

The West Coast Collaborative is a public private partnership focused on reducing diesel emissions throughout western North America and the U.S. Pacific Islands. The Collaborative seeks to significantly improve air quality and public health by providing funding assistance to upgrade high polluting diesel fueled engines, vehicles, and equipment with cost effective and cleaner emission control technologies.

# DERA National 2019: Ultra-Low NOx Refuse Truck Replacements



**Where:**  
Phoenix, Arizona



**Grantee:**  
City of Phoenix Public Works Department



**Replacing:**  
10 diesel refuse trucks



**Funding:**  
\$1,000,000 US EPA DERA  
\$2,304,538 Fleet Cost-Share



**Lifetime Reductions: \***  
1.72 tons of NO<sub>x</sub>  
0.03 ton of PM<sub>2.5</sub>  
0.07 ton of HC  
0.41 ton of CO  
139 tons of CO<sub>2</sub>  
99,509 gallons of diesel



**What is the West Coast Collaborative?**  
The Collaborative is a partnership among leaders from federal, tribal, state, and local governments, the private sector and environmental and community groups in EPA Regions 9 and 10

The West Coast Collaborative (WCC) is pleased to announce the City of Phoenix's completion of a United States Environmental Protection Agency (US EPA) Diesel Emissions Reduction Act (DERA) grant to replace heavy-duty diesel refuse trucks. This project was implemented using \$1,000,000 in DERA grant funding combined with \$2,304,538 in cost-share funds from the City of Phoenix and Mr. Bults.

## What is this Project?

This project replaced 10 Class 8 diesel refuse trucks with model year 2020 Class 8 trucks powered by compressed natural gas (CNG) engines certified to meet the California Air Resources Board's most stringent optional low NOx emission standard of 0.02 g/bhp-hr (>90% cleaner). The older, replaced diesel vehicles were removed from service and permanently destroyed.

## Why is this Important?

This project's primary objective was to improve environmental health by partnering with Arizona refuse truck fleet operators to replace heavy-duty diesel vehicles with ultra-low NOx emission, alternative fuel vehicles. Exposure to diesel exhaust has been associated with decreased lung function and retarded lung development and can also exacerbate the symptoms of asthma, bronchitis and pneumonia. This project reduced human exposure to diesel emissions as well as the negative health effects associated with exposure. Expected unquantifiable benefits of the project include increased awareness of the need to improve air quality, particularly among Arizona residents, visitors, and others concerned with public health and welfare.

## Who are the Partners?

The project was led by the City of Phoenix Public Works Department (COPPWD), which handles collection and disposal of trash and recyclables for more than 350,000 households in Arizona. COPPWD received the DERA grant award through the WCC and distributed the grant funds to COPPWD Solid Waste Field Services, as well as private refuse fleet partner, Mr. Bults, Inc. COPPWD was responsible for data monitoring and reporting for the project.

\*Estimated reductions over the remaining lifetimes of project engines.