

EPC
SPECIAL
6/6/01

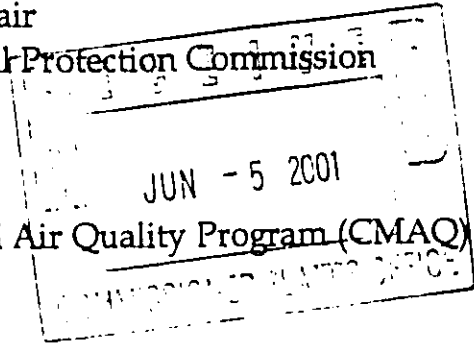


Metropolitan Planning Organization

CMAQ

June 5, 2001

Commissioner Ronda R. Storms, Chair
Hillsborough County Environmental Protection Commission
1410 N. 21st Street
Tampa, Florida 33605



Subject: Congestion Mitigation and Air Quality Program (CMAQ) for the Streetcar Project

Commissioner Richard Gionoso
Chairman

Councilman Shawn Harrison
Vice Chairman

Mayor Fran Barford
City of Temple Terrace

Commissioner Stacey L. Easterling
Hillsborough County

Kimberlee DeBosier
Expressway Authority

Commissioner Richard Gionoso
City of Plant City

Mayor Dick A. Greco
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Councilman Shawn Harrison
City of Tampa

Commissioner Chris Hart
Hillsborough County

Commissioner Jan Platt
Hillsborough County

Councilwoman Linda Saul-Sena
City of Tampa

Commissioner Thomas Scott
Hillsborough County

Ed Turanchik
HARTline

Louis E. Miller
Hillsborough Co. Aviation Authority

George Williamson
Tampa Port Authority

James Beeler (Ex-Officio)
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FDOT, District Seven

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Dear Chairman Storms:

In regards to your request for the MPO to reconsider its vote on allocating CMAQ funds to the Streetcar Project, the MPO Board met today and had a lengthy discussion. After a detailed presentation by staff followed by in-depth discussion among board members, it was agreed that there has been some misunderstanding and that the issues should be resolved at the local level.

As you have been made aware, a motion was made by Commissioner Platt and supported by Commissioners Easterling and Commissioner Hart to direct me to ask you, as the Chairman of the Environmental Protection Commission, to convene a meeting on June 6, 2001, to discuss this issue with the hope that we can avoid elevating this misunderstanding to the federal level. I am very pleased that this has now been scheduled at 1:30 PM tomorrow.

As can be explained, the MPO has established two processes for selecting projects for CMAQ funding. One process involves projects that have been previously approved and the other is for new project applications.

Previously approved projects have been subjected to the project review process and ranked by the MPO. These projects have received funding in the past and are in the implementation stage. If it is determined that the cost of the project will exceed the funding allocated by the MPO, the implementing agency is required to take one of the following actions, as outlined in the attached September 26, 1994, letter addressed to Mr. William H. McDaniel Jr., the then District Secretary.

- 1. Provide additional local funding.
2. Modify the scope of the project to match the approved funding.
3. Schedule a presentation to the MPO for the purpose of explaining the need for requesting additional funds.

Commissioner Ronda Storms, Chair
Hillsborough County EPC

4. Decide that the project is no longer cost effective and decide not to pursue the project.

It is the MPO's opinion that the Streetcar Project falls into the category of an ongoing or previously approved project. As you may be aware, funding for the Streetcar Project has been allocated each year from 1996 through 2003. Additional funding has also been allocated in 2006. CMAQ funding has been allocated in Fiscal Years 1999, 2000 and 2003. The project is under construction utilizing reimbursable local funds and should be open by early summer of next year.

On the other hand, requests for funding of new projects are submitted to the MPO each year during its project prioritization process. Applications are received by the MPO and reviewed by the CMAQ committee. The CMAQ committee is a technical group consisting of members from the Environmental Protection Commission, Florida Department of Transportation, the Department of Environmental Protection and the Hillsborough County Metropolitan Planning Organization. The CMAQ committee reviews the air quality benefits of each project and ranks the projects accordingly. The ranking is used by MPO staff to prepare a recommendation to the MPO board on funding these projects. The projects and recommended funding are then submitted to the MPO Board for its approval. However, it is important to note that these projects are competing for new funding to be available five years from the year they are being prioritized for the new Transportation Improvement Program.

