



# Air Quality

VIEQUES ENVIRONMENTAL RESTORATION  
FACT SHEET

## How has air quality been evaluated on Vieques?

With oversight by the Puerto Rico Department of Natural and Environmental Resources and the US Environmental Protection Agency, the Navy developed a computer model and performed extensive air sampling to measure the concentrations of particulate matter (dust and soot), metals, and explosive chemicals in the air around Vieques.

- From 2005 to 2025, the Navy collected more than 1,600 air samples during 194 open detonation events, 15 controlled burns, and 19 accidental brush fires.
- Air sampling stations were located near the former Live Impact Area (LIA) as well as the populated areas of Vieques (see map).
- The computer model provided an estimate of the highest air concentrations that could theoretically result from Navy cleanup operations, including the controlled burning of vegetation in the Submunitions Area (see map) and the open detonations used to destroy munitions.

## What did the air samples show?

- No explosive chemicals were detected in any of the samples.
- The detected concentrations of all metals were at least 99% below health based standards. There were no detections of mercury or lead in any of the samples.
- There were no violations of the National Ambient Air Quality Standards (NAAQS) for particulates (dust and soot).

## What did the computer modeling show?

- All predicted concentrations were below regulatory and health based standards, such that there was no indication of risk to the residents of Vieques.
- Overall, the model results agreed with the on-site air sampling.

## Summary

The Navy has conducted computer modeling and extensive on-site air sampling to evaluate the effects of the munitions cleanup on air quality in Vieques. All work was done in collaboration with the US Environmental Protection Agency and the Puerto Rico Department of Natural and Environmental Resources. The results show that all cleanup operations, including open detonations, are conducted in a manner that is protective of public health and the environment.

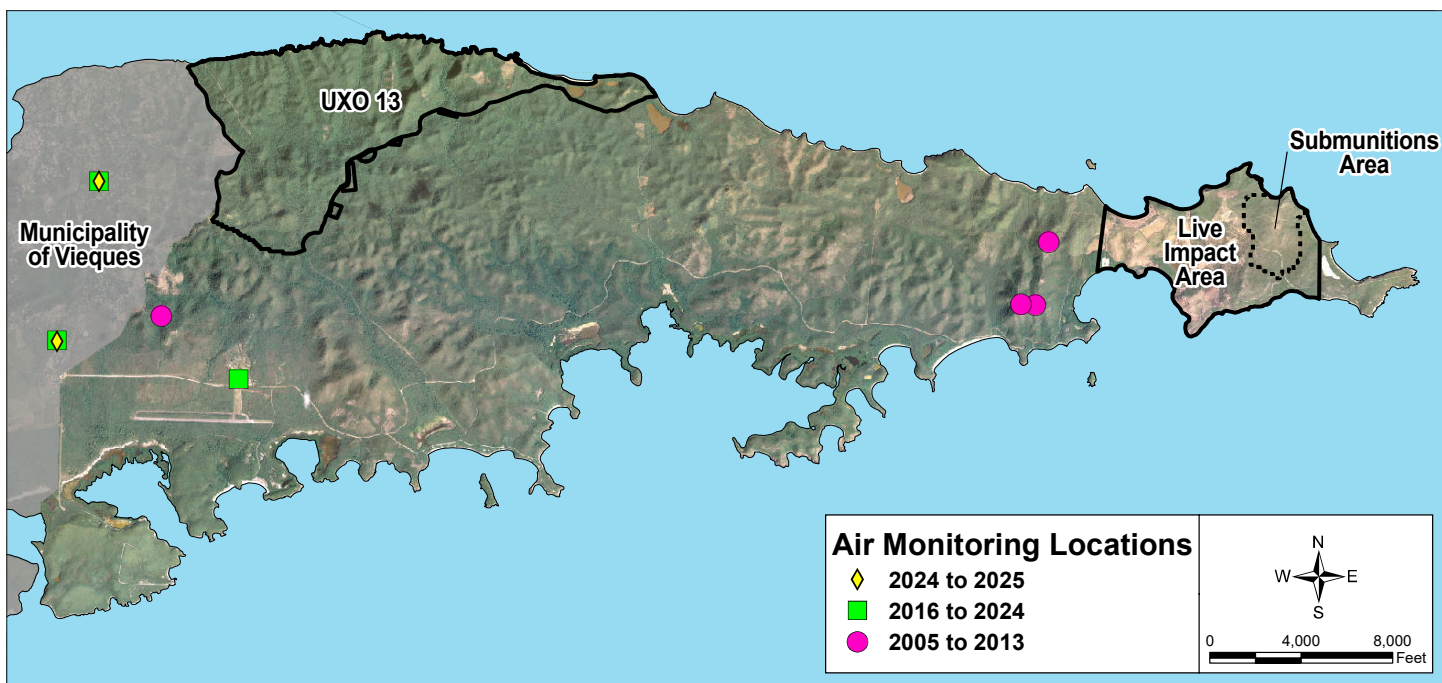


Air Quality Monitoring Instrument



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## What did ATSDR conclude?

The Agency for Toxic Substances and Disease Registry (ATSDR) completed Public Health Evaluations of Vieques in 2003 and 2013, examining air sampling and modeling studies by the Puerto Rico Environmental Quality Board, local researchers, the Navy, and ATSDR scientists. In a fact sheet released to the public in 2013, ATSDR concluded, “Air pollution in the residential areas of Vieques was not and is not a public health hazard.”

## What about the Sahara dust?

At certain times of year, dust from the Sahara Desert may travel across the Atlantic Ocean and reach Vieques. The Sahara Desert covers a very large area (approximately 2.3 billion acres) that is roughly the size of the United States. As a result, strong Sahara winds generate enormous plumes of dust that can travel hundreds of miles. In contrast, the open detonations on Vieques generate dust from very small areas (much less than 1 acre), and these small plumes readily mix with the surrounding air and disperse before reaching the populated areas of Vieques.

## Follow the 3Rs of Explosives Safety



**If you did not drop it,  
do NOT pick it up!**

### REFERENCES

1. ATSDR's Evaluation for Vieques, Puerto Rico, Updated 2013, Fact Sheet CS228506-A (ATSDR, 2013).

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