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BAY AREA  
AIR QUALITY



TRANSPORTATION  
FUND FOR  
CLEAN AIR

County Program Manager Fund  
Expenditure Plan Guidance  
Fiscal Year 2009/2010

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# Transportation Fund for Clean Air



Bay Area Air Quality Management District  
939 Ellis Street, San Francisco, CA 94109

December 2008

Revised May 6, 2009

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## REMINDER CHECKLIST

Please refer to instructions and guidance at the page numbers listed.

- March 31, 2009 - Expenditure Plan application for fiscal year (FY) 2009/2010** - The application should include:
  - Summary Information Form, signed and dated by Program Manager's executive director
  - (If applicable) Summary Information Addendum Form
  
- Within 6 months of Air District Board approval of allocation (within 3 months for projects that do not conform to all TFCA Polices):**

For each project:

  - Appendix E – Project Information Form (see Page 22)
  - Appendix F – Cost-effectiveness Worksheets and supporting documentation (see Page 23)
  
- Every October 31 - Annual Report** - Annual Reports include:
  - For each project, either an Interim or Final Report (see Page 6)
  - Appendix B – Funding Status Report Form (see Page 13)
  
- Every May 31 - Semi-Annual Report** - Semi-Annual Reports include:
  - For newly-closed projects, a Final Report
  - Appendix B – Funding Status Report Form (see Page 13)

## *TRANSPORTATION FUND FOR CLEAN AIR (TFCA)*

### *INTRODUCTION*

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On-road motor vehicles, including cars, trucks, and buses, constitute the most significant source of air pollution in the Bay Area. Vehicle emissions contribute to unhealthful levels of ozone (summertime "smog") and particulate matter.

To protect public health, the State Legislature enacted the California Clean Air Act in a 1988. As part of the requirements, the Air District prepared the *Bay Area Clean Air Plan (CAP)* and the *Bay Area 2005 Ozone Strategy*, which describe how the region will work toward compliance with the State one-hour ozone standard. To reduce emissions from motor vehicles, the *Bay Area 2005 Ozone Strategy* contains transportation control measures (TCMs) and mobile source measures (MSMs). A TCM is defined as "any strategy to reduce vehicle trips, vehicle use, vehicle miles traveled, vehicle idling, or traffic congestion for the purpose of reducing motor vehicle emissions." MSMs encourage the retirement of older, more polluting vehicles and the introduction of newer, less polluting motor vehicle technologies, which result not only in the reduction of ozone precursor emissions, but also of greenhouse gas emissions.

### *THE TFCA PROGRAM*

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To fund the implementation of TCMs and MSMs, the State Legislature authorized the Bay Area Air Quality Management District to impose a \$4 surcharge on motor vehicle registration fees paid within the San Francisco Bay Area. These revenues are allocated by the Air District through the Transportation Fund for Clean Air (TFCA). TFCA grants are awarded to public and private entities to implement eligible projects.

TFCA-funded projects have many benefits, including the following:

- √ Conserving energy and helping to reduce greenhouse gas emissions
- √ Reducing air pollution, including air toxics such as benzene and diesel particulates
- √ Improving water quality by decreasing contaminated runoff from roadways
- √ Improving transportation options
- √ Reducing traffic congestion

Forty percent (40%) of these funds are allocated to the designated program manager within each county and are referred to as the TFCA Program Manager Fund. Sixty percent (60%) of these funds are awarded directly by the Air District through the TFCA Regional Fund.

## ***TFCA PROGRAM MANAGER FUND ROLES AND RESPONSIBILITIES***

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### **Program Manager**

1. Administer program in accordance with applicable legislation, including Health and Safety Code Sections 44233, 44241, and 44242, and with Air District Board-Adopted TFCA County Program Manager Fund Policies for FY 2009/20010 (found in Appendix C).
2. Hold a public meeting each year for the purpose of confirming that projects are eligible and meet the cost-effectiveness threshold set by the Air District and the County Program Manager criteria.
3. Encumber and expend funds within two years of the receipt of funds, unless an application for funds states that the project will take a longer period of time to implement and is approved by the Air District or the County Program Manager.
4. Limit administrative costs in handling of TFCA funds to no more than five (5) percent of the funds received in a given fiscal year.
5. Allocate (program) all new TFCA funds within six months of the date of the Air District's approval of Expenditure Plan.
6. Provide information to the Air District and to auditors on the expenditures of TFCA funds.

### **Air District**

1. Hold a public hearing to:
  - a. Adopt cost-effectiveness criteria that projects and programs are required to meet. Criteria shall maximize emission reductions and public health benefits; and
  - b. Allocate County Program share of DMV fee revenues.
2. Provide guidance, offer technical support, and hold workshops on program requirements, including cost-effectiveness.
3. Review worksheets and project information.
4. Re-distribute unallocated TFCA County Program Manager Funds.
5. Limit TFCA administrative costs to a maximum of five percent (5%).
6. Conduct an audit of all TFCA projects funded.
7. Hold a public hearing within 45 days for any misappropriation of revenue.

## ***ELIGIBLE TFCA PROJECT TYPES***

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TFCA legislation limits the use of TFCA funds to certain project categories. Projects must also meet further eligibility requirements as described in the California Health and Safety Code 44241. The following is a complete list of mobile source and transportation control project types authorized under the California Health and Safety Code Section 44241(b):

- (1) The implementation of ridesharing programs;
- (2) The purchase or lease of clean fuel buses for school districts and transit operators;
- (3) The 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, transit 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 telecommuting and in congestion pricing of highways, bridges, and public transit;
- (7) Implementation of vehicle-based projects to reduce mobile source emissions, including, but not limited to, engine repowers, engine retrofits, fleet modernization, alternative fuels, and advanced technology demonstrations;
- (8) Implementation of a 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) The 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.

### ***TFCA funds may not be used for:***

- *Planning activities that are not directly related to the implementation of a specific project; nor*
- *The purchase of personal computing equipment for an individual's home use.*

## ***EXPENDITURE PLAN APPLICATION***

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The Air District provides Program Managers with Expenditure Plan application forms by e-mail. The forms include: 1) the Summary Information form, and 2) the Summary Information Addendum form.

Expenditure Plan applications are due at the Air District's offices by Tuesday, March 31, 2009. Submittal by this date will enable the Air District Board of Directors to take action on your application by May 2009. Applications sent to the Air District via fax machine will not be accepted. Submit your Expenditure Plan application in hardcopy form and either on disk or by email to:

Karen M. Schkolnick  
District Grant Programs Manager  
Bay Area Air Quality Management District  
939 Ellis Street  
San Francisco, CA 94109

Hand-delivered applications should be brought directly to the Air District offices, 939 Ellis Street, San Francisco, attn. Grant Programs Section.

## ***PROGRAMMING OF FUNDS***

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Within six months of Air District Board approval of a Program Manager's Expenditure Plan, the Program Manager must allocate (program) TFCA Program Manager funds. Program Managers use the following forms to report the programming of funds within the six-month date for each new project or initial programming of TFCA funds: 1) a Cost-Effectiveness Worksheet and 2) a Project Information sheet. The purpose is to enable the Air District to both verify that all TFCA funds are allocated within the six-month deadline and report on the results of the investment of TFCA funds.

One exception to the six-month deadline applies to projects that are authorized in the TFCA legislation (see Page 4) and meet the cost-effectiveness requirement, but are inconsistent with the TFCA County Program Manager Policies that are specific to that project type. Policy #2 provides a mechanism for consideration of such projects by the Air District Board. For such projects, Program Managers must submit a Cost-Effectiveness Worksheet, a Project Information Sheet, and supporting documentation to the Air District no later than three months after the Air District's approval of the Expenditure Plan. This will allow time for Air District review and subsequent action.

