321	70299
										7668			
										6641			
										1027			
										Total Base Trips			
										Trips to be Reduced			

Vehicle Miles Traveled for Aggregate Production - Project Conditions

POPULATION 2000		Attractions	Roundtrip Distance	Travel Time	1/T * 2	Productions	F/P	F/P/Sum F/P	A/K Trips	Initial Adjusted Trips	Reduction	Final Adjusted Trips	VMT
Incorporated	Un-incorporated												
Hopland	1005	2234	60	63	0.000252	10160	2.58983875	0.100858279	225	76	44	32	1920
Hopland	1005	2234	45	62	0.000260	3720	0.9677741935	0.038129271	85	216	17	199	8955
Hopland	1005	2234	33	50	0.000400	4960	0.07817009	0.07817009	175	421	34	367	12771
Hopland	1005	2234	66	82	0.000149	1240	0.184414039	0.007265959	16	61	3	58	3828
Hopland	1005	2234	191	230	0.000019	992	0.018752363	0.000738848	2	10	0	10	1910
Hopland	1005	2234	23	40	0.000625	9920	6.2	0.244281531	546	290	107	183	4209
Hopland	1005	2234	163	204	0.000024	2480	0.059592464	0.002347958	5	3	1	2	326
Hopland	1005	2234	11	14	0.005102	2480	12.65306122	0.498533737	1114	844	218	626	6886
Hopland	1005	2234	119	140	0.000051	2480	0.128530612	0.004985337	11	5	2	3	357
Hopland	1005	2234	191	130	0.000059	2480	0.146746562	0.005781811	13	55	3	52	9932
Hopland	1005	2234	166	202	0.000025	744	0.018233507	0.000718405	2	1	0	1	166
Hopland	1005	2234	138	196	0.000026	1240	0.032278217	0.00127177	3	10	1	9	1242
Hopland	1005	2234	79	76	0.000173	2480	0.423362881	0.016917004	38	139	7	132	10428
Total Base Trips													1694
Trips to be Reduced													437

POPULATION 2000		Attractions	Roundtrip Distance	Travel Time	1/T * 2	Productions	F/P	F/P/Sum F/P	A/K Trips	Initial Adjusted Trips	Reduction	Final Adjusted Trips	VMT
Incorporated	Un-incorporated												
Laytonville	1310	4005	58	72	0.000193	10160	1.959876543	0.036038549	144	49	9	40	2320
Laytonville	1310	4005	137	174	0.000033	3720	0.1228696	0.002258347	9	23	1	22	3014
Laytonville	1310	4005	151	190	0.000028	4960	0.137396122	0.002526464	10	24	1	23	3473
Laytonville	1310	4005	169	206	0.000024	1240	0.029220473	0.000537311	2	8	0	8	1352
Laytonville	1310	4005	73	90	0.000123	992	0.122469136	0.002251984	9	44	1	43	3139
Laytonville	1310	4005	106	138	0.000053	9920	0.520898971	0.009578738	38	20	2	18	1908
Laytonville	1310	4005	53	110	0.000083	2480	0.204958678	0.00768816	15	8	1	7	371
Laytonville	1310	4005	129	154	0.000042	2480	0.104570754	0.001922865	8	6	0	6	774
Laytonville	1310	4005	5	7	0.020408	2480	50.6122449	0.930668718	3727	1762	233	1529	7645
Laytonville	1310	4005	73	90	0.000123	2480	0.30617284	0.005629959	23	98	1	97	7081
Laytonville	1310	4005	63	100	0.000100	744	0.0744	0.00136808	5	2	0	2	126
Laytonville	1310	4005	49	96	0.000109	1240	0.134548611	0.002474103	10	33	1	32	1568
Laytonville	1310	4005	196	216	0.000021	2480	0.053155007	0.000977423	4	15	0	15	2940
Total Base Trips													1842
Trips to be Reduced													250

POPULATION 2000		Attractions	Roundtrip Distance	Travel Time	1/T * 2	Productions	F/P	F/P/Sum F/P	A/K Trips	Initial Adjusted Trips	Reduction	Final Adjusted Trips	VMT
Incorporated	Un-incorporated												
Potter Valley	1275	1891	44	62	0.000260	10160	2.643080125	0.45733679	865	293	58	235	10340
Potter Valley	1275	1891	63	94	0.000113	3720	0.42100498	0.07284723	138	350	9	341	21483
Potter Valley	1275	1891	79	112	0.000080	4960	0.395408163	0.068418168	129	310	9	301	23779
Potter Valley	1275	1891	96	124	0.000065	1240	0.080645161	0.013954174	26	100	2	98	9408
Potter Valley	1275	1891	175	226	0.000020	992	0.019422038	0.003360629	6	29	0	29	5075
Potter Valley	1275	1891	51	80	0.000156	9920	1.55	0.268199219	507	269	34	235	11985
Potter Valley	1275	1891	147	200	0.000025	2480	0.062	0.010727969	20	11	1	10	1470
Potter Valley	1275	1891	74	96	0.000109	2480	0.269097222	0.046562364	88	67	6	61	4514
Potter Valley	1275	1891	103	134	0.000056	2480	0.138115393	0.023989349	45	21	3	18	1854
Potter Valley	1275	1891	175	226	0.000020	2480	0.04855094	0.008401573	16	68	1	67	11725
Potter Valley	1275	1891	150	198	0.000026	744	0.018977655	0.00283737	6	3	0	3	450
Potter Valley	1275	1891	122	192	0.000027	1240	0.033637153	0.005820296	11	36	1	35	4270
Potter Valley	1275	1891	142	158	0.000040	2480	0.095343054	0.017189503	33	121	2	119	16898
Total Base Trips													1552
Trips to be Reduced													126



