

**Council Meeting: July 22, 2008****SUBJECT: Council Approval by Resolution to Submit Two Applications for Transportation Fund for Clean Air (TFCA) Grant Funding****REPORT IN BRIEF**

The Department of Public Works is seeking Council approval of resolutions in support of grant applications submitted to the Transportation Fund for Clean Air (TFCA), administered by the Bay Area Air Quality Management District (BAAQMD). Staff has applied for these grants to help fund two projects: replacing four diesel refuse collection vehicles with Compressed Natural Gas (CNG) trucks, and install a state-of-the-art Adaptive Traffic Signal Control system on six signalized intersections on Wolfe Road from Old San Francisco Road/Reed Avenue to Stewart Drive.

Due to grant deadline requirements, staff did not have an opportunity to request Council authorization for filing of the grant applications prior to the deadline of June 30, 2008. This was due to the need to establish key grant details, information which was not available before the deadline. For the applications to proceed and be considered by the TFCA, Council resolutions approving the applications and authorizing the City Manager to execute these two grant agreements if funding is approved, must be submitted to the BAAQMD by July 28, 2008.

BACKGROUND

The TFCA provides grant funding for projects that will reduce air pollution, and is administered by the BAAQMD in the San Francisco Bay Area. The Solid Waste and Transportation and Traffic Divisions of Public Works are working on two projects that qualify for grant funding.

Compressed Natural Gas (CNG) Refuse Vehicles

Governmental agencies may apply to obtain grant funding for certain vehicles that are purchased and operated by private entities, including vehicles for the collection of solid waste and recycling. Bay Counties Waste Services (BCWS), the City's franchised refuse collector, operates approximately 40 trucks each weekday, collecting commercial and residential refuse and recyclable materials throughout Sunnyvale. The BCWS contract includes a vehicle replacement schedule specifying when individual trucks are to be replaced and during which years of the contract term. There are three trucks scheduled for

replacement in FY 2008/2009 and one in 2009/2010. The timing for these truck replacements falls within the current TFCA grant cycle.

Over the last nine years, City staff has worked with BCWS to implement a program of converting the recycling and refuse truck fleet to alternative fuels, specifically natural gas. This effort was aided by several grants, each of which was approved by Council. Between 2000 and 2002, the City was awarded a combined \$1,450,000 in TFCA funding to off-set the cost of replacing BCWS diesel trucks with new trucks that use CNG engines. Currently, 30 out of the 40 route vehicles in the fleet are fueled by CNG. An additional \$200,000 in California Energy Commission (CEC) funding was made available to the City to partially fund a CNG fueling station that was installed at the Bay Counties facility in 2002. This station is available to the public as well as fueling the refuse and recycling fleet, dispensing approximately 260,000 therms of natural gas per year.

Adaptive Traffic Signal Control System

Installation of the Adaptive Traffic Signal Control system will be on six signalized intersections along Wolfe Road, namely: Wolfe/Old San Francisco/Reed, Wolfe/Evelyn, Wolfe/Kifer, Wolfe/Central Expressway, Wolfe/Arques, and Wolfe/Stewart. The project will install ethernet communications and connect to the existing City infrastructure at Maude Avenue to allow real-time control, monitoring and adjustment of the traffic signal system from City Hall and other remote locations. The project will also include the installation of closed-circuit television cameras to allow monitoring of traffic conditions, roadway incidents, and congestion management.

The signal adaptive system will continuously adapt signal timing to changing traffic volumes and patterns along the corridor 24 hours per day, 7 days a week. Optimizing cycle lengths will in turn improve travel speeds, as well as reduce travel times and delays for the general vehicular traffic, transit buses, shuttle bus service and bicyclists. Due to the system's ability to adjust and optimize cycle lengths and coordination patterns, travel times and delays on the side streets will be reduced including reduced delays for pedestrian crossing. It should be noted that the system will support priority timing for transit and emergency vehicles if needed in the future.