### **1) Cost-Effectiveness Worksheet**

*Note: Cost-effectiveness Worksheets are not required for projects under Policies #27 through #31, which were added on May 6, 2009.*

The purpose of the cost-effectiveness worksheet is to estimate the emissions reduced for each individual project funded and to transmit important project data. Program Managers must ensure that the cost-effectiveness of each individual project in their Expenditure Plan achieves

\$90,000 or less per ton of emissions of reactive organic gases (ROG), oxides of nitrogen (NO<sub>x</sub>) and weighted particulate matter (PM) reduced based on the TFCA funds allocated. For FY 2009/2010 projects, Program Managers must also submit a cost-effectiveness worksheet to the Air District along with the Final Report when the project is complete. This final worksheet will show the realized emissions reductions associated with the project. Instructions for completing the worksheets are found in Appendix F. Provide documentation and explain your cost-effectiveness inputs and assumptions if you do not use the Air District's default guidelines to determine a project's cost-effectiveness.

## **2) Project Information Sheet**

A Project Information sheet must be submitted for each new project funded. The primary purpose of this sheet is to provide a description of each project funded, and any other technical information that is not captured in the Cost-Effectiveness Worksheet. A copy of the Project Information Sheet and instructions for completing the sheet are found in Appendix E.

## ***REPORTING***

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Reports are due from each Program Manager to the Air District semi-annually to document project progress. Program Managers may choose to require additional reports of project sponsors. Approved reporting forms will be posted on the Air District's website at [www.baaqmd.gov/tfca4pm](http://www.baaqmd.gov/tfca4pm). In addition, the approved forms will be emailed by the Air District in August 2009. If report due date falls on Saturday or Sunday, the due date is the following business day. The following is a description of required reports and submission dates:

### **Funding Status Report Form (due October 31 and May 31)**

This form is used to track all projects funded with TFCA Program Manager Funds. Program Managers will use this form to provide an update on existing projects, including those that have been cancelled, been completed under budget, or received a completion date extension during the previous six months. This form is new for the FY 2009/2010 cycle, and replaces the former Quarterly Funding Status Report form. A copy of this form is attached as Appendix B.

### **Final Project Report (due October 31 and May 31)**

For each project, a Final Project Report is due at the conclusion of the project. The Final Reports are specific to each type of project. In previous years these report forms were titled Project Monitoring Forms. The Air District will issue detailed instructions for submitting these reports in August 2009. Final project reports are due to the Air District semi-annually as follows:

*For projects that closed March 1 –August 31, final reports are due October 31.*

*For projects that closed September 1– February 28/29, final reports are due May 31.*

### **Interim Project Report (due October 31)**

For each ongoing project, an Interim Project Report Form is due annually on October 31. This report provides status information on project progress and fund usage. In previous years these report forms were titled Project Status Reporting Forms. The Air District will issue detailed instructions for submitting these reports in August 2009.

## *SCHEDULE*

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### **Program Schedule for the FY 2009/2010 Cycle**

December 2008	Expenditure Plan Application Guidance issued by Air District, including funding estimates
March 31, 2009	Deadline for Program Managers to submit application
May 14, 2009	Proposed Expenditure Plan funding allocations reviewed by Air District Mobile Source Committee (tentative)
May 20, 2009	Expenditure Plan funding allocations considered for approval by Air District Board of Directors (tentative)
June 8, 2009	Air District provides Agreements to County Program Managers for signature
July, 2009	Deadline: Within three months of Board approval, Program Manager submits request for Air District approval of any projects that do not conform TFCA policies
October, 2009	Deadline: Within six months of Board approval, Program Manager provides Cost-Effectiveness Worksheets and Project Information sheets for new projects and programmings
October 31, 2009	Funding Status, Interim Project, and Final Project Reports due
May 31, 2010	Funding Status and Final Project Reports due

## *ADDITIONAL INFORMATION*

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### **Workshops and Assistance**

The Air District is available to assist you with TFCA project cost-effectiveness analysis, workshops for project sponsors and outreach for TFCA projects. Please contact us and let us know how we can assist you.

### **Air District Contacts**

Please direct questions to the Air District Contacts below.

Andrea Gordon (primary)  
Senior Environmental Planner  
(415) 749-4940  
[agordon@baaqmd.gov](mailto:agordon@baaqmd.gov)

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(415) 749-4924  
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David Wiley  
Supervising Environmental Planner  
(415) 749-4622  
[dwiley@baaqmd.gov](mailto:dwiley@baaqmd.gov)

Karen Schkolnick  
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(415) 749-5070  
[kscholnick@baaqmd.gov](mailto:kscholnick@baaqmd.gov)

## **APPENDIX A**

### **GUIDELINES FOR ELIGIBLE TFCA REIMBURSABLE COSTS**

The Transportation Fund for Clean Air (TFCA) enabling legislation allows the vehicle registration fees collected for the program to be used for project implementation costs, as well as administrative project costs. Both project implementation costs and administrative project costs may be further divided into direct and indirect costs. This appendix provides guidance differentiating direct and indirect project implementation costs from direct and indirect administrative costs, as well as guidance on reporting and calculating these costs. The Air District will use the definitions and interpretations discussed below in the financial accounting of the TFCA program. The Air District conducts periodic audits on TFCA-funded projects to ensure that the TFCA funds have been spent in accordance with the guidelines established in this Appendix.

Although allowed, many project sponsors choose not to charge administrative project costs to the TFCA program. Project sponsors that choose to charge administrative project costs must comply with Health and Safety Code, Section 44233, as interpreted in this Appendix and TFCA County Program Manager Fund Policy #16 in this guidance document. The Health and Safety Code states that not more than five percent (5%) of the TFCA funds distributed by the Air District can be used for administrative project costs.

#### **Project Implementation Costs**

Project implementation costs are charges associated with implementing a TFCA-funded project and can encompass both direct and indirect costs.

#### **Direct Project Implementation Costs**

Direct project implementation costs include the following:

- Documented hourly labor charges (salaries, wages, and benefits) directly and solely related to implementation of the TFCA project,
- Capital costs,
- Capital equipment installation costs,
- Equipment maintenance costs,
- Shuttle driver labor costs,
- Labor costs related to capital purchases,
- Operator or personnel training directly related to project implementation,
- Contractor labor charges related to the TFCA project, and
- Overhead costs associated with the previously mentioned costs.

The direct project implementation costs that are approved by the Air District will be outlined in Attachment A of the Funding Agreement. The project sponsor may seek reimbursement for these costs by providing proper documentation with project invoices. Such documentation must show how the direct project implementation costs were calculated, for example, by listing the date when the hours were worked, employee job title, employee hourly pay rates, tasks, and total charges. Documentation of hourly charges may be provided with time sheets or any other generally accepted accounting method to allocate and document staff time.

TFCA funds may be used to pay for travel and training costs only if these costs are directly related to the implementation of the TFCA-funded project. For example, the cost of training mechanics to service natural gas clean air vehicles is an allowable direct project implementation cost.

### **Indirect Project Implementation Costs**

Indirect project implementation costs are the reasonable overhead costs incurred to provide a physical place of work and other general support services and oversight related to the implementation of the TFCA-funded project. Indirect project implementation costs associated with implementing the project might include rent, utilities, office supplies, computer, payroll, reproduction, mailroom support staff, and management oversight. Although the Health and Safety Code is silent on the issue of indirect project implementation costs, the Air District will reimburse project sponsors for these costs provided the project sponsor requests and justifies the reimbursement in the grant application (Regional Fund) or Expenditure Program (County Program Manager Fund). The Air District guidance on calculating indirect project implementation costs are provided in the last section of this appendix. A project sponsor may choose not to charge any indirect project implementation costs to a TFCA project. The accounting methods used by many public agencies do not include identification of indirect project implementation costs or the application of an indirect cost rate. The agency may determine that it is not cost-effective to implement a new system.

### **Administrative Project Costs**

Administrative project costs are the costs associated with the administration of a TFCA project, and do not include project capital or operating costs, as discussed above. The combined direct and indirect administrative project costs that are reimbursable to a project sponsor are limited to a maximum of five percent (5%) of the total TFCA funds received annually. For the County Program Manager program, the interest earned on prior DMV funds received shall not be included in the calculation of the administrative project costs.