**Vehicle Miles Traveled for Aggregate Production - Project Conditions**

POPULATION 2000				Attractions	Roundtrip Distance	Travel Time	1/T * 2	Productions	F/P	F/P/Sum F/P	A*/K Trips	Initial Adjusted Trips	Reduction Final Adjusted Trips	VMT
Incorporated	Un-incorporated	2000	2000											
Redwood Valley	4992	2624	7616	19	26	0.001479	10160	15.0295858	0.718745591	5474	1855	163	1692	32148
Redwood Valley	4992	2624	7616	61	86	0.000135	3720	0.502974581	0.024053275	183	465	5	460	28060
Redwood Valley	4992	2624	7616	78	104	0.000092	4960	0.459579882	0.02193023	167	402	5	397	30866
Redwood Valley	4992	2624	7616	94	116	0.000074	1240	0.0921522	0.004406907	34	131	1	130	12220
Redwood Valley	4992	2624	7616	149	190	0.000028	992	0.027479224	0.001314113	10	48	0	48	7152
Redwood Valley	4992	2624	7616	33	52	0.000370	9920	3.668639053	0.175441837	1336	709	0	669	22077
Redwood Valley	4992	2624	7616	121	164	0.000204	2480	0.09220702	0.004409529	34	139	5	134	7504
Redwood Valley	4992	2624	7616	56	70	0.000204	2480	0.506122449	0.024203813	184	139	5	134	7504
Redwood Valley	4992	2624	7616	78	102	0.000096	2480	0.238368688	0.011398336	87	41	3	38	2864
Redwood Valley	4992	2624	7616	149	190	0.000028	2480	0.069698061	0.003285282	25	107	1	106	15794
Redwood Valley	4992	2624	7616	125	162	0.000038	744	0.028349337	0.001355723	10	5	0	5	625
Redwood Valley	4992	2624	7616	96	124	0.000041	1240	0.05095332	0.002436692	19	62	1	61	5856
Redwood Valley	4992	2624	7616	124	130	0.000059	2480	0.146745562	0.007017673	53	194	2	192	23808
				1183	1548			20.91086635	0.007017673		4177	227	3950	
Total Base Trips														
Trips to be Reduced												3950		
Trips to be Reduced												227		

POPULATION 2000				Attractions	Roundtrip Distance	Travel Time	1/T * 2	Productions	F/P	F/P/Sum F/P	A*/K Trips	Initial Adjusted Trips	Reduction Final Adjusted Trips	VMT
Incorporated	Un-incorporated	2000	2000											
Ukiah	24762	3935	28697	32	36	0.000772	10160	7.839506173	0.384775974	11042	3742	1083	2659	85088
Ukiah	24762	3935	28697	72	94	0.000113	3720	0.42100498	0.020663623	593	1506	58	1448	104256
Ukiah	24762	3935	28697	62	84	0.000142	4960	0.702947846	0.034501847	990	2383	97	2286	141732
Ukiah	24762	3935	28697	95	116	0.000074	1240	0.0921522	0.004522983	130	499	13	486	46170
Ukiah	24762	3935	28697	163	200	0.000025	992	0.0248	0.001217225	35	169	3	166	27058
Ukiah	24762	3935	28697	17	32	0.000977	9920	0.475478579	13645	7246	1338	137	5908	100436
Ukiah	24762	3935	28697	135	176	0.000032	2480	0.080061983	0.003929575	113	62	11	51	6885
Ukiah	24762	3935	28697	39	50	0.000400	2480	0.992	0.048680006	1397	1058	137	921	35919
Ukiah	24762	3935	28697	91	112	0.000080	2480	0.197704082	0.009703644	278	131	27	104	9464
Ukiah	24762	3935	28697	163	200	0.000025	2480	0.062	0.003043063	37	371	9	362	59006
Ukiah	24762	3935	28697	138	174	0.000033	744	0.02457392	0.001206129	85	35	3	14	1832
Ukiah	24762	3935	28697	110	166	0.000036	1240	0.044959274	0.002208639	63	206	6	200	22000
Ukiah	24762	3935	28697	107	110	0.000083	2480	0.204958678	0.010059712	289	1059	28	1031	110317
				1224	1550			20.37420913	0.010059712		18449	2813	15636	
Total Base Trips												15634		
Trips to be Reduced												2815		

