

ALBANY SOUTH END COMMUNITY AIR QUALITY STUDY



Department of
Environmental
Conservation

Benzene Results

October 2019

What You Need to Know

- Higher concentrations of benzene were found within the ports of Albany and Rensselaer, near operations that store and transfer gasoline and petroleum products.
- The study did not find higher levels of benzene in the residential neighborhoods outside the ports.
- DEC staff are inspecting terminals that store gasoline and petroleum products to ensure facilities are controlling benzene releases.

About Benzene

Everyone is exposed to a small amount of benzene on a daily basis, primarily through breathing air that contains benzene.

The major sources of benzene exposure are tobacco smoke, exhaust from motor vehicles, automobile service stations, and industrial emissions. Under normal operations, gasoline storage and distribution facilities release benzene through evaporation of petroleum products.

Long-term exposure to high levels of benzene can affect bone marrow and can cause anemia and leukemia.



Study Results

Port activities contribute to local benzene concentrations

The highest concentrations of benzene collected during the study were measured within the ports of Albany and Rensselaer, near operations that store and transfer gasoline and petroleum products (See Figure 1). The Port of Rensselaer had consistently higher concentrations.

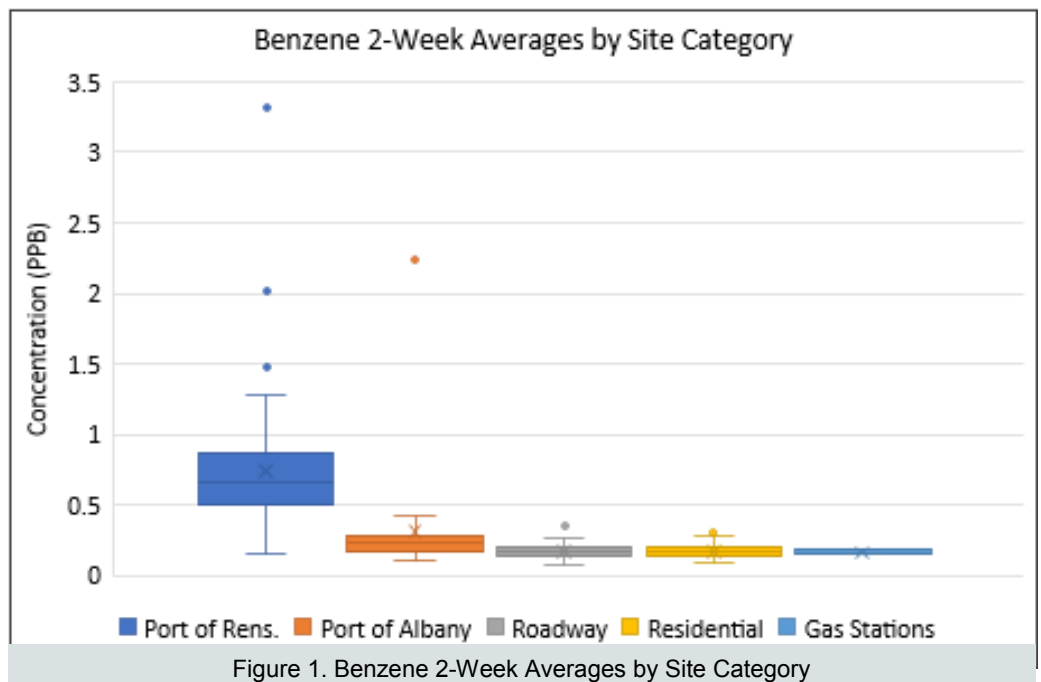


Figure 1. Benzene 2-Week Averages by Site Category

Benzene concentrations measured near the Ezra Prentice Homes were lower than concentrations measured near the Albany County Health Department (South Albany monitor, see figure 2). Benzene annual averages (measurements collected starting March 2015) near the South Albany monitor are higher compared to measurements from other DEC monitors in urban areas. Winds frequently blow from the south-southeast, south, and south-southwest toward the City of Albany (See figure 3). When winds are from these directions, the South Albany monitor is downwind from the activities at the ports of Albany and Rensselaer more frequently than the Ezra Prentice monitor.

