AIR QUALITY CONFORMITY ANALYSIS

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U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION CALIFORNIA DIVISION 650 Capitol Mall, Suite 4-100 Sacramento, CA. 95814

November 3, 2008

NUV 2 1 2008

IN REPLY RÉFER TO HDA-CA Document # S52201

John Singlaub, Executive Director Tahoe Metropolitan Planning Agency P.O. Box 5310 Stateline, NV 89449

Dear Mr. Singlaub:

SUBJECT:

Conformity Determination for TMPO's 2008 Federal Regional Transportation

Plan

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) have completed our review of the conformity determination for the Tahoe Metropolitan Planning Organization's (TMPO) 2008 Regional Transportation Plan (RTP), *Mobility 2030.* A FTA/FHWA air quality conformity determination is required for the new RTP pursuant to the Environmental Protection Agency's (EPA) *Transportation Conformity Rule*, 40 CFR Parts 51 and 93, and the United States Department of Transportation's *Metropolitan Planning Rule*, 23 CFR Part 450.

On August 27, 2008, the TMPO and the Tahoe Regional Planning Agency (TRPA) adopted the 2008 RTP and made the corresponding conformity determination via Resolutions 2008-23 and 2008-24. The conformity analysis submitted by TMPO indicates that all air quality conformity requirements have been met. Based on our review, we find that the 2008 RTP conforms to the applicable California and Nevada state implementation plans in accordance with the provisions of 40 CFR Parts 51 and 93. In accordance with the July 15, 2004, *Memorandum of Understanding (MOU) between the Federal Highway Administration, California Division and the Federal Transit Administration, Region IX*, the FTA has concurred with this conformity determination. Additionally, this conformity determination was made after consultation with the EPA, Region 9 office.

In accordance with the above MOU, the FHWA's single signature constitutes FHWA and FTA's joint air quality conformity determination for TMPO's new 2008 RTP. If you have any questions pertaining to this conformity finding, please contact Aimee Kratovil, FHWA, at (916) 498-5866.

Sincerely

For

Gene K. Fong

Division Administrator

AMERICAN ECONOMY

CHAPTER 6: CONFORMITY - ENVIRONMENTAL



Purpose

Tahoe Metropolitan Planning Organization (TMPO), and TRPA acting as the Regional Transportation Planning Agency (RTPA) in California, has prepared, pursuant to Section 176 (c)(4) of the 1990 federal Clean Air Act Amendments (CAAA) this determination of conformity of the 2008 Regional Transportation Plan (RTP) with the State Implementation Plan (SIP). The conformity analysis described herein applies to the TMPO and TRPA (as the RTPA) document given that both have identical analysis requirements. The purpose of conformity is to ensure that regional transportation planning and programming remain consistent with state and local air quality planning efforts to achieve and/or maintain the National Ambient Air Quality Standards (NAAQS).

The Transportation Conformity Rule appearing in 40 CFR Parts 51 and 93 is applicable to transportation plans developed pursuant to 23 CFR part 450 or 49 CFR part 613 by a Metropolitan Planning Organization (MPO). The Transportation Conformity Rule requires all MPOs in non-attainment areas or who are under federally approved maintenance plans to submit a conformity analysis if the planning or programming documents identify projects that have been defined as non-exempt. Consistent with Conformity Regulation Section 93.101, the CAAA also directs MPOs to facilitate the expeditious implementation of the Transportation Control Measures (TCMs) that are included in the SIP. No TCMs are applicable to the Tahoe Region therefore no control measures are identified for implementation.

Emissions Tests

Pursuant to the conformity regulation, a regional emission analysis which incorporates all conforming non-exempt projects must meet the established emission tests before the 2008 RTP can be determined to conform to the State Implementation Plans (SIP) in California and Nevada. For California counties, the MPO must demonstrate that proposed transportation programs and plans are consistent with the SIP by showing that emissions associated with these plans and programs do not exceed applicable carrying capacities or "emission budgets" previously adopted by the California Air Resources Board (CARB). Similarly, for Nevada counties, the MPO must demonstrate that the proposed transportation programs do not increase emissions above the levels associated with the present situation (i.e. baseline conditions) or other programs that would be normally implemented for those areas.

The TMPO is responsible for conducting conformity determinations for both the California and Nevada portions of the Basin where conformity requirements apply. The previous conformity analysis was approved on September 9th, 2005. The U.S. EPA requires two 10-year CO maintenance plans. In California, EPA has approved the Lake Tahoe Air Basin (LTAB) second 10-year maintenance plan, which ends in 2018. In Nevada, the first 10-year maintenance plan ends in 2013. (Please refer to Appendix B for the historical carbon monoxide and ozone readings.) See Figure 6.1 below, for area designations requiring a conformity analysis.

Pollutant and Conform	nity Design	nation by Jurisdiction
		Reason for Conformity
Jurisdiction	Pollutant	Analysis
El Dorado County	CO	Current Maintenance Plan
Placer County	CO	Current Maintenance Plan
Douglas County	CO	Limited Maintenance Plan
Carson City County	CO	Limited Maintenance Plan

Figure 6.1

Modeling and Analytical Assumptions (California)

Pursuant to the conformity regulation, a regional emissions analysis, which incorporates all conforming non-exempt projects, must meet the emissions budget test before the 2008 RTP can be determined to conform to the SIP. This analysis is holistic in scope, with final conformity being based on the program, rather than on a project-by-project basis. This emissions test is required for Carbon Monoxide (CO). This analysis pertains solely to CAAA conformity mandates and should not be construed as environmental impact findings related to the NEPA or CEQA environmental review processes.

On November 30, 2005, the EPA took direct and final action to approve a State Implementation Plan revision that was submitted by the California Air Resources Board. The revision titled "Approval and Promulgation of Implementation Plans and Designation of Areas for Air Quality Planning Purposes; Carbon Monoxide Maintenance Plan Update for Ten Planning Areas; Motor Vehicle Emissions Budgets: Technical Correction" (Federal Register/Vol. 70, No 229/Wednesday, November 30, 2005/Rules and Regulations) The above Technical Correction provides a ten-year update to the carbon monoxide maintenance plan, for 10 planning areas of which the LTAB was included. As part of this update the following Motor Vehicle Emission Budget (MVEB) (Figure 6.2) was developed for the LTAB.

The federal conformity regulation (Section 93.119 (e)) requires that a conformity analysis must include the attainment milestone year of the SIP, the forecast horizon year of the applicable RTP and have no analysis gaps greater than ten years. Based on these requirements, the conformity analysis years selected for this analysis are: 2010, 2018, and 2030. A description of the conformity modeling planning assumptions is provided in Figure 6.3.

Modeling Assumptions	2008 RTP
	Conformity Assumptions
Socio-economic growth assumptions	TRPA Regional Plan Update Growth Forecasts
Vehicle Activity Levels (trips, VMT)	ARB Default Activity (2010, 2020, 2030) -TMPO
(LDA, LDT, MDT, UB, MCY, SBUS, HHDT, HDGT,)	Model (2012, 2017,2030)
VMT by Speed Class Distributions	ARB Default Activity (2010, 2020, 2030)
(LDA, LDT, MDT, HDDT, HDGT, SBUS, MCY)	
Transportation Model Networks	TMPO Travel Model (2030 -Build-No Build)
Infrastructure Improvements & Schedules	Programmed Projects: 2009 FTIP: Planned Projects:
	2008 RTP
Emission Model	EMFAC2007 v. 2.3 (ARB)
Vehicle Type/Technology & Demographic Distributions	EMFAC2007 v. 2.3 (ARB)
Vehicle Population	ARB Default Activity (2010, 2020, 2030)
Vehicle Starts	EMFAC2007v.2.3 ARB Default Activity (2010,2020,
	2030)
Emission Budgets	2005 40 CFR (2003, 2010, 2018)

Figure 6.3

Note: Additional Information concerning the TMPO Transcad Model Development and Calibration can be found in Lake Tahoe Resident and Visitor Model: Model Description and Final Results: Parsons, Brickerhoff Quade & Douglas. August 2007.