POPULATION 2000				Attractions	Roundtrip Distance	Travel Time	1/T * 2	Productions	F/P	F/P/Sum F/P	A*/K Trips	Initial Adjusted Trips	Reduction Final Adjusted Trips	VMT
Incorporated	Un-incorporated	2000	2000											
Willits/Brooktrails	5336	2893	8229	11	14	0.005102	10160	51.83673469	0.931897988	7669	2599	577	2022	22242
Willits/Brooktrails	5336	2893	8229	91	116	0.000074	3720	0.276456599	0.004970015	41	104	3	101	9191
Willits/Brooktrails	5336	2893	8229	105	130	0.000059	4960	0.293491124	0.005276254	43	103	3	100	10500
Willits/Brooktrails	5336	2893	8229	122	146	0.000047	1240	0.058172265	0.001048795	9	35	1	34	4148
Willits/Brooktrails	5336	2893	8229	119	148	0.000046	992	0.045288532	0.000814177	7	34	1	33	3927
Willits/Brooktrails	5336	2893	8229	59	78	0.000164	9920	1.630506246	0.029312523	241	128	18	110	6490
Willits/Brooktrails	5336	2893	8229	91	122	0.000067	2480	0.166621876	0.002995455	25	14	2	12	1092
Willits/Brooktrails	5336	2893	8229	82	96	0.000109	2480	0.269097222	0.004837711	40	30	4	27	2214
Willits/Brooktrails	5336	2893	8229	48	60	0.000278	2480	0.688888889	0.012384541	102	48	8	40	1820
Willits/Brooktrails	5336	2893	8229	112	148	0.000046	2480	0.1132121329	0.002035443	17	73	1	72	8064
Willits/Brooktrails	5336	2893	8229	94	120	0.000069	744	0.051666667	0.000928841	8	4	1	3	282
Willits/Brooktrails	5336	2893	8229	66	114	0.000077	1240	0.095413974	0.00171531	14	46	1	45	2970
Willits/Brooktrails	5336	2893	8229	150	158	0.000040	2480	0.095343054	0.001785946	15	55	1	54	8100
				1150	1450		45376	55.624902	0.001785946		3273	620	2653	
Total Base Trips												2654		
Trips to be Reduced												619		

Vehicle Miles Traveled for Aggregate Production - Project plus Near Term Cumulative Conditions

POPULATION 2000	Un-Incorporated	A	D	T	1/T^2	F	P	J	K	A*K	Initial Adjusted Trips	Reduction	Final Adjusted Trips	VMT
Boonville	943	3164	74	86	0.000135	10160	1.373715522	0.200640513	635	343	-106	449	33226	
Boonville	943	3164	98	138	0.000053	3720	0.195337114	0.028530317	90	90	-15	105	10290	
Boonville	943	3164	87	126	0.000063	4960	0.312421265	0.045631255	144	144	-24	168	14616	
Boonville	943	3164	119	160	0.000039	1240	0.0484375	0.007074627	22	22	-4	26	3094	
Boonville	943	3164	205	250	0.000016	992	0.015872	0.002318214	7	7	-1	8	1640	
Boonville	943	3164	53.2	74	0.000183	9920	1.811541271	0.264387947	837	837	-139	976	51923.2	
Boonville	943	3164	119	156	0.000041	2480	0.10190664	0.014884159	47	47	-8	37	4403	
Boonville	943	3164	65	90	0.000123	2480	0.30617284	0.044718629	141	141	-24	165	10725	
Boonville	943	3164	133	160	0.000039	2480	0.096875	0.014149254	45	45	-7	30	3990	
Boonville	943	3164	205	250	0.000016	2480	0.033968	0.005795534	18	18	-3	21	4305	
Boonville	943	3164	123	154	0.000042	744	0.031371226	0.004581981	14	14	-2	10	1230	
Boonville	943	3164	153	202	0.000025	1240	0.030389178	0.004385946	14	14	-2	16	2448	
Boonville	943	3164	105	124	0.000065	2480	0.161290323	0.023557551	75	75	-12	87	9135	
Boonville	943	3164	47	58	0.000297	7810	2.321640904	0.339091474	1073	209	-178	387	18189	
			1586.2	2028		53186	6.846650782	1	3162	1960	-526	2485		
									Total Base Trips	2486				
									Trips to be Reduced	-526				

POPULATION 2000	Un-Incorporated	A	D	T	1/T^2	F	P	J	K	A*K	Initial Adjusted Trips	Reduction	Final Adjusted Trips	VMT
Covelo	1838	2374	95	142	0.000050	10160	0.50366828	0.254791756	605	327	-235	562	53390	
Covelo	1838	2374	175	244	0.000017	3720	0.062483203	0.031595866	75	75	-29	104	23436	
Covelo	1838	2374	189	258	0.000015	4960	0.074514753	0.037679976	89	89	-35	124	18200	
Covelo	1838	2374	207	274	0.000013	1240	0.016516597	0.00835197	20	20	-8	28	5796	
Covelo	1838	2374	124	174	0.000033	992	0.032765227	0.016568437	39	39	-15	54	6696	
Covelo	1838	2374	144	206	0.000024	9920	0.233763785	0.11820765	281	281	-109	390	56160	
Covelo	1838	2374	105	194	0.000027	2480	0.065894356	0.033208888	79	79	-31	80	8400	
Covelo	1838	2374	166	224	0.000020	2480	0.04942602	0.02493323	59	59	-23	82	13612	
Covelo	1838	2374	48	76	0.000173	2480	0.429362881	0.21711651	515	264	-201	465	23220	
Covelo	1838	2374	125	174	0.000033	2480	0.081913066	0.041421091	98	98	-38	136	17000	
Covelo	1838	2374	114	192	0.000027	744	0.020182292	0.010205607	24	24	-9	22	2508	
Covelo	1838	2374	52	100	0.000100	1240	0.124	0.062703248	149	149	-58	207	10764	
Covelo	1838	2374	234	284	0.000012	2480	0.030747867	0.015548316	37	37	-14	51	11934	
Covelo	1838	2374	127	176	0.000032	7810	0.252130682	0.127495263	303	59	-118	177	22479	
			1905	2718		53186	1.97756801	1	Total Base Trips	1559	-924	2482		
									Trips to be Reduced	2483				

