Appendix E: State of Hawaii 2023 Air Monitoring Network Plan and EPA Approval Letter

State of Hawaii 2023 Air Monitoring Network Plan

State of Hawaii
2023
Air Monitoring Network Plan

Submitted to the U.S. EPA Region 9
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Prepared by:
State of Hawaii
Department of Health

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Clean Air Branch

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Acronyms and Definitions

AADT	Annual Average Daily Traffic
AQI	Air Quality Index
AQS	Environmental Protection Agency Air Quality System
BAM	Beta-Attenuation Mass Monitor
CAA	Clean Air Act
CAB	State of Hawaii Department of Health Clean Air Branch
CAB-IT	Clean Air Branch Information Technology
CBSA	Core-Based Statistical Areas
CFR	Code of Federal Regulations
CO	Carbon Monoxide
DOH	Hawaii State Department of Health
DRR	Data Requirements Rule
DWS	Hawaii County Department of Water Supply
ECA	(North American) Emissions Control Area (Maritime)
EPA	United States Environmental Protection Agency
FEM	Federal Equivalent Method
FRM	Federal Reference Method
H_2S	Hydrogen Sulfide
HECO	Hawaiian Electric Company
IMPROVE	Integrated Monitoring of Protected Visual Environments
LERZ	Kilauea Volcano Lower East Rift Zone
MSA	Metropolitan Statistical Area
MSL	Mean Sea Level
NAAQS	National Ambient Air Quality Standards
NCore	National Core Multi-Pollutant Monitoring Stations
NEI	National Emissions Inventory
NO	Nitrogen Oxide
NO_2	Nitrogen Dioxide
NO_y	Reactive Oxides of Nitrogen
O_3	Ozone
PAMS	Photochemical Assessment Monitoring Station
Pb	Lead
PGV	Puna Geothermal Ventures
PM	Particulate matter
$PM_{2.5}$	Particulate matter less than or equal to 2.5 microns in aerodynamic diameter
PM_{10}	Particulate matter less than or equal to 10 microns in aerodynamic diameter
$PM_{10-2.5}$	Particulate matter coarse
POC	Parameter Occurrence Code
PQAO	Primary Quality Assurance Organization
PPB	Parts per billion
PPM	Parts per million
PSD	Prevention of Significant Deterioration
PWEI	Population Weighted Emissions Index
QC	Quality Control
SLAMS	State and Local Air Monitoring Stations
SO_2	Sulfur Dioxide
SPM(S)	Special Purpose Monitoring (Stations)
VMAP	Vog Measurement and Prediction Project
VOG	Haze due to volcanic emissions
WD	Wind direction
WS	Wind speed
$\mu g/m^3$	micrograms per cubic meter of air

Introduction

The State of Hawaii Department of Health (DOH), Clean Air Branch (CAB) plans, operates, and maintains the statewide ambient air quality monitoring network. Ambient air monitoring data is submitted to the U.S. Environmental Protection Agency's (EPA) AirNow website which reports air quality using the Air Quality Index (AQI). This data is used to determine compliance with National Ambient Air Quality Standards (NAAQS), to track and characterize air quality trends, evaluate emission control strategies, and to support health studies.

The DOH manages the State and Local Air Monitoring Stations (SLAMS), Special Purpose Monitoring Stations (SPMS), and the National Core Multi-Pollutant Monitoring Station (NCore). DOH oversees an ambient air station on the island of Oahu that is operated by Hawaiian Electric Company (HECO) to meet the Data Requirements Rule (DRR). Additionally, Hawaii has two Interagency Monitoring of Protected Visual Environments (IMPROVE) stations located at Haleakala National Park on Maui and Volcanoes National Park on the island of Hawaii. The IMPROVE stations are operated and maintained by the National Park Service through their federal land management agency.

This annual review evaluates the state's existing ambient air monitoring network to determine adequacy in meeting monitoring objectives, optimizing the network by adding new, relocating, or discontinuing stations, ensuring that air quality issues important to the state are being addressed, and that the quality assured data meets the needs of stakeholders.

This plan encompasses the 18-month period from July 1, 2023 through December 31, 2024. During this period, modifications to this plan may occur due to changes of available resources, staff reductions, funding restrictions, unanticipated community concerns, site issues, or new EPA monitoring requirements. This plan is being submitted to the EPA Region 9 according to the Code of Federal Regulations (CFR), Title 40, Part 58, Section 58.10 Annual monitoring network plan and periodic network assessment.

Notification of the plan availability for public inspection and comment was provided through public notices published on May 17, 2023 in the daily newspapers of all counties. The plan was available for inspection on the Clean Air Branch website at http://health.hawaii.gov/cab, for 30 days from May 17, 2023 to June 15, 2023. Documentation of public notification is provided in **Appendix A**. Comments received will be addressed and included in this plan.

1.0 Network Purpose and Design

1.1 Overview

In 1970, the federal Clean Air Act (CAA) was promulgated as a comprehensive response to address air pollution and created the EPA as the agency responsible for carrying out the law. In 1990, the CAA was amended, Title 40 of the Code of Federal Regulations (CFR) Part 50 required the EPA to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. This amendment identified six principal pollutants, which are called criteria air pollutants, they are: particulate matter (PM), sulfur dioxide (SO_2), carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), and lead (Pb). Additionally, the CAA NAAQS defined two types of standards:

- *Primary standards* set limits to protect public health including protecting "sensitive" populations such as asthmatics, children, and the elderly.
- *Secondary standards* set limits to protect public welfare, including the protection against decreased visibility, damage to animals, crops, vegetation, and buildings.

These standards are reviewed periodically and are subject to revisions. Additionally, there is a state standard for hydrogen sulfide (H_2S) that was established primarily to monitor the ambient air effects of geothermal energy production activities on the island of Hawaii.

40 CFR Part 58 requires that states establish and operate active ambient air quality surveillance systems in a manner that assures the most applicable data of the highest quality is collected. Appendix A to 40 CFR Part 58 provides the quality assurance requirements that each monitoring organization must implement to ensure that the data produced will be of the type and quality needed and expected by the data user. The data is used, in part, to support regulatory, research, and health decisions and to provide air quality information to the general public.

The ambient air monitoring network is designed for the following purposes:

- To determine compliance with the NAAQS.
- To provide the public with timely air quality information.
- To support air pollution research and health studies.
- To track pollution trends throughout the region, including non-urban areas.
- To develop emissions control strategies.
- To prevent or alleviate air pollution episodes by activating emergency control procedures.

The State of Hawaii's monitoring network consists of three major categories of monitoring stations, State and Local Air Monitoring Stations (SLAMS), National Core (NCore), and Special Purpose Monitoring Stations (SPMS).

The annual network review ensures that Hawaii continues to meet monitoring and siting requirements, the three basic monitoring objectives, addresses the six site types in 40

CFR Part 58, Appendix D, provides information for non-regulatory data goals, and complies with requirements of 40 CFR Part 58, Appendices A, C, D, and E as follows:

- *Appendix A: Quality Assurance Requirements for SLAMS, SPMS and PSD Air Monitoring*
- *Appendix C: Ambient Air Quality Monitoring Methodology*
- *Appendix D: Network Design Criteria for Ambient Air Quality Monitoring*
- *Appendix E: Probe and Monitoring Path Siting Criteria for Ambient Air Quality Monitoring*

1.1.1 State and Local Air Monitoring Stations (SLAMS)

The **SLAMS** sites were established primarily to determine compliance with the NAAQS and to meet minimum monitoring requirements set forth in 40 CFR Part 58, Appendix D but may also serve other data purposes such as providing real-time air pollution data for the general public, for regulatory decision making and compliance.

One of the main objectives is to show whether the state is in attainment or non-attainment of the seven criteria pollutants. Non-attainment of any of the NAAQS may have regulatory consequences addressed through the air permitting program. Historically, Hawaii has been in attainment of the NAAQS. Summarized data is available at: https://health.hawaii.gov/cab/hawaii-air-quality-data-books.

All SLAMS must meet quality assurance, methodology, and siting requirements of 40 CFR 58 Appendix A, C and E, respectively. All data is submitted to EPA's Air Quality System (AQS) within 90 days at the end of each calendar quarter, as required in 40 CFR 58.16.

On October 17, 2006, as published in the Federal Register, the EPA provided final rule revisions to ambient monitoring regulations as contained in 40 CFR, Parts 53 and 58. Included in these revised rules are the requirements for establishing NCore sites. NCore stations are established to support the tracking of long-term trends of criteria and non-criteria pollutants, model evaluation, long- term health and ecosystem assessments, and other scientific and technological studies.

It was mandated by the EPA that each state is required to operate at least one **NCore** site, to begin January 1, 2011, and measure, at a minimum, $PM_{2.5}$ particulate matter (particles with an average aerodynamic diameter of 2.5 micrometers or less) using continuous and integrated/filter-based samplers, speciated $PM_{2.5}$, $PM_{10-2.5}$ particulate matter, SO_2, CO, nitrogen oxide (NO), reactive oxides of nitrogen (NO_y), O_3, wind speed, wind direction, relative humidity and ambient temperature. Gas monitors at this site are more sensitive than the standard monitors used at the other sites. Concentrations measured are well below NAAQS but are important in the formation of ozone and particulate matter. Hawaii's SLAMS network includes a NCore site in Kapolei which became fully operational on January 1, 2011.

1.1.2 Special Purpose Monitoring Stations (SPMS)

The **SPMS** were established for specific areas of interest to the state and do not count in meeting the minimum monitoring requirements. However, all SPMS utilize

Federal Reference Methods (FRM), Federal Equivalent Methods (FEM), or Approved Regional Methods (ARM), and meet the requirements of 40 CFR Part 58, Appendix E, follow all the quality assurance criteria contained in 40 CFR Part 58, Appendix A as well as the data quality and measurement quality objectives and siting requirements. All data from SPMS which have operated for more than 24 months are eligible for comparison to respective NAAQS.

Areas of Interest for special purpose air monitoring are from sources that are natural and man-made. Hawaii's SPM network is established primarily to monitor air quality impacts of emissions from Kilauea volcano, hydrogen sulfide (H_2S) emissions from geothermal energy production and impacts from cruise ships on the island of Kauai.

1.2 Network Design and Review Process

The network review process is conducted to determine if any changes or modifications to the network are necessary. Changes such as meeting new NAAQS monitoring requirements, utilizing newer and better technology, reducing or eliminating redundancy and low value monitoring, ensuring that enough data is being collected using the best technology, and that all siting and quality assurance requirements are met.

Modification decisions are made using a variety of tools, including but not limited to: data trend analyses; performance and technical systems audits; regular site inspections; cost and value analyses; assessment of unfavorable site changes such as loss of lease or construction that adversely affect data collection; and the need to address special studies or new regulatory as well as non-regulatory monitoring objectives.

1.2.1 Monitoring Objectives and Site Types

Ambient air monitoring networks must be designed to meet three basic objectives as stated in 40 CFR Part 58, Appendix D:

1) Provide air pollution data to the general public in a timely manner.
2) Support compliance with NAAQS and emissions strategy development.
3) Support air pollution research studies.

The state's ambient air monitoring network achieves all three objectives as follows:

1) Air pollution data from all SLAMS and SPMS are exhibited near real-time on the DOH public website. Additionally, continuous $PM_{2.5}$ and O_3 data is provided to EPA's AIRNow website for use in calculating the AQI, SO_2 data is provided for the Hawaii SO_2 Short Term Advisory, and $PM_{2.5}$ and SO_2 data is provided to the Vog Measurement and Prediction Project (VMAP).
2) Data from SLAMS are used to demonstrate compliance with the NAAQS and in development and tracking of emissions control strategies. Similarly, data from the NCore station is used to demonstrate compliance with the NAAQS and to track long-term trends of criteria and non-criteria pollutants as well as support emissions control strategies.
3) All SLAMS, SPMS, and NCore monitoring provide valuable information in support of air pollution, health, and other scientific studies.

In order for the network to support the three basic objectives outlined above, it must be designed with a variety of monitoring site types. The six general site types are:

1) Determine the highest pollutant concentrations expected in the network.
2) Measure typical concentrations in areas of high population density.
3) Determine the impact of significant sources or source categories on air quality.
4) Determine general background concentrations.
5) Determine the extent of regional pollutant transport between populated areas.
6) Measure pollution impacts on visibility, vegetation, crops, animals, and buildings.

The site type for each station in the network is included in its detailed description in Section 3.0 of this plan.

1.2.2 $PM_{2.5}$ Network Changes

According to 40 CFR 58.10 (c), this network plan must document how the state will provide for the review of changes to a $PM_{2.5}$ monitoring network that impact the location of a violating $PM_{2.5}$ monitor. The agency must document the process for obtaining public comment and include any comments received through the public notification process within the submitted plan. The state has in place a public notification procedure which includes posting a notice in the newspapers of all counties and on the agency web site allowing for public inspection and comments of the changes that are in the annual network plan document. Any comments received are reviewed and if appropriate provided a response.

1.3 Organizational Structure and Responsibilities

The CAB is the state agency responsible for air pollution control in Hawaii and includes planning, management, data collection, quality assurance, and regulatory activities. The DOH serves as the Primary Quality Assurance Organization (PQAO).

The CAB is responsible for the overall planning, siting, and quality assurance oversight of the ambient air monitoring program as well as all data collection activities including installing, operating, and maintaining ambient air monitoring equipment and stations, in order to provide valid quality assured, defensible data that meet EPA QA requirements. The CAB-IT provides the quality assured data to AQS. The DOH contracts out laboratory support for collocated $PM_{2.5}$ mass analyses.

2.0 Network Evaluation

The criteria ambient air quality network for the State of Hawaii is established according to the requirements of 40 CFR Part 58, Appendix D. The CAB is responsible for ensuring that the network meets or exceeds the minimum EPA monitoring requirements and locating stations to adequately address the purposes and objectives. The criteria and NCore pollutants covered in this document; CO, NO_2, O_3, SO_2, PM_{10}, and $PM_{2.5}$ are currently monitored at sixteen (16) stations statewide as follows:

- one (1) SLAMS and one (1) NCore CO monitors.
- one (1) SLAMS NO_2 monitor.
- one (1) NCore NO/NO_y monitor.
- one (1) SLAMS and one (1) NCore O_3 monitors.
- four (4) SLAMS, eight (8) SPMS, and one (1) NCore SO_2 monitors.
- one (1) SPMS H_2S monitor.
- one (1) SLAMS and one (1) NCore PM_{10} monitors.
- two (2) SLAMS, ten (10) SPMS, and one (1) NCore $PM_{2.5}$ monitors.

40 CFR Part 58, Appendix D identifies the minimum monitoring requirements for criteria pollutants in the SLAMS network. The monitoring requirements are based on the latest census population in each Metropolitan Statistical Area (MSA). MSAs are defined by the Federal Office of Management and Budget (OMB) and the U.S. Census Bureau. According to the OMB, there are two MSAs in the state: Urban Honolulu with a 2022 census population of 995,638 and Kahului-Wailuku-Lahaina in Maui County with a 2022 census population of 164,351. The 2022 census population was estimated at 1,440,196 for the state, down 0.5% from the updated 2021 estimate of 1,447,154. There are five counties in the state: Kauai (islands of Niihau and Kauai); City & County of Honolulu (island of Oahu); Maui (islands of Maui, Molokai excluding Kalawao County, Lanai, and Kahoolawe); Kalawao (Kalaupapa Settlement on Molokai) and Hawaii (island of Hawaii). Hawaii's network meets the minimum monitoring requirements.

As the NAAQS are revised, the number of required monitors may also change, some of the tools that may be used to determine network adequacy are:

- Historical monitoring data.
- Maps of emissions densities.
- Dispersion modeling.
- Special studies.
- Best professional judgment.
- State Implementation Plan requirements.
- Monitoring strategies.
- Population density changes.
- Traffic counts.

The actual geographic location of monitors in the network is reviewed using maps, photographs, and GIS information. Plots of source emissions, historical monitoring data, population density, and other special study findings may also be used to evaluate the monitor locations.

The stated objective for each monitoring site is reconfirmed and the location's spatial scale is verified. If the site location does not support the stated objectives or the designated spatial scale, changes will be proposed to the EPA in the annual network plan to rectify the discrepancy.

An integral part of the network review is an in-depth determination of whether it meets the needs of specific state objectives as well as budgetary and staff limitations. This includes reviewing for:

- The need for new monitors or monitoring sites.
- The need to relocate existing monitors.
- Siting problems and solutions.
- Data submittal and completeness problems.
- Station maintenance issues.
- Quality assurance problems.
- The need for air quality studies and special monitoring programs.
- Other issues such as proposed regulations and funding.

The network review is documented in the annual network plan and is made available for public inspection at least thirty (30) days prior to submittal to EPA Region 9 on or before July 1 of each year. The most current network plan is posted on the CAB website at http://health.hawaii.gov/cab under "Reports".

2.1 $PM_{2.5}$ Network

The state must operate a minimum number of required $PM_{2.5}$ monitors based on population and the most recent 3-year design value in each MSA. There are three $PM_{2.5}$ SLAMS in the Honolulu MSA and one SLAMS in the Maui MSA with complete design values. The design value for the annual $PM_{2.5}$ standard is the most current 3-year average annual mean for each site. The design value for the 24-hour $PM_{2.5}$ standard is the most current 3-year average of annual 98^{th} percentile 24-hour values recorded at each monitoring site. Table 2-1 shows the annual and daily design values for complete data years 2020 to 2022.

The most recent 3-year design values in the Honolulu and Maui MSAs were less than 85% of any $PM_{2.5}$ NAAQS. Table 2-2 shows that the state operates more than the minimum monitoring requirements for $PM_{2.5}$ in each MSA. Additionally, in 2022, the state operated one SPMS in the Maui MSA and ten SPMS on the island of Hawaii for volcanic emissions. All stations use FEM monitors and follow the requirements of 40 CFR Part 58, Appendices A, D, and E. All SPMS except Keeau, Naalehu, and Waikoloa have been operating for more than 24 months and therefore are subject to NAAQS comparison; these three SPMS have been at their permanent location for less than 24 months.

To reduce the size of the $PM_{2.5}$ network, some monitors were temporarily discontinued. See Section 2.12 for discussion on site modifications and Section 3.0 for detailed location information.

The IMPROVE monitoring station (HACR1) at Haleakala National Park on Maui, operated by the National Park Service, serves as the background/transport $PM_{2.5}$ site

for the state's network. All primary $PM_{2.5}$ monitors operated by the state are continuous FEM. Figure 2-1 shows the map locations of all the $PM_{2.5}$ stations in the state.

Table 2-1. $PM_{2.5}$ Network and Concentrations for Each MSA

Site	AQS No.	Sampling Frequency	Annual Design Value (µg/m³) 2020 – 2022	Percent of Annual NAAQS (12µg/m³)	Daily Design Value (µg/m³) 2020-2022	Percent of 24-Hour NAAQS (35 µg/m³)
Honolulu MSA						
Honolulu	150031001	Continuous	3.1	26	6	17
Kapolei	150030010	Continuous	**3.7**	31	**8**	23
Pearl City[1]	150032004	Continuous	3.3	28	6	17
Sand Island	150031004	Continuous	3.6	30	7	20
Maui MSA						
Kihei[2]	150090006	Continuous	**2.6**	22	**7**	20

NOTE: Haleakala IMPROVE (150099001) is the $PM_{2.5}$ background/transport site for Hawaii and is operated and maintained by the NPS
[1] The Pearl City station discontinued operations on April 6, 2022.
[2] The Kihei station discontinued operations on March 30, 2022.