Motor Vehicle Emission Budget (MVEB)

		EMISSI	ON BUL	OGET
CO Maintenance Area	Area Included	2003	2010	2018
Lake Tahoe North Shore	Eastern Placer	11	11	11
Lake Tahoe South Shore	Eastern El Dorado	19	19	10

Note: Winter Seasonal emissions are in tons per day. Emissions budget represent CARB's seasonal on-road motor vehicle emission inventory

2008 TMPO TransCAD Modeling and Network Analysis

The 2008 RTP impact on travel behavior is assessed at the regional scale using the TMPO TransCAD Tour-Based Travel Demand Model. The TransCAD model identifies the 2008 RTP impact on region-wide circulation patterns and Vehicle Miles Traveled (VMT). The socio-economic data inputs for the regional network travel demand model were derived from the most recent growth allocations (2012, 2017, 2022 and 2030) identified through the TRPA Regional Plan (Pathway). Both non-exempt projects required modifications to the 2030 TransCAD street networks. New roads or road extensions were coded by creating new links; widening projects required re-coding the number of lanes on affected links; channelization improvements entailed increasing the coded lane capacities; and passing lanes and/or roadway improvements/ upgrades were reflected by increasing the average free flow speeds on affected links.

Non-Exempt Projects

The Lake Tahoe Region is subject to a transportation conformity analysis on specific types of projects (termed "non-exempt projects") that are included within the planning and programming documents. Exempt projects are defined in 40 CFR 93.126 and generally include projects that will not increase roadway capacity or VMT, safety improvements, maintenance of existing transit systems, such as bus replacement and the addition of bus shelters to be implemented in the Lake Tahoe Region. The following non-exempt projects have been identified for the Tahoe Region. (A complete list of projects can be found on page 54 of the RTP.)

U.S. Highway 50 Stateline Project

Scheduled for completion after 2022, this project will re-align U.S. Highway 50 near the casino corridor to improve bicycle, pedestrian and transit opportunities. The project straddles the California/Nevada Stateline area in El Dorado County, California and Douglas County, Nevada.

It proposes to reduce the existing U.S. Highway 50 alignment to two eastbound lanes with westbound traffic redirected on Lake Parkway.

State Route 89 Realignment

Also scheduled for completion after 2022, this project addresses seasonal traffic congestion at the Tahoe City "Wye" in Placer County and the structural and seismic deficiencies of the Fanny Bridge over the Lower Truckee River. Fanny Bridge will be upgraded to provide improved pedestrian and bicycle safety with a new State Route 89 alignment through the 64-acre USFS (U.S. Forest Service) parcel located west of the existing SR 89.

Based on the results of the TransCAD modeling and street network analysis, the resulting increase in daily VMT and vehicle trips from the two non-exempt projects have been estimated at 15,530 and 2,283 respectfully for the forecast year of 2030. In order to identify the county's (El Dorado and Placer) VMT and vehicle trip change contribution as inputs to the on-road source emission estimates created by the two projects, the TMPO staff utilized the TransCAD model to identify El Dorado and Placer VMT and vehicle trip changes for the 2030 forecast year. Based on the results of this analysis the El Dorado and Placer County increases in VMT and vehicle trips were computed as follows for the 2030 forecast year:

EL DORADO COUNTY 2030 FORECAST	PLACER COUNTY 2030 FORECAST
VMT +10,861	VMT +4,669
Vehicle Trips +1,553	Vehicle Trips +730

Figure 6.4

On-Road Motor Vehicle Emissions Analysis

The on-road mobile source emissions estimates for the 2008 RTP were produced with the EPA approved EMFAC2007 (v. 2.30 November 6, 2006) emission inventory model developed by the CARB for use in California. EMFAC calculates emission factors that are used as inputs to the activity module to produce an on-road mobile source emissions inventory. EMFAC uses inputs on the types of vehicles in use, vehicle speeds, vehicle operating conditions (e.g., cold starts, hot starts, hot stabilized running etc.,) and temperature corrections (for diurnal and hot soak evaporative processes) to generate on-road vehicle emission factors. These emission factors are applied to the appropriate on-road activity data (e.g., VMT, VMT by speed class, and number of trip starts for each vehicle type and technology group) stratified by time of day (to account for diurnal ambient temperature variations) to produce a countywide on-road mobile source emissions estimate.

The emissions associated with VMT and vehicle starts are accounted for in the EMFAC model based on the distribution of these trips by vehicle classification, vehicle technology class, operating mode and activity by time of day. ARB distributions were used for this purpose.

California Emissions Results

The Emission Budget Results and On-Road Activity Data can be found in Technical Appendix B.

California Conformity Determination

As a result of the above emission results, the TMPO finds the proposed new transportation programs discussed in this document do not affect CO attainment nor exceed the CO budget in either Placer or El Dorado Counties for the life of this plan. For this reason, the TMPO stipulates that this plan is consistent with the California's State Implementation Plan for air quality and is therefore in full compliance with the Conformity requirements of the Clean Air Act.

El Dorado County Projected In	ventory CO Emissions	
CO MAINTENANCE AREA Lake Tahoe South Shore	Area Included Eastern El Dorado	2010 2018 2030 10.02* 4.94* 2.98*
Placer County Projected Invent	tory CO Emissions	
CO MAINTENANCE AREA Lake Tahoe North Shore * Tons per day	Area Included Eastern Placer	2010 2018 2030 4.74* 2.60* 1.49*



Figure 6.5

Nevada Conformity

Nevada's conformity analysis differs slightly from California's in that there is no emissions budget to form a conformity determination. Figure 6.1 on page 66 shows the current designation for Nevada's counties in the Tahoe Basin. As indicated in Figure 6.1, Carson City and Douglas Counties are now under a limited maintenance plan for CO (NDEP's Carbon Monoxide Re-designation Request and Limited Maintenance Plan was adopted by the EPA in February 2004). The limited maintenance plan includes provisions for interagency consultation procedures should CO concentrations exceed a pre-determined "trigger." This trigger includes two verified 8-hour average concentrations in excess of 7.65 ppm (85% of the CO NAAQS) at any one monitoring site in any CO season (November through February) as the pre-violation action level. Since the 2008 RTP is working under a Limited Maintenance Plan in Nevada, the 2008 RTP is not required to satisfy the regional emissions analysis for a given pollutant.



Energy Element

Reducing Greenhouse Gas Emissions at Lake Tahoe

The Lake Tahoe Region is particularly vulnerable to the impacts of global climate change, just as it is to other environmental impacts. The region's economy is highly dependent on the health of its environmental assets, including its substantial snowpack, a clear lake, and healthy forests, all of which will be negatively affected by warming temperatures.

Emissions from motor vehicles, including cars, buses and boats, are a leading source of greenhouse gas emissions in the Basin. Motor vehicle use has been identified as a major contributor to the loss of clarity of Lake Tahoe, contributing to runoff from roadways and the emission of nitrogen oxides and particulate matter, causing algae growth in the Lake. Since 1982, the TRPA has strived to meet two air quality threshold indicators: Vehicle Miles Traveled (VMT) and traffic counts. Both of these criteria should be reduced to 1981 levels. These threshold indicators are consistent with the goals of California's Global Warming Solutions Act (AB32) of 2006, which specifies that the state must reduce greenhouse gas emissions to 1990 levels by 2020. Vehicle Miles Traveled have been decreasing in the Lake Tahoe Region over the last five years, and traffic counts, which, for the purposes of the threshold indicator, are measured at a location in South Lake Tahoe, are also trending downward.

Because of the air quality thresholds and the intense focus on environmental health in the Lake Tahoe Region, the goals and policies of past regional plans and regional transportation plans have focused on reducing emissions from motor vehicles, and on shifting people out of their cars and into other, lower impact modes such as transit, bicycling, and walking. This Regional Transportation Plan continues this trend, with the majority of policies and projects encouraging transit and pedestrian-oriented development, constructing pedestrian and bicycling facilities, and strengthening the transit system. Those projects that are related to roadway improvements are limited to minor changes such as adding left-hand turn lanes or improving traffic signalization to provide for a more efficient use of the current roadway network. These projects relieve

congestion without widening roadways or adding major capacity for motor vehicles.

Concurrent with the development of this regional transportation plan is a comprehensive revision and update to the regional plan for the Lake Tahoe Region. The regional plan outlines goals and policies for many resource areas in addition to transportation, and will examine land-use and building strategies that can reduce greenhouse gas emissions. The regional plan will include a region-wide analysis that looks at all aspects of the plan with respect to climate change, including transportation.

Projects that affect greenhouse gas emissions

In the area of transportation, most greenhouse gas emissions are associated with motor vehicle use. Therefore, projects that shift people out of cars and into other, lower-emission alternatives will reduce greenhouse gas emissions. The projects proposed as part of Mobility 2030, the Lake Tahoe Regional Transportation Plan, are grouped below into three categories: projects that will likely reduce greenhouse gas emissions, projects that will likely increase greenhouse gas emissions, and those where the effect on emissions is unclear or may be neutral.