POPULATION 2000	Un-Incorporated	A	D	T	1/T^2	F	P	J	K	A*K	Initial Adjusted Trips	Reduction	Final Adjusted Trips	VMT
Ft Bragg/Mendocino	6771	9974	81	100	0.000100	10160	1.016	0.201905892	2014	1088	-91	1179	95499	
Ft Bragg/Mendocino	6771	9974	160	204	0.000024	3720	0.089388697	0.017763882	177	177	-8	185	29600	
Ft Bragg/Mendocino	6771	9974	174	218	0.000021	4960	0.104368319	0.020740727	207	207	-9	216	37584	
Ft Bragg/Mendocino	6771	9974	192	234	0.000018	1240	0.02264592	0.004500339	45	45	-2	47	9024	
Ft Bragg/Mendocino	6771	9974	116	164	0.000037	992	0.036882808	0.007329583	73	73	-3	76	8816	
Ft Bragg/Mendocino	6771	9974	129	166	0.000036	9920	0.359994194	0.071540304	714	714	-32	746	96234	
Ft Bragg/Mendocino	6771	9974	21	36	0.000772	2480	1.913580247	0.380278668	3793	2331	-172	2503	52563	
Ft Bragg/Mendocino	6771	9974	152	182	0.000030	2480	0.074870185	0.014878673	148	148	-7	155	23560	
Ft Bragg/Mendocino	6771	9974	86	126	0.000063	2480	0.156210632	0.031043157	310	310	-14	173	14878	
Ft Bragg/Mendocino	6771	9974	116	144	0.000048	2480	0.119598765	0.023767417	237	237	-11	248	28768	
Ft Bragg/Mendocino	6771	9974	25	34	0.000865	744	0.643598616	0.127899953	1276	703	-58	761	19025	
Ft Bragg/Mendocino	6771	9974	136	200	0.000025	1240	0.031	0.006160514	61	61	-3	64	8704	
Ft Bragg/Mendocino	6771	9974	219	244	0.000017	2480	0.041655469	0.008276036	83	83	-4	87	19053	
Ft Bragg/Mendocino	6771	9974	112	136	0.000054	7810	0.422253412	0.083912856	837	163	-38	201	22512	
			1719	2188		53186	5.032047312	1	Total Base Trips	6641	-452	6641		
									Trips to be Reduced	-452				



**Vehicle Miles Traveled for Aggregate Production - Project plus Near Term Cumulative Conditions**

	POPULATION 2000																
	Incorporated	Un-incorporated	Attractions	Roundtrip Distance	Travel Time	1/T <sup>1/2</sup>	Productions	F:P	F:P/Sum F:P	A:K Trips	Initial Adjusted Trips	Reduction	Final Adjusted Trips	VM/T			
Redwood Valley	4992	2624	7616	19	26	0.001479	10160	15.0295858	0.436020781	3321	1794	-136	1930	36670			
Redwood Valley	4992	2624	7616	61	86	0.000135	3720	0.502974581	0.014591711	111	111	-5	116	7076			
Redwood Valley	4992	2624	7616	78	104	0.000092	4960	0.458579882	0.013303784	101	101	-4	105	8190			
Redwood Valley	4992	2624	7616	94	124	0.000074	1240	0.0921522	0.002673412	20	20	-1	21	1974			
Redwood Valley	4992	2624	7616	149	190	0.000028	992	0.027479224	0.000797195	6	6	0	6	894			
Redwood Valley	4992	2624	7616	33	52	0.000370	9920	3.668639053	0.106430269	811	811	-33	844	27852			
Redwood Valley	4992	2624	7616	121	164	0.000207	2480	0.09220702	0.002875002	20	12	-1	13	1573			
Redwood Valley	4992	2624	7616	56	70	0.000204	2480	0.506122449	0.014683033	112	112	-5	117	6552			
Redwood Valley	4992	2624	7616	78	102	0.000028	2480	0.238368958	0.006915308	53	27	-2	29	2262			
Redwood Valley	4992	2624	7616	149	190	0.000028	2480	0.068698061	0.001992988	15	15	-1	16	2384			
Redwood Valley	4992	2624	7616	125	162	0.000038	744	0.028349337	0.000822438	6	3	0	3	375			
Redwood Valley	4992	2624	7616	96	156	0.000041	1240	0.05095332	0.001478198	11	11	0	11	1056			
Redwood Valley	4992	2624	7616	124	130	0.000059	2480	0.146745562	0.004257211	32	32	-1	33	4092			
Redwood Valley	4992	2624	7616	17	24	0.001736	7810	13.55902778	0.393358667	2996	584	-122	706	12002			
				1200	1572			34.46988412	1	3639	3950	-311	3950				
				1200	1572				Total Base Trips	3950							
									Trips to be Reduced	-311							