All reimbursement of both direct and indirect administrative project costs must be requested and justified in writing in the project application (Regional Funds) or Expenditure Program (County Program Manager Funds). If administrative project costs are approved by the Air District, they will be identified in Attachment A of the Funding Agreement. The project sponsor may seek reimbursement for direct and indirect administrative project costs by providing proper documentation with project invoices. Documentation for direct administrative project costs will show how these costs were calculated by listing the date when the hours were worked, employees' job titles, employees' hourly pay rates, tasks being charged, and total charges. Documentation of

hourly charges may be provided with time sheets or any other generally accepted accounting method to allocate and document staff time. The Air District recommends that documentation of indirect administrative project costs use the methodology provided at the end of this appendix.

Administrative project costs are limited to the following:

- Direct and indirect costs associated with entering into a TFCA Funding Agreement, including documented hourly labor and overhead costs (salaries, wages, and benefits). Hourly labor charges must be expressed on the basis of hours worked on the TFCA project. Note that costs incurred in the preparation of a TFCA application are not eligible for reimbursement;
- Accounting for TFCA funds; and
- Fulfilling all monitoring, reporting, and record-keeping requirements specified in the TFCA Funding Agreement, including the preparation of quarterly reports, invoices, and final reports.

### **Reporting and Calculating Direct and Indirect Project Costs**

The following methodology is recommended to determine direct and indirect costs for both Project Implementation and administrative project costs. In general, when expenses are shared among programs or functions within an organization, they are defined as indirect costs. Indirect costs are shared among TFCA and other programs in an organization, so they are not charged to TFCA in full, but pro-rated among the programs. The project sponsor must determine the proportion of indirect costs that each program should bear. 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. The Air District uses the following definition, consistent with the Circular: “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.”

The District recommends that the indirect costs for a TFCA project be estimated based on actual indirect cost rates from the most recent fiscal audit of the agency. The following method is recommended:

1. From the most recent fiscal audit of the agency, identify all of the activities carried on by the project sponsor, and their costs.
2. Classify the activities as project implementation costs or administrative project costs, using the definitions provided above.
3. Classify the TFCA Implementation and Administrative activities and estimate their costs as direct or indirect costs. Refer to OMB Circular A-87 for assistance.
4. Direct project implementation costs may be charged to the Air District as line items in project invoices. Note that these costs must be documented as explained above.
5. Direct administrative project costs may be charged to the Air District as line items in project invoices. Note that these costs must be approved in advance by the Air District, must be documented as explained above, and when combined with indirect administrative project costs, as calculated in 7b below, may not exceed the five percent (5%) cap.
6. Indirect project implementation costs and indirect administrative project costs may be charged to the Air District as separate line items in project invoices by multiplying the

indirect cost rate(s) calculated below by the direct project implementation costs and the direct administrative project costs.

7. Indirect project implementation costs and indirect administrative project costs may be determined using the following method. This method assumes that the ratio of the indirect costs to total personnel expenses for all of an agency's activities is the same as for implementation of the TFCA project(s) by that agency. The most recent agency financial audit should be used as the source of costs in calculating the indirect cost rate(s) below. The indirect cost rate(s) based on costs in the most recent audit are applied to the direct project implementation costs and direct administrative project costs to calculate the indirect project implementation costs and indirect administrative project costs.

- a. The indirect project implementation costs and indirect administrative project cost rates may be calculated separately or the same rate may be used for both costs calculated from an agency's most recent financial audit and the following methodology:

Step 1 - Remove from the agency's total indirect costs any capital purchases or other unallowable costs. Unallowable costs include functions unrelated to the implementation of projects.

Step 2 - Calculate the agency's direct cost base as the total personnel expenses (all agency functions or programs) minus indirect personnel expenses (support functions or programs, unallowable personnel costs). Personnel expenses include salaries, wages, and benefits.

Step 3 - Divide the total remaining indirect costs by the direct cost base.

$$\text{Indirect Cost Rate} = \frac{\text{Total Indirect Costs} - \text{Capital Purchases, External Contracts, and Unallowable Costs}}{\text{Total Personnel Expenses} - \text{Indirect Personnel Expenses}}$$

- b. The TFCA direct project implementation costs and direct administrative project costs multiplied by the indirect cost rates will equal the amount of indirect costs recoverable as part of the TFCA project implementation costs and administrative project costs. Both the indirect project implementation costs and indirect administrative project costs may be charged to the Air District as line items in project invoices.

$$\text{Indirect Costs Recoverable From TFCA} = \text{TFCA Direct Costs (or Project Direct Costs)} \times \text{Indirect Cost Rate}$$

# APPENDIX B

## SEMI-ANNUAL FUNDING STATUS REPORT FORM

Program Manager: \_\_\_\_\_

Date: \_\_\_\_\_

	B: Project Sponsor	C: Project Name	D: TFCA Funds Allocated	E: Cancelled (CP) or Completed Under Budget (UB)	F: Amount of Unexpended TFCA Funds	G: TFCA Funds Reprogrammed (to Project #)	H: Project Completion Date	I: Project Completion Date Extended? (Y/N)	J: Revised Date of Project Completion

**Directions:** complete applicable portions for each new, open, and recently closed project. For the purpose of this chart, Administration is considered a project.

Answer F only if you answered E

Answer J only if you answered "Yes" to I

Complete the section below if any project completion dates were extended during this reporting period.

\* I \_\_\_\_\_, certify that significant progress has been made on the project for which the funds were granted, pursuant to HSC 44242(d).

\* Signature \_\_\_\_\_  
Executive Director

## APPENDIX C

### BOARD-ADOPTED TFCA COUNTY PROGRAM MANAGER FUND POLICIES FOR FY 2009/2010

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

#### **BASIC ELIGIBILITY**

1. **Reduction of Emissions:** A project must result in the reduction of motor vehicle emissions within the Air District's jurisdiction to be considered eligible for TFCA funding. Projects that are subject to emission reduction regulations, contracts, or other legally binding obligations must achieve surplus emission reductions to be considered for TFCA funding. Surplus emission reductions are those that exceed the requirements of applicable State or federal regulations or other legally binding obligations at the time the Air District Board of Directors approves an expenditure plan. Planning activities (e.g., feasibility studies) that are not directly related to the implementation of a specific project are not eligible for TFCA funding.
2. **Eligible Projects:** 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.
3. **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. For the purpose of this program, emissions that are calculated include a) reactive organic gases (ROG), b) oxides of nitrogen (NO<sub>x</sub>), and c) weighted particulate matter 10 microns in diameter and smaller (PM<sub>10</sub>) emissions reduced (\$/ton). Administrative costs are excluded from the calculation of TFCA cost-effectiveness.
4. **Eligible Recipients:** TFCA grants may be awarded to public agencies and to non-public entities.

Non-public entities may only apply for funding for certain clean air vehicle projects including but not limited to engine repowers, engine retrofits, fleet modernization, alternative fuels, and advanced technology demonstrations as described in HSC Section 44241(b)7. Non-public entities may not apply for light-duty vehicle projects. No single non-public entity may be awarded more than \$500,000 in TFCA County Program Manager Funds for clean air vehicle projects in each funding cycle.

A public agency may apply for TFCA funds for clean air vehicle projects on behalf of a non-public entity. As a condition of receiving TFCA funds on behalf of a non-public entity, the public agency must enter a written, binding agreement that commits the non-public entity to operate the clean air vehicle(s) within the Air District for the duration of the useful life of the vehicle(s) or reduced emission equipment.