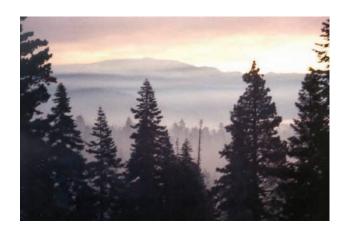
Projects that were placed in the "reduce" category are those that aim to reduce vehicle use or vehicle emissions as a primary goal. For instance, all bicycle trails and pedestrian improvements are considered to reduce emissions, since the primary goals of these projects getting drivers to walk or bicycle for trips they otherwise would have made by motor vehicle, thus reducing air quality emissions. Likewise, capital improvements in bus fleets were considered to reduce greenhouse gas emissions, since one of the main purposes of replacing buses is introducing newer, cleaner technologies to the fleets.

Projects included in the "increase" greenhouse gas emissions category are those that create capacity increases for motor vehicles. These capacity increases are still quite small, compared to those planned in larger, urban areas, but they create additional lane capacity for several thousand feet of roadway in order to alleviate reoccurring congestion

at key points. Aviation service enhancements are also considered to increase greenhouse gas emissions as air travel is one of the most energy-intensive forms of travel.

Projects that are in the "unclear" column include certain transit and roadway improvement projects. These projects may reduce greenhouse gas emissions in some ways, but could increase them in others. New transit services get people out of their cars, but if older buses with out-of-date emissions technology are used to provide that transit service, then ridership must be high enough to outweigh the impacts of the additional bus emissions. As capital improvements are made to bus fleets, however, emissions will be reduced. Likewise, roadway improvements can decrease greenhouse gas emissions by reducing idling times, but at the same time they can increase the capacity of a roadway, allowing and encouraging more vehicles to use the roadway system. The roadway capacity increases in the 2008 RTP are intended to encourage greater flexibility to implement alternative mode options.

As a percentage of total project cost, projects that will likely reduce greenhouse gas emissions are estimated at approximately 57% of expenditures; those that will likely increase greenhouse gas emissions are approximately 1% of expenditures; and those whose effect is unclear make up 42% of expenditures. See Figure 6.6.



Policies that affect greenhouse gas emissions

Most of the goals and policies in the Regional Transportation Plan focus on reducing environmental impacts of motor vehicles, including emissions of greenhouse gasses.

GOAL #1 Pedestrian Transit Oriented Development (PTOD) Plan for and promote land use changes and development patterns consistent with the Regional Plan that encourage the development of walkable, mixed-use centers that support transportation enhancements and environmental improvements while improving the viability of transit systems.

GOAL #2 Pedestrian/Bicycle Friendly Communities Design an atmosphere elevating bicycle and pedestrian usage to the primary modes of transportation at Lake Tahoe.

GOAL #3 Utilization of Intelligent Transportation Systems (ITS). Technology shall be considered, implemented and used to increase usage of alternative modes.

GOAL #4 Actively pursue programs that promote the use and expansion of mass transit.

GOAL #5 Participate in state and local transportation planning efforts to ensure coordination and consistency in the transportation system, and to strengthen inter and intra-regional transportation.

GOAL #7 Develop parking management strategies for the Tahoe Region.

GOAL #8 Manage and respond to transportation demand through traffic management plans.

GOAL #10 Improve the mobility of the elderly, handicapped and other transit-dependent groups.

GOAL #12 Develop an on-going source of regional revenue to fund alternative transportation operations and maintenance.

For the full text of goals and associated policies, please refer to Chapter 2.

Project Strategies	Reduce GG	Increase GG	<u>Unclear</u>	<u>Total</u>
U.S. 50 Bicycle and Pedestrian Improvement Project(s)	\$48,000,000			\$48,000,00
Kings Beach Commercial Core Improvement Project	\$50,000,000			\$50,000,00
State Route 89 Realignment Project		\$50,000,000		\$50,000,00
Tahoe City Transit Center	\$7,000,000			\$7,000,00
U.S. 50 Stateline Corridor Project			\$65,000,000	\$65,000,00
Waterborne			\$14,000,000	\$14,000,00
Transit Strategies				
BlueGo Service Operational Enhancements			\$4,073,400	\$4,073,40
BlueGo Service Capital Enhancements	\$4,740,000			\$4,740,00
BlueGo Maintenance Facility			\$7,000,000	\$7,000,00
TART Service Operational Enhancements			\$813,000	\$813,00
TART Service Capital Enhancements	\$281,300			\$281,30
Lake Lapper Capital			\$30,000	\$30,00
Lake Lapper Operational			\$240,000	\$240,00
Aviation Capital		\$1,500,000		\$1,500,00
Aviation Operational		\$800,000		\$800,00
Bike and Pedestrian Strategies				
Pioneer Trl - from Lake Tahoe Blvd./US Hwy 50 to - Ski Run Blvd	\$3,560,000			\$3,560,00
Harrison Ave - from Lakeview Ave to Los Angelese Avenue	\$450,000			\$450,00
Lake Tahoe Nevada State Park - From Incline Village to Sand Harbor	\$7,920,000			\$7,920,00
Sawmill Rd - from Lake Tahoe Blvd to Us Hwy 50	\$3,680,000			\$3,680,00
Al Tahoe Trl - from Lake Tahoe Blvd/US Hwy 50 to Al Tahoe Trl	\$500,000			\$500,00
Lake Tahoe Blvd - from Sawmill Road to D Street	\$2,100,000			\$2,100,00
JS Hwy 50 - from Cave Rock to Zephyr Cove	\$9,500,000			\$9,500,00
US Hwy 50 - from Zephyr Cove to Roundhill/Elks Point Trail	\$2,960,000			\$2,960,00
USFS Trl from Spring Creek to Cascade Rd.	\$3,840,000			\$3,840,00
Dollar Hill Trl - from Dollar Hill to N. Tahoe Regional Park	\$6,160,000			\$6,160,00
OLD Hwy 50 ROW - from CSLT City Limits to Douglas County Line	\$6,760,000			\$6,760,0

Figure 6.6

Project Strategies	Reduce GG	Increase GG	<u>Unclear</u>	<u>Total</u>
OLD Hwy 50 ROW - from CSR 89-Meyers to CSLT City Limits	\$9,480,000			\$9,480,000
Lake Tahoe-Nevada State Park - from Incline Village to Sand Harbor	\$990,000			\$990,000
College Drive - from Mt. Rose Hwy to Village Blvd	\$200,000			\$200,000
NSR 207/Kingsbury Grade - from Basin Boundary/Spooner Summit to US Hwy				
50	\$12,320,000			\$12,320,000
Brockway Summit - from Kings Beach/CSR 28 to Brockway Summit	\$1,610,000			\$1,610,000
NSR 28 - from Sand Harbor to Chimney Beach	\$120,800			\$120,800
CSR 89 - from Cascade to N. Emerald Bay	\$196,400			\$196,400
Homewood - from Tahoe Ski Bowl Way to Silver Street	\$2,000,000			\$2,000,000
Incline Village/NSR 28 - from Southwood to Country Club Drive	\$300,000			\$300,000
Nevada South Demo - from Stateline to Round Hill Pines Beach	\$6,000,000			\$6,000,000
Smart Streets - Complete Streets Strategies				
US 50 and Sierra Blvd. Intersection Improvements		\$755,000		\$755,000
US 50 Signal Syncronization (Meyers to Stateline)			\$3,000,000	\$3,000,000
US 50 and Apache Intersection Improvements		\$320,000		\$320,000
Meyers Highway Corridor Operations Study			\$700,000	\$700,000
Tahoe City Traffic Management Program			\$550,000	\$550,000
Intersection Detection Equipment (various Locations)			\$900,000	\$900,000
Changeable Message Signs (Various Locations)			\$2,850,000	\$2,850,000
Sierra Traffic Operation System (TOS) (ITS at Various Locations in CA)	\$5,300,000			\$5,300,000
Traffic Monitoring Stations (various locations)	\$520,000			\$520,000
Bike & Pedestrian Facilities O&M	\$2,000,000			\$2,000,000
Safety and Rehabilitation Projects (Minor Projects-NV)	\$1,800,000			\$1,800,000
Safety and Rehabilitation Projects (Minor Projects-CA)	\$2,800,000			\$2,800,000
Emergency Roadway Repair Program	\$600,000			\$600,000
Total Project/Program Costs in 2008 dollars	\$203,688,500	\$53,375,000	\$99,156,400	\$356,219,900
Percentage of Total Cost	57%	15%	28%	

Figure 6.6 cont.

