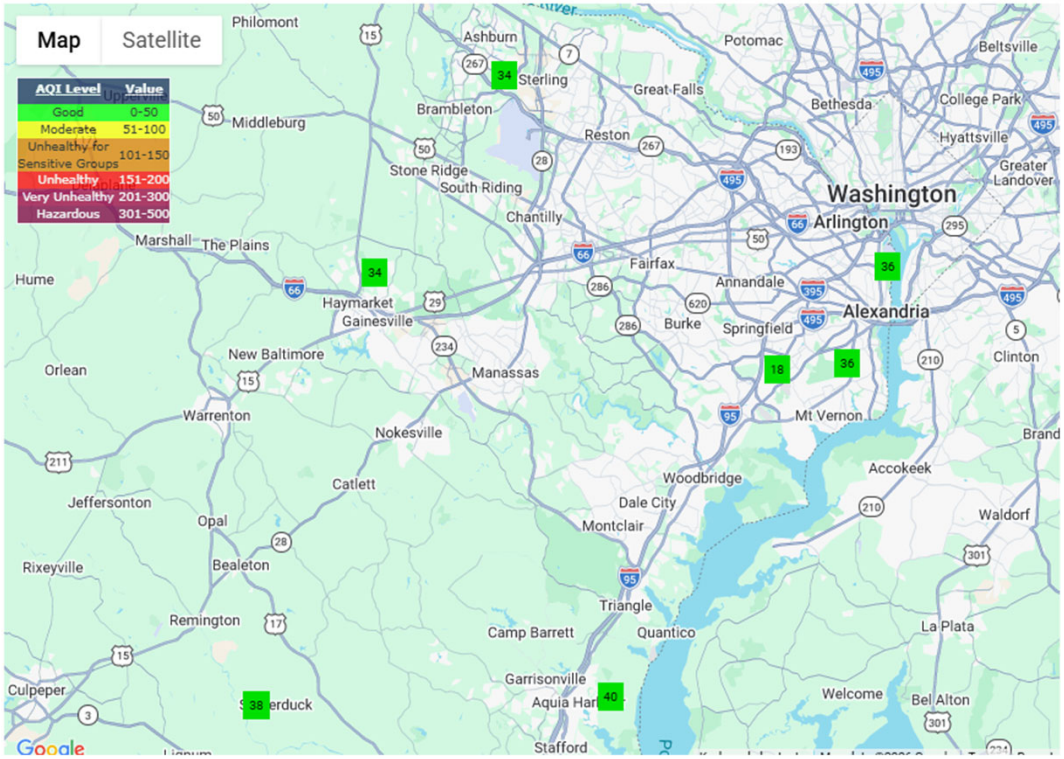
Data Center Air Monitoring Project

Air Quality Impacts in Loudoun and Prince William Counties

Charles L. “Chuck” Turner
Manager, Office of Air Quality Monitoring
Virginia Department of Environmental Quality
December 2, 2026

Virginia DEQ NoVA Air Monitoring Network



DEQ

Virginia DEQ NoVA Air Monitoring Network

VA DEQ, AQCR VII NORTHERN VIRGINIA, July 1, 2026

SITE I.D.	AQM SITE NAME	POLLUTANT MEASURED	METHOD OR INSTRUMENT (method code)	SAMPLING INTERVAL	LOCATION	LATITUDE	LONGITUDE
51-013-0020	Aurora Hills	O3(44201)	UV Absorption (047)	Continuous	Arlington -	38.8577	-77.0592
(47-T)		NO2, True (42602)	CAPS (212)	Continuous	Aurora Hills		
		CO (42101)	Nondispersive Infrared (054)	Continuous	Visitors Center		
		PM2.5 FRM* (88101)	Sequential (145)	1/3			
51-059-0030	Franconia (Lee District Park)	O3(44201)	UV Absorption (047)	Continuous	Fairfax -	38.7734	-77.1047
(46-B9)		SO2 (42401)	Fluorescence (060)	Continuous	Lee District park		
		PM2.5 FEM* (88101)	Broadband Spectroscopy (638)	Continuous			
		PM10 FEM (81102)	Broadband Spectroscopy (639)	Continuous			
		PM2.5 FEM* (88101)	Broadband Spectroscopy (638)	Continuous			
		PM10 FEM (81102)	Broadband Spectroscopy (639)	Continuous			
51-107-1005	Ashburn	O3(44201)	UV Absorption (047)	Continuous	Loudoun Co. -	39.0247	-77.4893
(38-I)		NO2, True (42602)	CAPS (212)	Continuous	Broad Run High School		
		PM2.5 FEM* (88101)	Broadband Spectroscopy (638)	Continuous			
		PM10 FEM (81102)	Broadband Spectroscopy (639)	Continuous			
51-153-0009	Long Park	O3(44201)	UV Absorption (047)	Continuous	Prince William Co. -	38.8529	-77.6346
(45-L)		NO2, True (42602)	CAPS (212)	Continuous	Long Park		
51-059-0031	Backlick	NO2, True (42602)	CAPS (212)	Continuous	Fairfax County	38.7684	-77.1835
(46-C2)		CO (42101)	Nondispersive Infrared (054)	Continuous	Backlick Rd. Park and Ride		
		PM2.5 FEM* (88101)	Broadband Spectroscopy (636)	Continuous			