Table 2-2. $PM_{2.5}$ Minimum Monitoring Requirements for Each MSA

MSA Population Category (2022 Census) (40 CFR 58 Appendix D Table D-5)	Most recent 3-year Design Value ≥85% of any $PM_{2.5}$ NAAQS (≥29.75 µg/m³ for 24-hr standard; ≥10.2 µg/m³ for annual standard)	Most recent 3-year Design Value <85% of any $PM_{2.5}$ NAAQS (<29.75 µg/m³ for 24-hour standard; <10.2 µg/m³ for annual standard)
>1,000,000	3	2
500,000-1,000,000	2	**1**
50,000-<500,000	1	0

MSA	2022 Census Population (estimated)	Highest Annual Design Value 2020 – 2022	Highest Daily Design Value 2020-2022	Required No. of Monitors	Number of Active Monitors in the MSA	Number of Monitors Needed
Honolulu	995,638	3.7	8	1	3	0
Maui	164,351	2.6	7	0	1 SPMS	0

Appendix A to 40 CFR Part 58 requires that 15 percent of each $PM_{2.5}$ monitoring method be collocated. The state currently operates two SLAMS, one NCore and ten SPMS FEM monitors (thirteen total); eleven of which are using Method 209 and two that are using Method 238. Since the state is requesting temporary closures and modifications, the number of collocated monitors will be adjusted accordingly.

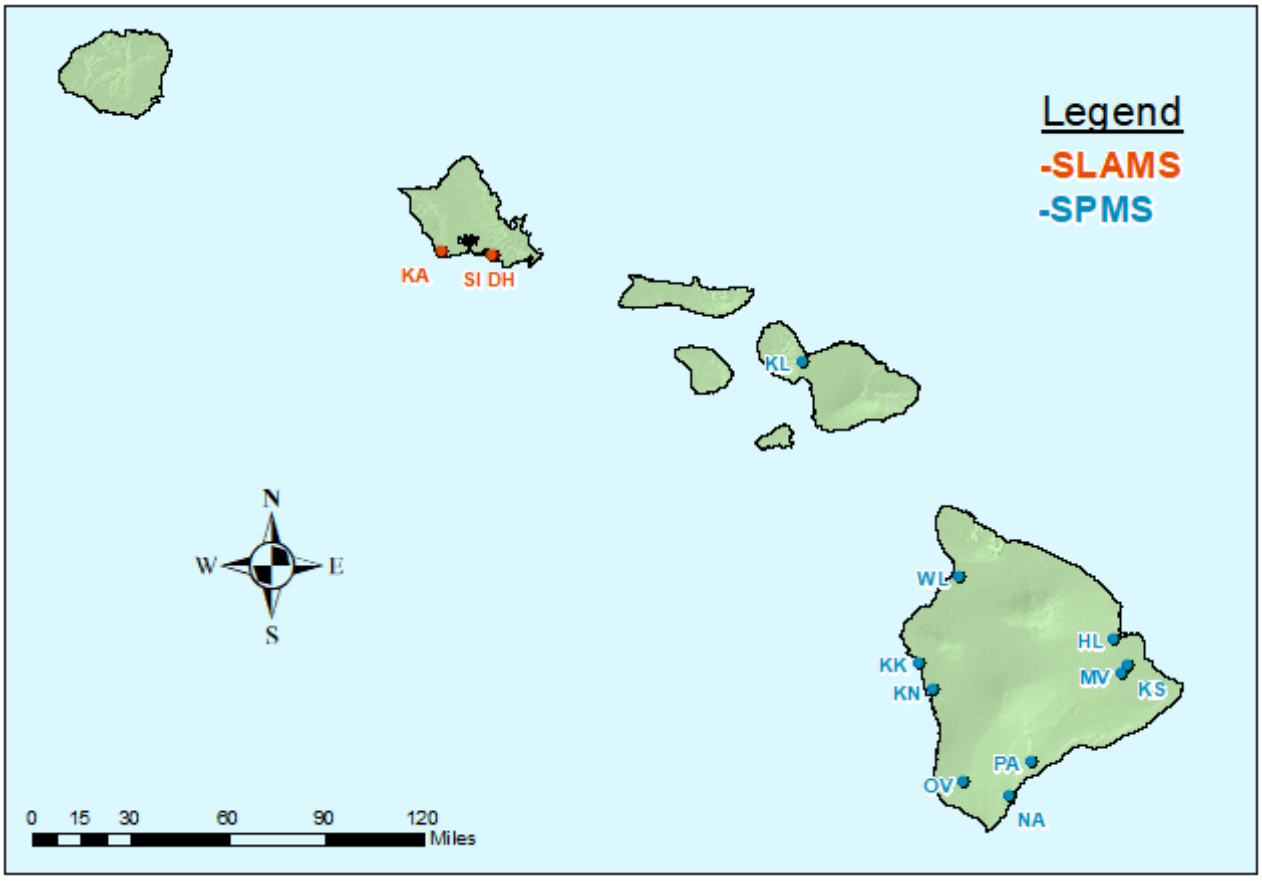
One collocated monitor is required for the stations using Method 238. One FRM collocated monitor is operating at the Kapolei NCore station to meet this requirement.

Two collocated monitors are currently required for the eleven stations using Method 209, one is the FRM collocated monitor operating at the Sand Island station. There is also a $PM_{2.5}$ FEM collocated at the Kona station. The state will adjust the number of collocated FRM and/or FEM monitors as needed, pending approvals for temporary site closures. Table 2-3 summarizes the $PM_{2.5}$ collocated network at the time of plan publication.

Table 2-3. $PM_{2.5}$ Collocated Network

Method Code	# Primary Monitors	# Required Collocated	# Active Collocated FRM	# Active Collocated FEM (same method designation as primary)
209	11	2	1	1
238	2	1	1	0

Figure 2-1. $PM_{2.5}$ Network



2.2 PM_{10} Network

The minimum number of required PM_{10} monitoring stations for the MSA is dependent upon population and concentration measurements. High concentration areas are those for which the ambient PM_{10} data show concentrations exceeding the PM_{10} NAAQS by 20 percent or more. Medium and low concentration areas are those for which ambient PM_{10} data show concentrations exceeding 80 percent of the NAAQS, and concentrations less than 80 percent of the NAAQS, respectively.

PM_{10} data for 2022 showed the Honolulu MSA to be a low concentration area (Table 2-4) and, therefore, is required to have one to two PM_{10} monitors (Table 2-5). In the absence of a PM_{10} design value for the Maui MSA and with a population <250,000, no PM_{10} monitoring is required in that MSA. The state meets the minimum PM_{10} monitoring requirements with two PM_{10} stations in the Honolulu MSA.

Table 2-4. PM_{10} Network and Concentrations for the Honolulu MSA[1]

Site Name	AQS No.	2022 Maximum 24-Hr Value ($\mu g/m^3$)	Percent of 24-Hr NAAQS	Sampling Frequency
Honolulu	150031001	25	17	Continuous
Kapolei	150030010	**51**	34	Continuous
Pearl City[2]	150032004	38	25	Continuous

[1] There is currently no PM_{10} monitor operating in the Maui MSA.
[2] The Pearl City station discontinued operations on April 6, 2022.

Table 2-5. PM_{10} Minimum Monitoring Requirements for Each MSA

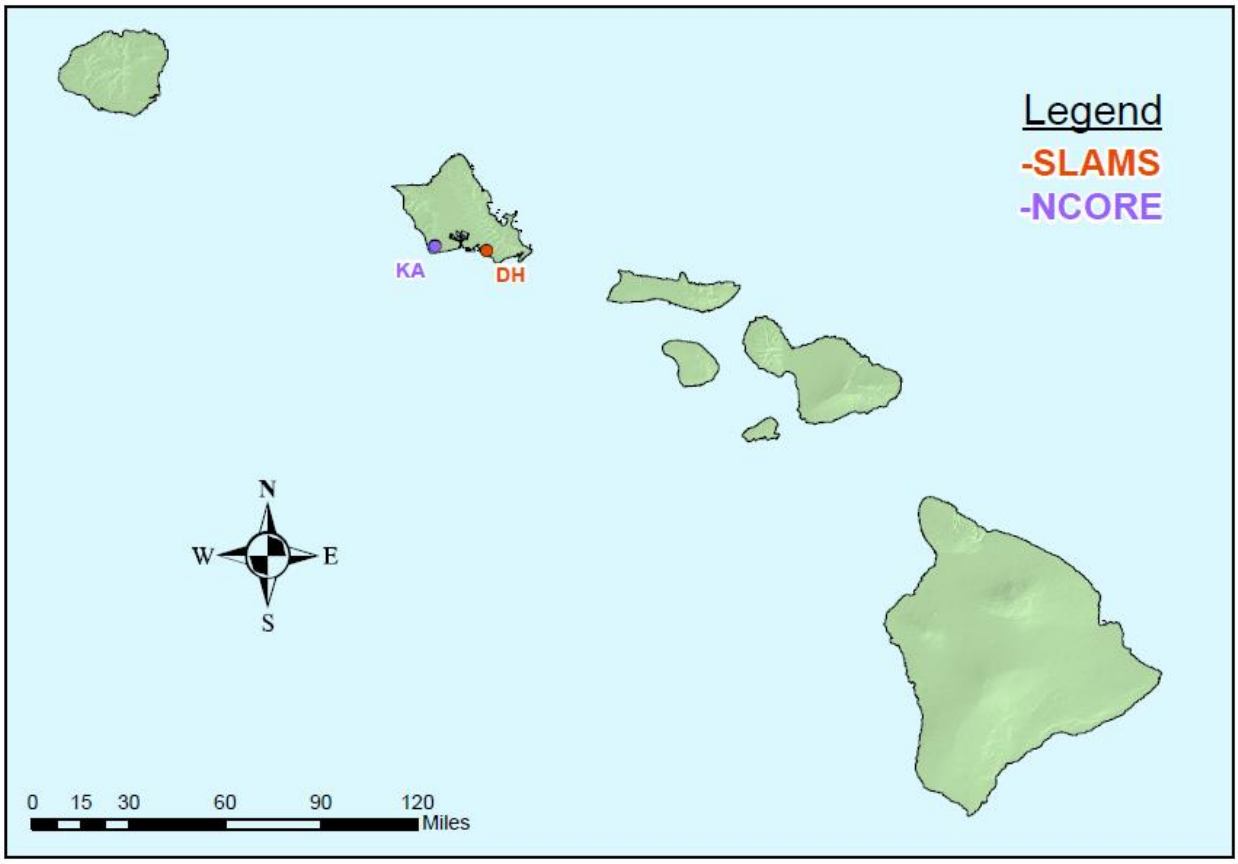
MSA Population Category (2022 Census) (40 CFR 58 Appendix D Table D-4)	High Concentration ≥120% of NAAQS (≥180 $\mu g/m^3$)	Medium Concentration >80% of NAAQS (>120 $\mu g/m^3$)	Low Concentration <80% of NAAQS (<120 $\mu g/m^3$)[1]
>1,000,000	6-10	4-8	2-4
500,000-1,000,000	4-8	2-4	**1-2**
250,000-500,000	3-4	1-2	0-1
100,000-250,000	1-2	0-1	0

MSA	2022 Census Population (estimated)	Highest 24-hr Value (2022)	Required # of Monitors	# of Active Monitors in the MSA	# of Monitors Needed
Honolulu	995,638	51 $\mu g/m^3$	1-2	2	0
Maui	164,351	No data available	0[1]	0	0

[1] 40 CFR Part 58, Appendix D, Section 4.6, Table D-4 states that in the absence of a design value, these minimum monitoring requirements apply.

Figure 2-2 is a map of the current PM_{10} sites in the state. All the PM_{10} stations are in the Honolulu MSA.

Figure 2-2. PM_{10} Network



2.3 Pb Network

Pb monitoring was conducted from January 1, 2012, until discontinued on December 31, 2018 at the Kapolei/NCore site. Concentrations of Pb measured during this period were approximately one to two percent of the standard. The state has no sources emitting greater than 0.5 tons per year according to the most recent emissions inventory. EPA approved the discontinuation of Pb monitoring per letter dated October 29, 2018.

Table 2-6. Minimum Pb Monitoring Requirement at NCore

NCore	AQS ID	CBSA	2022 Census Population (estimated)	# Required Monitors	# Active Monitors	# Monitors Needed
KA	150030010	Honolulu	995,638	*0	*0	0

* Per EPA letter dated October 29, 2018, the Pb monitoring at Kapolei NCore was approved to be discontinued.

2.4 O_3 Network

Depending upon MSA population and typical peak concentrations, the state must operate a minimum number of O_3 monitors. NCore sites are intended to complement O_3 data collection and can be used to meet the minimum monitoring requirements.

The O_3 monitoring season for the State of Hawaii is 12-months from January to December. The O_3 design value is the 3-year average of the fourth-highest daily maximum 8-hour concentrations measured at each monitor.

The most recent O_3 design value concentrations at the Sand Island and Kapolei NCore stations in the Honolulu MSA showed less than 85% of the O_3 NAAQS (Table 2-7). The Maui MSA does not have any O_3 monitoring. According to 40 CFR Part 58, Appendix D, Table D-2 and, as shown in Table 2-7 below, with a 2022 census population estimated at 164,351 and in the absence of a design value, no O_3 monitor is required in the Maui MSA. The state meets the minimum O_3 network monitoring requirements.

Table 2-7. O_3 Design Values for the Honolulu MSA

Stations in the MSA	8-Hour Design Value 2019 – 2021	2022 MSA Census Population	Required # of Monitors	# of Active Monitors in the MSA	# of Monitors Needed
Sand Island (150031004)	0.047	995,638 (estimated)	1	2	0
Kapolei (150030010)	0.048				
There is no O_3 monitor in the Maui MSA		164,351 (estimated)	0	0	0

Table 2-8. O_3 Minimum Monitoring Requirements for Each MSA

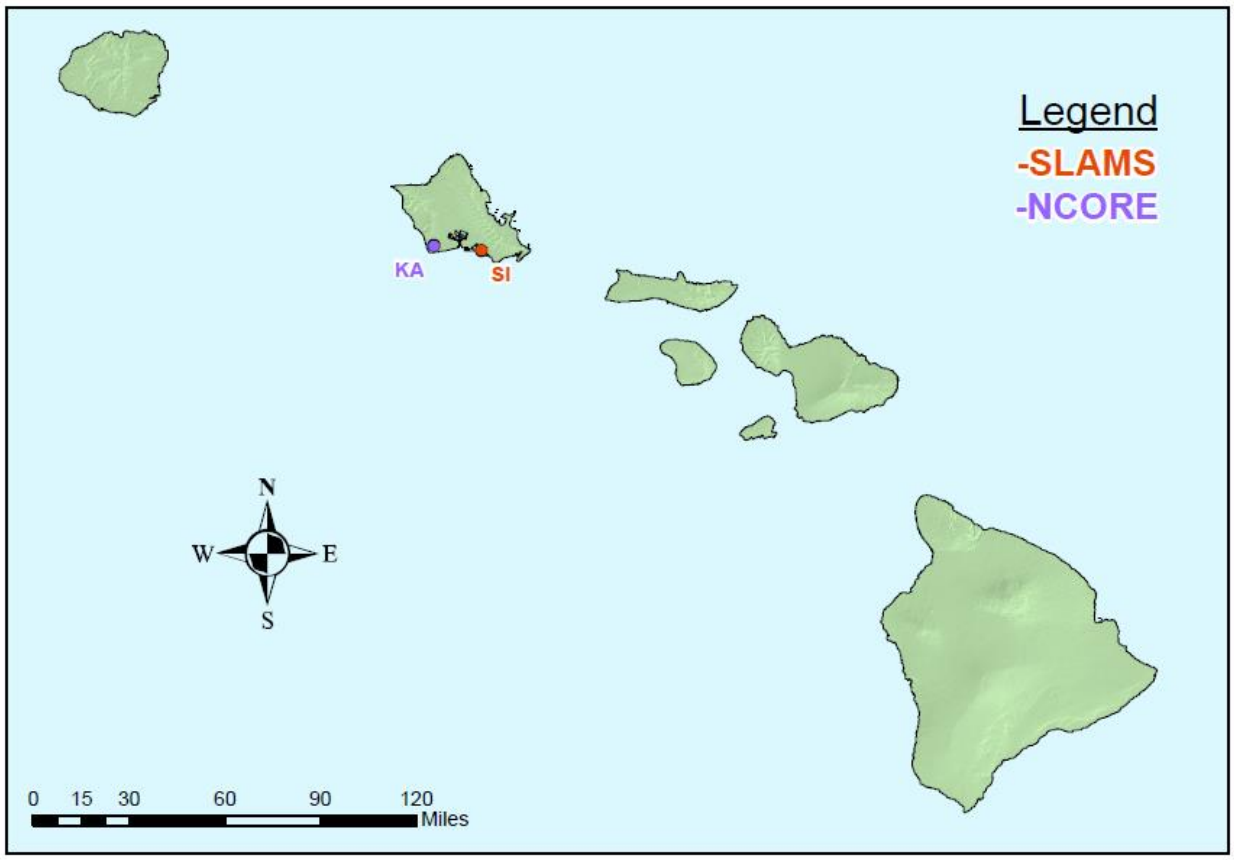
MSA Population Category (40 CFR 58 Appendix D Table D-2)	Most recent 3-year design value ≥85% of any O_3 NAAQS (≥.064 ppm, 8-hr standard)	Most recent 3-year design value <85% of any O_3 NAAQS (<.064 ppm, 8-hr standard)[1]
>10 million	4	2
4-10 million	3	1
350,000-<4 million	2	**1**
50,000-<350,000	1	0

[1] According to 40 CFR part 58 Appendix D, Table D-2, these minimum monitoring requirements apply in the absence of a design value.

Hawaii is in attainment with the 8-hour O_3 standard and is not required to submit an Enhanced Monitoring Plan (EMP). 40 CFR Part 58.10 requires that states with Moderate and above 8-hour O_3 nonattainment areas and states in the Ozone Transport Region as defined in 40 CFR 51.900 shall develop and implement an EMP.

Figure 2-3 shows the map locations of the SLAMS and NCore O_3 stations. Both stations are in the Honolulu MSA.

Figure 2-3. O_3 Network



2.5 NO_2 Network

40 CFR Part 58, Appendix D Section 4.3.3 requires area wide NO_2 monitoring in the location of highest expected concentration in Core-Based Statistical Areas (CBSA) with a population ≥1,000,000. The Honolulu MSA had a 2022 census population estimated at 995,638. The population and Annual Average Daily Traffic (AADT) for the Honolulu CBSA will be monitored, and when thresholds are reached, the near-road monitoring will be established.

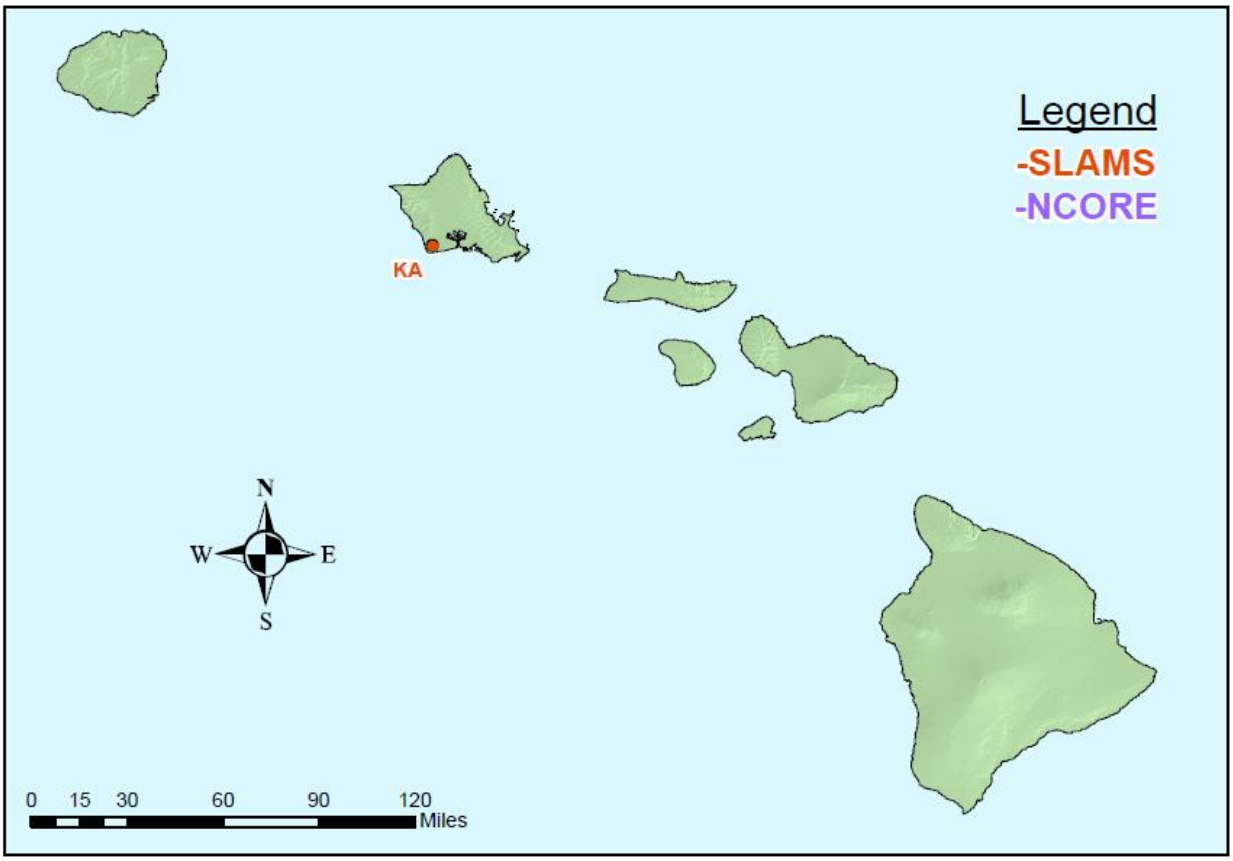
The state currently has one SLAMS NO_2 station in the Honolulu MSA which measures typical concentration in areas of high population density. Additionally, this location would be suitable as the area-wide monitor because it is in the area of highest expected concentration. No NO_2 monitoring is required in the Maui MSA.