Conclusion

The main focus of the regional transportation plan is to implement projects that reduce dependency on the private automobile and ultimately reduce environmental and climate impacts. There is, however, a group of projects in the plan for which the environmental impact is as yet unclear. The impact of these individual projects on greenhouse gas emissions will be fully analyzed by project level environmental documentation during project development. Many of these projects provide mobility and social services that are vital to Lake Tahoe communities, such as frequent transit service in low-income neighborhoods. These systems provide the infrastructure necessary to shift people out of private vehicles, and as transit technology improves, will no doubt provide a reduction in greenhouse gases. Overall, the regional transportation plan directs over \$200 million to projects that will reduce greenhouse gas emissions in the Basin from transportationrelated sources over the next 20 years. The plan's strategies and overall policy direction set the stage for a strong focus on reducing greenhouse gas emissions in the Basin.



APPENDIX B:

TMPO 2008 Regional Transporation Plan

Regional Emissions Analysis

EMFAC 2007 Model Output

Version: Emfac2007 V2.3 Nov 1 2006 ** WIS Enabled **

Run Date: 2008/05/29 10:59:32

Scen Year: 2010 -- All model years in the range 1966 to 2009 selected

Season: January Area: El Dorado (LT)

I/M Stat : Enhanced Interim (2005)

*******	*******	*****	*****	*****	******	*****	******	******	******	******	******	******	******
	LDA-NCAT L	DA-CAT	LDA-DSL	LDA-TOT	LDT1-NCAL	DT1-CAT	LDT1-DSL	LDT1-TOT	LDT2-NCA I	_DT2-CAT	LDT2-DSL	LDT2-TOT N	NDV-NCA
Vehicles	217	6660	60	6937	195	7173	267	7635	59	6987	53	7098	40
VMT/1000	2	204	1	207	4	222	8	234	1	234	2	237	1
Trips	868	40969	337	42174	799	43764	1643	46206	240	43639	318	44197	167
Total Orga	anic Gas Emis	sions											
Run Exh	0.02	0.03	0	0.06	0.04	0.06	0	0.1	0.01	0.05	0	0.06	0.01
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Ex	0.01	0.06	0	0.06	0.01	0.07	0	0.07	0	0.06	0	0.06	0
Total Ex	0.03	0.09	0	0.12	0.05	0.13	0	0.18	0.02	0.1	0	0.12	0.01
Diurnal	0	0	0	-	0	0	0	0	0	0	0	0	0
Hot Soak	0	0.01	0	0.0_	0	0.02	0	0.02	0	0.01	0	0.01	0
Running	0.02	0.05	0	0.07	0.01	0.11	0	0.12	0	0.08	0	0.09	0
Resting	0	0	0	0	0	0	0	0	0	0	0	0	0
Tatal					0.00								
Total	0.05	0.15	0	0.21	0.06	0.25	0	0.32	0.02	0.2	0	0.22	0.02
	onoxide Emiss		_								_		
Run Exh	0.35	0.87	0	1.23	0.64	1.77	0.01	2.41	0.19	1.21	0	1.4	0.24
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Ex	0.03	0.62	0	0.65	0.03	0.87	0	0.9	0.01	0.71	0	0.72	0.01
Total Ex	0.38	 1.5	0	1.88	0.67	2.64	0.01	3.31	0.2	1.92	0	2.12	0.25

Version: Emfac2007 V2.3 Nov 1 2006 ** WIS Enabled **

Run Date: 2008/05/29 10:59:32

Scen Year: 2010 -- All model years in the range 1966 to 2009 selected

Season: January Area: El Dorado (LT)

I/M Stat : Enhanced Interim (2005)

MDV-CAT	MDV-DSL	MDV-TOT	LHDT1-NC1	LHDT1-CAI	LHDT1-DS I	_HDT1-TO	LHDT2-NC I	_HDT2-CAL	HDT2-DSL	.HDT2-TO N	MHDT-NC/	MHDT-CA⁻I	MHDT-DSI
3020	15	3075	6	322	164	491	2	99	73	174	8	49	143
103	0	105	0	13	7	20	0	3	3	6	0	2	8
18954	89	19210	209	10664	2064	12937	82	3273	924	4279	370	2252	4013
0.02	0	0.04	0	0	0	0.01	0	0	0	0.01	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.03	0	0.03	0	0.01	0	0.01	0	0.01	0	0.01	0.01	0.01	0
0.06	0	0.07	0	0.01	0	0.02	0	0.01	0	0.01	0.01	0.01	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.03	0	0.03	0	0.01	0	0.01	0	0.01	0	0.01	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.09	0	0.11	0.01	0.02	0	0.03	0	0.02	0	0.02	0.01	0.01	0
0.53	0	0.77	0.05	0.06	0.01	0.12	0.02	0.06	0	0.08	0.03	0.03	0.02
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.35	0	0.36	0.01	0.13	0	0.14	0	0.1	0	0.1	0.03	0.15	0
0.88	0	1.13	0.06	0.19	0.01	0.26	0.02	0.16	0	0.19	0.05	0.17	0.02

Version: Emfac2007 V2.3 Nov 1 2006 ** WIS Enabled **

Run Date: 2008/05/29 10:59:32

Scen Year: 2010 -- All model years in the range 1966 to 2009 selected

Season: January Area: El Dorado (LT)

I/M Stat : Enhanced Interim (2005)

MHDT-TC	DTHHDT-NCA	HHDT-CA1	HHDT-DSLI	HHDT-TO1	OBUS-NC/	OBUS-CA10	DBUS-DSL	OBUS-TO1	SBUS-NC/	SBUS-CAT	SBUS-DSL	SBUS-TOT	UB-NCAT
20	0 3	11	123	137	1	15	22	38	1	3	24	29	0
10	0 0	1	18	19	0	1	1	2	0	0	1	1	0
663	5 144	484	625	1253	54	674	626	1354	3	13	98	114	0
(0 0	0	0.03	0.03	0	0	0	0	0	0	0	0	0
(0 0	0	0	0	0	0	0	0	0	0	0	0	0
0.0	2 0.01	0	0	0.01	0	0	0	0	0	0	0	0	0
0.02	2 0.01	0	0.03	0.04	0	0	0	0	0	0	0	0	0
(0 0	0	0	0	0	0	0	0	0	0	0	0	0
(0 0	0	0	0	0	0	0	0	0	0	0	0	0
0.0	1 0	0	0	0	0	0	0	0	0	0	0	0	0
(0 0	0	0	0	0	0	0	0	0	0	0	0	0
0.0	3 0.01	0.01	0.03	0.04	0	0	0	0	0	0	0	0	0
0.0	7 0.05	0.03	0.09	0.17	0	0.01	0	0.01	0.01	0	0	0.02	0
(0 0	0	0.02	0.02	0	0	0	0	0	0	0	0	0
0.1	7 0.04	0.06	0	0.1	0	0.03	0	0.04	0	0	0	0	0
0.24	4 0.09	0.08	0.11	0.28	0.01	0.04	0	0.05	0.02	0.01	0	0.03	0

Version: Emfac2007 V2.3 Nov 1 2006 ** WIS Enabled **

Run Date: 2008/05/29 10:59:32

Scen Year: 2010 -- All model years in the range 1966 to 2009 selected

Season: January Area: El Dorado (LT)

I/M Stat : Enhanced Interim (2005)

UB-CAT	UB-DSL	UB-TOT	MH-NCAT	MH-CAT	MH-DSL	MH-TOT	MCY-NCA	MCY-CAT	MCY-DSL	MCY-TOT	ALL-TOT
2	10	12	24	351	43	417	796	264	0	1059	27303
0	1	1	0	4	0	4	5	2	0	7	853
7	42	49	2	35	4	42	1596	529	0	2125	180576
0	0	0	0	0	0	0.01	0.02	0	0	0.03	0.34
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0.01	0	0	0.01	0.29
0	0	0	0	0	0	0.01	0.03	0.01	0	0.04	0.63
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0.06
0	0	0	0	0	0	0	0.01	0	0	0.01	0.34
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0.01	0	0	0	0.01	0.04	0.01	0	0.05	1.04
0.02	0	0.02	0.09	0.12	0	0.22	0.22	0.03	0	0.25	6.79
0	0	0	0	0	0	0	0	0	0	0	0.02
0	0	0	0	0	0	0	0.02	0.02	0	0.03	3.21
0.02	0	0.02	0.09	0.12	0	0.22	0.24	0.04	0	0.28	10.02

Version: Emfac2007 V2.3 Nov 1 2006 ** WIS Enabled **

Run Date: 2008/06/19 10:23:53

Scen Year: 2018 -- All model years in the range 1974 to 2018 selected

Season: January Area: El Dorado (LT)

I/M Stat : Enhanced Interim (2005)

