

EXHIBIT SUMMARY SHEET

Applicant: El Dorado County Transit Authority
Contact Person: Matt Mauk, Transit Services Assistant
Address: 6565 Commerce Way, Diamond Springs, CA 95619
Telephone#: (530) 642-5383 ext. 201 **Fax# (optional):** (530) 622-2877

Project Budget	AB2766 Funds	\$ Matching Funds	In-Kind Match	Total Project Costs
Materials	\$	\$	\$	\$
Personnel	\$	\$	\$2,569	\$2,569
Other	\$30,609	\$	\$1,000	\$31,609
TOTAL	\$30,609	\$	\$3,569	\$34,178

Alternative Project Budget	AB2766 Funds	\$ Matching Funds	In-Kind Match	Total Project Costs
Materials	\$	\$	\$	\$
Personnel	\$	\$	\$	\$
Other	\$	\$	\$	\$
TOTAL	\$	\$	\$	\$

Estimated Emission Reductions/Costs-Effectiveness	As Proposed	Alternate Funding Level
Useful Life of Project (years)	1	NA
Total Lifetime Emissions Reduced (lbs. of ROG, NOx, PM-10)	290 lbs.	NA
Annualized Cost-Effectiveness (total project costs)	\$121.52/lb.	NA
Annualized Cost-Effectiveness (AQMD Funded project costs)	\$108.83/lb.	NA

Brief Project Description: El Dorado County Fair Shuttle, June 2012; parking shuttle service to and from the Fairgrounds during the 2012 County Fair.

REQUEST FOR PROPOSAL CONTENTS CHECKLIST

Applicant: El Dorado County Transit Authority

Please complete and attach this checklist with your application.

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- X Request for Proposal Contents Checklist – page 2
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- X Schedule of Deliverables/Self-Monitoring Program – page 12
- X 2 Copies of Proposal

Appendix A Excerpts from: Methods to Find the Cost-Effectiveness of Funding Air Quality Projects, May 2005 and Emission Factor Tables, March 2010.

Appendix B Sample of Project Report

Appendix C Letters of Support

Appendix D Sample of Paid Advertising/Promotions



EL DORADO TRANSIT

6565 COMMERCE WAY
DIAMOND SPRINGS, CA 95619-9454
(530) 642-5383
FAX (530) 622-BUSS
www.eldoradotransit.com

March 23, 2011

Air Pollution Control Officer
El Dorado County Air Quality Management District
2850 Fairlane Court
Placerville, CA 95667

Re: AB2766 Motor Vehicle Emission Reduction Project 2011-2012
El Dorado County Fair Shuttle 2012

To Whom It May Concern:

The El Dorado County Transit Authority (El Dorado Transit) is submitting an application for AB2766 Motor Vehicle Emission Reduction Project funding for 2011–2012. El Dorado Transit Resolution No. 11-06 (copy attached), authorizes the submission of the application.

Contact person: Matt Mauk, Transit Services Assistant
El Dorado County Transit Authority
6565 Commerce Way
Diamond Springs, CA 95619
Phone: (530) 642-5383 Extension 201
Email: mmauk@eldoradotransit.com

The El Dorado County Transit Authority will administer the project.

The El Dorado County Transit Authority will provide a parking shuttle service from up to three (3) off-site parking locations to the El Dorado County Fairgrounds during the County Fair, June 2012. This shuttle will provide an alternative to traveling by automobile and will reduce automobile congestion and the associated emissions.

We appreciate your consideration regarding our proposal and request that this project be approved for funding.

Sincerely,

Mindy Jackson
Executive Director



**EL DORADO COUNTY TRANSIT AUTHORITY
RESOLUTION NO. 11-06**

**RESOLUTION OF THE BOARD OF DIRECTORS OF
THE EL DORADO COUNTY TRANSIT AUTHORITY
TO SUBMIT A PROPOSAL FOR
ASSEMBLY BILL 2766 (AB 2766)
MOTOR VEHICLE EMISSION REDUCTION PROJECTS**

WHEREAS, the California Clean Air Act requires local air pollution control districts to reduce emissions from motor vehicles; and

WHEREAS, AB 2766, codified in California Health and Safety Code section 44223, authorizes districts to impose a fee of up to four dollars upon certain registered motor vehicles within the district, and the Governing Board of the El Dorado County Air Quality Management District (EDC AQMD) has imposed said fee; and

WHEREAS, said legislation requires the EDC AQMD to use said funds for activities related to reducing air pollution from motor vehicles and for related planning, monitoring, enforcement, and technical studies necessary for the implementation of the California Clean Air Act of 1988; and

WHEREAS, El Dorado County Transit Authority (EDCTA) is an eligible applicant for AB 2766 projects; and

WHEREAS, the EDC AQMD has published a request for proposals for Fiscal Year 2011/12 AB 2766 eligible projects;

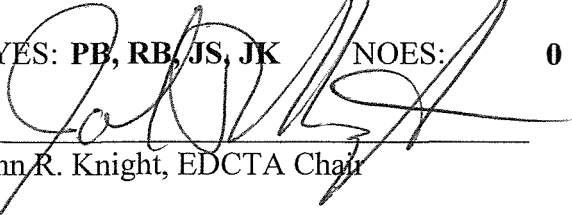
BE IT HEREBY RESOLVED AND ORDERED, that the Executive Director is hereby authorized and directed to submit proposals for Assembly Bill 2766, Motor Vehicle Emission Reduction Projects, and to execute all documentation resulting from these applications, and to execute all necessary actions to carry out the purpose of this resolution;

BE IT FURTHER RESOLVED, that the Transit Services Assistant Matt Mauk be the contact person at the El Dorado County Transit Authority, 6565 Commerce Way, Diamond Springs, California 95619, (530) 642-5383 extension 201;

BE IT FURTHER RESOLVED, that El Dorado County Transit Authority will make all reasonable efforts to include matching funds in the proposed project budget for Fiscal Years 2011/12 and 2012/13.