Table 2-9. Minimum Near-Road NO_2 Monitoring Requirements for the MSA

CBSA	2022 Census Population (estimated)	Max AADT Counts (2021)[1]	# Required Monitors	# Monitors to be operational by 1/1/2017
Honolulu	995,638	252,626	0	0

[1] 2021 estimated average AADT provided by the State of Hawaii Department of Transportation, calculated from a 4% drop in volume from the 2019 count of 263,152.

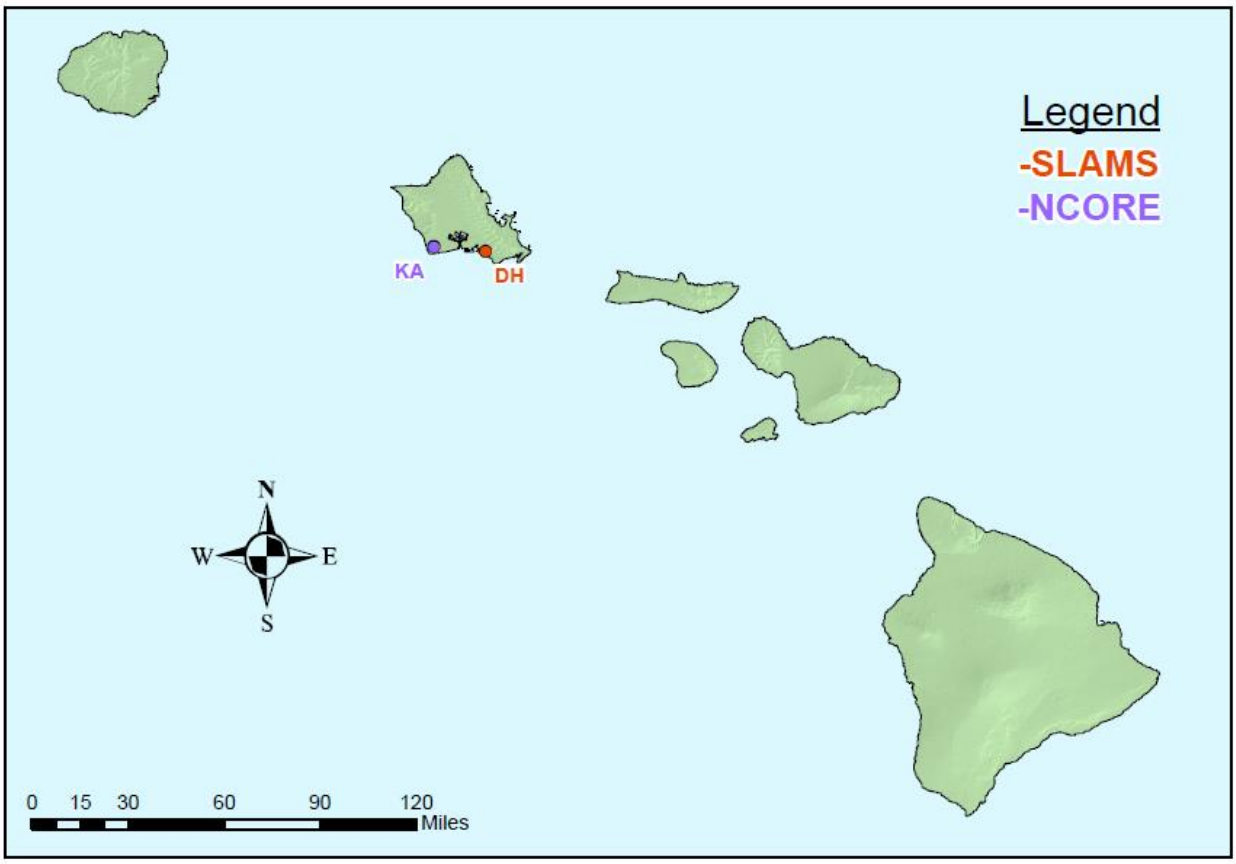
Figure 2-4. NO_2 Network



2.6 CO Network

The state operates two CO monitors, one SLAMS and one SLAMS/NCore, in the Honolulu MSA. Figure 2-5 shows the locations of the CO sites in the state. 40 CFR Part 58, Appendix D Section 4.2.2 requires one collocated CO monitor at near-road NO_2 sites in Core-based Statistical Areas (CBSA) with populations ≥1,000,000. The Honolulu MSA had a 2022 census population estimated at 995,638. The population and AADT for the Honolulu CBSA will be monitored, and when thresholds are reached, the near-road monitoring and the collocated CO monitor will be established. No CO monitoring is required in the Maui MSA.

Figure 2-5. CO Network



2.7 SO_2 Network

According to the Population Weighted Emissions Index (PWEI) calculation, established to determine SO_2 monitoring requirements, Hawaii is required to operate one SO_2 monitor in the Honolulu MSA and none in the Maui MSA (Table 2-10). The state currently operates one SLAMS SO_2 monitor in the Honolulu MSA, and one at the NCore station in Kapolei which meets the minimum number of required SO_2 stations. There are no requirements for a SO_2 monitor in the Maui MSA.

The SPM station on Kauai was established to measure SO_2 from cruise ship emissions and will continue. The FEM monitors SO_2, follows all requirements of 40 CFR Part 58, Appendices A, D, and E, and as of April 2, 2013, has been operating for more than 24 months and is eligible for comparison with the NAAQS.

Elevated levels of SO_2 in communities affected by volcanic emissions continue to be a concern on Hawaii island. In addition to eruptive episodes inside Halemaumau Crater at the summit of Kilauea volcano, on November 27, 2022, Mauna Loa erupted for the first time in forty years. Although the eruption lasted less than 2 weeks, there were concerns during that time that there was insufficient coverage of SO_2 monitoring on the north side of the island. Thus, an SO_2 monitor was added at the Waikoloa station.

To provide timely notification of SO_2 levels on Hawaii Island there are currently nine stations monitoring for SO_2, two are SLAMS (Hilo and Kona) and seven (Mountain View, Pahala, Ocean View, Keeau, Naalehu, Leilani, and Waikoloa) are SPMS. All stations use FEM monitors and follow the requirements of 40 CFR Part 58, Appendices A, D, and E. Mountain View, Pahala, Ocean View, and Leilani have been operating for more than 24 months and are eligible for NAAQS comparison. The probe at Naalehu does not meet siting requirements, and Keeau and Waikoloa have operated at their permanent location for less than 24 months, therefore these stations are not currently subject to NAAQS comparisons. See Section 2.12 for discussion on site modifications and Section 3.0 for detailed location information. Figure 2-6 shows the locations of the SLAMS and SPMS discussed.

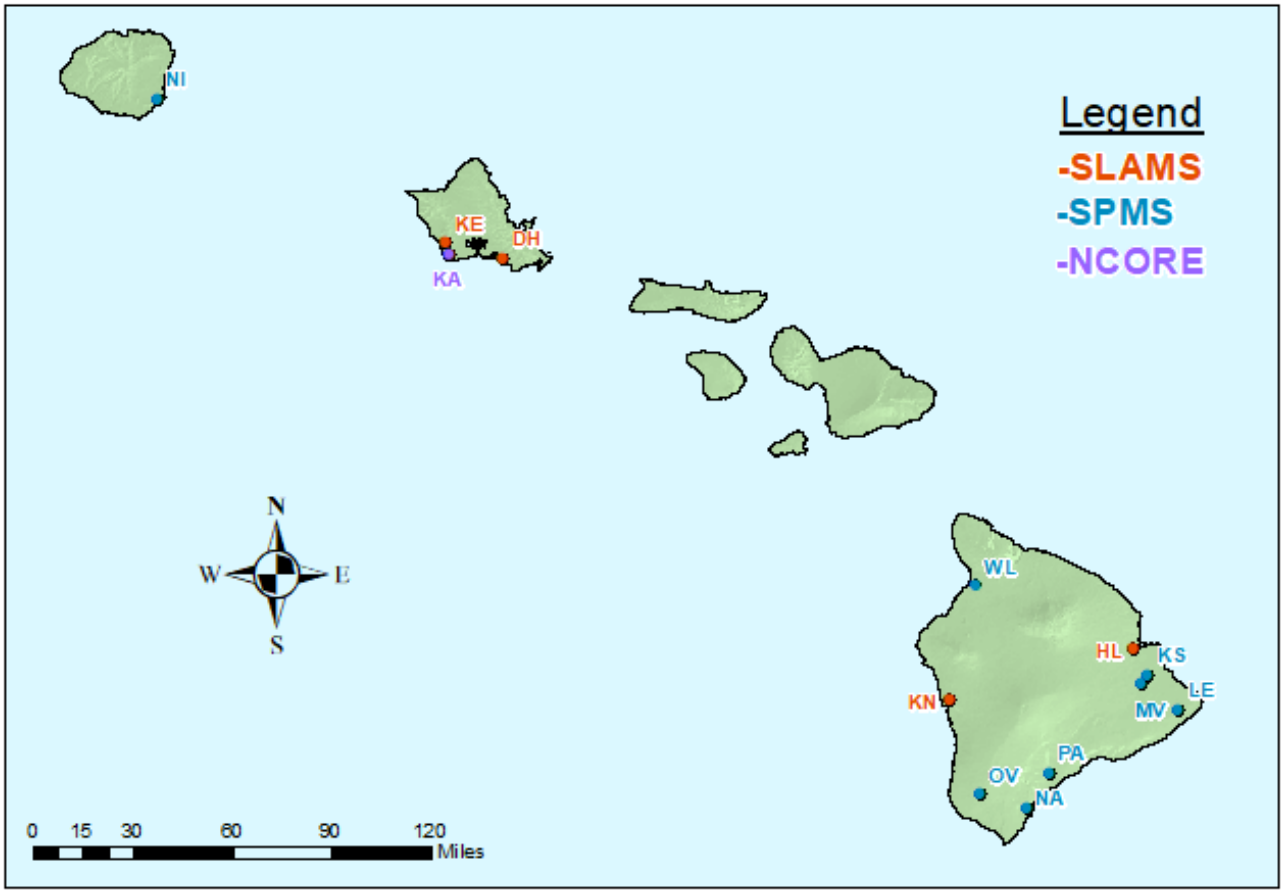
The state is also required by 40 CFR Part 51, Subpart BB, Data Requirements Rule, to characterize maximum 1-hour ambient concentrations of SO_2 through either ambient air quality monitoring or air quality modeling analysis. Currently the state has one air station, Kahe, to monitor four sources that have been identified as having SO_2 emissions data of 2,000 tons or more (see detailed site description for more information). DRR monitoring at Waiau was discontinued on December 31, 2021 with EPA approval.

Table 2-10. Minimum SO_2 Monitoring Requirements

CBSA	County	2022 Census Population (estimated)	Total SO_2 (tons/year) 2020 NEI	PWEI[1]	DRR[2] Sources Using Monitoring	# Required Monitors	# Active Monitors	# Monitors Needed
Honolulu	City & County of Honolulu	995,638	11,446	11,396	4	1	1 SLAMS 1 NCore 1 DRR	0
Maui	Maui	164,351	2,353	387	0	0	0	0

[1] According to 40 CFR 58 Appendix D, if the PWEI for a CBSA is ≥ 5,000 but < 100,000, a minimum of one SO_2 monitor is required.
[2] Data Requirements Rule for the 2010 1-Hour SO_2 Primary NAAQS.

Figure 2-6. SO_2 Network



2.8 NCore

The Kapolei NCore station is located in the residential, commercial, and industrial community on the southwest side of Oahu. Kapolei is the "second city" next to Honolulu with county, state, and federal agencies having established offices in the area. The NCore parameters are: NO/NO_y, trace-level SO_2, trace-level CO, O_3, $PM_{10-2.5}$, $PM_{2.5}$ speciation and the meteorological parameters wind speed, wind direction, temperature, and relative humidity.

By correspondence dated October 30, 2009, EPA approved Kapolei as the NCore station and it became fully operational on January 1, 2011.

40 CFR Part 58, Appendix D, Section 5 (a) requires the state to collect and report Photochemical Assessment Monitoring Station (PAMS) measurements at each NCore site located in a CBSA with a population ≥1,000,000. The Honolulu MSA had a 2022 census population estimated at 995,638 and therefore DOH will continue to work with EPA to determine the appropriate timeline to meet the requirement to operate a PAMS.

2.9 H_2S Network

There is a geothermal facility, Puna Geothermal Ventures (PGV), located on Hawaii Island in the lower east rift zone of the Kilauea volcano. PGV is permitted to operate a 41-megawatt geothermal power plant and to conduct geothermal energy exploration and production. The pollutant of concern emitted from the facility operations is hydrogen sulfide (H_2S). The state has a one-hour H_2S standard of 25 parts per billion (ppb).

DOH established and operates a station at the Leilani Community Association Center, downwind of the facility, to monitor ambient levels of H_2S due to activities from PGV. The Leilani station which began sampling on September 18, 2020 is operated and maintained according to EPA monitoring and quality assurance requirements.

2.10 Site Closures

40 CFR Part 58, Appendix A, Section 2.1.3 states: The PQAO/monitoring organization's quality system must have adequate resources both in personnel and funding to plan, implement, assess, and report on the achievement of the requirements of this appendix and its' approved Quality Assurance Project Plan (QAPP).

To address resource challenges, the following monitoring sites were closed within the past 18 months. All were mentioned in the 2022 air monitoring network plan and formal closure requests to EPA are attached in the appendices of this year's plan:

2.10.1 Pearl City (150032004) SLAMS
Pearl City, Oahu, Hawaii
Parameters: PM_{10}, $PM_{2.5}$ and $PM_{2.5}$ Collocated

This site was shut down on April 6, 2022. DOH is requesting formal approval from EPA to permanently shut down this station; the request and supporting information is attached in Appendix B of this plan.

2.10.2 Kihei (150090006) SLAMS
Kihei, Maui, Hawaii
Parameter: $PM_{2.5}$

This site was shut down on March 30, 2022. DOH is requesting formal approval from EPA to permanently shut down this station; the request and supporting information is attached in Appendix C of this plan.

2.10.3 Honaunau (150013032) SPMS
Honaunau, Hawaii
Parameter: $PM_{2.5}$

This temporary site was shut down on January 5, 2022. DOH is requesting formal approval from EPA to permanently shut down this station; the request and supporting information is attached in Appendix F of this plan.

2.11 Site Additions

There are no plans to add any sites in the next 18 months.

2.12 Site Modifications

2.12.1 Kapolei (150030010) SLAMS/NCore
Kapolei, Oahu, Hawaii
Parameters: CO and SO_2

The CO and SO_2 monitors at the Kapolei SLAMS site were discontinued on March 31, 2022 and February 28, 2022, respectively. DOH is requesting formal approval from EPA to permanently discontinue monitoring for these parameters at the Kapolei SLAMS site; the request and supporting information is attached in Appendix E of this plan.

2.12.2 Sand Island (150031004) SLAMS
Honolulu, Oahu, Hawaii
Parameters: $PM_{2.5}$ FRM Collocated

An E-SEQ-FRM was collocated at this site for the BAM 1022 $PM_{2.5}$ samplers in the network (Method 209). The sampler will run on a one-in-twelve day schedule with the first sample collected on April 13, 2023.

2.12.3 Niumalu (150070007) SPMS
Niumalu, Kauai, Hawaii
Parameters: NO_2 and $PM_{2.5}$

Monitoring for NO_2 and $PM_{2.5}$ was discontinued at the site on March 31, 2022. DOH is requesting formal approval from EPA to permanently discontinue monitoring for these parameters; the request and supporting information is attached in Appendix D of this plan.

2.12.4 Naalehu (150013033) SPMS
Naalehu Elementary School, Naalehu, Hawaii
Parameters: $PM_{2.5}$

On December 2, 2022, the temporary SPMS $PM_{2.5}$ monitor that was previously located at the Naalehu Volunteer fire station was re-established at the elementary school, adjacent to the SO_2 monitor.

2.12.5 Waikoloa (150012021) SPMS
DWS Lalamilo (Parker 610), TMK 3-6-8-002-019, Waikoloa, Hawaii
Parameter: SO_2

Partly in response to the November 27, 2022 Mauna Loa eruption, SO_2 monitoring was added to this site, to provide better coverage for Hawaii Island. Sampling began on December 8, 2022.

2.12.6 Keaau (150013027) SPMS
Kamehameha Schools Hawaii, Keaau, Hawaii
Parameters: $PM_{2.5}$ and SO_2

This SPMS station was moved to its permanent site in an open area near the Switch Gear Building on the school campus on June 30, 2022.

There are no plans to modify any of the other current sites in the next 18 months.

2.13 Summary of Network and Changes

Table 2-11 summarizes the state's 2023 network monitors and planned changes. Since it has been determined that no criteria monitors are currently required in the Maui MSA, only monitors required for the Honolulu MSA are addressed in the table. Sections 2.10 to 2.12 detail station closures, additions, and equipment or network modifications, and is summarized in Table 2-12.

As indicated in table 2-11, the monitors used for all criteria pollutants are FRM or FEM and follow the requirements of 40 CFR 58, Appendices A, C, D, E and G. Hawaii's air monitoring network meets or exceeds the minimum required monitoring for each parameter.

Table 2-11. Number of Monitors by Pollutant or Program

N/A = Not applicable

Pollutant/ Program	SLAMS Only	SPMS	SLAMS/NCore	No. of Collocated	Total in MSA[1,2]	Total in State[2]	Total Required in MSA[1]	Meets EPA Required Minimum?	Planned Additions	Planned Closures
CO (FRM)	1	0	1	N/A	2	2	N/A	N/A	0	0
NO_2 (FRM)	1	0	---	N/A	1	1	N/A	N/A	0	0
SO_2 (FEM)	4	8	1	N/A	3	13	1	YES	0	0
O_3 (FEM)	1	0	1	N/A	2	2	1	YES	0	0
NO/NO_y	N/A	N/A	1 (NCore)	N/A	1	1	1	YES	0	0
PM_{10} (FEM)	1	0	1	N/A	2	2	1-2	YES	0	0
$PM_{2.5}$ (all are FEM)	2	10	1	2 FRM 1 FEM	3	13[3]	1	YES	0	0
$PM_{2.5}$ Speciation	0	0	1 (NCore/ Supplemental Speciation)	N/A	1	1	1 (NCore)	YES	0	0
$PM_{10-2.5}$	N/A	N/A	1 (NCore)	N/A	1	1	1 (NCore)	YES	0	0
H_2S	N/A	1	N/A	N/A	0	1	N/A	N/A	0	0

[1] As promulgated in 40 CFR 58 Appendix D, the minimum monitoring requirements apply to Metropolitan Statistical Areas (MSA). Currently, only the Honolulu MSA has requirements for minimum criteria pollutant monitoring.
[2] Total refers to the number of primary monitors only and does not count collocated monitors.
[3] Eleven of the thirteen are using Method 209 and two are using Method 238.

