



Memorandum

DATE: July 16, 2012

TO: Alameda County Transportation Commission

FROM: Programs and Projects Committee

RE: **Approval of Transportation Fund for Clean Air (TFCA) FY 2012/13 Final Program**

Recommendation:

It is recommended the Commission approve the TFCA FY 2012/13 final program, as detailed in Attachment A.

This item was approved unanimously by the Programs and Projects Committee at its meeting on July 9, 2012.

Summary:

A total of \$364,982 in TFCA funding remains to program to projects for FY 2012/13. Six applications were received requesting a total of \$451,484. The final program is based on the completed project evaluation for TFCA eligibility and final selection prioritization based on the required Bay Area Air Quality Management District (Air District) project cost-effectiveness calculation. For the remaining FY 12/13 program, priority was given to requests for ongoing transit and program operations.

Information:

TFCA provides grants to projects that implement cost-effective projects that will decrease motor vehicle emissions, and thereby improve air quality. As the TFCA program manager for Alameda County, the Alameda CTC is responsible for programming 40 percent of the four dollar vehicle registration fee that is collected in Alameda County for this program consistent with California Health and Safety Code 44233, 44241, and 44242, and with the Air District Board-Adopted Polices (attachment B). Eligible projects are those that conform to the provisions of the TFCA Guidelines and meet the requirement of achieving a cost-effectiveness, on an individual project basis, of equal to or less than \$90,000 of TFCA funds per ton of total reactive organic gases (ROG), oxides of nitrogen (NOx), and weighted particulate matter 10 microns in diameter and smaller (PM10) emissions reduced (\$TFCA/ton emissions reduced). Additionally, TFCA funded projects are required to collect data for monitoring requirements and submit annual and final project reports.

The Alameda CMA approved a TFCA program structure by resolutions adopted by the County Board of Supervisors and the city councils of a majority of the cities representing a majority of the population, detailed in the TFCA Guidelines (attachment C), that specify that 70% of the

available funds are to be allocated to the cities/county based on population, with a minimum of \$10,000 to each jurisdiction. The remaining 30% of the funds are to be allocated to transit-related projects on a discretionary basis. A city (or the county), with approval from the Alameda CTC Board, may choose to roll its annual “70%” allocation into a future program year. Since all available TFCA funds are required to be programmed each year (by the Air District), a jurisdiction is allowed to borrow against its projected future year share or to adjust for programming between the 70% city/county share and the 30% transit discretionary share with the goal of programming all the available funding to projects on a year by year basis. The preferred minimum TFCA request is \$50,000.

The TFCA Fund Estimate for FY 2012/13 included approximately \$1,775,000 in new programming capacity. This amount includes the five percent of available funding that is reserved for program administration. A total of \$1,430,000 of the FY 12/13 funding was previously programmed by the Alameda CTC in January 2012 to the Air District’s regional port drayage truck replacement program. The programming action in January 2012 also included the recommendation to prioritize the remaining programming capacity of \$364,982 for ongoing TFCA funded transit and program operations (attachment D).

The FY 12/13 call for projects was released April 12th and applications were due May 11th. Six applications were received requesting a total of \$451,484 and all applications met the basic TFCA eligibility categories. All the projects are currently receiving TFCA funding from a prior grant and are consistent with the Board’s prioritization of funding projects that are ongoing transit and program operations.

Staff worked with Sponsors and Air District staff to confirm project eligibility and calculation of the project cost effectiveness in reducing vehicle emissions. The calculation of project cost effectiveness in reducing vehicle emissions is based on project material provided by the sponsor, applying the information per the Air District cost effectiveness calculation guidance documents, and a review of the calculation assumptions by Air District staff. Once the projects are determined eligible, and the cost effectiveness calculation is completed, projects are ranked by the project cost effectiveness (attachment E). The amount of TFCA funding recommended for each project is limited by a project’s cost-effectiveness evaluation. The amount of TFCA recommended for the City of Oakland Broadway Shuttle project is constrained to \$35,300 in order to be in compliance with the TFCA cost effectiveness limitation of not more than \$90,000 of TFCA per ton emissions reduced. For reference, a sample cost-effectiveness calculation is included as attachment F. The City of Oakland has provided supplemental project information to confirm that it will commit other funding sources to the project for the estimated \$131,000 shortfall between the amount of TFCA requested and the amount recommended in order to fully fund the project and deliver the level of operations as described in the TFCA application. Attachment A details the final program.

The FY 2012/13 Expenditure Plan, which determines the amount of TFCA funding available to program, was adopted by the Air District Board May 2, 2012. The Air District’s programming guidelines allow up to 6 months from the date of the Air District’s approval of the Expenditure Plan to approve additional projects if a balance of funds remains. Any remaining balance not programmed by the end of the 6-month period, November 2, 2012, will be returned to the Air District. To ensure that all available funds are programmed and avoid a remaining balance, an additional \$44,346 over the amount requested is recommended to be programmed to LAVTA’s Route 10 which had requested \$100,000 in its application. The project was the most cost-

effective of the six projects, at \$18,991/ton emissions reduced. The higher recommendation of \$144,346 for Rte 10 raises its cost-effectiveness to \$27,413/ton emissions reduced. Additionally, this project is recommended to receive the remaining balance because the amount of TFCA funds requested for FY 12/13 Route 10 operations is approximately \$40,000 less than the TFCA amount awarded to it for FY 11/12 operations. LAVTA has confirmed that the lower request for FY 12/13 was based on the reduced TFCA fund estimate. With the proposed recommendation for the remaining TFCA funds, the 2012/13 TFCA program would include:

Port Drayage Truck Program	\$1,430,000
July 2012 Staff Recommendation:	\$ 364,982
<u>FY 2012/13 Administration</u>	<u>\$ 92,393</u>
TOTAL	\$1,887,375

Attachments:

- Attachment A: TFCA FY 2012/13 Final Program
- Attachment B: FY 12/13 BAAQMD County Program Manager Fund Guidance, Appendix D - TFCA Policies
- Attachment C: FY 2012/13 Alameda CTC TFCA Guidelines
- Attachment D: FY 12/13 Fund Estimate
- Attachment E: FY 12/13 Cost Effectiveness of Draft Program
- Attachment F: FY 12/13 Sample Cost Effectiveness Calculation

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FY 2012/13 TFCa County Program Manager Fund
Final Program

Sponsor	Project Name	Project Description	Total Project Cost	TFCa \$ Requested	TFCa \$ Recommended	Cost-effectiveness ¹ (\$/ton emissions reduced)	Notes
70% City/County Share							
City of Oakland	Broadway Shuttle: Fri and Sat Evening Extended Service	The Free Broadway Shuttle operates between the Jack London Oakland Amtrak Station and Broadway at 27th Street at 11-16 minute frequencies Monday-Thursday 7am-7pm; Friday 7am-1am; and Saturday 6pm-1am. TFCa request is for a second year of Friday and Saturday evening service operations (Friday 7pm-1am and Saturday 6pm-1am).	\$166,148	\$166,148	\$35,300	\$89,887	See Note 2
City of Pleasanton	Pleasanton Trip Reduction Program	The project consists of a three-pronged approach to reducing trips including employer-based, residential-based and school-based programs. The project includes monitoring efforts through surveys. TFCa request is for FY 12/13 program operations.	\$179,000	\$57,507	\$57,507	\$71,093	
Subtotal			\$345,148	\$223,655	\$92,807		
			70% City/County Share Balance	(\$165,343)			
			(Over)/Under Amount Available	(\$388,998)	(\$258,150)		