	POPULATION 2000																
	Incorporated	Un-incorporated	Attractions	Roundtrip Distance	Travel Time	1/T <sup>1/2</sup>	Productions	F:P	F:P/Sum F:P	A:K Trips	Initial Adjusted Trips	Reduction	Final Adjusted Trips	VM/T			
Ukiah	24762	3935	28697	32	36	0.000772	10160	7.839506173	0.142315705	4084	2206	-490	2696	86272			
Ukiah	24762	3935	28697	72	94	0.000113	3720	0.42100498	0.00764278	219	219	-26	245	17640			
Ukiah	24762	3935	28697	62	84	0.000142	4960	0.702947946	0.012761074	366	366	-44	410	25420			
Ukiah	24762	3935	28697	95	116	0.000074	1240	0.0921522	0.001672899	48	48	-6	54	5130			
Ukiah	24762	3935	28697	163	200	0.000025	992	0.0248	0.000460211	13	13	-2	15	2445			
Ukiah	24762	3935	28697	17	32	0.000977	9920	9.6875	0.175863551	5047	5047	-606	5653	96101			
Ukiah	24762	3935	28697	135	176	0.000032	2480	0.080061993	0.001453418	42	26	-5	31	4185			
Ukiah	24762	3935	28697	39	50	0.000400	2480	0.992	0.018008428	517	517	-62	579	22581			
Ukiah	24762	3935	28697	91	112	0.000080	2480	0.197704082	0.003589052	103	53	-12	65	5915			
Ukiah	24762	3935	28697	163	200	0.000025	2480	0.02457392	0.000446107	32	32	-4	36	5868			
Ukiah	24762	3935	28697	138	174	0.000033	744	0.044999274	0.000816901	13	7	-2	9	1242			
Ukiah	24762	3935	28697	110	166	0.000036	1240	0.044999274	0.000816901	23	23	-3	26	2860			
Ukiah	24762	3935	28697	107	110	0.000083	2480	0.204958678	0.003720749	107	107	-13	120	12840			
Ukiah	24762	3935	28697	5	15	0.004444	7810	34.71111111	0.630133599	18083	3526	-2170	5696	28480			
				1229	1565			55.08532025	1	12190	15634	-3445	15635				
									Total Base Trips	15634							
									Trips to be Reduced	-3445							

	POPULATION 2000																
	Incorporated	Un-incorporated	Attractions	Roundtrip Distance	Travel Time	1/T <sup>1/2</sup>	Productions	F:P	F:P/Sum F:P	A:K Trips	Initial Adjusted Trips	Reduction	Final Adjusted Trips	VM/T			
Willits/Brooktrails	5336	2893	8229	11	14	0.005102	10160	51.83673469	0.882343882	7261	3922	1920	2002	22022			
Willits/Brooktrails	5336	2893	8229	91	116	0.000074	3720	0.276456899	0.004705732	39	39	10	29	2639			
Willits/Brooktrails	5336	2893	8229	105	130	0.000059	4960	0.293491124	0.004995687	41	41	11	30	3150			
Willits/Brooktrails	5336	2893	8229	122	146	0.000047	1240	0.058172265	0.000990185	8	8	2	6	732			
Willits/Brooktrails	5336	2893	8229	119	148	0.000046	992	0.045288532	0.000770883	6	6	2	4	476			
Willits/Brooktrails	5336	2893	8229	59	78	0.000164	9920	1.630506246	0.027753816	228	228	60	168	9912			
Willits/Brooktrails	5336	2893	8229	91	122	0.000067	2480	0.166621876	0.00283617	23	14	6	8	728			
Willits/Brooktrails	5336	2893	8229	82	96	0.000109	2480	0.269697222	0.004580464	38	38	10	28	2296			
Willits/Brooktrails	5336	2893	8229	48	60	0.000278	2480	0.688888889	0.011725987	96	49	26	23	1104			
Willits/Brooktrails	5336	2893	8229	112	148	0.000046	2480	0.113221329	0.001927208	16	16	4	12	1344			
Willits/Brooktrails	5336	2893	8229	94	120	0.000069	744	0.051666667	0.000879449	7	4	2	2	188			
Willits/Brooktrails	5336	2893	8229	66	114	0.000077	1240	0.095413974	0.001624098	13	13	4	9	594			
Willits/Brooktrails	5336	2893	8229	150	168	0.000040	2480	0.099343954	0.001690977	14	14	4	10	1500			
Willits/Brooktrails	5336	2893	8229	43	50	0.000400	7810	3.124	0.053175461	438	438	116	322	13846			
				1193	1500		53186	58.748902	1.000	4830	2654	2177	2653				
									Total Base Trips	2654							
									Trips to be Reduced	2176							