To assist in clarifying some of the misunderstanding, I am enclosing some pertinent information in preparation of the meeting.

Sincerely,



Commissioner Richard Glorioso
Chairman

RG:LA

Enclosures

cc: Environmental Protection Commission Members

CMAQ FUNDING

FOR

STREETCAR PROJECT

Congestion Mitigation Air Quality (CMAQ)

Program Purpose:

To fund improvement projects that will assist non-attainment and maintenance areas to reduce transportation emissions rather than maintain existing transportation networks.

Congestion Mitigation Air Quality (CMAQ)

Eligible Projects:

- Transportation Demand Management**
 - Shared-Ride Services**
 - Transit Projects**
 - Intersection & Corridor Improvements**
- from a Congestion Management System
Study**

Two Processes:

- **Existing/Ongoing Projects**
 - **Have been previously approved**
 - **Have received funding**
- **New Projects**
 - **New applications**
 - **Must be prioritized**

Existing Projects:

- **Use Local Funds**
- **Seek Additional State/Federal Funds**
- **Scale Back Project**
- **Drop Project**

New Projects:

- **Applications Submitted to MPO**
- **Reviewed and ranked by CMAAQ
Committee (EPC, DEP, DOT, MPO)**
- **Presented to TAC, CAC, Policy
Committee**
- **Approved by MPO Board / Sent to
FDOT**

Streetcar Project:

•The Streetcar project includes all components necessary for a functional system:

- Track**
- Stations**
- Streetcars**
- Operations**

Streetcar Project:

- **Previously Approved**
- **Received Funding:**
 - (Includes Tracks, Cars, Stations & Operations)**
 - **MPO/Federal Funds**
 - **State Funds**
 - **Local Funds**

Streetcar Project:

- **Existing / Ongoing Project**

Questions from EPC Meeting

Was there an agreement between MPO staff and EPC staff to review CMAQ Projects?

In January 2000, staff of the MPO, EPC, FDOT and DEP developed a CMAQ project review process for reviewing NEW projects eligible for funding 5 years later.

Questions from EPC Meeting

**Are the Streetcar and Station
different projects?**

**NO - The Streetcar project
includes everything in Phase I -
cars, tracks, stations, etc.**

Question from EPC Meeting

Was an Air Quality Analysis ever done on the Streetcar project?


- YES**
- Prepared by HARTline in 1996**
- Reviewed & Approved by FDOT**
- Reviewed & Approved by Federal Agencies**

Who Decides How CMAQ Funds are Allocated ?

CMAQ funds come from the Federal Transportation Trust Fund and are intended for transportation projects that also improve air quality.

The MPO is responsible for allocating these Federal transportation funds.

**PROCESS
FOR EXISTING
PROJECTS**



September 26, 1994

Mr. William H. McDaniel Jr.
FDOT District Seven Secretary
Florida Department of Transportation
11201 N. Malcolm McKirley Drive
Tampa, FL 33612-6403

Dear Mr. McDaniel:

Re: Hillsborough County Metropolitan Planning Organization
Priorities for FY 95/96 - 99/00

Attached is the listing of the MPO project priorities for use by the Department in developing its Tentative Work Program for fiscal years 1995/1996 through 1999/2000.

The MPO's priorities focus on completion of the following unfunded or partially funded major projects or corridors:

National Highway System or Turnpike Funding:

- Tampa Interstate System (I-4, I-275)
- I-4 Connector with the Crosstown Expressway
- Veteran's Links Project (Courtney Campbell Causeway to I-275)
- Gandy/Crosstown Connector

Other Corridor (STP or other state funds):

- Hillsborough Avenue from Eisenhower Boulevard to Nebraska Avenue
- Martin Luther King, Jr. Boulevard from Pine Street to McIntosh Drive
- 40th Street from Hillsborough Avenue to Fowler Avenue
- 22nd Street Causeway from US 301 to SR 60

Miscellaneous:

