

# BOARD OF DIRECTORS MOBILE SOURCE COMMITTEE

#### **COMMITTEE MEMBERS**

SHELIA YOUNG - CHAIRPERSON ROBERTA COOPER JAKE McGOLDRICK DENA MOSSAR PAM TORLIATT

TIM SMITH – VICE CHAIRPERSON JERRY HILL JULIA MILLER JOHN SILVA

THURSDAY FEBRUARY 26, 2004 9:30 A.M.

FOURTH FLOOR CONFERENCE ROOM

#### **AGENDA**

- 1. CALL TO ORDER ROLL CALL
- 2. PUBLIC COMMENT PERIOD (Public Comment on Non-Agenda Items Pursuant to Government Code § 54954.3) Members of the public are afforded the opportunity to speak on any agenda item. All agendas for regular meetings are posted at District headquarters, 939 Ellis Street, San Francisco, CA, at least 72 hours in advance of a regular meeting. At the beginning of the regular meeting agenda, an opportunity is also provided for the public to speak on any subject within the Committee's subject matter jurisdiction. Speakers will be limited to three (3) minutes each.
- 3. APPROVAL OF MINUTES OF JANUARY 8, 2004
- 4. CARL MOYER PROGRAM GRANT ALLOCATIONS <u>iroggenkamp@baaqmd.gov</u>

  Consider recommending Board of Directors' approval of the proposed allocation of \$3.3 million in Carl

  Moyer Program funds to 16 projects.
- 5. AMENDMENT TO SAN FRANCISCO COUNTY PROGRAM MANAGER TRANSPORTATION FUND FOR CLEAN AIR EXPENDITURE PROGRAM FOR FY 2003/04jroggenkamp@baaqmd.gov

Consider recommending Board of Directors' approval of requested amendment to the San Francisco County Program Manager expenditure program for FY 2003/04.

6. TRANSPORTATION FUND FOR CLEAN AIR (TFCA) ALLOCATION OF FY 2003/04
REGIONAL FUNDS <u>iroggenkamp@baaqmd.gov</u>

Consider recommending Board of Directors' approval to allocate remaining available FY 2003/04 TFCA Regional Funds to two projects.

## 7. AMENDMENT TO MARIN COUNTY PROGRAM MANAGER TRANSPORTATION FUND FOR CLEAN AIR EXPENDITURE PROGRAM FOR FY 2003/04 | jroggenkamp@baaqmd.gov

Consider recommending Board of Directors' approval of requested amendment to the Marin County Program Manager expenditure program for FY 2003/04.

8. AMENDMENT TO ALAMEDA COUNTY PROGRAM MANAGER TRANSPORTATION FUND FOR CLEAN AIR EXPENDITURE PROGRAM FOR FY 2003/04 jroggenkamp@baaqmd.gov

Consider recommending Board of Directors' approval of requested amendment to the Alameda County Program Manager expenditure program for FY 2003/04.

#### 9. COMMITTEE MEMBER COMMENTS/OTHER BUSINESS

Any member of the Committee, or its staff, on his or her own initiative or in response to questions posed by the public, may: ask a question for clarification, make a brief announcement or report on his or her own activities, provide a reference to staff regarding factual information, request staff to report back at a subsequent meeting concerning any matter or take action to direct staff to place a matter of business on a future agenda. (Gov't Code § 54954.2).

- 10. TIME AND PLACE OF NEXT MEETING: 9:30 a.m., MARCH 11, 2004, 939 ELLIS STREET, SAN FRANCISCO, CA
- 11. ADJOURNMENT

## CONTACT CLERK OF THE BOARDS - 939 ELLIS STREET SAN FRANCISCO, CA 94109

(415) 749-4965 FAX: (415) 928-8560 BAAQMD homepage: www.baaqmd.gov

- To submit written comments on an agenda item in advance of the meeting.
- To request, in advance of the meeting, to be placed on the list to testify on an agenda item.
- To request special accommodations for those persons with disabilities notification to the Clerk's Office should be given at least three working days prior to the date of the meeting so that arrangements can be made accordingly.

## AGENDA NO. 3

## BAY AREA AIR QUALITY MANAGEMENT DISTRICT 939 ELLIS STREET SAN FRANCISCO, CALIFORNIA 94109 (415) 771-6000

#### **DRAFT MINUTES**

Summary of Board of Directors Mobile Source Committee Meeting 9:30 a.m., Thursday, January 8, 2004

1. Call to Order – Roll Call: Chairperson Young called the meeting to order at 9:32 a.m.

Roll Call: Shelia Young, Chairperson; Roberta Cooper, Jake McGoldrick (9:44 a.m.), Julia

Miller, Dena Mossar, John Silva, Pam Torliatt (9:36 a.m.), Tim Smith (9:45 a.m.).

**Also Present:** Scott Haggerty (10:00 a.m.), Gayle Uilkema.

**Absent:** Jerry Hill.

- **2. Public Comment Period:** There were no public comments.
- **3. Approval of Minutes of November 13, 2003:** Director Miller moved approval of the minutes; seconded by Director Cooper; carried unanimously without objection.
- 4. Transportation Funds for Clean Air (TFCA) Policies and Evaluation Criteria for FY 2004/05:

The Committee considered recommending Board of Directors' approval of proposed TFCA Policies and Evaluation Criteria to govern allocation of FY 2004/05 TFCA funds.

David Burch, Sr. Environmental Planner, presented the report and stated that prior to each annual funding cycle, the Air District considers revisions to the TFCA Policies and Evaluation criteria. In response to the District's request, staff received 17 comment letters by the November 12, 2003 deadline. Mr. Burch reviewed the proposed Policy revisions for Policy #27: Clean Air Vehicle Weights; Policy #32: Heavy-Duty Vehicle Replacement; and Policy #33: Reducing Emissions from Existing Heavy-Duty Diesel Engines.

Mr. Burch discussed the proposed new Policy #39: Ridesharing and noted that after considering comments received on this Policy, staff proposes to delete the new ridesharing policy in order to allow for additional analysis and discussion.

Mr. Burch stated that staff recommends the Board approve the proposed fiscal year 2004/05 TFCA Policies and Evaluation Criteria.

The following individuals spoke on this agenda item:

Jim Larson Rick Ruvolo

P.G & E, CAT City & County of San Francisco

San Francisco, CA 94177 Clean Air Programs & Clean Cities Coalition

Doug Cameron John Janes Clean Energy S & C Ford

San Francisco, CA 94131 San Francisco, CA 94103

Roger Hooson San Francisco International Airport San Francisco, CA 94128

There was discussion on the list of the fuels being developed as alternatives to diesel and which would qualify under the California Air Resources Board's (CARB) criteria. Once the fuels are verified by CARB, they would be eligible for funding under the terms of Policy #33. Staff agreed to delete the word "diesel" in the first sentence of TFCA Policy #33, c).

Policy #32: Heavy-Duty Vehicle Replacement was discussed and staff noted that the proposal would allow project sponsors to acquire and scrap an equivalent old vehicle from another fleet within the Bay Area. Staff will prepare guidelines for allowable costs and report back to the Board should issues develop.

Although Policy #39 is not being recommended for approval at this time. There was discussion on the percent of the total TFCA funds being allocated for marketing, outreach, and education activities.

**Committee Action**: Director Miller moved the Committee recommend Board approval of the proposed fiscal year 2004/05 TFCA Policies and Evaluation Criteria, including deletion of the word "diesel" in the first sentence of Policy #33, c); seconded by Director Cooper; carried unanimously without objection.

It was noted that the follow-up item for staff from the November 13, 2003 meeting would be presented to the Committee in February.

### 5. Transportation Fund for Clean Air (TFCA) Selection of Auditor

The Committee considered recommending the Board of Directors' approval to award contract of up to \$60,936 to the firm of Macias, Gini, and Company to perform audits of TFCA County Program Manager projects.

Andrea Gordon, Environmental Planner, presented the report and stated that in accordance with the California Health and Safety Code any agency receiving TFCA funds is required to undergo an audit on projects funded once every two years. Ms. Gordon reviewed the process for the Request for Proposals (RFP), the Proposal evaluations, and the five criteria used for scoring. Staff recommends the selection of Macias, Gini & Company as the auditor to conduct fiscal audits of 54 TFCA Program Manager projects and authorization for the Executive Officer to execute a \$60,936 contract with Macias, Gini & Company for these services.

**Committee Action:** Director Smith moved that the Committee recommend the Board approve the staff recommendation as stated above; seconded by Director Cooper; carried unanimously without objection.

#### 6. Contractor Selection for Vehicle Buy Back Program for FY 2003/04

The Committee considered approval of one or more contractors for the FY 2003/2004 Vehicle Buy Back Program vehicle dismantlers.

Vanessa Mongeon, Environmental Planner, presented the report and stated that the Air District received three proposals in response to the RFP and that each of the applicants currently have contracts with the Air District. Ms. Mongeon reviewed the five criteria used to evaluate the proposals. Staff recommends Board approval of Environmental Engineering Studies, Pick-N-Pull, and Pick Your Part as the contractors for the fiscal year 2003/2004 Vehicle Buy Back Program. In addition, staff recommends the Board authorize the Executive Officer/APCO to execute contracts up to \$900,000 with Environmental Engineering Studies; \$1,300,000 with Pick-N-Pull; and \$1,300,000 with Pick Your Part to provide vehicle scrapping and related services.

In response to a question from Chairperson Young, Ms. Mongeon stated there are 13 scrapping yards in seven of the nine counties; there are none in San Mateo and Marin Counties.

**Committee Action:** Director Torliatt moved that the Committee recommend the Board approve the staff recommendation as stated above; seconded by Director Mosssar; carried unanimously without objection.

## 7. Amendment to Santa Clara County TFCA Program for FY 2003/04

The Committee considered approval of requested amendment to the Santa Clara County Program Manager expenditure program for FY 2003/04

Karen Chi, Environmental Planner, presented the report and stated that the Amendment to the Santa Clara County Program Manager Expenditure Program will add the Santa Clara Valley Transportation Authority (VTA) Downtown Area Shuttle (DAHS) Retrofits project. The project will retrofit four buses with Cleaire Longview particulate filters. Staff recommends the Board approve the allocation of \$60,000 in TFCA funds as an amendment to the fiscal year 2003/04 Santa Clara County Program Manager TFCA expenditure program for VTA's DAHS retrofits.