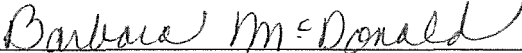
PASSED AND ADOPTED BY THE GOVERNING BOARD OF THE EL DORADO COUNTY TRANSIT AUTHORITY at a regular meeting of said Board, held on the 3rd day of February 2011, by the following vote of said Board:

AYES: **PB, RB, JS, JK** NOES: **0** ABSTAIN: **0** ABSENT: **DM**



John R. Knight, EDCTA Chair

ATTEST:



Barbara McDonald, Secretary to the Board

PROJECT DESCRIPTION

Objectives

If approved for funding, the El Dorado County Fair Shuttle will significantly reduce congestion; lower emissions related to excessive idling and provide a safe comfortable alternative to parking in and around the Fairgrounds. The shuttle will provide a regional mitigation to traffic congestion on Forni Road, Placerville Drive and State Highway 50 east and west of the Fairgrounds exit in Placerville. With the option of convenient off-site parking and shuttle service pedestrian traffic along Placerville Drive will be reduced improving public safety.

The El Dorado County Transit Authority (El Dorado Transit) is an experienced shuttle operator and has provided a County Fair Shuttle since 1990, as well as annual shuttle service for Apple Hill®. In June, 2010 the County Fair Shuttle project performed under budget providing 12,851 passenger trips over the four day Fair.

Scope of Work

With funding, parking and shuttle service will be provided beginning thirty (30) minutes before opening and ending thirty (30) minutes after closing on all four days of the County Fair's operations. The shuttle will provide round-trip service from up to three (3) possible parking locations; the Library/Government Center on Fair Lane, the Park & Ride lot on Motherlode Drive at Missouri Flat Road and the WalMart parking lot at Forni Road and Missouri Flat Road. Shuttle buses will load and unload Fair passengers at the Green Gate of the County Fairgrounds located on Placerville Drive. Three (3) to seven (7) commuter vehicles will be in simultaneous service during the Fair's hours of operation. El Dorado Transit will provide all drivers, support and management personnel necessary for shuttle operations.

El Dorado Transit will provide the following with grant funding:

- Up to Seven (7) 45 or 35 passenger buses
- Approximately 210 hours of passenger service between up to three (3) off-site parking lots to the 2011 El Dorado County Fair
- Transit Drivers
- Support staff: Transportation Supervisors, dispatchers and project managers
- Outreach and regional marketing; including website notifications, announcements, press releases and advertisements in local newspapers
- Coordination of shuttle information included in Fair tabloid and shuttle map mailed to subscribers of local newspaper
- Shuttle and Parking signage
- Liaison with County facilities management for off-site parking
- Public liability insurance coverage
- Associated overhead costs

PROJECT ORGANIZATION/BACKGROUND

Project Organization

El Dorado Transit will administer the El Dorado County Air Quality Management District (AQMD) contract for the 2012 County Fair Shuttle. With funding, El Dorado Transit will manage off-site parking agreements and provide public liability insurance, vehicle maintenance and support, shuttle vehicles, drivers and appropriate support staffing to assure public safety.

Background

El Dorado Transit has provided public transportation services for the Western Slope of El Dorado County since 1975. Established as a Joint Powers Agency with the County of El Dorado and the City of Placerville, El Dorado Transit provides public transportation to the community in the form of local fixed routes; curb-to-curb Dial-A-Ride; Sac-Med non-emergency medical transportation; complementary paratransit in Placerville; commuter routes from Placerville to downtown Sacramento; commuter routes to the Sacramento Light Rail in Folsom and contracted transportation for social service agencies. System-wide El Dorado Transit provided 398,104 passenger trips during Fiscal Year (FY) 2009/2010.

El Dorado Transit is an experienced shuttle operator. The agency has provided annual shuttle service for the El Dorado County Fair since 1990. In June, 2010 the County Fair Shuttle project performed under budget providing 12,851 passenger trips over the four day Fair. El Dorado Transit has also provided an Apple Hill® Shuttle each year from 1988 through 2000 and 2003 through 2010.

Sixty-nine (69) employees provide transportation services fourteen and one-half (14 ½) hours a day, Monday through Friday, and limited weekend hours. All components necessary to provide public transportation are housed within the Transit Operating Base and Maintenance Facility at 6565 Commerce Way Diamond Springs, California. El Dorado Transit maintains and schedules a fleet of sixty-one (61) vehicles, including wheelchair accessible mini-vans; lift-equipped buses with capacity ranging from twenty-two (22) up to fifty-seven (57) passengers, one (1) mobile mechanics' truck and seven (7) staff vehicles. In-house services include operations; dispatching and scheduling; trip planning; vehicle maintenance; transit planning; marketing and full administrative support.

El Dorado Transit management, drivers and staff have a distinguished level of commitment and competence in providing efficient public transportation to the residents of the Western Slope of El Dorado County. Eighteen (18) Transit Drivers received safe driving commendations for FY 2009/2010. Management and supervisory employees have completed the accredited Paratransit and Transit Management Program.

Emission Benefits/Cost Effectiveness

VANPOOLS AND SHUTTLES

Subcategory: (4c) Transit Operations (new service, shuttles, fuel subsidies)

Air District Name: El Dorado County APCD

Local Government Name: Not Applicable

Project Name: El Dorado County Fair Shuttle, June 2012

Description: Shuttle service from up to three (3) off-site parking locations to the El Dorado County Fairgrounds, June 2012. Three (3) to seven (7) ULEV deisel vehicles, with capacity for up to forty-five passengers each, will provide service Thursday through Sunday of the Fair weekend. Service will run from thirty (30) minutes before opening to thirty (30) after gates close.
(Issues/Comments)

Implementing Agency: El Dorado County Transit Authority **Private Agency:** No

FUNDING:

MVFees Funding:	\$30,609	MSRC Funding:	\$0
Moyer Funding:	\$0	CMAQ Funding:	\$0
Other CoFunding:	\$3,569		

Capital Recovery Factor: 1.03 **Annual Auto Trips Reduced:** 3,200

Project Analysis Period: 1 years **Annual Auto VMT Reduced:** 156,783

Annual Operating Days (D): 4 days

Daily Ridership (R): 3,855 trips (riders)/day

Annual Van VMT: 2,600 annual miles traveled

Adjustment (A): 0.83 *This factor equals the portion of riders who are NOT vanpool-dependent.*

