

## U.S. Virgin Islands Monitoring Network Plan

The following is the PM<sub>10</sub> and PM<sub>2.5</sub> monitoring network plan description which is available to the public for comment. After that review period it must be submitted to the Regional Administrator for approval (40CFR § 58.20).

Site Location	Bethlehem Village
Site Address	Bethlehem Village Management Office
Site Specific Name	Bethlehem Village
AQS Number	78-010-0012
VI County	St. Croix
Statistical Area	US Virgin Islands
Coordinates	Latitude 17.714444 Longitude -64.785278

This site was established in July 1979. Sampling for Total Suspended Particulate (TSP) was the reason why this site was originally established. TSP monitoring ended in 1995. PM<sub>10</sub> Federal Reference Method (FRM) began in 1996, PM<sub>2.5</sub> FRM monitoring in 1999.

The parameters monitored are indicated in the following table:

Parameter	Sampling Method	Analysis Method	Schedule	Spatial Scale
PM <sub>2.5</sub> FRM	116	gravimetric	1 in 6 day	Neighborhood
PM <sub>10</sub> FRM	062	gravimetric	1 in 6 day	Neighborhood

### Monitoring objective statement:

Population Exposure

### Statement of Purpose statement:

The goal of the Particulate Matter, two and a half microns or less (PM<sub>2.5</sub>) and Particulate Matter ten microns or less (PM<sub>10</sub>) monitoring program is to provide ambient data that supports the nation's air quality programs. The ambient data from this network will drive an array of regulatory decisions, ranging from designating areas as attainment or non attainment, to developing cost effective control programs. Data from this program will also be used for the National Ambient Air Quality Standards (NAAQS) comparisons, development and tracking of implementation plans, assessments for regional haze, and assistance for health studies and other aerosol research activities.

This site was established to be in compliance with the regulations.

This site is suitable for comparison against the annual PM<sub>2.5</sub> NAAQS standard:

There are no planned changes to the site within the next 18 months.

Site Location	FAA Emergency Pump Station
Site Address	FAA Emergency Pump Station Estate Mannings Bay
Site Specific Name	FAA
AQS Number	78-010-0008
VI County	St. Croix
Statistical Area	US Virgin Islands
Coordinates	Latitude 17.710278 Longitude -64.793889

This site was established in 1976 for TSP and SO<sub>2</sub>. TSP monitoring ended in 1989 and SO<sub>2</sub> in 1980. EMSL Trace Metal monitoring began in 1977 and ended in 1989. Particulate Matter ten microns or less (PM<sub>10</sub>) sampling began in 1987. A PM<sub>10</sub> FRM Hi-Vol Wedding & Associates 1 in 6 day sampler was operated at the site until 2007. In 2008, the Wedding was replaced with a Thermo Environmental 1400A Continuous PM<sub>10</sub> monitor which was installed at the site and remains in operation to the present.

The PM<sub>10</sub> parameter monitored is indicated in the following table:

Parameter	Sampling Method	Analysis Method	Schedule	Spatial Scale
PM <sub>10</sub> Continuous Raw Data	079	TEOM Gravimetric Continuous	Continuous	Neighborhood

**Monitoring objective statement:**

Population Exposure

**Statement of Purpose statement:**

The goal of the Particulate Matter, ten microns or less (PM<sub>10</sub>) monitoring program is to provide ambient data that supports the nation's air quality programs. The ambient data from this network will drive an array of regulatory decisions, ranging from designating areas as attainment or non attainment, to developing cost effective control programs. Data from this program will also be used for the National Ambient Air Quality Standards (NAAQS) comparisons, development and tracking of implementation plans, assessments for regional haze, and assistance for health studies and other aerosol research activities.

This site was established for reporting daily air quality, especially in instances of Sahara dust storms from the Sahara Desert in Africa, and volcanic ash from the Volcano on the Caribbean island of Monseratt. These events occur in the territory throughout the year. The Air Quality Index (AQI) has six sections of which each color coded section has a level of health concern and AQI value range. This gives the public a better understanding of the air quality.

This site is not suitable for comparison against the annual PM<sub>2.5</sub> NAAQS standard:

There are no planned changes to the site within the next 18 months.

Site Location	Cyril E. King Airport
Site Address	#70 Lindberg Bay
Site Specific Name	Cyril E. King Airport
AQS Number	78-030-0007
VI County	St. Thomas
Statistical Area	US Virgin Islands
Coordinates	Latitude 18.338611 Longitude -64.970556

This site was established in October 1984 for Total Suspended Particulate (TSP) and CAM-SO<sub>2</sub>. In 1995 TSP and CAM-SO<sub>2</sub> sampling was discontinued. Particulate Matter ten microns or less (PM<sub>10</sub>) sampling began in 1987. A Wedding and Associates FRM PM<sub>10</sub> monitor was in operation at the site until 2007. It was replaced by a Thermo Environmental 1400A PM<sub>10</sub> TEOM Continuous monitor, which is still presently in operation there.