SP2

Data Center Air Monitoring Project

- The Data Center Air Monitoring Project began in February 2026
- The project is directed at determining possible air quality impacts in areas of concentrated Data Center operation and construction
- Currently the project is targeting Loudoun County and Prince William County.
- The structure of the project is to begin with a period of intensive air quality sensor installation and data collection.
- Following the sensor phase DEQ will follow up with air quality measurement using FEM/FRM approved monitoring equipment.

SP1



DEQ

Slide 4

SP1 This may be confusing, consider just using DEQ
Pentecost, Sarah (DEQ), 2026-05-18T14:51:55.559

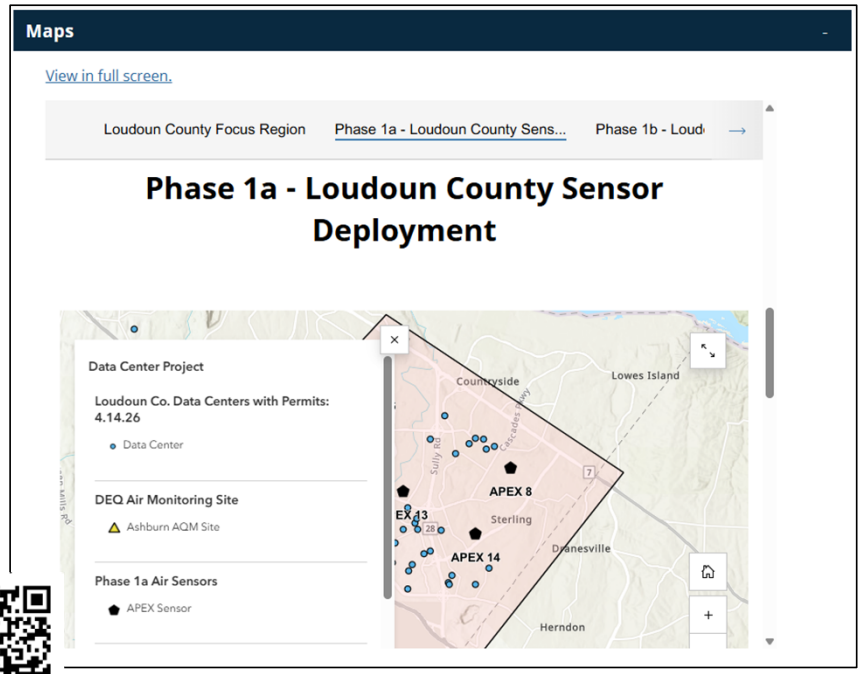
SP2 I added the photo
Pentecost, Sarah (DEQ), 2026-05-18T14:53:34.757

SP1

Data Center Air Monitoring Project Web Page

- DEQ received 7 sensors through the Region III sensor loan program.
- DEQ in cooperation with the sensor manufacture has set up a web page on the DEQ Web Site
- The current Data Center Project web page contains descriptive information and is updated weekly with the project data report
- The web page can be accessed at the following link:

https://www.deq.virginia.gov/news-info/shortcuts/topics-of-interest/data-center-air-monitoring-project



DEQ

Slide 5

SP1 I added a screenshot and QR code

Pentecost, Sarah (DEQ), 2026-05-18T14:57:34.550

Virginia DEQ NoVA Air Monitoring Network



Franconia District Park

QUESTIONS?



Broad Run, Ashburn

Backlick Road, Springfield



DEQ