

Federal Highway Administration CMAQ Project Tracking System User's Guide

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1. Introduction: Users and Options

Welcome to the Congestion Mitigation and Air Quality (CMAQ) Tracking System. This Web-enabled system provides users with a simple, efficient way of entering and monitoring project information gathered by fiscal year. The CMAQ System simplifies the process of submitting the required annual report and generates reports based on data within the System and allows users to monitor the current status of project funding.

The CMAQ System runs on both Microsoft's Internet Explorer and Netscape's Navigator. The System uses an Oracle9I database to store project information, and Seagate's Crystal Reports to generate reports on projects.

There are four types of users in the CMAQ System:

- Metropolitan Planning Organization (MPO)
- State Department of Transportation (DOT)
- Federal Highway Administration Division (Division)
- Federal Highway Administration Headquarters (HQ)

At each level, at least one person will have authority to approve project data (discussed below and in section 10).

The CMAQ Tracking System is set up to mimic the existing flow of paper CMAQ reports. Project data is to be entered at the level closest to the project, which probably has the best idea of what work is being done. Which level this is is not standard. Depending on which state and which year, we have received data that originated at MPOs, at state district offices, at state central offices and even at FHWA Division Offices. The CMAQ Tracking System does not require changing this level of responsibility. Whoever has been typing in the data can now enter it online instead.

MPO Users

The following options are available to MPO users:

- "Entry – Enter a New Project"
- "Entry – Enter Subsequent Project" data for a continuing project
- "Entry – Edit Existing Project" for either current or continuing projects
- "Search" for projects already entered into the System
- "Reports" similar to those used in the CMAQ Annual Report
- "Utilities – Upload Project Information" for batch uploading of data from another system
- "Approval"

Under the Entry tab, **Enter a New Project** is used to enter data into the System via a series of data entry screens. You can hit the **Save Data For Later Editing** icon and return to the project later for further editing. When complete, the user can use the **Save**

Data and Submit for Approval function to submit the data to someone else in the MPO who has approval rights. When this person approves all the MPO's projects, the System sends an e-mail to State level user who have approval rights that the current year's data is available for review and approval. (See Section 10: Approval below for details.)

Enter Subsequent Project is used to enter additional funding and benefits data for a project that was originally entered in a previous fiscal year without having to re-enter all of the other project information.

Edit Existing Project allows the user to add information to a project for which some data was previously entered.

MPO users can use the **Search** function to search for projects within the state as well as those that have been approved by HQ.

The **Reports** function is used to organize the project data into the 15 different reporting formats used in the CMAQ annual reports. These reports can be generated on projects entered/approved by each user level, as well as those approved by HQ. Once generated, the reports can be printed or exported to a file.

Under the Utilities tab, the **Upload Project Information** function, can be utilized by users with their own systems in place. This function allows them to extract information from their current systems and transfer it to the CMAQ System. Refer to Appendices 1 & 2 for more information on the batch upload process.

MPO users who have **Approval** rights can also approve project data entered by the MPO. Data entered by the MPO needs to be approved before the State DOT can review it.

State DOT Users

State DOT users have access to the same options as MPOs. State DOT users may enter project data, approve project data, and review project data entered by MPOs in their State.

At least one user in each office (MPO, STATE, DIVISION, HQ) needs to have the ability to approve projects. Users who have project **approval** rights can approve project data, which causes the System to notify the next level user that there is project data awaiting review.

So, if a user in the East-West Gateway Coordinating Council approves project data, a message will appear on the opening screen of MoDOT users who have approval rights that there is project data awaiting approval. The State DOT user can then either approve the project or reject it and send it back for review. Data for multiple projects can be approved at one time.

Approval of all projects electronically by the State is equivalent to compiling a paper report from MPOs and State District Offices and forwarding it to the FHWA Division Office.

FHWA Division Users

FHWA Division users have access to the same options that State DOT users have. Division users who have approval rights review project data submitted by the State DOT users or entered by other Division users. Once project data is reviewed, it can either be given approval or returned for correction.

FHWA HQ users

FHWA HQ users have access to the same options as the Division.

HQ users review and approve project data that have been approved by Division users or entered into the System by other HQ users. Upon approval of the entire national program by headquarters, the data is used to compile the national CMAQ annual report.

2. Gaining Access to the CMAQ System & Logging on

FHWA Division Users

FHWA Division users of the system are “Sponsors,” which means they can sponsor State and local “Users,” as well as others in their Division office, into the CMAQ System. If no one in the Division has access to the system, contact Robert Kafalenos or Diane Turchetta in FHWA headquarters. [If you need to sponsor someone else in your Division office, skip to step two in the next section.]

State or Local Users

There are two steps involved in becoming a State or local User of the CMAQ system. The first step is for the State/local user to apply for access to FHWA’s User Profile and Access Control System (UPACS). To initiate this, go to the following web address:

<http://apps.fhwa.dot.gov>

Click on “FHWA Information Systems” (in blue), and UPACS will be loaded. Click on the “Register Now” icon, and input your email address and the ID of the UPACS Administrator in your State. When you click on “next,” you will go to the “Registration Profile” where you complete your official contact information. Click on “submit” at the bottom of this screen to send a message to the UPACS Administrator that you are requesting a UPACS ID.

One way to get the ID of the UPACS Administrator is to click on the “UPACS Administrator” link and get a list of all the UPACS Administrators. As there are two listed for each Division, you may want to call the Division office first to see which administrator handles UPACS IDs.

You should receive back from the UPACS Administrator a message with your UPACS ID, which is typically your first initial and last name but may vary slightly. Keep in mind that it may take several days or longer for the UPACS administrator to verify your information and grant the ID.

The second step is performed by the Division planner/ air quality specialist who sponsors new CMAQ users.

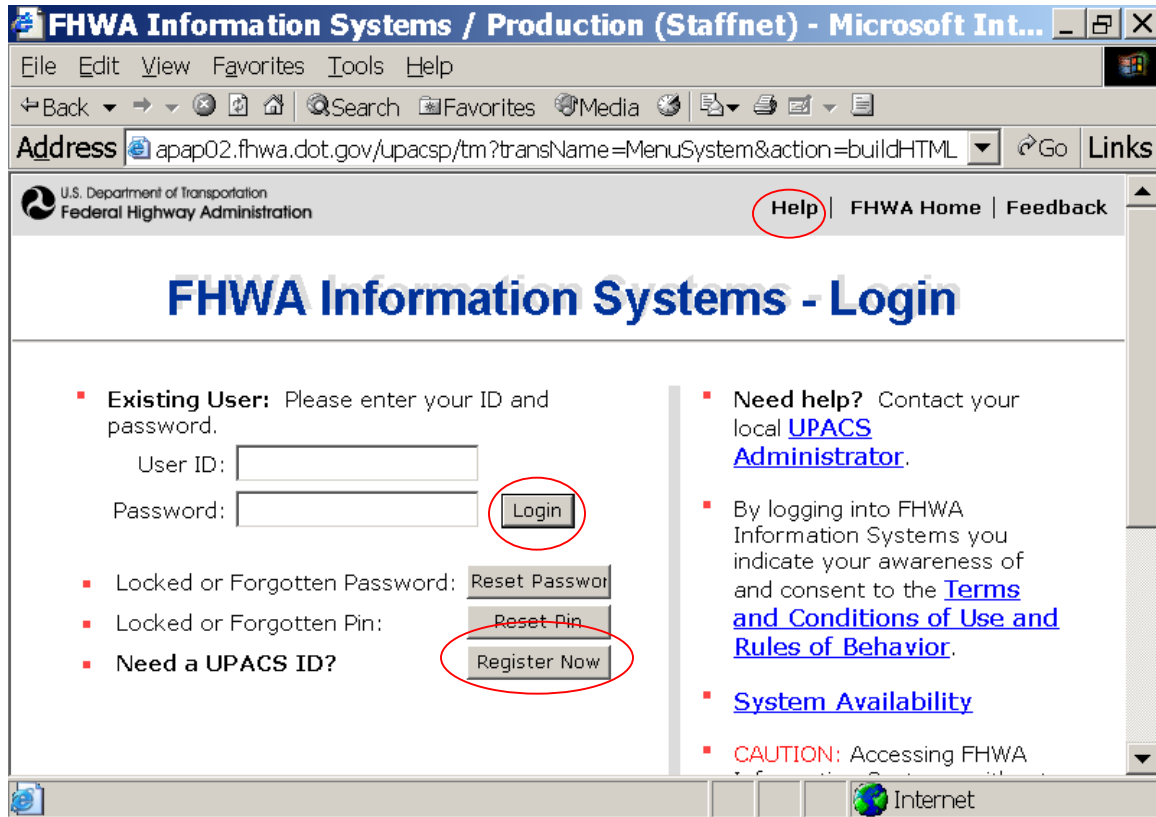
The Division sponsor creates a CMAQ user by clicking on “User Profile and Access Control System” which takes you to an area for changing passwords and profiles, and also where modifications can be made to system rights for the CMAQ system. The Division user then clicks on the “Establish, Change or Remove System Access Rights for:” the CMAQ system, which takes you to a “UPACS-CMAQ Maintenance” screen where you have to put in the UPACS ID of the state or local person you are adding to the system. (Until someone has a UPACS ID, you can’t make her or him a CMAQ user.)

When you put in a valid ID and click next, you are taken to a screen of information about that person, the same information just submitted by that person to your UPACS administrator. Clicking on “CMAQ Access Rights” at the bottom of the page takes you to the next page, where you actually grant rights. You do want to verify all of the information to be sure you have the right person.

At least one user in each MPO and State office should be granted approval rights, while all users will be able to enter project data.

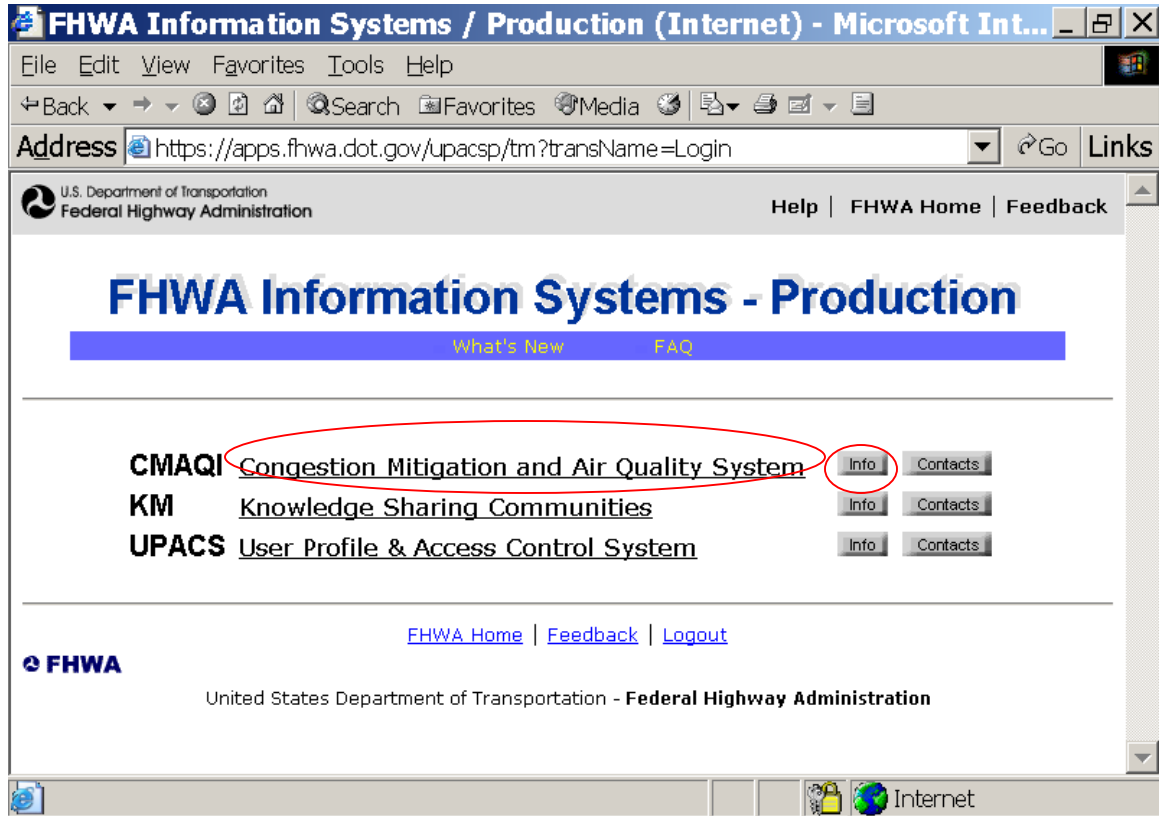
Logging Into the CMAQ System

Users must login to CMAQ using UPACS. FHWA users can get to this system by opening up a web browser and going to <http://staffnet.fhwa.dot.gov> and clicking on “Information Systems.” State and local users access the system over the internet via <http://apps.fhwa.dot.gov> . For any additional registration information for the UPACS system not covered in the previous pages, click the ‘Help’ button on the top right of the screen or refer to the UPACS User Document.