The aforementioned improvements will reduce emissions from motor vehicles and provide encouragement for people to bicycle, ride transit, or walk. Similar adaptive signal systems are currently operated along City segments of several major corridors namely Fair Oaks Avenue, Sunnyvale-Saratoga Road and Mathilda Avenue.

EXISTING POLICY

The City of Sunnyvale General Plan Air Quality and Land Use and Transportation Elements contain the following relevant policies:

Goal A: Improve Sunnyvale's Air Quality and reduce the exposure of its citizens to air pollutants.

Policy C.4: Reduce Emissions from City of Sunnyvale fleet vehicles.

A.2: Reduce automobile emissions through traffic and transportation improvements. Since traffic congestion delays increase the level of emissions, congestion management has air quality benefits.

A.2.a: Develop and maintain a balanced transportation system in Sunnyvale by promoting pedestrian, bicycle and transit modes of travel.

A.2.b: The City should give high priority to traffic improvements that improve vehicle operating conditions (average speed, delay) such as signal timing improvements, signal synchronization, turn lanes, etc. BAAQMD guidance developed for the CMP program deficiency plans defines such improvements.

R1.9 Support flexible and appropriate alternative transportation modes and transportation system management measures that reduce reliance on the automobile and serve changing regional and City-wide land use and transportation needs.

R1.9.1 Support state and regional efforts to provide High Occupant Vehicle (HOV) lanes, ridesharing, mass transit service, bicycling, and Intelligent Transportation Systems.

C3.3.5 Make the traffic signal system responsive to all users, including bicyclists and pedestrians.

DISCUSSION

CNG Refuse Vehicles

The incremental cost of specifying four CNG vehicles rather than standard diesel vehicles is estimated to be \$279,332, with a total cost for the four trucks (including the CNG conversion) estimated at \$1,366,726. The cost of the standard diesel vehicles has already been incorporated into the current budget. The incremental cost of converting them to CNG vehicles would be covered by grant funds, if they were to be received.

Should the City fail to receive the grant funds, the alternative fuel decision for these trucks would be reviewed with the full financial effect on refuse ratepayers in mind. Factors in this analysis would include regulatory trends, City policies, and the comparative capital and operating costs for CNG and diesel fuels over the trucks expected ten-year life.

Adaptive Traffic Signal Control System

One of the projects contained on the Unfunded Capital Projects list, is to expand the City's existing Adaptive Traffic Signal Control system to all major arterials such as Wolfe Road, Evelyn Avenue, Homestead Road, and Mary Avenue. This grant funding, if awarded, will address the need on one of the identified City arterial corridors. A 20% local match is proposed which will improve the competitiveness of the City's grant application. Wolfe Road is the City's busiest arterial corridor that currently does not have adaptive traffic signal control technology.

The attached resolutions provide approval for the TFCA applications and authorize the City Manager to execute these two funding agreements with the TFCA should the grants be awarded to the City.

FISCAL IMPACT

CNG Refuse Vehicles

The estimated incremental cost to BCWS for converting the four vehicles to CNG is \$279,332, to be covered by TFCA grant funding. The annual payment to BCWS is determined based on formulas that take into account actual expenses in the last complete fiscal year, adjusted for inflation and by various indexes identified in the contract. This methodology includes reimbursement for the depreciation of equipment, such as collection vehicles.

The City will pass the grant reimbursement through to BCWS as part of its routine annual contractor payment adjustment process. There is no fiscal impact to the City by authorizing submittal of this application. The financial plan currently anticipates the cost of BCWS purchasing diesel trucks. If the grant is approved, grant revenues will be appropriated to the Solid Waste Fund Rate Stabilization Reserve and then used to off-set increased city payments to BCWS to pay for the CNG trucks over the ten year lives of the trucks.

Adaptive Traffic Signal Control System

The total cost for establishing the Adaptive Traffic Signal Control system at the six project intersections on Wolfe Road is \$650,000. If awarded, the grant will provide \$520,000 in funding to cover 80% of the project's total cost. The 20% local match in the amount of \$130,000 to be funded by the Traffic Mitigation fees.

Should both grants be awarded to the City, staff will bring forward budget modifications for Council approval.