Table 2-12. Summary of Network Changes

Site	AQS ID	Site Type	Affected Parameters	Reason for Closure/Addition/Modification
City and County of Honolulu				
Pearl City	150032004	SLAMS	PM_{10}, $PM_{2.5}$	**Site closure:** This site was shut down on April 6, 2022. DOH is requesting formal approval from EPA to permanently shut down this station; the request and supporting information is attached in Appendix B of this plan.
Kapolei/ NCore	150030010	SLAMS/ NCore	CO, SO_2	**Site modification:** Since trace CO and trace SO_2 are required to be monitored at the NCore station, the CO and SO_2 monitors at the SLAMS site were discontinued on March 31, 2022 and February 28, 2022, respectively. The formal request for closure to EPA is attached in Appendix E of this plan.
Sand Island	150031004	SLAMS	$PM_{2.5}$ FRM collocated	**Site modification:** An E-SEQ-FRM was collocated at this site for the BAM 1022 $PM_{2.5}$ samplers in the network (Method 209). The sampler will run on a one-in-twelve day schedule with the first sample scheduled on April 6, 2023.
Maui County				
Kihei	150090006	SLAMS	$PM_{2.5}$	**Site closure:** This site was shut down on March 30, 2022. DOH is requesting formal approval from EPA to permanently shut down this station; the request and supporting information is attached in Appendix C of this plan.
Hawaii County				
Honaunau	150013032	SPMS	$PM_{2.5}$	**Site closure:** This temporary site was shut down on January 5, 2022. DOH is requesting formal approval from EPA to permanently shut down this station; the request and supporting information is attached in Appendix F of this plan.
Naalehu	150013033	SPMS	$PM_{2.5}$	**Site modification:** On December 2, 2022, the temporary SPMS $PM_{2.5}$ monitor that was previously located at the Naalehu Volunteer fire station was re-established at the elementary school, adjacent to the SO_2 monitor.
Waikoloa	150012021	SPMS	SO_2	**Site modification:** Partly in response to the November 27, 2022 Mauna Loa eruption, SO_2 monitoring was added to this site, to provide better coverage for Hawaii Island. Sampling began on December 8, 2022.
Keeau	150013027	SPMS	$PM_{2.5}$, SO_2	**Site modification:** This SPMS station was moved to its permanent site in an open area near the Switch Gear Building on the school campus on June 30, 2022.
Kauai County				
Niumalu	150070007	SPMS	NO_2, $PM_{2.5}$	**Site modification:** Monitoring for NO_2 and $PM_{2.5}$ were discontinued at the site on March 31, 2022. DOH is requesting formal approval from EPA to permanently discontinue monitoring for these parameters; the request and supporting information is attached in Appendix D of this plan.

The operation of each monitor meets the requirements of appendices A, C, D, E and G of 40 CFR Part 58, where applicable.

3.0 Detailed Site Descriptions

The following are descriptions and photos of each station in the state's current ambient air monitoring network. The descriptions include area location, traffic, probe siting, monitor information and adherence to quality assurance.

DOH Clean Air Branch is the collecting and reporting agency for all stations and monitors operating in the state.

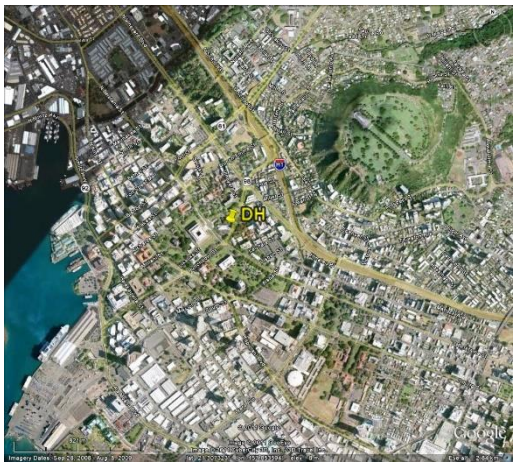
Table 3-1. State of Hawaii Ambient Air Monitoring Network

ID	AQS No.	Site Name	Basic Monitoring Objective(s)[1]	Parameters
DH	150031001	Honolulu	1,2	$PM_{2.5}$, PM_{10}, SO_2, CO
KA SLAMS/ NCore	150030010	Kapolei	1,2,3	$PM_{2.5}$, $PM_{2.5}$ collocated FRM, PM_{10}, ($PM_{10-2.5}$), trace SO_2, NO_2, NO/NO_y, trace CO, O_3, $PM_{2.5}$ speciation, WS, WD, RH, Ambient Temperature
SI	150031004	Sand Island	1,2	$PM_{2.5}$, $PM_{2.5}$ collocated FRM, O_3
KL	150090025	Kahului	1, 2	$PM_{2.5}$
NI	150070007	Niumalu	1,2,3	SO_2
HL (SLAMS)	150011006	Hilo	1,2,3	SO_2
HL (SPMS)	150011006	Hilo	1,2,3	$PM_{2.5}$
KN SLAMS)	150011012	Kona	1,2,3	SO_2
KN (SPMS)	150011012	Kona	1,2,3	$PM_{2.5}$, $PM_{2.5}$ collocated FEM
MV	150012023	Mt. View	1,2,3	$PM_{2.5}$, SO_2
OV	150012020	Ocean View	1,2,3	$PM_{2.5}$, SO_2
PA	150012016	Pahala	1,2,3	$PM_{2.5}$, SO_2
LE	150012035	Leilani	1,3	H_2S, SO_2
KK	150013028	Kailua-Kona	1,2,3	$PM_{2.5}$
KS	150013027	Keaau	1,2,3	$PM_{2.5}$, SO_2
NA	150013033	Naalehu	1,2,3	$PM_{2.5}$, SO_2
WL	150012021	Waikoloa	1,2,3	$PM_{2.5}$, SO_2
KE	150034001	Kahe	1,2,3	SO_2

[1] Basic Monitoring Objectives:

1) Public information
2) NAAQS compliance
3) Support research

(DH) HONOLULU			
AQS: 150031001	Type: SLAMS	County: Honolulu	MSA: Honolulu
Address: 1250 Punchbowl St., Honolulu, HI 96813			
Latitude: 21.30758 Longitude: -157.85542			Elevation: 20 m MSL
Location Description: This station is located on the roof of the state Department of Health building in downtown Honolulu. The surrounding streets are busy thoroughfares serving the downtown area. The area includes a major hospital (Queen's Medical Center), the state capitol, other state, county, commercial and business buildings as well as residential condominiums. This station has been operating since 1972.			



DH TRAFFIC DESCRIPTION			
Type of Roadway	Punchbowl	S. Beretania	Vineyard
Freeway			
Major Street or Highway	X	X	X
Distance from air intake (m)	30	122	610
Direction from air inlet	E	S	N
Composition of roadway	asphalt	asphalt	asphalt
Number of traffic lanes	5	6	6
Average daily traffic	19,800 [1]	20,100 [1]	34,800 [1]
Average vehicle speed (est. mph)	20	25	25
Traffic one way or two	2	1	2
Street parking?	No	No	No
[1] Source: State of Hawaii Department of Transportation (2016 count)			

For "Site Representativeness" in the following table:

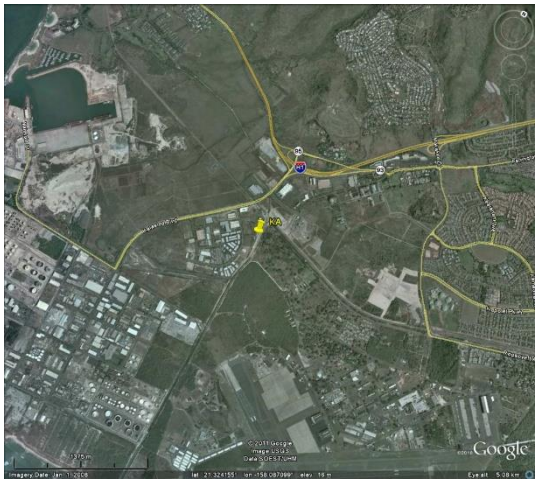
[1]Site Types:
1) Located to determine the highest concentrations;
2) Located to measure typical concentrations in areas of high population density;
3) Located to determine the impact of significant sources or source categories on air quality;
4) Located to determine general background concentration levels;
5) Located to determine extent of regional pollutant transport among populated areas and in support of secondary standards;
6) Located to measure air pollution impacts on visibility, vegetation damage, or other welfare-based impacts.

[2] Purposes:
1) Provide air pollution data to the general public in a timely manner;
2) Support compliance with ambient air quality standards;
3) Support emissions strategy development and track trends in air pollution abatement control measures;
4) Support for air pollution research.

(DH) Honolulu continued

DH MONITOR INFORMATION (N/A = Not Applicable)				
	PM_{10}	**$PM_{2.5}$**	**SO_2**	**CO**
POC/FRM or FEM	1/FEM	3/FEM	6/FEM	1/FRM
Type of monitor	SLAMS	SLAMS	SLAMS	SLAMS
AQS parameter code	81102	88101	42401	42101
Manufacturer	TAPI	TAPI	Thermo	TAPI
Model no.	T640X	T640X	43iQ	T300
AQS method code	239	238	060	093
Monitoring start date	8/17/2022	1/1/2023	9/27/2019	10/15/2019
Monitoring frequency	Continuous	Continuous	Continuous	Continuous
Probe material	N/A	N/A	Glass	Glass
Residence time (sec)	N/A	N/A	14.0	8.7
Distance between collocated monitors	N/A	N/A	N/A	N/A
Analytical laboratory	N/A	N/A	N/A	N/A
Location of probe	building roof	building roof	building roof	building roof
Building dimensions (H) (m)	12	12	12	12
Horizontal distance from supporting structure (m)	9	9	9	9
Vertical distance above supporting structure (m)	2.5	2.5	1.2	1.2
Height of probe above ground (m)	14.5	14.5	13.2	13.2
Distance (m) & direction from drip line of tree(s)	24 E	24 E	27 E	27 E
Horizontal distance from edge of nearest traffic lane (m)	27	27	30	30
Horizontal distance from nearest parking lot (m)	24	24	24	24
Distance (m) & direction from obstructions on roof, vertical height above probe (m)	9 ESE, 2.7	9 ESE, 2.7	9 ESE, 2.7	9 ESE 2.7
Distance (m) & direction from possible obstructions not on roof, vertical height (m)	N/A	N/A	N/A	N/A
Distance (m) & direction from furnace or incineration flues	234 S/SW	234 S/SW	238 S/SW	238 S/SW
Unrestricted airflow	360°	360°	360°	360°
Located in paved (P) or vegetative (V) ground?	P	P	P	P
SITE REPRESENTATIVENESS				
Spatial scale	Neighborhood	Neighborhood	Neighborhood	Middle
Applicable NAAQS averaging time(s)	24-hr	24-hr, annual	1-hr, 3-hr, annual	1-hr, 8-hr
Sampling season	12 months	12 months	12 months	12 months
Site type[1]	2	2	2	1
Purpose of monitor[2]	1, 2	1, 2	1, 2	1, 2
Suitable for comparison against the annual $PM_{2.5}$ NAAQS?	N/A	Yes	N/A	N/A
DATA QUALITY				
Last PEP	N/A	N/A	N/A	N/A
Last NPAP (2017 NPAP done for O_3 only in SI site)	N/A	N/A	6/27/18	6/27/18
Date of last annual independent performance audit	N/A	N/A	11/7/22	11/7/22
Frequency of flow rate verification (automated PM)	Monthly	Monthly	N/A	N/A
Frequency of flow rate verification (manual $PM_{2.5}$)	N/A	N/A	N/A	N/A
Dates of last 2 semi-annual flow rate audits (PM)	12/8/22	N/A	N/A	N/A
Frequency of 1-point flow rate verification (Pb)	N/A	N/A	N/A	N/A
Dates of last 2 semi-annual flow rate audits (Pb)	N/A	N/A	N/A	N/A
Precision & accuracy submitted to AQS	Quarterly	Quarterly	Quarterly	Quarterly
Frequency of 1-pt. QC check (gases)	N/A	N/A	Weekly	Weekly
Frequency of multi-point gas calibration	N/A	N/A	6 months	6 months
Annual data certification submitted	5/1/23	5/1/23	5/1/23	5/1/23
Changes in the next 18 months?	None	None	None	None

(KA) KAPOLEI SLAMS and NCORE			
AQS: 150030010	Type: SLAMS	County: Honolulu	MSA: Honolulu
Address: 2052 Lauwiliwili St., Kapolei, HI 96707			
Latitude: 21.32374 Longitude: -158.08861			Elevation: 17.9 m MSL
Location Description: Located in the Kapolei Business Park in the city of Kapolei, the area is a mix of business, commercial, and government activities surrounded by an ever-expanding residential community. The site is also approximately 1.25 km northeast (upwind) of the state's largest industrial park on the southwest coast of Oahu. The station has been operating as a SLAMS station since 2002. On October 30, 2009, EPA approved the Kapolei station as the state's NCore site, and in addition to the SLAMS parameters, the station began collecting the required NCore parameters on January 1, 2011. There are plans to replace the station shelters with new ones.			



KA TRAFFIC DESCRIPTION		
Type of Roadway	Kalaeloa Blvd.	Lauwiliwili St.
Freeway		
Major Street or Highway	X	
Local Street or Road		X
Distance from air intake (m)	379	167
Direction from air inlet	NW	W
Composition of roadway	Asphalt	Asphalt
Number of traffic lanes	4	2
Average daily traffic	36,607 [1]	[2] Estimated: <5,000
Average vehicle speed (est. mph)	35	30
Traffic one way or two	2	2
Street parking?	No	Yes
[1] Source: State of Hawaii Department of Transportation (2016) [2] Estimate only, no data available, local road		

For "Site Representativeness" in the following table:

[1]Site Types:
1) located to determine the highest concentrations;
2) located to measure typical concentrations in areas of high population density;
3) located to determine the impact of significant sources or source categories on air quality;
4) located to determine general background concentration levels;
5) located to determine extent of regional pollutant transport among populated areas and in support of secondary standards;
6) located to measure air pollution impacts on visibility, vegetation damage, or other welfare-based impacts

[2] Purposes:
1) Provide air pollution data to the general public in a timely manner;
2) Support compliance with ambient air quality standards;
3) Support emissions strategy development and track trends in air pollution abatement control measures;
4) Support for air pollution research

(KA) Kapolei SLAMS and NCore continued

KA MONITOR INFORMATION (N/A = Not Applicable)				
	PM_{10}	**$PM_{2.5}$ Primary**	**$PM_{2.5}$ Co-loc**	**$PM_{10-2.5}$**
POC/FRM or FEM	3/FEM	1/FEM	2/FRM	7/FEM
Type of monitor	SLAMS/NCore	SLAMS/NCore	SLAMS/NCore	NCore
AQS parameter code	81102	88101	88101	86101
Manufacturer	TAPI	TAPI	Met One	TAPI
Model no.	T640X	T640X	E-SEQ-FRM	T640X
AQS method code	239	238	142	240
Monitoring start date	1/7/2022	1/7/2022	9/4/21	1/7/2022
Monitoring frequency	Continuous	Continuous	1/3 days	Continuous
Probe material	N/A	N/A	N/A	N/A
Residence time (sec)	N/A	N/A	N/A	N/A
Manual PM instrument flow rate (liters per minute)	N/A	N/A	16.7	N/A
Distance between collocated monitors (m)	N/A	2.1	2.1	N/A
Analytical laboratory	N/A	N/A	Pace Analytical	N/A
Location of probe	shelter roof	shelter roof	shelter roof	shelter roof
Shelter dimensions (H x W x D) (m)	2.7x2.4x4.9	2.7x2.4x4.9	2.7x2.4x4.9	2.7x2.4x4.9
Horizontal distance from supporting structure (m)	N/A	N/A	N/A	N/A
Vertical distance above supporting structure (m)	2.2	2.2	1.9	2.2
Height of probe above ground (m)	4.9	4.9	4.6	4.9
Distance (m) & direction from drip line of tree(s)	17 NW	17 NW	18 NW	18 NW
Horizontal distance from edge of nearest traffic lane (m)	167	167	169	167
Horizontal distance from nearest parking lot (m)	87	87	87	87
Distance (m) & direction from obstructions on roof, vertical height above probe (m)	N/A	N/A	N/A	N/A
Distance (m) & direction from possible obstructions not on roof, vertical height (m)	170 E, 9	170 E, 9	170 E, 9	170 E, 9
Distance (m) & direction from furnace or incineration flues	None	N/A	None	None
Unrestricted airflow	360°	360°	360°	360°
Located in paved (P) or vegetative (V) ground?	gravel	gravel	gravel	gravel
SITE REPRESENTATIVENESS				
Spatial scale	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Applicable NAAQS averaging time(s)	24-hr	24-hr, annual	24-hr, annual	N/A
Sampling season	12 months	12 months	12 months	12 months
Site type[1]	2	2	QC	2
Purpose of monitor[2]	1, 2	1, 2	QC	4
Suitable for comparison against the annual $PM_{2.5}$ NAAQS?	N/A	Yes	Yes	N/A
DATA QUALITY				
Last PEP	N/A	10/12/22	N/A	N/A
Last NPAP	N/A	N/A	N/A	N/A
Date of last annual independent performance audit (CAB)	N/A	N/A	N/A	N/A
Frequency of flow rate verification (automated PM)	Monthly	Monthly	N/A	Monthly
Frequency of flow rate verification (manual $PM_{2.5}$)	N/A	N/A	Monthly	N/A
Dates of last 2 semi-annual flow rate audits (PM)	6/14/22, 12/21/22	6/14/22, 12/21/22	6/14/22, 12/21/22	6/14/22, 12/21/22
Frequency of 1-point flow rate verification (Pb)	N/A	N/A	N/A	N/A
Dates of last 2 semi-annual flow rate audits (Pb)	N/A	N/A	N/A	N/A
Precision & accuracy submitted to AQS	Quarterly	Quarterly	Quarterly	Quarterly
Frequency of 1-pt. QC check (gases)	N/A	N/A	N/A	N/A
Frequency of multi-point gas calibration	N/A	N/A	N/A	N/A
Annual data certification submitted	5/1/23	5/1/23	5/1/23	5/1/23
Changes in the next 18 months?	None	None	None	None

(KA) Kapolei SLAMS and NCore continued

KA MONITOR INFORMATION (N/A = Not Applicable)				
	O_3	NO_2		
POC/FRM or FEM	1/FRM	1/FRM		
Type of monitor	SLAMS/NCore	SLAMS		
AQS parameter code	44201	42602		
Manufacturer	Thermo	TAPI		
Model no.	49i	T500U		
AQS method code	047	212		
Monitoring start date	1/9/2014	10/5/2006		
Monitoring frequency	Continuous	Continuous		
Probe material	Teflon	Teflon		
Residence time (sec)	2.8	3.4		
Distance between collocated monitors (m)	N/A	N/A		
Analytical laboratory	N/A	N/A		
Location of probe	shelter roof	shelter roof		
Shelter dimensions (H x W x D) (m)	2.7x2.4x4.9	2.7x2.4x4.9		
Horizontal distance from supporting structure (m)	N/A	N/A		
Vertical distance above supporting structure (m)	1.1	1.1		
Height of probe above ground (m)	3.8	3.8		
Distance (m) & direction from drip line of tree(s)	12 N	12 N		
Horizontal distance from edge of nearest traffic lane (m)	162	167		
Horizontal distance from nearest parking lot (m)	82	87		
Distance (m) & direction from obstructions on roof, vertical height above probe (m)	N/A	N/A		
Distance (m) & direction from possible obstructions not on roof, vertical height (m)	165 E, 9	170 E, 9		
Distance (m) & direction from furnace or incineration flues	None	None		
Unrestricted airflow	360°	360°		
Located in paved (P) or vegetative (V) ground?	gravel	gravel		
SITE REPRESENTATIVENESS				
Spatial scale	Neighborhood	Neighborhood		
Applicable NAAQS averaging time(s)	8-hr	1-hr, annual		
Sampling season	12 months	12 months		
Site type[1]	2	2		
Purpose of monitor[2]	1, 2	1, 2		
Suitable for comparison against the annual $PM_{2.5}$ NAAQS?	N/A	N/A		
DATA QUALITY				
Last PEP	N/A	N/A		
Last NPAP	6/23/21	6/23/21		
Date of last annual independent performance audit (CAB)	12/21/22	12/16/22		
Frequency of flow rate verification (automated PM)	N/A	N/A		
Frequency of flow rate verification (manual $PM_{2.5}$)	N/A	N/A		
Dates of last 2 semi-annual flow rate audits (PM)	N/A	N/A		
Frequency of 1-point flow rate verification (Pb)	N/A	N/A		
Dates of last 2 semi-annual flow rate audits (Pb)	N/A	N/A		
Precision & accuracy submitted to AQS	Quarterly	Quarterly		
Frequency of 1-pt. QC check (gases)	14 days	Weekly		
Frequency of multi-point gas calibration	6 months	6 months		
Annual data certification submitted	5/1/23	5/1/23		
Changes in the next 18 months?	None	None		

