

**MSRC Contract #ML09038**

**Final Report**

**City of Chino**

**CNG Fueling Site Upgrade**

**August 1, 2012**

**"Prepared for the Mobile Source Air Pollution Review Committee (MSRC)  
under the AB 2766 Discretionary Fund Work Program."**

**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) of 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**

The City of Chino embraces its commitment in reducing greenhouse gas emissions and has started procuring additional alternative fuel vehicles and equipment, such as the Vactor-Jetter sewer truck and a new dump truck. Expanding the City's fleet to include more alternative fuel vehicles requires supplementary CNG and, therefore, necessitated the City's desire to upgrade its existing CNG slow-fill site to a dual slowfill/fastfill system.

The City of Chino Public Works Department upgraded its existing slow-fill CNG fueling site to a dual system fast-fill/slow-fill CNG system. The upgrade occurred at the existing location at 5050 Schaefer Avenue, Chino, CA 91710. This location provided convenient access for the City's alternative fuel fleet and has the capacity to fuel additional equipment and/or vehicles procured in the future. The goals of the project are as follows:

- Minimize GHG emissions.
- Meet long-term operational requirements for additional alternative fuel vehicle procurement.
- Upgrade the existing site using state-of-the-art dispensing and compression technologies.
- Comply with applicable industry and public codes and standards (both health and safety) to ensure safe installation and operation.

The project upgrade began in July, 2011 and was completed in April, 2012. The project's elements are as follows

- Installation of a new compressor to increase the capacity of CNG at the Public Works Service Center. The new compressor will facilitate the movement of new, and larger, vehicles in a timely manner.

- The enhanced site will fuel street sweepers, medium/heavy duty trucks.
- Installation involved civil, mechanical, and an electrical scope, in conjunction with the engineering design package with PE stamped CAD drawing package. There is also 1-year of maintenance support provided by the contractor.

The upgraded site improved fueling support to the City's growing alternative fuel fleet and meets increasingly stringent local and state clean fleet rules and regulations. The site specifically supports expansion of the City's fleet of CNG heavy-duty street sweepers, as well as, other heavy equipment and vehicles.

In addition, alternative fuel, such as CNG, minimizes criteria air pollutants (oxides of nitrogen (NOx), oxides of sulfur SOx, particulate matter (PM10), and toxic particulates) from entering into the atmosphere. The City of Chino is committed to significantly reducing its consumption of petroleum, which will assist California's long-range goal of large-scale use of alternative fuels and advanced vehicle technologies in the State.

### ***Goals and Objectives***

Goal: Developed infrastructure to support the City's increasing alternative fuel fleet.

Goal: Overcome the City's existing hurdle to expand the City's alternative fuel fleet.

Goal: Provide measurement procedures to evaluate program's success.

Goal: Educate target audience about the benefits of alternative fuel.

### **Project Summary**

#### **1<sup>st</sup> Quarter 2011**

In October 2010, Public Works Staff met and discussed the location and design layout of the proposed site upgrades. A preliminary design of the fuel station was drawn up and a preliminary scope of work was drafted to upgrade the City's existing slow-fill Compressed Natural Gas (CNG) fueling site, to a dual fast/slow fill site with

increased CNG capacity. The completed upgrade will provide a significant improvement in the City's ability to service increasing alternative fuel vehicles in a timely manner. The upgrade will accommodate up to ten (10) slow-fill vehicles and one (1) fast-fill with a recharge rate of 10-15 minutes.

### **2<sup>nd</sup> Quarter 2011**

Public Works staff coordinated with two utility companies, So Cal Gas and Southern California Edison (SCE), on the CNG fueling station upgrade at the Public Works Services Center. The City submitted its application for Non-Residential Gas Service and continues its coordination with the utility companies to ensure that the project stays on schedule. Staff also met with the Chino Valley Fire District to discuss their requirements relating to permits, signage, inspections, special requirements and the overall proposed layout for this project.

### **3<sup>rd</sup> Quarter 2011**

In April 2011, Public Works staff met with the Fleet Maintenance Supervisor for the City of Claremont to tour their CNG fuel station. The City of Claremont's CNG fuel station is set up similar to how the City of Chino's will be designed. The visit to Claremont's CNG fuel station provided staff with additional ideas and more information for the layout on Chino's CNG fuel station. Staff completed their bid specifications and on May 27, 2011 a Notice Inviting Bids was sent out to the local papers and plan rooms soliciting bids for the CNG Fuel Station Upgrade Design/Build project. A pre-bid meeting was held on June 7, 2011 and bids were received June 28, 2011.