Enter your user ID and Password and click the **Login** button.

A list of systems available for access will appear. Click the **Info** button to view information about the CMAQ System or click the **Congestion Mitigation and Air Quality System** link to enter CMAQ.



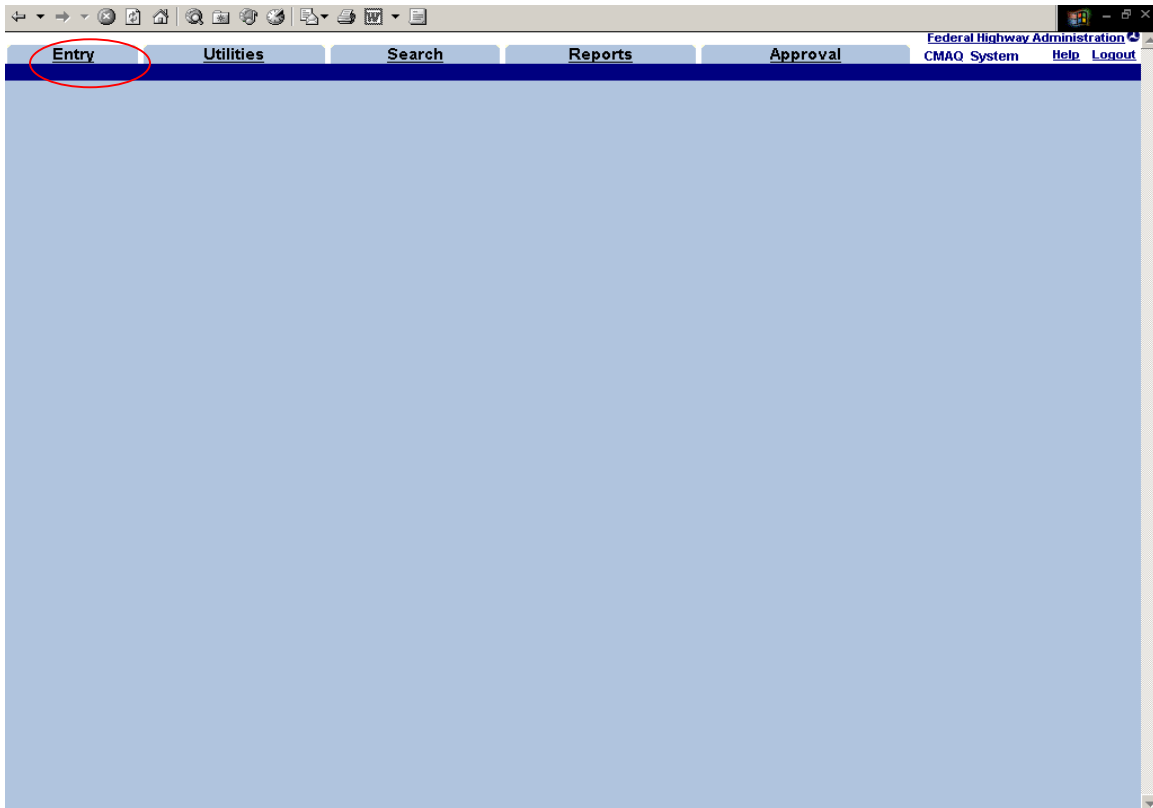
At this point it should be noted that there are several access points to the CMAQ Tracking System, which have been labeled individually for identification purposes. This screen shot shows “CMAQI” which shows what a user sees when accessing over the internet. FHWA users entering through the FHWA Staffnet will see “CMAQ” at this point. Both of the access points lead to the same database.

There is also a training and testing version, “CMAQT,” which is accessible from FHWA offices through the FHWA Staffnet. CMAQT does not affect the actual CMAQ database and is available for practice and demonstration purposes. Nothing entered through CMAQT will appear in the CMAQ database.

3. Using the CMAQ System: Introduction to the main views, Help

After logging into UPACS, the main screen for the CMAQ System will appear. The menu along the top of the screen facilitates easy access to the five processes.

Clicking on the **Entry** tab produces an additional line with options to **Enter a New Project**, **Enter Subsequent Project**, and **Edit Existing Project**.



Utilities allows the user to **Upload Project Information** for multiple projects at once. Then **Send to the Database** is used to import the projects into the CMAQ system. Uploading projects requires special formatting and is addressed in chapter 7 as well as the appendices.

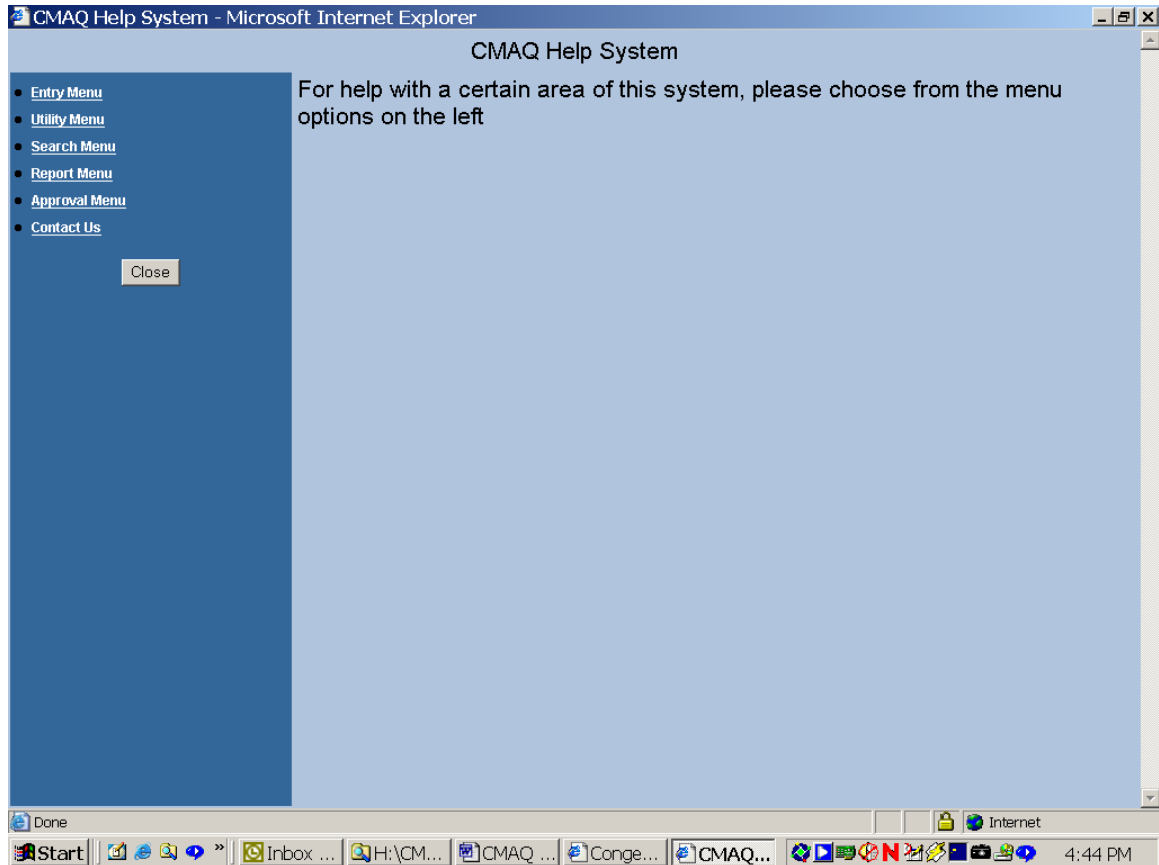
Using the **Search** page, the user can locate projects according to a variety of search criteria including State, year, approval status, etc.

The **Reports** tab is a gateway to 15 different reports that summarize the data for easy review.

The **Approval** tab allows users with approval rights to approve projects for their organization and notify the next highest level that projects are ready for review. (Note: Users who do not have approval rights will not see the **Approval** tab.)

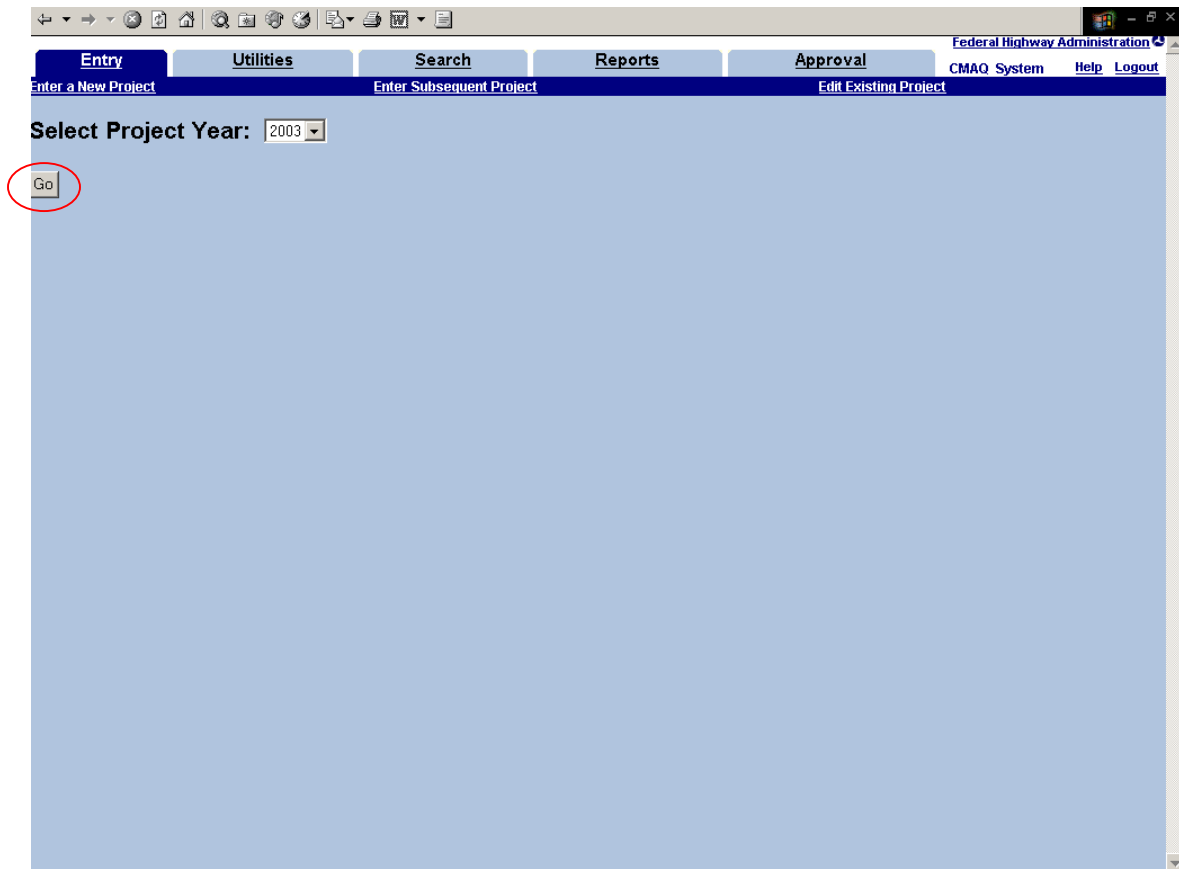
“Help” features

Clicking on the Help icon located to the right of the screen takes you to a Help page. The screenshot below is of the CMAQ Help System main page. Each of the five tabs has a help screen associated with it that summarizes the relevant functions, defines the fields and explains how to use the system.