- Transportation Management Organizations (TMOs)
- Intermodal Improvements/Downtown Transportation Terminal

In addition to the projects listed above, the attached list of priority projects includes the modified list of STP Enhancement projects. The funding levels of several projects have been changed in order to more closely match the selected projects to the anticipated revenues. Furthermore, the MPO Board adopted a policy to be used whenever the

Mr. William H. McDaniel Jr.
MPO Priorities
Page 2

estimated cost of an enhancement project exceeds the funding allocated to that project by the MPO. The policy is stated below for your convenience:

"In the event that, during the design or implementation of an MPO selected enhancement project, it is determined that the cost of the project will exceed the funding allocated by the MPO, the implementing agency shall take one of the following actions:

- Provide additional local funding needed to complete the project as originally approved, or
- Modify the scope of the project to match the funding approved by the MPO and notify the MPO of the revised scope, or
- Schedule a presentation to the MPO for the purpose of explaining the need and requesting additional funds, or.
- Decide that the project is no longer cost effective and decide not to pursue the project further. In this event, the jurisdiction or implementing agency shall notify the MPO that it will not complete the project."

It is requested that whenever FDOT is the implementing agency for an MPO selected enhancement project, that it comply with the above policy.

Also included in the attached list is the priorities for the anticipated allocation of CMAQ funds for FY 95/96.

Finally, the MPO Board has asked the Department set aside funds for a number of corridor studies, including Major Investment Studies, that may be necessary to support decisions on major transportation investments.

The MPO requests that the Department follow the above priorities to the maximum extent feasible in developing its tentative work program. In addition, there are a number of changes, outlined in the July 18, 1994 letter from David Twiddy to me, that are to be made as part of the work program development cycle.

Should you have any questions on the MPO's priorities summarized above or listed on the attachment, please call me at 272-5940.

Sincerely,

Thomas L. Thomson
Executive Director

Enclosure: Listing of TIP Project Priorities
xc: MPO Board Members

**PROCESS
FOR NEW
PROJECTS**



HILLSBOROUGH COUNTY MPO TIP APPLICATION PROCESS FOR FY02/03 - FY06/07

KICK-OFF MEETING FEBRUARY 27th

LOCAL AGENCIES SUBMIT APPLICATIONS
MARCH - APRIL 27th

APPLICATIONS ARE REVIEWED BY MPO STAFF AND CMAQ COMMITTEE
MAY - JULY

APPLICATIONS FORWARDED TO POLICY COMMITTEE, TAC, CAC
JUNE

MPO STAFF PREPARES DRAFT PRIORITY LIST
JULY

DRAFT PRIORITY LIST FORWARDED TO POLICY COMMITTEE, TAC, CAC
AUGUST

DRAFT PRIORITY LIST PRESENTED TO MPO BOARD
SEPTEMBER

FINAL PRIORITY LIST FORWARDED TO FDOT
SEPTEMBER

CMAQ Application Packet

2-27-01

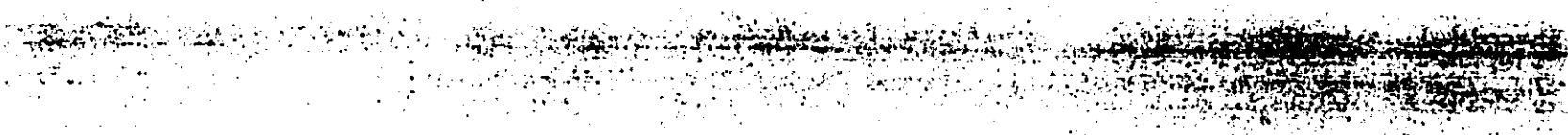


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The Congestion Mitigation and Air Quality Improvement (CMAQ) Program

Overview

The purpose of the Congestion Mitigation and Air Quality (CMAQ) program is to fund transportation projects or programs that will contribute to attainment or maintenance of the national ambient air quality standards (NAAQS) for ozone and carbon monoxide. The Transportation Equity Act also allows CMAQ funding to be expended in particulate matter nonattainment and maintenance areas.