Replaced Auto Trip Length (L): 16.00 miles in one direction of trip

Adjustment (AA): 0.75 *This factor equals the portion of riders who drive to the vanpool service.*

Auto Access Trip Length (LL): 5.00 miles in one direction of trip

EMISSION FACTORS:	Auto Trip End Factors	Auto VMT Factors	VanVMT Factors
	ROG : 1.023 <i>grams</i>	0.277 <i>grams</i>	0.17 <i>grams</i>
	NOx : 0.462 <i>per trip</i>	0.324 <i>per mile</i>	0.40 <i>per mile</i>
	PM10 : 0.016	0.221	0.26

EMISSION REDUCTIONS:	Pounds per Year	Tons per Year
ROG:	102	0.05
NOx:	113	0.06
PM10:	75	0.04
Total:	<u>290</u>	<u>0.14</u>

COST-EFFECTIVENESS OF:

Emission Benefits/Cost Effectiveness

VANPOOLS AND SHUTTLES

Subcategory: (4c) Transit Operations (new service, shuttles, fuel subsidies)

Motor Vehicle Fees and/or Moyer Funds:	\$108.83	per pound	\$217,661	per ton
CMAQ Funds:	\$0.00	per pound	\$0	per ton
All Funding Sources:	\$121.52	per pound	\$243,040	per ton

WORK STATEMENT

<u>TIME LINE</u>	<u>PHASE</u>
July, 2011	Contract execution between the El Dorado County AQMD and El Dorado Transit
March-April, 2012	Meet with El Dorado County Fair Association to plan shuttle schedules and advertisements Coordinate with County of El Dorado facility managers regarding off-site parking Create map and insert for local newspaper
May, 2012	*Press Releases and advertising regarding County Shuttle including acknowledgement of AB2766 Funding Design and procurement of signage Operations planning and staff training Information and promotion of Shuttle included on El Dorado Transit and El Dorado County Fair websites
June, 2012	Provide four (4) days of shuttle service for the annual El Dorado County Fair
July, 2012	Final Reports and Billing to the El Dorado County AQMD

*A sample of paid advertising is included in Appendix D.

FUNDING REQUEST/BREAKDOWN OF COST

Funding Request

El Dorado Transit is requesting an allocation of \$30,609 in AB2766 DMV Surcharge funds to this project. This funding will provide for operation of four (4) days of shuttle service during the 2012 El Dorado County Fair and related labor, maintenance, training, advertising and informational materials.

Breakdown of Cost

Item/Service	Total Cost	Source
Shuttle Service Operations	\$27,465	AB2766
Additional Labor and Maintenance	\$3,827	AB2766 and El Dorado Transit
Training (Coordinators and Driving Staff)	\$886	AB2766
Advertising and Informational Materials	\$2,000	AB2766 and El Dorado County Fair Association
Total Project Cost	\$34,178	
AB 2766 Funding Request	Not to Exceed \$30,609	

MATCHING FUNDS

Item/Service	Matching Funds	Source
n/a	\$0	n/a
Total Matching Funds	\$0	

IN-KIND MATCH

Item/Service	Matching Funds	Source
Additional Labor and Maintenance	\$2,569	El Dorado Transit
Advertising, Website Maintenance	\$1,000	El Dorado County Fair Association
Total Matching Funds	\$3,569	

SCHEDULE OF DELIVERABLES/MONITORING PROGRAM

DELIVERABLES:

Continuous parking shuttle service to the El Dorado County Fairgrounds from up to three (3) off-site parking facilities during the Fair's hours of operation.

DATES:

June, 2012

MONITORING PROGRAM:

Detailed accounting of staff time, vehicle service time, mileage and passenger boarding statistics will be recorded and compiled by El Dorado Transit staff throughout the contracted service period. El Dorado Transit will submit one (1) project report to the El Dorado County AQMD on the overall usage and passenger boarding statistics. A sample form of the 2010 County Fair Shuttle Project Report is included in Appendix B for review.

APPENDIX A

El Dorado County Transit Authority

Excerpts from:

**Methods to Find Cost-Effectiveness of Funding Air Quality Projects, May 2005
Emission Factor Tables, March 2010**

Methods to Find the Cost-Effectiveness of Funding Air Quality Projects

*For Evaluating
Motor Vehicle Registration Fee Projects
and
Congestion Mitigation and
Air Quality Improvement (CMAQ) Projects*

May 2005

California Environmental Protection Agency



Air Resources Board



Vanpools and Shuttles

Project definition: Projects are commuter vanpools; tourist or shopping shuttles; or rail feeders to work sites, homes, or schools. Services are operated by transit agencies, local governments, transportation management associations (TMAs), private businesses, etc. In most cases, the shuttle service must reduce long-distance auto trips or be a cleaner vehicle in order to reduce emissions cost effectively.

How emissions are reduced: Emission reductions result from the decrease in emissions associated with auto trips replaced by the vanpool or shuttle service after adjusting for the increase in emissions associated with the shuttle vehicle itself and auto access trips.

Need to know:

Funding dollars

Number of operating days per year

Average daily ridership of new service (usually less than 100% occupancy)

Average length of auto trips replaced

Percent of riders who drive to the vanpool or shuttle service

Daily VMT for the new shuttle service

Inputs	Default	Units	Comments
<i>For the Vanpool/Shuttle</i>			
Funding Dollars (Funding)		dollars	
Effectiveness Period (Life)	1	years	Years project is funded.
Days (D)	250	days (of operation)/year	Suggested defaults are weekday vanpools - 250 days, weekday shuttles - 260, daily services - 365 days, school services - 180 to 200 days
Ridership (R)		total trips (riders)/day	One-way trips by riders (or number of boardings) per day
Annual Van/Shuttle VMT (Van VMT)		annual miles	
<i>For Auto Travel Reduced</i>			
Adjustment (A) on Auto Trips	0.83		This factor equals the portion of riders who did NOT previously use transit, vanpools, or carpools. The default (0.83) is the adjustment for long-distance, commuter vanpool service. For new rail feeders, use 0.3 for the adjustment factor A.
Auto Trip Length (L)	35	miles one direction/trip	Suggested defaults are vanpools - 35 mi., shuttle trips - 16 mi.