(KA) Kapolei SLAMS and NCore continued

KA MONITOR INFORMATION (N/A = Not Applicable)				
	Trace CO	**Trace SO_2**	**NO/NOy**	**$PM_{2.5}$ Spec.**
POC/FRM or FEM	2/FRM	2/FEM	1/FRM	N/A
Type of monitor	SLAMS/NCore	SLAMS/NCore	NCore	NCore/Supp. Speciation
AQS parameter code	42101	42401	42601/42600	Various
Manufacturer	API	API	API	Met-One/URG
Model no.	M300EU	M100EU	T200U	SASS/3000N
AQS method code	093	600	099	811/136
Monitoring start date	9/30/2014	1/1/2011	1/14/2016	7/24/2019
Monitoring frequency	Continuous	Continuous	Continuous	1/3 days
Probe material	Teflon	Teflon	Teflon	N/A
Residence time (sec)	14.7	16.1	13.2	N/A
Distance between collocated monitors	N/A	N/A	N/A	N/A
Analytical laboratory	N/A	N/A	N/A	EPA contract
Location of probe	shelter roof	shelter roof	shelter roof	shelter roof
Shelter dimensions (H x W x D) (m)	4 x 2.4 x 5	4 x 2.4 x 5	4 x 2.4 x 5	4 x 2.4 x 5
Horizontal distance from supporting structure (m)	N/A	N/A	N/A	N/A
Vertical distance above supporting structure (m)	1	1	1	1.7/1.6
Height of probe above ground (m)	5	5	5	5.7/5.6
Distance (m) & direction from drip line of tree(s)	12 N	12 N	12 N	13N/11N
Horizontal distance from edge of nearest traffic lane (m)	162	162	162	165
Horizontal distance from nearest parking lot (m)	82	82	82	85
Distance (m) & direction from obstructions on roof, vertical height above probe (m)	N/A	N/A	N/A	N/A
Distance (m) & direction from possible obstructions not on roof, vertical height (m)	165 E, 9	165 E, 9	165 E, 9	168 E, 9
Distance (m) & direction from furnace or incineration flues	N/A	N/A	N/A	N/A
Unrestricted airflow	360°	360°	360°	360°
Located in paved (P) or vegetative (V) ground?	gravel	gravel	gravel	gravel
SITE REPRESENTATIVENESS				
Spatial scale	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Applicable NAAQS averaging time(s)	1-hr; 8-hr	1-hr; 3-hr; annual	N/A	N/A
Sampling season	12 months	12 months	12 months	12 months
Site type[1]	2	2	2	2
Purpose of monitor[2]	1,2,4	1,2,4	4	4
Suitable for comparison against the annual $PM_{2.5}$ NAAQS?	N/A	N/A	N/A	N/A
DATA QUALITY				
Last PEP	N/A	N/A	N/A	N/A
Last NPAP	6/23/21	6/23/21	6/23/21	N/A
Date of last annual independent performance audit (CAB)	12/23/22	12/23/22	Not conducted	N/A
Frequency of flow rate verification (automated PM)	N/A	N/A	N/A	N/A
Frequency of flow rate verification (manual $PM_{2.5}$)	N/A	N/A	N/A	Monthly
Dates of last 2 semi-annual flow rate audits (manual $PM_{2.5}$)	N/A	N/A	N/A	6/14/22, 12/21/22
Frequency of 1-point flow rate verification (Pb)	N/A	N/A	N/A	N/A
Dates of last 2 semi-annual flow rate audits (Pb)	N/A	N/A	N/A	N/A
Precision & accuracy submitted to AQS	Quarterly	Quarterly	Quarterly	Quarterly
Frequency of 1-pt. QC check (gases)	14 days	14 days	14 days	N/A
Frequency of multi-point gas calibration	6 months	6 months	6 months	N/A
Annual data certification submitted	5/1/23	5/1/23	5/1/23	5/1/23
Changes in the next 18 months?	None	None	None	None

(KA) Kapolei SLAMS and NCore continued

KA MONITOR INFORMATION (N/A = Not Applicable)				
	RH	**WS**	**WD**	**AT**
POC/FRM or FEM	POC 1	POC 1	POC 1	POC 1
Type of monitor	NCore	NCore	NCore	NCore
AQS parameter code	62201	61103	61104	62101
Manufacturer	RM Young	RM Young	RM Young	RM Young
Model no.	05103VP	05103VP	05103VP	05103VP
AQS method code	014	020	020	020
Monitoring start date	1/1/2011	1/1/2011	1/1/2011	1/1/2011
Monitoring frequency	Continuous	Continuous	Continuous	Continuous
Probe material	N/A	N/A	N/A	N/A
Residence time (sec)	N/A	N/A	N/A	N/A
Distance between collocated monitors	N/A	N/A	N/A	N/A
Analytical laboratory	N/A	N/A	N/A	N/A
Location of probe	10m tower	10m tower	10m tower	10m tower
Shelter dimensions (H x W x D) (m)	4 x 2.4 x 5	4 x 2.4 x 5	4 x 2.4 x 5	4 x 2.4 x 5
Horizontal distance from supporting structure (m)	N/A	N/A	N/A	N/A
Vertical distance above supporting structure (m)	N/A	N/A	N/A	N/A
Height of probe above ground (m)	N/A	N/A	N/A	N/A
Distance (m) & direction from drip line of tree(s)	N/A	N/A	N/A	N/A
Horizontal distance from edge of nearest traffic lane (m)	N/A	N/A	N/A	N/A
Horizontal distance from nearest parking lot (m)	N/A	N/A	N/A	N/A
Distance (m) & direction from obstructions on roof, vertical height above probe (m)	N/A	N/A	N/A	N/A
Distance (m) & direction from possible obstructions not on roof, vertical height (m)	N/A	N/A	N/A	N/A
Distance (m) & direction from furnace or incineration flues	N/A	N/A	N/A	N/A
Unrestricted airflow	360°	360°	360°	360°
Located in paved (P) or vegetative (V) ground?	gravel	gravel	gravel	gravel
SITE REPRESENTATIVENESS				
Spatial scale	N/A	N/A	N/A	N/A
Applicable NAAQS averaging time(s)	N/A	N/A	N/A	N/A
Sampling season	12 months	12 months	12 months	12 months
Site type[1]	N/A	N/A	N/A	N/A
Purpose of monitor[2]	N/A	N/A	N/A	N/A
Suitable for comparison against the annual $PM_{2.5}$ NAAQS?	N/A	N/A	N/A	N/A
DATA QUALITY				
Last PEP	N/A	N/A	N/A	N/A
Last NPAP	N/A	N/A	N/A	N/A
Date of last annual independent performance audit (CAB)	12/21/22	12/21/22	12/21/22	12/21/22
Frequency of flow rate verification (automated PM)	N/A	N/A	N/A	N/A
Frequency of flow rate verification (manual $PM_{2.5}$)	N/A	N/A	N/A	N/A
Dates of last 2 semi-annual flow rate audits (manual $PM_{2.5}$)	N/A	N/A	N/A	N/A
Frequency of 1-point flow rate verification (Pb)	N/A	N/A	N/A	N/A
Dates of last 2 semi-annual flow rate audits (Pb)	N/A	N/A	N/A	N/A
Precision & accuracy submitted to AQS	N/A	N/A	N/A	N/A
Frequency of 1-pt. QC check (gases)	N/A	N/A	N/A	N/A
Frequency of multi-point gas calibration	N/A	N/A	N/A	N/A
Annual data certification submitted	5/1/23	5/1/23	5/1/23	5/1/23
Changes in the next 18 months?	None	None	None	None

(SI) SAND ISLAND			
AQS: 150031004	Type: SLAMS	County: Honolulu	MSA: Honolulu
Address: 1039 Sand Island Parkway, Honolulu, HI 96819			
Latitude: 21.30384 Longitude: -157.87117			Elevation: 5.3 m MSL
Location Description: Station is located in the University of Hawaii's Anuenue Fisheries near the entrance to the Sand Island Recreational Area. Sand Island is downwind of downtown Honolulu, across from Honolulu Harbor. This station has been operating since 1980.			

SI TRAFFIC DESCRIPTION	
Type of Roadway	Sand Island Parkway
Freeway	
Major Street or Highway	X
Local Street or Road	
Distance from air intake (m)	37
Direction from air inlet	W
Composition of roadway	asphalt
Number of traffic lanes	2
Average daily traffic	14,000 [1]
Average vehicle speed (est. mph)	30
Traffic one way or two	2
Street parking?	No
[1] Source: State of Hawaii Department of Transportation (2016 count)	

For "Site Representativeness" in the following table:

[1]Site Types:
1) located to determine the highest concentrations;
2) located to measure typical concentrations in areas of high population density;
3) located to determine the impact of significant sources or source categories on air quality;
4) located to determine general background concentration levels;
5) located to determine extent of regional pollutant transport among populated areas and in support of secondary standards;
6) located to measure air pollution impacts on visibility, vegetation damage, or other welfare-based impacts

[2] Purposes:
1) Provide air pollution data to the general public in a timely manner;
2) Support compliance with ambient air quality standards;
3) Support emissions strategy development and track trends in air pollution abatement control measures;
4) Support for air pollution research

(SI) Sand Island continued

SI MONITOR INFORMATION (N/A = Not Applicable)				
	$PM_{2.5}$	**O_3**	**$PM_{2.5}$ Co-loc**	
POC/FRM or FEM	2/FEM	2/FRM	1/FRM	
Type of monitor	SLAMS	SLAMS	SLAMS/NCore	
AQS parameter code	88101	44201	88101	
Manufacturer	Met One	Thermo	BGI	
Model no.	BAM1022	49iQ	E-SEQ-FRM	
AQS method code	209	047	142	
Monitoring start date	2/13/2019	1/1/1980	4/6/23	
Monitoring frequency	Continuous	Continuous	1/12 days	
Probe material	N/A	Glass	N/A	
Residence time (sec)	N/A	1.8	N/A	
Distance between collocated monitors	2	N/A	2	
Manual PM instrument flow rate (liters per minute)	N/A	N/A	16.7	
Analytical laboratory	N/A	N/A	Pace Analytical	
Location of probe	shelter roof	shelter roof	shelter roof	
Shelter dimensions (H x W x D) (m)	2.5x2.5x4.9	2.5x2.5x4.9	2.5x2.5x4.9	
Horizontal distance from supporting structure (m)	N/A	N/A	N/A	
Vertical distance above supporting structure (m)	2.2	1.1	2.2	
Height of probe above ground (m)	4.7	3.6	4.7	
Distance (m) & direction from drip line of tree(s)	15 E	15 E	15 E	
Horizontal distance from edge of nearest traffic lane (m)	37	37	37	
Horizontal distance from nearest parking lot (m)	40	40	40	
Distance (m) & direction from obstructions on roof, vertical height above probe (m)	N/A	N/A	N/A	
Distance (m) & direction from possible obstructions not on roof, vertical height (m)	14 N, 5.5	14 N, 5.5	14 N, 5.5	
Distance (m) & direction from furnace or incineration flues	N/A	N/A	N/A	
Unrestricted airflow	360°	360°	360°	
Located in paved (P) or vegetative (V) ground?	gravel	gravel	gravel	
SITE REPRESENTATIVENESS				
Spatial scale	Neighborhood	Neighborhood	Neighborhood	
Applicable NAAQS averaging time(s)	24-hr, annual	8-hr	24-hr, annual	
Sampling season	12 months	12 months	12 months	
Site type[1]	5	1	QC	
Purpose of monitor[2]	1, 2	1, 2, 3	QC	
Suitable for comparison against the annual $PM_{2.5}$ NAAQS?	Y	N/A	Y	
DATA QUALITY				
Last PEP	10/13/22	N/A	N/A	
Last NPAP	N/A	6/24/21	N/A	
Date of last annual independent performance audit (CAB)	N/A	12/15/22	Newly installed	
Frequency of flow rate verification (automated PM)	Monthly	N/A	N/A	
Frequency of flow rate verification (manual $PM_{2.5}$)	N/A	N/A	Monthly	
Dates of last 2 semi-annual flow rate audits (PM)	6/14/22, 12/15/22	N/A	Newly installed	
Frequency of 1-point flow rate verification (Pb)	N/A	N/A	N/A	
Dates of last 2 semi-annual flow rate audits (Pb)	N/A	N/A	N/A	
Precision & accuracy submitted to AQS	Quarterly	Quarterly	Quarterly	
Frequency of 1-pt. QC check (gases)	N/A	Weekly	N/A	
Frequency of multi-point gas calibration	N/A	6 months	N/A	
Annual data certification submitted	5/1/23	5/1/23	N/A	
Changes in the next 18 months?	None	None	None	

(KL) KAHULUI			
AQS: 150090025	Type: SPMS	County: Maui	MSA: Maui
Address: TMK 2-3-8-007-153 Maui Lani Parkway, Kahului, HI 96732			
Latitude: 20.869444	Longitude: -156.492417		Elevation: 55.5 m MSL
Location Description: This station is located off of Maui Lani Parkway in Kahului and surrounded primarily by residential land. The station was established to measure typical concentrations of air pollutants in areas of high population density. This station began monitoring for $PM_{2.5}$ on January 13, 2015.			

KL TRAFFIC DESCRIPTION	
Type of Roadway	Maui Lani Parkway
Freeway	
Major Street or Highway	
Local Street or Road	X
Distance from air intake (m)	80
Direction from air inlet	S
Composition of roadway	asphalt
Number of traffic lanes	2
Average daily traffic	<1500[1]
Average vehicle speed (est. mph)	30
Traffic one way or two	2
Street parking?	No
[1] Estimate only, no data available, local road	

For "Site Representativeness" in the following table:

[1]Site Types:
1) located to determine the highest concentrations;
2) located to measure typical concentrations in areas of high population density;
3) located to determine the impact of significant sources or source categories on air quality;
4) located to determine general background concentration levels;
5) located to determine extent of regional pollutant transport among populated areas and in support of secondary standards;
6) located to measure air pollution impacts on visibility, vegetation damage, or other welfare-based impacts

[2] Purposes:
1) Provide air pollution data to the general public in a timely manner;
2) Support compliance with ambient air quality standards;
3) Support emissions strategy development and track trends in air pollution abatement control measures;
4) Support for air pollution research

(KL) Kahului continued

KL MONITOR INFORMATION (N/A = Not Applicable)				
	$PM_{2.5}$			
POC/FRM or FEM	1/FEM			
Type of monitor	SPMS			
AQS parameter code	88101			
Manufacturer	Met One			
Model no.	BAM 1022			
AQS method code	209			
Monitoring start date	2/11/2019			
Monitoring frequency	Continuous			
Probe material	N/A			
Residence time (sec)	N/A			
Distance between collocated monitors	N/A			
Analytical laboratory	N/A			
Location of probe	stand-alone shelter on ground			
Shelter dimensions (H x W x D) (m)	N/A			
Horizontal distance from supporting structure (m)	N/A			
Vertical distance above supporting structure (m)	N/A			
Height of probe above ground (m)	2.7			
Distance (m) & direction from drip line of tree(s)	15.2 NE			
Horizontal distance from edge of nearest traffic lane (m)	70			
Horizontal distance from nearest parking lot (m)	N/A			
Distance (m) & direction from obstructions on roof, vertical height above probe (m)	N/A			
Distance (m) & direction from possible obstructions not on roof, vertical height above probe (m)	15.2 NE, 6.1			
Distance (m) & direction from furnace or incineration flues	N/A			
Unrestricted airflow	360°			
Located in paved (P) or vegetative (V) ground?	P			
SITE REPRESENTATIVENESS				
Spatial scale	Neighborhood			
Applicable NAAQS averaging time(s)	24-hr, annual			
Sampling season	12 months			
Site type[1]	2, 3			
Purpose of monitor[2]	1, 2, 4			
Suitable for comparison against the annual $PM_{2.5}$ NAAQS?	Yes			
DATA QUALITY				
Last PEP	10/23/19			
Last NPAP	N/A			
Date of last annual independent performance audit (CAB)	N/A			
Frequency of flow rate verification (automated PM)	Monthly			
Frequency of flow rate verification (manual $PM_{2.5}$)	N/A			
Dates of last 2 semi-annual flow rate audits (PM)	3/30/22, 12/14/22			
Frequency of 1-point flow rate verification (Pb)	N/A			
Dates of last 2 semi-annual flow rate audits (Pb)	N/A			
Precision & accuracy submitted to AQS	Quarterly			
Frequency of 1-pt. QC check (gases)	N/A			
Frequency of multi-point gas calibration	N/A			
Annual data certification submitted	5/1/23			
Changes in the next 18 months?	None			

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(NI) NIUMALU			
AQS: 150070007	Type: SPMS	County: Kauai	MSA: Not in an MSA
Address: 2342 Hulemalu Rd., Lihue, HI 96766			
Latitude: 21.9495 Longitude: -159.365			Elevation: 11 m MSL
Location Description: Located on a private residential property approximately 1 mile downwind of Nawiliwili Harbor, this station was established to monitor the impact of cruise ship emissions on nearby communities. With the lower ECA fuel sulfur requirements for cruise ships, this station provides information on the effects of lowered fuel sulfur on ambient SO_2. This station began operating in April 2011.			