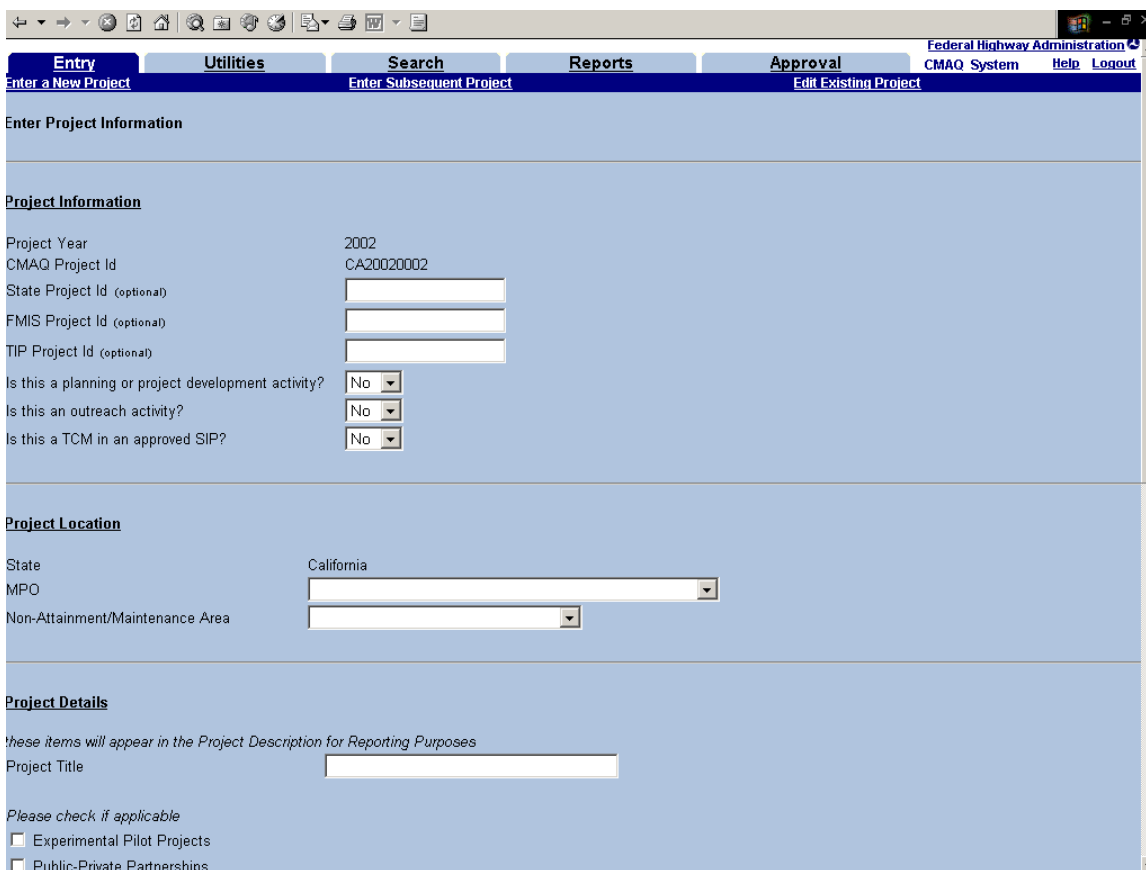


4. Entering New Projects

From the main **Entry** screen, to enter a new project click on the **Enter a New Project** button. A screen that allows you to select the year from a dropdown list before proceeding will appear. After you have selected the year and state for the new project, click the **Go** button.



The **Enter a New Project** screen allows you to enter general project information, project location information, and project details.



(the bottom half of this screen is displayed on the following page)

Project Information

The **CMAQ Project ID** is a unique number assigned by the system to a *new* project. Subsequent projects (that is, continuing projects) retain this initial number. The first two letters indicate the State, the next four places indicate the Federal fiscal year, and the last four digits are specific to individual projects.

The three optional IDs allow the user to enter a **State Project ID**, a **FMIS Project ID** (The Feds’ Fiscal Management Information System) or a **TIP Project ID**.

Below the tracking numbers, the Entry screen allows the user to indicate whether the data input is for a planning or project development activity, an outreach activity, or a TCM in an approved SIP.

Project Location

For each entry, the user will need to select from the dropdown menu the **Non-attainment/maintenance area** involved. NOTE: For projects using flexible funds, select: “No Nonattainment Area Selected”. Keep in mind that only States that have fewer air quality problems receive part of their CMAQ funding as flexible funds.

Additionally, a State or Division level user will also need to select the **MPO** where the project is taking place. In some cases, this might be “No MPO identified/State sponsored project” if, for example, the project takes place in an isolated rural nonattainment area not associated with an MPO.

Project Details

Scrolling halfway down the entry screen (see the following page for the screenshot), you will see a place to enter the project category and description. **Project Reporting Category** lets the user select one of six project categories, as well as the STP/CMAQ and miscellaneous categories. STP/CMAQ should be selected for projects funded with flexible CMAQ money (in areas where some of the funding received is not apportioned based on nonattainment/maintenance status). Miscellaneous should be used for deobligating money for a project.

After choosing one of the six project categories, click on **Build Description** to input essential project details. This function leads the user through a description tree that changes depending on the category. Note that the system will not allow you to save the project data without first building the description using the description tree. Additional information can be typed directly into the **Additional Description Information** box.

Project Benefits

For the six main CMAQ categories, at least one **benefit** must be entered for the system to save the project. (For STP/CMAQ or Miscellaneous, benefits should not be entered.) Benefits should be entered in kilograms per day, that is, an average operating day in the first year that the project is operational. The CMAQ Program guidance allows a qualitative analysis in rare circumstances where a quantitative analysis is not possible. Check the **Qualitative Analysis** box in cases where qualitative analysis alone was performed in analyzing project benefits.

Monetary Information

In the box marked **CMAQ Obligation Amount** input the CMAQ funding obligated for the project during the current Federal Fiscal Year (October 1st-September 30th). For projects involving CMAQ funds transferred to FTA, list funds transferred to FTA, not the money actually obligated by FTA. In the **Total Project Amount**, type in the total amount including both the CMAQ obligation and the State/local match obligated during the current Federal Fiscal Year for the project.

these items will appear in the Project Description for Reporting Purposes

Project Title

Please check if applicable

Experimental Pilot Projects

Public-Private Partnerships

Project Reporting Category

Project Description

Additional Description Information

Project Benefits

VOC Emissions Benefit (kg/day) Qualitative Analysis

CO Emissions Benefit (kg/day) Qualitative Analysis

NO_x Emissions Benefit (kg/day) Qualitative Analysis

PM-10 Emissions Benefit (kg/day) Qualitative Analysis

Monetary Information

CMAQ Obligation Amount (this Fiscal Year):

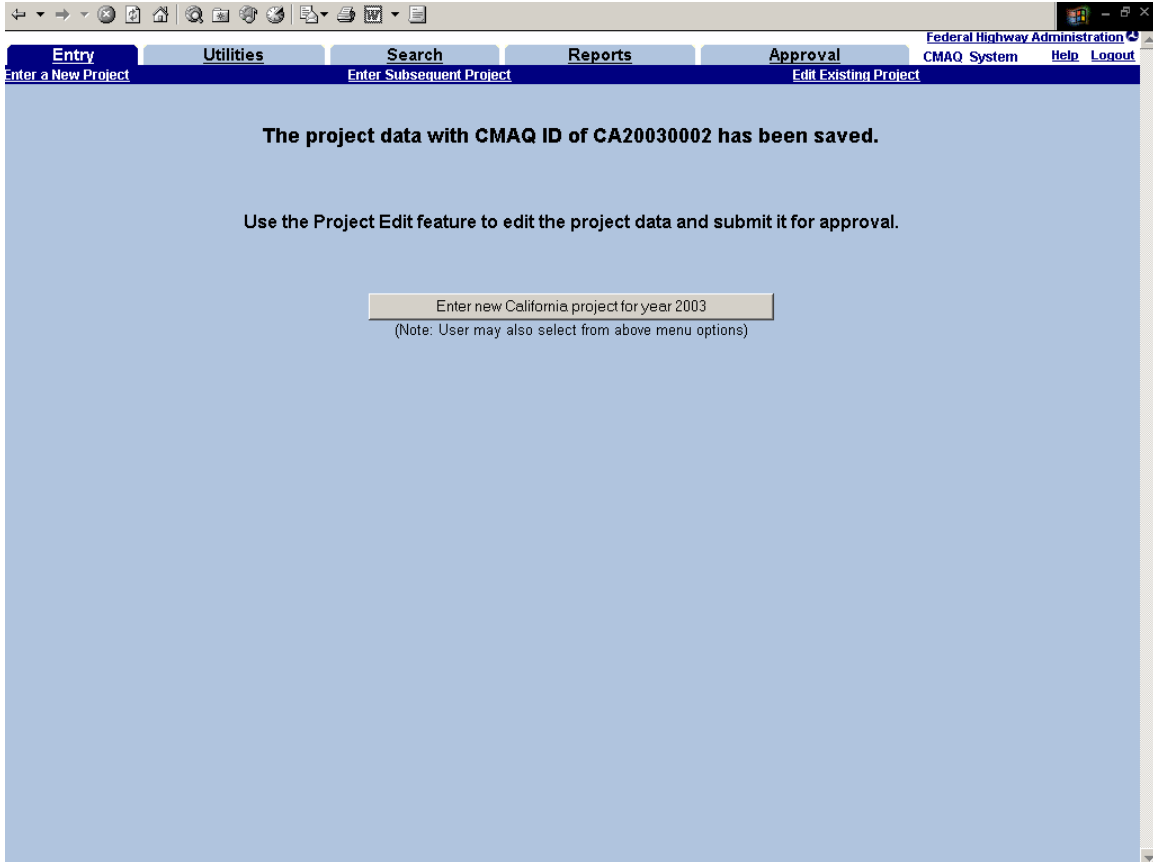
Total Project Amount (this Fiscal Year):

Cancel Project Entry | Save Data and Submit for Approval | Save Data For Later Editing

Once you have finished inputting all the necessary data on a project, you can click the **Submit Data for Approval** button, and the system will save the data for approval within your organization (MPO, State, Division). If you want to save the data and return to it later to finalize it, click the **Save Data for Later Editing** button. Alternatively, any information entered may be canceled by clicking the **Cancel Project Entry** button, which will clear all fields on the page.

Note that when you **Save Data and Submit for Approval** or **Save Data for Later Editing**, the system may generate automatic pop-up messages asking you to verify some of the information. Examples of things that cause the system to generate these messages include: benefits greater than 500 kg/day, negative dollar amounts or incomplete project descriptions.

The **Confirmation Screen** confirms that the project has been saved, and displays the CMAQ ID for that project. The CMAQ ID is a unique ID assigned to the project by the System. It is not related to the State Project ID, FMIS Project ID or TIP Project ID.



5. Entering Subsequent Project

Updating Funding and Emissions Benefits for Continuing Projects

This option allows the user to enter information for a project that was begun in a previous year without having to re-enter all the project information. When this option is selected, a project search form appears that allows you to select projects based on the criteria entered. Not all the fields are required; search criteria can be as minimal as the year or one of the Project IDs. Once the search criteria for the project are entered, click the **Get Projects** button. [Note: to search on partial project titles, put an asterisk (*) immediately after the words entered.]

The screenshot shows a web browser window displaying the 'Subsequent Project Entry Search' form. The browser's address bar shows 'Federal Highway Administration'. The page has a navigation menu with tabs for 'Entry', 'Utilities', 'Search', 'Reports', and 'Approval'. Below the navigation, there are three sub-tabs: 'Enter a New Project', 'Enter Subsequent Project', and 'Edit Existing Project'. The main content area is titled 'Subsequent Project Entry Search' and contains the following fields and instructions:

To find a project to link this project to, enter search criteria to bring back a list of possible projects.

Project Year: 2002 (dropdown menu)
CMAQ Project Id: [text input]
State Project Id: [text input]
FMIS Project Id: [text input]
TIP Project Id: [text input]
MPO: [dropdown menu]
Non-Attainment/Maintenance Area: [dropdown menu]
Project Title: [text input]
Project Reporting Category: [dropdown menu]
PM-10 benefit (kg/day): [dropdown menu] [text input]
VOC benefit (kg/day): [dropdown menu] [text input]
CO benefit (kg/day): [dropdown menu] [text input]
NO_x benefit (kg/day): [dropdown menu] [text input]

The 'Get Projects' button is circled in red.

A screen with the search results will appear. In this example, the search criteria were “2000” and “California”

To select a project from the list, click on the CMAQ Project ID link in the left column. The CMAQ Project ID is a unique number assigned by the system when the project is first entered. When funding and benefits information is entered in subsequent years, this number does not change.