30% Transit Discretionary Share							
California State University, East Bay	CSUEB Second Shuttle - Increased Service Hours	The shuttle connects the Cal State University East Bay campus to the Hayward BART station. TFCa currently funds a second shuttle bus for peak hour service from 7am-10am and 3pm-7pm. TFCa request is for expansion of service hours for the second shuttle to include operations during 10am - 3pm, allowing for continuous operations from 7am - 7pm for FY12/13.	\$313,350	\$56,350	\$56,350	\$51,290	
LAVTA	Route 10 Service - BART to ACE to LLNL	Route 10 provide service between Dublin/Pleasanton BART, Livermore ACE and Lawrence Livermore Lab (LLNL). Route operates 7 days/week. TFCa request is for FY 12/13 operations.	\$4,301,183	\$100,000	\$144,346	\$27,413	See Note 3
LAVTA	Route 53 ACE Shuttle Service	Local feeder bus service that provides service to the Altamont Commuter Express (ACE) Pleasanton Station and the West Dublin/ Pleasanton BART Station, and the Stoneridge mall. TFCa request is for FY 12/13 operations.	\$136,718	\$34,180	\$34,180	\$51,507	
LAVTA	Route 54 ACE Shuttle Service	Local feeder bus service that provides service between the Altamont Commuter Express (ACE) Pleasanton Station, the Dublin/Pleasanton BART Station and major employment centers including Stoneridge Mall, Bernal Business Park and Hacienda Business Park. TFCa request is for FY 12/13 operations.	\$149,198	\$37,299	\$37,299	\$21,768	
Subtotal			\$4,900,449	\$227,829	\$272,175		
			30% Transit Discretionary Share Balance	\$530,325			
			Recommended under Amount Available	\$258,150			

Totals				
Program Component	Request	Balance	Recommended	Difference
Total TFCa City/County Share (70%)	\$223,655	(\$165,343)	\$92,807	(\$258,150)
Total TFCa Transit Discretionary Share (30%)	\$227,829	\$530,325	\$272,175	\$258,150
Total TFCa Recommendation	\$451,484	\$364,982	\$364,982	\$0

Notes:

- 1) The maximum allowable TFCa cost is \$90,000 per ton of emission reduced.
- 2) Request limited to the maximum cost-effectiveness threshold of \$90K/ton emissions reduced.
- 3) Additional \$44,346 added to most cost-effective project to fully program available balance.

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APPENDIX D

BOARD-ADOPTED TFCA COUNTY PROGRAM MANAGER FUND POLICIES FOR FYE 2013

Adopted November 2, 2011

The following policies apply only to the Transportation Fund for Clean Air (TFCA) County Program Manager Fund.

BASIC ELIGIBILITY

1. **Reduction of Emissions:** Only projects that result in the reduction of motor vehicle emissions within the Air District's jurisdiction are eligible.

Projects must conform to the provisions of the California Health and Safety Code (HSC) sections 44220 et seq. and these Air District Board of Directors adopted TFCA Program Manager Fund Policies for FYE 2013.

Projects must achieve surplus emission reductions, beyond what is currently required through regulations, ordinances, contracts, or other legally binding obligations at the time of the execution of a funding agreement between the Program Manager and the sub-awardee.

2. **TFCA Cost-Effectiveness:** Projects must achieve TFCA cost-effectiveness, on an individual project basis, equal to or less than \$90,000 of TFCA funds per ton of total of emissions reduced, unless a different value is specified in the below policy for that project type. Cost-effectiveness is based on the ratio of TFCA funds awarded divided by the sum total tons of reactive organic gases (ROG), oxides of nitrogen (NO_x), and weighted particulate matter 10 microns in diameter and smaller (PM10) reduced (\$/ton).

Program Manager administrative costs are excluded from the calculation of TFCA cost-effectiveness.

3. **Eligible Projects, and Case-by-Case Approval:** Eligible projects are those that conform to the provisions of the California Health and Safety Code (HSC) section 44241, Air District Board adopted policies and Air District guidance. On a case-by-case basis, Program Managers must receive approval by the Air District for projects that are authorized by the HSC Section 44241 and achieve Board-adopted TFCA cost-effectiveness, but do not fully meet other Board-adopted Policies.
4. **Consistent with Existing Plans and Programs:** All projects must comply with the transportation control measures and mobile source measures included in the Air District's most recently approved plan for achieving and maintaining State and national ambient air quality standards, those plans and programs established pursuant to California Health and Safety Code (HSC) sections 40233, 40717 and 40919, and, when applicable, with other adopted State, regional, and local plans and programs.
5. **Eligible Recipients:** Grant recipients must be responsible for the implementation of the project, have the authority and capability to complete the project, and be an applicant in good standing with the Air District.

A. Public agencies are eligible to apply for all project categories.

- B. Non-public entities are only eligible to apply for new alternative-fuel (light, medium, and heavy-duty) vehicle and infrastructure projects, and advanced technology demonstrations that are permitted pursuant to HSC section 44241(b)(7). No single non-public entity may be awarded more than \$500,000 in TFCA County Program Manager Funds in each funding cycle.
6. **Readiness:** Projects must commence in calendar year 2013 or sooner. “Commence” includes any preparatory actions in connection with the project’s operation or implementation. For purposes of this policy, “commence” can mean the issuance of a purchase order to secure project vehicles and equipment, the delivery of the award letter for a service contract or the delivery of the award letter for a construction contract.
7. **Maximum Two Years Operating Costs:** Projects that provide a service, such as ridesharing programs and shuttle and feeder bus projects, are eligible to apply for a period of up to two (2) years. Grant applicants that seek TFCA funds for additional years must reapply for funding in the subsequent funding cycles.

APPLICANT IN GOOD STANDING

8. **Independent Air District Audit Findings and Determinations:** Project sponsors who have failed either the fiscal audit or the performance audit for a prior TFCA-funded project will be excluded from future funding for five (5) years from the date of the Air District’s final determination in accordance with HSC section 44242, or duration determined by the Air District Air Pollution Control Officer (APCO). Existing TFCA funds already awarded to the project sponsor will not be released until all audit recommendations and remedies have been satisfactorily implemented. A failed fiscal audit means an uncorrected audit finding that confirms an ineligible expenditure of TFCA funds. A failed performance audit means that the project was not implemented as set forth in the project funding agreement.

In case of a failed audit, a Program Manager may be subject to a reduction of future revenue in an amount equal to the amount which was inappropriately expended pursuant to the provisions of HSC Section 44242(c)(3).