Inputs	Default	Units	Comments
<i>For Auto Travel Added to Access Vanpool/Shuttle</i>			
Adjustment (AA) for Auto Access to and from vanpool/shuttle	0.75		Enter the percentage of riders who drive to the vanpool/shuttle service. The default (0.75) is for long-distance vanpools. For rail feeders, use 0.5..
Trip Length (LL) for Auto Access to and from vanpool/shuttle	5	miles one direction/trip	The default (5 mi) is for long-distance van pools. For rail feeders, use 2 mi.

Emission Factor Inputs for Auto Travel

	Default	Units	Default	Units
	Auto Trip End Factor		Auto VMT Factor	
ROG Factor	1.719	grams/trip	0.470	grams/mile
NOx Factor	0.721	"	0.602	"
PM10 Factor	0.014	"	0.218	"

For auto emission factors, see Emission Factors Menu, Tables 3 and 3A. For projects with a 1-year life, use Table 3A. For projects with a life of 2-20 years, use Table 3. Defaults are for a 1-year project (2004), Table 3A.

Emission Factor Inputs for Van/Shuttle Travel

	Example	Units
	Van VMT Factor	
ROG Factor	0.14	grams/mile
NOx Factor	0.20	"
PM10 Factor	0.27	"

To select emission factors for van / shuttle travel:

- For model years 1995-2003, refer to Table 7, "Medium-Duty Emission Factors for Vanpools/Shuttles".
- For model years 2004+, refer to Table 2, "Cleaner Vehicle Emission Factors".

Example is for a medium-duty van (weight 8,501 - 10,000 lbs), certified as an ultra-low-emission vehicle (ULEV), model year 2004.

Formulas **Units**

Annual Auto Trip Reduced = $[(D) * (R) * (A)] * [1 - (AA)]$ trips/year

Annual Auto VMT Reduced = $[(D) * (R) * (A)] * [(L) - (AA) * (LL)]$ miles/year

Annual Emission Reductions (ROG, NO_x, and PM₁₀) = lbs/year

$$\begin{aligned} &[(\text{Annual Auto Trips Reduced}) * (\text{Auto Trip End Factor}) \\ &+ (\text{Annual Auto VMT Reduced}) * (\text{Auto VMT Factor}) \\ &- (\text{Van VMT}) * (\text{Van VMT Factor})] / 454 \end{aligned}$$

Capital Recovery Factor (CRF) = $\frac{(1 + i)^n (i)}{(1 + i)^n - 1}$

where: i = discount rate (Assume 3 percent)
 n = project life

Cost-Effectiveness of
 Funding Dollars = $(\text{CRF} * \text{Funding}) / (\text{ROG} + \text{NO}_x + \text{PM}_{10})$ dollars/lb

*Note: The Federal Highway Administration requests that emission reductions from CMAQ projects be reported as kilograms/day. The conversion is (lbs per year) / [(2.2) * (365)] = kilograms/day*

Suburban Vanpool/Carpool Park-and-Ride Lots **(Method Variation)**

Provision of park-and-ride lots may encourage the formation of vanpools and carpools. The emission reduction benefits from park-and-ride lots can be calculated using the above Vanpools and Shuttles methodology plus the following calculation to estimate Ridership (R).

Ridership (R) = $(\text{Parking}) * (\text{Lot Utilization}) * (2 \text{ commute trips/day})$

Where:

Parking is the number of parking spaces for a new parking lot or the number of added spaces to an existing lot. **Lot Utilization** is the estimated lot utilization rate from monitored data OR use 0.75 as a default. Also, when using the vanpool/shuttle methodology for park-and-ride lots, the default for Adjustment (AA) for Auto Access to and from vanpool/shuttle should be 0.9 instead of 0.5.

Long-Distance Commuter Vanpools

This project subsidizes 10 long-distance commute vanpools. On average, each vanpool carries 11 people to work. The average distance to work is 48 miles. The vans used are 2004 model year ULEVs, 8501-10,000 lbs.

Inputs to calculate cost-effectiveness:

Funding Dollars (Funding): \$33,000

Effectiveness Period (Life): 1 year

Days of use/year (D): 250

Daily Ridership (R): 11 passengers * 10 vans * 2 ways = 220 riders or trips/day

Annual Van VMT (Van VMT): 240,000 (If you don't know the van mileage, you can estimate it:
10 vans * 2 ways * 250 days * 48 miles one-way = 240,000)

Adjustment (A) on Auto Trips: 0.83

Auto Trip Length (L): 48 miles in one direction

Adjustment (AA) on Auto Trips for Auto Access to and from vanpool: 0.75

Trip Length (LL) for Auto Access to and from vanpool: 5 miles one-way

Emissions Factors for Auto Travel (From Table 3):

	Auto Trip End Factor	Auto VMT Factor
ROG Factor	1.719 grams per trip	0.470 grams per mile
NOx Factor	0.721 "	0.602 "
PM10 Factor	0.014 "	0.218 "

Note: Used 1-year (2004) emission factors from Table 3A since project life is 1 year, and "Commuter" auto trip end factors are used since this project reduces commute trips.

Emissions Factors for Van Travel (From Table 2, ULEV, 8501-10,000 lbs.):

	Van VMT Factor
ROG Factor	0.14 grams per mile
NOx Factor	0.20 "
PM10 Factor	0.27 "

Calculations:

$$\begin{aligned}
 \text{Annual Auto Trips Reduced} &= [(D)*(R)*(A)]*[1-(AA)] \\
 &= [250 * 220 * 0.83]*[1-0.75] \\
 &= 11,413 \text{ annual auto trips reduced} \\
 \text{Annual Auto VMT Reduced} &= [(D) *(R)*(A)] * [(L) - (AA) * (LL)] \\
 &= [250 * 220 * 0.83] * [48-0.75*5] \\
 &= [45,650] * [48-3.75] \\
 &= 2,020,013 \text{ annual auto VMT reduced}
 \end{aligned}$$

Vanpools and Shuttles, Continued. . .