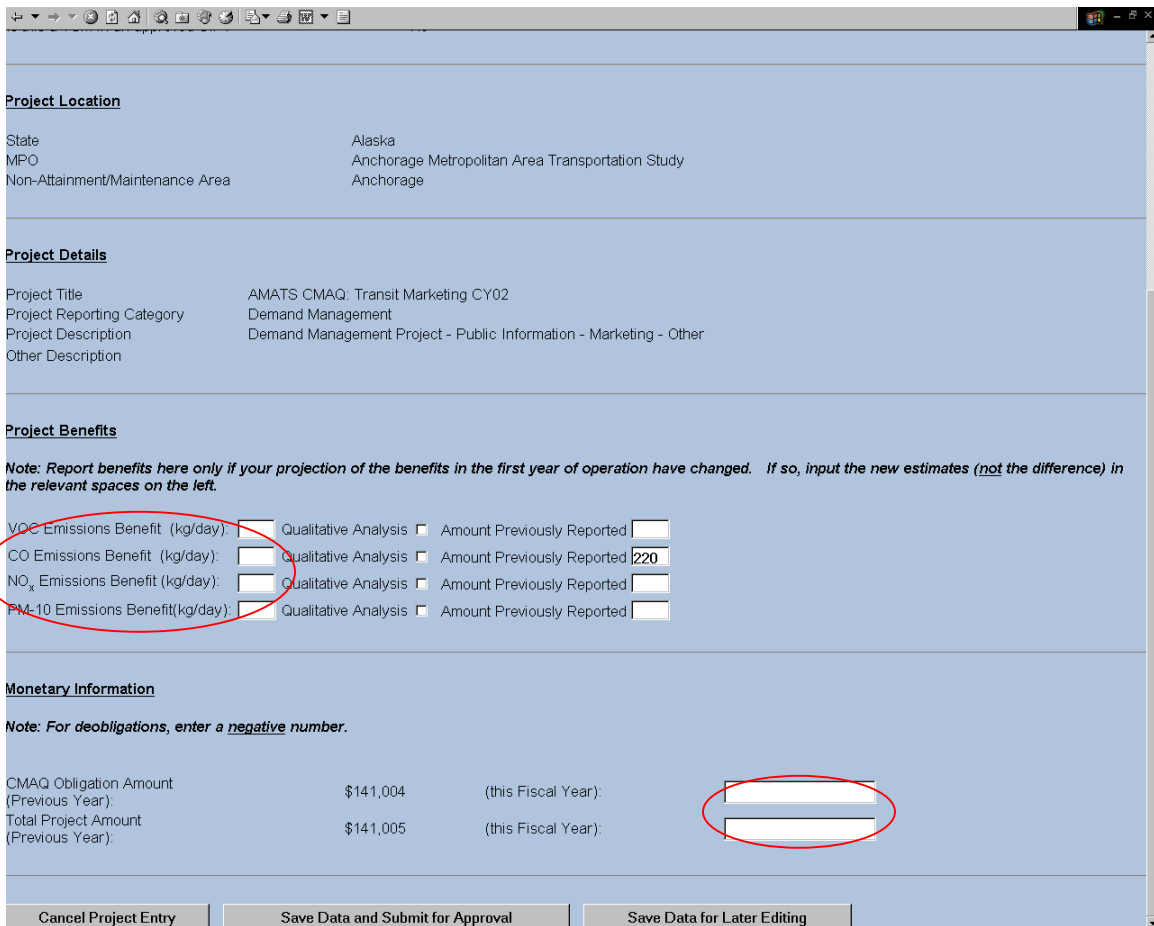


CMAQ Project Id	State	MPO	Non-Attainment/Maintenance Area	Project Year	Project Title	Project Reporting Category	PM-10 Benefit (kg/day)	VOC Benefit (kg/day)	CO Benefit (kg/day)	NO _x Benefit (kg/day)
CA20000001	California	Sacramento Area Council of Governments	Sacramento Metro	2000	Cambridge Road Park and Ride Facility	Shared Ride	0.2	0.3	No Data	0.48
CA20000002	California	Sacramento Area Council of Governments	Sacramento Metro	2000	Park and Ride Facility Right of Way Aquirement	Shared Ride	0.4	0.61	No Data	0.98
CA20000003	California	Sacramento Area Council of Governments	Sacramento Metro	2000	HOV lane Construction	Traffic Flow Improvements	13.72	90.74	No Data	59.31
CA20000004	California	Sacramento Area Council of Governments	Sacramento Metro	2000	City of Lincoln Traffic Signal	Traffic Flow Improvements	No Data	26.59	No Data	24.23
CA20000005	California	Sacramento Area Council of Governments	Sacramento Metro	2000	Ped/Bicycle Bridge for UP Railyard; connect Roseville and Old Town Roseville	Pedestrian/Bicycle	0.3	181.9	12.7	6.8
CA20000006	California	Sacramento Area Council of Governments	Sacramento Metro	2000	Antelope Creek Bikepath-Phase I	Pedestrian/Bicycle	0.18	0.7	No Data	0.55
CA20000007	California	Sacramento Area Council of Governments	Sacramento Metro	2000	ParkN Ride facilities at Auburn and Colfax train stations	Shared Ride	No Data	No Data	No Data	No Data
CA20000008	California	Sacramento Area Council of Governments	Sacramento Metro	2000	TPA Work Program element 30	Traffic Flow Improvements	0.09	0.35	No Data	0.3
CA20000009	California	Sacramento Area Council of Governments	Sacramento Metro	2000	Bikeway from Lakeside Drive to Joiner Parkway along Nicholas Road	Pedestrian/Bicycle	0.16	0.68	No Data	0.51
		Sacramento Area								

Once you click on the CMAQ Project ID, the **Enter Project Information** screen will appear again with options to enter funding information and emissions benefits by fiscal year, and re-save.

Only enter benefits if your projection of the benefits has changed since the previous entry in the system. If no benefits are entered the system will report “PR” (previously reported) in the Detailed Project Listing report. If different benefits are entered, the Detailed Project Listing report will list the *difference* in the year for which you change the benefits. (The system does not go back and adjust benefits reported in previous years.)

Enter information on the CMAQ funds and the total project amount for this fiscal year.



Project Location

State: Alaska
 MPO: Anchorage Metropolitan Area Transportation Study
 Non-Attainment/Maintenance Area: Anchorage

Project Details

Project Title: AMATS CMAQ: Transit Marketing CY02
 Project Reporting Category: Demand Management
 Project Description: Demand Management Project - Public Information - Marketing - Other
 Other Description:

Project Benefits

Note: Report benefits here only if your projection of the benefits in the first year of operation have changed. If so, input the new estimates (not the difference) in the relevant spaces on the left.

VOC Emissions Benefit (kg/day): Qualitative Analysis Amount Previously Reported

CO Emissions Benefit (kg/day): Qualitative Analysis Amount Previously Reported

NO_x Emissions Benefit (kg/day): Qualitative Analysis Amount Previously Reported

PM-10 Emissions Benefit(kg/day): Qualitative Analysis Amount Previously Reported

Monetary Information

Note: For deobligations, enter a negative number.

CMAQ Obligation Amount (Previous Year):	\$141,004	(this Fiscal Year):	<input type="text"/>
Total Project Amount (Previous Year):	\$141,005	(this Fiscal Year):	<input type="text"/>

Buttons: Cancel Project Entry | Save Data and Submit for Approval | Save Data for Later Editing

6. Edit Existing Project Information

To edit project information, select the **Edit Existing Project** option from the **Entry** tab. When selecting this option, a project search form appears, allowing you to select projects based on the criteria entered. Once the search criteria are entered, click the **Get Projects** button.

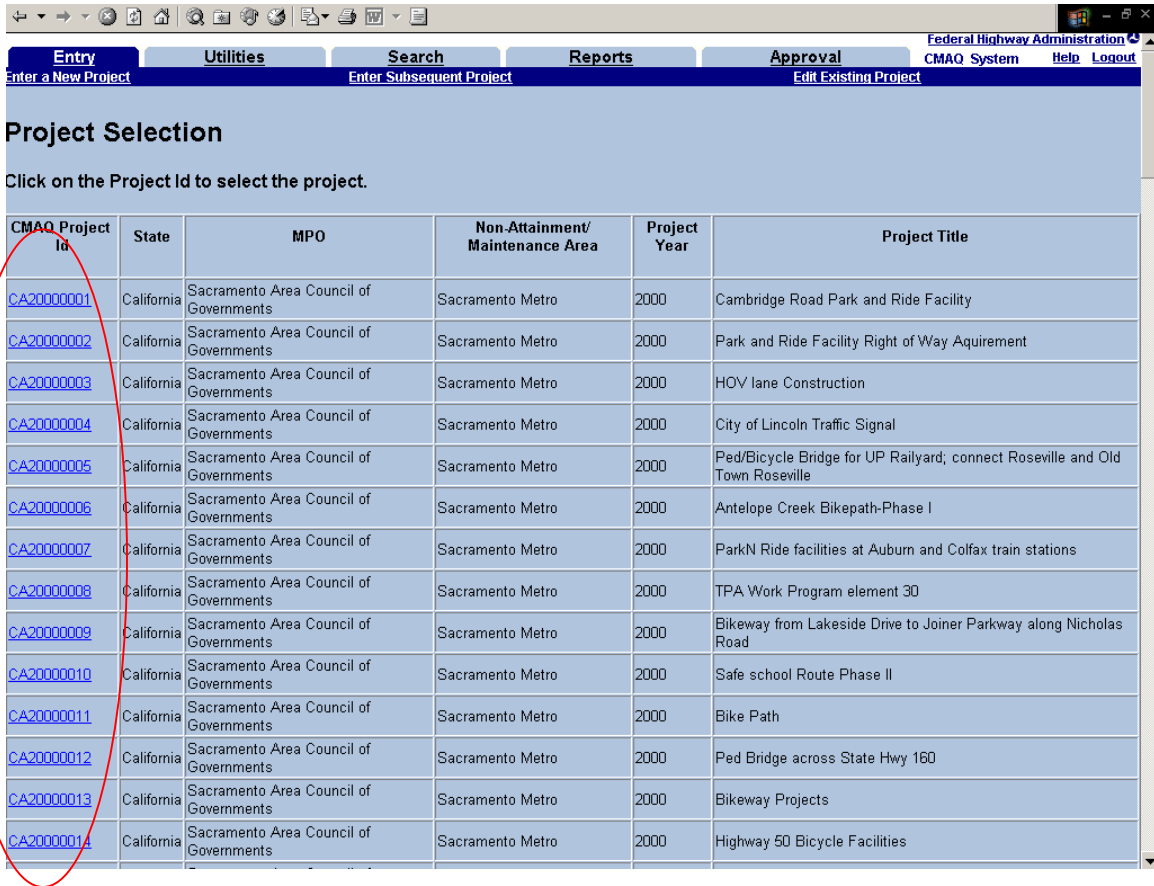
The screenshot displays the 'Project Information Edit' search form within the CMAQ System. The 'Entry' tab is active, and the 'Edit Existing Project' option is highlighted with a red circle. The form includes the following fields:

- Project Year: 2000
- CMAQ Project Id: [Text Input]
- State Project Id: [Text Input]
- FMIS Project Id: [Text Input]
- TIP Project Id: [Text Input]
- MPO: [Dropdown Menu]
- Non-Attainment/Maintenance Area: [Dropdown Menu]
- Project Title: [Text Input]
- Project Reporting Category: [Dropdown Menu]
- PM-10 benefit (kg/day): [Dropdown Menu] [Text Input]
- VOC benefit (kg/day): [Dropdown Menu] [Text Input]
- CO benefit (kg/day): [Dropdown Menu] [Text Input]
- NO_x benefit(kg/day): [Dropdown Menu] [Text Input]

The 'Get Projects' button is located at the bottom left of the form and is circled in red.

A screen with the search results will appear. In this example, the search criteria were “2000” and “California.”

To select one project from the list, click on the **CMAQ Project ID** link in the left column. Once you click on the project, the **Edit Project Data** screen will appear with options to edit project information and to re-save.



CMAQ Project Id	State	MPO	Non-Attainment/ Maintenance Area	Project Year	Project Title
CA20000001	California	Sacramento Area Council of Governments	Sacramento Metro	2000	Cambridge Road Park and Ride Facility
CA20000002	California	Sacramento Area Council of Governments	Sacramento Metro	2000	Park and Ride Facility Right of Way Aquirement
CA20000003	California	Sacramento Area Council of Governments	Sacramento Metro	2000	HOV lane Construction
CA20000004	California	Sacramento Area Council of Governments	Sacramento Metro	2000	City of Lincoln Traffic Signal
CA20000005	California	Sacramento Area Council of Governments	Sacramento Metro	2000	Ped/Bicycle Bridge for UP Railyard; connect Roseville and Old Town Roseville
CA20000006	California	Sacramento Area Council of Governments	Sacramento Metro	2000	Antelope Creek Bikepath-Phase I
CA20000007	California	Sacramento Area Council of Governments	Sacramento Metro	2000	ParkN Ride facilities at Auburn and Colfax train stations
CA20000008	California	Sacramento Area Council of Governments	Sacramento Metro	2000	TPA Work Program element 30
CA20000009	California	Sacramento Area Council of Governments	Sacramento Metro	2000	Bikeway from Lakeside Drive to Joiner Parkway along Nicholas Road
CA20000010	California	Sacramento Area Council of Governments	Sacramento Metro	2000	Safe school Route Phase II
CA20000011	California	Sacramento Area Council of Governments	Sacramento Metro	2000	Bike Path
CA20000012	California	Sacramento Area Council of Governments	Sacramento Metro	2000	Ped Bridge across State Hwy 160
CA20000013	California	Sacramento Area Council of Governments	Sacramento Metro	2000	Bikeway Projects
CA20000014	California	Sacramento Area Council of Governments	Sacramento Metro	2000	Highway 50 Bicycle Facilities

Data that has been saved for later editing can be edited. Similarly, data that has been submitted for approval can also be edited. However, once it has been approved at your level (MPO, State or Division) and thus made ready for review and approval at a higher level, editing the data will require sending it through the review process and approval process again, as discussed below in the section on Approving project data.

