



**DATE:** June 6, 2017

**TO:** Mayor and Council Members

**FROM:** Nils Bentsen, City Manager

**BY:** Michael Blay, Director of Development Services  
Tina Souza, Management Analyst

**SUBJECT:** Mojave Desert Air Quality Management District (MDAQMD) AB 2766 Mobile Source Emission Reduction Grant

---

### **RECOMMENDED ACTION**

It is recommended that the City Council adopt Resolution 2017-030 1) accepting \$484,482 in grant funds from the Mojave Desert Air Quality Management District (MDAQMD) for Phase II of the Main Street Traffic Signal Synchronization Project adaptive signal operation; and 2) authorizing appropriation of \$158,600 to complete the project; and 3) authorizing the City Manager to execute the Agreement with MDAQMD pertaining to said grant funds; and 4) authorizing City Manager or his designee to execute and submit to MDAQMD any and all other documents related to the grant as may be necessary for completion of the project.

### **BACKGROUND**

The Mojave Desert Air Quality Management District (MDAQMD) has established the Mobile Source Emission Reduction Competitive Bidding Program to award funds to local governments, other government agencies, private sector businesses, educational institutions and research institutions capable of effectively utilizing funds to reduce mobile emissions. The MDAQMD issued this Call for Projects (CFP) to solicit proposals for projects that will:

- reduce air pollution emissions from motor vehicles; or
- establish public education programs that support, and do not duplicate, any of the MDAQMD's efforts relative to reduction of pollution from motor vehicles.

Assembly Bill 2766 (Sher, 1990) authorized air pollution control, and air quality management districts to impose a \$1 to \$4 motor vehicle registration fee to provide funds for districts to meet new responsibilities mandated under the California Clean Air Act (CCAA). As codified in the California Health & Safety Code (H & S Code) §§44220 et seq., AB 2766 states that the fees shall be used to support programs that reduce air pollution from motor vehicles and for related planning, monitoring, enforcement and technical studies necessary to implement the CCAA. A portion of these funds are passed through to cities annually to use for similar purposes.

On June 30, 1995, the California Air Resources Board (CARB) approved and submitted a report to the California State Legislature regarding the AB 2766 fee program. This report included proposed criteria and guidelines for districts to use in their allocation of the motor vehicle registration funds. These guidelines suggest that at least 50 percent of the total funds in a region should be used for projects that directly reduce mobile source emissions.

The MDAQMD Governing Board has allocated 25% of available AB 2766 funds for a recurring competitive grant program. On August 23, 1999, the MDAQMD Governing Board approved the latest version of the Mobile Source Emission Reductions Program Work Plan (Work Plan), and this CFP has been prepared to conform to the provisions of the Work Plan.

In September 2015 the City Council accepted grant funds from a previous CFP issued by MDAQMD in the amount of \$246,200 with City matching funds of \$357,500. This grant was utilized to install the In-Sync Real-Time Adaptive Traffic Control System by Rhythm Engineering at eight intersections along the Main Street Corridor from "I" Avenue to Eleventh Avenue, hereinafter referred to as Phase I. This project is substantially complete and is nearing final completion.

## **ISSUES/ANALYSIS**

In order to reduce commute times and harmful vehicle emissions, and improve quality of life for residents, staff is recommending installation of the In-Sync adaptive signal control system at seven additional intersections along the Main Street Corridor from Escondido Avenue to Catapa Road (Phase II). Staff responded to another CFP from MDAQMD and the City was awarded an additional grant in the amount of \$484,482 for use on Phase II.

When the first grant was received in 2015, staff researched adaptive signal control systems available on the market which utilizes the latest signal timing technology, coordination, and communication technology available for monitoring and optimizing traffic along the Main Street corridor. The In-Sync Real-time Adaptive Traffic Control System by Rhythm Engineering was chosen by staff as providing the greatest potential of measurable benefits. The In-Sync system "recognizes" traffic at intersections to adjust the cycle lengths and phases of the traffic signals depending on real time traffic at the intersections. The In-Sync system has been deployed successfully at over 1500 intersections in 30 states across the country. Post installation study results show that Phase I has yielded improvements in the number of stops, travel time, and travel speed throughout this section of the Main Street Corridor with the exception of the eastbound direction at the PM traffic peak, which experienced no change. Staff continues to work with Rhythm Engineering as well as the consulting firm that performed the installation of the system and the traffic studies for programming and reporting, Urban Systems Associates, Inc. to evaluate where enhancements can be made to equipment or programming to further improve traffic in both directions and ensure the system is operating as effectively as possible prior to closing out the project.

As with Phase I, some of the intersections in Phase II will require upgrading in order to communicate properly with the In-Sync system due to antiquated equipment. In addition, the hardware and software must be installed into the City's existing controller cabinets and new camera detection systems need to be installed in place of the existing video detection. Additionally, this phase will require coordination with the California Department of Transportation (Caltrans). Caltrans timing and equipment requirements are unknown at this time. Subsequently, there are potential impacts to programming and timing of the adaptive system at the intersections of the Interstate 15 (I-15) northbound and southbound off-ramps and Main Street.

The total project cost is estimated at \$643,000. The MDAQMD grant will fund the cost of the In-Sync equipment and a portion of the installation and signal equipment upgrade costs. Additional funding for the difference of \$158,600 will have to be appropriated by the City. This project will be included in the FY 2017-18 Capital Improvement Program (CIP).

#### **FISCAL IMPACT**

The total project cost is estimated at \$643,000. The MDAQMD AB2766 grant is in the amount of \$484,482. The grant receipt, along with the City's funds of \$158,600 will be appropriated in the FY 2017-18 CIP.

#### **ALTERNATIVE(S)**

1. Provide alternate direction to staff.

#### **ATTACHMENT (S)**

1. Resolution 2017-030
2. Agreement between the City and MDAQMD