5. **Consistent with Existing Plans and Programs:** Only projects described in HSC Section 44241 are eligible for funding. Projects must also comply with the transportation control measures and mobile source measures included in the Air District's most recently approved strategy(ies) for State and national ozone standards and, when applicable, with other adopted State and local plans and programs.
6. **Readiness:** A project will be considered for TFCA funding only if it will commence in calendar year 2010 or sooner. For purposes of this policy, "commence" means to order or accept delivery of vehicles or other equipment being purchased as part of the project, to begin delivery of the service or product provided by the project, or to award a construction contract.
7. **Maximum Two Years Operating Costs:** TFCA grant applications that request operating funds to provide a service, such as ridesharing programs or bicycle stations, are eligible for funding for up to two years. Grant applicants who seek TFCA funds for additional years must re-apply for funding in the subsequent funding cycles.

#### APPLICANT IN GOOD STANDING

8. **Failed Audit:** 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, or a 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 to 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 a final approval and obligation on the part of the Air District. Program Managers and Project Sponsors may only incur cost (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.

#### INELIGIBLE PROJECTS

11. **Duplication:** Grant applications for projects that duplicate existing TFCA-funded projects and therefore do not achieve additional emission reductions will not be considered for funding. 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. **Employee Subsidy:** Grant applications for projects that provide a direct or indirect financial transit or rideshare subsidy exclusively to employees of the project sponsor will not be considered for funding.

#### **USE OF TFCA FUNDS**

13. **Combined Funds:** TFCA County Program Manager Funds may be combined with TFCA Regional Funds for the funding of an eligible project. For the purpose of calculating TFCA cost-effectiveness, the combined sums shall be used to calculate the TFCA cost of the project.
14. **Cost of Developing Proposals:** The costs of developing grant applications for TFCA funding are not eligible to be reimbursed with TFCA funds.
15. **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 in a given year. Interest earned on prior DMV funds received shall not be included in the calculation of the administrative costs.  
  
All reimbursement with TFCA funds of administrative costs (i.e., direct and indirect) must be requested and justified in writing in the project application or expenditure plan, and approved in advance and in writing by the Air District.
16. **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.
17. **Unallocated Funds:** 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 they originated.

#### **CLEAN AIR VEHICLE PROJECTS**

18. **Light-Duty Clean Air Vehicles:**

Eligibility: For TFCA purposes, light-duty vehicles are those with a gross vehicle weight (GVW) of 10,000 pounds or lighter. Only public agencies, including public agencies applying on behalf of non-public entities, are eligible for TFCA grants for light-duty vehicles. Light-duty chassis-certified vehicles certified by the California Air Resources Board (CARB) as meeting established super ultra low emission vehicle (SULEV), partial zero emission vehicle (PZEV), advanced technology-partial zero emission vehicle (ATPZEV), or zero emission vehicle (ZEV) standards are eligible for TFCA funding. Hybrid-electric vehicles that meet the SULEV, PZEV, AT-PZEV, or ZEV standards are also eligible for TFCA funding. Gasoline and diesel

light-duty vehicles are not eligible for TFCA funding. Vehicle infrastructure is not eligible for TFCA funding unless the project is an Advanced Technology Demonstration Project (Policy 22.)

Project sponsors may be awarded TFCA funds to cover no more than the incremental cost of a clean air vehicle. Incremental cost is 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, the emissions standards. Compliance with the TFCA cost-effectiveness requirement is not waived or altered by this policy.

**19. Heavy-Duty Clean Air Vehicles:**

**Eligibility:** For TFCA Purposes, heavy-duty vehicles are on-road motor vehicles with a GVW of 10,001 pounds or heavier. Vehicle infrastructure is not eligible for TFCA funding unless the project is an Advanced Technology Demonstration Project (Policy 22).

Project sponsors may be awarded TFCA funds to cover no more than the incremental cost of a new clean air vehicle. Incremental cost is the difference in the purchase or lease price of the new clean air vehicle that surpasses the applicable emission standards, and its new diesel counterpart that meets, but does not exceed, the emission standards.

**Scrapping Requirements:** Project sponsors of heavy-duty vehicles purchased or leased with TFCA funds that have in their fleet model year 1993 or older heavy-duty diesel vehicles are required to scrap one model year 1993 or older heavy-duty diesel vehicle for each new vehicle purchased or leased with TFCA funds. Project sponsors who have in their fleet model year 1994 and newer vehicles are not required to scrap an existing operational model year 1994 or newer heavy-duty diesel vehicle within their fleet. When applicable, emission reductions associated with scrapping an existing operational diesel vehicle will be factored into the calculations of the overall cost-effectiveness for the project. Costs related to the scrapping of heavy-duty vehicles are not eligible for reimbursement with TFCA funds.

**20. Reducing Emissions from Existing Heavy-Duty Diesel Engines:** Options available to reduce emissions from existing heavy-duty diesel engines include:

- A. Repowers – To be eligible for TFCA funding, the new engine selected to repower an existing heavy-duty vehicle must reduce emissions by at least 15% compared to the direct exhaust emission standards of the existing engine that will be replaced.
- B. Diesel Emission Control Strategies – Diesel emission control strategies compatible with existing heavy-duty diesel engines are eligible for TFCA funding, subject to the conditions described below:
  - i) All control strategies must be verified by CARB to reduce emissions from the relevant engine;
  - ii) TFCA will fund, at most, the incremental cost (over what is standard or required by regulation) of the emission control strategy; and
  - iii) The project sponsor must install the highest level (i.e., most effective) diesel emission control strategy that is verified by CARB for the specific engine.

- C. Clean Fuels or Additives – Clean fuels or additives compatible with existing heavy-duty engines are eligible for TFCA funding, subject to the conditions described below:
  - i) All clean fuels or additives must be approved by CARB to reduce emissions and for use with the relevant engine; and
  - ii) TFCA will fund, at most, the incremental cost (over what is standard or required by regulation) of the clean fuel or additive.
- D. Replacement of Compressed Natural Gas (CNG) Fuel Tanks – the replacement of CNG fuel tanks will only be considered for projects that achieve surplus emissions via repowers or emission control strategies, described in Paragraphs A and B above.

- 21. **Bus Replacements:** Transit and school buses are defined as any vehicle used or maintained for carrying more than fifteen (15) persons, including the driver. Other buses are those 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. A vanpool vehicle is not considered a bus.
- 22. **Advanced Technology Demonstration Projects:** Vehicle-based advanced technology demonstration projects (i.e., technologies, motor vehicles and/or emission control devices not authorized by CARB) are eligible for TFCA funding. Such projects are subject to the TFCA cost-effectiveness requirement, and grant applications for such projects must include best available data that can be used to estimate the cost-effectiveness of such projects. For motor vehicles, only projects that achieve emissions performance beyond CARB's most stringent adopted regulatory requirements are eligible for funding under this category. For infrastructure projects, only applications that include vehicles and that include advanced infrastructure technology not currently being implemented in the Bay Area qualify for funding.

#### **SHUTTLE/FEEDER BUS SERVICE PROJECTS**

- 23. **Shuttle/Feeder Bus Service:** Shuttle/feeder bus service projects are those requesting funds to operate a shuttle or feeder bus route. The service route must go to or from a rail station, airport, or ferry terminal, and the project must:
  - A. Be submitted by a public transit agency; or
  - B. Be accompanied by documentation, from the General Manager of the 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 revenue service.

All shuttle/feeder bus service to rail or ferry stations must be timed to meet the rail or ferry lines being served.

Independent (non-transit agency) shuttle/feeder bus projects that received TFCA funding prior to FY 2008/09 and obtained a letter of support from all potentially affected transit agencies for a prior project are exempt from Paragraph 23.B unless funding is requested for a new or modified shuttle/feeder bus route.

All vehicles used in any shuttle/feeder bus service must meet the applicable CARB particulate matter (PM) standards for public transit fleets. For the purposes of TFCA funding, shuttle

projects must comply with these standards by using one of the following types of shuttle/feeder bus vehicles:

- i) an alternative fuel vehicle (CNG, liquefied natural gas, propane, electric);
- ii) a hybrid-electric vehicle;
- iii) a post-1994 diesel vehicle and a diesel emission control strategy verified by CARB to reduce emissions from the relevant engine; or
- iv) a post-1989 gasoline-fueled vehicle.