Vehicle Miles Traveled for Asphalt Production - Base Permit Conditions

POPULATION 2000	Incorporated	Un-incorporated	A	D	T	1/T^2	P	J	K	A^K	Adjusted Trips	A^K*D
Boonville	943	2221	3164	74	86	0.000135208	0	0	0	0	0	0
Boonville	943	2221	3164	53.2	74	0.000183	7500	1.369612856	0.868076803	2747	384	20429
Boonville	943	2221	3164	119	156	0.000041	2500	0.102728468	0.065110516	206	29	3451
Boonville	943	2221	3164	135	154	0.000042	2500	0.105414066	0.06681268	211	239	32265
				381.2	470		12500	1.577755391		3164	652	56145

POPULATION 2000	Incorporated	Un-incorporated	Attractions	Roundtrip Distance	Travel Time	1/T^2	Productions	F*P	F*P/Sum F*P	Trips	Adjusted Trips	Miles Traveled
Covelo	1838	536	2374	95	142	4.95933E-05	0	0	0	0	0	0
Covelo	1838	536	2374	144	206	0.000024	7500	0.176736733	0.658192032	1563	218	31392
Covelo	1838	536	2374	105	194	0.000027	2500	0.066425763	0.247378725	587	82	8610
Covelo	1838	536	2374	264	314	0.000010	2500	0.025355998	0.094429243	224	254	67056
				608	856		12500	0.2688518494		2374	554	107058

POPULATION 2000	Incorporated	Un-incorporated	Attractions	Roundtrip Distance	Travel Time	1/T^2	Productions	F*P	F*P/Sum F*P	Trips	Adjusted Trips	Miles Traveled
Ft Bragg/Mendocino	6771	3203	9974	81	100	0.0001	0	0	0	0	0	0
Ft Bragg/Mendocino	6771	3203	9974	129	166	0.000036	7500	0.272173029	0.121805711	1215	170	21930
Ft Bragg/Mendocino	6771	3203	9974	21	36	0.000772	2500	1.929012346	0.86329171	8610	1203	25263
Ft Bragg/Mendocino	6771	3203	9974	249	274	0.000013	2500	0.033239959	0.014902579	149	169	42081
				480	576		12500	2.234484965		9974	1542	89274

POPULATION 2000	Incorporated	Un-incorporated	Attractions	Roundtrip Distance	Travel Time	1/T^2	Productions	F*P	F*P/Sum F*P	Trips	Adjusted Trips	Miles Traveled
Hopland	1005	1229	2234	60	63	0.000251953	0	0	0	0	0	0
Hopland	1005	1229	2234	23	40	0.000625	7500	4.6875	0.945443036	2112	295	6785
Hopland	1005	1229	2234	163	204	0.000024	2500	0.060073049	0.012116404	27	4	652
Hopland	1005	1229	2234	109	109	0.000084	2500	0.210419998	0.042440559	95	108	11772
				355	416		12500	4.957993047	1	2234	407	19209

POPULATION 2000	Incorporated	Un-incorporated	Attractions	Roundtrip Distance	Travel Time	1/T^2	Productions	F*P	F*P/Sum F*P	Trips	Adjusted Trips	Miles Traveled
Laytonville	1310	2695	4005	58	72	0.000192901	0	0	0	0	0	0
Laytonville	1310	2695	4005	106	138	0.000053	7500	0.393324827	0.613675396	2458	343	36358
Laytonville	1310	2695	4005	53	110	0.000083	2500	0.20661157	0.321951357	1289	180	9540
Laytonville	1310	2695	4005	226	246	0.000017	2500	0.041311389	0.064373247	258	293	66218
				443	566		12500	0.641747786		4005	816	112116

