

***Diesel Work Group
Local Perspective Input
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City of Medford

The City received a grant for diesel engine retrofits about 4-5 years ago. Retrofits were on highest use vehicles – a combination truck (AKA Vactor) and two 10-yard dump trucks. The contractor retrofitted 3 diesel engines and determined that we don't operate continuously enough to get engine temperatures high enough to realize any benefit. Diesel retrofits are no doubt good for equipment that operates continuously, but the nature of maintenance work precluded any value for Medford's fleet. Medford gave back the rest of the grant money to be reallocated to something useful after concluding the expense provides no reduction in emissions for fleet.

The City of Medford Public Works Department purchased a CNG-powered street sweeper in 2011 and collected data about its performance to share with other fleet managers. Decision was made to acquire additional CNG-fueled equipment as future replacements if the power characteristics are acceptable.

Case study:

Medford, Oregon Diesel Retrofits

Location: Medford, Oregon

Project: Diesel Exhaust Systems Retrofit. Waste collection trucks have been retrofitted to reduce particulate emissions by 50 percent. The Oregon DEQ awarded the company the Certificate of Appreciation for Air Quality Excellence for its leadership.

Initial Funding: \$50,000 in Congestion Mitigation and Air Quality (CMAQ) funding (with \$50,000 match by Rogue Disposal & Recycling)

Estimated annual emissions reduction benefits:

Pollutant Est. Annual Emissions Reduction (kg/yr)

PM 10 6,402

Project Partners

Project partners included Rogue Disposal & Recycling, Oregon DEQ, and Rogue Valley Council of Governments (RVCOG).

CMAQ Application Process

Rogue Disposal & Recycling, a private waste management and recycling company, learned about the opportunity to apply for CMAQ funds at one of two open houses on diesel retrofits organized by RVCOG staff. Oregon DEQ submitted an application on behalf of the company because only public agencies are eligible to apply for Federal funds from Rogue Valley Metropolitan Planning Organization (RVMPO).

Estimation of Air Quality Benefits

Oregon DEQ staff developed formulas to estimate the air quality benefits of Rogue Disposal & Recycling's diesel retrofits, which cut emissions on each vehicle by 50 percent. Before the retrofit, each vehicle ran on low-sulfur diesel (500 parts per million [ppm]); after the retrofit, each could run on ultra-low-sulfur diesel (15 ppm).

Oregon Recreation and Park Association member

Park Operators are not normally big diesel consumers like a public works department may be. Most equipment used in parks are small engines and pick-ups that usually consumes gasoline. Some park departments have a limited number of heavy equipment that consume diesel, where there is little to no alternative fuel source. This equipment could be loaders, dump trucks etc. Bio-diesel is an alternative, but we would need to look at manufacturer warranties and availability if alternative fuel is used. Use of better diesel exhaust filters are another potential consideration.