### **BICYCLE PROJECTS**

24. **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. This requirement may be waived if the responsible Congestion Management Agency provides a letter of intent to include the project in the next update of the CMP. Eligible projects are limited to the following types of bicycle facilities for public use: a) new Class-1 bicycle paths; b) new Class-2 bicycle lanes; c) new Class-3 bicycle routes; d) bicycle racks, including bicycle racks on transit buses, trains, shuttle vehicles, and ferry vessels; e) bicycle lockers; f) attended bicycle storage facilities; g) the purchase of bicycles, mounted equipment required for the intended service, and helmets; and g) 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 Chapter 1000 of the California Highway Design Manual.

### **ARTERIAL MANAGEMENT PROJECTS**

25. **Arterial Management:** Arterial management grant applications must specifically identify a given 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.

### **SMART GROWTH PROJECTS**

26. **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, 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 strategy for State and national ozone 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 and retail areas.

***Addendum, May 6, 2009; Additional FY2009/2010 Policies (#27 - #31) approved by Air District Board of Directors on May 6, 2009.***

**SUPPLEMENTAL PROJECT TYPES**

27. 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 includes:

- 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).
- C. CARB emissions compliant vehicle system retrofits that result in reduced petroleum use (e.g., plug-in hybrid systems).

With the exception of NEV, vehicles must be placed into a service route that has a minimum mileage of 10,000 miles per year.

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.

**Maximum Award (per vehicle/retrofit) listed below:**

Vehicle Type	Annual Mileage	
	10,000 - 50,000 miles	Greater than 50,000 miles
NEV (exempt from mileage minimum)	\$500	
SULEV, PZEV, AT-PZEV	\$2000	\$3000
ZEV and retrofits	\$4000	\$5000

TFCA 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 new vehicle and/or retrofit and its new conventional vehicle counterpart that meets, but does not exceed, 2009 emissions standards.

**28. Alternative Fuel Heavy-Duty Service Vehicles (Low-mileage utility trucks in idling service):**

**Eligibility:** For TFCA purposes, heavy-duty vehicles are on-road motor vehicles with a Gross Vehicle Weigh Rating (GVWR) of 10,001 pounds 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 1,000 miles/year.

Maximum Award Amount (per vehicle): 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, the emissions standards (incremental cost).

Maximum funding is set forth below:

GVWR, lbs	Idling Time	
	Average 2 - 4 hours/day	Average ≥ 4 hours/day
<b>10,001-33,000</b>	\$16,000	\$20,000
<b>Greater than 33,000</b>	\$25,000	\$30,000
<b>Additional funds for scrapping pre-1998 vehicles</b>	+ \$4000	+ \$4000

**Scrapping Requirements:** Project sponsors of heavy-duty clean air vehicles purchased or leased with TFCA funds that have model year 1997 or older heavy-duty diesel vehicles in their fleet are required to scrap one model year 1997 or older heavy-duty diesel vehicle for each new clean air vehicle purchased or leased with TFCA funds. Project sponsors with model year 1998 and newer heavy-duty diesel vehicles in their fleet may, but are not required to, meet this scrapping requirements. Applications that include scrapping components may receive additional credit towards the calculation of the overall cost effectiveness of the project. Costs related to the scrapping of heavy-duty vehicles are not eligible for reimbursement with TFCA funds.

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

**Eligibility:** For TFCA purposes, light-heavy-duty vehicles (LHDV) are those with a GVWR greater than 8,500 lbs. and less than 14,000 lbs, medium-duty vehicles (MDV) are those with a GVWR greater than 14,001 lbs. and less than 33,000 lbs., and heavy-duty vehicles (HDV) are those with a GVWR greater than 33,001 lbs. LHDV, MDV and HDV types and equipment eligible for funding include:

- A. New hybrid-electric, electric, and CNG/LNG vehicles certified by the CARB.
- B. CARB emissions compliant vehicle system retrofits that result in reduced petroleum use.

Vehicles must be placed into a service route that has a minimum mileage of 15,000 miles per year.

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

**Maximum Award (per vehicle/retrofit) listed below:**

		15,000 - 40,000 Miles	40,001 - 80,000 Miles
CNG/LNG	MDV	\$3,500	\$8,000
	HDV	\$8,000	\$20,000
Hybrid-EV and Retrofits (>15,000 Miles)	LHDV	\$10,000	
	MDV	\$25,000	
	HDV	\$30,000	
Fuel Cell and EV (>15,000 Miles)	LHDV	\$20,000	
	MDV	\$40,000	
	HDV	\$60,000	

TFCA 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, 2009 emissions standards.

**Scrapping Requirements:** Project sponsors of heavy-duty clean air vehicles purchased or leased with TFCA funds that have model year 1997 or older heavy-duty diesel vehicles in their fleet are required to scrap one model year 1997 or older heavy-duty diesel vehicle for each new vehicle purchased or leased with TFCA funds. Project sponsors with model year 1998 and newer heavy-duty diesel vehicles in their fleet may, but are not required to, meet this scrapping requirement. Costs related to the scrapping of heavy-duty vehicles are not eligible for reimbursement with TFCA funds.

**30. Alternative Fuel Buses:** Buses are subject to the same Eligibility, Maximum Award and Scrapping requirements listed in Policy #29:

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.

**31. Alternative Fuel Infrastructure:** Projects that construct infrastructure to support electric, fuel-cell and natural gas vehicles that are part of a project sponsor’s existing fleet or part of a current application for alternative fuel vehicles are eligible for funding.

Eligible refueling infrastructure projects include new dispensing facilities, or additional equipment or upgrades and improvements that expand access to existing alternative fuel refueling sites. This includes upgrading or modifying private fueling stations to allow public and/or shared fleet access. Funding may be used to purchase equipment or to pay for specific turnkey fueling services by alternative fuel providers.

TFCA funded refueling infrastructure projects must be available to and accessible by the public. Refueling 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.

TFCA funding is limited to 30% of the total project cost and may not exceed a maximum award amount of \$200,000 per project sponsor

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

## APPENDIX D

### INSURANCE GUIDELINES

This appendix provides guidance on the insurance coverage and documentation typically required for TFCA 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. The Program Manager is not required to meet these requirements itself, unless it is acting as a project sponsor.

#### 1. Liability Insurance:

Corporations and Public Entities - a limit of not less than \$1,000,000 per occurrence. Such insurance shall be of the type usual and customary to the business of the Project Sponsor, and to the operation of the vehicles, engines or equipment operated by the Project Sponsor.

Single Vehicle Owners - a limit of not less than \$750,000 per occurrence. Such insurance shall be of the type usual and customary to the business of the Project Sponsor, and to the operation of the vehicles, engines or equipment operated by the Project Sponsor.

#### 2. Property Insurance:

New Equipment Purchases - an amount of not less than the insurable value of Project Sponsor's vehicles, engines or equipment funded under this Agreement, and covering all risks of loss, damage or destruction of such vehicles, engines or equipment.

Retrofit Projects - 2003 model year vehicles or engines or newer in an amount of not less than the insurable value of Project Sponsor's vehicles, engines or equipment funded under this Agreement, and covering all risks of loss, damage or destruction of such vehicles, engines or equipment.

#### 3. 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.

The following table lists the type of insurance coverage generally required for each project type. The requirements may differ in specific cases. Program Managers should contact the Air District liaison with questions, especially about unusual projects.