9. **Authorization for County Program Manager to Proceed:** Only a fully executed funding agreement (i.e., signed by both the Air District and the County Program Manager) constitutes the Air District’s award of funds for a project. Program Managers may only incur costs (i.e., an obligation made to pay funds that cannot be refunded) after the funding agreement with the Air District has been executed.
10. **Insurance:** Each County Program Manager and project sponsor must maintain general liability insurance, workers compensation insurance, and additional insurance as appropriate for specific projects, with estimated coverage amounts provided in Air District guidance and final amounts specified in the respective funding agreements throughout the life of the project(s).

INELIGIBLE PROJECTS

11. **Duplication:** Grant applications for projects that duplicate existing TFCA-funded projects (including Bicycle Facility Program projects) and therefore do not achieve additional emission reductions are ineligible. Combining TFCA County Program Manager Funds with TFCA Regional Funds to achieve greater emission reductions for a single project is not considered project duplication.

12. **Planning Activities:** Funding may not be used for any planning activities, feasibility studies or other planning activities that are not directly related to the implementation of a specific project or program.
13. **Employee Subsidies:** Projects that provide a direct or indirect financial transit or rideshare subsidy or shuttle/feeder bus service exclusively to employees of the project sponsor are not eligible.

USE OF TFCA FUNDS

14. **Cost of Developing Proposals:** The costs of developing grant applications for TFCA funding are not eligible to be reimbursed with TFCA funds.
15. **Combined Funds:** TFCA County Program Manager Funds may be combined with TFCA Regional Funds to fund a project that is eligible and meets the criteria for funding under both. For the purpose of calculating TFCA cost-effectiveness, the combined sum of TFCA County Program Manager Funds and TFCA Regional Funds shall be used to calculate the TFCA cost of the project.
16. **Administrative Costs:** Administrative costs for TFCA County Program Manager Funds are limited to a maximum of five percent (5%) of the actual Department of Motor Vehicles (DMV) fee revenues that correspond to each county, received for a given fiscal year. Interest earned on prior DMV funds received shall not be included in the calculation of the administrative costs. To be eligible for reimbursement, administrative costs must be clearly identified in the expenditure plan application and in the funding agreement between the Air District and the Program Manager.
17. **Expend Funds within Two Years:** County Program Manager Funds must be expended within two (2) years of receipt of the first transfer of funds from the Air District to the County Program Manager in the applicable fiscal year. A County Program Manager may, if it finds that significant progress has been made on a project, approve no more than two (2) one-year (1-year) schedule extensions for a project. Any subsequent schedule extensions for projects can only be given on a case-by-case basis, if the Air District finds that significant progress has been made on a project, and the funding agreement between the Program Manager and the Air District is amended to reflect the revised schedule.
18. **Unallocated Funds:** Pursuant to HSC 44241(f), any TFCA County Program Manager funds that are not allocated to a project within six months of the Air District Board of Directors approval of the Program Manager's Expenditure Plan may be allocated to eligible projects by the Air District. The Air District shall make reasonable effort to award these funds to eligible projects within the same county from which the funds originated.
19. **Reserved for potential future use.**
20. **Reserved.**
21. **Reserved.**

ELIGIBLE PROJECT CATEGORIES

22. Alternative Fuel Light-Duty Vehicles:

Eligibility: For TFCA purposes, light-duty vehicles are those with a gross vehicle weight rating (GVWR) of 8,500 lbs. or lighter. Light-duty vehicle types and equipment eligible for funding include:

- A. New hybrid-electric, electric, fuel cell, and CNG/LNG vehicles certified by the CARB as meeting established super ultra low emission vehicle (SULEV), partial zero emission vehicle (PZEV), advanced technology-partial zero emission vehicle (AT-PZEV), or zero emission vehicle (ZEV) standards.
- B. New electric neighborhood vehicles (NEV) as defined in the California Vehicle Code.
- C. CARB emissions-compliant vehicle system retrofits that result in reduced petroleum use (e.g., plug-in hybrid systems).

Gasoline and diesel (non-hybrid) vehicles are not eligible for TFCA funding. Funds are not available for non-fuel system upgrades such as transmission and exhaust systems and should not be included in the incremental cost of the project.

TFCA funds awarded may not exceed incremental cost after all other applicable manufacturer and local/state/federal rebates, tax credits, and cash equivalent incentives are applied. Incremental cost is the difference in cost between the purchase or lease price of the new vehicle and/or retrofit, and its new conventional vehicle counterpart that meets, but does not exceed, 2011 emissions standards.

Each vehicle funded must meet the cost-effectiveness requirement.

23. Alternative Fuel Medium Heavy-Duty and Heavy Heavy-Duty Service Vehicles (low-mileage utility trucks in idling service):

Eligibility: For TFCA purposes, medium and heavy-duty service vehicles are on-road motor vehicles with a Gross Vehicle Weight Rating (GVWR) of 14,001 lbs. or heavier. This category includes only vehicles in which engine idling is required to perform the primary function (for example, crane or aerial bucket trucks). In order to qualify for this incentive, each new vehicle must be placed into a service route that has a minimum idling time of 520 hours/year, and a minimum mileage of 500 miles/year.

TFCA funds awarded may not exceed the difference in the purchase or lease price of the new clean air vehicle that surpasses the applicable emissions standards and its new conventional vehicle counterpart that meets, but does not exceed, current emissions standards (incremental cost).

Each vehicle funded must meet the cost-effectiveness requirement.

Scrapping Requirements: Project sponsors of heavy-duty clean air vehicles purchased or leased with TFCA funds that have model year 1998 or older heavy-duty diesel vehicles in their fleet are required to scrap one model year 1998 or older heavy-duty diesel vehicle for each new clean air vehicle purchased or leased with TFCA funds. Costs related to the scrapping of heavy-duty vehicles are not eligible for reimbursement with TFCA funds.

24. Alternative Fuel Heavy-Duty Vehicles (high mileage):

Eligibility: For TFCFA purposes, Alternative Fuel Heavy-Duty Vehicles are defined as follows: Light-heavy-duty vehicles (LHDV) are those with a GVWR between 8,501 lbs. and 14,000 lbs., medium-heavy-duty vehicles (MHDV) are those with a GVWR between 14,001 lbs. and 33,000 lbs., and heavy-heavy-duty vehicles (HHDV) are those with a GVWR equal to or greater than 33,001 lbs. LHDV, MHDV and HHDV types and equipment eligible for funding include the following:

- A. New hybrid-electric, electric, and CNG/LNG vehicles certified by the CARB or that are listed by the IRS as eligible for a federal tax credit pursuant to the Energy Policy Act of 2005.
- B. CARB emissions-compliant vehicle system retrofits that result in reduced petroleum use.

TFCFA funding may not be used to pay for non-fuel system upgrades such as transmission and exhaust systems.

TFCFA funds awarded may not exceed incremental cost after all other applicable manufacturer and local/state rebates, tax credits, and cash equivalent incentives are applied. Incremental cost is the difference in cost between the purchase or lease price of the vehicle and/or retrofit, and its new conventional vehicle counterpart that meets, but does not exceed, 2011 emissions standards.