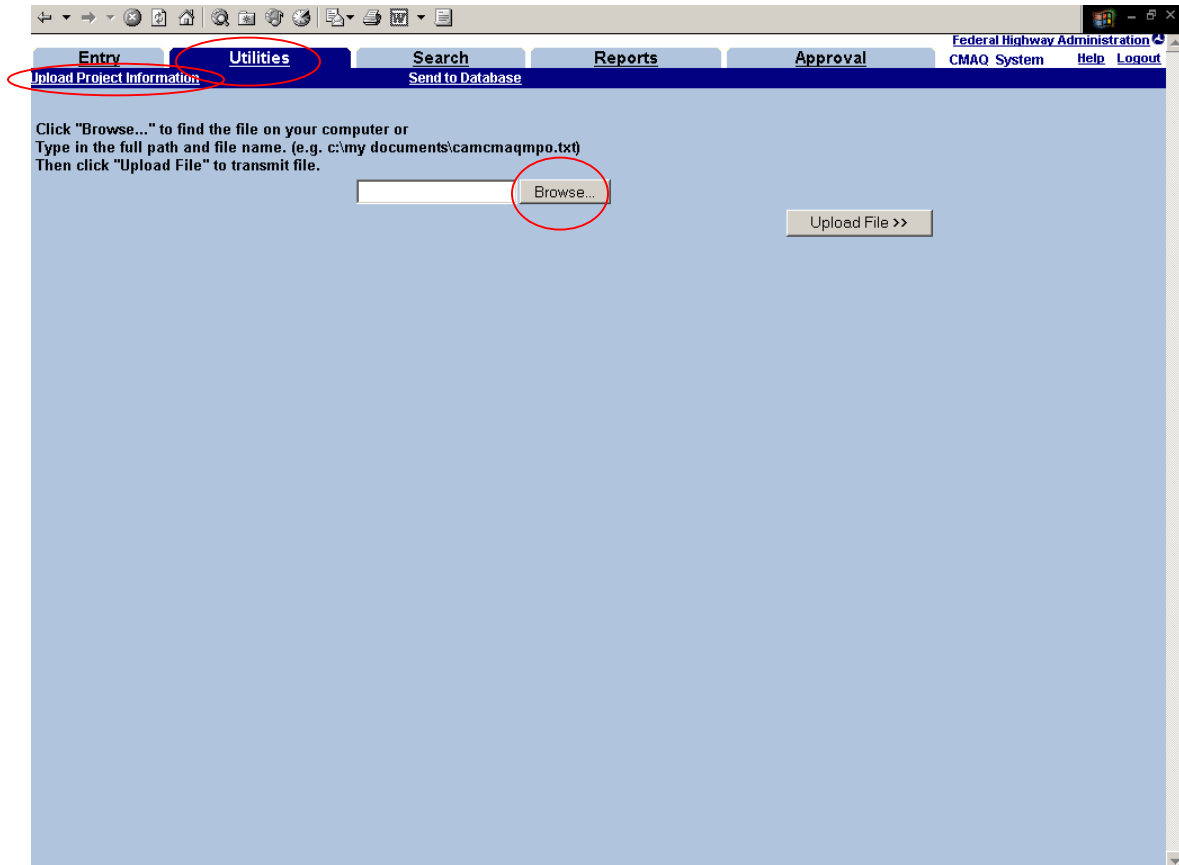
7. Utilities: Uploading Project Information

Project data can be uploaded in batches via the Utilities menu. This function may be of use to users who have already organized their CMAQ project data using a spreadsheet or database application. The process is a two-step process: First, data is uploaded into the system, and then it is sent to the database. Users at all levels can **Upload Project Information**, which entails formatting the data and sending it to a server maintained by FHWA.

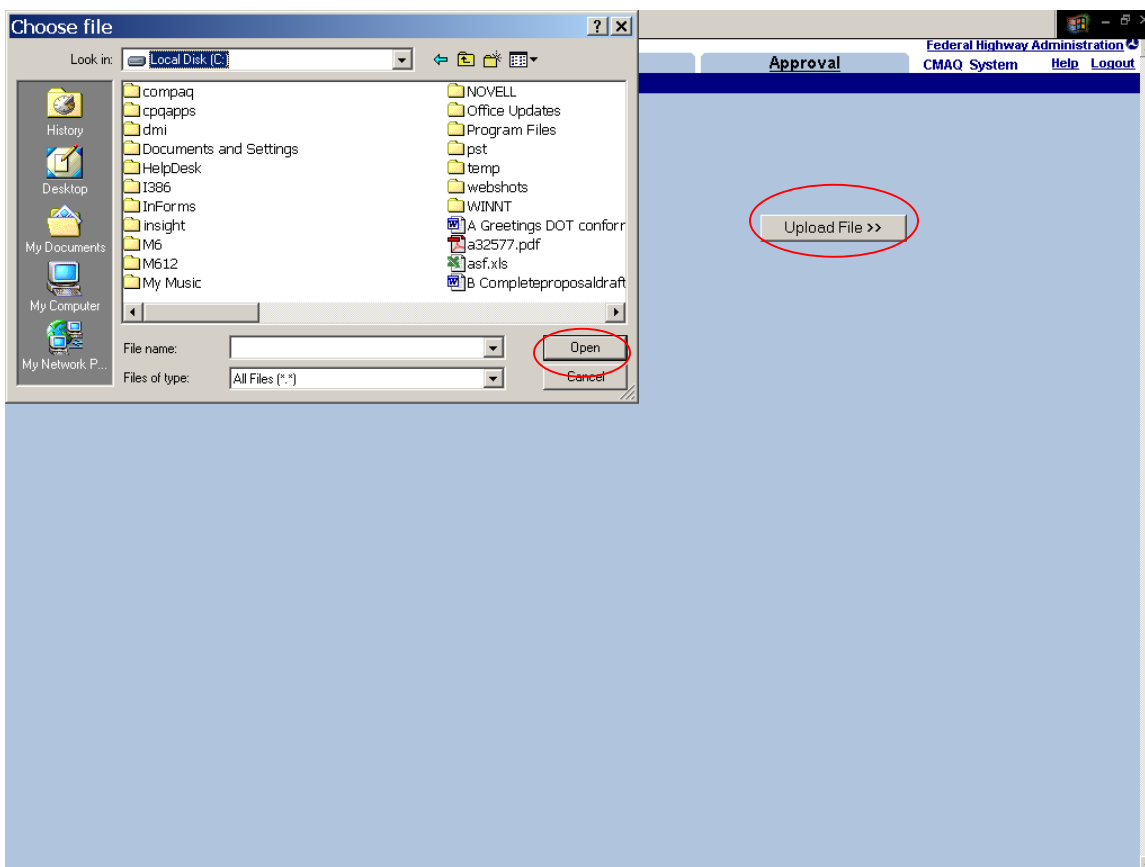
Step 1: Upload Project Information

Prior to uploading project data, first put it into the required format as discussed in Appendices 1 & 2. Systems that can output text files in coma-delimited format can be used to prepare data to be uploaded in a batch into the CMAQ Tracking System.

To upload project information, click on the **Utilities** tab and select **Upload Project Information** link and click the **Browse** button to select a file.

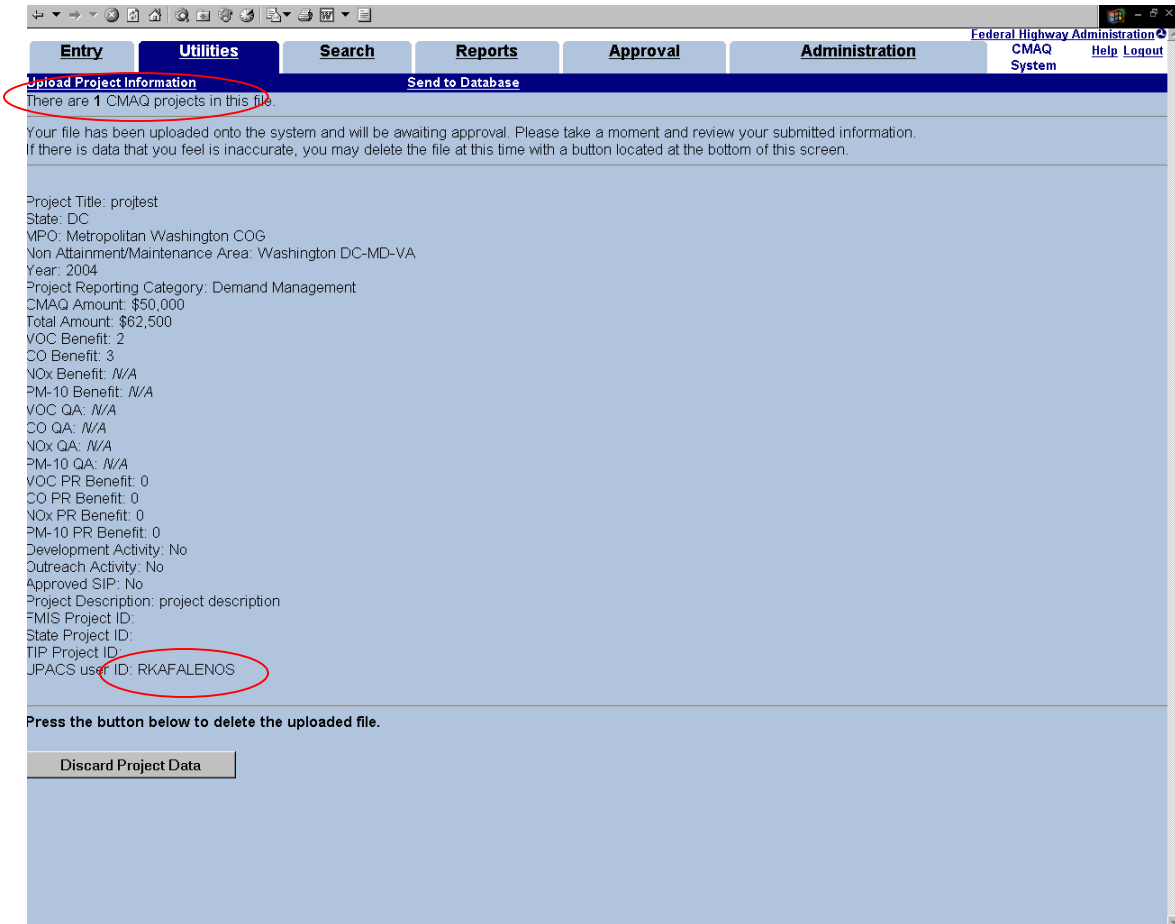


You are now able to select a file from your computer to upload. Once the file is selected, click the **Open** button, and then click the **Upload File** button to proceed.



NOTE: The system will scan uploaded data for proper formatting according to **Appendix 1** at the end of this document. The system will reject data that is not in the proper format, and will report error messages as appropriate.

A confirmation page will appear, displaying the contents of the file and the number of CMAQ projects uploaded. At this point the user can review the data and has the option to **Discard Project Data** if there are any errors. The confirmation page will also display the user's UPACS ID to indicate that the information is coming from that user and that the user will be the point of contact for any issues with that project file.



Step 2: Send to Database

Once files have been successfully uploaded, a user with approval rights at your level will need to send the files to the database using the **Send to Database** command. Then, the project data has to go through the normal approval process

Note: If there is uploaded data waiting to be sent to the database by you (or someone else in your organization with the same approval rights), when you first log into the CMAQ system you will see a note to that effect.

8. Search: Project Search

To search for a project, select the **Search** tab from the main menu. A project search form appears, which allows you to select projects based on the criteria entered. After entering the search criteria for the project, click the **Get Projects** button.

The screenshot shows a web browser window displaying the 'Project Search' form. The browser's address bar shows 'Federal Highway Administration'. The navigation menu at the top includes 'Entry', 'Utilities', 'Search', 'Reports', and 'Approval'. The 'Search' tab is highlighted. The form title is 'Project Search'. Below the title, there is a instruction: 'To find a project, enter search criteria to bring back a list of possible projects.' The form contains several input fields: 'Project Year' (2000), 'Approval Status', 'CMAQ Project Id', 'State Project Id', 'FMIS Project Id', 'TIP Project Id', 'State' (California), 'MPO', 'Non-Attainment/Maintenance Area', 'Project Title', 'Project Reporting Category', and four air quality benefit fields (PM-10, VOC, CO, NO_x) each with a range selector and an input field. A 'Get Projects' button is located at the bottom left of the form.

You can run a search on a variety of different parameters, including: Project year, CMAQ Project ID, one of the optional IDs, the MPO (if you are a State or Division user), the nonattainment area, etc. Alternatively, you can search for projects based on a range of air quality benefits. If you are searching using part of the project title, put an asterisk (*) directly after the word, and the system will search for titles that contain those words.

After entering the search criteria and hitting **Get Projects**, this is what you get. You can click on **CMAQ Project IDs** to view project details, however, data cannot be edited using the search tab.