Vehicle Miles Traveled for Asphalt Production - Base Permit Conditions

POPULATION 2000													
	Incorporated	Un-incorporated	Attractions	Roundtrip Distance	Travel Time	1/T^2	Productions	F*P	F*P/Sum F*P	Trips	Adjusted Trips	Miles Traveled	
Potter Valley	1275	616	1891	44	62	0.000260146	0	0	0	0	0	0	
Potter Valley	1275	616	1891	51	80	0.000156	7500	1.171875	0.897913946	1698	237	12087	
Potter Valley	1275	616	1891	147	200	0.000025	2500	0.0625	0.047888744	91	13	1911	
Potter Valley	1275	616	1891	172	188	0.000028	2500	0.070733364	0.054197311	102	116	19952	
				414	530			1.305108364		1891	366	33950	
POPULATION 2000													
	Incorporated	Un-incorporated	Attractions	Roundtrip Distance	Travel Time	1/T^2	Productions	F*P	F*P/Sum F*P	Trips	Adjusted Trips	Miles Traveled	
Redwood Valley	4992	2624	7616	19	26	0.00147929	0	0	0	0	0	0	
Redwood Valley	4992	2624	7616	33	52	0.000370	7500	2.773668639	0.931470714	7094	991	32703	
Redwood Valley	4992	2624	7616	121	164	0.000037	2500	0.092950625	0.031215259	238	33	3993	
Redwood Valley	4992	2624	7616	154	150	0.000044	2500	0.111111111	0.037314027	284	322	49588	
				327	392			2.977730375		7616	1346	86284	
POPULATION 2000													
	Incorporated	Un-incorporated	Attractions	Roundtrip Distance	Travel Time	1/T^2	Productions	F*P	F*P/Sum F*P	Trips	Adjusted Trips	Miles Traveled	
Ukiah	24762	3935	28697	32	36	0.000771605	0	0	0	0	0	0	
Ukiah	24762	3935	28697	17	32	0.000977	7500	7.32421875	0.972351903	27904	3898	66266	
Ukiah	24762	3935	28697	135	176	0.000032	2500	0.080707645	0.010714622	307	43	5805	
Ukiah	24762	3935	28697	137	140	0.000051	2500	0.12755102	0.016933475	486	551	75487	
				321	384			7.532477415		28697	4492	147558	
POPULATION 2000													
	Incorporated	Un-incorporated	Attractions	Roundtrip Distance	Travel Time	1/T^2	Productions	F*P	F*P/Sum F*P	Trips	Adjusted Trips	Miles Traveled	
Willits/Brooktrails	5336	2893	8229	11	14	0.005102041	0	0	0	0	0	0	
Willits/Brooktrails	5336	2893	8229	59	78	0.000164	7500	1.232741617	0.837778727	6894	963	56817	
Willits/Brooktrails	5336	2893	8229	91	122	0.000067	2500	0.167965601	0.114150447	939	131	11921	
Willits/Brooktrails	5336	2893	8229	180	188	0.000028	2500	0.070733364	0.048070826	396	449	80820	
				341	402		12500	1.471441		8229	1543	149558	

Vehicle Miles Traveled for Asphalt Production - Project Conditions

POPULATION 2000	A	D	T	F	P	J	K	A^K	Adjusted Trips	A*K'D	
											Incorporated
Boonville	943	3164	74	86	0.000135	3640	0.492157923	0.237767408	752	75	5550
Boonville	943	3164	53.2	74	0.000183	7500	1.369612856	0.661676432	2094	363	19312
Boonville	943	3164	119	156	0.000041	2500	0.102728468	0.049629358	157	32	3808
Boonville	943	3164	135	154	0.000042	2500	0.105414066	0.050926802	161	250	33750
			381.2	470		16140	2.069913314		3164	720	

POPULATION 2000	A	D	T	F	P	J	K	A^K	Adjusted Trips	A*K'D	
											Incorporated
Covelo	1838	2374	95	142	0.000050	3640	0.180519738	0.402014183	954	95	9025
Covelo	1838	2374	144	206	0.000024	7500	0.176736733	0.3935895	934	162	23328
Covelo	1838	2374	105	194	0.000027	2500	0.066425763	0.147928969	351	71	7455
Covelo	1838	2374	264	314	0.000010	2500	0.025355998	0.056467348	134	208	54912
			608	856		16140	0.449038232		2373	536	

POPULATION 2000	A	D	T	F	P	J	K	A^K	Adjusted Trips	A*K'D	
											Incorporated
Fl Bragg/Mendocino	6771	9974	81	100	0.000100	3640	0.364	0.140081626	1397	138	11178
Fl Bragg/Mendocino	6771	9974	129	166	0.000036	7500	0.272173029	0.104742969	1045	181	23349
Fl Bragg/Mendocino	6771	9974	21	36	0.000772	2500	1.929012346	0.742360403	7404	1496	31416
Fl Bragg/Mendocino	6771	9974	249	274	0.000013	2500	0.033299959	0.012815002	128	199	49551
			480	576		16140	2.598484965		9974	2014	

POPULATION 2000	A	D	T	F	P	J	K	A^K	Adjusted Trips	A*K'D	
											Incorporated
Hopland	1005	2234	60	63	0.000252	3640	0.917107584	0.156100745	349	35	2100
Hopland	1005	2234	23	40	0.000625	7500	4.6875	0.797858674	1782	309	7107
Hopland	1005	2234	163	204	0.000024	2500	0.060073049	0.010225025	23	5	815
Hopland	1005	2234	109	109	0.000084	2500	0.210419998	0.035815556	80	124	13516
			355	416		16140	5.875100631	1	2234	473	

POPULATION 2000	A	D	T	F	P	J	K	A^K	Adjusted Trips	A*K'D	
											Incorporated
Laytonville	1310	4005	58	72	0.000193	3640	0.702160494	0.5224765	2093	207	12006
Laytonville	1310	4005	106	138	0.000053	7500	0.393824827	0.293044423	1174	204	21624
Laytonville	1310	4005	53	110	0.000083	2500	0.20661157	0.153739339	616	124	6572
Laytonville	1310	4005	226	246	0.000017	2500	0.041311389	0.030739738	123	191	43166
			443	566		16140	1.34390828		4006	726	