<b>County Program Manager Fund Contract Activity</b>	<b>Insurance Required</b>
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 locations	Commercial General Liability, Automobile Liability and Automobile Physical Damage
Transit pass subsidy or commute incentives	None
Transit Marketing Program	Commercial General Liability
<b>County Program Manager Fund Contract Activity</b>	<b>Insurance Required</b>
Guaranteed Ride Home Program	None
Bicycle Facilities: <ul style="list-style-type: none"> <li>• -including bike paths, bike lanes (either striping and signs or construction of roadway shoulders) bike routes,</li> <li>• bike lockers <u>and</u> bike racks.</li> </ul>	Commercial General Liability and Automobile Liability (when construction or lane striping is done by truck)
<del>Bike racks and lockers</del>	<del>None</del>
Constructing a bike/pedestrian overpass	Commercial General Liability, Automobile Liability and Workers Compensation
Signal timing	Commercial General Liability

## APPENDIX E

### PROJECT INFORMATION

A. Project Number: 09XX01  
*Consecutively number projects funded with year, county code, and number, e.g., 09MAR01, 09MAR02 for Marin County. Zero (i.e., 09MAR00) is reserved for County Program Manager TFCA funds allocated for administration costs.*

B. Project Title: \_\_\_\_\_  
*Provide a concise, descriptive title for the project (e.g., “Elm Ave. Signal Interconnect” or “Purchase Two Compressed Natural Gas Heavy-Duty Trucks”).*

C. TFCA Funds Allocated: \$ \_\_\_\_\_

D. Project Description:

*Project sponsor will use TFCA funds to XXXXXXXX. Include sufficient information regarding what, how many, frequency, location, length, size of target population, etc. for the evaluation of emission reductions and project eligibility. Background information should be brief. For shuttle/feeder bus projects, indicate the hours of operation, frequency of service, and rail station and employment sites/area served.*

E. Final Report Content: Final Report Form: # 2 (Clean Air Vehicle Projects).  
*Reference the appropriate Final Report Form that will be completed and submitted after project completion.*

*Form 1 – Ridesharing, Shuttles, Transit Information, Rail/Bus  
Integration, Smart Growth, and Traffic Calming Projects*

*Form 2 – Clean Air Vehicle Projects*

*Form 3 – Bicycle Projects*

*Form 4 – Arterial Management Projects*

F. Attach a copy of cost-effectiveness worksheet and any other information used to evaluate the proposed project. For example, for heavy-duty vehicle projects, include the California Air Resources Board Executive Orders for all engines and diesel emission control systems.

*Worksheets are not needed for TFCA County Program Manager administrative costs. Additional documentation is required for heavy-duty vehicle projects in order for emission reductions to be verified.*

G. Comments (if any):

## APPENDIX F

### Instructions for Individual Project Cost-Effectiveness Worksheets

Program Managers must submit Cost-Effectiveness Worksheets for each new project and projects receiving additional TFCA funds with Project Information sheets due six months after Air District Board approval of the Program Manager’s Expenditure Plan. As these will be used during project evaluation, the Air District provides instructions below.

Consult the following instructions before entering data into the worksheets for estimating emission reductions for TFCA projects. The Air District provides Microsoft Excel worksheets to Program Managers by e-mail. The cost-effectiveness worksheets are used to calculate project emission reductions and TFCA cost-effectiveness (TFCA \$/ton of emission reductions). Program Managers must provide all relevant assumptions used to determine the project’s cost-effectiveness; these should be provided on the Notes & Assumptions worksheet found on a separate tab in each Excel workbook. Worksheets must be completed for all project types with the exception of TFCA County Program Manager administrative costs.

<b><u>Project Type</u></b>	<b><u>Worksheet Name</u></b>
Ridesharing, Shuttles, Bicycle, Smart Growth, and Traffic Calming Projects	Trip Reduction 09
Arterial Management: Signal Timing	Arterial Management 09
Arterial Management: Transit Bus Priority <sup>12</sup>	Trip Reduction 09
Bus and Heavy-Duty Vehicle	Heavy-Duty Vehicles 09
Reducing Emissions from Existing Diesels	Heavy-Duty Vehicles 09
Light-Duty Vehicles	Light-Duty Vehicles 09

**Only make entries in the yellow-shaded areas of the Cost-Effectiveness worksheet.** The new filename should begin with the application number (i.e., 09NAP01), formatted as described below under General Project Information. This worksheet contains four sections: General Project Information, Cost Effectiveness Inputs, Emission Reduction Calculations, and Cost Effectiveness Results.

Inputs to the General Project Information section do not affect the cost-effectiveness calculation for the worksheet. The Cost Effectiveness Inputs and Emission Reduction Calculations inputs are required inputs for the cost-effectiveness calculation on the worksheet. No information should be typed into the Cost Effectiveness Results section.

**Please provide an explanation of your assumptions in the Notes & Assumptions worksheet, found in a separate tab in the Excel workbook.**

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<sup>1</sup> Emissions reduction for transit bus signal prioritization projects are estimated based on vehicular trip reduction. Therefore, for these projects, use the Trip Reduction 09 worksheet.

Guidance on inputs for the worksheets is provided below:

**A. Emission Reductions Worksheet**

***General Project Information***

- Project Title:** Short descriptive title of project
- Project Sponsor:** Entity requesting TFCA funds
- Project Type Code:** Insert one of the following codes for the corresponding project type. If none of the codes is appropriate, leave blank:

Code	Project Type	Code	Project Type
<b>0</b>	Administrative costs	<b>6g</b>	Shuttle services – Other fuel type
<b>1a</b>	NG buses (transit or shuttle buses)	<b>7a</b>	Class 1 bicycle paths
<b>1b</b>	EV buses	<b>7b</b>	Class 2 bicycle lanes
<b>1c</b>	Hybrid buses	<b>7c</b>	Class 3 bicycle routes
<b>1d</b>	Fuel cell buses	<b>7d</b>	Bicycle lockers
<b>1e</b>	Buses – other clean fuel	<b>7e</b>	Bicycle racks
<b>2a</b>	NG school buses	<b>7f</b>	Bicycle racks on buses
<b>2b</b>	EV school buses	<b>7g</b>	Attended bicycle parking (“bikestation”)
<b>2c</b>	Hybrid school buses	<b>7h</b>	Other type of bicycle project (e.g., bicycle loop detectors)
<b>2d</b>	Fuel cell school buses	<b>8a</b>	Signal timing (Regular projects to speed traffic)
<b>2e</b>	School buses – other clean fuel	<b>8b</b>	Arterial Management – transit bus priority
<b>3a</b>	Other heavy-duty – NG (street sweepers, garbage trucks)	<b>9a</b>	Smart growth – traffic calming
<b>3b</b>	Other heavy-duty – EV	<b>9b</b>	Smart growth – pedestrian improvements
<b>3c</b>	Other heavy-duty – Hybrid	<b>9c</b>	Smart growth – other types
<b>3d</b>	Other heavy-duty – Fuel cell	<b>10a</b>	Rail-bus integration
<b>3e</b>	Other heavy-duty – Other clean fuel	<b>10b</b>	Transit information / marketing
<b>4a</b>	Light-duty vehicles – NG	<b>11a</b>	Telecommuting demonstration
<b>4b</b>	Light-duty vehicles – EV	<b>11b</b>	Congestion pricing demonstration
<b>4c</b>	Light-duty vehicles – Hybrid		
<b>4d</b>	Light-duty vehicles – Fuel cell		
<b>4e</b>	Light-duty vehicles – Other clean fuel		
<b>5a</b>	Implement TROs (pre-1996 projects only)	<b>15a</b>	Diesel Repower – Transit Bus
<b>5b</b>	Regional Rideshare Program	<b>15b</b>	Diesel Repower – Shuttle Bus
<b>5c</b>	Incentive programs (for any alternative mode)	<b>15c</b>	Diesel Repower – School Bus
<b>5d</b>	Guaranteed Ride Home programs	<b>15d</b>	Diesel Repower – Heavy-Duty Vehicle
<b>5e</b>	Ridesharing – Vanpools (if cash incentive only, use 5c)	<b>15e</b>	Other Repower (Repower with natural gas engine)
<b>5f</b>	Ridesharing – School carpool match	<b>16a</b>	Retrofit – Transit Bus
<b>5g</b>	Other ridesharing / trip reduction projects	<b>16b</b>	Retrofit – Shuttle Bus
<b>5h</b>	Trip reduction bicycle projects (e.g., police on bikes)	<b>16c</b>	Retrofit – School Bus
<b>6a</b>	Shuttle services – diesel powered	<b>16d</b>	Retrofit – Heavy-Duty Vehicle
<b>6b</b>	Shuttle services – gasoline powered	<b>17a</b>	Fuel Substitute – Transit Bus
<b>6c</b>	Shuttle services – NG powered	<b>17b</b>	Fuel Substitute – Shuttle Bus
<b>6d</b>	Shuttle services – EV powered	<b>17c</b>	Fuel Substitute – School Bus
<b>6e</b>	Shuttle services – Fuel cell powered	<b>17d</b>	Fuel Substitute – Heavy-Duty Vehicle
<b>6f</b>	Shuttle services – Hybrid vehicle		