**Committee Action:** Director Torliatt moved that the Committee recommend the Board approve the staff recommendation as stated above; seconded by Director Smith; carried unanimously without objection.

**8.** Committee Member Comments. In response to Director Cooper, Jack Broadbent, Executive Officer/APCO, stated that in preparation for yesterday's Environmental Community Tour, the staff put together some information on TFCA funding. Mr. Broadbent stated that about \$29 million has been spent for diesel retrofit-type projects in San Francisco County. Staff will report back to the Board to review the concerns voiced about the trucks in the Bayview-Hunters Point area and how the Air District is trying to address those concerns.

Director Miller commented on the CNG taxis in India and noted that the air quality there is still bad. In response to Chairperson Young, Jean Roggenkamp, Director of Planning, stated that the District does work with San Francisco and Oakland on the taxis that go to the airports.

Chairperson Young requested staff add a column to the list of TFCA projects that reflects the years of effectiveness for each project.

9. Time and Place of Next Meeting: At the Call of the Chair.

**10. Adjournment:** 10:47 a.m.

Mary Romaidis Clerk of the Boards

## MOBILE SOURCE COMMITTEE

## **Follow-up Items for Staff**

## **January 8, 2004**

1. Chairperson Young requested staff add a column to future TFCA project lists that would indicate the life of the project (the years of effectiveness for each project).

#### BAY AREA AIR QUALITY MANAGEMENT DISTRICT Inter-office Memorandum

To: Chairperson Young and

Members of the Mobile Source Committee

From: Jean Roggenkamp, Director of Planning and Research

Date: February 26, 2004

Re: Carl Moyer Memorial Air Quality Standards Attainment Program

**Grant Allocations** 

#### RECOMMENDED ACTIONS

1. Review the staff-recommended Carl Moyer Program grant allocations and recommend Board of Directors (Board) approval of \$3.32 million in grants to the 16 projects listed on Attachment 1.

- 2. Recommend Board approval of \$500,000 in future Carl Moyer Program funds for a specified project at the Port of Oakland, listed as Project #14 on Attachment 1.
- 3. Recommend Board authorization for the Executive Officer to offer grants to additional projects, in the order listed on Attachment 2, as more Carl Moyer funds become available during the 2004 calendar year.
- 4. Recommend Board authorization for the Executive Officer, when distributing additional Carl Moyer funds that become available during the 2004 calendar year, to solicit additional projects that would assist the Air District in complying with the requirements of Health and Safety (H& S) Code 43023.5. This state law requires that at least 50% of available Carl Moyer Program funds be allocated to projects that directly benefit those areas with the most significant exposure to air contaminants.
- 5. Recommend Board authorization for the Executive Officer to enter into funding agreements with recipients of Carl Moyer grants.

#### **BACKGROUND**

The Carl Moyer Program, named after the late Dr. Carl Moyer in recognition of his work in the air quality field, provides grants for the incremental purchase costs of lower-emission heavy-duty engines. Heavy-duty diesel engines are significant sources of oxides of nitrogen (NOx), a smog-forming pollutant. The fine particulate matter (PM10) exhaust from heavy-duty diesel engines is a toxic air contaminant. New, more stringent emission standards for heavy-duty engines will result in significant emission reductions over a period of years, as the standards become effective and new engines are brought into service. Retrofitting or replacing existing engines will accelerate emission reductions from heavy-duty engines.

Engine retrofits and replacements can be very cost-effective for a particular project. However, they may not be technically feasible and cost-effective for a broad enough segment of the market to justify regulatory approaches. Instead, financial incentives can be used to encourage a vehicle or equipment operator to use cleaner engines. The Carl Moyer Program provides such incentives. The Program is in its fifth year of operation.

The Board adopted procedures for the receipt and review of projects for Carl Moyer Program grants on June 18, 2003. An open application period was held between July 18 and September 19, 2003. The Air District received 86 applications requesting \$14.2 million and covering 669 engines in trucks, transit buses, marine vessels, construction equipment, and agricultural pump engines.

#### **AVAILABLE FUNDS**

The funds available for 2003 Carl Moyer Program grants is approximately \$3.32 million. These funds consists of approximately \$1.89 million in new funding from revenue bonds authorized under Proposition 40 - California's Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Act (Public Resources Code section 5096.650), which was approved by the voters in March 2002. In addition, there is approximately \$1.43 million from the 2001 and 2002 Carl Moyer Program funding cycles available for reallocation.

#### STATE MANDATED CONDITION FOR DISTRIBUTION OF FUNDS

Health and Safety Code Section 43023.5 requires that at least 50% of the Carl Moyer Program funds directly benefit those areas with the most significant exposure to air contaminants. On April 12, 2002, the Board adopted a methodology, as described in Attachment 3, defining these areas as being those where a large number of children and elderly residents are exposed to PM10 from mobile and stationary sources.

To meet the requirements of H&S Code Section 43023.5, at least \$1.67 million must be allocated to projects that benefit the areas identified in Attachment 3 where children and elderly residents have the most significant exposure to PM10 emissions. There is also a requirement in the H&S Code that the cost-effectiveness of all funded projects be below \$13,600 per ton of reduced NOx emissions.

The Air District is obligated to match each \$1.00 received from the Carl Moyer Program with 50 cents in local funds. The Air District meets this obligation through the expenditure of Transportation Fund for Clean Air revenues on low-emission heavy-duty vehicle projects sponsored by local public agencies.

#### APPLICATION EVALUATION

Projects received for consideration under the Carl Moyer Program were first reviewed by staff for eligibility in accordance with *The Carl Moyer Program Guidelines*, adopted on April 24, 2003 by the California Air Resources Board (CARB).

Air District staff used the methodology published in CARB's guidelines to estimate each project's cost-effectiveness based on the amount of Carl Moyer Program funding requested and the estimated annual reduction in NOx emissions. Staff also estimated reductions in PM10 from each project. However, under CARB's guidelines, the estimated PM10 reductions are not used in determining cost-effectiveness or recommendations for distribution of funding.

#### Attachment 1 lists 16 projects that staff recommends for Carl Moyer Program grants.

These recommendations represent a balance between funding the most cost-effective projects and those projects that satisfy the requirements of H&S Code Section 43023.5. Once completed, these projects will result in annual emission reductions of 189 tons of NOx and 18 tons of PM10 from heavy-duty engines. The expected emission reductions will come from retrofitting the engines on 375 transit buses and one tug boat, and replacing existing engines with new, lower emitting engines on 102 trucks, six marine vessels, seventeen off-road vehicles and one agricultural water pump.

Project #12 on Attachment 1 involves the retrofit of up to 375 diesel buses operated by the San Francisco Municipal Railway (MUNI) with Cleaire, Inc.'s "Longview" emission control device. This CARB-verified control device reduces both NOx and PM10. The total cost of this project amounts to over \$8 million. Funding for the project is primarily coming from a \$3 million Congestion Mitigation-Air Quality grant from the Metropolitan Transportation Commission (MTC) and two Federal Transit Administration (FTA) grants – a \$2.9 million Section 5307 grant and a \$872,251 Section 5309 grant.

The MTC funding requires an 11.5% local match of \$349,000. The FTA grants require 20% in local matching funds of approximately \$755,000. The recommended Carl Moyer Program grant is intended to assist MUNI in meeting the entire local match requirement for the MTC funding and the Section 5309 grant, as well as a small portion of the local match for the Section 5307 grant. As discussed in Agenda Item #5, the MUNI is seeking TFCA Program Manager funds as part of the local match requirements for the Section 5307 grant.

For Project #14 on Attachment 1, staff recommends a total grant of \$1.5 million to the Port of Oakland. Staff recommends that \$1 million come from the 2003 Carl Moyer Program funds and that the remaining \$500,000 come from the 2004 Carl Moyer Program funds. This project, which involves replacing engines on older trucks operating at the Port of Oakland's marine terminals in West Oakland, would complement a forthcoming truck incentive program by the Port. The Port's incentives will focus on installing emission control devices on newer trucks and assisting truck operators in replacing their older trucks with used, but newer, less-emitting trucks. The Port has proposed to conduct their incentive program in two phases. Splitting of the proposed Carl Moyer Program grant over two funding cycles will allow the District to fully fund the Port's grant request, while using the 2003 Carl Moyer Program funds for those projects that are likely to be completed during the first phase of the Port's incentive program.

Attachment 2 lists 70 projects that staff is not recommending for funding at this time either because of the limited Carl Moyer Program funds, or because, in the case of five projects, the cost-effectiveness is above the \$13,600 per ton of reduced NOx emissions threshold. Those projects with a cost-effectiveness of under \$13,600 per ton of NOx reduced are considered fully eligible to be funded as funds become available during 2004.

#### CONTINGENCY APPROVALS

CARB is scheduled to release the second and final installment of Proposition 40 revenues to the Air District by June 30, 2004. Staff recommends that the 2004 Carl Moyer Program revenue, less \$500,000 for Project #14 on Attachment 1, be used to fund projects listed in Attachment 2, in order of cost-effectiveness.

If necessary to ensure compliance with the requirements of H&S Code Section 43023.5, staff recommends that a targeted project solicitation be conducted to identify additional projects that will benefit those areas considered to have children and elderly residents with the most significant exposure to PM10 emissions. Proposed fund allocations to any projects not listed on Attachment 2 would be presented to the Mobile Source Committee for review and possible recommendation to the Board.

Carl Moyer Program procedures adopted by the Board require grant recipients to sign funding agreements for the grants within thirty days of receiving a proposed agreement. Failure to do so may result in the forfeiture of the grant. If grants are forfeited, staff proposes to use the available funds for projects listed in Attachment 2, in order of cost-effectiveness, provided that at least 50% remains allocated to projects with emissions in those areas, as identified in Attachment 3, considered to have children and elderly residents with the most significant exposure to PM10 emissions

Similarly, staff recommends that funds from approved projects that are cancelled during calendar year 2004 be used to fund projects listed in Attachment 2, in order of cost-effectiveness, provided that at least 50% remains allocated to projects with emissions in those areas, as identified in Attachment 3, considered to have children and elderly residents with the most significant exposure to PM10 emissions.