Scrapping requirements are the same as those in Policy #23. Each vehicle funded must meet the cost-effectiveness requirement.

25. Alternative Fuel Buses:

Buses are subject to the same Eligibility and Scrapping requirements listed in Policy #24. Each vehicle funded must meet the cost-effectiveness requirement.

For purposes of transit and school bus replacement projects, a bus is any vehicle designed, used, or maintained for carrying more than fifteen (15) persons, including the driver. A vehicle designed, used, or maintained for carrying more than ten (10) persons, including the driver, which is used to transport persons for compensation or profit, or is used by any nonprofit organization or group, is also a bus. A vanpool vehicle is not considered a bus.

26. Alternative Fuel Infrastructure:

Eligible refueling infrastructure projects include new dispensing and charging facilities, or additional equipment or upgrades and improvements that expand access to existing alternative fuel fueling/charging sites (e.g., electric vehicles, CNG). This includes upgrading or modifying private fueling/charging sites or stations to allow public and/or shared fleet access. Funding may be used to cover the cost of equipment and installation.

TFCFA-funded infrastructure projects must be available to and accessible by the public. Equipment and infrastructure must be designed, installed and maintained as required by the existing recognized codes and standards and approved by the local/state authority.

Project sponsors are required to maintain the equipment for at least five years after installation.

TFCFA funding may not be used to pay for fuel, electricity, operation, and maintenance costs.

27. **Ridesharing Projects:** Projects that provide carpool, vanpool or other rideshare services are eligible for funding. Projects that provide a direct or indirect financial transit or rideshare subsidy are also eligible under this category.

28. **Shuttle/Feeder Bus Service:**

Projects that significantly lower single-occupancy vehicle trips while minimizing emissions created by the shuttle vehicle are eligible for funding. The project's route must operate to or from a rail station, airport, or ferry terminal and must coordinate with connecting rail or ferry schedules. Projects cannot replace a local bus service or serve the same route as a local bus service, but rather must connect transit facilities to local commercial, employment and residential areas.

Shuttle/feeder bus service applicants must be either:

- 1) a public transit agency or transit district that directly operates the shuttle/feeder bus service; or
- 2) a city, county, or any other public agency.

Unless the application is the transit agency or transit district that directly implements this project, the project applicant must submit documentation from the General Manager of the transit district or transit agency that provides service in the area of the proposed shuttle route, which demonstrates that the proposed shuttle service does not duplicate or conflict with existing transit agency service.

The following is a listing of eligible project vehicle types that may be used for service:

- A. a zero-emission vehicle (e.g., electric, hydrogen);
- B. an alternative fuel vehicle (CNG, liquefied natural gas, propane, electric);
- C. a hybrid-electric vehicle;
- D. a post-1998 diesel vehicle with a CARB Verified Diesel Emission Control Strategy (e.g., retrofit); or
- E. a post-1990 gasoline-fueled vehicle.

Pilot shuttle/feeder bus service projects are required to meet a cost-effectiveness of \$125,000/ton during the first two years of operation (see Policy #2). A pilot project is a defined route that is at least 70% unique and has not previously been funded through TFCA. Applicants must provide data supporting the demand for the service, letters of support from potential users and providers, and plans for financing the service in the future.

29. **Bicycle Projects:**

New bicycle facility projects that are included in an adopted countywide bicycle plan or Congestion Management Program (CMP) are eligible to receive TFCA funds. Eligible projects are limited to the following types of bicycle facilities for public use that result in motor vehicle emission reductions:

- A. New Class-1 bicycle paths;
- B. New Class-2 bicycle lanes;
- C. New Class-3 bicycle routes;

- D. New bicycle boulevards;
- E. Bicycle racks, including bicycle racks on transit buses, trains, shuttle vehicles, and ferry vessels;
- F. Bicycle lockers;
- G. Capital costs for attended bicycle storage facilities;
- H. Purchase of two-wheeled or three-wheeled vehicles (self-propelled or electric), plus mounted equipment required for the intended service and helmets; and
- I. Development of a region-wide web-based bicycle trip planning system.

All bicycle facility projects must, where applicable, be consistent with design standards published in the California Highway Design Manual.

30. Arterial Management:

Arterial management grant applications must identify a specific arterial segment and define what improvement(s) will be made to affect traffic flow on the identified arterial segment. Projects that provide routine maintenance (e.g., responding to citizen complaints about malfunctioning signal equipment) are not eligible to receive TFCA funding. Incident management projects on arterials are eligible to receive TFCA funding. Transit improvement projects include, but are not limited to, bus rapid transit and transit priority projects. For signal timing projects, TFCA funds may only be used for local arterial management projects where the affected arterial has an average daily traffic volume of 20,000 motor vehicles or more, or an average peak hour traffic volume of 2,000 motor vehicles or more (counting volume in both directions). Each arterial segment must meet the cost-effectiveness requirement in Policy #2.

31. Smart Growth/Traffic Calming:

Physical improvements that support development projects and/or calm traffic, resulting in motor vehicle emission reductions, are eligible for TFCA funds, subject to the following conditions:

- A. The development project and the physical improvements must be identified in an approved area-specific plan, redevelopment plan, general plan, bicycle plan, pedestrian plan, traffic-calming plan, or other similar plan; and
- B. The project must implement one or more transportation control measures (TCMs) in the most recently adopted Air District plan for State and national ambient air quality standards. Pedestrian projects are eligible to receive TFCA funding.

Traffic calming projects are limited to physical improvements that reduce vehicular speed by design and improve safety conditions for pedestrians, bicyclists or transit riders in residential, retail, and employment areas. Only projects with a completed and approved environmental plan may be awarded TFCA funds.

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**ALAMEDA COUNTY TRANSPORTATION COMMISSION
TRANSPORTATION FUND FOR CLEAN AIR
(TFCA) PROGRAM GUIDELINES**

I. BACKGROUND

AB 434 (Sher; Statutes of 1991) and AB 414 (Sher, Statutes of 1995) permit the Bay Area Air Quality Management District (hereinafter the "Air District") to collect a fee of up to \$4 per vehicle per year for reducing air pollution from motor vehicles and for related planning and programs. This legislation requires the Air District to allocate 40% of the revenue to an overall program manager in each county. The overall program manager must be designated "by resolutions adopted by the county board of supervisors and the city councils of a majority of the cities representing a majority of the population."

