

# Activity Bus Replacement Project - Polk County Schools

DAQ Site Visit November 8, 2021

NCDEQ, Division of Air Quality



## Site Overview

Currently Polk County Schools operates 53 school buses that travel 540,000 miles per year and only 26% of those buses meet current emissions standards. As part of the Volkswagen Phase 1 School Bus Replacement Program, Polk County Schools submitted a proposal to replace two activity buses. This project received an award of \$194,858 from the Volkswagen Settlement Program funding. These replacement buses will improve air quality by reducing diesel emissions by over 90%. These two buses were 30 and 25 years old, making them some of the oldest replaced in the funding program. Their replacement with new, lower emission buses will result in a reduction of over 0.2 short tons of NO<sub>x</sub> a year.

## Additional Regional Information

Polk County is widely known for a unique weather phenomenon called the “thermal belt”. The thermal belt refers to a mountainside zone where frost or freezing temperatures are less likely to occur than they are at either higher or lower elevations. The Polk county area is protected on the north and northwest from the cold winds of winter by a crescent of 2,500 to 3,000-foot mountains. Inversion layering is a unique weather condition caused by this thermal belt. Inversion layers are significant to meteorology because they block atmospheric flow which causes the air over this area to become trapped which can then result in significant variations in weather patterns when compared to the rest of the state. During these meteorological events, these layers of trapped air will retain emissions from motor vehicles in the effective area for longer. For this reason, reducing NO<sub>x</sub> emissions plays an important part in the health of all in the effective area.

## N.C. Division of Air Quality

Mailing Address: 1641 Mail Service Center, Raleigh NC 27699 – Physical Address: 217 West Jones Street, Raleigh, NC 27603  
Phone: 919-707-8400 - Fax:919-707-0718 – Email: daq.NC-VWGrants@ncdenr.gov

## **North Carolina VW School Bus Replacement Program**

For Phase 1 of the NC VW Settlement program, \$12.2 million was available for school bus replacement projects. Of the six projects awarded through the program, four were activity bus replacements. A total of seven activity buses were replaced with new, lower emission vehicles. Activity buses are not eligible for replacement through the Department of Public Instruction, so they are often the oldest vehicles in a fleet. Phase 2 funds for the replacement of school buses, including activity buses, will be available in spring 2022.

### **Additional Program Details**

The North Carolina Department of Environmental Quality Division of Air Quality administers the \$92 million allocation of Volkswagen Mitigation Settlement funds for North Carolina. This project was funded in Phase 1 of the program. Phase 2 of the program will combine the originally planned phases two and three into one final phase. The Phase 2 School Bus program will have over \$27.1 million available for clean school bus replacements. The primary goal of the School Bus Program is to mitigate nitrogen oxides, particulate matter, and greenhouse gas emissions in the state. In North Carolina, an average school bus emits over 1.61 tons of NO<sub>x</sub> in its lifetime. Currently, in North Carolina, there are more than 4,000 school buses that carry almost 800,000 children to school each day. Replacement of these aging diesel buses with newer cleaner buses is a valuable investment in public health and an important step toward achieving North Carolina's clean energy future.

### **N.C. Division of Air Quality**

Mailing Address: 1641 Mail Service Center, Raleigh NC 27699 – Physical Address: 217 West Jones Street, Raleigh, NC 27603  
Phone: 919-707-8400 - Fax:919-707-0718 – Email: [daq.NC-VWGrants@ncdenr.gov](mailto:daq.NC-VWGrants@ncdenr.gov)