#### BUDGET CONSIDERATION / FINANCIAL IMPACT

The Carl Moyer Program distributes "pass-through" funds from CARB to private companies and public agencies on a reimbursement basis. Therefore the project grant funds do not directly impact the Air District's budget. Staff costs for the administration of the Carl Moyer Program are included under Program 607 – Mobile Source Grants in the FY 2003/2004 Budget.

Respectfully submitted,

Jean Roggenkamp Director of Planning and Research

Prepared by: Michael Murphy Reviewed by: Juan Ortellado

FORWARDED:			

## **Projects Recommended for Grants**

Project	Company Name	Description of Project	Moyer Funds Requested	Moyer C/E (\$/ton)	Number of Engines	Annual NOx Reductions (tons/year)	Annual PM10 Reductions (tons/year)
1	Westar Marine Services	Replacement of two marine engines in the MV Reliance	\$ 100,000	\$ 1,388	2	6.38	0.85
2	Westar Marine Services	Replacement of two marine engines in the MV Scout	\$ 100,000	\$ 1,388	2	6.38	0.85
3	De Silva Gates Construction	Replacement of engines in three Caterpillar 14G motorgraders	\$ 34,665	\$ 1,433	3	2.84	0.22
4	Brusco Tug and Barge	Replacement of three marine engines in the tug Mike Brusco	\$ 302,500	\$ 1,538	3	15.66	4.08
5	Fitz-Buskirk, Inc.	Replacement of two marine engines in the fishing vessel Mr. Morgan	\$ 50,000	\$ 1,543	1	0.28	2.58
6	Gallo Vineyards, Inc.	Replacement of one diesel agricultural water pump	\$ 10,000	\$ 1,572	1	0.75	0.03
7	Blue & Gold Fleet	Replacement of two auxilary power units on the ferry boat Harbor Emperor	\$ 52,300	\$ 1,573	2	2.65	0.37
8	De Silva Gates Construction	Replacement of engines in two Caterpillar 16G off-road vehicles	\$ 38,510	\$ 1,581	2	2.86	0.21
9	Amnav Maritime Services	Retrofit of two engines in the tug Enterprise	\$ 550,000	\$ 1,631	2	26.85	0.00
10	Independent Construction	Replacement of engines in ten Caterpillar 825C compactors	\$ 255,550	\$ 1,643	10	18.24	1.36
11	Westar Marine Services	Replacement of two marine engines in the MV HAWK	\$ 130,000	\$ 1,643	2	7.00	0.94
12	San Francisco Municipal Railway	Retrofit of 375 diesel transit buses with the Cleaire Longview	\$ 534,401	\$ 3,990	375	66.49	2.22
13	Bode Gravel Company	Replacement of engines in two cement mixers	\$ 72,079	\$ 5,568	2	1.52	0.02
14	Port of Oakland	Replacement of engines in 100 heavy-duty trucks (See footnote below*)	\$ 1,500,000	\$ 5,865	100	29.98	3.97
15	LB Railco, Inc.	Replacement of one engine in the Port of San Francisco Container Lift #1	\$ 45,000	\$ 6,089	1	0.87	0.06
16	LB Railco, Inc.	Replacement of one engine in the Port of San Francisco Container Lift #2	\$ 45,000	\$ 9,113	1	0.58	0.05

<sup>\*</sup> Note: Staff recommends that \$1 million come from the 2003 Carl Moyer Program funds and that the remaining \$500,000 come from the 2004 Carl Moyer Program funds.