II. ELIGIBLE PROJECTS

Only projects that result in the reduction of motor vehicle emissions are eligible for TFCA funding. Projects must achieve surplus emission reductions, beyond what is currently required through regulations, ordinances, contracts, or other legally binding obligations at the time of the execution of a funding agreement between the Program Manager and the project sponsor. Projects/Programs eligible for funding from revenues generated by this fee are:

1. Implementation of rideshare programs;
2. Purchase or lease of clean fuel buses for school districts and transit operators;
3. Provision of local feeder bus or shuttle service to rail and ferry stations and to airports;
4. Implementation and maintenance of local arterial traffic management, including, but not limited to, signal timing, signal preemption, bus stop relocation and "smart streets";
5. Implementation of rail-bus integration and regional transit information systems;
6. Implementation of demonstration projects in congestion pricing of highways, bridges and public transit; and in telecommuting (No funds expended pursuant to telecommuting projects shall be used for the purchase of personal computing equipment for an individual's home use);
7. Implementation of vehicle-based projects to reduce mobile source emissions, including, but not limited to light duty vehicles with a gross vehicle weight (GVW) of 10,000 pounds or lighter, engine repowers, engine retrofits, fleet modernization, alternative fuels, and advanced technology demonstrations. Note: Engine repowers are subject to Air District approval on a case-by-case basis;
8. Implementation of smoking vehicles program;
9. Implementation of bicycle facility improvement projects that are included in an adopted countywide bicycle plan or congestion management program; and
10. Design and construction by local public agencies of physical improvements that support development projects that achieve motor vehicle emission reductions. The projects and the physical improvements shall be identified in an approved area-specific plan, redevelopment plan, general plan, or other similar plan.

AB 414 references the trip reduction requirements in the Congestion Management Program (CMP) legislation and states that Congestion Management Agencies in the Bay Area that are designated as AB 434 program managers "shall ensure that those funds are expended as part of an overall

program for improving air quality and for the purposes of this chapter (the CMP Statute).” The Air District has interpreted this language to allow a wide variety of transportation control measures as now eligible for funding by program managers, including an expansion of eligible transit, rail and ferry projects.

AB 414 adds a requirement that County Program Managers adopt criteria for the expenditure of the county subventions and to review the expenditure of the funds. The content of the criteria and the review were not specified in the bill. However, the Air District has specified that any criteria used by a Program Manager must allocate funding to projects that are: 1) eligible under the law, 2) reduce motor vehicle emissions, 3) implement the relevant Transportation Control Measures and/or Mobile Source Measures in the Air District’s most recently approved strategy(ies) for state and national ozone standards (2010 Clean Air Plan, or CAP), and 4) are not planning or technical studies.

The program funds will be disbursed either through an individual call for projects or in a coordinated call for projects with other funding sources that provide funding for similar projects.

III. COST EFFECTIVENESS

The Air District requires that all proposed and completed projects be evaluated for TFCA cost-effectiveness. The Alameda CTC will measure the effectiveness level of TFCA-funded projects using the TFCA cost of the project divided by an estimate of the total tons of emissions reduced (reactive organic gases (ROG), oxides of nitrogen (NOx), and weighted particulate matter ten microns in diameter and smaller (PM₁₀)) due to the project. These are used to calculate a cost effectiveness number of \$/ton. The Alameda CTC will only approve projects with a TFCA cost effectiveness, on an individual project basis, equal to or less than \$90,000 of TFCA funds per ton of total ROG, NOx and weighted PM₁₀ emissions reduced (\$/ton).

IV. GENERAL PROGRAM STRUCTURE

As the overall program manager in Alameda County, the Alameda CTC will be allocated 40% of the funds collected in Alameda County. The Air District will advance these funds to the Alameda CTC in biannual installments each fiscal year.

The 40% funds programmed by the Alameda CTC will be distributed as follows:

- A maximum of 5% of the funds for program implementation and administration annually to the Alameda CTC.
- 70% of the remaining funds to be allocated to the cities/county based on population, with a minimum of \$10,000 to each jurisdiction. City population will be updated annually based on State Department of Finance estimates. 70% funds will be programmed annually in its own call for projects or in a coordinated call for projects with like funding sources. The Board may also program against future TFCA programming for projects that are larger than the annual funds available.
- 30% of the funds (discretionary) allocated to transit related projects. All eligible applicants may apply for these funds for transit related projects. 30% funds will be programmed annually in its own call for projects or in a coordinated call for projects with like funding

sources. The Board may also program against future TFCA programming for projects that are larger than the annual funds available.

A city or the county, with approval from the Alameda CTC Board, may choose to roll its annual “70%” allocation into a future program year. Since all of the available TFCA funds are to be programmed each year, a jurisdiction may borrow against its projected future year share in order to use rolled over funds available in the current year.

With approval from the Alameda CTC Board, a local jurisdiction may request programming of a multi-year project using its current and projected future year share of the 70% funds.

Projects competing for the 30% discretionary funds will be evaluated based on the total emissions reductions projected as a result of the project. Projects will be prioritized based on the total tons of pollutants reduced divided by the TFCA funds invested, as calculated using the Air District guidelines for the regional program. When this calculation is not sufficient to prioritize candidate projects, the Alameda CTC Board may also consider the emissions reductions per total project dollar invested for the project and the matching funds provided by the project sponsor.

Projects will normally be funded only if the TFCA funds requested exceed \$50,000, unless the project sponsor can show special and unusual circumstances to set this limit aside.

V. PROGRAM SCHEDULE

December - February	Annual review of Alameda County TFCA Program Guidelines.
January - March	A call for projects will be issued by the Alameda CTC.
February - March	Alameda CTC adopts resolution endorsing the programming of TFCA funds consistent with the Expenditure Plan Application. Expenditure Plan Application due to Air District.
February - April	Project applications due to Alameda CTC.
March- June	Review of projects by ACTAC. Draft program reviewed by the PPC and released by the Alameda CTC Board.
April- July	ACTAC adopts list of recommended projects and forwards list to Alameda CTC Board. Semi-annual project status reports due to Alameda CTC.
May	Alameda CTC submits Semi-annual Report to Air District by May 31 st .
September	For on-going projects, annual status reports from project sponsors due to the Alameda CTC.
October	Alameda CTC submits Annual Report to Air District by October 31st.

Schedule subject to modification based on schedule changes imposed by the Air District and previous programming actions by the Board.

VI. APPLICATION PROCESS

Project sponsors shall complete the Alameda CTC TFCA funding application. This can be a single TFCA application or included in coordinated call for projects process that consolidates like fund sources. Please include the following in your application:

- 1. Partner agencies/organizations:** If the project is sponsored by more than one agency, the applicant shall list the partner agencies, including the point of contact(s).
- 2. TFCA Funding Category:** The applicant shall indicate whether the funds applied for are from the 70% city/county funds or the 30% transit discretionary funds. Project sponsors may choose to rollover their 70% funds to into a future fiscal year 70% allocation. Project sponsors may also request to reprogram any remaining TFCA funds from previous projects or allocations in their jurisdiction, to the proposed project.
- 3. Funding Sources/Budget:** Applicants shall include a funding plan listing all funding sources and amounts (including regional 60% TFCA funds and unsecured funds). Applicants shall include a project budget listing the total project cost by phase and cost type.
- 4. Schedule and Project Milestones:** Applicants shall include project schedule and milestones.
- 5. Project Data:** Applicants shall submit the requested project-related data necessary to calculate the estimated emissions reductions and cost-effectiveness.
- 6. Transportation Control Measures (TCM) and Mobile Source Measures (MSM):** Applicants shall list the TCMs and/or MSMs from the Air District's most recently approved strategy(ies) for state and national ozone standards that are applicable to the project.