*******	******	********	*****	******	******	******	*****	******	******	******	*******	******	*****
	LDA-NCAT L	DA-CAT	LDA-DSL	LDA-TOT	LDT1-NCAL	DT1-CAT	LDT1-DSL	LDT1-TOT	LDT2-NCA I	DT2-CAT	LDT2-DSL	LDT2-TOT I	MDV-NCA
Vehicles	15	7927	25	7966	27	8392	179	8597	6	8194	24	8225	8
VMT/1000	0	284	0	285	0	273	5	278	0	290	1	290	0
Trips	56	48034	131	48220	101	49349	1011	50461	23	49977	137	50138	31
Total Orga	anic Gas Emis	sions											
Run Exh	0	0.01	0	0.02	0	0.03	0	0.04	0	0.02	0	0.02	0
Idle Exh	0	0	0	•	0	0	0	0	0	0	0	0	0
Start Ex	0	0.02	0	0.02	0	0.04	0	0.04	0	0.03	0	0.03	0
Total Ex	0	0.04	0	0.04	0.01	0.07	0	0.08	0	0.05	0	0.06	0
Diurnal	0	0	0	0	0	0	0	0	0	0	0	0	0
Hot Soak	0	0.01	0	0.01	0	0.02	0	0.02	0	0.01	0	0.01	0
Running	0	0.03	0	0.03	0	0.09	0	0.09	0	0.06	0	0.06	0
Resting	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0 onoxide Emiss	0.08	0	0.08	0.01	0.18	0	0.19	0	0.13	0	0.13	0
Run Exh	0.02	0.41	0	0.43	0.07	1.06	0	1.13	0.02	0.69	0	0.71	0.06
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0.3	0	0.3	0	0.53	0	0.54	0	0.39	0	0.39	0
Total Ex	0.02	0.71	0	0.73	0.07	1.6	0	1.67	0.02	1.09	0	 1.1	0.06

Version: Emfac2007 V2.3 Nov 1 2006 ** WIS Enabled **

Run Date: 2008/06/19 10:23:53

Scen Year: 2018 -- All model years in the range 1974 to 2018 selected

Season: January Area: El Dorado (LT)

I/M Stat : Enhanced Interim (2005)

MDV-CAT	MDV-DSL	MDV-TOT	LHDT1-NC I	_HDT1-CA I	_HDT1-DS1	LHDT1-TO	LHDT2-NC1	LHDT2-CAI	LHDT2-DS L	HDT2-TO	ا ،ON-TDH	MHDT-CAT	MHDT-DSI
3549	8	3565	1	429	155	585	0	113	92	205	2	51	181
125	0	125	0	17	6	22	0	4	3	8	0	2	10
21667	45	21743	29	13980	1924	15933	8	3678	1138	4824	81	2287	5001
0.01	0	0.02	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.02	0	0.02	0	0.01	0	0.01	0	0	0	0	0	0	0
0.03	0	0.03	0	0.01	0	0.01	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.03	0	0.03	0	0.01	0	0.01	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.06	0	0.07	0	0.02	0	0.02	0	0.01	0	0.01	0	0.01	0
0.34	0	0.4	0.01	0.03	0.01	0.04	0	0.01	0	0.02	0.01	0.01	0.01
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.21	0	0.21	0	0.1	0	0.1	0	0.04	0	0.04	0.01	0.08	0
0.55	0	0.61	0.01	0.13	0.01	0.14	0	0.05	0	0.06	0.01	0.09	0.02

Version: Emfac2007 V2.3 Nov 1 2006 ** WIS Enabled **

Run Date: 2008/06/19 10:23:53

Scen Year: 2018 -- All model years in the range 1974 to 2018 selected

Season: January Area: El Dorado (LT)

I/M Stat : Enhanced Interim (2005)

MHDT-TOTHHI	DT-NC/H	HDT-CA1H	HDT-DSLHI	HDT-TOTOBI	JS-NC/OE	BUS-CATOE	BUS-DSLOI	BUS-TO1SE	BUS-NC/SB	US-CATSB	US-DSL SE	BUS-TOTUB-	NCAT
234	0	8	139	147	0	13	32	45	1	4	27	32	0
12	0	0	24	25	0	1	2	2	0	0	1	1	0
7369	0	339	696	1034	0	592	872	1464	3	16	108	127	0
0	0	0	0.01	0.01	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.01	0	0	0	0	0	0	0	0	0	0	0	0	0
0.01	0	0	0.02	0.02	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.01	0	0	0.02	0.02	0	0	0	0	0	0	0	0	0
0.03	0	0.01	0.05	0.07	0	0	0	0.01	0.01	0	0	0.02	0
0	0	0	0.02	0.02	0	0	0	0	0	0	0	0	0
0.08	0	0.04	0	0.04	0	0.02	0	0.02	0	0	0	0	0
0.11	0	0.05	0.07	0.12	0	0.02	 0	0.03	0.01	0	0	0.02	0

Version: Emfac2007 V2.3 Nov 1 2006 ** WIS Enabled **

Run Date: 2008/06/19 10:23:53

Scen Year: 2018 -- All model years in the range 1974 to 2018 selected

Season: January Area: El Dorado (LT)

I/M Stat : Enhanced Interim (2005)

UB-CAT	UB-DSL	UB-TOT	MH-NCAT	MH-CAT	MH-DSL	MH-TOT	MCY-NCA	MCY-CAT	MCY-DSL	MCY-TOT	ALL-TOT
4	10	14	2	411	57	469	542	723	0	1265	31349
0	1	2	0	5	1	5	4	6	0	10	1065
14	40	54	0	41	6	46	1068	1424	0	2492	203906
0	0	0.01	0	0	0	0	0.02	0.01	0	0.03	0.15
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0.01	0.14
0	0	0.01	0	0	0	0	0.02	0.02	0	0.04	0.3
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0.05
0	0	0	0	0	0	0	0	0	0	0	0.23
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0.01	0	0	0	0	0.02	0.02	0	0.04	0.58
0.02	0	0.02	0.01	0.05	0	0.06	0.17	0.06	0	0.22	3.14
0	0	0	0	0	0	0	0	0	0	0	0.02
0	0	0	0	0	0	0	0.01	0.03	0	0.04	1.77
0.02	0	0.02	0.01	0.05	0	0.06	0.18	0.09	0	0.27	4.94

Version: Emfac2007 V2.3 Nov 1 2006 ** WIS Enabled **

Run Date: 2008/05/29 11:11:34

Scen Year: 2030 -- All model years in the range 1986 to 2029 selected

Season: January Area: El Dorado (LT)

I/M Stat : Enhanced Interim (2005)

*******	******	******	*****	*****	*****	******	*****	******	*****	******	******	******	******
	LDA-NCAT I	_DA-CAT	LDA-DSL	LDA-TOT	LDT1-NCAL	.DT1-CAT	LDT1-DSL	LDT1-TOT	LDT2-NCA	LDT2-CAT	LDT2-DSL	LDT2-TOT	MDV-NCAT
Vehicles	0	11362	4	11366	0	12284	59	12343	0	11839	6	11845	0
VMT/1000	0	391	0	391	0	417	1	418	0	400	0	400	0
Trips	0	70978	20	70997	0	75049	283	75332	0	72982	30	73012	0
Total Orga	nic Gas Emis	ssions											
Run Exh	0	0.01	0	0.01	0	0.01	0	0.01	0	0.02	0	0.02	0
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0.01	0	0.01	0	0.01	0	0.01	0	0.02	0	0.02	0
Total Ex	0	0.02	0	0.02	0	0.03	0	0.03	0	0.03	0	0.03	0
Diurnal	0	0	0	0	0	0	0	0	0	0	0	0	0
Hot Soak	0	0.01	0	0.01	0	0.01	0	0.01	0	0.01	0	0.01	0
Running	0	0.02	. 0	0.02	0	0.06	0	0.06	0	0.06	0	0.06	0
Resting	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0.04	0	0.04	0	0.1	0	0.1	0	0.1	0	0.1	0
Carbon Mo	onoxide Emis	sions											
Run Exh	0	0.25	0	0.25	0	0.43	0	0.43	0	0.52	0	0.52	0
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0.14	0	0.14	0	0.22	0	0.22	0	0.27	0	0.27	0
Total Ex	0	0.39	0	0.39	0	0.65	0	0.65	0	0.79	0	0.8	0

Version: Emfac2007 V2.3 Nov 1 2006 ** WIS Enabled **

Run Date: 2008/05/29 11:11:34

Scen Year: 2030 -- All model years in the range 1986 to 2029 selected

Season: January Area: El Dorado (LT)

I/M Stat : Enhanced Interim (2005)