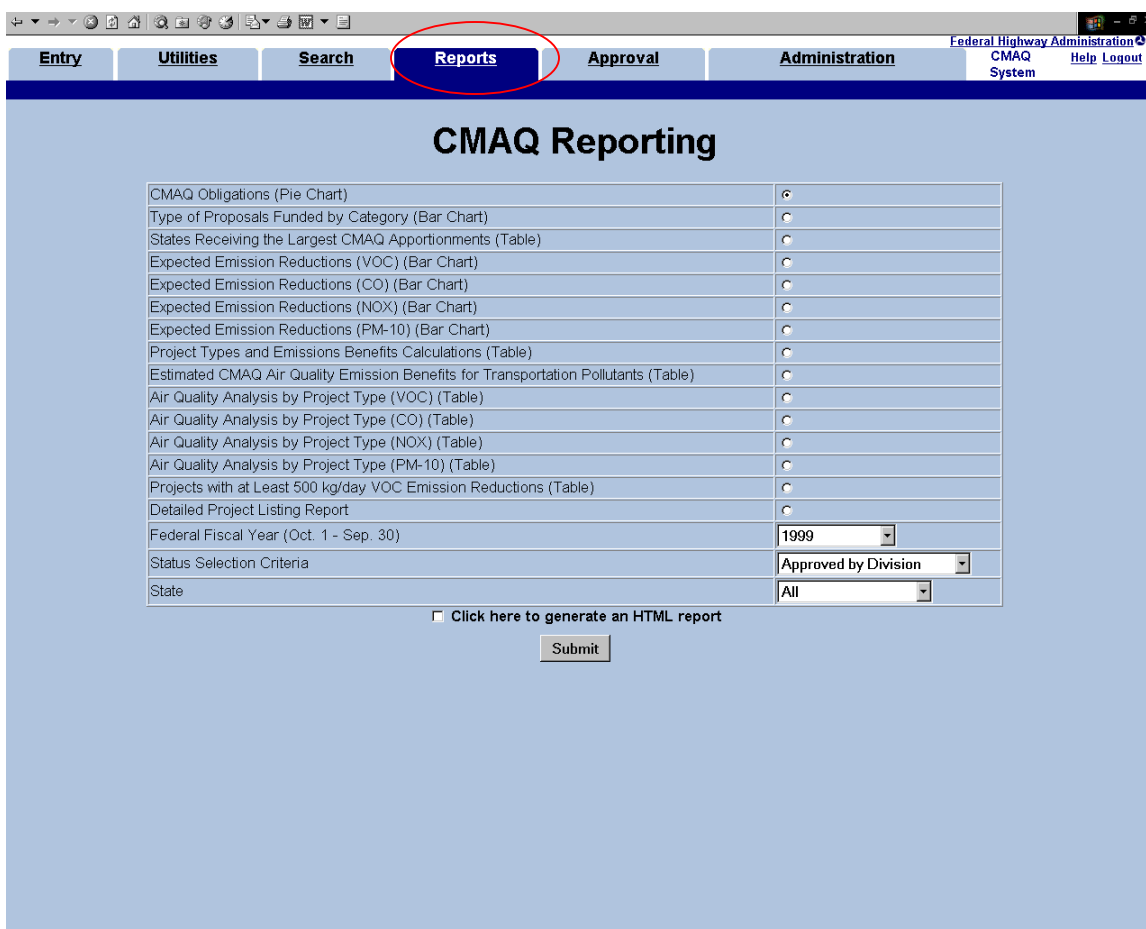
The screenshot shows a web browser window with the 'Search' tab selected. The page title is 'Project Selection' and it includes a navigation menu with 'Entry', 'Utilities', 'Search', 'Reports', and 'Approval'. Below the navigation is a table with 12 columns: CMAQ Project Id, Approval Status, State, MPO, Non-Attainment/Maintenance Area, Project Year, Project Title, Project Reporting Category, PM-10 Benefit (kg/day), VOC Benefit (kg/day), CO Benefit (kg/day), and NO_x Benefit (kg/day). The table lists 10 projects, all from the Sacramento Area Council of Governments in California, with a project year of 2000. The projects include Cambridge Road Park and Ride Facility, Park and Ride Facility Right of Way Requirement, HOV lane Construction, City of Lincoln Traffic Signal, Ped/Bicycle Bridge for UP Railyard, Antelope Creek Bikepath-Phase I, ParkN Ride facilities at Auburn and Colfax train stations, TPA Work Program element 30, and Bikeway from Lakeside Drive to Joiner Parkway along Nicholas Road.

CMAQ Project Id	Approval Status	State	MPO	Non-Attainment/Maintenance Area	Project Year	Project Title	Project Reporting Category	PM-10 Benefit (kg/day)	VOC Benefit (kg/day)	CO Benefit (kg/day)	NO _x Benefit (kg/day)
CA20000001	Entered by State	California	Sacramento Area Council of Governments	Sacramento Metro	2000	Cambridge Road Park and Ride Facility	Shared Ride	0.2	0.3	No Data	0.48
CA20000002	Entered by HQ	California	Sacramento Area Council of Governments	Sacramento Metro	2000	Park and Ride Facility Right of Way Requirement	Shared Ride	0.4	0.61	No Data	0.98
CA20000003	Entered by HQ	California	Sacramento Area Council of Governments	Sacramento Metro	2000	HOV lane Construction	Traffic Flow Improvements	13.72	90.74	No Data	59.31
CA20000004	Entered by HQ	California	Sacramento Area Council of Governments	Sacramento Metro	2000	City of Lincoln Traffic Signal	Traffic Flow Improvements	No Data	26.59	No Data	24.23
CA20000005	Entered by HQ	California	Sacramento Area Council of Governments	Sacramento Metro	2000	Ped/Bicycle Bridge for UP Railyard, connect Roseville and Old Town Roseville	Pedestrian/Bicycle	0.3	181.9	12.7	6.8
CA20000006	Entered by HQ	California	Sacramento Area Council of Governments	Sacramento Metro	2000	Antelope Creek Bikepath-Phase I	Pedestrian/Bicycle	0.18	0.7	No Data	0.55
CA20000007	Entered by HQ	California	Sacramento Area Council of Governments	Sacramento Metro	2000	ParkN Ride facilities at Auburn and Colfax train stations	Shared Ride	No Data	QA	No Data	No Data
CA20000008	Entered by HQ	California	Sacramento Area Council of Governments	Sacramento Metro	2000	TPA Work Program element 30	Traffic Flow Improvements	0.09	0.35	No Data	0.3
CA20000009	Entered by HQ	California	Sacramento Area Council of Governments	Sacramento Metro	2000	Bikeway from Lakeside Drive to Joiner Parkway along Nicholas Road	Pedestrian/Bicycle	0.16	0.68	No Data	0.51

The **Project Year** can be set to “ALL”. If you run this type of search, on the Project Selection Screen multiple years of the same project (according to CMAQ Project ID) will be grouped together.

9. Reports: Generating Reports

To generate a report, select the **Reports** tab from the main menu. Choose from a list of reports by selecting the radio button next to the report description. The system creates the reports using Crystal Viewer software, which should automatically download to your computer when you first run a report. Alternatively, the system will generate an HTML version if you select HTML report at the bottom of the screen.



Report Description	Selection
CMAQ Obligations (Pie Chart)	<input type="radio"/>
Type of Proposals Funded by Category (Bar Chart)	<input type="radio"/>
States Receiving the Largest CMAQ Apportionments (Table)	<input type="radio"/>
Expected Emission Reductions (VOC) (Bar Chart)	<input type="radio"/>
Expected Emission Reductions (CO) (Bar Chart)	<input type="radio"/>
Expected Emission Reductions (NOX) (Bar Chart)	<input type="radio"/>
Expected Emission Reductions (PM-10) (Bar Chart)	<input type="radio"/>
Project Types and Emissions Benefits Calculations (Table)	<input type="radio"/>
Estimated CMAQ Air Quality Emission Benefits for Transportation Pollutants (Table)	<input type="radio"/>
Air Quality Analysis by Project Type (VOC) (Table)	<input type="radio"/>
Air Quality Analysis by Project Type (CO) (Table)	<input type="radio"/>
Air Quality Analysis by Project Type (NOX) (Table)	<input type="radio"/>
Air Quality Analysis by Project Type (PM-10) (Table)	<input type="radio"/>
Projects with at Least 500 kg/day VOC Emission Reductions (Table)	<input type="radio"/>
Detailed Project Listing Report	<input type="radio"/>
Federal Fiscal Year (Oct. 1 - Sep. 30)	1999
Status Selection Criteria	Approved by Division
State	All

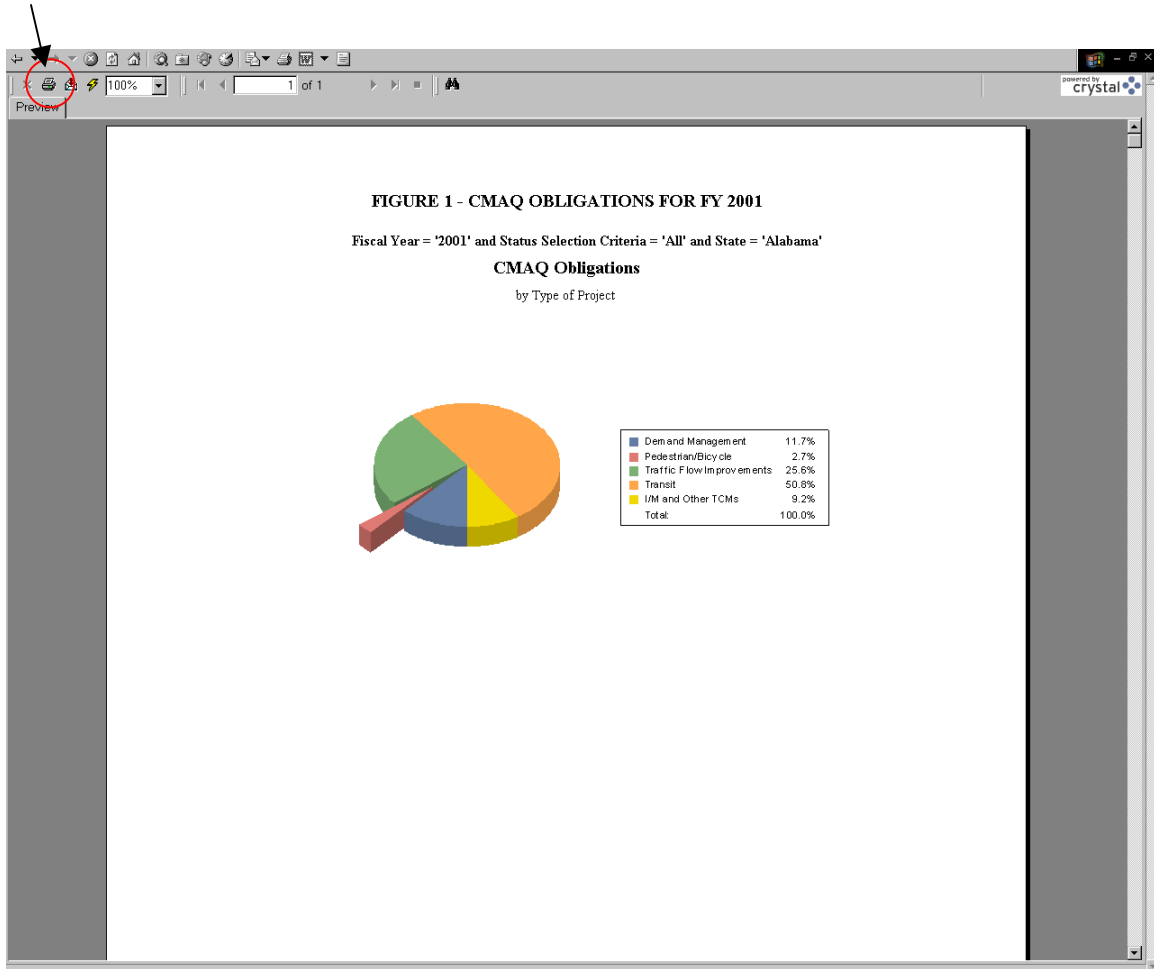
Click here to generate an HTML report

Select a single **Federal Fiscal Year**, or select “By Fiscal Year” to generate reports for each year listed.

Set the **Status Selection Criteria** to all to include all data regardless of approval status. Alternatively, you can specify the Status: Entered means projects for which data has been entered and saved for later editing. Submitted indicates projects for which data has been entered and then the submit data for approval button has been hit. Approved picks up projects that have been approved. Generally the system lets the user see only the projects for their geographic region. However, any user can view reports on all projects that have been Approved by HQ.

These reports are used in putting together the annual National CMAQ report. MPO and State users may find the reports useful in presenting data on the CMAQ program in their area.

Once you submit a report to view, a new window will appear with the requested report. To print this report, click on the **print icon** in the report window.



The **Detailed Project Listing Report**, produces a spreadsheet report. This can also be exported to Excel to produce an Excel version. The button to click for **exporting to Excel** is circled.