VII. MONITORING REQUIREMENTS

The Air District requires that emissions reduced as a result of each project be calculated twice. The first is an estimate of projected emissions reduction. Sponsors must provide data for this calculation in their application.

Sponsors must also conduct post-project evaluation and/or surveys (known as the monitoring requirements) as specified in the fund transfer agreement for the project.

Project sponsors shall provide estimates for the cost of collecting the data for the monitoring requirements that are required by the Air District. The cost of the monitoring requirements data collection efforts should not exceed 5% of the total project budget (including both TFCA and non-TFCA funds).

VIII. INSURANCE REQUIREMENTS

Each Project Sponsor must maintain general liability insurance, workers compensation insurance and additional insurance as appropriate for specific projects, with coverage amounts specified in the project funding agreement, throughout the life of the project.

This section provides guidance on the insurance coverage and documentation typically required for TFCFA Program Manager Fund projects. Note that the Air District reserves the right to specify different types or levels of insurance in the funding agreement. The typical funding agreement requires that each project sponsor provide documentation showing that the project sponsor meets the following requirements for each of its projects.

1. **Liability Insurance** with a limit of not less than \$1,000,000 per occurrence, of the type usual and customary to the business of the Project Sponsor, and to the operation of the vehicles, vessels, engines or equipment operated by the Project Sponsor.
2. **Property Insurance** in an amount of not less than the insurable value of Project Sponsor’s vehicles, vessels, engines or equipment funded under the Agreement, and covering all risks of loss, damage or destruction of such vehicles, vessels, engines or equipment.
3. **Worker’s Compensation Insurance** for construction projects including but not limited to bike/pedestrian paths, bike lanes, smart growth and vehicle infrastructure, as required by California law and employers insurance with a limit not less than \$1 million.

Acceptability of Insurers: Insurance is to be placed with insurers with a current A.M. Best’s rating of no less than A, VII. The Air District may, at its sole discretion, waive or alter this requirement or accept self-insurance in lieu of any required policy of insurance. Below is a table listing the types of insurance coverage generally required for each project type. The requirements may differ in specific cases.

<u>County Program Manager Fund Contract Activity</u>	<u>Insurance Required</u>
Vehicle Purchase	Automobile Liability and Automobile Physical Damage
Engine Repowers/Retrofits	Automobile Liability and Automobile Physical Damage
Operation of shuttle from transit hubs to private business and other location	Commercial General Liability, Automobile Liability and Automobile Physical Damage
Transit pass subsidy or commute incentives	None
Transit Marketing Program	Commercial General Liability
Guaranteed Ride Home Program	None
Bicycle facilities including bike paths, bike lanes (either striping and signs or construction of roadway Shoulders), bike routes, bike lockers, and bike racks.	Commercial General Liability, Automobile Liability and Worker’s Compensation

Insurance Table, continued:

<u>County Program Manager Fund Contract Activity</u>	<u>Insurance Required</u>
Constructing a bike/pedestrian overpass	Commercial General Liability, Automobile Liability and Worker's Compensation
Signal Timing	Commercial General Liability

IX. FUNDING AGREEMENT, REPORTS AND AUDIT REQUIREMENTS

Prior to receiving any reimbursement of funds, project sponsors must execute a fund transfer agreement with the Alameda CTC. The fund transfer agreement includes a description of the project/program to be funded and specifies the terms and conditions for the expenditure of funds, including all audit requirements.

A contract executed by both the Air District and the Alameda CTC constitutes final approval and obligation for the Air District to fund a project. Costs incurred before the execution of the funding agreement (Air District and Alameda CTC) will not be reimbursed. An executed funding agreement between the Alameda CTC and project sponsor is required before any reimbursements will be made. The funding agreement between the Alameda CTC and project sponsor is to be executed within six months from the date the funding agreement between the Air District and the Alameda CTC is executed. After the six month deadline has passed, any funding associated with an unexecuted funding agreement may be considered unallocated and may be reprogrammed by the Air District.

Project sponsors will be required to submit bi-annual progress reports to the Alameda CTC which provide project status and itemize the expenditure of funds for each project. Project sponsors are also required to submit a final project report, which includes monitoring requirements, upon completion of the project.

All projects will be subject to a performance audit including project monitoring requirements established by the Air District. Project sponsors will, for the duration of the project/program, and for three (3) years following completion, make available to the Air District or to an independent auditor, all records relating to expenses incurred in implementing the projects.

X. TIMELY IMPLEMENTATION OF PROJECTS AND USE OF FUNDS

The enabling legislation requires project sponsors to encumber and expend funds within two years, unless a time extension has been granted. To ensure the timely implementation of projects and use of funds, the following timelines will be imposed for each program year:

1. Within two months of receipt of funds from the Air District, the Alameda CTC will send out fund transfer agreements to each project sponsor
2. Project sponsors must execute a fund transfer agreement with the Alameda CTC within three months of receipt of an agreement from the Alameda CTC to ensure that the agreement is executed within six months from the execution of the funding agreement between the Air District and the Alameda CTC. The executed fund transfer agreement must contain an

expenditure plan for implementation of the project. After the deadline has passed, any funding associated with an unexecuted funding agreement may be considered unallocated and may be reprogrammed by the Air District.

3. Project sponsors must initiate implementation of a project within three months of the date of receipt of the executed fund transfer agreement from the Alameda CTC, unless an extended schedule has been approved in advance by the Alameda CTC.
4. Funds must be expended within two years from the date of the first receipt of funds by the Alameda CTC from the Air District. The Alameda CTC Board may, if it finds that significant progress has been made on a project, approve no more than two one-year schedule extensions for a project. Additional schedule extension requests can only be granted with approval from the Air District).
5. Sponsors must submit requests for reimbursement at least once per fiscal year. Requests must be submitted within six (6) months after the end of the fiscal year, defined as the period from July 1 to June 30. All final requests for reimbursement must be submitted no later than the date the Final Project Report is submitted.
6. Sponsors must submit semi-annual progress reports within the period established by the Air District.
7. Sponsors must submit required Final Project Reports (project monitoring reports) within three months of project completion or within three months after the post-project evaluation period as established in the funding agreement.
8. An at risk report will be presented to Alameda CTC Committees throughout the year to advise sponsors of upcoming critical dates and deadlines.

Any sponsor that does not comply with any of the above requirements within the established time frames will be given written notice from the Alameda CTC that they have 60 days in which to comply. Failure to comply within 60 days will result in the reprogramming of the funds allocated to that project, and the project sponsor will not be permitted to apply for new projects until the sponsor has demonstrated to the Alameda CTC that steps have been taken to avoid future violations of this policy.

XI. REIMBURSEMENT OF FUNDS

Upon execution of a fund transfer agreement, project sponsors may request reimbursement for documented expenses on an approved project. All project costs must be identified in the budget in the approved grant application and conform to the project scope included in attachment A of the TFCA funding agreement. Project sponsors must complete the "Request for Reimbursement of Funds" form attached to the fund transfer agreement for each reimbursement request. All complete requests for reimbursement will be paid within 30 days.