**Proj. Sponsor Contact:** Name of individual responsible for implementing the project

**Proj. Sponsor Phone #:** Phone number of project sponsor contact

**Proj. Sponsor E-mail:** E-mail address of project sponsor contact

**Calculated by:** Initials of person responsible for workbook inputs.

**Application #:** The application number is composed of three parts:

**1<sup>st</sup>** - fiscal year in which project will be funded (Ex: 09)

**2<sup>nd</sup>** - county implementing project (Ex: SOL for Solano)

**3<sup>rd</sup>** - two digit number identifying project (Ex: 13)

(Example: 09MAR04 = fiscal year **2009/10**, **Marin**, Project **#04**)

Use the following abbreviations to identify counties:

**ALA** – Alameda

**CC** - Contra Costa

**MAR** – Marin

**SC** - Santa Clara

**SON** – Sonoma

**NAP** – Napa

**SM** - San Mateo

**SF** - San Francisco

**SOL** - Solano

### *Cost Effectiveness Inputs*

**# Years Effectiveness:** Years of effectiveness for project. See table **below**.

**Total Project Cost:** Total cost of project including TFCA funding, sponsor funding, and funds contributed by other entities.

**TFCA Cost:** TFCA 40% County Program Manager Funds and the 60% Regional Funds (if any) listed separately.

### *Emission Reduction Calculations*

Instructions for completing the Air District’s worksheets for calculating emissions reductions are provided in the table beginning on the following page. Default values for years of effectiveness are provided in the table below for the different project types. (Note that there are no defaults for Smart Growth projects.) Several cells have input choices or information built in, as pull-down menus or comments in Excel. Drop-down menus are accessed by clicking on a cell. Comments are indicated by a small triangle in the upper right corner of a cell, and are made visible by resting the cursor over the cell.

### **B. Notes & Assumptions Worksheet**

Provide an explanation of assumptions used in the Notes & Assumptions worksheet, found in a separate tab in the Excel workbook. If you select to not use the Air District’s guidelines to determine cost-effectiveness, you must document and explain your cost-effectiveness inputs and assumptions.

**Emission Reduction Inputs**

Project Type/Worksheet Name	Input Data Needed	Default Assumptions
<p><b>Ridesharing / Trip Reduction</b>                      Project Type = 5 a-h, 8b, 9 a-c, 11a, or 11b                      Worksheet = Trip Reduction 09                      Note: For ridesharing, the Air District generally assumes that the maximum number of vehicle trips reduced per day is 1% of target population.</p>	<p><b><u>Ridesharing</u></b></p> <ul style="list-style-type: none"> <li>• # Years Effectiveness</li> <li>• # Trips/Day (1-way) eliminated [% of target population (# employees)]</li> <li>• Days/Yr</li> <li>• Trip Length (1-way)</li> </ul>	<ul style="list-style-type: none"> <li>• Enter in Cost Effectiveness Inputs, 1 yr</li> <li>• Enter in Step 1-Column A, 1% of target population Enter in Step 1-Column B, 240 days (max.)</li> <li>• Step 1-Column C, Default = 16 miles (1-way commute distance from MTC’s Commuter Profile 2005 )</li> </ul>
	<p><b><u>School-Based Ridesharing</u></b></p> <ul style="list-style-type: none"> <li>• # Years Effectiveness</li> <li>• # Trips/Day (1-way) eliminated [% of target population (total # students)]</li> <li>• Days/Yr</li> <li>• Trip Length (1-way)</li> </ul>	<ul style="list-style-type: none"> <li>• Enter in Cost Effectiveness Inputs, 1 yr</li> <li>• Step 1-Column A, No Default</li> <li>• Enter in Step 1-Column B, 180 days (max.)</li> <li>• Step 1-Column C, 1-3 miles</li> </ul>
	<p><b><u>Transit Incentive Campaigns</u></b></p> <ul style="list-style-type: none"> <li>• # Years Effectiveness</li> <li>• # Trips/Day (1-way) eliminated [% of target population]</li> <li>• Days/Yr</li> <li>• Trip Length (1-way)</li> <li>• # New Trips/Day (1-way) to access transit</li> <li>• Days/Yr (new trips)</li> <li>• Trip Length (1-way) for new trips</li> </ul>	<ul style="list-style-type: none"> <li>• Enter in Cost Effectiveness Inputs, 1 yr</li> <li>• Step 1-Column A, No Default</li> <li>• Enter in Step 1-Column B, 90 days (max.)</li> <li>• Step 1-Column C, No Default</li> <li>• Step 2-Column A, No Default</li> <li>• Enter in Step 2 - same as # days used in Step 1</li> <li>• Step 2-Column C, Default = 3 miles</li> </ul>
	<p><b><u>Guaranteed Ride Home Programs</u></b></p> <ul style="list-style-type: none"> <li>• # Years Effectiveness</li> <li>• # Trips/Day (1-way) eliminated</li> <li>• Days/Yr</li> <li>• Trip Length (1-way)</li> </ul>	<ul style="list-style-type: none"> <li>• Enter in Cost Effectiveness Inputs, 1 year</li> <li>• Enter in Step 1-Column A, 0.2% of target population.</li> <li>• Enter in Step 1-Column B, 240 days (Max.)</li> <li>• Step 1-Column C, Default = 16 miles</li> </ul>
	<p><b><u>Transit Bus Signal Prioritization</u></b></p> <ul style="list-style-type: none"> <li>• # Years Effectiveness</li> <li>• # Trips/Day (1-way) eliminated</li> <li>• Days/Yr</li> <li>• Trip Length (1-way)</li> </ul>	<ul style="list-style-type: none"> <li>• Enter in Cost Effectiveness Inputs, 4 yrs</li> <li>• Step 1-Column A, No Default</li> <li>• Enter in Step 1-Column B, 250 days (Max.)</li> <li>• Step 1-Column C, No Default</li> </ul>