NI TRAFFIC DESCRIPTION		
Type of Roadway	Hulemalu Rd.	Niumalu Rd.
Freeway		
Major Street or Highway		
Local Street or Road	X	X
Distance from air intake (m)	44.4	309.7
Direction from air inlet	NW	NE
Composition of roadway	asphalt	Asphalt
Number of traffic lanes	2	1
Average daily traffic	100 [1]	30 [1]
Average vehicle speed (est. mph)	15	20
Traffic one way or two	2	2
Street parking?	No	No
[1] Estimated only, no data available, roads are for local residential access		

For "Site Representativeness" in the following table:

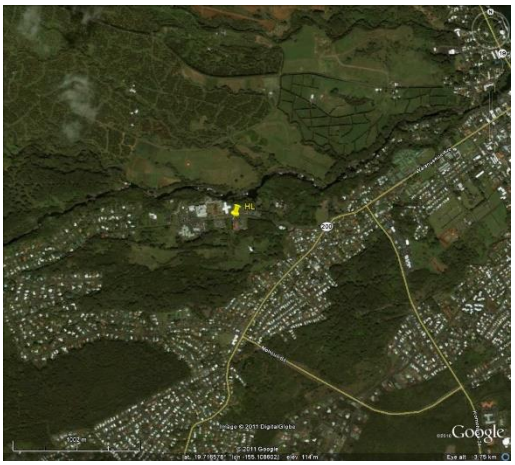
[1]Site Types:
1) located to determine the highest concentrations;
2) located to measure typical concentrations in areas of high population density;
3) located to determine the impact of significant sources or source categories on air quality;
4) located to determine general background concentration levels;
5) located to determine extent of regional pollutant transport among populated areas and in support of secondary standards;
6) located to measure air pollution impacts on visibility, vegetation damage, or other welfare-based impacts

[2] Purposes:
1) Provide air pollution data to the general public in a timely manner;
2) Support compliance with ambient air quality standards;
3) Support emissions strategy development and track trends in air pollution abatement control measures;
4) Support for air pollution research

(NI) Niumalu continued

NI MONITOR INFORMATION (N/A = Not Applicable)				
	SO_2			
POC/FRM or FEM	1/FEM			
Type of monitor	SPMS			
AQS parameter code	42401			
Manufacturer	TECO			
Model no.	43iQ			
AQS method code	060			
Monitoring start date	8/29/2019			
Monitoring frequency	Continuous			
Probe material	Glass			
Residence time (sec)	13.2			
Distance between collocated monitors	N/A			
Analytical laboratory	N/A			
Location of probe	shelter roof			
Shelter dimensions (H x W x D) (m)	3x5x2.4			
Horizontal distance from supporting structure (m)	N/A			
Vertical distance above supporting structure (m)	1			
Height of probe above ground (m)	4			
Distance (m) & direction from drip line of tree(s)	17.8 ESE			
Horizontal distance from edge of nearest traffic lane (m)	44.4			
Horizontal distance from nearest parking lot (m)	N/A			
Distance (m) & direction from obstructions on roof, vertical height above probe (m)	N/A			
Distance (m) & direction from possible obstructions not on roof, vertical height (m)	14.6 W, 7.2			
Distance (m) & direction from furnace or incineration flues	N/A			
Unrestricted airflow	360°			
Located in paved (P) or vegetative (V) ground?	V			
SITE REPRESENTATIVENESS				
Spatial scale	Neighborhood			
Applicable NAAQS averaging time(s)	1-hr, 3-hr, annual			
Sampling season	12 months			
Site type[1]	3			
Purpose of monitor[2]	1, 2, 4			
Suitable for comparison against the annual $PM_{2.5}$ NAAQS?	N/A			
DATA QUALITY				
Last PEP	N/A			
Last NPAP	6/19/18			
Date of last annual independent performance audit (CAB)	3/23/22			
Frequency of flow rate verification (automated PM)	N/A			
Frequency of flow rate verification (manual $PM_{2.5}$)	N/A			
Dates of last 2 semi-annual flow rate audits (PM)	N/A			
Frequency of 1-point flow rate verification (Pb)	N/A			
Dates of last 2 semi-annual flow rate audits (Pb)	N/A			
Precision & accuracy submitted to AQS	Quarterly			
Frequency of 1-pt. QC check (gases)	Weekly			
Frequency of multi-point gas calibration	6 months			
Annual data certification submitted	5/1/23			
Changes in the next 18 months?	None			

(HL) HILO			
AQS: 150011006	Type: SLAMS (SO_2); SPMS ($PM_{2.5}$)	County: Hawaii	MSA: Not in an MSA
Address: 1099 Waianuenue Ave., Hilo, HI 96720			
Latitude: 19.71756 Longitude: -155.11053			Elevation: 136.8 m MSL
Location Description: Located on the grounds of the Adult Rehabilitation Center of Hilo, near the Hilo Medical Center, this site was originally established to monitor volcanic emissions during non-prevalent wind conditions. This station has been operating since 1997. The shelter was replaced on March 31, 2023.			



HL TRAFFIC DESCRIPTION	
Type of Roadway	Waianuenue Ave.
Freeway	
Major Street or Highway	X
Local Street or Road	
Distance from air intake (m)	18
Direction from air inlet	N
Composition of roadway	Asphalt
Number of traffic lanes	2
Average daily traffic	8,400[1]
Average vehicle speed (est. mph)	35
Traffic one way or two	2
Street parking?	No
[1] Source: State of Hawaii Department of Transportation (2016 count)	

For "Site Representativeness" in the following table:

[1]Site Types:
1) located to determine the highest concentrations;
2) located to measure typical concentrations in areas of high population density;
3) located to determine the impact of significant sources or source categories on air quality;
4) located to determine general background concentration levels;
5) located to determine extent of regional pollutant transport among populated areas and in support of secondary standards;
6) located to measure air pollution impacts on visibility, vegetation damage, or other welfare-based impacts

[2] Purposes:
1) Provide air pollution data to the general public in a timely manner;
2) Support compliance with ambient air quality standards;
3) Support emissions strategy development and track trends in air pollution abatement control measures;
4) Support for air pollution research

(HL) Hilo continued

HL MONITOR INFORMATION (N/A = Not Applicable)				
	$PM_{2.5}$	**SO_2**		
POC/FRM or FEM	1/FEM	1/FEM		
Type of monitor	SPMS	SLAMS		
AQS parameter code	88101	42401		
Manufacturer	Met-One	TECO		
Model no.	BAM 1022	43iQ		
AQS method code	209	060		
Monitoring start date	1/1/2018	1/1/2007		
Monitoring frequency	Continuous	Continuous		
Probe material	N/A	Teflon		
Residence time (sec)	N/A	11.0		
Distance between collocated monitors	N/A	N/A		
Analytical laboratory	N/A	N/A		
Location of probe	stand-alone shelter on ground	shelter roof		
Shelter dimensions (H x W x D) (m)	N/A	2.7x2.3x3.7		
Horizontal distance from supporting structure (m)	N/A	N/A		
Vertical distance above supporting structure (m)	2.2	1		
Height of probe above ground (m)	5.5	4		
Distance (m) & direction from drip line of tree(s)	16 NW	19 NW		
Horizontal distance from edge of nearest traffic lane (m)	19	18		
Horizontal distance from nearest parking lot (m)	28	30		
Distance (m) & direction from obstructions on roof, vertical height above probe (m)	N/A	N/A		
Distance (m) & direction from possible obstructions not on roof, vertical height (m)	N/A	N/A		
Distance (m) & direction from furnace or incineration flues	29 NNW (10m stack height)	29 NNW (10m stack height)		
Unrestricted airflow	360°	360°		
Located in paved (P) or vegetative (V) ground?	V	V		
SITE REPRESENTATIVENESS				
Spatial scale	Neighborhood	Neighborhood		
Applicable NAAQS averaging time(s)	24-hr, annual	1-hr, 3-hr, annual		
Sampling season	12 months	12 months		
Site type[1]	3	3		
Purpose of monitor[2]	1, 2, 4	1, 2, 4		
Suitable for comparison against the annual $PM_{2.5}$ NAAQS?	Y	N/A		
DATA QUALITY				
Last PEP	10/4/22	N/A		
Last NPAP	N/A	7/27/22		
Date of last annual independent performance audit (CAB)	N/A	6/15/22		
Frequency of flow rate verification (automated PM)	Monthly	N/A		
Frequency of flow rate verification (manual $PM_{2.5}$)	N/A	N/A		
Dates of last 2 semi-annual flow rate audits (PM)	6/15/22,12/2/22	N/A		
Frequency of 1-point flow rate verification (Pb)	N/A	N/A		
Dates of last 2 semi-annual flow rate audits (Pb)	N/A	N/A		
Precision & accuracy submitted to AQS	Quarterly	Quarterly		
Frequency of 1-pt. QC check (gases)	N/A	Weekly		
Frequency of multi-point gas calibration	N/A	6 months		
Annual data certification submitted	5/1/23	5/1/23		
Changes in the next 18 months?	None	None		

(KN) KONA			
AQS: 150011012	Type: SLAMS (SO_2) SPMS ($PM_{2.5}$)	County: Hawaii	MSA: Not in an MSA
Address: 81-1043 Konawaena School Rd., Kona, HI 96750			
Latitude: 19.50978 Longitude: -155.91342			Elevation: 517.2 m MSL
Location Description: This station is located on the upper campus of Konawaena High School. It was established to measure impacts from volcanic emissions. The station has been operating at this site since 2005. The shelter is scheduled to be replaced; the date is to be determined.			

KN TRAFFIC DESCRIPTION		
Type of Roadway	Konawaena School Rd.	Mamalahoa Highway
Freeway		
Major Street or Highway		X
Local Street or Road	X	
Distance from air intake (m)	17	702
Direction from air inlet	N	W
Composition of roadway	asphalt	Asphalt
Number of traffic lanes	1	2
Average daily traffic	500 [1]	16,300 [2]
Average vehicle speed (est. mph)	10	55
Traffic one way or two	2	2
Street parking?	No	No

[1] Estimated only, no data available. School access only with limited ingress/egress
[2] Source: State of Hawaii Department of Transportation (2016 count)

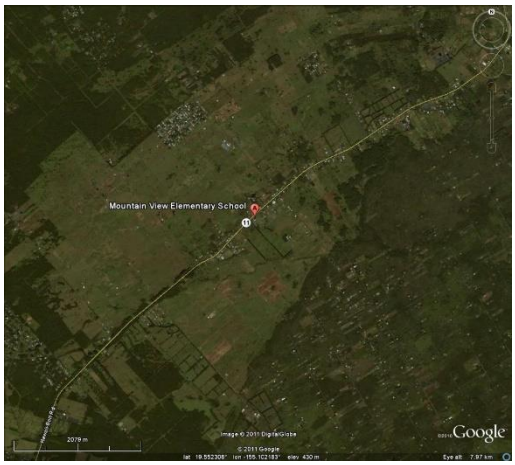
For "Site Representativeness" in the following table:
[1]Site Types: 1) located to determine the highest concentrations;
2) located to measure typical concentrations in areas of high population density;
3) located to determine the impact of significant sources or source categories on air quality;
4) located to determine general background concentration levels;
5) located to determine extent of regional pollutant transport among populated areas and in support of secondary standards;
6) located to measure air pollution impacts on visibility, vegetation damage, or other welfare-based impacts

[2] Purposes: 1) Provide air pollution data to the general public in a timely manner;
2) Support compliance with ambient air quality standards;
3) Support emissions strategy development and track trends in air pollution abatement control measures;
4) Support for air pollution research

(KN) Kona continued

KN MONITOR INFORMATION (N/A = Not Applicable)				
	$PM_{2.5}$ Primary	**$PM_{2.5}$ Co-Lo**	**SO_2**	
POC/FRM or FEM	1/FEM	2/FEM	1/FEM	
Type of monitor	SPMS	SPMS	SLAMS	
AQS parameter code	88101	88101	42401	
Manufacturer	Met-One	Met-One	TECO	
Model no.	BAM 1022	BAM 1022	43iQ	
AQS method code	209	209	060	
Monitoring start date	3/5/2019	3/5/2019	9/13/2005	
Monitoring frequency	Continuous	Continuous	Continuous	
Probe material	N/A	N/A	Teflon	
Residence time (sec)	N/A	N/A	16.7	
Distance between collocated monitors (m)	2.5	2.5	N/A	
Analytical laboratory	N/A	N/A	N/A	
Location of probe	stand-alone shelter on ground	stand-alone shelter on ground	shelter roof	
Shelter dimensions (H x W x D) (m)	N/A	N/A	3x2.4x5	
Horizontal distance from supporting structure (m)	N/A	N/A	N/A	
Vertical distance above supporting structure (m)	N/A	N/A	1.1	
Height of probe above ground (m)	2.1	2.1	4.1	
Distance (m) & direction from drip line of tree(s)	15.2 W	15.2 W	38 NE	
Horizontal distance from edge of nearest traffic lane (m)	30	30	30	
Horizontal distance from nearest parking lot (m)	N/A	N/A	N/A	
Distance (m) & direction from obstructions on roof, vertical height above probe (m)	N/A	N/A	N/A	
Distance (m) & direction from possible obstructions not on roof, vertical height (m)	3.4 S, 3	3.4 S, 3	21 SSW, 9	
Distance (m) & direction from furnace or incineration flues	N/A	N/A	N/A	
Unrestricted airflow	270°	270°	360°	
Located in paved (P) or vegetative (V) ground?	V	V	V	
SITE REPRESENTATIVENESS				
Spatial scale	Neighborhood	Neighborhood	Neighborhood	
Applicable NAAQS averaging time(s)	24-hr, annual	24-hr, annual	1-hr, 3-hr; annual	
Sampling season	12 months	12 months	12 months	
Site type[1]	3	QC	3	
Purpose of monitor[2]	1, 2, 4	1, 2, 4	1, 2, 4	
Suitable for comparison against the annual $PM_{2.5}$ NAAQS?	Y	Y	N/A	
DATA QUALITY				
Last PEP	10/6/22	10/6/22	N/A	
Last NPAP	N/A	N/A	6/28/22	
Date of last annual independent performance audit (CAB)	N/A	N/A	4/27/22	
Frequency of flow rate verification (automated PM)	Monthly	Monthly	N/A	
Frequency of flow rate verification (manual $PM_{2.5}$)	N/A	N/A	N/A	
Dates of last 2 semi-annual flow rate audits (PM)	4/27/22, 12/27/22	4/27/22, 12/27/22	N/A	
Frequency of 1-point flow rate verification (Pb)	N/A	N/A	N/A	
Dates of last 2 semi-annual flow rate audits (Pb)	N/A	N/A	N/A	
Precision & accuracy submitted to AQS	Quarterly	Quarterly	Quarterly	
Frequency of 1-pt. QC check (gases)	N/A	N/A	Weekly	
Frequency of multi-point gas calibration	N/A	N/A	6 months	
Annual data certification submitted	5/1/23	5/1/23	5/1/23	
Changes in the next 18 months?	None	None	Replace shelter	

(MV) MOUNTAIN VIEW			
AQS: 150012023	Type: SPMS	County: Hawaii	MSA: Not in an MSA
Address: 18-1235 Volcano Rd., Mt. View, HI 96771			
Latitude: 19.57002 Longitude: -155.08046			Elevation: 436.5 m MSL
Location Description: This station is located on the grounds of the Mountain View Elementary School. The original Mountain View station, which began in December 2007, was moved at the ending of 2010 approximately 1.8 miles southwest to this current location. Due to the proximity of this community to the Kilauea volcano, it was established to monitor volcanic emissions during non-trade wind days.			



	MV TRAFFIC DESCRIPTION
Type of Roadway	Volcano Rd.
Freeway	
Major Street or Highway	X
Local Street or Road	
Distance from air intake (m)	21
Direction from air inlet	N
Composition of roadway	asphalt
Number of traffic lanes	2
Average daily traffic	13,400 [1]
Average vehicle speed (est. mph)	40
Traffic one way or two	2
Street parking?	No
[1] Source: State of Hawaii Department of Transportation (2016 count)	

For "Site Representativeness" in the following table:

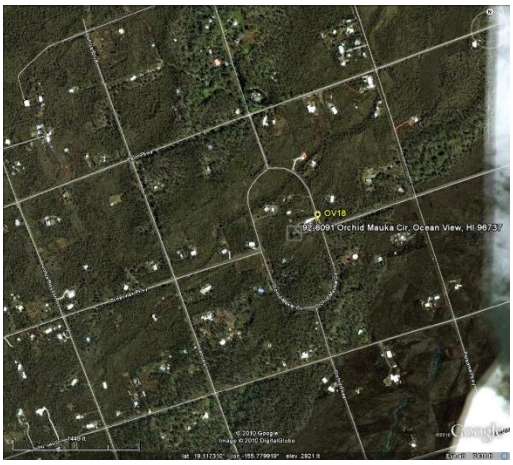
[1]Site Types: 1) located to determine the highest concentrations;
2) located to measure typical concentrations in areas of high population density;
3) located to determine the impact of significant sources or source categories on air quality;
4) located to determine general background concentration levels;
5) located to determine extent of regional pollutant transport among populated areas and in support of secondary standards;
6) located to measure air pollution impacts on visibility, vegetation damage, or other welfare-based impacts

[2] Purposes: 1) Provide air pollution data to the general public in a timely manner;
2) Support compliance with ambient air quality standards;
3) Support emissions strategy development and track trends in air pollution abatement control measures;
4) Support for air pollution research

(MV) Mt. View continued

MV MONITOR INFORMATION (N/A = Not Applicable)				
	$PM_{2.5}$	**SO_2**		
POC/FRM or FEM	1/FEM	1/FEM		
Type of monitor	SPMS	SPMS		
AQS parameter code	88101	42401		
Manufacturer	Met-One	TECO		
Model no.	BAM 1022	43iQ		
AQS method code	209	060		
Monitoring start date	5/29/2019	12/8/2010		
Monitoring frequency	Continuous	Continuous		
Probe material	N/A	Teflon		
Residence time (sec)	N/A	11.7		
Distance between collocated monitors	N/A	N/A		
Analytical laboratory	N/A	N/A		
Location of probe	stand-alone shelter on ground	shelter roof		
Shelter dimensions (H x W x D) (m)	N/A	3x2.4x5		
Horizontal distance from supporting structure (m)	N/A	N/A		
Vertical distance above supporting structure (m)	N/A	1		
Height of probe above ground (m)	2.2	4		
Distance (m) & direction from drip line of tree(s)	4 SW	2 SW		
Horizontal distance from edge of nearest traffic lane (m)	21	23		
Horizontal distance from nearest parking lot (m)	46.5	46.5		
Distance (m) & direction from obstructions on roof, vertical height above probe (m)	N/A	N/A		
Distance (m) & direction from possible obstructions not on roof, vertical height (m)	N/A	N/A		
Distance (m) & direction from furnace or incineration flues	N/A	N/A		
Unrestricted airflow	360°	360°		
Located in paved (P) or vegetative (V) ground?	V	V		
SITE REPRESENTATIVENESS				
Spatial scale	Neighborhood	Neighborhood		
Applicable NAAQS averaging time(s)	24-hr, annual	1-hr, 3-hr; annual		
Sampling season	12 months	12 months		
Site type[1]	3	3		
Purpose of monitor[2]	1, 2, 4	1, 2, 4		
Suitable for comparison against the annual $PM_{2.5}$ NAAQS?	Y	N/A		
DATA QUALITY				
Last PEP	10/4/22	N/A		
Last NPAP	N/A	6/23/22		
Date of last annual independent performance audit (CAB)	N/A	5/18/22		
Frequency of flow rate verification (automated PM)	Monthly	N/A		
Frequency of flow rate verification (manual $PM_{2.5}$)	N/A	N/A		
Dates of last 2 semi-annual flow rate audits (PM)	5/4/22, 12/9/22	N/A		
Frequency of 1-point flow rate verification (Pb)	N/A	N/A		
Dates of last 2 semi-annual flow rate audits (Pb)	N/A	N/A		
Precision & accuracy submitted to AQS	Quarterly	Quarterly		
Frequency of 1-pt. QC check (gases)	N/A	Weekly		
Frequency of multi-point gas calibration	N/A	60 days		
Annual data certification submitted	5/1/23	5/1/23		
Changes in the next 18 months?	None	Replace shelter		

(OV) OCEAN VIEW			
AQS: 150012020	Type: SPMS	County: Hawaii	MSA: Not in an MSA
Address: 92-6091 Orchid Mauka Circle, Ocean View, HI 96737			
Latitude: 19.11756 Longitude: -155.77814			Elevation: 862.6 m MSL
Location Description: This station was established in 2010 and is located on the grounds of the Ocean View Fire Station. During normal trade-winds, volcanic emissions are carried into this residential/agricultural community. This shelter is scheduled to be replaced; the date is to be determined.			