February 26, 2004 BAAQMD

## **Contingency Projects**

18	Project	Applicant	Description of Project	Moyer Funds Requested	Moyer C/E (\$/ton)	Number of Engines	Annual NOx Reductions (tons/year)	Annual PM10 Reductions (tons/year)
19   C-Gull Sportfishing   Repower of the fishing vessel New Huck Finn   \$ 74,500 \$ 1,770 2 3.35 0.66	17	Westar Marine Services	Repower of marine vessel Ranger	\$ 130,000	\$ 1,643	2	7.00	0.94
De Silva Gates Construction   Repower of one Caterpillar 623E earthmover   \$ 47,000 \$ 1,795 1   1,69   0.13	18	De Silva Gates Construction	Repower of two Caterpillar 825C Compactors	\$ 51,110	\$ 1,643	2	3.65	0.27
21   General Pershing   Repower of the fishing vessel General Pershing   \$ 34,396   \$ 1,798   1   2.24   0.20	19	C-Gull Sportfishing	Repower of the fishing vessel New Huck Finn	\$ 74,500	\$ 1,770	2	3.35	0.66
22         Vortex Diving Inc.         Repower of auxiliary engine on derrick Barge Vantage         \$ 28,000         \$ 1,905         1         1.72         0.16           23         Westar Marine Services         Repower of the tug Colusa         \$ 122,390         \$ 1,912         2         5.10         0.89           24         Amnaw Maritime Services         Retroit of the tug Philip W         \$ 550,000         \$ 1,984         2         22,07         0.00           25         New Captain Pete, Inc.         Repower of the fishing vessel New Captain Pete         \$ 54,000         \$ 2,070         2         2.08         0.36           26         R. Rossi Company         Repower of an HD-11 Allis-Chambers tractor         \$ 19,900         \$ 2,083         1         1.12         0.07           27         West Coast Seaworks         Repower of the motor vessel White Lightning         \$ 87,500         \$ 2,199         2         3.17         0.55           28         California Northern Rail Road         Retrofit of engines in two switcher locomotives         \$ 386,000         \$ 2,242         1         5.04         0.00           30         Manson Construction Company         Repower of twester of the motor vessel Point Richmond         \$ 121,715         \$ 2,264         2         4.28         0.78	20	De Silva Gates Construction	Repower of one Caterpillar 623E earthmover	\$ 47,000	\$ 1,795	1	1.69	0.13
23   Westar Marine Services   Repower of the tug Colusa   \$ 122,390 \$ 1,912   2 5.10   0.89     24   Amnav Maritime Services   Retrofit of the tug Philip W   \$ 550,000 \$ 1,984   2 22.07   0.00     25   New Captain Pete, Inc.   Repower of the fishing vessel New Captain Pete   \$ 54,000 \$ 2,070   2 2.08   0.36     26   R. Rossi Company   Repower of an HD-11 Allis-Chambers tractor   \$ 19,900 \$ 2,083   1 1,12   0.07     27   West Coast Seaworks   Repower of the motor vessel White Lightning   \$ 87,500 \$ 2,199   2 3.17   0.55     28   California Northern Rail Road   Retrofit of one locomotive engine   \$ 168,000 \$ 2,242   1 5.04   0.00     29   California Northern Rail Road   Retrofit of engines in two switcher locomotives   \$ 396,000 \$ 2,242   2 4.95   0.00     30   Manson Construction Company   Repower of the motor vessel Point Richmond   \$ 121,715   \$ 2,264   2 4.28   0.78     31   Blue & Gold Fleet   Repower of auxiliary engine on ferry Monarch   \$ 29,150   \$ 2,354   1 0.99   0.07     32   Westar Mariine Services   Repower of tug FatCat   \$ 425,000   \$ 2,400   2 14.10   2.61     33   Amnav Maritime Services   Retrofit of engines on the tug Marauder   \$ 580,000   \$ 2,430   2 18.02   0.00     34   Blue & Gold Fleet   Repower of auxiliary engines on ferry Bay Clipper   \$ 52,300   \$ 2,512   2 1.86   0.23     35   West Coast Seaworks   Repower of the motor vessel White Squall   \$ 70,000   \$ 2,639   2 2.11   0.37     36   Southampton Towing   Repower of the tug Amy Elise   \$ 222,004   \$ 2,678   5 6.60   5.74     37   Blue & Gold Fleet   Repower of the tug Amy Elise   \$ 222,004   \$ 2,678   5 6.60   5.74     37   Blue & Gold Fleet   Repower of the tug Amy Elise   \$ 222,004   \$ 2,678   5 6.60   5.74     38   Brusco Tug and Barge   Repower of the tug Amy Brusco   \$ 324,800   \$ 2,908   2 8.89   1 7.94   0.99     39   Pacific Work Boat   Repower of the tug Captain Reino   \$ 297,124   \$ 2,980   1 7.94   0.99     40   De Silva Gates Construction   Repower of the regular 637D earthmovers   \$ 259,080   \$ 3,059   6 9.93   0.78	21	General Pershing	Repower of the fishing vessel General Pershing	\$ 34,396	\$ 1,798	1	2.24	0.20
24         Amnav Maritime Services         Retrofit of the tug Philip W         \$ 550,000         \$ 1,984         2         22.07         0.00           25         New Captain Pete, Inc.         Repower of the fishing vessel New Captain Pete         \$ 54,000         \$ 2,070         2         2.08         0.36           26         R. Rossi Company         Repower of an HD-11 Allis-Chambers tractor         \$ 19,900         \$ 2,083         1         1.12         0.07           27         West Coast Seaworks         Repower of the motor vessel White Lightning         \$ 37,500         \$ 2,199         2         3.17         0.55           28         California Northern Rail Road         Retrofit of one locomotive engine         \$ 168,000         \$ 2,242         1         5.04         0.00           29         California Northern Rail Road         Retrofit of engines in two switcher locomotives         \$ 396,000         \$ 2,242         2         4.95         0.00           30         Manson Construction Company         Repower of auxiliary engine on ferry Monarch         \$ 121,715         \$ 2,264         2         4.28         0.78           31         Blue & Gold Fleet         Repower of auxiliary engine on ferry Monarch         \$ 29,150         \$ 2,340         2         14.10         2.91	22	Vortex Diving Inc.	Repower of auxiliary engine on derrick Barge Vantage	\$ 28,000	\$ 1,905	1	1.72	0.16
25         New Captain Pete, Inc.         Repower of the fishing vessel New Captain Pete         \$ 54,000         \$ 2,070         2         2.08         0.36           26         R. Rossi Company         Repower of an HD-11 Allis-Chambers tractor         \$ 19,900         \$ 2,083         1         1.12         0.07           27         West Coast Seaworks         Repower of the motor vessel White Lightning         \$ 87,500         \$ 2,199         2         3.17         0.55           28         California Northern Rail Road         Retrofit of one locomotive engine         \$ 168,000         \$ 2,242         1         5.04         0.00           29         California Northern Rail Road         Retrofit of engines in two switcher locomotives         \$ 396,000         \$ 2,242         2         4.95         0.00           30         Manson Construction Company         Repower of the motor vessel Point Richmond         \$ 121,715         \$ 2,264         2         4.28         0.78           31         Blue & Gold Fleet         Repower of auxiliary engine on ferry Monarch         \$ 29,150         \$ 2,354         1         0.99         0.07           32         Westar Marine Services         Repower of tug FatCat         \$ 425,000         \$ 2,400         2         14.10         2.61           33	23	Westar Marine Services	Repower of the tug Colusa	\$ 122,390	\$ 1,912	2	5.10	0.89
26         R. Rossi Company         Repower of an HD-11 Allis-Chambers tractor         \$ 19,900         \$ 2,083         1         1.12         0.07           27         West Coast Seaworks         Repower of the motor vessel White Lightning         \$ 87,500         \$ 2,199         2         3.17         0.55           28         California Northern Rail Road         Retrofit of one locomotive engine         \$ 168,000         \$ 2,242         1         5.04         0.00           29         California Northern Rail Road         Retrofit of engines in two switcher locomotives         \$ 396,000         \$ 2,242         2         4.95         0.00           30         Manson Construction Company         Repower of the motor vessel Point Richmond         \$ 121,715         \$ 2,264         2         4.28         0.78           31         Blue & Gold Fleet         Repower of auxiliary engine on ferry Monarch         \$ 29,150         \$ 2,354         1         0.99         0.07           32         Westar Marine Services         Repower of tug FatCat         \$ 425,000         \$ 2,400         2         14,10         2.61           33         Amnav Maritime Services         Retrofit of engines on the tug Marauder         \$ 580,000         \$ 2,430         2         18.02         0.00           34	24	Amnav Maritime Services	Retrofit of the tug Philip W	\$ 550,000	\$ 1,984	2	22.07	0.00
27         West Coast Seaworks         Repower of the motor vessel White Lightning         \$ 87,500         \$ 2,199         2         3.17         0.55           28         California Northern Rail Road         Retrofit of one locomotive engine         \$ 168,000         \$ 2,242         1         5.04         0.00           29         California Northern Rail Road         Retrofit of engines in two switcher locomotives         \$ 396,000         \$ 2,242         2         4.95         0.00           30         Manson Construction Company         Repower of the motor vessel Point Richmond         \$ 121,715         \$ 2,264         2         4.28         0.78           31         Blue & Gold Fleet         Repower of auxiliary engine on ferry Monarch         \$ 29,150         \$ 2,354         1         0.99         0.07           32         Westar Marine Services         Repower of tug FatCat         \$ 425,000         \$ 2,400         2         14.10         2.61           33         Amnay Maritime Services         Retrofit of engines on the tug Marauder         \$ 580,000         \$ 2,430         2         18.02         0.00           34         Blue & Gold Fleet         Repower of auxiliary engines on ferry Bay Clipper         \$ 52,300         \$ 2,512         2         1.66         0.23           35<	25	New Captain Pete, Inc.	Repower of the fishing vessel New Captain Pete	\$ 54,000	\$ 2,070	2	2.08	0.36
28         California Northerm Rail Road         Retrofit of one locomotive engine         \$ 168,000         \$ 2,242         1         5.04         0.00           29         California Northerm Rail Road         Retrofit of engines in two switcher locomotives         \$ 396,000         \$ 2,242         2         4.95         0.00           30         Manson Construction Company         Repower of the motor vessel Point Richmond         \$ 121,715         \$ 2,264         2         4.28         0.78           31         Blue & Gold Fleet         Repower of auxiliary engine on ferry Monarch         \$ 29,150         \$ 2,354         1         0.99         0.07           32         Westar Marine Services         Repower of tug FatCat         \$ 425,000         \$ 2,400         2         14.10         2.61           33         Amnav Maritime Services         Retrofit of engines on the tug Marauder         \$ 580,000         \$ 2,430         2         18.02         0.00           34         Blue & Gold Fleet         Repower of auxiliary engines on ferry Bay Clipper         \$ 52,300         \$ 2,512         2         1.66         0.23           35         West Coast Seaworks         Repower of the motor vessel White Squall         \$ 70,000         \$ 2,639         2         2.11         0.37           36 <th>26</th> <th>R. Rossi Company</th> <th>Repower of an HD-11 Allis-Chambers tractor</th> <th>\$ 19,900</th> <th>\$ 2,083</th> <th>1</th> <th>1.12</th> <th>0.07</th>	26	R. Rossi Company	Repower of an HD-11 Allis-Chambers tractor	\$ 19,900	\$ 2,083	1	1.12	0.07
29         California Northem Rail Road         Retrofit of engines in two switcher locomotives         \$ 396,000         \$ 2,242         2         4.95         0.00           30         Manson Construction Company         Repower of the motor vessel Point Richmond         \$ 121,715         \$ 2,264         2         4.28         0.78           31         Blue & Gold Fleet         Repower of auxiliary engine on ferry Monarch         \$ 29,150         \$ 2,354         1         0.99         0.07           32         Westar Marine Services         Repower of tug FatCat         \$ 425,000         \$ 2,400         2         14.10         2.61           33         Annav Maritime Services         Retrofit of engines on the tug Marauder         \$ 580,000         \$ 2,430         2         18.02         0.00           34         Blue & Gold Fleet         Repower of auxiliary engines on ferry Bay Clipper         \$ 52,300         \$ 2,512         2         1.66         0.23           35         West Coast Seaworks         Repower of the motor vessel White Squall         \$ 70,000         \$ 2,639         2         2.11         0.37           36         Southampton Towing         Repower of the tug Amy Elise         \$ 222,004         \$ 2,678         5         6.60         5.74           37         Blu	27	West Coast Seaworks	Repower of the motor vessel White Lightning	\$ 87,500	\$ 2,199	2	3.17	0.55
30   Manson Construction Company   Repower of the motor vessel Point Richmond   \$   121,715   \$   2,264   2   4,28   0.78     31   Blue & Gold Fleet   Repower of auxiliary engine on ferry Monarch   \$   29,150   \$   2,354   1   0.99   0.07     32   Westar Marine Services   Repower of tup FatCat   \$   425,000   \$   2,400   2   14,10   2.61     33   Annav Maritime Services   Retrofit of engines on the tug Marauder   \$   580,000   \$   2,430   2   18.02   0.00     34   Blue & Gold Fleet   Repower of auxiliary engines on ferry Bay Clipper   \$   52,300   \$   2,512   2   1.66   0.23     35   West Coast Seaworks   Repower of the motor vessel White Squall   \$   70,000   \$   2,639   2   2.11   0.37     36   Southampton Towing   Repower of the tug Amy Elise   \$   222,004   \$   2,678   5   6.60   5.74     37   Blue & Gold Fleet   Repower of auxiliary engine on ferry Old Blue   \$   27,150   \$   2,836   1   0.76   0.05     38   Brusco Tug and Barge   Repower of the tug Amy Brusco   \$   324,800   \$   2,908   2   8.89   1.85     39   Pacific Work Boat   Repower of the tug Captain Reino   \$   297,124   \$   2,980   1   7.94   0.90     40   De Silva Gates Construction   Repower of four Caterpillar 637D earthmovers   \$   259,080   \$   3,059   6   9.93   0.78     42   F/V Nicki - J II   Repower of the fishing vessel Nicki-J II   \$   23,000   \$   3,119   1   1.35   0.07     43   Vortex Diving Inc.   Repower of auxiliary engine on derrick barge Little Joe   \$   36,000   \$   3,119   1   1.35   0.07     40   Vortex Diving Inc.   Repower of auxiliary engine on derrick barge Little Joe   \$   36,000   \$   3,119   1   1.35   0.07     42   F/V Nicki - J II   Repower of auxiliary engine on derrick barge Little Joe   \$   36,000   \$   3,119   1   1.35   0.07     43   Vortex Diving Inc.   Repower of auxiliary engine on derrick barge Little Joe   \$   36,000   \$   3,119   1   1.35   0.07     36   A.20	28	California Northern Rail Road	Retrofit of one locomotive engine	\$ 168,000	\$ 2,242	1	5.04	0.00