PUBLIC CONTACT

Public contact was made by posting the Council agenda on the City's official-notice bulletin board outside City Hall, in the Council Chambers lobby, in the Office of the City Clerk, at the Library, Senior Center, Community Center, and Department of Public Safety; posting the agenda and report on the City's Web site; and making the report available at the Library and the Office of the City Clerk.

ALTERNATIVES

1. Approve resolutions authorizing the two grant applications for TFCA funding and authorize the City Manager to execute funding agreements for these two projects if the grants are awarded.
2. Do not proceed with the TFCA Grant applications.
3. Other action as directed by Council.

RECOMMENDATION

Staff recommends Alternative #1: Approve resolutions authorizing the two grant applications for TFCA funding and authorize the City Manager to execute funding agreements for these two projects if the grants are awarded.

Staff is recommending approval of the resolutions based on the improvements to local air quality that will result from these projects.

Reviewed by:

Marvin A. Rose, Director of Public Works
Prepared by: Gail Bentley, Solid Waste Specialist

Approved by:

Amy Chan
City Manager

Attachments

- A. Resolution for CNG Refuse Vehicles
- B. Resolution for installing Adaptive Traffic Signal Control system on Wolfe Road

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SUNNYVALE AUTHORIZING THE SUBMITTAL OF AN APPLICATION FOR THE PURCHASE OF ALTERNATIVE FUEL SOLID WASTE COLLECTION TRUCKS, AND AUTHORIZING THE IMPLEMENTATION OF THE PROJECT IF THE APPLICATION IS APPROVED BY THE TRANSPORTATION FUND FOR CLEAN AIR

WHEREAS, the City of Sunnyvale is a supporter of clean air and wishes to take action to enhance air quality within the San Francisco Bay Area; and

WHEREAS, the City of Sunnyvale has submitted a funding application to the Transportation Fund for Clean Air Regional Funds for funds to purchase alternative fuel vehicles;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SUNNYVALE THAT:

1. The City Manager is authorized to submit such application for the City of Sunnyvale.
2. The City Manager is authorized to execute a funding agreement with the Transportation Fund for Clean Air for the purpose of purchasing alternative fuel solid waste collection trucks if the application is approved for funding.

Adopted by the City Council at a regular meeting held on _____, 2008, by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

ATTEST:

APPROVED:

City Clerk
(SEAL)

Mayor

APPROVED AS TO FORM AND LEGALITY:

David Kahn, City Attorney

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SUNNYVALE AUTHORIZING THE SUBMITTAL OF AN APPLICATION FOR THE INSTALLATION OF ADAPTIVE TRAFFIC SIGNAL CONTROL SYSTEM ON WOLFE ROAD, AND AUTHORIZING THE IMPLEMENTATION OF THE PROJECT IF THE APPLICATION IS APPROVED BY THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT

WHEREAS, the City of Sunnyvale is a supporter of clean air and wishes to take action to enhance air quality within the San Francisco Bay Area; and

WHEREAS, the City of Sunnyvale intends to submit a funding application to the Bay Area Air Quality Management District for a Transportation Fund for Clean Air (TFCA) fund to install adaptive traffic signal control system on Wolfe Road from Old San Francisco Road/Reed Avenue to Stewart Drive;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SUNNYVALE THAT:

1. The City Manager or her designee is authorized to submit such application for the City of Sunnyvale.

2. The City Manager or her/his designee is authorized to approve and to execute all Master Agreements, Program Supplemental Agreements, Fund Exchange Agreements and/or Fund Transfer Agreements and any amendments thereto with the Bay Area Air Quality Management District for the purpose of installing adaptive traffic signal control system on Wolfe Road should the application for TFCA fund be approved.

Adopted by the City Council at a regular meeting held on _____, 2008, by the following vote:

- AYES:
- NOES:
- ABSTAIN:
- ABSENT:

ATTEST:

APPROVED:

City Clerk
(SEAL)

Mayor

APPROVED AS TO FORM AND LEGALITY:

David Kahn, City Attorney