OV TRAFFIC DESCRIPTION	
Type of Roadway	Orchid Mauka Circ.
Freeway	
Major Street or Highway	
Local Street or Road	X
Distance from air intake (m)	13.6
Direction from air inlet	ENE
Composition of roadway	asphalt
Number of traffic lanes	2
Average daily traffic	< 3,000 [1]
Average vehicle speed (est. mph)	25
Traffic one way or two	2
Street parking?	No
[1] Estimated only, local residential street, no data available	

For "Site Representativeness" in the following table:

[1]Site Types:
1) located to determine the highest concentrations;
2) located to measure typical concentrations in areas of high population density;
3) located to determine the impact of significant sources or source categories on air quality;
4) located to determine general background concentration levels;
5) located to determine extent of regional pollutant transport among populated areas and in support of secondary standards;
6) located to measure air pollution impacts on visibility, vegetation damage, or other welfare-based impacts

[2] Purposes:
1) Provide air pollution data to the general public in a timely manner;
2) Support compliance with ambient air quality standards;
3) Support emissions strategy development and track trends in air pollution abatement control measures;
4) Support for air pollution research

(OV) Ocean View continued

OV MONITOR INFORMATION (N/A = Not Applicable)				
	$PM_{2.5}$	**SO_2**		
POC/FRM or FEM	1/FEM	1/FEM		
Type of monitor	SPMS	SPMS		
AQS parameter code	88101	42401		
Manufacturer	Met-One	TECO		
Model no.	BAM 1022	43iQ		
AQS method code	209	060		
Monitoring start date	5/1/2019	4/1/2010		
Monitoring frequency	Continuous	Continuous		
Probe material	N/A	Teflon		
Residence time (sec)	N/A	15.3		
Distance between collocated monitors	N/A	N/A		
Analytical laboratory	N/A	N/A		
Location of probe	Stand-alone PM shelter on station stairs platform	shelter roof		
Shelter dimensions (H x W x D) (m)	N/A	3x2.4x5		
Horizontal distance from supporting structure (m)	N/A	N/A		
Vertical distance above supporting structure (m)	2.1	1.1		
Height of probe above ground (m)	3.1	4.1		
Distance (m) & direction from drip line of tree(s)	3.7 N	5.5 NE		
Horizontal distance from edge of nearest traffic lane (m)	13.6	13.6		
Horizontal distance from nearest parking lot (m)	6.4	6.4		
Distance (m) & direction from obstructions on roof, vertical height above probe (m)	N/A	N/A		
Distance (m) & direction from possible obstructions not on roof, vertical height (m)	1.1 W/ 3.4 (station shelter)	N/A		
Distance (m) & direction from furnace or incineration flues	N/A	N/A		
Unrestricted airflow	270°	360°		
Located in paved (P) or vegetative (V) ground?	gravel	gravel		
SITE REPRESENTATIVENESS				
Spatial scale	Neighborhood	Neighborhood		
Applicable NAAQS averaging time(s)	24-hr, annual	1-hr, 3-hr; annual		
Sampling season	12 months	12 months		
Site type[1]	3, 6	3, 6		
Purpose of monitor[2]	1, 2, 4	1, 2, 4		
Suitable for comparison against the annual $PM_{2.5}$ NAAQS?	Y	N/A		
DATA QUALITY				
Last PEP	10/6/22	N/A		
Last NPAP	N/A	6/28/22		
Date of last annual independent performance audit (CAB)	N/A	5/25/22		
Frequency of flow rate verification (automated PM)	Monthly	N/A		
Frequency of flow rate verification (manual $PM_{2.5}$)	N/A	N/A		
Dates of last 2 semi-annual flow rate audits (PM)	5/25/22, 12/7/22	N/A		
Frequency of 1-point flow rate verification (Pb)	N/A	N/A		
Dates of last 2 semi-annual flow rate audits (Pb)	N/A	N/A		
Precision & accuracy submitted to AQS	Quarterly	Quarterly		
Frequency of 1-pt. QC check (gases)	N/A	Weekly		
Frequency of multi-point gas calibration	N/A	6 months		
Annual data certification submitted	5/1/23	5/1/23		
Changes in the next 18 months?	None	Replace shelter		

(PA) PAHALA			
AQS: 150012016	Type: SPMS	County: Hawaii	MSA: Not in an MSA
Address: 96-3150 Pikake St., Pahala, HI 96777			
Latitude: 19.2039 Longitude: -155.48018			Elevation: 320 m MSL
Location Description: This station is located on the grounds of the Ka'u High/Pahala Elementary School. During normal trade-winds, volcanic emissions are carried into this rural community. The station began operating in 2007. The shelter was replaced on December 29, 2022.			

PA TRAFFIC DESCRIPTION		
Type of Roadway	Puahala	Pumeli
Freeway		
Major Street or Highway		
Local Street or Road	X	X
Distance from air intake (m)	226	61
Direction from air inlet	E	N
Composition of roadway	Asphalt	Asphalt
Number of traffic lanes	2	2
Average daily traffic	< 3,000 [1]	< 3,000 [1]
Average vehicle speed (est. mph)	25 mph	25 mph
Traffic one way or two	2	2
Street parking?	No	No
[1] Estimated only, no data available. Local roads for a community with a 2010 population of about 1,400		

For "Site Representativeness" in the following table:

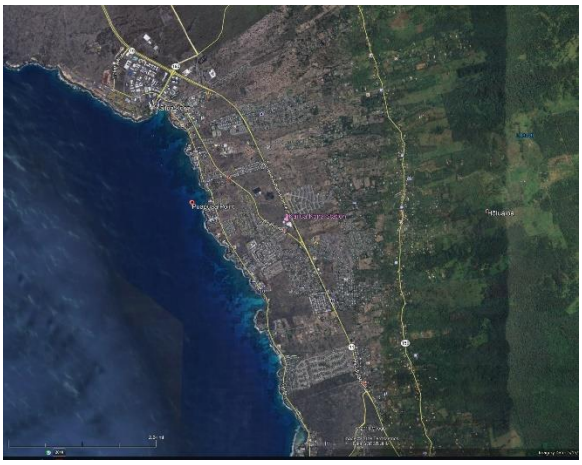
[1]Site Types:
1) located to determine the highest concentrations;
2) located to measure typical concentrations in areas of high population density;
3) located to determine the impact of significant sources or source categories on air quality;
4) located to determine general background concentration levels;
5) located to determine extent of regional pollutant transport among populated areas and in support of secondary standards;
6) located to measure air pollution impacts on visibility, vegetation damage, or other welfare-based impacts

[2] Purposes:
1) Provide air pollution data to the general public in a timely manner;
2) Support compliance with ambient air quality standards;
3) Support emissions strategy development and track trends in air pollution abatement control measures;
4) Support for air pollution research

(PA) Pahala continued

PA MONITOR INFORMATION (N/A = Not Applicable)				
	$PM_{2.5}$	**SO_2**		
POC/FRM or FEM	1/FEM	1/FEM		
Type of monitor	SPMS	SPMS		
AQS parameter code	88101	42401		
Manufacturer	Met-One	TECO		
Model no.	BAM 1022	43iQ		
AQS method code	209	060		
Monitoring start date	2/26/2019	8/10/2007		
Monitoring frequency	Continuous	Continuous		
Probe material	N/A	Teflon		
Residence time (sec)	N/A	11.0		
Distance between collocated monitors	N/A	N/A		
Analytical laboratory	N/A	N/A		
Location of probe	stand-alone shelter on ground	shelter roof		
Shelter dimensions (H x W x D) (m)	N/A	2.7x2x3.7		
Horizontal distance from supporting structure (m)	N/A	N/A		
Vertical distance above supporting structure (m)	N/A	1		
Height of probe above ground (m)	2.1	4		
Distance (m) & direction from drip line of tree(s)	11 S	13 SW		
Horizontal distance from edge of nearest traffic lane (m)	48	48		
Horizontal distance from nearest parking lot (m)	40	40		
Distance (m) & direction from obstructions on roof, vertical height above probe (m)	N/A	N/A		
Distance (m) & direction from possible obstructions not on roof, vertical height (m)	N/A	N/A		
Distance (m) & direction from furnace or incineration flues	N/A	N/A		
Unrestricted airflow	270°	360°		
Located in paved (P) or vegetative (V) ground?	V	V		
SITE REPRESENTATIVENESS				
Spatial scale	Neighborhood	Neighborhood		
Applicable NAAQS averaging time(s)	24-hr, annual	1-hr, 3-hr; annual		
Sampling season	12 months	12 months		
Site type[1]	3	3		
Purpose of monitor[2]	1, 2, 4	1, 2, 4		
Suitable for comparison against the annual $PM_{2.5}$ NAAQS?	Y	N/A		
DATA QUALITY				
Last PEP	6/23/22	N/A		
Last NPAP	N/A	6/22/16		
Date of last annual independent performance audit (CAB)	N/A	5/4/22		
Frequency of flow rate verification (automated PM)	Monthly	N/A		
Frequency of flow rate verification (manual $PM_{2.5}$)	N/A	N/A		
Dates of last 2 semi-annual flow rate audits (PM)	5/4/22, 12/9/22	N/A		
Frequency of 1-point flow rate verification (Pb)	N/A	N/A		
Dates of last 2 semi-annual flow rate audits (Pb)	N/A	N/A		
Precision & accuracy submitted to AQS	Quarterly	Quarterly		
Frequency of 1-pt. QC check (gases)	N/A	Weekly		
Frequency of multi-point gas calibration	N/A	6 months		
Annual data certification submitted	5/1/23	5/1/23		
Changes in the next 18 months?	None	None		

(KK) KAILUA-KONA			
AQS: 150013028	Type: SPMS	County: Hawaii	MSA: Not in an MSA
Address: Department of Water Supply Puapua'a Reservoir, Kailua-Kona, HI 96740			
Latitude: 19.61815833 Longitude: -155.9711111			Elevation: 92.4 m MSL
Location Description: This station is located in the middle Kailua-Kona town within a fenced area that contains a County of Hawaii water reservoir and pump house. The station was established to monitor the effects of volcanic emissions and has been operating since November 21, 2018 monitoring for $PM_{2.5}$.			



KK TRAFFIC DESCRIPTION			
Type of Roadway	Kuakini Highway	Walua Road	Queen Kaahumanu Hwy
Freeway			
Major Street or Highway	X		X
Local Street or Road		X (no through traffic)	
Distance from air intake (m)	125	42	145
Direction from air inlet	NW	S	E
Composition of roadway	asphalt	asphalt	Asphalt
Number of traffic lanes	2	2	2
Average daily traffic	8,200 [1]	[2] Estimated <50	22,900 [1]
Average vehicle speed (est. mph)	45	25	45
Traffic one way or two	2	2	2
Street parking?	No	No	No
[1] Source: State of Hawaii Department of Transportation (2016 count) [2] Estimated only, no data available, road is for local business access			

For "Site Representativeness" in the following table:

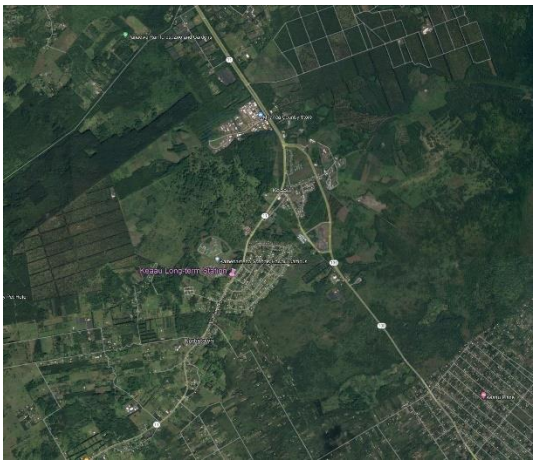
[1]Site Types:
1) located to determine the highest concentrations;
2) located to measure typical concentrations in areas of high population density;
3) located to determine the impact of significant sources or source categories on air quality;
4) located to determine general background concentration levels;
5) located to determine extent of regional pollutant transport among populated areas and in support of secondary standards;
6) located to measure air pollution impacts on visibility, vegetation damage, or other welfare-based impacts

[2] Purposes:
1) Provide air pollution data to the general public in a timely manner;
2) Support compliance with ambient air quality standards;
3) Support emissions strategy development and track trends in air pollution abatement control measures;
4) Support for air pollution research

(KK) Kailua-Kona continued

KK MONITOR INFORMATION (N/A = Not Applicable)				
	$PM_{2.5}$			
POC/FRM or FEM	1/FEM			
Type of monitor	SPMS			
AQS parameter code	88101			
Manufacturer	Met One			
Model no.	BAM1022			
AQS method code	209			
Monitoring start date	11/15/2018			
Monitoring frequency	Continuous			
Probe material	N/A			
Residence time (sec)	N/A			
Distance between collocated monitors	N/A			
Analytical laboratory	N/A			
Location of probe	stand-alone shelter on ground			
Shelter dimensions (H x W x D) (m)	N/A			
Horizontal distance from supporting structure (m)	N/A			
Vertical distance above supporting structure (m)	2.2			
Height of probe above ground (m)	2.2			
Distance (m) & direction from drip line of tree(s)	19.8 SE			
Horizontal distance from edge of nearest traffic lane (m)	42			
Horizontal distance from nearest parking lot (m)	25			
Distance (m) & direction from obstructions on roof, vertical height above probe (m)	N/A			
Distance (m) & direction from possible obstructions not on roof, vertical height (m)	3 NE/3			
Distance (m) & direction from furnace or incineration flues	N/A			
Unrestricted airflow	180°			
Located in paved (P) or vegetative (V) ground?	gravel			
SITE REPRESENTATIVENESS				
Spatial scale	Neighborhood			
Applicable NAAQS averaging time(s)	24-hr, annual			
Sampling season	12 months			
Site type[1]	3			
Purpose of monitor[2]	1, 2, 4			
Suitable for comparison against the annual $PM_{2.5}$ NAAQS?	N			
DATA QUALITY				
Last PEP	None			
Last NPAP	N/A			
Date of last annual independent performance audit (CAB)	N/A			
Frequency of flow rate verification (automated PM)	Monthly			
Frequency of flow rate verification (manual $PM_{2.5}$)	N/A			
Dates of last 2 semi-annual flow rate audits (PM)	4/27/22, 12/27/22			
Frequency of 1-point flow rate verification (Pb)	N/A			
Dates of last 2 semi-annual flow rate audits (Pb)	N/A			
Precision & accuracy submitted to AQS	Quarterly			
Frequency of 1-pt. QC check (gases)	N/A			
Frequency of multi-point gas calibration	N/A			
Annual data certification submitted	5/1/23			
Changes in the next 18 months?	None			

(KS) KEAAU			
AQS: 150013027	Type: SPMS	County: Hawaii	MSA: Not in an MSA
Address: Kamehameha Schools Hawaii Campus, 16-714 Volcano Road, Keaau, HI 96749			
Latitude: 19.605424	Longitude: -155.051379		Elevation: 179.8 m MSL
Location Description: This temporary station is located in the town of Keaau on the Kamehameha Schools Hawaii campus. The station began monitoring for $PM_{2.5}$ and SO_2 on June 14, 2018 at a temporary location elsewhere on campus and was relocated to it's permanent location on June 30, 2023.			



KS TRAFFIC DESCRIPTION	
Type of Roadway	Volcano Road/Mamalahoa Highway
Freeway	
Major Street or Highway	X
Local Street or Road	
Distance from air intake (m)	40
Direction from air inlet	S
Composition of roadway	asphalt
Number of traffic lanes	2
Average daily traffic	13,400 [1]
Average vehicle speed (est. mph)	45
Traffic one way or two	2
Street parking?	No
[1] Source: State of Hawaii Department of Transportation (2016 count)	

For "Site Representativeness" in the following table:

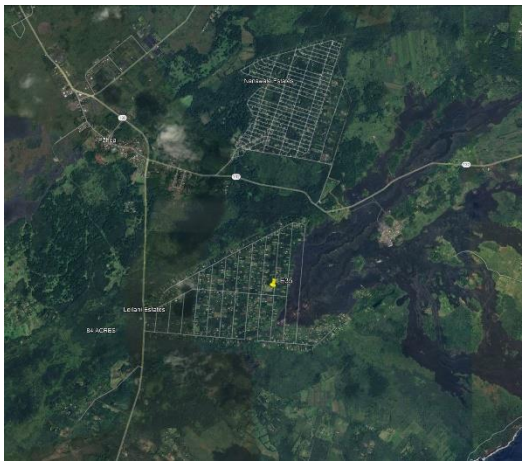
[1]Site Types:
1) located to determine the highest concentrations;
2) located to measure typical concentrations in areas of high population density;
3) located to determine the impact of significant sources or source categories on air quality;
4) located to determine general background concentration levels;
5) located to determine extent of regional pollutant transport among populated areas and in support of secondary standards;
6) located to measure air pollution impacts on visibility, vegetation damage, or other welfare-based impacts

[2] Purposes:
1) Provide air pollution data to the general public in a timely manner;
2) Support compliance with ambient air quality standards;
3) Support emissions strategy development and track trends in air pollution abatement control measures;
4) Support for air pollution research

(KS) Keaau continued

KS MONITOR INFORMATION (N/A = Not Applicable)				
	$PM_{2.5}$	**SO_2**		
POC/FRM or FEM	1/FEM	1/FEM		
Type of monitor	SPMS	SPMS		
AQS parameter code	88101	42401		
Manufacturer	Met One	TECO		
Model no.	BAM1022	43iQ		
AQS method code	209	060		
Monitoring start date	6/14/2018	6/14/2018		
Monitoring frequency	Continuous	Continuous		
Probe material	N/A	Teflon		
Residence time (sec)	N/A	11.5		
Distance between collocated monitors	N/A	N/A		
Analytical laboratory	N/A	N/A		
Location of probe	stand-alone shelter on ground	shelter roof		
Shelter dimensions (H x W x D) (m)	N/A	2.7x2x3.7		
Horizontal distance from supporting structure (m)	N/A	N/A		
Vertical distance above supporting structure (m)	N/A	1		
Height of probe above ground (m)	2.2	4		
Distance (m) & direction from drip line of tree(s)	50 NE	55 NE		
Horizontal distance from edge of nearest traffic lane (m)	40	40		
Horizontal distance from nearest parking lot (m)	330	330		
Distance (m) & direction from obstructions on roof, vertical height above probe (m)	N/A	N/A		
Distance (m) & direction from possible obstructions not on roof, vertical height (m)	N/A	N/A		
Distance (m) & direction from furnace or incineration flues	N/A	N/A		
Unrestricted airflow	360°	360°		
Located in paved (P) or vegetative (V) ground?	V	V		
SITE REPRESENTATIVENESS				
Spatial scale	Neighborhood	Neighborhood		
Applicable NAAQS averaging time(s)	24-hr, annual	1-hr, 3-hr; annual		
Sampling season	12 months	12 months		
Site type[1]	3	3		
Purpose of monitor[2]	1, 2, 4	1, 2, 4		
Suitable for comparison against the annual $PM_{2.5}$ NAAQS?	N	N/A		
DATA QUALITY				
Last PEP	None	N/A		
Last NPAP	N/A	None		
Date of last annual independent performance audit (CAB)	N/A	5/18/22		
Frequency of flow rate verification (automated PM)	Monthly	N/A		
Frequency of flow rate verification (manual $PM_{2.5}$)	N/A	N/A		
Dates of last 2 semi-annual flow rate audits (PM)	5/4/22, 12/2/22	N/A		
Frequency of 1-point flow rate verification (Pb)	N/A	N/A		
Dates of last 2 semi-annual flow rate audits (Pb)	N/A	N/A		
Precision & accuracy submitted to AQS	Quarterly	Quarterly		
Frequency of 1-pt. QC check (gases)	N/A	Weekly		
Frequency of multi-point gas calibration	N/A	6 months		
Annual data certification submitted	5/1/23	5/1/23		
Changes in the next 18 months?	None	None		

(LE) LEILANI			
AQS: 150012035	Type: SPMS	County: Hawaii	MSA: Not in an MSA
Address: Leilani Community Association Center, 13-3441 Moku Street, Pahoa, Hawaii 96778			
Latitude: 19.46566667 Longitude: - 154.91444444			Elevation: 243 m MSL
Location Description: This station is located in a residential subdivision within a fenced area that contains the Leilani Community Association Center. The station was established to monitor emissions from the nearby geothermal energy facility and has been monitoring for H_2S since September 17, 2019. The shelter was moved to a more suitable location at the center on September 20, 2020.			