31         Blue & Gold Fleet         Repower of auxiliary engine on ferry Monarch         \$ 29,150         \$ 2,354         1         0.99         0.07           32         Westar Marine Services         Repower of tug FatCat         \$ 425,000         \$ 2,400         2         14.10         2.61           33         Amnav Maritime Services         Retrofit of engines on the tug Marauder         \$ 580,000         \$ 2,430         2         18.02         0.00           34         Blue & Gold Fleet         Repower of auxiliary engines on ferry Bay Clipper         \$ 52,300         \$ 2,512         2         1.66         0.23           35         West Coast Seaworks         Repower of the motor vessel White Squall         \$ 70,000         \$ 2,639         2         2.11         0.37           36         Southampton Towing         Repower of the tug Amy Elise         \$ 222,004         \$ 2,678         5         6.60         5.74           37         Blue & Gold Fleet         Repower of auxiliary engine on ferry Old Blue         \$ 27,150         \$ 2,836         1         0.76         0.05           38         Brusco Tug and Barge         Repower of the tug Amy Brusco         \$ 324,800         \$ 2,908         2         8.89         1.85           39         Pacific Work Boat         Re	29	California Northern Rail Road	Retrofit of engines in two switcher locomotives	\$ 396,000	\$ 2,242	2	4.95	0.00
32         Westar Marine Services         Repower of tug FatCat         \$ 425,000         \$ 2,400         2         14.10         2.61           33         Amnav Maritime Services         Retrofit of engines on the tug Marauder         \$ 580,000         \$ 2,430         2         18.02         0.00           34         Blue & Gold Fleet         Repower of auxiliary engines on ferry Bay Clipper         \$ 52,300         \$ 2,512         2         1.66         0.23           35         West Coast Seaworks         Repower of the motor vessel White Squall         \$ 70,000         \$ 2,639         2         2.11         0.37           36         Southampton Towing         Repower of the tug Amy Elise         \$ 222,004         \$ 2,678         5         6.60         5.74           37         Blue & Gold Fleet         Repower of auxiliary engine on ferry Old Blue         \$ 27,150         \$ 2,836         1         0.76         0.05           38         Brusco Tug and Barge         Repower of the tug Amy Brusco         \$ 324,800         \$ 2,908         2         8.89         1.85           39         Pacific Work Boat         Repower of the tug Captain Reino         \$ 297,124         \$ 2,980         1         7.94         0.90           40         De Silva Gates Construction         Rep	30	Manson Construction Company	Repower of the motor vessel Point Richmond	\$ 121,715	\$ 2,264	2	4.28	0.78
33         Amnav Maritime Services         Retrofit of engines on the tug Marauder         \$ 580,000         \$ 2,430         2         18.02         0.00           34         Blue & Gold Fleet         Repower of auxiliary engines on ferry Bay Clipper         \$ 52,300         \$ 2,512         2         1.66         0.23           35         West Coast Seaworks         Repower of the motor vessel White Squall         \$ 70,000         \$ 2,639         2         2.11         0.37           36         Southampton Towing         Repower of the tug Amy Elise         \$ 222,004         \$ 2,678         5         6.60         5.74           37         Blue & Gold Fleet         Repower of auxiliary engine on ferry Old Blue         \$ 27,150         \$ 2,836         1         0.76         0.05           38         Brusco Tug and Barge         Repower of the tug Amy Brusco         \$ 324,800         \$ 2,908         2         8.89         1.85           39         Pacific Work Boat         Repower of the tug Captain Reino         \$ 297,124         \$ 2,980         1         7.94         0.90           40         De Silva Gates Construction         Repower of four Caterpillar 633D graders         \$ 252,620         \$ 3,045         4         9.73         0.72           41         De Silva Gates Constructi	31	Blue & Gold Fleet	Repower of auxiliary engine on ferry Monarch	\$ 29,150	\$ 2,354	1	0.99	0.07
34         Blue & Gold Fleet         Repower of auxiliary engines on ferry Bay Clipper         \$ 52,300         \$ 2,512         2         1.66         0.23           35         West Coast Seaworks         Repower of the motor vessel White Squall         \$ 70,000         \$ 2,639         2         2.11         0.37           36         Southampton Towing         Repower of the tug Amy Elise         \$ 222,004         \$ 2,678         5         6.60         5.74           37         Blue & Gold Fleet         Repower of auxiliary engine on ferry Old Blue         \$ 27,150         \$ 2,836         1         0.76         0.05           38         Brusco Tug and Barge         Repower of the tug Amy Brusco         \$ 324,800         \$ 2,908         2         8.89         1.85           39         Pacific Work Boat         Repower of the tug Captain Reino         \$ 297,124         \$ 2,980         1         7.94         0.90           40         De Silva Gates Construction         Repower of four Caterpillar 633D graders         \$ 252,620         \$ 3,045         4         9.73         0.72           41         De Silva Gates Construction         Repower of three Caterpillar 637D earthmovers         \$ 259,080         \$ 3,059         6         9.93         0.78           42         F/V Nicki - J II	32	Westar Marine Services	Repower of tug FatCat	\$ 425,000	\$ 2,400	2	14.10	2.61
35         West Coast Seaworks         Repower of the motor vessel White Squall         \$ 70,000         \$ 2,639         2         2.11         0.37           36         Southampton Towing         Repower of the tug Amy Elise         \$ 222,004         \$ 2,678         5         6.60         5.74           37         Blue & Gold Fleet         Repower of auxiliary engine on ferry Old Blue         \$ 27,150         \$ 2,836         1         0.76         0.05           38         Brusco Tug and Barge         Repower of the tug Amy Brusco         \$ 324,800         \$ 2,908         2         8.89         1.85           39         Pacific Work Boat         Repower of the tug Captain Reino         \$ 297,124         \$ 2,980         1         7.94         0.90           40         De Silva Gates Construction         Repower of four Caterpillar 633D graders         \$ 252,620         \$ 3,045         4         9.73         0.72           41         De Silva Gates Construction         Repower of three Caterpillar 637D earthmovers         \$ 259,080         \$ 3,059         6         9.93         0.78           42         F/V Nicki - J II         Repower of the fishing vessel Nicki-J II         \$ 23,000         \$ 3,011         1         0.05         0.05           43         Vortex Diving Inc.	33	Amnav Maritime Services	Retrofit of engines on the tug Marauder	\$ 580,000	\$ 2,430	2	18.02	0.00
36         Southampton Towing         Repower of the tug Amy Elise         \$ 222,004         \$ 2,678         5         6.60         5.74           37         Blue & Gold Fleet         Repower of auxiliary engine on ferry Old Blue         \$ 27,150         \$ 2,836         1         0.76         0.05           38         Brusco Tug and Barge         Repower of the tug Amy Brusco         \$ 324,800         \$ 2,908         2         8.89         1.85           39         Pacific Work Boat         Repower of the tug Captain Reino         \$ 297,124         \$ 2,980         1         7.94         0.90           40         De Silva Gates Construction         Repower of four Caterpillar 633D graders         \$ 252,620         \$ 3,045         4         9.73         0.72           41         De Silva Gates Construction         Repower of three Caterpillar 637D earthmovers         \$ 259,080         \$ 3,059         6         9.93         0.78           42         F/V Nicki - J II         Repower of the fishing vessel Nicki-J II         \$ 23,000         \$ 3,071         1         0.05         0.05           43         Vortex Diving Inc.         Repower of auxiliary engine on derrick barge Little Joe         \$ 36,000         \$ 3,119         1         1.35         0.07	34	Blue & Gold Fleet	Repower of auxiliary engines on ferry Bay Clipper	\$ 52,300	\$ 2,512	2	1.66	0.23
37         Blue & Gold Fleet         Repower of auxiliary engine on ferry Old Blue         \$ 27,150         \$ 2,836         1         0.76         0.05           38         Brusco Tug and Barge         Repower of the tug Amy Brusco         \$ 324,800         \$ 2,908         2         8.89         1.85           39         Pacific Work Boat         Repower of the tug Captain Reino         \$ 297,124         \$ 2,980         1         7.94         0.90           40         De Silva Gates Construction         Repower of four Caterpillar 633D graders         \$ 252,620         \$ 3,045         4         9.73         0.72           41         De Silva Gates Construction         Repower of three Caterpillar 637D earthmovers         \$ 259,080         \$ 3,059         6         9.93         0.78           42         F/V Nicki - J II         Repower of the fishing vessel Nicki-J II         \$ 23,000         \$ 3,071         1         0.05         0.05           43         Vortex Diving Inc.         Repower of auxiliary engine on derrick barge Little Joe         \$ 36,000         \$ 3,119         1         1.35         0.07	35	West Coast Seaworks	Repower of the motor vessel White Squall	\$ 70,000	\$ 2,639	2	2.11	0.37
38         Brusco Tug and Barge         Repower of the tug Amy Brusco         \$ 324,800         \$ 2,908         2         8.89         1.85           39         Pacific Work Boat         Repower of the tug Captain Reino         \$ 297,124         \$ 2,980         1         7.94         0.90           40         De Silva Gates Construction         Repower of four Caterpillar 633D graders         \$ 252,620         \$ 3,045         4         9.73         0.72           41         De Silva Gates Construction         Repower of three Caterpillar 637D earthmovers         \$ 259,080         \$ 3,059         6         9.93         0.78           42         F/V Nicki - J II         Repower of the fishing vessel Nicki-J II         \$ 23,000         \$ 3,071         1         0.05         0.05           43         Vortex Diving Inc.         Repower of auxiliary engine on derrick barge Little Joe         \$ 36,000         \$ 3,119         1         1.35         0.07	36	Southampton Towing	Repower of the tug Amy Elise	\$ 222,004	\$ 2,678	5	6.60	5.74
39         Pacific Work Boat         Repower of the tug Captain Reino         \$ 297,124         \$ 2,980         1         7.94         0.90           40         De Silva Gates Construction         Repower of four Caterpillar 633D graders         \$ 252,620         \$ 3,045         4         9.73         0.72           41         De Silva Gates Construction         Repower of three Caterpillar 637D earthmovers         \$ 259,080         \$ 3,059         6         9.93         0.78           42         F/V Nicki - J II         Repower of the fishing vessel Nicki-J II         \$ 23,000         \$ 3,071         1         0.05         0.05           43         Vortex Diving Inc.         Repower of auxiliary engine on derrick barge Little Joe         \$ 36,000         \$ 3,119         1         1.35         0.07	37	Blue & Gold Fleet	Repower of auxiliary engine on ferry Old Blue	\$ 27,150	\$ 2,836	1	0.76	0.05
40         De Silva Gates Construction         Repower of four Caterpillar 633D graders         \$ 252,620         \$ 3,045         4 9.73         0.72           41         De Silva Gates Construction         Repower of three Caterpillar 637D earthmovers         \$ 259,080         \$ 3,059         6 9.93         0.78           42         F/V Nicki - J II         Repower of the fishing vessel Nicki-J II         \$ 23,000         \$ 3,071         1 0.05         0.05           43         Vortex Diving Inc.         Repower of auxiliary engine on derrick barge Little Joe         \$ 36,000         \$ 3,119         1 1.35         0.07	38	Brusco Tug and Barge	Repower of the tug Amy Brusco	\$ 324,800	\$ 2,908	2	8.89	1.85
41         De Silva Gates Construction         Repower of three Caterpillar 637D earthmovers         \$ 259,080         \$ 3,059         6         9.93         0.78           42         F/V Nicki - J II         Repower of the fishing vessel Nicki-J II         \$ 23,000         \$ 3,071         1         0.05         0.05           43         Vortex Diving Inc.         Repower of auxiliary engine on derrick barge Little Joe         \$ 36,000         \$ 3,119         1         1.35         0.07	39	Pacific Work Boat	Repower of the tug Captain Reino	\$ 297,124	\$ 2,980	1	7.94	0.90
42         F/V Nicki - J II         Repower of the fishing vessel Nicki-J II         \$ 23,000         \$ 3,071         1         0.05         0.05           43         Vortex Diving Inc.         Repower of auxiliary engine on derrick barge Little Joe         \$ 36,000         \$ 3,119         1         1.35         0.07	40	De Silva Gates Construction	Repower of four Caterpillar 633D graders	\$ 252,620	\$ 3,045	4	9.73	0.72
43 Vortex Diving Inc. Repower of auxiliary engine on derrick barge Little Joe \$ 36,000 \$ 3,119 1 1.35 0.07	41	De Silva Gates Construction	Repower of three Caterpillar 637D earthmovers	\$ 259,080	\$ 3,059	6	9.93	0.78
	42	F/V Nicki - J II	Repower of the fishing vessel Nicki-J II	\$ 23,000	\$ 3,071	1	0.05	0.05
44 Brusco Tug and Barge Repower of the tug Sharon Brusco \$ 502.370 \$ 3.152 2 12.69 2.54	43	Vortex Diving Inc.	Repower of auxiliary engine on derrick barge Little Joe	\$ 36,000	\$ 3,119	1	1.35	0.07
	44	Brusco Tug and Barge	Repower of the tug Sharon Brusco	\$ 502,370	\$ 3,152	2	12.69	2.54