MDV-CAT	MDV-DSL	MDV-TOT	LHDT1-NC	LHDT1-CA	LHDT1-DS I	LHDT1-TO	LHDT2-NC L	HDT2-CA	LHDT2-DS L	HDT2-TO	MHDT-NC	MHDT-CA ⁻	MHDT-DSI
5141	3	5144	0	666	179	845	0	168	127	295	0	70	266
173	0	173	0	25	6	31	0	6	5	11	0	3	14
31608	14	31622	0	22200	2271	24471	0	5591	1611	7202	0	3241	7531
0.01	0	0.01	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.01	0	0.01	0	0.01	0	0.01	0	0	0	0	0	0	0
0.02	0	0.02	0	0.01	0	0.01	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.01	0	0.01	0	0	0	0	0	0	0	0	0	0	0
0.02	0	0.02	0	0.01	0	0.01	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.05	0	0.05	0	0.02	0	0.02	0	0	0	0	0	0	0
0.29	0	0.29	0	0.01	0.01	0.02	0	0	0	0.01	0	0	0.02
0	0	0	0	0.01	0	0.01	0	0	0	0	0	0	0
0.16	0	0.16	0	0.11	0	0.11	0	0.03	0	0.03	0	0.04	0
0.45	0	0.45	0	0.12	0.01	0.13	0	0.03	0	0.03	0	0.04	0.02

Version: Emfac2007 V2.3 Nov 1 2006 ** WIS Enabled **

Run Date: 2008/05/29 11:11:34

Scen Year: 2030 -- All model years in the range 1986 to 2029 selected

Season: January Area: El Dorado (LT)

I/M Stat : Enhanced Interim (2005)

MHDT-TOTHH	DT-NC/H	HDT-CA1H	HDT-DSLHI	HDT-TOTOBI	JS-NC/OE	BUS-CATO	BUS-DSLO	BUS-TO1SBU	JS-NC/SB	US-CATSE	BUS-DSL SE	SUS-TOTUB-	NCAT
337	0	5	192	198	0	15	49	64	0	6	42	48	0
17	0	0	33	34	0	1	3	3	0	0	2	2	0
10772	0	239	981	1220	0	696	1394	2090	0	24	169	193	0
0	0	0	0.01	0.01	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0.01	0.02	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.01	0	0	0.01	0.02	0	0	0	0	0	0	0	0	0
0.02	0	0.01	0.04	0.05	0	0	0	0	0	0	0.01	0.01	0
0	0	0	0.02	0.02	0	0	0	0	0	0	0	0	0
0.04	0	0.02	0	0.02	0	0.01	0	0.01	0	0	0	0	0
0.06	0	0.03	 0.06	 0.1	0	 0.01	0	0.02	0	0	 0.01	0.01	0

Version: Emfac2007 V2.3 Nov 1 2006 ** WIS Enabled **

Run Date: 2008/05/29 11:11:34

Scen Year: 2030 -- All model years in the range 1986 to 2029 selected

Season: January Area: El Dorado (LT)

I/M Stat : Enhanced Interim (2005)

UB-CAT	UB-DSL	UB-TOT	MH-NCAT	MH-CAT	MH-DSL	MH-TOT	MCY-NCAT	MCY-CAT	MCY-DSL	MCY-TOT	ALL-TOT
7	13	20	0	603	70	673	581	1153	0	1734	44912
1	2	2	0	7	1	8	4	9	0	13	1502
28	53	82	0	61	7	68	1170	2324	0	3494	300555
0	0	0	0	0	0	0	0.02	0.02	0	0.04	0.1
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0.01	0.01	0	0.01	0.08
0	0	0	0	0	0	0	0.02	0.02	0	0.05	0.18
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0.04
0	0	0	0	0	0	0	0	0.01	0	0.01	0.18
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0.02	0.03	0	0.06	0.4
0	0	0	0	0	0	0	0.19	0.08	0	0.27	1.88
0	0	0	0	0	0	0	0	0	0	0	0.03
0	0	0	0	0	0	0	0.01	0.05	0	0.06	1.07
0	0	0	0	0	0	0	0.2	0.14	0	0.34	2.98

Version: Emfac2007 V2.3 Nov 1 2006 ** WIS Enabled **

Run Date: 2008/05/29 11:16:44

Scen Year: 2010 -- All model years in the range 1966 to 2009 selected

Season: January Area: Placer (LT)

I/M Stat : Enhanced Interim (2005)

*******	*******	********	******	******	******	******	******	******	******	******	******	********	*******
	LDA-NCAT L	DA-CAT	LDA-DSL	LDA-TOT	LDT1-NCAL	DT1-CAT	LDT1-DSL	LDT1-TOT	LDT2-NCA	LDT2-CAT	LDT2-DSL I	LDT2-TOT	MDV-NCAT
Vehicles	103	2793	14	2910	91	4320	231	4642	21	3139	19	3179	22
VMT/1000	2	86	0	87	1	128	7	136	0	100	1	101	0
Trips	411	17360	74	17844	370	26539	1427	28336	85	19625	113	19823	91
Total Orga	anic Gas Emis	sions											
Run Exh	0.02	0.01	0	0.03	0.01	0.02	0	0.04	0	0.02	0	0.02	0.01
Idle Exh	0	0	J	Ū	0	0	0	0	U	0	0	0	0
Start Ex	0	0.02	0	0.02	0	0.04	0	0.04	0	0.03	0	0.03	0
Total Ex	0.02	0.03	0	0.05	0.02	0.06	0	0.08	0	0.04	0	0.04	0.01
Diurnal	0	0	0	0	0	0	0	0	0	0	0	0	0
Hot Soak	0	0.01	0	0.01	0	0.01	0	0.01	0	0.01	0	0.01	0
Running	0.01	0.02	0	0.03	0	0.06	0	0.07	0	0.04	0	0.04	0
Resting	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Carbon Mo	0.03 onoxide Emiss	0.05	0	0.08	0.02	0.13	0	0.16	0.01	0.08	0	0.09	0.01
Run Exh	0.26	0.3	0	0.56	0.23	0.77	0	1	0.05	0.44	0	0.49	0.1
Idle Exh	0	0			0	0	0	0	0	0	0	0	0
Start Ex	0.02	0.2	0	0.22	0.01	0.47	0	0.48	0	0.3	0	0.31	0
Total Ex	0.27	0.51	0	0.78	0.24	1.24	0	1.48	0.06	0.74	0	0.8	0.1

Version: Emfac2007 V2.3 Nov 1 2006 ** WIS Enabled **

Run Date: 2008/05/29 11:16:44

Scen Year: 2010 -- All model years in the range 1966 to 2009 selected

Season: January Area: Placer (LT)

I/M Stat : Enhanced Interim (2005)

MDV-CAT	MDV-DSL	MDV-TOT	LHDT1-NC L	.HDT1-CA L	.HDT1-DSL	_HDT1-TO	LHDT2-NC	LHDT2-CA I	_HDT2-DS L	.HDT2-TO N	MHDT-NC, I	MHDT-CA ⁻ I	MHDT-DSI
1499	17	1537	1	175	90	267	2	82	93	177	5	35	114
52	1	53	0	8	4	11	0	3	3	6	0	2	9
9424	102	9617	48	5802	1138	6988	80	2714	1169	3963	240	1599	3204
0.01	0	0.02	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.01	0	0.02	0	0	0	0	0	0	0	0.01	0.01	0.01	0
0.02	0	0.03	0	0.01	0	0.01	0	0.01	0	0.01	0.01	0.01	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.01	0	0.01	0	0	0	0	0	0.01	0	0.01	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.04	0	0.05	0	0.01	0	0.01	0	0.01	0	0.02	0.01	0.01	0
0.24	0	0.33	0.01	0.02	0	0.04	0.02	0.04	0	0.07	0.02	0.03	0.03
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.16	0	0.17	0	0.06	0	0.06	0	0.07	0	0.07	0.02	0.12	0
0.4	0	0.5	0.01	0.08	0	0.1	0.02	0.11	0	0.14	0.04	0.15	0.03

Version: Emfac2007 V2.3 Nov 1 2006 ** WIS Enabled **

Run Date: 2008/05/29 11:16:44

Scen Year: 2010 -- All model years in the range 1966 to 2009 selected

Season: January Area: Placer (LT)

I/M Stat : Enhanced Interim (2005)