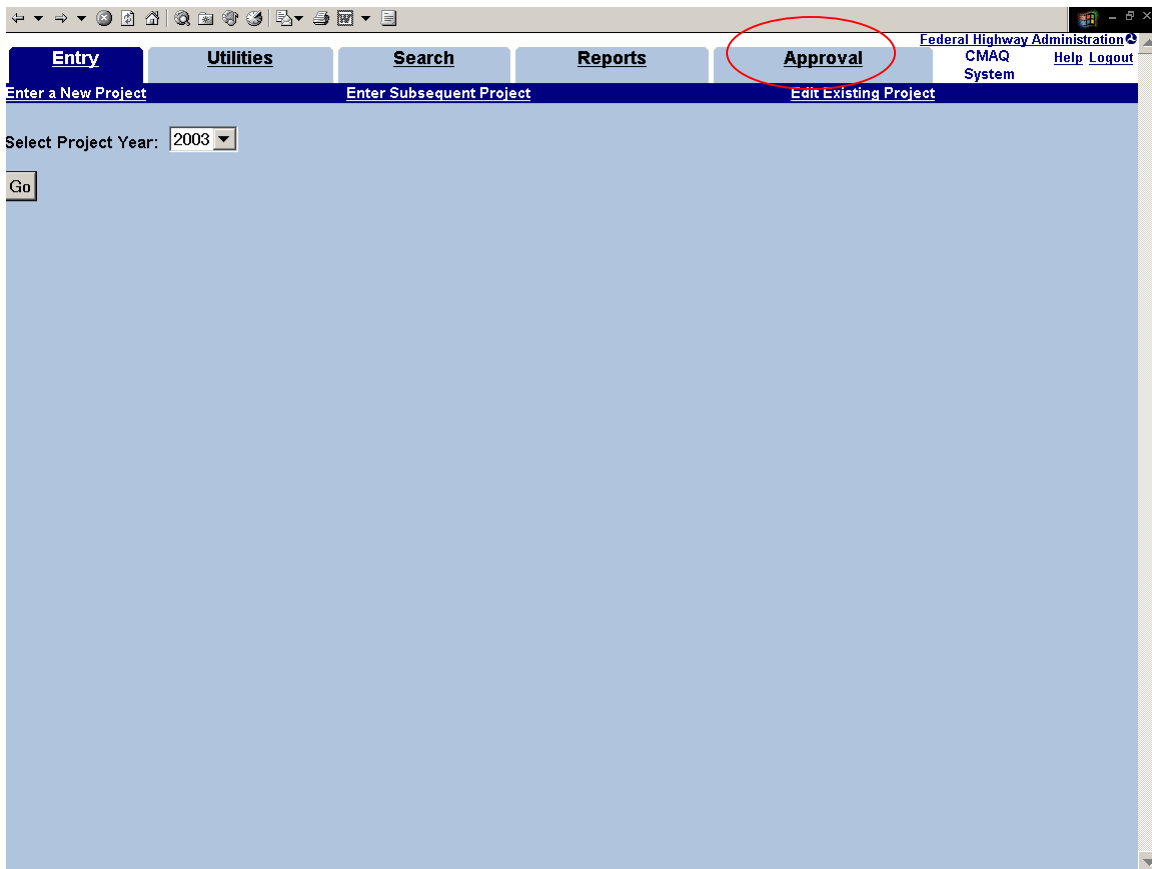
The screenshot shows a web browser window displaying a report titled "CMAQ DETAILED PROJECT LISTING REPORT (FY 2001)". The report is dated "09-January" and specifies "Fiscal Year = '2001' and Status Selection Criteria = 'All' and State = 'Alabama'". A button labeled "Click here to generate Excel spreadsheet" is circled in red. Below the button is a table with 10 columns: STATE, REPORT SUBMIT, APPORTION. AMOUNT, OBLIGATED AMOUNT, OBLIG. %, PROJECT AMOUNT, PROJECT TYPE, PROJECT TITLE & DESCRIPTION, VOC (Kg/Day), CO (Kg/Day), and NOx (Kg/Day). The table lists 11 project entries for Alabama, including various traffic flow improvements, demand management, and pedestrian/bicycle projects.

STATE	REPORT SUBMIT	APPORTION. AMOUNT	OBLIGATED AMOUNT	OBLIG. %	PROJECT AMOUNT	PROJECT TYPE	PROJECT TITLE & DESCRIPTION	VOC (Kg/Day)	CO (Kg/Day)	NOx (Kg/Day)
Alabama	1/09/2003	\$8,734,015	\$9,576,290	110 %						
Alabama					\$1,120,000	Demand Management	Ozone Awareness Program Demand Management Project - Public Information - Public Education - Other - Ozone Awareness	QA		QA
Alabama					\$881,000	IM and Other TCMs	ASAP Service Patrol IM or Other TCM Project - Other - Service Patrol - new	2		1
Alabama					\$193,760	Pedestrian/Bicycle	Trussville Greenway and Walkway Trail Pedestrian/Bicycle Project - Facilities - Separate Path	QA		
Alabama					\$63,717	Pedestrian/Bicycle	Homewood-Shades Creek Greenway Pedestrian/Bicycle Project - Facilities - Separate Path	QA		
Alabama					\$640,000	Traffic Flow Improvements	ASAP Service Patrol Traffic Flow Project - Other - Incident management Service Patrol	2		1
Alabama					\$620,000	Traffic Flow Improvements	Congestion Management TCC Operations Traffic Flow Project - Congestion Management Systems - Establishment - TCC Operations	12		2
Alabama					\$513,280	Traffic Flow Improvements	Hoover Area Cong/Incident Management Project Traffic Flow Project - Congestion Management Systems - Implementation - Upgrade	QA		
Alabama					\$297,871	Traffic Flow Improvements	US-31 Closed Loop System I-65 - Riverchase Flow Traffic Flow Project - Traffic Engineering - Closed loop system - Other	12		2
Alabama					\$240,000	Traffic Flow Improvements	Arenville Jefferson & Shelby Cong. Mng. Syst. Traffic Flow Project - Congestion Management Systems - Implementation - Upgrade	QA		

10. Approval: The Approval Process

At least one user at the MPO, State and Division level has final approval rights over data submitted by users in the same organization. Additionally, users with approval rights in the State and Division can approve data that has been approved by the next lowest level. Project data approved by the MPO is reviewed and ultimately approved by the State. Project data approved by the State is reviewed and ultimately approved by the Division. And, finally, project data approved by the Division is ultimately reviewed and approved by Headquarters. The annual National CMAQ Report is based solely on projects approved by Headquarters.

To select a project to approve, click on the **Approval** tab. Select a project year from the dropdown list to retrieve a list of projects awaiting approval, and click **Go**.



(Note: If you need approval rights, contact the Division's CMAQ person or one of the headquarters people listed on the Help page under "Contacts.")

Main Approval Screen

If you have already reviewed the project data, check the box next to the projects you want to approve and click on the **Approve Selections** button at the bottom of the page.

Clicking the **Clear Selections** removes any checks in the boxes in the left column.

The screenshot shows a web browser window displaying the 'Project Approval Selection for the state of California for FY 2002' page. The page has a navigation menu with 'Entry', 'Utilities', 'Search', 'Reports', and 'Approval' tabs. The 'Approval' tab is active, and the page title is 'Project Approval Selection for the state of California for FY 2002'. Below the title, there is a sub-header 'Project Approval Selection for the state of California for FY 2002' and a brief instruction: 'Use this screen to approve data for multiple projects. Or, click on individual Project IDs to review/approve/or reject data for individual projects.'

Click here to view data	MPO	Non-Attainment/Maintenance Area	Project Title	Project Reporting Category	Project Description	PM-10 Benefit (kg/day)	VOC Benefit (kg/day)	CO Benefit (kg/day)	NO _x Benefit (kg/day)
					Additional Description				
<input checked="" type="checkbox"/> CA20020001	Sacramento Area Council of Governments	Sacramento Metro	Time traffic lights	Traffic Flow Improvements	Traffic Flow Project - Traffic Engineering - Retime lights at 20 intersections on Capital Blvd. - Other	No Data	2.5	10	1.1
					No Data				

At the bottom of the table, there are two buttons: 'Clear Selections' and 'Approve Selections'.

Approval Actions on Individual Projects

Click on the Project ID link to view or change information on a specific project. The “Data Approval” screen will come up. From this screen you can approve the data by clicking the **Approve** button. You can also **Edit** the data, if necessary, prior to approving it. Remember that if you edit any data that the system will not save your changes until you click the **Save** button (not shown) at the bottom of the screen.

The screenshot shows a web browser window with the following elements:

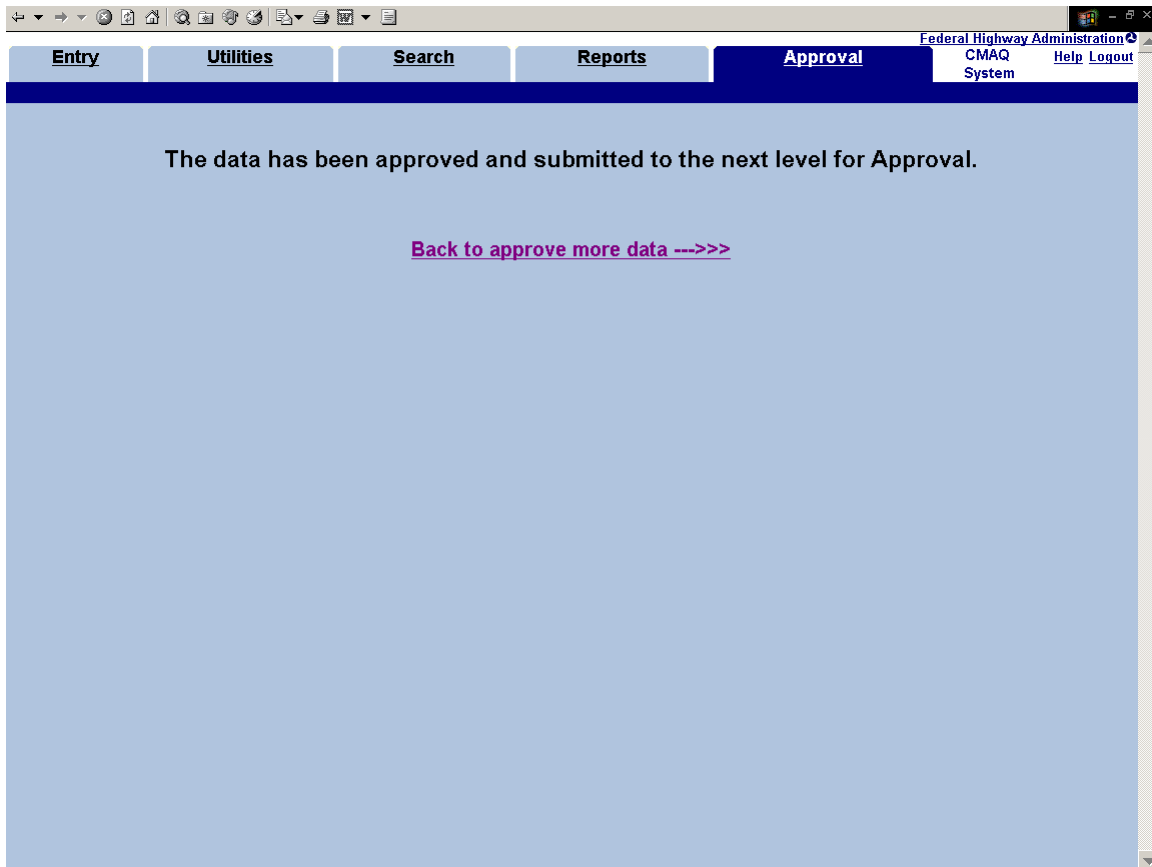
- Navigation Tabs:** Entry, Utilities, Search, Reports, Approval (selected), Federal Highway Administration, CMAQ System, Help, Logout.
- Title:** Data Approval
- Instructions:**

This screen allows you to focus on individual projects. Click "approve" if all the information is correct. Click "edit" to change any of the information. If you edit the data, click "save" to update the database.