**Emission Reduction Inputs**

Project Type/Worksheet Name	Input Data Needed	Default Assumptions
<p><b>Bicycle Projects</b>                      Project Type = 7a -h                      Worksheet = Trip Reduction 09                      Methodology to estimate number of trips reduced for bike paths, lanes, &amp; routes based on:                      - the type of facility (Class 1, 2, or 3)                      - the length of the project segment                      - the traffic volume (ADT) on the facility.</p> <p>For Class 1 projects, use the ADT on the most appropriate parallel road.</p> <p>For gap closure projects (where project will close a gap between two existing segments of bikeway), use the length for the total facility.</p> <p>Note: the maximum number of vehicle trips reduced per day is 240. The Air District generally assumes that no bike project will reduce more than 240 vehicle trips per day.</p> <p>The Air District normally uses an average trip length of 3 miles (one-way) for bicycle projects.</p>	<p><b><u>Bicycle Projects (Paths, Lanes, Routes)</u></b></p> <ul style="list-style-type: none"> <li>• # Years Effectiveness                             <ul style="list-style-type: none"> <li>Class 1 bike path (or bike bridge)</li> <li>Class 2 bike lane</li> <li>Class 3 bike route</li> </ul> </li> <li>• # Trips/Day (1-way) eliminated (depends on length of project segment and ADT on project segment)                             <ul style="list-style-type: none"> <li>Class 1 bike path &amp; Class 2 bike lane ADT &lt; 12,000 vehicles per day</li> <li>Class 1 bike path &amp; Class 2 bike lane ADT &gt; 12,000 and &lt; 24,000</li> <li>Class 1 bike path w/ADT = 24,000 + Class 2 bike lane w/ ADT = 24,000 +</li> <li>Class 3 bike route</li> </ul> </li> <li>• Days/Yr</li> <li>• Trip Length (1-way)</li> </ul>	<ul style="list-style-type: none"> <li>• Enter in Cost Effectiveness Inputs: 20 years for Class 1 projects (trails/paths) 15 years for Class 2 &amp; Class 3 projects</li> <li>• Enter in Step 1-Column A:                             <ul style="list-style-type: none"> <li>Length &lt; 1 mile = 0.4% ADT</li> <li>Length &gt;1 and &lt;2 miles = 0.6% ADT</li> <li>Length &gt;2 miles = 0.8% ADT</li> <li>Length &lt; 1 mile = 0.3% ADT</li> <li>Length &gt;1 and &lt;2 miles = 0.45% ADT</li> <li>Length &gt;2 miles = 0.6% ADT</li> <li>Length &lt; 1 mile = 0.25% ADT</li> <li>Length &gt;1 and &lt;2 miles = 0.35% ADT</li> <li>Length &gt;2 miles = 0.45% ADT</li> <li>Route &lt; 1 mile = 0.1% ADT</li> <li>Route &gt;1 and &lt;2 miles = 0.15% ADT</li> <li>Route &gt;2 miles = 0.25% ADT</li> </ul> </li> <li>• Enter in Step 1-Column B, 240 days</li> <li>• Enter in Step 1-Column C, 3 miles</li> </ul>
	<p><b><u>Bicycle Lockers &amp; Racks</u></b></p> <ul style="list-style-type: none"> <li>• # Years Effectiveness</li> <li>• # Trips/Day (1-way) eliminated</li> <li>• Days/Yr</li> <li>• Trip Length (1-way)</li> </ul>	<ul style="list-style-type: none"> <li>• Enter in Cost Effectiveness Inputs, 10 yrs</li> <li>• Enter in Step 1-Column A:                             <ul style="list-style-type: none"> <li>Capacity of lockers x 1 trip/day</li> <li>Capacity of racks x 0.5 trips per day</li> </ul> </li> <li>• Enter in Step 1-Column B, 240 days</li> <li>• Enter in Step 1-Column C, 3 miles</li> </ul>

**Emission Reduction Inputs**

Project Type/Worksheet Name	Input Data Needed	Default Assumptions
<p><b>Shuttles / Rail-Bus Integration / Transit Info</b>                      Project Type =6, 10a, or 10b                      Worksheet = Trip Reduction 09</p>	<p><b><u>Shuttle/Feeder Bus, Rail-Bus Integration, and Transit Information Systems</u></b></p> <ul style="list-style-type: none"> <li>• # Years Effectiveness</li> <li>• # Trips/Day (1-way) eliminated trips</li>   <li>• Days/Yr eliminated trips</li>   <li>• Trip Length (1-way) eliminated trips. Average trip length that will be eliminated due to shuttle passengers taking BART or CalTrain before accessing the shuttle.</li> <li>• # Trips/Day (1-way) new trips to access transit</li> <li>• Days/Yr new trips</li> <li>• Trip Length (1-way) new trips. Average trip length of shuttle passengers that drive from home to the BART/CalTrain station.</li>   <li>• Shuttle/vanpool vehicle gross vehicle weight (GVW)</li> <li>• Vehicle fuel type</li> <li>• Model Year</li> <li>• Total annual miles VMT =                      [length of shuttle/van trip (one-way)] X                      [# one-way trips per day] X [#                      days of service per year]</li> </ul>	<ul style="list-style-type: none"> <li>• Cost Effectiveness Inputs, 1 year</li> <li>• Step 1-Column A,                      For on-going service, use survey results                      For new service, use 50% seating capacity (max.)</li> <li>• Step 1-Column B, Enter number of operating days. Default =254 days/yr.</li> <li>• Enter in Step 1-Column C, 16 miles (Avg.)</li>   <li>• Step 2-Column A, Default is 50% of # Trips/Day Eliminated (Step 1-Column A)</li> <li>• Enter in Step 2-Column B, same # as in Step 1-Column B.</li> <li>• Enter in Step 2-Column C, default is 3 miles for home to rail trips</li>   <li><i>For vans and shuttle vehicles, use Step 3A.                      For buses, use Step 3B.</i></li> <li>• Step 3A - Column D, enter gross vehicle weight. (Default use 1 for Vanpool, 2 for Shuttle)</li> <li>• Step 3A - Column E, enter appropriate emission rating. Use the Default Baseline for gas or diesel powered vehicles (unless vehicle has been certified to ULEV or cleaner standard).</li> <li>• Step 3A – Column F, No Default</li>   <li>• Step 3B – Column D, Default = 1</li> <li>• Step 3B – Column E, No Default</li> </ul>

**Emission Reduction Inputs**

Project Type/Worksheet Name	Input Data Needed	Default Assumptions
<p><b>Arterial Management</b> Project Type = 8a Worksheet = Arterial Management 09</p>	<p><b><u>Arterial Management</u></b></p> <ul style="list-style-type: none"> <li>• # Years Effectiveness</li> <li>• Name of Arterial (not required)</li> <li>• Segment Length (miles)</li> <li>• Days/Yr.</li> <li>• Time Period (not required)</li> <li>• Traffic Volume</li> <li>• Traffic Speed w/o the Project</li> <li>• Travel Speed w/ Project</li> </ul>	<ul style="list-style-type: none"> <li>• Enter in Cost Effectiveness Inputs: 2 yrs for signal timing/synchronization</li> <li>• Enter under Column A the name of the arterial and the direction of travel.</li> <li>• Enter under Column B the length of arterial over which speeds will be increased.</li> <li>• Enter under Column C the number of days per year over which the project would affect traffic. Default equals 250 days.</li> <li>• Enter under Column D the time period over which the traffic volumes and speed will change (e.g. AM peak, 4-7 PM, etc.). Include all the hours in a period that will benefit, not just the peak hour.</li> <li>• Enter under Column E the traffic volume before implementation of the project for the corresponding Time Period and direction of travel.</li> <li>• Enter under Column F the average traffic speed along the length of the arterial before implementation of the project.</li> <li>• Enter under Column G the average estimated traffic speed along the length of the arterial after implementation of the project. <i>Note: Maximum increase in speed is 25%.</i></li> </ul>
<p><b>Smart Growth</b></p>	<p><b><u>Smart Growth / Traffic Calming</u></b></p>	<p>No default assumptions available for “smart growth” or traffic calming projects.</p>
<p><b>Clean Air Vehicles: Heavy-Duty</b> Project Types = 1a, 1b, 1c, 1d, 1e, 2a, 2b, 2c, 2d, 2e, 3b, 3c, 3d, 3e, 15a, 15b, 15c, 15d, 15e, 16a, 16b, 16c Worksheet = Heavy Duty Vehicles 09</p> <p><b>Clean Air Vehicles: Light-Duty</b> Project Types = 4a, 4b, 4c, 4d, 4e Worksheet = Light-Duty Vehicles 09</p>	<p><b><u>Clean Air Vehicles</u></b></p> <ul style="list-style-type: none"> <li>• # Years Effectiveness</li> <li>• # Years Effectiveness</li> </ul>	<ul style="list-style-type: none"> <li>• Enter in Cost Effectiveness Inputs: 10 yrs for new vehicles 7 yrs for repowers 5 yrs for retrofits</li> <li>• Enter in Cost Effectiveness Inputs 5 years</li> </ul>