EXAMPLE

Annual Emission Reductions = (lbs. per year)

$$[(\text{Annual Auto Trips Reduced}) * (\text{Auto Trip End Factor}) + (\text{Annual Auto VMT Reduced}) * (\text{Auto VMT Factor}) - (\text{Van VMT}) * (\text{Van VMT factor})] / 454$$

ROG: $[(11,413 * 1.719) + (2,020,013 * 0.470) - (240,000 * 0.14)] / 454 = 2,060$ lbs. per year reduced

NOx: $[(11,413 * 0.721) + (2,020,013 * 0.602) - (240,000 * 0.20)] / 454 = 2,591$ lbs. per year reduced

PM10: $[(11,413 * 0.014) + (2,020,013 * 0.218) - (240,000 * 0.27)] / 454 = 828$ lbs. per year reduced

Capital Recovery Factor (CRF) = $\frac{(1+i)^n(i)}{(1+i)^n - 1} = 1.03$ where $n = \text{project life (1 year)}$
(From Table 8) and $i = \text{discount rate (3\%)}$

Cost-Effectiveness of Funding Dollars = $(\text{CRF} * \text{Funding}) / (\text{ROG} + \text{NOx} + \text{PM10})$
 $= (1.03 * 33,000) / (5,479) = \6.20 per lb.

FOR CMAQ PROJECTS ONLY:

Once emissions reductions have been calculated, add them together
(2,060 + 2,591 + 828 = 5,479) and convert emissions reductions to kg/day:

$$\frac{\text{lbs. reduced per year}}{2.2 \text{ lbs./kg} * 365 \text{ days/year}} = \frac{5,479}{2.2 * 365} = 7 \text{ kg/day}$$

Methods to Find the Cost-Effectiveness of Funding Air Quality Projects

*For Evaluating
Motor Vehicle Registration Fee Projects
and
Congestion Mitigation and
Air Quality Improvement (CMAQ) Projects*

Emission Factor Tables
March 2010

California Air Resources Board

**Table 2 Cleaner Vehicles Emission Factors (2004 - 2008)
For Light-Duty and Medium-Duty Vehicles (Chassis Certified)
Based on LEV II Exhaust Emission Standards**

Baseline Vehicles

Low-emission light-duty and medium-duty vehicle (LEV) emission factors in grams per mile with 120,000 mile durability					
Weight (lbs.) ¹	ROG	NOx	PM10 ²		CO
			Exhaust	Total ³	
Up to 8500	0.08	0.06	0.01	0.21	3.87
8501-10,000	0.20	0.20	0.12	0.32	6.40
10,001-14,000	0.23	0.40	0.12	0.32	7.30

Cleaner Vehicles

Ultra low-emission light-duty and medium-duty vehicle (ULEV) emission factors in grams per mile with 120,000 mile durability					
Weight (lbs.)	ROG	NOx	PM10		CO
			Exhaust	Total	
Up to 8500	0.05	0.06	0.01	0.21	1.93
8501-10,000	0.14	0.20	0.06	0.26	6.40
10,001-14,000	0.17	0.40	0.06	0.26	7.30

Super ultra low-emission vehicle (SULEV) factors in grams per mile with 120,000 mile durability Partial zero emission vehicle (PZEV) with 150,000 mile durability Advanced technology zero emission vehicle (AT-PZEV) with 150,000 mile durability					
Weight (lbs.)	ROG	NOx	PM10		CO
			Exhaust	Total	
Up to 8500	0.01	0.02	0.01	0.21	1.00
8501-10,000	0.10	0.10	0.06	0.26	3.20
10,001-14,000	0.12	0.20	0.06	0.26	3.70

Zero-emission light-duty and medium-duty vehicle (ZEV) emission factors in grams per mile					
Weight (lbs.)	ROG	NOx	PM10		CO
			Exhaust	Total	
All weights	0	0	0	0.20	0

Source: Based on California Vehicle Exhaust Standards ("LEV II") for chassis certified vehicles. Factors represent a weighted average of emission standards over a 120,000-mile life; the first 50,000 miles are assessed at the 50,000-mile standard, and the remaining 70,000 miles are assessed at the 120,000-mile standard. The SULEVs exhaust standards apply over the full 120,000 mile life. PZEVs and AT-PZEVs must comply with SULEV standards over 150,000 miles and have near zero evaporative emissions. AT-PZEV must also make use of additional "ZEV-enabling" clean technology such as alternative fuel, electric drive, or other advanced technology systems. The PM exhaust factors are based on total PM standards. Tire wear and brake wear factors are based on EMFAC2007, version 2.3 (Nov 1, 2006). The road dust portion of the PM10 factor is based on U.S. EPA's Compilation of Air Pollutant Emission Factors (AP-42, January 1995). Silt loading and vehicle weight data used as inputs to EPA's equation are from Improvement of Specific Emission Factors (BACM Project No. 1), Final Report, Midwest Research Institute, March 1996. Vehicle trip reductions may have little, if any effect on road dust emissions from high volume facilities thought to be in equilibrium, i.e., the dust is fully entrained due to the heavy traffic. The road dust PM10 factor, however, may be multiplied times total VMT reductions as it has been scaled down to reflect emissions from lower-volume local and collector roads only.

¹ Gross vehicle weights can be associated with passenger capacity as follows: 5751-8500, roughly 8 passengers; 8501-10,000, roughly 10-15 passengers; 10,001-14,000, roughly 20 passengers or more.

² PM10 factors are based on standards for diesel vehicles only. There is no applicable standard for gasoline vehicles; gasoline vehicles are known to emit significantly less PM10.

³ Total PM10 factors include motor vehicle exhaust, tire wear (0.008 g/m), brake wear (0.013 g/m), and entrained road dust (0.184 g/m).