Hillsborough County, although currently designated as an ozone maintenance area and thus eligible for CMAQ funds, has recently experienced elevated ozone readings and is in jeopardy of not meeting the NAAQS. Much of our inability to meet the air quality standards is due to daily vehicle miles traveled on our road system. Accordingly, the Metropolitan Planning Organization (MPO), in coordination with the State and local air quality agencies, is charged with determining which projects and programs will ease the travel demand burden. This CMAQ evaluation process will serve to develop a pool of potential projects to aid in this effort.

Included in this document is information to assist applicants with the various aspects of the application process, and the priorities by which projects will be evaluated. The MPO Policy Committee is recommending prioritizing projects which result in the greatest air quality benefit, those that remove vehicles from the road.

Congress did not intend CMAQ funding to be the only source of funds to reduce congestion and improve air quality. Other funds under the Surface Transportation Program (STP) or the Federal Transit Administration (FTA) capital assistance programs, for example, may be used for this purpose as well. Furthermore, the greatest air quality benefit will accrue not solely from Federal funds, but from a partnership of Federal, State and local efforts.

CMAQ Workgroup Members

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State Department of Environmental Protection
Louis Fernandez
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Tampa, FL 33619
Phone (813) 744-6100
Fax (813) 744-6458

State Department of Transportation
Danny Lamb
11201 McKinley Drive
Tampa, FL 33612
Phone: 813) 975-6437
Fax: 813) 975-6443

TIP PRIORITIES DEVELOPMENT PROCESS

FY 02/03 - 06/07

TASK	DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
Mailout letter inviting FDOT to Kick-off Mtg	2/2/03												
Mailout Kickoff meeting letter	2/2/03												
TIP Kick-off Mtg	2/27/03												
Follow up letter after Kick-off Mtg	3/6/03												
Deadline to submit applications	4/27/03												
CMAAQ Commitee reviews applications	5/30/03												
Present Applications to TAC	6/2/03												
Present Applications to Policy Committee	6/15/03												
Present Applications to CAC	6/23/03												
Present Applications to MPO	6/26/03												
Staff prepare draft Priorities	6/30/03												
Present Draft Priorities to Policy Committee	7/1/03												
Present Draft Priorities to TAC	7/1/03												
Present Draft Priorities to CAC	7/20/03												
MPO Public Hearing & Adoption Priorities	8/15/03												
Transmit Adopted MPO Priorities to FDOT	9/16/03												
	10/1/03												