#### **4<sup>th</sup> Quarter 2011**

A pre-construction meeting was held on July 27, 2011 to discuss the scope of work and schedule for the CNG Fuel Station Upgrade project. The City conducted several meetings in August with the project's General Contractor/Engineer to review the design for the new CNG fuel station. Plans were submitted for plan check on August 26, 2011 and approved by the City's Building Division on September 23, 2011 and by the Fire District on November 2, 2011.

The City and the General Contractor/Engineer have conducted several meetings with the Gas Company and with Southern California Edison (SCE) to discuss the upgrades needed for the new CNG fuel station. The Gas Company will be upgrading the existing meter and gas line to accommodate for the increase of gas for the new CNG fuel stations. Work will be performed by the Gas Company in November 2011. SCE will be upgrading the existing transformer to accommodate the additional volume of electricity needed to power the equipment of the CNG fuel station. Work will be performed by SCE in December 2011.

All material for the CNG fuel station has been received by the General Contractor/Engineer. The project is scheduled to begin on November 7, 2011 and should be completed by the end of January 2012.

#### ***1<sup>st</sup> Quarter 2011/12***

1. November 2011 - Construction began for the new CNG Fuel Station.
2. March 2012 - Complete the construction for the CNG Fuel Station.
3. April 2012 - City Council approved the Notice of Completion.
4. Implemented Outreach Plan.

## **Emission Benefit**

The air quality benefit cannot be quantified due to the facility being operational for only a short period of time; however, the City continues to expand its CNG fleet to reduce the impacts to the environment and will continue to work in establishing the data to support the infrastructure.

Additionally, the City of Chino Public Works Department takes pride in providing outstanding environmental services to its community through waste reduction and recycling programs, water reclamation, conservation and pre-treatment, storm water non-point and point-source pollution prevention methods, and much more. The City of Chino aggressively pursues grant opportunities to enhance and/or establish sustainable programs/projects, which benefit the air, land, and water quality of the community.

Legislation is becoming more and more stringent. In years past, studies conducted by numerous organizations conclude that global warming is a serious threat to the environment. In order to address this critical issue, Assembly Bill 32, *The California Global Warming Solutions Act*, was signed in to law, committing California to address global warming by reducing greenhouse gas (GHG) emissions in the state to 1990 levels by the year 2020, or 25% below existing levels at the time.

To address this threat on a more regional level, the counties of Riverside and San Bernardino have developed the "Green Valley Initiative" (GVI). The GVI mission statement is to "transform Riverside and San Bernardino counties into a region that integrates people and businesses with natural resources to create new jobs, greater

opportunities and higher quality-of-life.” The City of Chino has become a Green Valley Jurisdiction and is paving the way to a better and brighter future.

In January 2008, a team of inter-departmental City staff began meeting in order to take a more systematic approach to address the City’s efforts to combat global warming and reduce GHG emissions.

Program Brand: Chino – Where Everything Grows A Little GREENER  
Program Message: Educate, Recycle, Conserve, Go Green!

**Acknowledgement:**

"This report was submitted in fulfillment of ML09038 and the CNG Fueling Station project by the City of Chino under the partial sponsorship of the Mobile Source Air Pollution Reduction Committee (MSRC). Work was completed as of April, 2012."

# Green News!



*where everything grows  
a little greener!*

Assembly Bill 32, The California Global Warming Solutions Act, was signed into law, committing California to address global warming by reducing greenhouse gas (GHG) emissions in the state by the year 2020.

The City of Chino is doing its part in the fight against global warming. Through the Clean Transportation Funding from the MSRC, the Public Works Services Center upgraded its slow-fill Compressed Natural Gas (CNG) fueling site to a dual slow-fill/fast-fill CNG fueling station.

For more information, please call

**(909) 464-0758.**

## Green Chino

Where Everything Grows a Little GREENER!

### The City of Chino's Green Team:

Front row (left to right), Danielle Monarrez, Jackie Melendez, Jesus Plasencia, Sylvia Ramos; back row (left to right), Kurt Powell, Mike Kolling, Mike Boyd, Mike Heroux, Mike Kellison.



The City of Chino takes pride in providing outstanding environmental services to its community through waste reduction and recycling programs, water reclamation, conservation and pre-treatment, stormwater non-point and point-source pollution prevention methods, green building, green procurement, and much more.

In January 2008, the Green Team was formed, which consists of inter-departmental City staff. Members of the Green Team began meeting in order to take a more systematic approach to address the City's efforts to combat global warming.

**Program Brand: Chino-Where Everything Grows a Little GREENER!**

**Program Message: Educate, Conserve, Recycle, Go Green!**

For more information pertaining to green projects/programs, please call (909) 464-0758, to be directed to the appropriate staff person.



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