## **Contingency Projects**

Project	Applicant	Description of Project	Moyer F	Funds Requested	Moyer C	:/E (\$/ton)	Number of Engines	Annual NOx Reductions (tons/year)	Annual PM10 Reductions (tons/year)
45	Independent Construction	Repower of 5 Caterpillar 657E scrapers	\$	831,500	\$	3,157	10	30.87	2.30
46	Crossroads Assocates	Replacement of an agricultural pump	\$	12,665	\$	3,192	1	0.47	0.03
47	Crossroads Assocates	Replacement of an agricultural pump	\$	12,665	\$	3,192	1	0.47	0.03
48	Independent Construction	Repower of one Caterpillar 657B scraper	\$	148,910	\$	3,306	2	5.28	0.48
49	Vortex Diving Inc.	Repower of derrick Barge Vantage	\$	150,000	\$	3,394	2	5.18	0.29
50	Blue & Gold Fleet	Repower of auxiliary engine on ferry Golden Bear	\$	27,150	\$	3,472	1	0.62	0.04
51	Cypress Ranch	Replacement of an agricultural pump	\$	10,100	\$	3,486	1	0.34	0.02
52	Cypress Ranch	Replacement of an agricultural pump	\$	10,100	\$	3,486	1	0.34	0.02
53	Cypress Ranch	Replacement of an agricultural pump	\$	10,100	\$	3,486	1	0.34	0.02
54	F/V Marlesa	Repower of the fishing vessel Malesa	\$	70,000	\$	3,958	1	1.41	0.12
55	New Easy Rider Sportfishing	Repower of the fishing vessel New Easy Rider	\$	84,550	\$	4,043	2	1.67	0.30
56	CS Marine Constructors, Inc.	Repower of auxiliary engines on marine vessel Steadfast	\$	70,000	\$	4,073	1	2.01	0.28
57	Bettinelli Vineyards	Replacement of an agricultural pump	\$	5,279	\$	4,089	1	0.15	0.01
58	Vortex Diving Inc.	Repower of derrick Barge Little Joe	\$	140,000	\$	4,122	1	3.98	0.22
59	Amnav Maritime Services	Repower of auxiliary engines on the tug Marauder	\$	65,000	\$	4,526	2	1.14	0.17
60	Amnav Maritime Services	Repower of auxiliary engines on the tug Enterprise	\$	65,000	\$	4,528	2	1.14	0.17
61	California Northern Rail Road	Retrofit of engines in four locomotives	\$	672,000	\$	4,564	4	9.90	0.00
62	FV Helen Ruth	Repower of fishing vessel Helen Ruth	\$	39,000	\$	4,642	1	0.67	0.06
63	Blue & Gold Fleet	Repower on auxiliary engine on ferry Oski	\$	27,150	\$	4,898	1	0.44	0.03
64	Rapid Transit Sportfishing Inc.	Repower of the fishing vessel Rapid Transit	\$	59,000	\$	5,089	2	0.92	0.15
65	Blue & Gold Fleet	Retrofit of ferry Old Blue with Cleaire Longview	\$	32,485	\$	5,170	2	0.74	0.13
66	Genovese Inland Seafood	Repower of fishing vessel Josephine D.	\$	12,000	\$	5,428	1	0.18	0.02
67	Angel Island - Tiburon Ferry	Repower of the ferry boat Tamalpais	\$	215,271	\$	5,701	2	3.01	0.54
68	C & W Diving Services, Inc.	Repower of the motor vessel Wanda S	\$	89,360	\$	5,894	2	15.62	2.83
69	Carpenter Ranches	Replacement of an agricultural pump	\$	14,228	\$	5,908	1	0.28	0.02
70	Independent Construction	Repower of 17 Caterpillar 657E scrapers	\$	1,634,720	\$	6,143	34	31.19	4.48
71	SFO Airporter	Purchase of three natural gas shuttle buses	\$	30,465	\$	6,213	3	0.57	0.03
72	Blue & Gold Fleet	Retrofit of ferry Golden Bear with Cleaire Longview	\$	32,485	\$	6,324	2	0.60	0.11

#### **Contingency Projects**

Project	Applicant	Description of Project	Moyer Funds Requested		Moye	r C/E (\$/ton)	Number of Engines	Annual NOx Reductions (tons/year)	Annual PM10 Reductions (tons/year)
73	Golden Eye	Repower of the fishing vessel Hali (nee Golden Eye)	\$	88,000	\$	6,335	2	1.11	0.20
74	Daniel Cseszlyar Trucking	Repower of a heavy duty truck	\$	10,500	\$	6,647	1	0.19	0.06
75	Riptide Sportfishing	Repower of the fishing vessel Riptide	\$	58,000	\$	7,447	1	0.62	0.06
76	Blue & Gold Fleet	Retrofit of ferry Oski with Cleaire Longview	\$	31,975	\$	8,116	2	0.46	0.08
77	Oscar Niemeth Towing, Inc.	Repower of tug Silver Eagle	\$	786,910	\$	8,640	2	7.25	1.16
78	F.V. Jennifer Louise	Repower of the Fishing vessel Jennifer Louise	\$	19,358	\$	9,132	1	0.17	0.01
79	Bay Area Rapid Transit District	Repower of power flat rail car #5061	\$	37,000	\$	9,881	2	0.44	0.02
80	Drifter Sport Fishing	Repower of the Fishing vessel Drifter	\$	80,000	\$	10,052	2	0.63	0.11
81	C & W Diving Services, Inc.	Repower of the motor vessel Elliot	\$	73,320	\$	10,540	2	7.17	1.30
82	Doubletree Hotel	Purchase of one natural gas shuttle bus	\$	18,000	\$	16,592	1	0.13	0.01
83	Ecology Center	Retrofit of a garbage truck with Cleaire Longview	\$	19,500	\$	21,949	1	0.10	0.01
84	Ecology Center	Retrofit of John Deere 624H Loader with Cleaire Longview	\$	19,500	\$	14,949	1	0.15	0.02
85	KCR Fish	Repower of fishing vessel KCR Fish	\$	25,000	\$	77,830	1	0.03	0.01
86	City of Fremont	Purchase of a natural gas street sweeper	\$	45,850	\$	95,488	1	0.06	< 0.01

Note: The shaded projects above are ineligible for Carl Moyer Program grants because their cost-effectiveness is above \$13,600 per ton of NOx reduced.

#### **Attachment 3**

## Methodology for Determining Communities with Most Significant Exposure to Particulate Matter Emissions<sup>1</sup>

#### Adopted on April 12, 2002

On October 11, 2001, Governor Gray Davis signed into law the provisions of Assembly Bill 1390 (Chapter 763, Statutes of 2001). This law modified requirements of the Budget Act of 2001 with regards to three incentive programs implemented in California to reduce emissions from motor vehicles and diesel engines used in trucks, buses, marine vessels and other mobile sources. Specifically, AB 1390 requires that air districts with more than one million residents ensure that "not less than 50 percent of the funds subject to (the) provisions (of the Budget Act of 2001) ... are expended in a manner that directly reduces air contaminants or reduces the public health risks associated with air contaminants, ..., including, but not limited to airborne toxics and particulate matter, in communities with the most significant exposure to air contaminants or localized air contaminants, or both, including, but not limited to communities or minority populations or low-income populations."

In order to meet the requirements of this state law, staff needed to identify communities with "the most significant exposure to air contaminants ..." Community exposure to air pollution is the product of air quality and the number of people affected. This leads to the use of available data on emissions and population. Staff determined that the best available data sets to assist in defining target communities were emissions of particulate matter and location of residences with children and/or elderly persons. Staff focused on particulate matter that is smaller than 10 microns (PM10) as the air pollutant with the most serious health impacts. The Moyer program focuses on reducing emissions from diesel engines and diesel PM10 is a toxic air contaminant. We also have reasonably good data on vehicular PM10 emissions and emissions from stationary sources. Staff focused on the location of children and the elderly because both populations are at particularly high risk to negative health effects from being exposed to PM10.

#### **Population Data**

To determine the location of children and the elderly, staff relied on data from Census 2000. We obtained data at the block level and then aggregated the data to 1x1 kilometer grid squares. The corners of each grid correspond to points on the Universal Transverse Mercator (UTM) map coordinate system. Figure 1 shows the areas with the highest density of children (ages newborn to 17 years) and elderly residents (ages 65 years and older).

#### **Emissions Data**

Staff combined two sets of emissions data, one for stationary sources and one for motor vehicles, in order to determine where PM10 is emitted. Information on stationary source emissions of PM10 comes from the Air District inventory of emissions from permitted sources. The stationary emissions of PM10 were mapped to the same 1x1 kilometer UTM grid as was the Census data. The locations of the highest stationary source emissions of PM10 are shown in Figure 2.

Staff derived the emissions of PM10 from motor vehicles by using traffic data information supplied by the Metropolitan Transportation Commission (MTC) and emissions rates developed

The methodology and its application were developed by Dr. David Fairley, Staff Statistician.

by the California Air Resources Board. MTC's traffic volume projections from their regional model are detailed enough for staff to assign emissions that occur within each of the same 1x1 kilometer UTM grids as used for the population data and stationary source emissions of PM10. The areas with the highest combined emissions of PM10 from motor vehicles and stationary sources are shown in Figure 3.

Staff has not included emissions of re-entrained road dust, or PM10 emissions from locomotives, off-road equipment or marine vessels due to the lack of good spatial resolution data for those sources.