The parameter monitored is indicated in the following table:

Parameter	Sampling Method	Analysis Method	Schedule	Spatial Scale
PM <sub>10</sub> Continuous Raw Data	079	TEOM Gravimetric Continuous	Continuous	Neighborhood

**Monitoring objective statement:**

Population Exposure

**Statement of Purpose statement:**

The goal of the Particulate Matter, ten microns or less (PM<sub>10</sub>) monitoring program is to provide ambient data that supports the nation's air quality programs. The ambient data from this network will drive an array of regulatory decisions, ranging from designating areas as attainment or non attainment, to developing cost effective control programs. Data from this program will also be used for the National Ambient Air Quality Standards (NAAQS) comparisons, development and tracking of implementation plans, assessments for regional haze, and assistance for health studies and other aerosol research activities.

This site was established for reporting daily air quality, especially in instances of Sahara dust storms from the Sahara Desert in Africa, and volcanic ash from the Volcano on the Caribbean island of

Monseratt. These storms are passing through the territory throughout the year.

The public can obtain a better understanding of the air quality through using the Air Quality (AQI) Index. The AQI has six levels. Each color coded section has a level of health concern and AQI value range.

This site is not suitable for comparison against the annual PM<sub>2.5</sub> NAAQS standard:

There are no planned changes to the site within the next 18 months.

Site Location	Waterfront/Vendor's Plaza
Site Address	# 8 Tarne Gade
Site Specific Name	Vendor's Plaza
AQS Number	78-030-0010
VI County	St. Thomas
Statistical Area	US Virgin Islands
Coordinates	Latitude 18.20446 Longitude 64.55.8551

This is a new site that has begun data collection with continuous TEOM 1400A samplers in 2007 for Particulate Matter ten microns or less (PM<sub>10</sub>) and Particulate Matter two and a half microns or less (PM<sub>2.5</sub>) sampling.

The parameters monitored are indicated in the following tables:

Parameter	Sampling Method	Analysis Method	Schedule	Spatial Scale
PM <sub>2.5</sub> Continuous Raw Data	789	TEOM Gravimetric Continuous	Continuous	Micro Scale
PM <sub>10</sub> Continuous Raw Data	079	TEOM Gravimetric Continuous	Continuous	Micro Scale

**Monitoring objective statement:**

Population Exposure

**Statement of Purpose statement:**

The goal of the Particulate Matter, ten microns or less (PM<sub>10</sub>), and Particulate Matter two and a half microns or less (PM<sub>2.5</sub>) monitoring program is to provide ambient data that supports the nation's air quality programs. The ambient data from this network will drive an array of regulatory decisions, ranging from designating areas as attainment or non attainment, to developing cost effective control programs. Data from this program will also be used for the National Ambient Air Quality Standards (NAAQS) comparisons, development and tracking of implementation plans, assessments for regional haze, and assistance for health studies and other aerosol research activities.

This site was established for reporting daily air quality, especially in instances of Sahara dust storms from the Sahara Desert in Africa, and volcanic ash from the Volcano on the Caribbean island of Monseratt. These storms are passing through the territory throughout the year. Through the use of the Air Quality (AQI) Index of which there are six levels. Each color coded section has a level of health concern and AQI value range. This gives the public a better understanding of the air quality.

There are no planned changes to the site within the next 18 months.

Site Location	St. Croix Central High School
Site Address	Cotton Garden
Site Specific Name	St. Croix Central High School
AQS Number	To Be Determined
VI County	St. Croix
Statistical Area	US Virgin Islands
Coordinates	Latitude N 17 43 31' Longitude W 64 46 49'

The Department of Planning and Natural Resources is currently in the process of its planning and preparation for the implementation of its candidate NCore multi-pollutant monitoring station on the island of St. Croix at the St. Croix Central High School as per regulations:

40CFR § 58.13

(a) The network of NCore multi-pollutant sites must be physically established no later than January 1, 2011, and at that time, operating under all of the requirements of this part, including the requirements of appendices A, C, D, E, and G to this part.

The parameters monitored are indicated in the following tables:

Parameter	Sampling Method	Analysis Method	Schedule	Spatial Scale
Ozone	To Be Determined	UV Adsorption	Continuous	Neighborhood and Urban Scale
NO	To Be Determined	Chemiluminescence	Continuous	Neighborhood and Urban Scale
Carbon Monoxide	To Be Determined	Trace Level Non-Dispersive Infrared Analysis	Continuous	Neighborhood Scale
SO <sub>2</sub>	To Be Determined	Pulsed Fluorescence	Continuous	Neighborhood Scale
PM <sub>10</sub> /PM <sub>2.5</sub>	079/789	Tapered Element Oscillating Microbalance/gravimetric analysis	1 in 3 day 1-hour reporting interval	Urban
Surface Meteorology		Air Quality measurements approved instrumentation for wind speed, wind direction, humidity, barometric pressure, temperature, rainfall, and solar radiation		

**Monitoring objective statement:**

Provide multi-pollutant data that will be used in trend studies.

**Statement of Purpose statement:**

The purpose is to enhance ambient air quality monitoring to better serve current and future air quality needs. This station will provide data on several pollutants at lower detection limits.