Vehicle Miles Traveled for Asphalt Production - Project Conditions

POPULATION 2000														
Incorporated	Un-incorporated	Attractions	Roundtrip Distance	Travel Time	1/T^2	Productions	F*P	F*P/Sum F*P	Trips	Miles Traveled	POPULATION 2000			
											Incorporated	Un-incorporated	Attractions	Roundtrip Distance
Potter Valley	Harris Quarry AC	616	1891	44	62	0.000260	3640	0.946930281	0.420476924	795	79	3476		
Potter Valley	Granite	616	1891	51	80	0.000156	7500	1.171875	0.520361852	984	171	8721		
Potter Valley	Baxman	616	1891	147	200	0.000025	2500	0.0625	0.027752632	52	11	1617		
Potter Valley	Syar/Bodean	616	1891	172	188	0.000028	2500	0.070733364	0.031408592	59	92	15824		
				414	530			2.252038644		1890	353			
POPULATION 2000														
Redwood Valley	Harris Quarry AC	2624	7616	19	26	0.001479	3640	5.384615385	0.643912072	4904	486	9234		
Redwood Valley	Granite	2624	7616	33	52	0.000370	7500	2.773668639	0.331685477	2526	438	14454		
Redwood Valley	Baxman	2624	7616	121	164	0.000037	2500	0.092950625	0.011115377	85	17	2057		
Redwood Valley	Syar/Bodean	2624	7616	154	150	0.000044	2500	0.111111111	0.013287075	101	157	24178		
				327	392			8.362345759		7616	1098			
POPULATION 2000														
Ukiah	Harris Quarry AC	3935	28697	32	36	0.000772	3640	2.808641975	0.271599415	7794	773	24736		
Ukiah	Granite	3935	28697	17	32	0.000977	7500	7.32421875	0.708261695	20325	3528	59976		
Ukiah	Baxman	3935	28697	135	176	0.000032	2500	0.080707645	0.007804537	224	45	6075		
Ukiah	Syar/Bodean	3935	28697	137	140	0.000051	2500	0.12755102	0.012334353	354	550	75350		
				321	384			10.34111939		28697	4896			
POPULATION 2000														
Willits/Brooktrails	Harris Quarry AC	2893	8229	11	14	0.005102	3640	18.57142857	0.926585532	7625	756	8316		
Willits/Brooktrails	Granite	2893	8229	59	78	0.000164	7500	1.232741617	0.061505247	506	88	5192		
Willits/Brooktrails	Baxman	2893	8229	91	122	0.000067	2500	0.167965601	0.008380317	69	14	1274		
Willits/Brooktrails	Syar/Bodean	2893	8229	180	188	0.000028	2500	0.070733364	0.003529104	29	45	8100		
				341	402		16140	20.042869		8229	903			



**Table 8A  
Vehicle Miles Traveled Summary**

<b>Quarry Aggregate VMT</b>	<b>Base Permit</b>		<b>Project</b>		<b>Project plus Near Term Cumulative</b>		<b>Change In VMT</b>
	<b>Annual Trips</b>	<b>Annual VMT</b>	<b>Annual Trips</b>	<b>Annual VMT</b>	<b>Annual Trips</b>	<b>Annual VMT</b>	
Harris	3,719	98,761	7,550	225,263	9,420	355,943	257,182
Davis Pit	3,721	322,636	3,579	318,899	970	96,567	-226,069
Keithly Ranch	4,959	415,506	4,747	401,631	1,303	126,538	-288,968
DNA River	1,240	145,695	1,209	144,970	217	28,896	-116,799
Cooks Humboldt	992	133,202	973	129,297	177	22,617	-110,585
Ford Gravel	9,920	287,671	8,096	236,262	9,649	372,762	85,091
Ten Mile	2,480	75,480	2,018	58,816	2,693	74,219	-1,261
Pieta	2,481	109,033	2,058	89,771	2,070	61,471	-47,562
Layton Rock	2,480	69,650	2,088	47,997	2,463	61,471	-8,179
Cooks Valley	2,480	329,488	2,420	319,171	513	65,387	-264,101
Wisley Ranch	744	25,178	591	19,419	814	25,373	195
Coal Mine	1,241	108,060	1,199	104,864	353	28,241	-79,819
Syar Healdsburg	2,449	326,041	2,412	319,551	447	65,321	-260,720
Kunzler	0	0	0	0	7,845	130,187	130,187
<b>Total</b>	<b>38,936</b>	<b>2,446,401</b>	<b>38,940</b>	<b>2,415,911</b>	<b>38,934</b>	<b>1,514,993</b>	<b>-931,408</b>
<b>Plant (AC VMT)</b>							
Harris	0	0	2,644	85,621	2,644	85,621	85,621
Granite	7,499	284,767	5,444	183,063	5,444	183,063	-101,704
Baxman	1,718	71,146	1,815	61,089	1,815	61,089	-10,057
Bodean/Syar (Santa Rosa)	2,501	445,239	1,816	318,347	1,816	318,347	-126,892
<b>Total</b>	<b>11,718</b>	<b>801,152</b>	<b>11,719</b>	<b>648,120</b>	<b>11,719</b>	<b>648,120</b>	<b>-153,032</b>
<b>Project Total</b>	<b>50,654</b>	<b>3,247,553</b>	<b>50,659</b>	<b>3,064,031</b>	<b>50,653</b>	<b>2,163,113</b>	<b>-1,084,440</b>

Note: VMT = Vehicle miles traveled