Click "reject and send back for corrections" if you want the data corrected by the person who last modified it and/or the person who originally entered it.
- Action Buttons:** Approve, Edit, Reject and Send Back for Corrections
- Project Information Table:**

Project Information	
Project Year	2002
CMAQ Project Id	CA20020001
State Project Id	
FMS Project Id	
TIP Project Id	
Is this a planning or project development activity?	No
Is this an outreach activity?	No
Is this a TCM in an approved SIP?	No

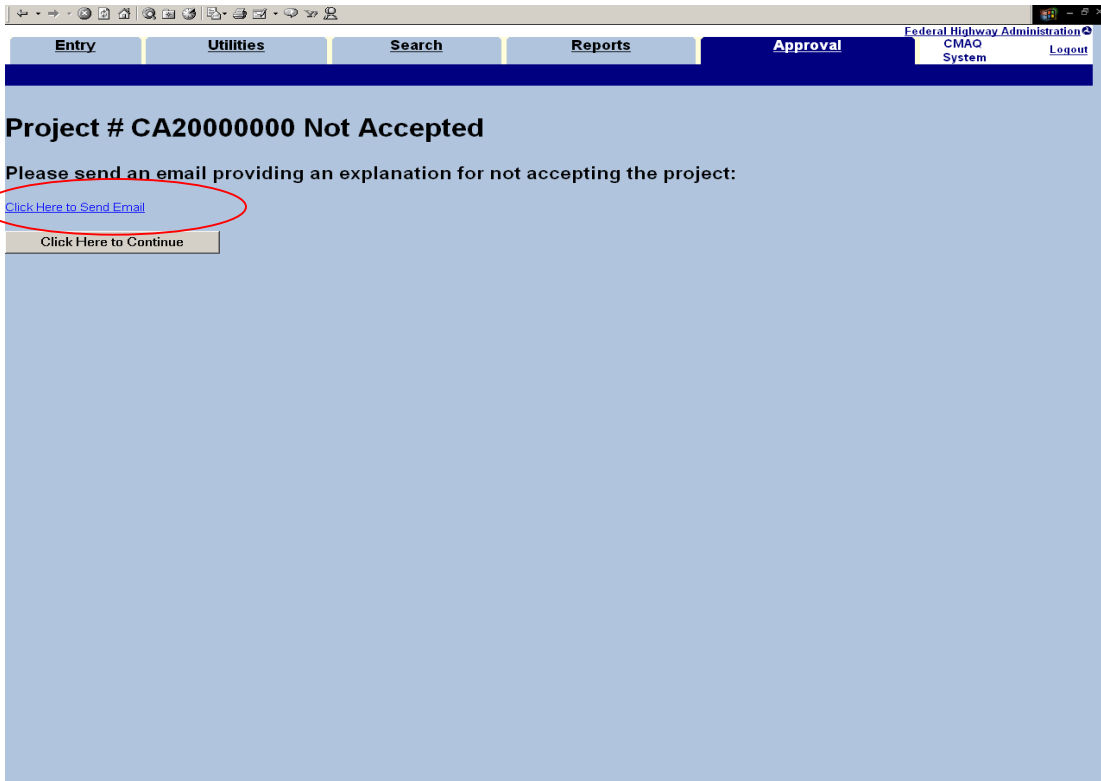
If you approve individual project data, a confirmation screen will appear confirming that the project has been approved.



Note: Once project data for a particular year has been approved by headquarters for the annual report, it is locked and cannot be adjusted through normal means.

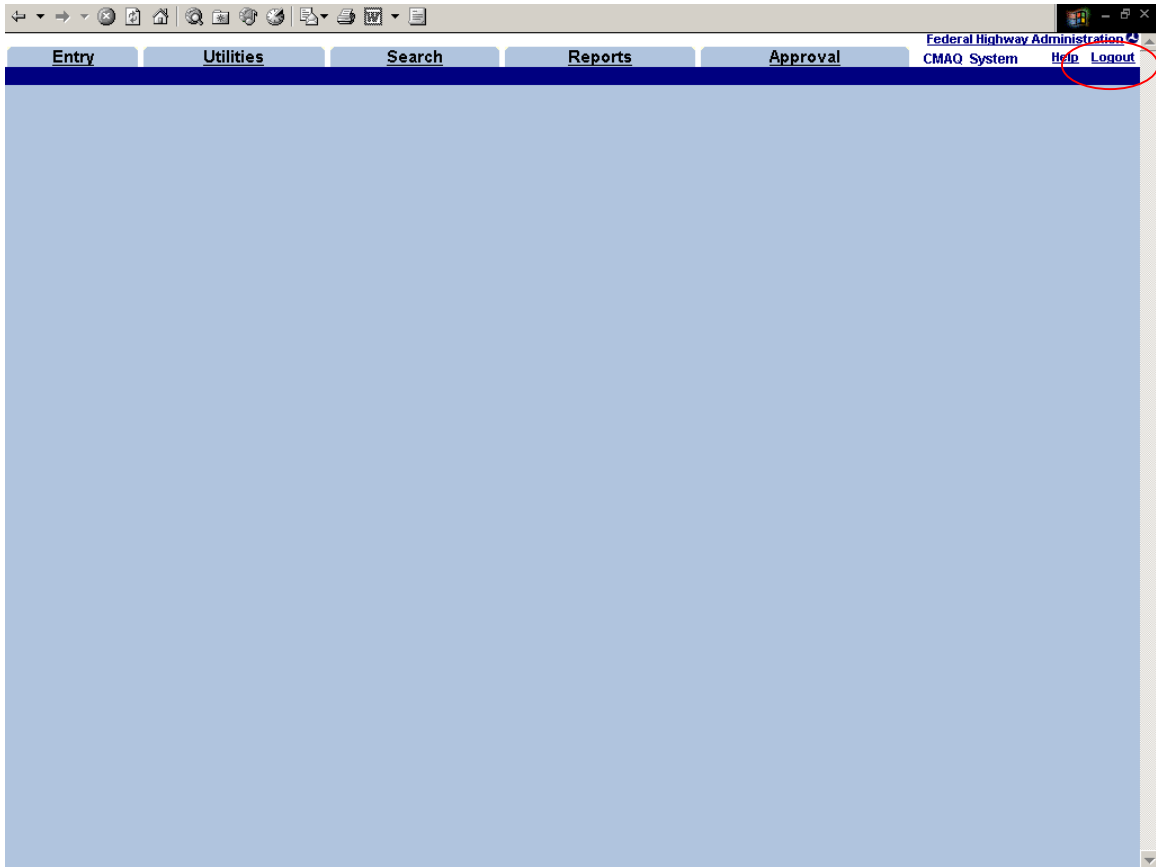
If there is data waiting to be approved by you (or someone else in your organization with the same approval rights), when you first log into the CMAQ system you will see a note to that effect.

Lastly, you can choose to reject data and return it for clarification by clicking the **Reject and Send Back for Corrections** button. Note that the system automatically creates an e-mail for you to notify the users who submitted and approved the project data, and includes the project number. You can use this e-mail to give the reasons for rejecting the data. The e-mail automatically includes the project number.



11. Logging Out of CMAQ

To log out of CMAQ, click the **Logout** link on the menu bar.



This will return you to the UPACS menu, where you can log out of UPACS or make another selection from the UPACS menu.

Appendix 1: The Upload process

Information for a particular CMAQ project may have already been compiled through other software packages. The upload process for the CMAQ System is a process designed to provide users with the ability to send one or many CMAQ projects to the System without having to enter them individually through the System. With this process, a user can take the information collected with other software, convert it to the correct format, and send it in one file to the System.

Naming Convention

The upload process looks specifically for comma delimited files. The file should be saved in either .txt or .csv format. The required naming convention per file is as follows:

A two-letter state abbreviation (e.g., AL = Alabama, CA = California, WV = West Virginia, etc...), followed by the user level (e.g., H = Headquarters, D = Division, S = State, M = MPO), followed by the User Profile and Access Control System (UPACS) ID, followed by additional optional numbers.

Example: masjlennon123.txt (for Massachusetts State DOT user John Lennon)

File Format

These text files must be comma delineated. In other words, a comma **MUST** separate each piece of information contained in the file. There is a particular format that **MUST** be adhered to which is listed below. All CMAQ upload files **MUST** contain the following fields (either as valid data or a blank separated by a comma, and in order):

CMAQ Project's Title, CMAQ Project's State, CMAQ Project's MPO, CMAQ Project's Non-Attainment Area, CMAQ Project's Year, CMAQ Project Reporting Category, Total CMAQ Amount, Total Project Amount, VOC Benefit/ Qualitative Analysis *, CO Benefit/ Qualitative Analysis *, NOx Benefit/Qualitative Analysis *, PM10 Benefit/Qualitative Analysis *, Previously recorded VOC benefit, Previously recorded CO benefit, Previously recorded NOx benefit, Previously recorded PM10 benefit, CMAQ Project's Development Activity, CMAQ Project's Outreach, CMAQ Project's Approval SIP, CMAQ Project Description, Project's FMIS ID, Project's STATE ID, and Project's TIP ID

***A project should list either a quantitative benefit (in kg/day) or a qualitative analysis, but NOT both.**

A user-friendly version of this breakdown can be found on-line in the CMAQ System under “Upload File Help.” (Once you enter the System, go to: Utilities—Upload Project Information—Upload File Help). Upload File Help lists all the fields and the required parameters for the data. Please note that there is also a short summary of this process found under the main Help icon found on the right side of the main page.

Specific things to keep in mind when using the upload utility include:

- Each field must be separated by a single comma. Even if the field is blank (e.g., for some of the benefits fields), still include a comma to represent the field.
- Do not include any commas within a field (for example, the project title) because the System will read it as the start of the next field
- Double quotes (“”) are not allowed
- One project per line
- Do not use any formatting to fit the margins of your text editor

If any of the required fields are missing or out of place, the data would be considered corrupt and the entire file would be rejected. The System informs the user as to whether a file is accepted or rejected.

Keep in mind that at least one of the eight emissions benefits fields needs data in it for the System to accept the upload. See the Upload Data Schema below for specific guidelines on the data in each field.

Once a file has been uploaded into the System, it is irretrievable and awaits an user with approval rights to send it to the data base.

An upload file that looks like this:

projtest,DC,Metropolitan Washington COG,Washington DC-MD-VA,2004,Demand Management,50000,62500,2,3,,,,,,,,,No,No,No,project description,,,

Will look like this once it has been uploaded into the system:

There are **1** CMAQ projects in this file.

Your file has been uploaded onto the system and will be awaiting approval. Please take a moment and review your submitted information.
If there is data that you feel is inaccurate, you may delete the file at this time with a button located at the bottom of this screen.

Project Title: projtest
State: DC
MPO: Metropolitan Washington COG
Non Attainment/Maintenance Area: Washington DC-MD-VA
Year: 2004
Project Reporting Category: Demand Management
CMAQ Amount: \$50,000
Total Amount: \$62,500
VOC Benefit: 2
CO Benefit: 3
NOx Benefit: N/A
PM-10 Benefit: N/A
VOC QA: N/A
CO QA: N/A
NOx QA: N/A
PM-10 QA: N/A
VOC PR Benefit: 0
CO PR Benefit: 0
NOx PR Benefit: 0
PM-10 PR Benefit: 0
Development Activity: No
Outreach Activity: No
Approved SIP: No
Project Description: project description
FMIS Project ID:
State Project ID:
TIP Project ID:
UPACS user ID: RKAFALENOS

Upload Data Schema

FILE FORMAT				
Field Order and name/description	Field Size	Field Type	Required?(Y/N)	Examples
1)CMAQ Project's Title	80	Character	Y	
2)CMAQ Project's State	20	Character	Y	
3)CMAQ Project's MPO	90	Character See Figure 2	Y	
4)CMAQ Project's Non-Attainment Area	50	Character See Figure 3	Y	
5)CMAQ Project's Fiscal Year	4	Numeric	Y	2002
6) CMAQ Project Reporting Category	40	Character See Figure 1	Y	
7)Total CMAQ Amount	9,2	Numeric	Y	100000 or 500.50
8)Total Project Amount	9,2	Numeric	Y	5000000 or 8500.45
9)VOC Benefit or Qualitative Analysis	8,4 or "Y"	Numeric for benefit, "Y" for QA	Y	50.1456 or 50.2 or 50 or Y
10)CO Benefit or Qualitative Analysis	8,4 or "Y"	Numeric for benefit, "Y" for QA	Y	50.1456 or 50.2 or 50 or Y
11)NOx Benefit or Qualitative Analysis	8,4 or "Y"	Numeric for benefit, "Y" for QA	Y	50.1456 or 50.2 or 50 or Y

12)PM10 Benefit or Qualitative Analysis	8,4 or "Y"	Numeric for benefit, "Y" for QA	Y	50.1456 or 50.2 or 50 or Y
13)Previously recorded VOC benefit	8,4	Numeric	N	50.1456 or 50.2 or 50
14)Previously recorded CO benefit	8,4	Numeric	N	50.1456 or 50.2 or 50
15)Previously recorded NOx benefit	8,4	Numeric	N	50.1456 or 50.2 or 50
16)Previously recorded PM10 benefit	8,4	Numeric	N	50.1456 or 50.2 or 50
17)Question: Is this a planning or development Activity?	3	Character; YES or NO	Y	YES
18)Question: Is this an outreach activity?	3	Character; YES or NO	Y	NO
19)Question: Is this a TCM in an approved SIP?	3	Character; YES or NO	Y	NO
20) CMAQ Project Description	254	Character	Y	
21) Project's FMIS ID	12	Character	N	
22) Project's State ID As reported to FMIS System	20	Character	N	
23) Project's TIP ID As reported to FMIS System	20	Character	N	