Table 3 Average Auto Emission Factors

(Fleet of Light-Duty Passenger Vehicles, Light-Duty Trucks and Motor Cycles)

Analysis Period or Project Life	1-5 Years (2008-2012)	6-10 Years (2008-2017)	11-15 Years (2008-2022)	16-20 Years (2008-2027)
ROG				
VMT (g/mile)	0.277	0.231	0.200	0.180
commute trip ends (g/trip end)	1.023	0.860	0.738	0.646
average trip ends (g/trip end)	0.762	0.644	0.555	0.488
NOx				
VMT (g/mile)	0.324	0.263	0.220	0.189
commute trip ends (g/trip end)	0.462	0.380	0.315	0.267
average trip ends (g/trip end)	0.444	0.368	0.307	0.260
PM10				
VMT (g/mile)	0.221	0.221	0.221	0.222
running exhaust only (g/mile)	0.016	0.017	0.017	0.017
tire and brake wear (g/mile)	0.020	0.020	0.020	0.020
road dust (g/mile)	0.184	0.184	0.184	0.184
commute trip ends (g/trip end)	0.016	0.017	0.017	0.017
average trip ends (g/trip end)	0.009	0.009	0.009	0.009
CO				
VMT (g/mile)	3.365	2.758	2.338	2.044
commute trip ends (g/trip end)	8.784	7.381	6.274	5.427
average trip ends (g/trip end)	6.289	5.270	4.472	3.862

Source: EMFAC2007, V2.3 (Nov 1 2006), statewide average annual emissions

RTS runs use humidity 50%, temperature 75 degrees F.

PM10 Road Dust (paved) emission factor of 0.184 is based on US EPA's Compilation of Air Pollutant Emission Factors

(AP-42, January 1995).

March 2010

Table 3A Average Auto Emission Factors

(Fleet of Light-Duty Passenger Vehicles, Light-Duty Trucks and Motor Cycles)

Analysis Period or Project Life	1 Year 2008	1 Year 2009	1 Year 2010
ROG			
VMT (g/mile)	0.332	0.302	0.273
commute trip ends (g/trip end)	1.189	1.100	1.016
average trip ends (g/trip end)	0.885	0.819	0.756
NOx			
VMT (g/mile)	0.391	0.354	0.320
commute trip ends (g/trip end)	0.535	0.498	0.461
average trip ends (g/trip end)	0.511	0.477	0.444
PM10			
VMT (g/mile)	0.220	0.220	0.221
running exhaust only (g/mile)	0.016	0.016	0.016
tire and brake wear (g/mile)	0.020	0.020	0.020
road dust (g/mile)	0.184	0.184	0.184
commute trip ends (g/trip end)	0.015	0.016	0.016
average trip ends (g/trip end)	0.008	0.008	0.009
CO			
VMT (g/mile)	4.032	3.668	3.325
commute trip ends (g/trip end)	10.113	9.422	8.747
average trip ends (g/trip end)	7.259	6.753	6.261

Source: EMFAC2007, V2.3 (Nov 1 2006), statewide average annual emissions

RTS runs use humidity 50%, temperature 75 degrees F.

PM10 Road Dust (paved) emission factor of 0.184 is based on US EPA's Compilation of Air Pollutant Emission Factors (AP-42, January 1995).

March 2010



2828 Easy Street Suite 1 | Placerville CA 95667 | tel: 530.642.5260 | fax: 530.642.5266 | www.edctc.org

March 28, 2011

Air Pollution Control Officer
El Dorado County Air Quality Management District
2850 Fairlane Court
Placerville, CA 95667

To Whom It May Concern,

The El Dorado County Transportation Commission (EDCTC) supports the El Dorado County Transit Authority (EDCTA) request for AB 2766 grant program funds to continue operation of a shuttle for the El Dorado County Fair in June 2012. El Dorado Transit has operated annual shuttle service for the Fair since 1990. In June, 2010 the shuttle project performed under budget providing 12,851 passenger trips over the four days of the Fair.

As the Regional Transportation Planning Agency for El Dorado County, EDCTC strives to improve transportation options for area travelers. One of the overall goals identified in the EDCTC Regional Transportation Plan is to provide effective, convenient, coordinated transit service that serves employment centers, activity centers and facilities, and offers a viable option to single occupant vehicle travel. The weekend shuttle will provide a convenient, pleasant alternative to traveling by automobile, which typically places visitors in heavy traffic, waiting for available parking in overcrowded lots.

The Fair shuttle offers passengers the convenience of reduced drive times subsequently reducing congestion and lowering emissions related to excessive idling. By providing alternative transportation, the shuttle reduces traffic congestion on Forni Road and Placerville Drive and congestion relief to State Highway 50 west of Placerville.

We strongly recommend that the El Dorado County Air Quality Management District approve the EDCTA grant for the implementation of this project. The shuttle meets the objectives of the grant program and will greatly enhance travel to the County Fair.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kathryn Mathews', is written over the word 'Sincerely,'.

Kathryn Mathews, AICP
Executive Director

Cc: Mindy Jackson, Executive Director
El Dorado County Transit Authority



Still Finding Gold In El Dorado County

March 28, 2011

Air Pollution Control Officer
El Dorado County Air Quality Management District
2850 Fairlane Court
Placerville, CA 95667

To Whom It May Concern,

The El Dorado County Chamber of Commerce fully supports the El Dorado County Transit Authority (EDCTA) request for AB 2766 grant program funds to continue operation of a shuttle for the El Dorado County Fair in June 2012. El Dorado Transit has operated annual shuttle service for the Fair since 1990. In June 2010 the shuttle project performed under budget providing 12,851 passenger trips over the four days of the Fair.

The El Dorado County Chamber of Commerce is an organization of businesses and individuals devoted to preserving the quality of life in El Dorado County by advocating and promoting a strong, healthy and diverse business community. With programs designed to expand our existing business base and to attract new, clean industry, the Chamber helps to ensure that the business opportunities and quality of life we know today may be sustained through future generations. The Fair shuttle will provide a convenient, pleasant alternative to traveling by automobile, which typically places visitors in heavy traffic, waiting for available parking on or near the Fairgrounds.

The Fair shuttle offers passengers the convenience of reduced drive times subsequently reducing congestion and lowering emissions related to excessive idling. By providing alternative transportation, the shuttle reduces traffic congestion on Forni Road and Placerville Drive and congestion relief to State Highway 50 west of Placerville.

We strongly recommend that the El Dorado County Air Quality Management District approve the EDCTA grant for the implementation of this project. The shuttle meets the objectives of the grant program and will greatly enhance travel to the Fair.

Sincerely,

A handwritten signature in cursive script that reads "Laurel Brent-Bumb".