MHDT-TOTHI	HDT-NC/H	HDT-CA1HI	HDT-DSLH	HDT-TO1OE	BUS-NC/OF	BUS-CATOE	BUS-DSLOF	BUS-TO1SBU	JS-NC/SBL	JS-CATSBL	JS-DSL SBL	JS-TOTUB-I	NCAT
154	3	11	41	55	1	22	15	37	0	1	0	1	0
11	0	1	7	8	0	1	1	2	0	0	0	0	0
5043	156	495	207	858	29	997	414	1440	0	4	0	4	0
0.01	0	0.01	0.01	0.02	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.01	0.01	0	0	0.01	0	0	0	0	0	0	0	0	0
0.02	0.01	0.01	0.01	0.03	0	0	0	0.01	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.02	0.01	0.01	0.01	0.03	0	0.01	0	0.01	0	0	0	0	0
0.08	0.11	0.06	0.03	0.2	0	0.02	0	0.03	0	0	0	0	0
0	0	0	0.01	0.01	0	0	0	0	0	0	0	0	0
0.14	0.06	0.05	0	0.11	0	0.07	0	0.07	0	0	0	0	0
0.22	0.17	 0.11	0.04	0.32	0.01	0.09	 0	0.1	0	0	0	0	0

Version: Emfac2007 V2.3 Nov 1 2006 ** WIS Enabled **

Run Date: 2008/05/29 11:16:44

Scen Year: 2010 -- All model years in the range 1966 to 2009 selected

Season : January Area : Placer (LT)

I/M Stat : Enhanced Interim (2005)

UB-CAT	UB-DSL	UB-TOT	MH-NCAT	MH-CAT	MH-DSL	MH-TOT	MCY-NCA	MCY-CAT	MCY-DSL	MCY-TOT	ALL-TOT
0	0	0	12	144	18	174	397	136	0	533	13668
0	0	0	0	2	0	2	4	2	0	5	423
0	0	0	1	14	2	17	795	272	0	1067	95000
0	0	0	0	0	0	0	0.02	0	0	0.02	0.15
0	0	0	0	0	0	0	0	0	0		0
0	0	0	0	0	0	0	0	0	0	0.01	0.14
0	0	0	0	0	0	0	0.02	0	0	0.02	0.3
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0.03
0	0	0	0	0	0	0	0	0	0	0	0.16
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0.02	0.01	0	0.03	0.49
0	0	0	0.05	0.05	0	0.1	0.16	0.02	0	0.18	3.09
0	0	0	0	0	0	0	0	0	0	0	0.01
0	0	0	0	0	0	0	0.01	0.01	0	0.02	1.64
0	0	0	0.05	0.05	0	0.1	0.17	0.03	0	0.2	4.74

Version: Emfac2007 V2.3 Nov 1 2006 Run Date: 2008/06/19 10:58:47

Scen Year: 2018 -- All model years in the range 1974 to 2018 selected

Season: January Area: Placer (LT)

I/M Stat: Enhanced Interim (2005)

	LDA-NCAT L	DA-CAT	LDA-DSL	LDA-TOT	LDT1-NCAL	_DT1-CAT	LDT1-DSL			LDT2-CAT	LDT2-DSL	LDT2-TOT	MDV-NCAT
Vehicles	6	3878	4	3888	13	5748	161	5923	2	4139	10	4151	4
VMT/1000	0	126	0	126	0	182	4	186	0	139	0	139	0
Trips	23	24171	21	24215	51	34751	931	35733	8	25655	56	25719	16
Total Orga	nic Gas Emis	sions											
Run Exh	0	0.01	0	0.01	0	0.01	0	0.02	0	0.01	0	0.01	0
Idle Exh	0	0	0		0	0	0	0	0	0	0	0	0
Start Ex	0	0.01	0	0.01	0	0.02	0	0.02	0	0.02	0	0.02	0
Total Ex	0	0.01	0	0.01	0	0.04	0	0.04	0	0.02	0	0.02	0
	_		_						_		-		_
Diurnal	0	0	0	0	0	0	0	0	0	0	0	0	0
Hot Soak	0	0	0	0	0	0.01	0	0.01	0	0.01	0	0.01	0
Running	0	0.01	0	0.01	0	0.06	0	0.06	0	0.03	0	0.03	0
Resting	0	0	0	0	0	0	0	0	0	0	0	0	0
3													
Total	0	0.03	0	0.03	0	0.11	0	0.11	0	0.06	0	0.06	0
Carbon Mo	onoxide Emiss												
Run Exh	0.01	0.17	0	0.18	0.03	0.49	0	0.52	0	0.29	0	0.29	0.02
Idle Exh	0	0			0	0	0	0	0	0	0	0	0
Start Ex	0	0.11	0	0.11	0	0.31	0	0.32	0	0.2	0	0.2	0
Juli LA										J. <u>L</u>			
Total Ex	0.01	0.27	0	0.29	0.03	0.81	0	0.84	0	0.48	0	0.49	0.02

Version: Emfac2007 V2.3 Nov 1 2006 Run Date: 2008/06/19 10:58:47

Scen Year: 2018 -- All model years in the range 1974 to 2018 selected

Season: January Area: Placer (LT)

I/M Stat : Enhanced Interim (2005)

MDV-CAT	MDV-DSL	MDV-TOT	LHDT1-NC	LHDT1-CA	LHDT1-DS I	LHDT1-TO	LHDT2-NC	LHDT2-CA I	_HDT2-DS I	_HDT2-TO	MHDT-NC/	MHDT-CA ^T I	MHDT-DSL
1991	10	2006	0	274	94	368	0	121	113	234	0	44	158
70	0	70	0	11	3	14	0	5	4	9	0	3	12
12364	59	12438	9	9068	1181	10258	10	4001	1416	5426	14	1990	4426
0.01	0	0.01	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.01	0	0.01	0	0	0	0	0	0	0	0	0	0	0
0.02	0	0.02	0	0	0	0.01	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.01	0	0.01	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.03	0	0.03	0	0.01	0	0.01	0	0.01	0	0.01	0	0.01	0
0.18	0	0.2	0	0.01	0	0.02	0	0.01	0	0.02	0	0.01	0.02
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.12	0	0.12	0	0.05	0	0.05	0	0.04	0	0.04	0	0.08	0
0.29	0	0.31	0	0.07	0	0.07	0	0.05	0	0.06	0	0.09	0.02

Version: Emfac2007 V2.3 Nov 1 2006 Run Date: 2008/06/19 10:58:47

Scen Year: 2018 -- All model years in the range 1974 to 2018 selected

Season: January Area: Placer (LT)

I/M Stat : Enhanced Interim (2005)

MHDT-TO1	HHDT-NC/	HDT-CAT	HHDT-DSL	HHDT-TO1	OBUS-NC/	OBUS-CA1	OBUS-DSL	OBUS-TO1	SBUS-NCA	SBUS-CATS	SBUS-DSL	SBUS-TOT
202	0	7	53	61	0	19	30	49	0	1	0	1
15	0	1	10	10	0	1	3	4	0	0	0	0
6430	20	336	269	624	0	866	842	1709	0	4	2	6
0	0	0	0.01	0.01	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0.01	0	0	0.01	0.01	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0.01	0	0.01	0.01	0.01	0	0	0	0	0	0	0	0
0.04	0.01	0.03	0.02	0.06	0	0.01	0	0.01	0	0	0	0
0	0	0	0.01	0.01	0	0	0	0	0	0	0	0
0.08	0.01	0.04	0	0.04	0	0.05	0	0.05	0	0	0	0
0.12	0.02	0.07	0.03	0.11	0	0.06	0	0.06	0	0	0	0

Version: Emfac2007 V2.3 Nov 1 2006 Run Date: 2008/06/19 10:58:47

Scen Year: 2018 -- All model years in the range 1974 to 2018 selected

Season: January Area: Placer (LT)

I/M Stat : Enhanced Interim (2005)

UB-NCAT	UB-CAT	UB-DSL	. UB-TOT	MH-NCA	AT MH-CAT	Γ MH-DSL	MH-TOT	MCY-NCA	MCY-CAT	MCY-DSL	MCY-TOT	ALL-TOT
	0	0	0	0	2 1	88 2	28 21	306	413	0	719	17820
	0	0	0	0	0	2	0	2 3	5	0	8	584
	0	0	0	0	0	19	3 2	2 612	825	0	1437	124018
	0	0	0	0	0	0	0	0.01	0.01	0	0.02	0.08
	0	0	0	0	0	0	0	0 0	0	0	0	0
	0	0	0	0	0	0	0	0 0	0	0	0.01	0.08
	0	0	0	0	0	0	0	0.02	0.01	0	0.03	0.16
	0	0	0	0	0	0	0	0 0	0	0	0	0
	0	0	0	0	0	0	0	0 0	0	0	0	0.02
	0	0	0	0	0	0	0	0 0	0	0	0	0.13
	0	0	0	0	0	0	0	0 0	0	0	0	0
	0	0	0	0	0	0	0	0.02	0.01	0	0.03	0.31
	0	0	0	0 0.	01 0.	03	0 0.0	4 0.13	0.05	0	0.18	1.56
	0	0	0	0	0	0	0	0 0	0	0	0	0.01
	0	0	0	0	0	0	0	0.01	0.02	0	0.03	
	0	0	0	0 0.	01 0.	03	0 0.0	4 0.14	0.07	0	0.21	2.6