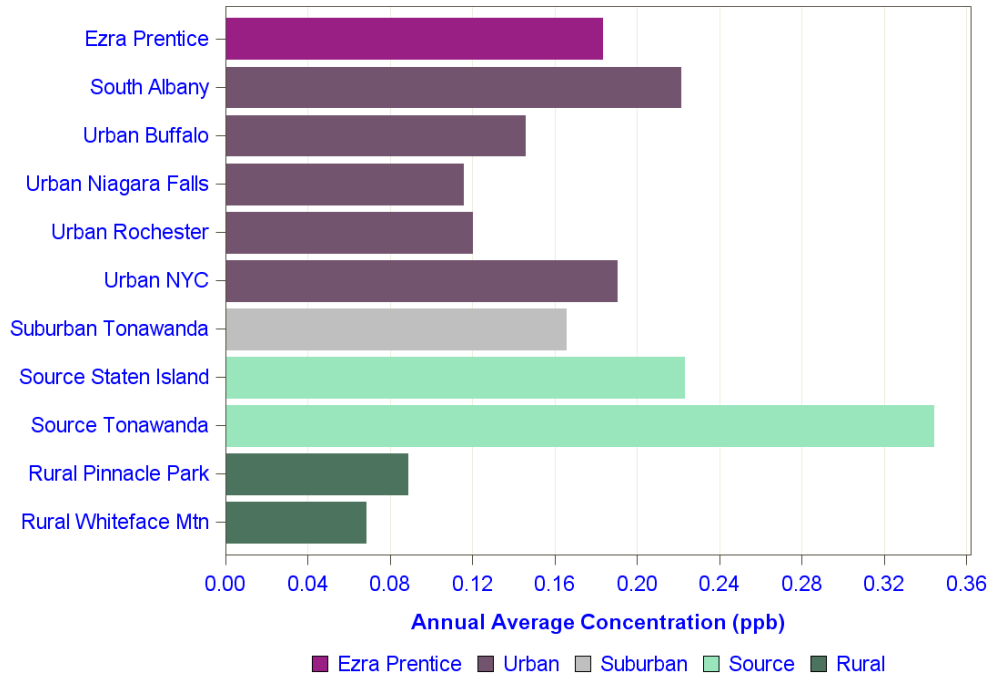


Figure 2. Benzene Annual Average – Ezra Prentice and South Albany compared to DEC Network Monitors

What is DEC doing to reduce benzene?

- DEC staff are conducting more frequent leak detection inspections at gasoline- and petroleum-handling facilities.
- In the long run, DEC is promoting a transition to electric vehicles that do not contribute to benzene emissions.

Where can I find more information?

- Read the full Albany South End Air Quality Study at: <https://on.ny.gov/southendstudy>.

Next steps

- Evaluate the effectiveness of reduction strategies by continuing to monitor benzene in the Albany South End community.

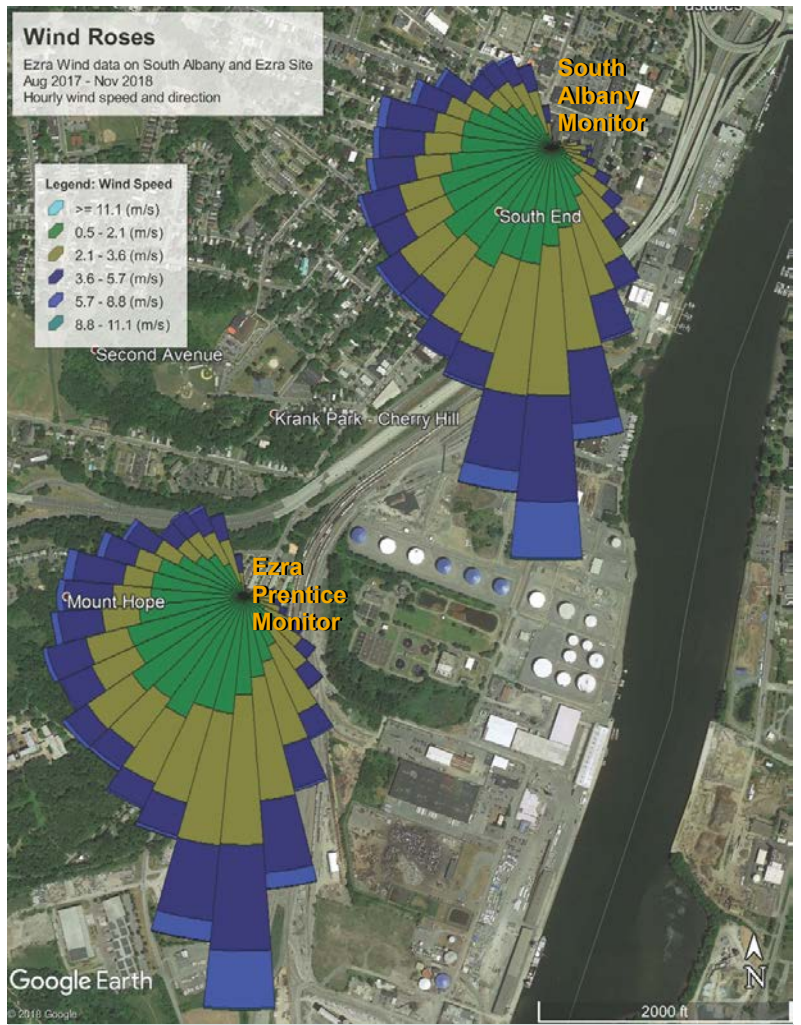


Figure 3. Wind Direction Plots for Ezra Prentice and South Albany Monitors

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