Laurel Brent-Bumb, ACE
Chief Executive Officer
El Dorado County Chamber of Commerce

EL DORADO COUNTY CHAMBER OF COMMERCE

542 Main Street, Placerville, California 95667
(530) 621-5885 (800) 457-6279 Fax (530) 642-1624 11-0607 D 25 of 31

El Dorado County Fair

Association, Inc.

A 501 (C) 3 Non-Profit Corporation
P.O. Box 1537 Placerville, CA 95667 530-621-5860 fax 530-295-2566

March 25, 2011

Air Pollution Control Officer
El Dorado County Air Quality Management District
2850 Fairlane Court
Placerville, CA 95667

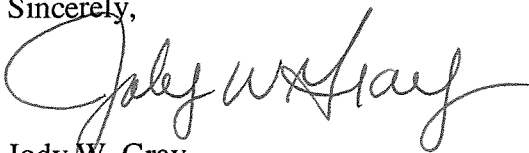
To Whom It May Concern,

The **El Dorado County Fair Association** supports the El Dorado County Transit Authority (EDCTA) request for AB 2766 grant program funds to continue operation of a shuttle for the El Dorado County Fair in June 2012. El Dorado Transit has operated annual shuttle service for the Fair since 1990. In June, 2010 the shuttle project performed under budget providing 12,851 passenger trips over the four days of the Fair.

The Fair shuttle offers passengers the convenience of reduced drive times subsequently reducing congestion and lowering emissions related to excessive idling. By providing alternative transportation, the shuttle reduces traffic congestion on Forni Road and Placerville Drive and congestion relief to State Highway 50 west of Placerville.

We strongly recommend that the El Dorado County Air Quality Management District approve the EDCTA grant for the implementation of this project. The shuttle meets the objectives of the grant program and will greatly enhance travel to the County Fair.

Sincerely,



Jody W. Gray
CEO

fair@eldoradocountyfair.org
Cc: Mindy Jackson, Executive Director, www.eldoradocountyfair.org
El Dorado County Transit Authority

The Fairgrounds in Placerville - Providing Services to our Community

APPENDIX D

Samples of Paid Advertising/Promotions

**Sources: El Dorado Transit Press Release, June 7, 2010
2010 El Dorado County Fair Tabloid, Mother Lode Publishing
Mountain Democrat, July 2, 2010**



PRESS RELEASE

For Immediate Release

Date: Monday, June 7, 2010
From: El Dorado County Transit Authority
Matt Mauk, Transit Services Assistant
(530) 642-5383, Extension 201

El Dorado Transit to Provide Free Parking and Shuttle Service for the 2010 El Dorado County Fair

Placerville, CA, June 7, 2010 – El Dorado Transit will again provide free parking and shuttle service for the 2010 El Dorado County Fair, Thursday, June 17th through Sunday, June 20th. The shuttles will operate from 11:30 a.m. to midnight on Thursday and Friday; 9:30 a.m. to midnight on Saturday and from 9:30 a.m. to 10:30 p.m. on Sunday. Free parking and shuttle service will be available from the following locations:

- The El Dorado County Library and Government Center Parking Lots on Fair Lane in Placerville
- The Wal Mart® on Missouri Flat Road and Forni Road
- The Park & Ride Lot at Mother Lode Dr. and Missouri Flat Rd. just south of U.S. 50 (Service will begin at 5:30PM on Thursday and Friday from the Missouri Flat Road Park & Ride)

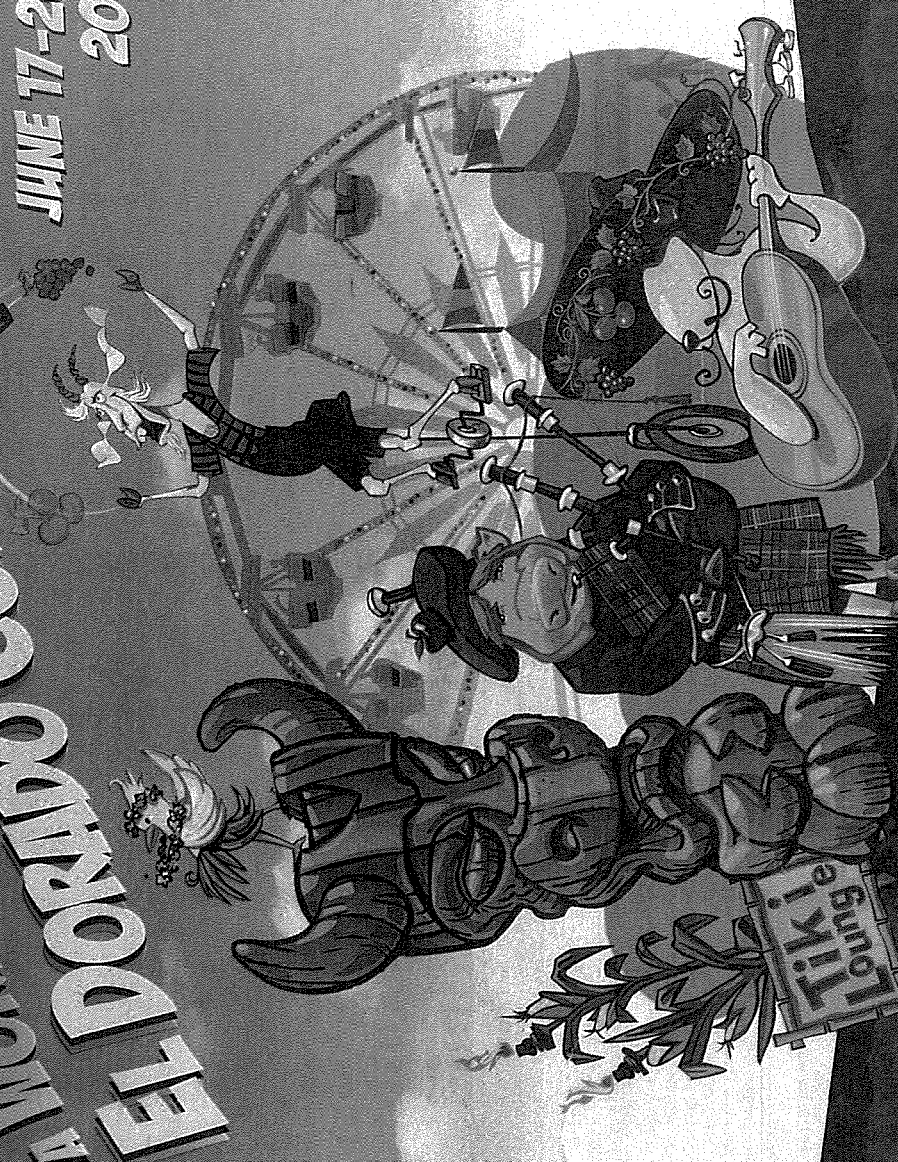
This free Fair shuttle service is sponsored by a grant from the El Dorado County Air Quality Management District and El Dorado Transit.