Follow-up Letter

* Application Deadline

CMAAQ Committee Review

TAC

Policy

CAC

MPO Meeting

Draft Priorities

Policy

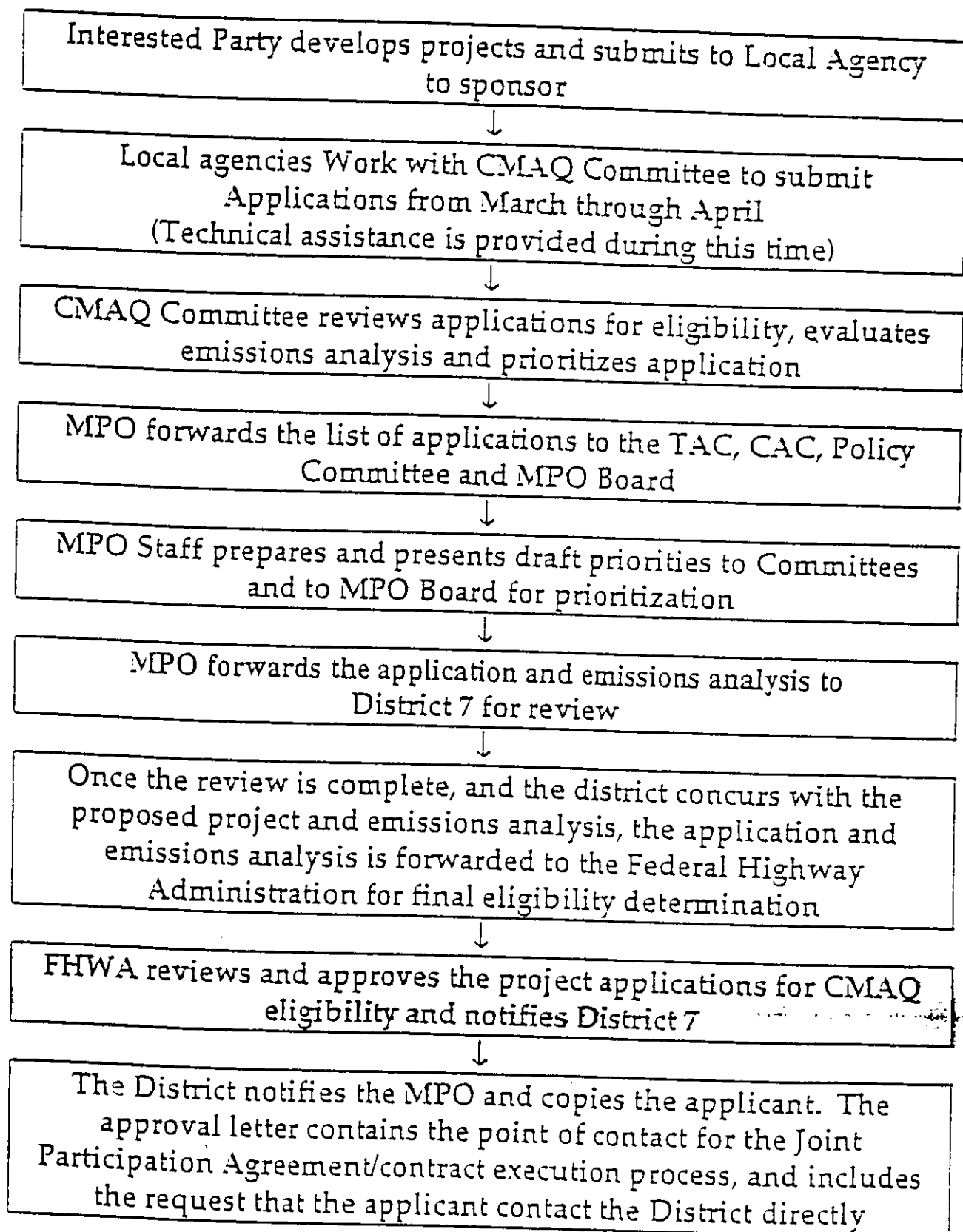
TAC

CAC

MPO Meeting to Adopt Priorities

Transmit Priorities

CMAQ PROCESS FLOW CHART



Eligibility Criteria

General Conditions

Air Quality Analysis

Quantitative Analyses: Quantitative assessment of how the proposal is expected to reduce emissions is extremely important to assist this area in developing and funding the most effective project. They also provide an objective basis for comparing the costs and benefits of competing proposals for CMAQ funding. It is particularly important to assess and quantify the benefits of projects that increase or improve basic transportation services. Therefore, *assumptions* used in justifications must be reasonable and based on either historical data, actual data or verifiable data from a similar project. This includes assessing emission reductions of transit, traffic flow improvements, ITS projects and programs, ridesharing, and bicycle and pedestrian improvements. In addition, analyses are expected for conversions to alternative fuels and for Inspection Maintenance programs (I/M). Every effort must be made to ensure that determinations of air quality benefits are credible and based on a reproducible and logical analytical procedure that will yield quantitative results of emission reductions. It is with this in mind that a compendium of previous projects, along with corresponding emissions calculations, has been included in this document.

Qualitative Assessment: Although quantitative analysis of air quality impacts is required whenever possible, some improvements may not lend themselves to quantitative analysis because of the project's characteristics or because practical experience is lacking to adequately analyze the project. In these cases, a qualitative assessment based on a reasoned and logical examination of how the project or program will decrease emissions and contribute to attainment or maintenance of the NAAQS is appropriate. Public education, marketing and other outreach efforts fall into this category.

Capital Investment: CMAQ funds should be used for establishment of new or expanded transportation projects and programs to help reduce emissions.

Operating Assistance: There are several general conditions which must be met in order for any type of operating assistance to be eligible under the CMAQ program.

- In extending the use of CMAQ funds to operating assistance, the intent is to help start up viable new transportation services, which can demonstrate air quality benefits and eventually will be able to cover their

ongoing operating costs Other established funding sources should supplement and ultimately supplant the use of CMAQ funds for operating assistance.

- Operating assistance includes all costs related to ongoing provision of new transportation services including, but not limited to, labor, administrative costs and maintenance.
- When using CMAQ funds for operating assistance, local share requirements still apply.
- Operating assistance is limited to new transit services and new or expanded transportation demand management strategies.
- Operating assistance under the CMAQ program is limited to 3 years.

Public Good: CMAQ funded projects should be for the good of the general public. Public-private partnerships may be eligible, as long as a public good (i.e., reduced emissions) results from the project.

Eligible Activities and Projects

- Transportation Activities in an approved State Implementation Plan (SIP) or Maintenance Plan
- Transportation Control Measures such as those listed below:
 - (i) programs for improved public transit;
 - (ii) restriction of certain roads or lanes to, or construction of such roads or lanes for use by, passenger buses or High Occupancy Vehicles, (HOV);
 - (iii) employer-based transportation management plans, including incentives;
 - (iv) trip-reduction ordinances;
 - (v) traffic flow improvement programs that achieve emission reductions;
 - (vi) fringe and transportation corridor parking facilities serving multiple-occupancy vehicle programs or transit service;
 - (vii) programs to limit or restrict vehicle use in downtown areas or other areas of emission concentration particularly during periods of peak use;
 - (viii) programs for the provision of all forms of high-occupancy, shared-ride services;

- (ix) programs to limit portions of road surfaces or certain sections of the metropolitan area to the use of non-motorized vehicles or pedestrian use, both as to time and place;
- (x) programs for secure bicycle storage facilities and other facilities, including bicycle lanes, for the convenience and protection of bicyclists, in both public and private areas;
- (xi) programs to control extended idling of vehicles;
- (xii) reducing emissions from extreme cold-start conditions (newly eligible);
- (xiii) employer-sponsored programs to permit flexible work schedules;
- (xiv) programs and ordinances to facilitate non-automobile travel, provision and utilization of mass transit, and to generally reduce the need for Single Occupancy Vehicles (SOV) travel, as part of transportation planning and development efforts of a locality, including programs and ordinances applicable to new shopping centers, special events, and other centers of vehicle activity;
- (xv) programs for new construction and major reconstructions of paths, tracks or areas solely for the use by pedestrian or other non-motorized means of transportation when economically feasible and in the public interest.
- Public-Private Partnerships-TEA-21 provides greater access to CMAQ funds for projects which are cooperatively implemented under agreements between the public and private sectors and/or non-profit entities.
 - Alternative Fuels: The purchase of publicly-owned, alternative fuel vehicles is eligible for CMAQ funding
 - Traffic Flow Improvements
 - Intelligent Transportation Systems (ITS)
 - Transit Projects
 - Bicycle and Pedestrian Facilities and Programs
 - Travel Demand Management
 - Outreach and Rideshare Activities
 - Telecommuting

- Fare/Fee Subsidy Programs

Completing Application Form

Funding proposals should be detailed enough to provide a clear picture of the project scope and its intended air quality benefits. A general description and justification of the project must be included in the proposal. The following information should be provided in the proposal:

1. Who will undertake the project? (ie. Local Agency)
2. What does the project entail?
3. When will the project be initiated and completed?
4. Where will the project be implemented?
5. Who is the Contact Person?
6. What is the cost of the project?
7. What are the proposed sources of funding for local match and ongoing maintenance of the project? (federal, state, local, private, etc.)
8. Who is the project sponsor?
(Local Agency willing to fund local match and ongoing maintenance, if any)
9. Project Justification must provide general information relating to the project's impact on reducing transportation emissions, including all assumptions. (CMAQ technical committee can assist applicants with this information.)
10. Expected emissions reductions for quantifiable projects.

Priority Criteria

- Projects that remove vehicles from the road.
- Projects that reduce travel delay (include multi-modal benefits).

- Outreach projects that change the public's driving behavior.
- Projects with quantitative emission reduction benefit for the ozone precursors nitrogen oxide. (Summarize emissions benefit and attach assumptions and analysis).
- Projects with a qualitative emission reduction benefit for the ozone precursor nitrogen oxide. (Explain anticipated emission benefits and assumptions).
- Projects with the most efficient dollar per ton cost/benefit (utilizing an analysis that takes into account the life cycle of the project).
- Projects with air quality benefits to be realized within 3 years.g consequence

Accountability

The CMAQ workgroup members have formed a committee to examine the effectiveness of previously approved projects. Applicants are expected to maintain logs and other reasonable records that could be used to evaluate a project's effectiveness. Information on specific requirements will be by workgroup members during the air quality analysis review.

Technical Assistance Points of Contact

NAME	AGENCY	PHONE	E-MAIL
Charles White	Hillsborough MPO	(813) 272-5940	Whitec@plancom.org
Michael Rowicki	Hillsborough MPO	(813) 272-5940	Rowickim@plancom.org
Reginald Sanford	Environmental Protection Commission	(813) 272-5530	Sanford@epcjanus.epchc.org
Paul Cooper	Environmental Protection Commission	(813) 272-5530	Cooper@epcjanus.epchc.org
Louis Fernandez	Department of Environmental Protection	(813) 744-6100 ext. 105	Louis.Fernandez@dep.state.fl.us
Danny Lamb	Florida Department of Transportation	(813) 975-6437	Daniel.Lamb@dot.state.fl.us



HILLSBOROUGH COUNTY
METROPOLITAN PLANNING ORGANIZATION
CONGESTION MITIGATION AND AIR QUALITY

APPLICATION FORM

APPLICANT: _____ DATE: _____

IMPLEMENTOR IF DIFFERENT FROM APPLICANT: _____

CONTACT PERSON: _____ PHONE #: _____
FAX #: _____

PROJECT NAME: _____

PROJECT DESCRIPTION (Provide detailed description of project - use additional pages if necessary):

IF PROJECT IS AN INTELLIGENT TRANSPORTATION SYSTEM (ITS) IMPROVEMENT, WILL IT CONFORM TO REGIONAL ITS ARCHITECTURE?

_____ YES _____ NO _____ PROJECT WILL BRING INTO COMFORMITY

IS PROJECT TAKEN FROM A CONGESTION MANAGEMENT SYSTEM PLAN OR CORRIDOR STUDY?

_____ YES _____ NO

PROJECT COST (\$1000's): _____

FUNDING BY FISCAL YEAR (IF KNOWN-IN \$1000's)

05/06	06/07	07/08	08/09	09/10	TOTAL
Last Year					

PLEASE EXPLAIN HOW YOUR PROJECT ADDRESSES EACH OF THE FOLLOWING CRITERIA: (N/A if project does not address a specific criteria)

1a. Projects that remove vehicles from the road.

OR

1b. Projects that reduce travel delay (include multi-modal benefits).

2. Outreach Projects that change the public's driving behavior.

3a. Projects with quantitative emission reduction benefit for the ozone precursor nitrogen oxide. (Summarize emissions benefits and attach assumptions and analysis)

OR

3b. Projects with qualitative emission reduction benefit for the ozone precursor nitrogen oxide.
(Explain anticipated emission benefits and assumptions)

4. Projects with the most efficient dollar per ton cost/benefit (utilizing an analysis that takes into account the life cycle of the project),

5. Projects with air quality benefits to be realized within 3 years. (What is the schedule of implementation).

CERTIFICATION OF PROJECT SPONSOR: I hereby certify that the proposed project described herein is supported by the _____ and that the said entity is willing to:

- (1) Provide the required funding match; enter into a maintenance agreement for the project with the appropriate agency and/or
- (2) Support other actions necessary to fully implement and operate (if appropriate) the proposed project.

Signature/Title: _____

Deadline for submitting applications is April 27th. Applications received after this date will not be processed in this year's prioritization.

Emission Reduction Calculation Methodology

Replacement of Old Buses

The emission reductions are the difference between emissions associated with the operation of the old bus minus emissions associated with the new bus. The estimated average daily VMT for the old bus is multiplied by the appropriate VMT factor based on the age of the bus. (see MOBILE5b factors). The NOx bus emissions factor for a bus purchased in 1990 is 22.051 grams/mile. Because the bus purchases are being requested in the 2005/2006 FY we are using emission factors for year 2005. The average daily VMT for one bus is 517.5.

The formula for estimating VMT is as follows:

$$\begin{aligned} 3 \text{ trips/hr} \times 15 \text{ hrs of operation} \times 11.5 \text{ miles/trip} &= 517.5 \text{ miles} \\ 517.5 \text{ miles} \times 20 \text{ buses} &= 10,350 \text{ VMT} \end{aligned}$$

Assumptions for emissions rates:

- Based on MOBILE5b
- Average travel speed 27 mph
- Old Buses (Model Yr. 1990) emission factors HC - 2.097; CO - 12.41; and NOx - 11.65.
- New Buses (Model Yr. 2004/2005) emission factors HC - 2.066; CO - 9.611; and NOx - 3.746.
- All emissions factors are calculated in grams per mile.

Formula for calculating emissions reduction:

(Bus VMT) (Old bus emis factor) minus (bus VMT) (new bus emis factor)

$$\begin{aligned} \text{HC Reduction} &= (10,350) * (2.097) - (10,350) * (2.066) \\ \text{Daily:} & 21,704 - 21,383 = 321 \text{ gm} \quad (0.321 \text{ kg}) \\ \text{Annual:} & (321/1000) * 312 = \underline{100.15 \text{ kg}} \end{aligned}$$

$$\begin{aligned} \text{CO Reduction} &= (10,350) * (12.41) - (10,350) * (9.611) \\ \text{Daily:} & 128,444 - 99,474 = 28,970 \text{ gm} \quad (28.97 \text{ kg}) \\ \text{Annual:} & (28,970/1000) * 312 = \underline{9,038.64 \text{ kg}} \end{aligned}$$

$$\begin{aligned} \text{NOx Reduction} &= (10,350) * (11.65) - (10,350) * (3.746) \\ \text{Daily:} & 120,578 - 38,771 = 81,807 \text{ gm} \quad (81.81 \text{ kg}) \\ \text{Annual:} & (81,807 / 1000) * 312 = \underline{25,523.78 \text{ kg}} \end{aligned}$$

CMAQ PROJECT EVALUATION METHODOLOGY

EVALUATION CRITERIA:

	WEIGHT FACTOR
1a. Projects that remove vehicles from the road	<u>4.0</u> 3-5
or	
1b. <u>Projects that reduce travel delay (include multi-modal benefits)</u>	<u>3.0</u>
2. Outreach projects that change the public's driving behavior;	2.5
3a. Projects with quantitative emission reduction benefit for the ozone precursors nitrogen oxide;	2.5
or	
3b. Projects with a qualitative emission reduction benefit for the ozone precursors nitrogen oxide or volatile organic compounds;	2.0
4. <u>Projects with the most efficient dollar per ton cost/benefit (utilizing an analysis that takes into account the life cycle of the project);</u>	<u>3.5</u> 2-5
5. Projects with air quality benefits to be realized within 3 years:	<u>1.0</u> 1-5

FINAL RANKING

After each project has been scored, the projects will be ranked into three categories (High, Medium and Low).

CMAQ PROJECT EVALUATION FORM

PROJECT: _____

(1-5)

EVALUATION CRITERIA:

	<u>WEIGHT</u>	<u>EVAL</u>	<u>SCORE:</u>
1a. Projects that remove vehicles from the road;	4.0 x	=	_____
1b. Projects that reduce travel delay (include multi-modal benefits)	3.0 x	=	_____
2. Outreach Projects that change the public's driving behavior ;	2.5 x	=	_____
3a. Projects with quantitative emission reduction benefit for the ozone precursors nitrogen oxide;	2.5 x	=	_____
or			
3b. Projects with a qualitative emission reduction benefit for the ozone precursors nitrogen oxide or volatile organic compounds;	2.0 x	=	_____
4. Projects with the most efficient dollar per ton cost/benefit figure in terms of nitrogen oxide;	3.5 x	=	_____
5. Projects with air quality benefits to be realized within 3 years;	1.0 x	=	_____
TOTAL SCORE:			_____

COMMENTS: _____