Version: Emfac2007 V2.3 Nov 1 2006 ** WIS Enabled **

Run Date: 2008/05/29 11:26:50

Scen Year: 2030 -- All model years in the range 1986 to 2029 selected

Season: January Area: Placer (LT)

I/M Stat : Enhanced Interim (2005)

******	******	******	******	*****	*****	*******	******	******	******	******	******	*****	******
	LDA-NCAT L	DA-CAT	LDA-DSL	LDA-TOT	LDT1-NCAL	DT1-CAT	LDT1-DSL	LDT1-TOT	LDT2-NCA	LDT2-CAT	LDT2-DSL	LDT2-TOT	MDV-NCAT
Vehicles	0	4918	C	4918	0	7500	47	7547	0	5300	2	5303	0
VMT/1000	0	153	C	153	0	241	1	242	0	169	0	169	0
Trips	0	30750	2	30752	0	45888	223	46110	0	32552	12	32564	0
Total Orga	nic Gas Emis	sions											
Run Exh	0	0	C	0	0	0.01	0	0.01	0	0.01	0	0.01	0
Idle Exh	0	0	C	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0	C	0	0	0.01	0	0.01	0	0.01	0	0.01	0
Total Ex	0	0.01	0	0.01	0	0.01	0	0.01	0	0.01	0	0.01	0
Diurnal	0	0	C	0	0	0	0	0	0	0	0	0	0
Hot Soak	0	0	C	0	0	0.01	0	0.01	0	0	0	0	0
Running	0	0.01	C	0.01	0	0.03	0	0.03	0	0.03	0	0.03	0
Resting	0	0	C	0	0	0	0	0	0	0	0	0	0
Total	0	0.02		0.02	0	0.05	0	0.05	0	0.04	0	0.04	0
Carbon Mo	onoxide Emis	sions											
Run Exh	0	0.09	C	0.09	0	0.21	0	0.21	0	0.2	0	0.2	0
Idle Exh	0	0	C	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0.05	C	0.05	0	0.12	0	0.12	0	0.12	0	0.12	0
Total Ex	0	 0.14	0	0.14	0	0.33	0	0.33	0	0.32	0	0.32	0

Version: Emfac2007 V2.3 Nov 1 2006 ** WIS Enabled **

Run Date: 2008/05/29 11:26:50

Scen Year: 2030 -- All model years in the range 1986 to 2029 selected

Season: January Area: Placer (LT)

I/M Stat : Enhanced Interim (2005)

MDV-CAT	MDV-DSL	MDV-TOT	LHDT1-NC	LHDT1-CA I	LHDT1-DS I	_HDT1-TO	LHDT2-NC I	_HDT2-CAL	.HDT2-DS L	_HDT2-TO	MHDT-NC	MHDT-CA	MHDT-DSI
2565	3	2568	0	374	98	472	0	168	131	299	0	54	203
87	0	87	0	14	3	17	0	6	5	11	0	3	15
15725	16	15741	0	12409	1241	13650	0	5586	1651	7237	0	2483	5731
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.01	0	0.01	0	0	0	0	0	0	0	0	0	0	0
0.01	0	0.01	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.01	0	0.01	0	0.01	0	0.01	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.02	0	0.02	0	0.01	0	0.01	0	0	0	0	0	0	0
0.14	0	0.14	0	0	0	0.01	0	0	0	0.01	0	0	0.03
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.08	0	0.08	0	0.06	0	0.06	0	0.03	0	0.03	0	0.04	0
0.22	0	0.22	0	0.06	0	0.07	0	0.03	0	0.03	0	0.04	0.03

Version: Emfac2007 V2.3 Nov 1 2006 ** WIS Enabled **

Run Date: 2008/05/29 11:26:50

Scen Year: 2030 -- All model years in the range 1986 to 2029 selected

Season: January Area: Placer (LT)

I/M Stat : Enhanced Interim (2005)

ſ	MHDT-TOTHH	IDT-NC/H	IDT-CA1H	HDT-DSLH	HDT-TOTOBI	JS-NC/OE	BUS-CATO	BUS-DSLOI	BUS-TO1SBI	JS-NC/SBL	JS-CATSBL	JS-DSL SBL	JS-TOTUB-I	NCAT
	258	0	3	63	67	0	16	47	63	0	1	1	2	0
	19	0	0	11	11	0	1	4	5	0	0	0	0	0
	8214	0	158	322	480	0	728	1314	2042	0	3	5	7	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
_	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-	0.01	0	0	0	0.01	0	0	0	0	0	0	0	0	0
	0.03	0	0.01	0.01	0.02	0	0	0.01	0.01	0	0	0	0	0
	0	0	0	0.01	0.01	0	0	0	0	0	0	0	0	0
	0.04	0	0.02	0	0.02	0	0.02	0	0.02	0	0	0	0	0
-	0.07	 0	0.03	0.02	0.05	0	0.02	0.01	0.03	0	 0	 0	 0	0

Version: Emfac2007 V2.3 Nov 1 2006 ** WIS Enabled **

Run Date: 2008/05/29 11:26:50

Scen Year: 2030 -- All model years in the range 1986 to 2029 selected

Season: January Area: Placer (LT)

I/M Stat : Enhanced Interim (2005)

UB-CAT	UB-DSL	UB-TOT	MH-NCAT	MH-CAT	MH-DSL	MH-TOT	MCY-NCA	MCY-CAT	MCY-DSL	MCY-TOT	ALL-TOT
0	0	0	0	242	34	276	292	581	0	874	22645
0	0	0	0	3	0	3	3	6	0	10	726
0	O	0	0	24	3	28	587	1167	0	1755	158579
0	C	0	0	0	0	0	0.01	0.01	0	0.03	0.05
0	C	0	0	0	0	0	0	0	0	0	0
0	C	0	0	0	0	0	0	0	0	0.01	0.04
0	0	0	0	0	0	0	0.02	0.02	0	0.03	0.09
0	C	0	0	0	0	0	0	0	0	0	0
0	C	0	0	0	0	0	0	0	0	0	0.02
0	C	0	0	0	0	0	0	0	0	0	0.09
0	C	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0.02	0.02	0	0.04	0.2
0	C	0	0	0	0	0	0.14	0.06	0	0.2	0.92
0	C	0	0	0	0	0	0	0	0	0	0.01
0	C	0	0	0	0	0	0.01	0.03	0	0.03	0.56
0		0	0	0	0	0	0.14	0.09	0	0.23	1.49

Historical Tahoe Basin Carbon Monoxide Readings 8-hour Average (parts per million (ppm))

	Stat	eline, CA/	NV^{a}		Incline	Village
Year	1 st High	2 nd High	Federal Exceede nces	1 st High	2 nd High	Federal Exceedences
1988	12.5	12.1	24	No data	No data	No data
1989	11.3	10.4	13	No data	No data	No data
1990	10.1	10.1	8	No data	No data	No data
1991	9.2	8.5	0	No data	No data	No data
1992	9.9	9	2	No data	No data	No data
1993	7.5	7.4		2.5	2.5	0
1994	7.1	6.8	0	1.8	1.7	0
1995	6.3	5.3	0	2.1	2	0
1996	5.1	4.8	0	1.8	1.6	0
1997	3.8	3.6	0	2.1	2	0
1998	4.3	4.2	0	1.6	1.6	0
1999	4.6	4.3	0	1.2	1	0
2000	4.4	4.2	0	1.1	1	0
2001	3.7	3.6	0	1.8	1.6	0
2002	8.75 ^c	6.13	0	f	f	f
2003	8.38 ^d	6.5	0	f	f	f
2004 ^e	4	3.75	0	f	f	f
2005	3.8	3.6	0	f	f	f
2006	3.1	3	0	f	f	f
2007	4.5	3.7	0	f	f	f

Historical Tahoe Basin Ozone Readings

(parts per million (ppm); 1 Hour concentrations)

(parts per mimon (ppm), 1 flour concentrations)										
			Federal							
Year	1 st High	2 nd High	Exceedences							
1993	0.08	0.08	0							
1994	0.09	0.08	0							
1995	0.08	0.08	0							
1996	0.09	0.09	0							
1997	0.08	0.07	0							
1998	0.08	0.08	0							
1999	0.09	0.08	0							
2000	0.08	0.07	0							
2001	0.09	0.08	0							
2002	0.08	0.08	0							
2003	0.09	0.08	0							
2004	0.06	0.06	0							
2005	0.07	0.07	0							
2006	0.08	0.08	0							
2007	0.09	0.07	0							