#### **Areas of Significant Exposure**

To determine the areas of the most significant exposure of PM10 emissions to children and the elderly, staff multiplied, in each 1x1 kilometer UTM grid square, the population density of the two target populations by the level of PM10 emissions occurring within that grid. This calculation provided the total direct exposure in person-tons per year to PM10. We recognize that the air quality impacts may sometimes be distant from the emission point. This would be the case for tall smokestack emissions from stationary sources. Nevertheless, total PM emissions are a good surrogate for the concentration component of exposure in this application. Emissions are aggregated over 1-km grid squares, and ground-level diesel engine exhaust produces the greatest health risks. To go beyond this level of analysis would require an extensive regional modeling effort.

Staff then determined that significant total exposure to PM10 from stationary sources and traffic occurred in any grid higher than 75,000 person-tons per year. This result is shown in Figure 4, with the black squares representing the target communities. The target areas are largely in San Francisco, Oakland, San Leandro and San Jose, with a string of areas along the Highway 101 corridor in San Mateo and Santa Clara Counties and small areas in Richmond, Martinez, Benicia, Pittsburg and Antioch. We essentially see areas where there are a high number of children and elderly living near major freeways, or, in the case of Richmond, Benicia and Pittsburg, living near major industrial complexes, such as refineries.

### BAY AREA AIR QUALITY MANAGEMENT DISTRICT Inter-office Memorandum

To: Chairperson Young and

Members of the Mobile Source Committee

From: Jean Roggenkamp, Director of Planning and Research

Date: February 26, 2004

Re: Transportation Fund for Clean Air, Amendment to San Francisco County

Program Manager Expenditure Program

#### RECOMMENDED ACTION

Board approval of the allocation of \$216,000 in Transportation Fund for Clean Air (TFCA) Program Manager Funds for 375 Cleaire Longview system devices for 375 San Francisco Municipal Railway (MUNI) coaches as an amendment to the San Francisco County Program Manager TFCA fiscal year 2003/2004 (FY 2003/04) expenditure program.

#### **BACKGROUND**

On July 16, 2003, the Air District Board of Directors approved the FY 2003/04 expenditure program for the San Francisco County Program Manager. The San Francisco County Program Manager has requested the Board's approval to add one project to their expenditure program. The Program Manager has sufficient funds to include the project in their expenditure program. The new project is described below.

#### **DISCUSSION**

#### San Francisco Transportation Authority, Particulate Matter Devices:

In September 2003, the California Air Resources Board verified the Cleaire Longview system for use with specific diesel engines to reduce particulate matter (PM) and oxides of nitrogen (NOx). The system combines a PM filter and NOx reduction device in a single unit. The diesel particulate filter achieves at least 85% reduction of PM, and the NOx device achieves a 25% reduction of NOx when used with ultra-low sulfur fuel. The Cleaire Longview system will be installed on three hundred seventy-five (375) MUNI heavy-duty diesel buses. Once installed, the buses will be used on routes throughout San Francisco. The total cost of this project amounts to over \$8 million.

Funding for the project is coming primarily from a \$3 million Congestion Mitigation-Air Quality grant from the Metropolitan Transportation Commission (MTC) and two Federal Transit Administration (FTA) grants: a \$2.9 million Section 5307 grant and a \$872,251 Section 5309 grant. The MTC funding requires an 11.5% local match of \$349,000. The FTA grants require 20% in local matching funds of approximately \$755,000. The recommended TFCA Program Manager funding is intended to assist MUNI in meeting the local match requirement for the Section 5307 federal grant.

#### **Aggregate Cost-Effectiveness Calculation:**

The aggregate cost-effectiveness for San Francisco County Program Manager funds was recalculated to include the additional project and the amount of funds requested. The addition of this project and corresponding funds significantly improves the aggregate cost-effectiveness from \$88,122 to \$46,549 per ton of emissions reduced. The improvement in the cost-effectiveness is attributed to the reduction of PM emissions associated with the installation of the Cleaire Longview system. The revised aggregate cost-effectiveness meets the required level of \$90,000 per ton of emissions reduced or less.

BUDGET CONSIDERATION/FINANCIAL IMPACT
None.
Respectfully submitted,
Jean Roggenkamp Director of Planning and Research
Prepared by: Andrea Gordon Reviewed by: Juan Ortellado
FORWARDED:

## BAY AREA AIR QUALITY MANAGEMENT DISTRICT Inter-Office Memorandum

To: Chairperson Young and

Members of the Mobile Source Committee

From: Jean Roggenkamp

Director of Planning and Research

Date: February 26, 2004

Re: Transportation Fund for Clean Air - Allocation of Available Regional

Funds to Additional Projects

#### **RECOMMENDED ACTIONS**

1) Recommend Board approval of \$1 million in Transportation Fund for Clean Air (TFCA) Regional Funds to the Lower Emission School Bus Program (LESBP), and \$512,000 in TFCA Regional Funds to the Metropolitan Transportation Commission (MTC) to help install particulate matter (PM) and nitrogen oxide (NOx) filters on transit buses throughout the region.

2) Recommend that the Board maintain the current guidelines that limit eligibility for light-duty clean air vehicle incentives to public agencies.

#### **BACKGROUND**

At the September 2003 and November 2003 Mobile Source Committee (MSC) meetings, the Committee approved allocation of a total of \$10,166,896 in TFCA Regional Funds to 40 projects and programs. During the latter meeting, staff committed to provide recommendations to the MSC on how to allocate the remaining available TFCA Regional Funds. A total of \$1,512,000 in TFCA Regional Funds is available for programming at this time. This consists of \$934,000 in FY 2003/04 funds available from the Fall 2003 TFCA Regional Fund allocation process, plus \$578,000 from previously funded projects that were completed under budget.

At the November 2003 MSC meeting, staff also presented a report on the concept of providing incentives for low-emission, alternative fuel vehicles to private consumers. The report recommended that the MSC maintain the current guidelines, which limit eligibility for clean air vehicle incentives to public agency fleets. After discussion, the Committee requested that staff give further consideration to providing incentives for alternative fuel vehicles to private consumers, given the availability of additional TFCA Regional Funds.

#### **DISCUSSION**

#### Allocation of Remaining TFCA Regional Funds

After reviewing options for how to allocate the \$1,512,000 in available TFCA Regional Funds, staff recommends that the funds be allocated to the Lower Emission School Bus Program and a project to install filters on transit buses, as discussed below.

**Lower Emission School Bus Program**: The Air District has been administering the LESBP in collaboration with the California Air Resources Board (CARB) since FY 2000/01. The Air District has allocated TFCA Regional Funds in past cycles to increase the funding available to help school districts purchase low emission natural gas buses. An October 2003 study by UC Riverside and UCLA, funded by the South Coast Air Quality Management District, found that school children riding in diesel buses may be exposed to pollution levels two to five times higher than students riding in new, cleaner buses. Allocation of TFCA funds to the LESBP will help reduce exposure of school children to diesel emissions.

In Spring 2004, the Air District expects to receive \$960,000 from CARB for the continuation of the Lower Emission School Bus Program. This represents the final allocation of the Proposition 40 bond revenues earmarked for school bus replacements. Staff recommends that the Board allocate \$1,000,000 in TFCA Regional Fund to the LESBP to increase the number of old diesel buses that will be replaced with new natural gas buses equipped with engines certified to CARB's optional low emission standards. Under CARB's guidelines for the LESBP, the program provides approximately 85% of the cost of the new bus; i.e. \$100,000 to \$110,000 per bus. This equates to a TFCA cost-effectiveness of approximately \$75,000 to \$80,000 per ton of emissions reduced. Staff anticipates soliciting applications from school districts in Spring 2004, with the new buses being delivered in late 2004 or early 2005.

**Filters for Transit Buses**: CARB's transit bus regulation requires transit agencies to install particulate matter filters on diesel buses. CARB has approved a new filter produced by Cummins West called the Cleaire Longview filter. In addition to reducing PM emissions by 85% or more, the Cleaire Longview filter also reduces NOx emissions by 25%. The cost of the Cleaire Longview filters is approximately \$18,500 per bus, roughly twice the cost of a basic filter that only reduces PM.

To take advantage of this opportunity to reduce both NOx and PM emissions, MTC is encouraging the major Bay Area transit agencies to install the Cleaire Longview filters. In Spring 2003, MTC allocated approximately \$13 million in Congestion Mitigation and Air Quality Improvement (CMAQ) funds to help pay for the additional cost for the Cleaire Longview filter, compared to the lower-cost basic PM filter. The transit agencies are responsible for providing funding to cover the base cost of a PM filter (\$9,250). In addition, CMAQ funds require a local match of 11.5%, which equates to \$1,064 per bus. MTC has requested that the Air District provide TFCA funds to help cover the CMAQ-required local match for the participating transit agencies.

All the major transit operators have agreed to accept MTC's offer of CMAQ funding to install the Cleaire Longview filters, with the exception of Santa Clara Valley Transportation Authority (VTA). VTA maintains that, due to financial hardship, it will be forced to install the lower-cost basic PM filter (to comply with the CARB regulation), unless outside funding is provided to fully cover its required CMAQ match.

Staff recommends that the MSC recommend Board approval of \$512,000 in TFCA Regional Funds to MTC to help cover the required CMAQ match funds for the transit agencies. Approximately \$137,000 of this sum would be used to cover the full local match for 129 buses for Santa Clara VTA. The remaining \$375,000 would be provided to offset a portion of the required local match for 1,400 buses in the AC Transit, Golden Gate, Samtrans, and County Connection fleets. As discussed in Agenda Item #4, staff recommends that the local match requirement for the San Francisco Municipal Railway (MUNI) be covered with Carl Moyer Program funding. The precise mechanism for allocating the TFCA funds will be worked out by MTC in collaboration with the Regional Transit Association (RTA). Providing TFCA funds to help cover the CMAQ-required local match for the Cleaire Longview filters would achieve a cost-effectiveness of approximately \$1,000 per ton of NOx reduced.

#### Alternative Fuel Vehicle Incentives for Private Consumers

At present, all TFCA-funded incentives for clean air vehicle projects are provided to public agencies, for their own fleets or for taxi and shuttle fleets that operate under their control. At the direction of the MSC, staff has further considered the concept of using available TFCA Regional Funds to provide incentives for light-duty clean air vehicles to private consumers. Staff does not recommend incentives for private consumers for the reasons discussed below.