The Request for Reimbursement form must have an original signature by an authorized person, and should be sent to the attention of Alameda CTC's Financial Officer. The form must be accompanied by the following documentation:

1. **Direct Costs:** Copies of invoices that the project sponsor has paid, including copies of checks evidencing payment that are directly and solely related to implementation of the project. Travel

and training costs may be used only if the travel and training are directly related to the implementation of the funded project.

2. **Labor Charges:** Payroll records indicating pay rate, time sheets indicating time worked on project. Hourly labor charges are the sum of the salary paid to an employee plus the cost of fringe benefits provided, expressed on the basis of hours worked.
3. **Indirect Costs:** Indirect costs may be considered eligible for reimbursement with TFCA funds provided the project sponsor requests and justifies the reimbursement in the approved grant application. Sponsor will be required to have an Indirect Cost Rate proposal approved in advance by the Air District. The Air District relies on OMB Circular A-87, Cost Principles for State, Local and Indian Tribal Governments for determining appropriate Indirect Costs for TFCA projects. Sponsor may choose not to charge any indirect costs to a TFCA project. Indirect costs are the reasonable overhead costs incurred in providing a physical place of work and in performing general support services and oversight. Examples include rent, utilities, office supplies, computer, payroll, reproduction, mailroom support staff, and management oversight.
4. **Administrative Costs:** Administrative costs that are reimbursable to a project sponsor are limited to a maximum of 5% of the total TFCA funds received. Administrative project costs include cost associated with entering into a TFCA funding agreement and fulfilling monitoring, reporting and record-keeping requirements, including accounting, annual reporting, invoices and final reports. Administrative costs proposed for reimbursement by TFCA are to be identified in the approved grant application. Sponsor may choose not to charge any administrative costs to a TFCA project.

TFCA FY 2012/13 Fund Estimate - April 2012

Agency	Population (Estimate)	% Population	Total % of Funding	TFCA Funds Available This FY	FY 11/12 Rollover Debits/Credits	Adjusted Program Balances ¹
Alameda	74,081	4.87%	4.86%	\$ 60,306	\$ (488,271)	\$ -
Alameda County	141,898	9.33%	9.31%	\$ 115,513	\$ 18,290	\$ 733
Albany	18,622	1.22%	1.22%	\$ 15,159	\$ (44,755)	\$ -
Berkeley	114,046	7.50%	7.48%	\$ 92,840	\$ 129,078	\$ 114,967
Dublin	46,743	3.07%	3.07%	\$ 38,051	\$ 121,059	\$ 115,276
Emeryville	10,125	0.67%	0.81%	\$ 10,000	\$ 19,075	\$ 17,555
Fremont	215,711	14.18%	14.15%	\$ 175,600	\$ 59,960	\$ 33,271
Hayward	145,839	9.59%	9.56%	\$ 118,721	\$ (646,919)	\$ -
Livermore	81,687	5.37%	5.36%	\$ 66,498	\$ 250,397	\$ 240,290
Newark	42,764	2.81%	2.80%	\$ 34,812	\$ 198,279	\$ 192,988
Oakland	392,932	25.83%	25.77%	\$ 319,868	\$ 215,238	\$ 166,621
Piedmont	10,726	0.71%	0.81%	\$ 10,000	\$ 36,409	\$ 34,889
Pleasanton	70,643	4.64%	4.63%	\$ 57,507	\$ (19,980)	\$ -
San Leandro	85,490	5.62%	5.61%	\$ 69,594	\$ 36,113	\$ 25,536
Union City	69,850	4.59%	4.58%	\$ 56,862	\$ 105,414	\$ 96,772
TOTAL:	1,521,157	100.00%	100.00%	\$ 1,241,331	\$ (10,613)	

FY 12/13 TFCA Funds (estimated)	\$ 1,847,855		
10/11 Interest Earned	\$ 17,868		
Programming Capacity	\$ 1,865,722		
Less 5% for Program Administration	\$ 92,393		
Subtotal Programming Capacity	\$ 1,773,330		
Credit from FY 10/11 Administration	\$ 1,457		
Total Adjusted Programming Capacity	\$ 1,774,787	Guarantee 70%	Discretionary 30%
Less City/County Funds to Air District Drayage Truck Program	\$ (1,430,000)	\$ (1,430,000)	\$ -
Remaining Programming Capacity	\$ 344,787	\$ (187,649)	\$ 532,436
Relinquishments	\$ 20,196	\$ 8,196	\$ 12,000
Rollover FY 11/12 debit/credit adjustment	\$ -	\$ 14,111	\$ (14,111)
Subtotal Relinquishments & debit/credit adjustments	\$ 20,196	\$ 22,307	\$ (2,111)
Adjusted Total Available to Program	\$ 364,982	\$ (165,343)	\$ 530,325

Notes:

1. Includes all TFCA programming actions through 4/12/12.
2. Population estimates as of 1/01/11 from Dept. of Finance (www.dof.ca.gov).

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**FY 2012/13 TFCA County Program Manager Fund
Calculated Cost-effectiveness for Draft Program**

Sponsor	Project Name	Project Description	Total Project Cost	TFCA \$ Requested	Calculated Cost-effectiveness ¹ (\$/ton emissions reduced)
LAVTA	Route 10 Service - BART to ACE to LLNL	Route 10 provide service between Dublin/Pleasanton BART, Livermore ACE and Lawrence Livermore Lab (LLNL). Route operates 7 days/week. TFCA request is for FY 12/13 operations.	\$4,301,183	\$100,000	\$18,991
LAVTA	Route 54 ACE Shuttle Service	Local feeder bus service that provides service between the Altamont Commuter Express (ACE) Pleasanton Station, the Dublin/Pleasanton BART Station and major employment centers including Stoneridge Mall, Bernal Business Park and Hacienda Business Park. TFCA request is for FY 12/13 operations.	\$149,198	\$37,299	\$21,768
California State University, East Bay	CSUEB Second (Peak Hours) Shuttle - Increased Service Hours	The shuttle connects the Cal State University East Bay campus to the Hayward BART station. TFCA currently funds a second shuttle bus for peak hour service from 7am-10am and 3pm-7pm. TFCA request is for expansion of service hours for the second shuttle to include operations during 10am - 3pm, allowing for continuous operations from 7am - 7pm for FY12/13.	\$313,350	\$56,350	\$51,290
LAVTA	Route 53 ACE Shuttle Service	Local feeder bus service that provides service to the Altamont Commuter Express (ACE) Pleasanton Station and the West Dublin/Pleasanton BART Station, and the Stoneridge mall. TFCA request is for FY 12/13 operations.	\$136,718	\$34,180	\$51,507
City of Pleasanton	Pleasanton Trip Reduction Program	The project consists of a three-pronged approach to reducing trips including employer-based, residential-based and school-based programs. The project includes monitoring efforts through surveys. TFCA request is for FY 12/13 program operations.	\$179,000	\$57,507	\$71,093
City of Oakland	Broadway Shuttle: Fri and Sat Evening Extended Service	The Free Broadway Shuttle operates between the Jack London Oakland Amtrak Station and Broadway at 27th Street at 11-16 minute frequencies Monday-Thursday 7am-7pm; Friday 7am-1am; and Saturday 6pm-1am. TFCA request is for FY 12/13 Friday and Saturday evening service operations (Friday 7pm-1am and Saturday 6pm-1am).	\$166,148	\$166,148	\$423,073
		Total TFCA Requested:		\$451,484	

Notes:

1) The maximum allowable TFCA cost is \$90,000 per ton of emission reduced.