Due to staging and breakdown of the Fair, the Fairgrounds Park and Ride on Armory Drive will be closed from Monday, June 14, 2010 through Friday, June 25, 2010. El Dorado Transit local route passengers will use the Raley's bus stop as an alternate. Commuter route passengers are asked to use alternate Park and Rides including; Placerville Station on Mosquito Road in Placerville, the Central Transit facility on Commerce Way in Diamond Springs or the Ponderosa Park and Ride on Wild Chaparral at Ponderosa Road in Shingle Springs.

For more information see the attached map of the shuttle parking locations (also available on our website at www.eldoradotransit.com) or call El Dorado Transit at (530) 642-5383. # # #

A WORLD OF FUN AT THE ELDORADO COUNTY FAIR

JUNE 17-20
2010



Get all shook up with the 'Ultimate Elvis' • Page 6

Bid on beef... and plenty of other animals at the Junior Livestock Auction • Page 7

Pick a contest, any contest, and get ready for fun • Page 14

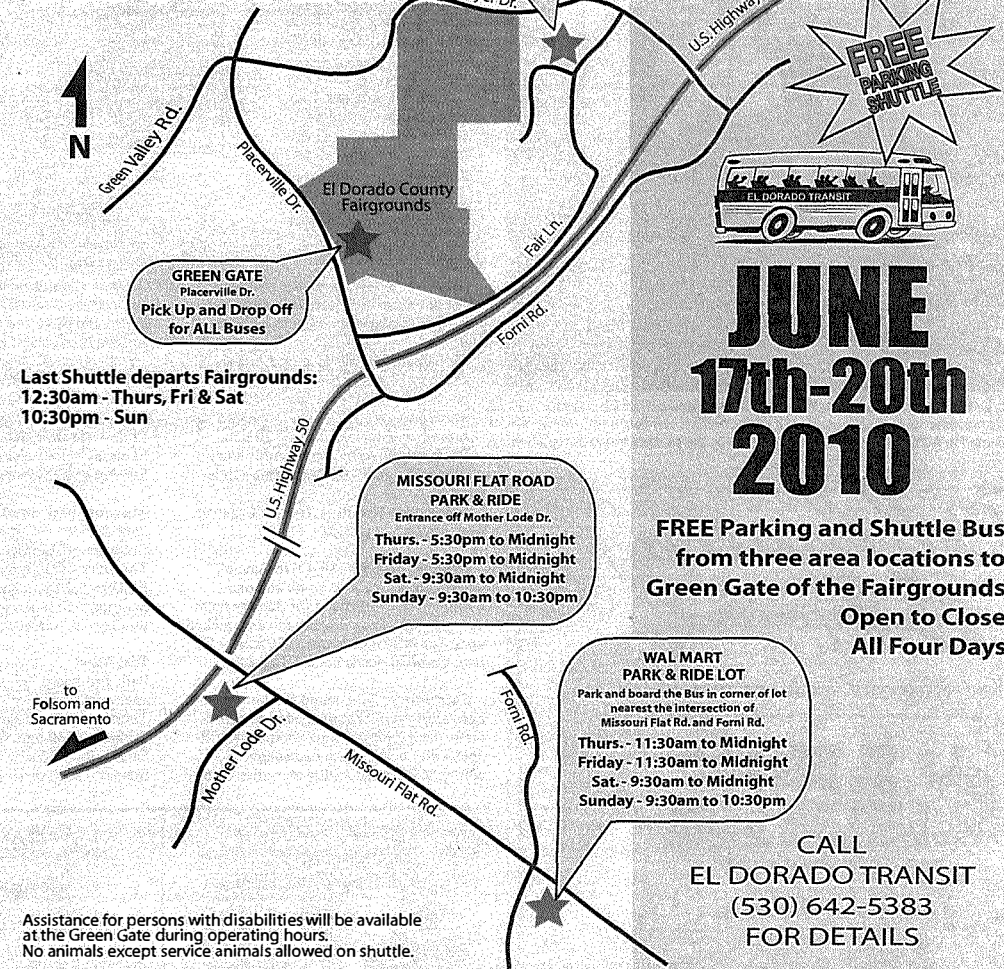
Mountain Democrat

VILLAGE LIFE GAZETTE

www.mtdemocrat.com

www.village.life.com

THE 2010 EL DORADO COUNTY FAIR SHUTTLE



Last Shuttle departs Fairgrounds:
12:30am - Thurs, Fri & Sat
10:30pm - Sun

JUNE 17th-20th 2010

FREE Parking and Shuttle Bus from three area locations to Green Gate of the Fairgrounds Open to Close All Four Days

CALL
EL DORADO TRANSIT
(530) 642-5383
FOR DETAILS

Assistance for persons with disabilities will be available at the Green Gate during operating hours.
No animals except service animals allowed on shuttle.



Sponsored by the El Dorado County Air Quality Management District, El Dorado County Fair Association and El Dorado Transit

THANK YOU
to OUR SPONSORS
and OUR COMMUNITY
for a Successful and FUN
2010 EL DORADO COUNTY FAIR
We look forward
to seeing you again next year!



Affordable RV



Hanson McClain
Independent Advice, Personally Delivered.



Sequoia Restaurant

Clifton & Warren
Feed & Ranch Supply

El Dorado County
Office of Education

Bradley's Heating & Air



El Dorado County Air Quality
Management District