**Monitoring**: It would be very difficult to effectively monitor the use of incentives for private consumers. If the Air District provides an incentive to a private consumer, there would be no practical way to prevent the consumer from moving (or otherwise selling or transferring) the vehicle out of the Bay Area. The motor vehicle registration surcharge that generates TFCA revenues is paid by Bay Area vehicle owners to reduce emissions within this region; it would be problematic to expend TFCA funds for an incentive program if we cannot ensure that the emission benefit will remain within the Bay Area for the entire life of the vehicle.

**Program Administration**: Because there is already very strong demand for hybridelectric vehicles among Bay Area consumers, staff believes that any incentive program for private consumers should be strictly limited to natural gas vehicles. However, the potential demand for natural gas vehicles among private consumers is expected to be very modest. Nonetheless, significant staff resources would be needed to inform the public and vehicle dealers about the program, to develop guidelines and promotional material, to respond to inquiries, as well as to verify vehicle and consumer eligibility, review documentation, and issue payments. It would be administratively cumbersome to provide an incentive directly to individual consumers. Also, a direct payment would be treated as taxable income to the consumer, diminishing the value of the incentive payment. Therefore, the best mechanism to deliver an incentive to private consumers would be through vehicle dealers. However, one potential drawback to providing an incentive via vehicle dealers is that it would be difficult to ensure that the vehicle dealer passes on the full value of the incentive to the consumer.

Cost-effectiveness: Because CARB emission standards for light-duty vehicles have become increasingly stringent over the past decade, the incremental emission benefit of alternative fuel vehicles has diminished. There is a considerable, and growing, list of light and medium-duty gasoline vehicles that achieve the very tight SULEV (super ultra low emission vehicle) or PZEV (partial zero emission vehicle) standards. Although alternative fuel vehicles help to reduce petroleum dependence and emissions of greenhouse gases, the actual tailpipe emission reductions for light-duty natural gas vehicles are modest relative to new gasoline vehicles. Incentives for light-duty natural gas vehicles are only cost-effective in very high-mileage applications.

On balance, staff believes that the difficulties associated with providing incentives to private consumers outweigh the very modest emission benefits that might be achieved through such a program. Therefore, staff does not recommend using available TFCA Regional Funds to provide alternative fuel vehicle incentives to private consumers.

#### RECOMMENDATION

- 1) Recommend Board approval of \$1 million in TFCA Regional Funds to the Lower Emission School Bus Program, and \$512,000 in TFCA Regional Funds to the Metropolitan Transportation Commission to help install particulate matter and NOx filters on transit buses throughout the region.
- 2) Recommend that the Board maintain the current guidelines that limit eligibility for light-duty clean air vehicle incentives to public agencies.

Respectfully submitted,
Jean Roggenkamp Director of Planning and Research
Prepared by: David Burch Reviewed by: Juan Ortellado
FORWARDED:

#### BAY AREA AIR QUALITY MANAGEMENT DISTRICT Inter-office Memorandum

To: Chairperson Young and

Members of the Mobile Source Committee

From: Jean Roggenkamp, Director of Planning and Research

Date: February 26, 2004

Re: Transportation Fund for Clean Air, Amendment to Marin County

Program Manager Expenditure Program

#### RECOMMENDED ACTION

Board approval of \$98,675 in Marin County Program Manager funds for the County of Marin's Ride and Roll Program.

#### BACKGROUND

At their July 16, 2003 meeting, the Air District Board of Directors approved the fiscal year 2003/2004 (FY 2003/04) Transportation Fund for Clean Air (TFCA) Program Manager expenditure program for Marin County. An unallocated balance of \$570,093 in FY 2003/04 Marin County Program Manager funds is available to implement additional projects. The Marin County Program Manager has requested the Board's approval to add a project to their expenditure program. There are enough funds available to include the proposed project in the Marin County Program Manager expenditure program. The proposed additional project is described below.

#### **DISCUSSION**

In an effort to reduce congestion around schools, and to provide an alternative to automobile travel to local schools, the County of Marin is implementing the Ride and Roll Program. The proposed project period is based on 115 school days remaining in the 2003-2004 school year. Beginning in mid-December 2003 and continuing until the close of the school year in mid-June 2004, the Ride and Roll Program provides free bus tickets to middle-school and high-school students to help increase the number of students riding Golden Gate Transit buses to schools within Marin County.

Currently, 56 Marin County schools participate in the program. The bus tickets are distributed through the schools' attendance office. Prior to receiving a booklet of 20 round-trip student tickets, participating students are required to complete a survey indicating how they traveled to school before participating in the program. The student tickets are collected on-board all Golden Gate Transit buses, and retained to later determine the impact of the program on student ridership and congestion around schools. The total cost of the project is \$315,000. The TFCA County Program Manager funds will provide 31.3% of the overall proposed project cost.

#### Aggregate Cost-Effectiveness Calculation

The aggregate cost-effectiveness for the Marin County Program Manager funds was revised to include the proposed additional project and the amount of funds requested. This resulted in a change of the aggregate cost-effectiveness from \$82,601 to \$90,000 per

ton of emissions reduced. The new aggregate cost-effectiveness meets the \$90,000 per ton of emissions reduced threshold established by the Board for TFCA-funded projects.

BUDGET	CONSIDER	ATION/FI	NANCIAL	<b>IMPACT</b>

None		

Respectfully submitted,

Jean Roggenkamp Director of Planning and Research

Prepared by: Andrea Gordon Reviewed by: Juan Ortellado

FORWARDED: \_\_\_\_\_

#### BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Inter-Office Memorandum

To: Chairperson Young and

Members of the Mobile Source Committee

From: Jean Roggenkamp

Director of Planning and Research

Date: February 26, 2004

Re: Transportation Fund for Clean Air, Amendment to Alameda County

Program Manager Expenditure Program

#### RECOMMENDED ACTION

Board approval of the allocation of \$941,130 in Transportation Fund for Clean Air (TFCA) funds as an amendment to the fiscal year (FY) 2003/04 Alameda County Program Manager TFCA expenditure program, awarding:

- \$500,000 to Alameda County Transit (AC Transit) for the Transit Bus Priority System, International Boulevard project;
- \$231,200 to the Alameda County Congestion Management Agency for the Guaranteed Ride Home project;
- \$125,996 to the City of Berkeley for the City Carshare, East Bay Expansion project; and
- \$83,934 to the Livermore Amador Valley Transit Authority (LAVTA), Altamont Commuter Express (ACE) Shuttle Service, Pleasanton ACE Station to Bay Area Rapid Transit (BART) project.

#### BACKGROUND

In July 2003, the Air District Board approved eleven projects totaling \$1,004,008 in TFCA Program Manager funding for the Alameda County Congestion Management Agency (ACCMA). This left an unallocated balance of \$1,213,743 in Alameda County Program Manager funds.

On December 18, 2003, the ACCMA Board approved four new projects for TFCA funding. The new projects are:

- AC Transit's Transit Bus Priority System, International Boulevard project;
- Alameda County Congestion Management Agency's Guaranteed Ride Home project;
- The City of Berkeley's City Carshare, East Bay Expansion project; and
- The Livermore Amador Valley Transit Authority's (LAVTA), Altamont Commuter Express (ACE) Shuttle Service which serves the Pleasanton ACE Station.

The four new projects are eligible for TFCA funding and meet the Board's adopted policies.

#### **DISCUSSION**

#### AC Transit, Transit Bus Priority System, International Boulevard

This project will extend transit priority to nine (9) additional traffic signals and equip the AC Transit system with transit priority equipment along the East 14<sup>th</sup>/International Boulevard corridor in Oakland, from 42<sup>nd</sup> Street to 14<sup>th</sup> Street. This project will increase the total intersections with transit priority capability along International Boulevard to 35. Additionally, this project will serve and enhance AC Transit Route 82L.

The Guaranteed Ride Home Program provides a guaranteed ride home to any registered employee working for a participating employer within Alameda County when supervisor-approved, unscheduled overtime, or an emergency situation arises. Registered employees who commute to work by any means other than driving alone on the day of the emergency

Alameda County Congestion Management Agency, Guaranteed Ride Home Program

who commute to work by any means other than driving alone on the day of the emergency may use the Guaranteed Ride Home Program. Participating employers must have at least 100 employees at worksites located in the county. Several taxi vouchers will be distributed to the employer department coordinators or supervisors. TFCA funding will enable the program to operate from July 2004 to June 2006, using \$216,100 in FY2004/05 and \$216,100 in FY2005/06.

#### City of Berkeley, City Carshare, East Bay Expansion

City Carshare provides a network of vehicles parked in neighborhoods throughout San Francisco, the East Bay, and the Peninsula. The proposed project is to expand the East Bay operation of City Carshare, which has car pick-up locations in Berkeley and Oakland. The project proposes to add ten (10) new hybrid vehicles to the East Bay operation. TFCA funding will enable this project to operate from approval date through June 2006, using \$62,998 in FY2003/04 and \$31,499 in FY2004/05, and \$31,499 in FY2005/06.

## Livermore Amador Valley Transit Authority, Altamont Commuter Express (ACE) Shuttle Service, Pleasanton ACE Station to BART:

The Livermore Amador Valley Transit Authority provides a shuttle service between the Altamont Commuter Express train station in Pleasanton, Hacienda Business Park, and the Dublin/Pleasanton BART station. The shuttle service will meet the three (3) ACE trains that operate in the morning and the three (3) ACE trains that operate in the afternoon. The LAVTA shuttle will provide service for a planned fourth ACE train, scheduled to be added in FY04/05. TFCA funding will enable this project to operate from July 2004 to June 2006, using \$41,967 in FY04/05 and \$41,967 in FY05/06.

### **Aggregate Cost-Effectiveness Calculation**

The aggregate cost-effectiveness for the Alameda County Program Manager funds was recalculated to include the proposed projects and funds discussed above. The addition of these projects and funds changes the aggregate cost-effectiveness from \$18,807 per ton to \$33,674 per ton of reduced emissions. The resulting aggregate cost-effectiveness meets the required level of \$90,000 per ton of reduced emissions or less.

BUDGET CONSIDERATION/FINANCIAL IMPAC
None.
Respectfully submitted,
Jean Roggenkamp Director of Planning and Research
Prepared by: Vanessa Mongeon Reviewed by: Juan Ortellado
FORWARDED: