Congestion Mitigation and Air Quality (CMAQ) Improvement Program

OVERVIEW

The Congestion Mitigation and Air Quality (CMAQ) Improvement Program funds transportation projects to improve air quality and reduce traffic congestion in areas that do not meet air quality standards.

The purpose of this document is to show that bicycle and pedestrian projects are eligible for funding through CMAQ, describe the criteria and process, provide examples of successful projects, and give advice for answering tough questions.

Since this report was first released, the Federal Highway Administration (FHWA) has updated their website to make it clear that bicycle and pedestrian projects are eligible for CMAQ funding. http://www.fhwa.dot.gov/environment/bikeped/cmaqfunds.htm

BACKGROUND

In 1991, the Intermodal Surface Transportation Efficiency Act (ISTEA) created the Congestion Mitigation and Air Quality (CMAQ) Improvement Program to fund transportation projects designed to improve air quality and reduce traffic congestion. Bicycle and Pedestrian projects are explicitly recognized at the federal level as eligible. Eligible projects include new bike and walking facilities and promotion projects (FHWAa, 2008).

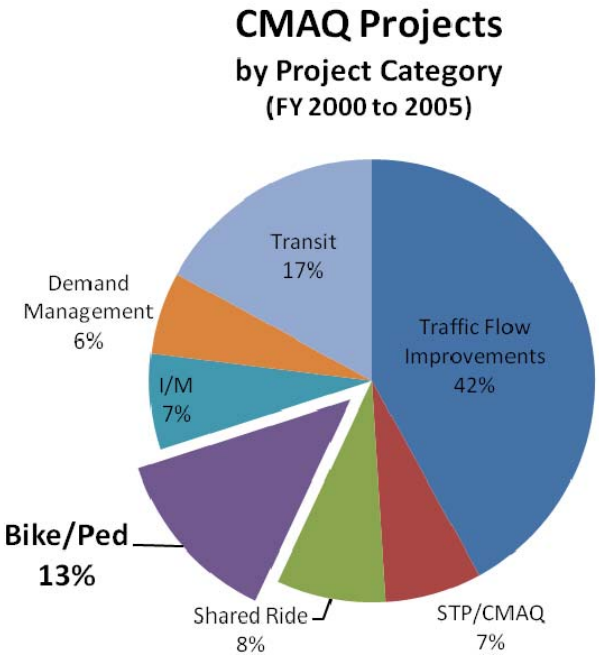
As with other federal funding sources, states and Metropolitan Planning Organizations (MPO) that have made cycling and walking priorities in their planning will have an easier time using CMAQ funds on bike/ped projects. States disperse the funds -- sometimes allocating them directly, and sometimes sub-allocating to MPOs -- and are then reimbursed by the FHWA after the work is complete. CMAQ typically covers 80 percent of the project cost, with the remaining 20 percent coming from the state, MPO or public/private partners. Approved CMAQ projects are included in the MPO and State's transportation spending plan, called the Transportation Improvement Program (TIP).

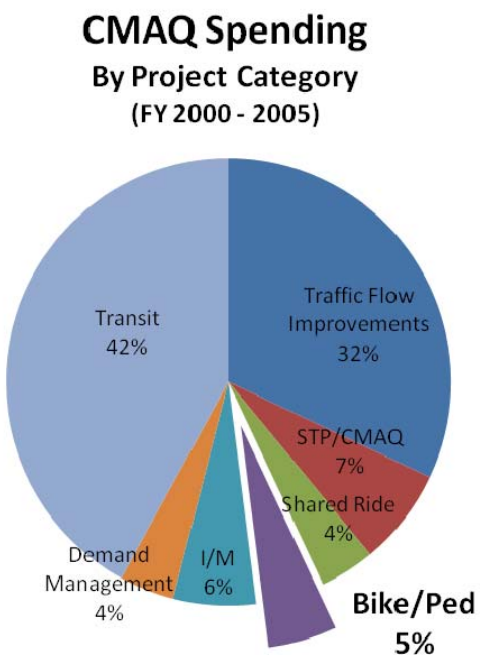
Where and how much

All 50 states and the District of Columbia receive CMAQ funds. Funds must be spent in regions that do not meet national air quality standards for ozone and carbon monoxide levels ("non-attainment" areas) or have recently become compliant ("maintenance" areas). Those areas can be found here. If a state does not have these areas, CMAQ funds are treated as part of the Surface Transportation Program (STP) and can be used anywhere in the state.

A large share of federal bike/ped funding comes from CMAQ. The program accounted for nearly 10 percent of all Federal-Aid Highway Program funding obligated to bicycle and pedestrian projects between 1992 and 2008, making it the second largest federal source for bicycle and pedestrian funds after Transportation Enhancements (TE). CMAQ remains an important funding source, despite the fact that over the last two years of that period, the new Safe Routes to Schools and Nonmotorized Transportation Projects (SRTS & NMT) averaged more annual funding. See appendix A for a table of CMAQ bicycle and pedestrian spending through the years. The states with the largest populations were also the largest recipients of CMAQ funds. Appendix B shows the fourteen largest CMAQ recipients, which includes twelve of the fourteen most populous states, missing only North Carolina and Washington, including instead Connecticut and Maryland.

Bicycle and pedestrian investments received a fairly even share of CMAQ projects, but a smaller share of total CMAQ funds. As one of CMAQ's seven major project categories, bicycle and pedestrian projects make up 13 percent of all CMAQ projects. However, because they are often relatively inexpensive, bike/ped projects receive only five percent of the CMAQ funding. Bicycling and walking is sometimes also included in other project categories. For example, a Travel Demand Management project in the District of Columbia focused on employer outreach to encourage employees to bike to work. In Seattle, CMAQ funds were spent on bike racks at a Park and Ride lot, but this project was categorized as a Shared Ride project (Grant, 2008).





Examples of Bicycle and Pedestrian CMAQ Projects

CMAQ funds have been used on a wide variety of capital projects including bicycle paths and lanes, racks and lockers, and for marketing materials and operating costs for bicycle sharing projects. As the new guidance on the FHWA website points out, CMAQ funds may also be used for “Non-construction outreach related to safe bicycle use” and “Establishing and funding State bicycle/pedestrian coordinator positions for promoting and facilitating nonmotorized transportation modes through public education, safety programs, etc. (Limited to one full-time position per State)."

Here are some examples of CMAQ being used for bicycle and pedestrian projects:

Rolling Meadows, IL

More than ten years ago, the Mayor of Rolling Meadows, a Chicago suburb, looked around at the fragmented series of bicycle paths in the area and considered a downtown redevelopment plan that would update light fixtures and make other improvements. The Mayor worked with the area’s three Parks District Directors and various layers of local government to design a

comprehensive network of paths that would connect the shopping and transportation hubs in and around the neighboring towns. Using this plan as a guide, Rolling Meadows tapped into CMAQ funding to add a new link to the network every year, including new bike lanes through the most important downtown streets, as part of the other improvements, and a path along a creek that connects a number of communities. According to Fred Vogt, the Director of Public Works for Rolling Meadows, various political figures, including an alderman who was an avid bicyclist, lent their voices to ensure that the completion of the network stayed on track. Vogt credited the leadership of political advocates on multiple levels of government with the success with pushing through the project.

Fort Collins, CO

In Fort Collins, Colo. CMAQ funds created a bicycle library (bike sharing). Members of the public can borrow bicycles at no cost from two locations. As part of the application process, the City worked with the MPO's CMAQ consultant and conducted original research to estimate air quality benefits. They estimated that the project would reduce carbon monoxide (CO) by 759 kilograms in the first year of operation. Within the first month, the library was lending bicycles at capacity. Since April, 2008 they've lent out over 3,000 bicycles. This example shows the importance of local advocacy groups: the project is run by a local advocacy group, Bike Fort Collins (Regan, 2009).

See the next page for more examples.

Type	Location	Description
Bike education	Louisville, KY	Bicycle and pedestrian education, encouragement, enforcement and evaluation
Bike parking	Vancouver, WA	On-street bike "corrals" in front of Angst Gallery on Main Street
	Sacramento, CA	Purchase and installation of approximately 1,000 bicycle racks for short-term bicycle parking within the district.
Bike lockers	Sacramento, CA	Retrofitting and installation of 22 existing bike lockers with the on-demand "BikeLink" technology and purchase of an additional 50 lockers.
Bike promotion	Washington, DC	Provision of information to businesses to encourage their employees to bike to work, including a list of maps and info on bike-on-transit, installing showers and lockers; the name of a person or organization that would teach classes on bicycle
Sidewalks, pedestrian improvements	Milwaukee	Improvement of Central Business District corridors by providing pedestrian amenities.
	Miami Valley, OH	Construction of a freestanding pedestrian bridge connecting a shopping Mall to Wright State University
Bike lanes and paths	Fort Wayne, ID	Construction of bike lane running through downtown to the River Greenway
	New York City	Continuation of bicycle network and additional bike parking, storage, and outreach campaign
Bicycle bridges	Phoenix	Construction of a multi-use path and bridge
	New York City	Rehabilitation of historic High Bridge as bicycle and pedestrian connection between the Bronx and Manhattan
City employee bike fleet	Chicago	Purchase of 13 bicycles for parking enforcement aides, bringing the fleet to 21
Intermodal facilities/ bike stations	Chicago	Creation of McDonald's Cycle Center at Millennium park, includes secure bicycle parking, Lockers, Showers and Towel Service, Bicycle Rental, Bicycle Repair Shop
Bike map	Milwaukee	Production of bike map and brochure
	Sacramento, CA	Development of web-based regional bicycle trip planner and regional bicycle routes map
Bike plan and staff	Philadelphia	Design of a comprehensive city-wide bicycle plan
	Birmingham, AL	Creation a regional bicycle, pedestrian and trails study, partial funding for a bike/ped planner

REQUIREMENTS & STRATEGIES FOR ACCESSING FUNDS

As mentioned above, the use of CMAQ funds varies dramatically from place to place. Although the exact criteria for project approval depend on the location, fundable projects must show that they will reduce emissions and be cost-effective.

Structure, schedule and process

The Transportation Research Board describes the structure of CMAQ: "From a federal perspective, CMAQ is a highly decentralized program; decision making is devolved to state and local governments. From a local perspective, CMAQ is a state program" (TRB, 2002). States determine how CMAQ funds are sub-allocated, as long as they are spent in nonattainment and maintenance areas.

CMAQ funded 80 percent of the $1.35 million McDonald's Cycle Center in Chicago's Millennium Park.

Project proposals can be submitted by government and non-government agencies, though rules vary by region. In some places non-governmental organizations proposing projects must have an agreement with a local unit of government to act as a public sponsor and be able to guarantee the matching funds. In other places, public-private projects are eligible for smaller matching grants than local governments are (e.g. a 50 percent match instead of 80 or 90 percent).

Overcoming Barriers

While some MPOs are eager to spend CMAQ money on bike/ped projects, others are more resistant. According to a comparative case-study, almost 45 percent of the money spent on bike/ped in the Sacramento, Ca. area comes from the CMAQ program, while Baltimore, Md. did not spend any CMAQ funds on bike/ped projects as of spring 2009. Officials in the two locations saw bike projects very differently. In Sacramento, reviewers saw bike projects as the ideal use for CMAQ money, saying that the CMAQ program "almost earmarks money" for bike/ped

projects. But in Baltimore, planners questioned the competitiveness of bicycling projects because they felt it was difficult to show their impact on air quality (McCann, 2009).

Since not every region is equally receptive to funding bicycle and pedestrian projects with CMAQ funds, here are a few suggestions to address potential problems:

1. **How do I navigate the complicated CMAQ Approval process?**

The process *is* complicated. The best thing to do is work closely with someone on the inside of the process, who is familiar with the application requirements and the timetable.

Although the process varies by state, the funding decisions are generally made by CMAQ panels. Phoenix, AZ, for example, has a committee dedicated to reviewing bicycle and pedestrian projects. This committee includes a representative from the Coalition of Arizona Bicyclists as a voting member.

Contact your MPO to find out who runs the CMAQ program in your area. Find out how the panels in your area are assembled and try to participate or find an ally who can advocate on your behalf. Most successful applications have an advocate who is involved in the approval process.

To effectively navigate the process, learn the key deadlines, review your area's CMAQ application, and know the criteria for your area.

2. **What if bicycle and pedestrian projects are not included in my state's or my MPO's plans?**

Make your voice heard during the public comment period for you MPOs transportation plan. According to federal law [23 CFR §450.316], the metropolitan transportation planning process must include public participation, and provide complete information, timely public notice, full public access to key decisions, and support "early and continuing involvement of the public in developing plans and TIPS."

Once a project is approved for funding it is placed on the local and state Transportation Improvement Plan. Local TIP project lists are included in the Statewide Transportation Improvement Program (STIP).

In nonattainment areas there must be at least one formal public meeting during the TIP development process. The proposed TIP must be published or otherwise made publicly available for review and comment. (The approved TIP must also be made available to the public.)

3. What if there isn't money for my project?

Nearly all states have under-spent their CMAQ funding. The money is there. It is a matter of priorities. Bicycle and pedestrian projects are a great choice because their cost benefit ratio is better than for other project types.

Cost-effectiveness is a priority for most reviewers. Bike and pedestrian projects are generally less expensive than other projects, which helps makes them more cost effective. Bike/Ped coordinators who have used CMAQ funds say bike/ped projects give you a lot of bang for your buck, even if the emissions reductions are not a large as other types of projects. "You could spend your whole budget on a few miles of HOV lanes," one planner said, or you could complete a number of different bicycle and pedestrian projects.

Multi-use bridge in Atlanta

4. What if my state does not recognize the proven benefits bicycle and pedestrian projects on emissions reductions?

Many – but not all – MPOs immediately recognize the impact of bike/ped investments can have on emissions levels. A number include formulas and spreadsheets in the application to help calculate potential reductions in Vehicle Miles Traveled (VMT) by car and the accompanying emissions reductions gained by switching to them bike trips. However, some states and MPOs are more resistant.

The application typically must demonstrate that the bicycle project or program will replace auto trips. This can be accomplished by connecting bike facilities to transit hubs to allow cyclists to increase the length of their journey and replace longer car trips. If your region's application does not include a bicycle trip calculation tool, you could use a calculator from another region and include the results. Here are some examples of emissions-reduction estimation methodologies from FHWA.

Consider grouping projects together for a larger total impact. Rolling Meadows' Director of Public Works emphasizes the importance of making the bicycle improvements part of a larger plan.

CMAQ does not just fund construction projects, bicycle promotion and operational funding is also eligible. For example, the Santa Cruz Area Transportation Management Association (TMA) uses CMAQ funding to staff and support a zero-Interest Bike Loan program for Employees of participating businesses and other programs.

Some states stack their criteria against bicycle and pedestrian projects. In these cases, it may be necessary to start a campaign to reform the process in that area.

EXAMPLES OF APPLICATION FORMS

The application forms below give an idea of the differences among regions.

2009 Wisconsin Application – April 29, 2009

Applicants must provide the following information for the reviewers to make emission-reduction estimates for Transit, Rideshare, Bicycle and Pedestrian Projects:

- How many new or replacement trips are expected and from which modes?
- How much of the new or replacement use is for work or other utilitarian trips?
- How many auto trips will be eliminated?
- What is the average trip distance of auto trips that will be eliminated?

FY 2011 Idaho Application – January 16, 2008

A spreadsheet is included in the application to calculate the emissions impact of bicycle projects. Bicycle and Pedestrian Projects are evaluated using the following criteria:

- Serve a transportation purpose
- Link to a community or regional transportation system
- Operate within three relational aspects of intermodal transportation system (in rank order) through:
  1. **Impact** - designed to reduce the number of vehicles on existing corridors during peak travel volumes;
  2. **Proximity** - serves the same people within the same travel corridor as existing systems and modes; and
  3. **Function** - creates or improves existing system to provide safe and convenient route from origin to destination.
- Be part of a long-range transportation plan at local, district, or state levels;
- Meet design standards specified by the ITD Bicycle and Pedestrian Coordinator, the ITD Design Manual, and/or AASHTO standards (paths, ways, walks, trails, routes, and lanes);
- Document information using acceptable VMT, pedestrian traffic models, actual local studies, links to promotional effort;

2008 Rhode Island Call for Proposals – February 27, 2008

Included this unusual clause: "If quantitative analysis of the air quality benefits of the proposal is feasible, the Subcommittee would be responsible for this analysis, not the Proposer."

FY 2009 Baltimore, Maryland Application – November 4, 2008

Bicycling projects are grouped under 'other', with no bicycle specific instructions. They ask generally for the type and description of the project, how it will reduce emissions, an estimate of reductions, and cost effectiveness calculations.

Appendix A.

Congestion Mitigation and Air Quality (CMAQ) Funding for Pedestrian and Bicycle Facilities and Programs

Year	Obligated CMAQ funds for bike/ped (in millions)	Percent of federal bike/ped funds from CMAQ source
1992	0.0	0.0%
1993	3.3	9.8%
1994	2.7	2.4%
1995	9.0	5.0%
1996	19.3	9.8%
1997	25.0	10.5%
1998	15.9	7.3%
1999	12.6	6.2%
2000	34.4	11.6%
2001	44.3	13.1%
2002	44.1	10.6%
2003	34.4	8.1%
2004	44.9	10.5%
2005	41.4	10.4%
2006	29.2	7.4%
2007	57.3	10.2%
2008	69.5	12.8%
TOTAL	**487.3 M**	**9.7%**

Source: http://www.fhwa.dot.gov/environment/bikeped/bipedfund.htm

Appendix B.

States Receiving Largest CMAQ Apportionments
FY 1991 – 2005

State	Amount Apportioned (Million $)	Amount Obligated (Million $)	Percent Obligated
California	$4,019.10	$3,637.80	90.5%
New York	$1,698.60	$1,401.70	82.5%
Texas	$1,469.80	$1,208.70	82.2%
New Jersey	$1,084.20	$987.40	91.1%
Illinois	$950.10	$817.10	86.0%
Pennsylvania	$858.80	$821.20	95.6%
Ohio	$774.80	$731.50	94.4%
Maryland	$614.20	$539.90	87.9%
Massachusetts	$582.10	$475.70	81.7%
Florida	$521.20	$506.00	97.1%
Michigan	$478.50	$427.10	89.3%
Connecticut	$476.90	$434.40	91.1%
Georgia	$445.10	$387.50	87.1%
Arizona	$412.20	$381.60	92.6%

Note: An obligation of funds is a formal commitment of funds to an approved project.

Source: http://www.fhwa.dot.gov/environment/cmaqpgs/safetealu1808/safetealu1808.pdf

Citations

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Photo source: http://www.fhwa.dot.gov/environment/cmaqpgs/viewPhotos/