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RIDESHARING, BICYCLE, SHUTTLE, AND SMART GROWTH PROJECTS
 FYE 2013 TFCA Program Manager Fund Worksheet

Version 1.0, updated 11/21/11

Calculations Tab: Complete areas shaded in yellow only.

SAMPLE ENTRIES ARE SHOWN IN LIGHT BLUE

Cost Effectiveness Inputs	
# Years Effectiveness:	1
Total Project Cost:	\$166,148
TFCA Cost 40%:	\$35,300
TFCA Cost 60%:	
Total TFCA Cost:	\$35,300

Regional Fund Proj. #:	
------------------------	--

Emission Reduction Calculations

Step 1 - Emissions for Eliminated Trips									
A	B	C	D	E	F	G	H	I	
# Trips/Day (1-way)	Days/Yr	Trip Length (1-way)	VMT	ROG Emissions (gr/yr)	NOx Emissions (gr/yr)	Exhaust & Trip End PM10 Emissions (gr/yr) *	Other PM10 Emissions (gr/yr) *	CO2 Emissions (gr/yr)	
100	250	16	400,000	136,850	139,925	6,800	81,600	174,299,497	
200	104	14.60	303,303	105,778	106,937	5,185	61,874	132,164,092	
			0	0	0	0	0	0	
		Total	303,303	105,778	106,937	5,185	61,874	132,164,092	

Step 2 - Emissions for New Trips to Access Transit/Ridesharing									
A	B	C	D	E	F	G	H	I	
# Vehicles, Model Year	Emission Std.	Vehicle GVW	ROG Factor (gr/mi)	NOx Factor (g/mi)	Exhaust PM10 Factor (g/mi)	Total PM10 Factor (g/mi)	CO2 Factor (g/mi) (See CO2 Table for LD and LHD)	Total Annual VMT (sum all vehicles)	CO2 Emissions (gr/yr)
50	250	3	37,500	24,063	17,800	800	7,650	16,340,578	
11	104	3.4	3,890	2,327	1,776	81	793	1,694,888	
			0	0	0	0	0	0	
		Total	3,890	2,327	1,776	81	793	1,694,888	

Step 3A - Emissions for Shuttle/Anpool Vehicles up to GVW of 14,000 lbs.									
A	B	C	D	E	F	G	H	I	
# Vehicles, Model Year	Emission Std.	Vehicle GVW	ROG Factor (gr/mi)	NOx Factor (g/mi)	Exhaust PM10 Factor (g/mi)	Total PM10 Factor (g/mi)	CO2 Factor (g/mi) (See CO2 Table for LD and LHD)	Total Annual VMT (sum all vehicles)	CO2 Emissions (gr/yr)
2, 2005	LEV	10,001-14,000	0.23	0.40	0.12	0.33	860	8000	6,880,000
								0	0
		Total						0	0

Step 3B - Emissions for Buses									
A	B	C	D	E	F	G	H	I	
# Vehicles	Engine Year, Make, & Model	Retrofit Device Name	ROG Factor (gr/mi)	NOx Factor (g/mi)	Exhaust PM10 Factor (g/mi)	Other PM10 Factor (g/mi)	CO2 Factor (g/mi)	Total Annual VMT (sum all vehicles)	CO2 Emissions (gr/yr)
3	2008 Van Hool Diesel Cummins ISB	2008 Fleetguard PM plus Nox device	0.03	0.59	0.04	0.205	2440	9,547	23,294,680
								0	0
		Total						9,547	23,294,680

Cost Effectiveness Results		
	Annual	Lifetime
1. VMT Reduced	289,867 Miles	289,867 Miles
2. Trips Reduced	19,630 Trips	19,630 Trips
3. ROG Emissions Reduced	0.11 Tons	0.11 Tons
4. NOx Emissions Reduced	0.11 Tons	0.11 Tons
5. PM Emissions Reduced	0.07 Tons	0.07 Tons
6. PM Weighted Emissions Reduced	0.17 Tons	0.17 Tons
7. CO2 Emissions Reduced	118.1 Tons	118.1 Tons
8. Emission Reductions (ROG, NOx & PM)	0.29 Tons	0.29 Tons
9. TFCA Project Cost - Cost Effectiveness (ROG, NOx & PM)	\$120,148 /Ton	\$120,148 /Ton
10. TFCA Project Cost - Cost Effectiveness (ROG, NOx & Weighted PM). THIS VALUE MUST MEET POLICY REQUIREMENTS.	\$89,887 /Ton	\$89,887 /Ton

Oakland-Shuttle-Trip Reduction FYE 13.xls

Notes & Assumptions-12ALA

Provide all assumptions, rationales, and references for figures used in calculations.

Step 1: Eliminated Trips

A. 1-way trips/day:

420 FY 11/12 annual average ridership (7/1/2011 - 6/2/2012)

67 An average 16% increase (an additional 67 riders per night) has been assumed for the projected increase in ridership for the second year (FY 12/13) of Fri and Sat eve service. Ridership for first 11 months of evening service has seen an average increase of 16%.

Q1 = 365/day

Q2 = 372/day (1.9% increase)

Q3 = 394/day (5.9% increase)

Q4 = 548/day (38% increase)

The annual average increase = $(1.9\% + 5.9\% + 38\%)/3$, or 16%.

The average 16% increase applied to the FY 11/12 average annual ridership = $(420 \times 16\%) = 67.2$ more riders, or $(420 + 67.2) = 487.2$ riders/day.

487

 Projected daily average ridership for FY 12/13 $(420 + 67.2)$

Adjusted eliminated trips/day: 200 Adjustment: $487 \times 41\% = 200$ (as an estimate of former SOV drivers).

Source for assumption: Per provided May '11 rider survey, 41% replied they would be more likely to drive to their destination if the shuttle were not available.

B. Days per year: 104 Actual service days (2 nights /week)

C. Average Trip Length: 14.6 Per May 2011 survey results, this is the average trip distance for the survey respondents who previously drove.

Step 2: New Trips to Access Transit

A. New Trips per day: 11 5.4% of the 200 counted eliminated trips. Per May 2011 rider survey: 5.4% drive to access transit.

B. Days per year: 104 Actual service days per year

C. Average Trip Length: 3.43 Per May 2011 survey, 3.4 miles is the average trip distance of the riders that reported driving to shuttle.

Step 3: Bus Annual VMT

Annual VMT:	1-way bus trips/day	days/yr	miles ¹	Annual VMT (evening)
Fri & Sat Evening (Four 1-way trips/hr for 6 hours x 3 buses)	54	104	1.7	9,547

Notes:

1) Evening service is longer than the 1.4 mile daytime service.