

FINAL REPORT

ML12046

Purchase of One Heavy-Duty CNG Vehicle

City of Irvine

September 29, 2016

*Prepared for the Mobile Source Air Pollution Review Committee
(MSRC) under the AB2766 Discretionary Fund Work Program.*

RECEIVED

OCT 12 2016

MSRC

Acknowledgements

City of Irvine purchased one new Elgin CNG Crosswind J Sweeper from Haaker Equipment Company. The City placed the vehicle in service starting August 5, 2014.

This report was submitted in fulfillment of ML12046 and Purchase of One Heavy-Duty CNG Vehicle by City of Irvine under the partial sponsorship of the Mobile Source Air Pollution Reduction Review Committee (MSRC). Work was completed as of August 16, 2016.

Disclaimer

The statement and conclusions in this report are those of the contractor and not necessarily those of the Mobile Source Air Pollution Reduction Review Committee (MSRC) or the South Coast Air Quality Management District (SCAQMD). The mention of commercial products, their sources or their uses in connection with material reported is not to be construed as either an actual or implied endorsement of such products.

Project Description & Work Performed

City of Irvine staff issued a Purchase Order (PO) to HAAKER EQUIPMENT COMPANY on April 23, 2013 to manufacture an Elgin CNG Crosswind J street sweeper. The sweeper was delivered in late Spring 2014 and put into service on August 5, 2014.

The compressed natural gas powered vacuum type street sweeper replaced an existing aging diesel powered sweeper. The City's current fleet is comprised solely of the alternative fuel heavy-duty type.

Purchase of this sweeper enables the City of Irvine to comply with the South Coast Air Quality Management District (AQMD) requirements for alternative fuel heavy-duty vehicles and reinforces the City's commitment to clean energy.

Problems Encountered

The vehicle has been sent multiple times to the manufacturer to resolve issues associated with mechanical breakdowns associated with sweeper components; however, the vehicle is in service with the engine working properly.

10/1/16

Emissions Benefits

An analysis of the CNG sweeper's first year in operation determined the following air quality benefits:

- 20.4 pounds of reduced oxides of nitrogen (NOx)
- 388 pounds of reduced entrained road dust (PM)

Photographs & Outreach

- The outreach plan was implemented as noted in the Quarterly Progress Report For Reporting Period of July 1, 2014 thru September 30, 2014.
- A MSRC placard was permanently adhered to the vehicle as shown:



- The vehicle was promoted on the City's website at <http://www.cityofirvine.us/econews/news/compressed-natural-gas-street-sweeper-purchase/>, but is no longer active.
- The vehicle was promoted in the City's quarterly newsletter both online and in print of the Winter 2014-15 edition of *Inside Irvine* as seen here:

IRVINE

Inside

Winter 2014-15 - www.irvine.org - Official Guide to City Events, Programs and Activities



10 CITY PROGRAMS You Need to Know About



EXCLUSIVE: GREAT PARK UPDATE | UCI'S 50TH ANNIVERSARY | HOLIDAY SAFETY
PLUS: CULINARY ARTS | FITNESS • TOT & SENIOR PROGRAMS

News Briefs

Veterans Get State Cemetery

The Governor has signed AB1453 into law, directing the California Department of Veterans Affairs (CalVet) to design, develop, construct and equip a state-owned and operated Southern California Veterans Cemetery. The City Council set aside 125 acres at the Orange County Great Park. AB1453 appropriates \$500,000 for preliminary and conceptual design work; several more steps will then follow. These include a CalVet application for federal Veterans Cemetery Grant Program funds.



Wilderness Access Days

Wilderness Access Days in Warner Canyon are held the third Sunday of each month. The trails lead through beautiful, rare and sensitive habitat and offer a unique experience for walkers, runners, hikers and mountain bike riders. Volunteer naturalists are on hand to help visitors select a route or learn more about this nature preserve. There is also a guided tour during each Wilderness Access Day, led by a trained naturalist guide and featuring a different topic each month. For more information, visit letsgooutdoors.org.



Holiday Shopping in Irvine

The choice of where you shop or dine makes a difference for our City. This holiday season by shopping in Irvine, you are not only supporting merchants and businesses, you are supporting us collectively. For every \$100 in sales, \$1 goes directly to the City to support public safety, parks, streets, youth programs, seniors and much more. To learn more about these programs, see Pages 7 and 10.

Priority Projects Set for Irvine

Each quarter the City publishes a status report on priority projects such as the Orange County Great Park, economic development, the Irvine Business Complex and more. Informational updates on municipal hall and public safety also are included. To view this status report, visit irvine.org/priorities.

Clean Fleet

The City of Irvine, with financial support from the Mobile Source Air Pollution Review Committee, recently purchased a street sweeper powered by compressed natural gas. This is one of many clean vehicles in the City's fleet. The City is committed to clean transportation and appreciates the support from the Mobile Source Air Pollution Review Committee.

TO VIEW IMAGES ABOVE ONLINE, PLEASE VISIT WWW.IRVINE.ORG/INSIDEIRVINE

winter 2014-15 inside irvine 1

Summary and Conclusions

The purchase of this CNG sweeper has greater enable the City of Irvine to comply with the South Coast Air Quality Management District (AQMD) requirements for alternative fuel heavy-duty vehicles and further reinforces the City's commitment to clean energy.