

# Alert

The **Alert** newsletter provides monthly updates on transportation and air quality planning activities within the Delaware Valley.

July 2023

## Air Quality in the News

### Smoke from Canadian Wildfires Dramatically Worsens Local Air Quality

During the summer of 2023, air quality was thrust into the national spotlight as smoke from Canadian wildfires and atypical weather patterns combined to push air with unhealthy levels of particulate pollution over some of the most densely populated areas of the United States and Canada. In places ranging from Kentucky to Connecticut, the sun appeared red and hazy, a pungent smell filled the air, people experienced health effects like throat and eye irritation, and authorities advised residents to stay inside and limit their exposure to the air outside.

According to archived data from the [Pennsylvania Department of Environmental Protection](#), Delaware Valley was most affected on June 6-9. On June 7, daily Air Quality Index (AQI) values reached 261 in Philadelphia, far in excess of the 200 AQI threshold for “very unhealthy” air. Some hourly readings were even higher, being designated as “Hazardous”, the most severe of the six AQI categories.

The AQI, which ranges from 0 to 500, is used by environmental agencies to communicate air quality information in terms of its effect on public health. A lower AQI indicates better air quality. The [US Environmental Protection Agency](#) (EPA) describes an AQI over 100 as “Unhealthy for Sensitive Groups” such as older adults and people with asthma, while an AQI value over 150 is considered “unhealthy” for anyone. AQI values are calculated independently for several types of pollutants including ozone and particulate matter. The overall AQI for an area is equal to the AQI of the worst individual pollutant.

Wildfire smoke is harmful because it contains high concentrations of fine particulate matter (PM<sub>2.5</sub>) which is defined as consisting of particles smaller than 2.5 micrometers. According to the EPA, fine particles pose a greater health risk than larger particles because their small size allows them to penetrate deeper into the lungs and even enter the bloodstream.

Although shifting winds eventually moved the highest concentrations of smoke out of the Philadelphia region, wildfires continue to burn across Canada. As the time of writing, the [Canadian Interagency Forest Fire Centre](#) is actively tracking nearly 500 fires across the country, about half of which are classified as “Out of Control”. The fires that have impacted our region the most are concentrated in Quebec. Forest fire activity in Canada has historically peaked between June and August, and Canadian officials are warning that low rainfall and rising temperatures may cause conditions to deteriorate even further. Despite not even being half over, this year’s wildfire season has already seen over 17.5 million acres burnt, making it the most destructive ever recorded.

Unfortunately, wildfires are only expected to become more frequent and intense as a result of climate change. According to a 2022 report from the [United Nations Environment Program](#), the number of extreme fires is expected to increase 30% by 2050 and 50% by 2100. The report urges governments around the world to shift attention and funding from fire response to proactive



## Save the Date

**Monday, July 17, 2023**

### **PA DEP Level 2 Charger Rebate Program Reopens**

Funds available until exhausted

Information is available at: [dep.pa.gov](https://dep.pa.gov) and search Driving PA Forward

**Tuesday, August 22, 2023**

### **USEPA Clean School Bus Grant Program**

Applications Due August 22, 2023

Information is available at: [epa.gov/cleanschoolbus](https://epa.gov/cleanschoolbus)

measures that prevent and mitigate fires by fighting climate change, restoring critical ecosystems, and considering fire risk when making land use decisions.

## Zero-Emissions Transportation

### SEPTA Awarded \$80 Million for Bus Facility Upgrades from the Federal Transit Administration

On June 26, SEPTA announced it was awarded \$80 million from the Federal Transit Administration's (FTA) Low or No Emissions (Low-No) competitive grant program. According to SEPTA CEO and General Manager Leslie Richards this grant was "largest single infrastructure grant SEPTA has ever received" and will be used to upgrade bus six depots in preparation for the agency's transition to a zero-emissions bus (ZEB) fleet.

The grant from the FTA will help fund upgrades at SEPTAs Frankford, Germantown, Midvale, and Southern depots in Philadelphia, as well as Victory in Upper Darby and Frontier in Plymouth Township. Combined, the facilities serve roughly 67percent of SEPTA's bus fleet. SEPTA's depots will receive electric utility upgrades that include redundant power feeds at each facility, backup generators, and new electrical substations to provide sufficient power to support the ZEB fleet and provide power in case of electric system failures. The grant will also invest in fire suppression systems that will be designed to address the unique challenges posed by zero emission vehicles.

"SEPTA will eliminate tailpipe emissions and further reduce total greenhouse gas emissions throughout the communities we serve," Richards said. "We are pleased to be making these and other sustainable investments for our customers and the region, and we are grateful for the support of the Federal Transit Administration and elected officials at all levels of government helping to achieve our goals." SEPTA plans to operate a 100 percent zero emission fleet by 2040. These plans include evaluating a mix of ZEB technologies including battery electric buses (BEB) and hydrogen fuels cell (HFC) buses. The agency took delivery of its first 25 BEBs in 2019 and has ordered ten HFC buses in 2023. SEPTA will replace its last 120 all diesel buses with diesel-hybrid buses in 2023.

The June 26 announcement was part of a nationwide effort to raise awareness of FTAs programs to help local and state governments purchase or lease low-emission bus fleets and facilities. The agency's Low-NO program is expected to result in the manufacturing of more than 1,700 buses, half of which will be zero-emission models.

"Every day, over 60,000 buses in communities of all sizes take millions of Americans to work, school, and everywhere else they need to go," U.S. Transportation Secretary Pete Buttigieg said in a release. "Today's announcement means more clean buses, less pollution, more jobs in manufacturing and maintenance, and better commutes for families across the country." This announcement is part of the second bus grant package from the Bipartisan Infrastructure Law, which set aside \$108 billion for public transportation over the next five years.

SEPTA's \$80 million award was just one of the 130 projects that received at total of \$1.69 billion from FTA's Low-No and Bus and Bus Facility grant programs in Fiscal Year 2023. The Delaware Transit Corporation was awarded roughly \$8.7 million to buy battery-electric and hydrogen fuel cell electric buses to replace older diesel buses and the New Jersey Transit Corporation received \$47 million from the Bus Facilities program to modernize the Hilton Bus Garage in Maplewood, New Jersey to prepare that facility to serve battery-electric buses.

To read more about SEPTA's Low-No award please visit [WHYY.org](https://www.WHY.org) and SEPTA's [Zero Emission Bus Playbook](#) is available at [www.SEPTA.org](https://www.SEPTA.org).



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