LE TRAFFIC DESCRIPTION		
Type of Roadway	Leilani Avenue	Kupono Street
Freeway		
Major Street or Highway		
Local Street or Road	X	X
Distance from air intake (m)	130	45
Direction from air inlet	S	E
Composition of roadway	asphalt	asphalt
Number of traffic lanes	2	2
Average daily traffic	[1] Estimated <2,000	[1] Estimated <200
Average vehicle speed (est. mph)	25	20
Traffic one way or two	2	2
Street parking?	No	No
[1] Estimated only, no data available, roads are for local residential access		

For “Site Representativeness” in the following table:

[1]Site Types:
1) located to determine the highest concentrations;
2) located to measure typical concentrations in areas of high population density;
3) located to determine the impact of significant sources or source categories on air quality;
4) located to determine general background concentration levels;
5) located to determine extent of regional pollutant transport among populated areas and in support of secondary standards;
6) located to measure air pollution impacts on visibility, vegetation damage, or other welfare-based impacts

[2] Purposes:
1) Provide air pollution data to the general public in a timely manner;
2) Support compliance with ambient air quality standards;
3) Support emissions strategy development and track trends in air pollution abatement control measures;
4) Support for air pollution research

(LE) Leilani continued

LE MONITOR INFORMATION (N/A = Not Applicable)				
	H_2S	**SO_2**		
POC/FRM or FEM	N/A	1/FEM		
Type of monitor	SPMS	SPMS		
AQS parameter code	N/A	42401		
Manufacturer	TECO	TECO		
Model no.	450IQ	43IQ		
AQS method code	N/A	060		
Monitoring start date	9/17/2019	9/12/2019		
Monitoring frequency	Continuous	Continuous		
Probe material	Teflon	Teflon		
Residence time (sec)	4.9	11.2		
Distance between collocated monitors	N/A	N/A		
Analytical laboratory	N/A	N/A		
Location of probe	shelter roof	shelter roof		
Shelter dimensions (H x W x D) (m)	2.7x2x3.7	2.7x2x3.7		
Horizontal distance from supporting structure (m)	N/A	N/A		
Vertical distance above supporting structure (m)	1.0	1.0		
Height of probe above ground (m)	4	4		
Distance (m) & direction from drip line of tree(s)	10 W	10 W		
Horizontal distance from edge of nearest traffic lane (m)	45	45		
Horizontal distance from nearest parking lot (m)	175	175		
Distance (m) & direction from obstructions on roof, vertical height above probe (m)	N/A	N/A		
Distance (m) & direction from possible obstructions not on roof, vertical height (m)	N/A	N/A		
Distance (m) & direction from furnace or incineration flues	N/A	N/A		
Unrestricted airflow	360°	360°		
Located in paved (P) or vegetative (V) ground?	gravel	gravel		
SITE REPRESENTATIVENESS				
Spatial scale	Neighborhood	Neighborhood		
Applicable NAAQS averaging time(s)	1-hour state standard 25 ppb	1-hour		
Sampling season	12 months	12 months		
Site type[1]	3	3		
Purpose of monitor[2]	1, 4	1, 4		
Suitable for comparison against the annual $PM_{2.5}$ NAAQS?	N/A	N/A		
DATA QUALITY				
Last PEP	N/A	N/A		
Last NPAP	N/A	None		
Date of last annual independent performance audit (CAB)	5/11/2022	5/11/2022		
Frequency of flow rate verification (automated PM)	N/A	N/A		
Frequency of flow rate verification (manual $PM_{2.5}$)	N/A	N/A		
Dates of last 2 semi-annual flow rate audits (PM)	N/A	N/A		
Frequency of 1-point flow rate verification (Pb)	N/A	N/A		
Dates of last 2 semi-annual flow rate audits (Pb)	N/A	N/A		
Precision & accuracy submitted to AQS	Quarterly	Quarterly		
Frequency of 1-pt. QC check (gases)	Weekly	Weekly		
Frequency of multi-point gas calibration	6 months	6 months		
Annual data certification submitted	5/1/23	5/1/23		
Changes in the next 18 months?	None	None		

(NA) NAALEHU			
AQS: 150013033	Type: SPMS	County: Hawaii	MSA: Not in an MSA
Address: Naalehu Elementary School, 95-5547 Mamalahoa Hwy., Naalehu, HI 96772			
Latitude: 19.060656	Longitude: -155.579167		Elevation: 196.3 m MSL
Location Description: This station is located at the USGS Seismograph building on the campus of Naalehu Elementary School. The SO_2 monitor has been operating since September 6, 2018. A $PM_{2.5}$ sampler was installed at the station on December 2, 2022.			

NA TRAFFIC DESCRIPTION	
Type of Roadway	Mamalahoa HIghway
Freeway	
Major Street or Highway	X
Local Street or Road	
Distance from air intake (m)	180
Direction from air inlet	N
Composition of roadway	asphalt
Number of traffic lanes	2
Average daily traffic	3,700 [1]
Average vehicle speed (est. mph)	25
Traffic one way or two	2
Street parking?	No
[1] Source: State of Hawaii Department of Transportation (2016 count)	

For "Site Representativeness" in the following table:

[1]Site Types:
1) located to determine the highest concentrations;
2) located to measure typical concentrations in areas of high population density;
3) located to determine the impact of significant sources or source categories on air quality;
4) located to determine general background concentration levels;
5) located to determine extent of regional pollutant transport among populated areas and in support of secondary standards;
6) located to measure air pollution impacts on visibility, vegetation damage, or other welfare-based impacts

[2] Purposes:
1) Provide air pollution data to the general public in a timely manner;
2) Support compliance with ambient air quality standards;
3) Support emissions strategy development and track trends in air pollution abatement control measures;
4) Support for air pollution research

(NA) Naalehu continued

NA MONITOR INFORMATION (N/A = Not Applicable)				
	SO_2	**$PM_{2.5}$**		
POC/FRM or FEM	1/FEM	1/FEM		
Type of monitor	SPMS	SPMS		
AQS parameter code	42401	88101		
Manufacturer	TECO	Met One		
Model no.	43iQ	BAM1022		
AQS method code	060	209		
Monitoring start date	9/6/2018	12/2/2022		
Monitoring frequency	Continuous	Continuous		
Probe material	Teflon	N/A		
Residence time (sec)	11.0	N/A		
Distance between collocated monitors	N/A	N/A		
Analytical laboratory	N/A	N/A		
Location of probe	building wall	stand-alone shelter on ground		
Shelter dimensions (H x W x D) (m)	2.4 x 3.7 x 3.1	N/A		
Horizontal distance from supporting structure (m)	1	N/A		
Vertical distance above supporting structure (m)	N/A	2.2		
Height of probe above ground (m)	1.9	2.2		
Distance (m) & direction from drip line of tree(s)	20 NW	20 NW		
Horizontal distance from edge of nearest traffic lane (m)	114	114		
Horizontal distance from nearest parking lot (m)	114	114		
Distance (m) & direction from obstructions on roof, vertical height above probe (m)	N/A	N/A		
Distance (m) & direction from possible obstructions not on roof, vertical height (m)	N/A	1 E/2.4		
Distance (m) & direction from furnace or incineration flues	N/A	N/A		
Unrestricted airflow	180°	360°		
Located in paved (P) or vegetative (V) ground?	V	V		
SITE REPRESENTATIVENESS				
Spatial scale	Neighborhood	Neighborhood		
Applicable NAAQS averaging time(s)	1-hr, 3-hr; annual	24-hr, annual		
Sampling season	12 months	12 months		
Site type[1]	3	3		
Purpose of monitor[2]	1, 2, 4	1, 2, 4		
Suitable for comparison against the annual $PM_{2.5}$ NAAQS?	N/A	N		
DATA QUALITY				
Last PEP	N/A	N/A		
Last NPAP	Not Done	N/A		
Date of last annual independent performance audit (CAB)	5/25/22	N/A		
Frequency of flow rate verification (automated PM)	N/A	Monthly		
Frequency of flow rate verification (manual $PM_{2.5}$)	N/A	N/A		
Dates of last 2 semi-annual flow rate audits (PM)	N/A	12/7/22		
Frequency of 1-point flow rate verification (Pb)	N/A	N/A		
Dates of last 2 semi-annual flow rate audits (Pb)	N/A	N/A		
Precision & accuracy submitted to AQS	Quarterly	Quarterly		
Frequency of 1-pt. QC check (gases)	Weekly	N/A		
Frequency of multi-point gas calibration	6 months	N/A		
Annual data certification submitted	5/1/23	5/1/23		
Changes in the next 18 months?	None	None		

(WL) WAIKOLOA			
AQS: 150012021	Type: SPMS	County: Hawaii	MSA: Not in an MSA
Address: TMK 3-6-8-002-019, Waikoloa, HI 96738			
Latitude: 19.977500	Longitude: -155.798056		Elevation: 182.9 m MSL
Location Description: This station is located within a fenced area that contains a County of Hawaii water tank and pump house, approximately 3 km northeast of Waikoloa. The $PM_{2.5}$ monitor for this station was relocated from Waikoloa E.S. on July 28, 2021. An SO_2 monitor and shelter was added to the station on December 8, 2022.			

WL TRAFFIC DESCRIPTION		
Type of Roadway	Queen Kaahumanu Hwy.	Waikoloa Road
Freeway		
Major Street or Highway	X	
Local Street or Road		X
Distance from air intake (m)	2,143	4,580
Direction from air inlet	W	N
Composition of roadway	asphalt	asphalt
Number of traffic lanes	2	2
Average daily traffic	11,900 [1]	8,200 [1]
Average vehicle speed (est. mph)	55	55
Traffic one way or two	2	2
Street parking?	No	No
[1] Source: State of Hawaii Department of Transportation (2016 count)		

For "Site Representativeness" in the following table:

[1]Site Types:
1) located to determine the highest concentrations;
2) located to measure typical concentrations in areas of high population density;
3) located to determine the impact of significant sources or source categories on air quality;
4) located to determine general background concentration levels;
5) located to determine extent of regional pollutant transport among populated areas and in support of secondary standards;
6) located to measure air pollution impacts on visibility, vegetation damage, or other welfare-based impacts

[2] Purposes:
1) Provide air pollution data to the general public in a timely manner;
2) Support compliance with ambient air quality standards;
3) Support emissions strategy development and track trends in air pollution abatement control measures;
4) Support for air pollution research

(WL) Waikoloa continued

WL MONITOR INFORMATION (N/A = Not Applicable)				
	$PM_{2.5}$	SO_2		
POC/FRM or FEM	1/FEM	1/FEM		
Type of monitor	SPMS	SPMS		
AQS parameter code	88101	42401		
Manufacturer	Met One	TECO		
Model no.	BAM1022	43iQ		
AQS method code	209	060		
Monitoring start date	7/28/2021	12/8/2022		
Monitoring frequency	Continuous	Continuous		
Probe material	N/A	Teflon		
Residence time (sec)	N/A	10.93		
Distance between collocated monitors	N/A	N/A		
Analytical laboratory	N/A	N/A		
Location of probe	stand-alone shelter on ground	shelter roof		
Shelter dimensions (H x W x D) (m)	N/A	2.7 x 2.0 x 3.7		
Horizontal distance from supporting structure (m)	N/A	N/A		
Vertical distance above supporting structure (m)	2.2	1		
Height of probe above ground (m)	2.2	4		
Distance (m) & direction from drip line of tree(s)	15W	15W		
Horizontal distance from edge of nearest traffic lane (m)	2143	2143		
Horizontal distance from nearest parking lot (m)	2590	2590		
Distance (m) & direction from obstructions on roof, vertical height above probe (m)	N/A	N/A		
Distance (m) & direction from possible obstructions not on roof, vertical height (m)	3 NE/3	N/A		
Distance (m) & direction from furnace or incineration flues	N/A	N/A		
Unrestricted airflow	360°	360°		
Located in paved (P) or vegetative (V) ground?	gravel	gravel		
SITE REPRESENTATIVENESS				
Spatial scale	Neighborhood	Neighborhood		
Applicable NAAQS averaging time(s)	24-hr, annual	1-hr, 3-hr; annual		
Sampling season	12 months	12 months		
Site type[1]	3	3		
Purpose of monitor[2]	1, 2, 4	1, 2, 4		
Suitable for comparison against the annual $PM_{2.5}$ NAAQS?	N	N/A		
DATA QUALITY				
Last PEP	N/A	N/A		
Last NPAP	N/A	None - new		
Date of last annual independent performance audit (CAB)	N/A	None - new		
Frequency of flow rate verification (automated PM)	Monthly	N/A		
Frequency of flow rate verification (manual $PM_{2.5}$)	N/A	N/A		
Dates of last 2 semi-annual flow rate audits (PM)	4/27/22, 12/27/22	N/A		
Frequency of 1-point flow rate verification (Pb)	N/A	N/A		
Dates of last 2 semi-annual flow rate audits (Pb)	N/A	N/A		
Precision & accuracy submitted to AQS	Quarterly	Quarterly		
Frequency of 1-pt. QC check (gases)	N/A	Weekly		
Frequency of multi-point gas calibration	N/A	6 months		
Annual data certification submitted	5/1/23	5/1/23		
Changes in the next 18 months?	None	None		

KAHE (Data Requirements Rule)			
AQS: 150034001	Type: SLAMS	County: Honolulu	MSA: Honolulu
Address: Palehua Road, Makakilo, Oahu			
Latitude: 21.3678	Longitude: -158.1053		Elevation: 388 m MSL
Location Description: This station is located on the hillside south of Palehua Road and overlooks the Pacific Ocean. The area around the station is undeveloped and is currently used for cattle grazing. The station is approximately 2.7 kilometers northeast of the Kahe Generating Station. The city of Makakilo is located to the east and southeast. The areas immediately to the west through north are undeveloped.			

TRAFFIC DESCRIPTION			
Type of Roadway	Palehua Road	Farrington Highway	
Freeway			
Major Street or Highway	X	X	
Distance from air intake (m)	12.8	2,750	
Direction from air inlet	N	SW	
Composition of roadway	asphalt	asphalt	
Number of traffic lanes	1	4	
Average daily traffic	20 (estimate)	52,300[1]	
Average vehicle speed (est. mph)	15	40	
Traffic one way or two	2	2	
Street parking?	No	No	
[1] Source: State of Hawaii Department of Transportation 2015 count			

For "Site Representativeness" in the following table:

[1]Site Types:
1) located to determine the highest concentrations;
2) located to measure typical concentrations in areas of high population density;
3) located to determine the impact of significant sources or source categories on air quality;
4) located to determine general background concentration levels;
5) located to determine extent of regional pollutant transport among populated areas and in support of secondary standards;
6) located to measure air pollution impacts on visibility, vegetation damage, or other welfare-based impacts

[2] Purposes:
1) Provide air pollution data to the general public in a timely manner;
2) Support compliance with ambient air quality standards;
3) Support emissions strategy development and track trends in air pollution abatement control measures;
4) Support for air pollution research

(KE) Kahe continued

KAHE MONITOR INFORMATION (N/A = Not Applicable)				
	SO_2			
POC/FRM or FEM	1/FEM			
Type of monitor	SLAMS			
AQS parameter code	42401			
Manufacturer	Thermo Scientific			
Model no.	43i-TLE			
AQS method code	560			
Monitoring start date	12/16/2016			
Monitoring frequency	Continuous			
Probe material	Borosilicate glass			
Residence time (sec)	12.2			
Distance between collocated monitors	N/A			
Analytical laboratory	N/A			
Location of probe	Shelter roof			
Building dimensions (H) (m)	3.3			
Horizontal distance from supporting structure (m)	0			
Vertical distance above supporting structure (m)	1.0			
Height of probe above ground (m)	4.3			
Distance (m) & direction from drip line of tree(s))	N/A			
Horizontal distance from edge of nearest traffic lane (m)	12.8			
Horizontal distance from nearest parking lot (m)	N/A			
Distance (m) & direction from obstructions on roof, vertical height above probe (m)	N/A			
Distance (m) & direction from possible obstructions not on roof, vertical height (m)	N/A			
Distance (m) & direction from furnace or incineration flues	2,740 SW			
Unrestricted airflow	360°			
Located in paved (P) or vegetative (V) ground?	V			
SITE REPRESENTATIVENESS				
Spatial scale	Neighborhood			
Applicable NAAQS averaging time(s)	1-hr			
Sampling season	12 months			
Site type[1]	3			
Purpose of monitor[2]	2, 3			
Suitable for comparison against the annual $PM_{2.5}$ NAAQS?	N/A			
DATA QUALITY				
Last PEP	N/A			
Last NPAP	6/22/21			
Date of last annual independent performance audit	12/22/22			
Frequency of flow rate verification (automated PM)	N/A			
Frequency of flow rate verification (manual $PM_{2.5}$)	N/A			
Dates of last 2 semi-annual flow rate audits (PM)	N/A			
Frequency of 1-point flow rate verification (Pb)	N/A			
Dates of last 2 semi-annual flow rate audits (Pb)	N/A			
Precision & accuracy submitted to AQS	N/A			
Frequency of 1-pt. QC check (gases)	Biweekly			
Frequency of multi-point gas calibration	Quarterly			
Annual data certification submitted	5/1/23			
Changes in the next 18 months?	None			

Appendix A

Public Notice Documentation

The 2023 Air Monitoring Network Plan, based on 40 CFR 58.10, documents, and describes the establishment and maintenance of Hawaii's ambient air monitoring network. This document was made available for public viewing on the Clean Air Branch website and at the following Department of Health locations:

- Clean Air Branch, 2827 Waimano Home Road, Room 130, Pearl City, Oahu
- Kauai District Health Office, 3040 Umi Street, Lihue, Kauai
- Maui District Health Office, 54 High Street, Room 300, Wailuku, Maui
- Hawaii District Health Office, 1582 Kamehameha Avenue, Hilo, Hawaii
- Clean Air Branch-Kona, Keakealani Building, 79-1020 Haukapila Street, Room 115, Kealakekua, Hawaii

Public notification of the availability of the Plan for public inspection was published in the major newspapers on all counties. The public comment period was for 30 days from May 17, 2023 to June 15, 2023.

The public notice was published in the following newspapers for the following counties:

- Kauai County: The Garden Island
- City and County of Honolulu: The Star Advertiser
- Maui County: The Maui News
- Hawaii County: West Hawaii Today and Hawaii Tribune Herald

Documentations of the public notice are attached.

Comments received will be addressed and included in this plan.

AFFIDAVIT OF PUBLICATION

IN THE MATTER OF
PUBLIC NOTICE

STATE OF HAWAII }
} SS.
City and County of Honolulu }

Doc. Date: MAY 17 2023 # Pages: 1
Notary Name: COLLEEN E. SORANAKA First Judicial Circuit
Doc. Description: Affidavit of Publication
Notary Signature MAY 18 2023 Date

COLLEEN E. SORANAKA NOTARY PUBLIC No. 90-263 STATE OF HAWAII

Kimberly Masu being duly sworn, deposes and says that she is a clerk, duly authorized to execute this affidavit of Oahu Publications, Inc. publisher of, The Honolulu Star-Advertiser, MidWeek, The Garden Island, West Hawaii Today, and Hawaii Tribune-Herald, that said newspapers are newspapers of general circulation in the State of Hawaii, and that the attached notice is true notice as was published in the

Honolulu Star-Advertiser 0 times on:

MidWeek 0 times on:

The Garden Island 1 times on:
05/17/2023

Hawaii Tribune-Herald 0 times on:

West Hawaii Today 0 times on:

Other Publications: 0 times on:

And that affiant is not a party to or in any way interested in the above entitled matter.

Kimberly Masu

Subscribed to and sworn before me this 18th day of May A.D. 2023

Colleen E. Soranaka, Notary Public of the First Judicial Circuit, State of Hawaii.
My commission expires: Jan 06 2024

COLLEEN E. SORANAKA NOTARY PUBLIC No. 90-263 STATE OF HAWAII

Ad # 0001416031

PUBLIC NOTICE
(Docket No. 23-CA-PA-08)

The Department of Health, State of Hawaii, is notifying all interested persons of the report, "2023 Air Monitoring Network Plan." This report, based on 40 CFR 58.10, documents, and describes the establishment and maintenance of Hawaii's ambient air monitoring network.

The report is available for public review during regular office hours, Monday through Friday, 7:45 a.m. to 4:15 p.m., at the following locations:

Oahu:
- Clean Air Branch, Department of Health
  2827 Waimano Home Road, Room 130
  Pearl City, HI 96782

Hawaii:
- Hawaii District Health Office, Department of Health
  1582 Kamehameha Ave., Hilo, Hawaii 96720
- Clean Air Branch – Kona, Keakealani Building, Department of Health
  79-1020 Haukapila Street, Room 115, Kealakekua, Hawaii 96750

Kauai:
- Kauai District Health Office, Department of Health
  3040 Umi St., Lihue, Kauai 96766

Maui:
- Maui District Health Office, Department of Health (Environmental Health)
  54 High St., Room 300, Wailuku, Maui 96793

The network plan is also available for inspection on the Hawaii Department of Health, Clean Air Branch website at http://health.hawaii.gov/cab. Interested persons may submit written comments addressed to the Department of Health at:

Clean Air Branch, Department of Health
2827 Waimano Home Road, Room 130
Pearl City, HI 96782

The comments must be postmarked or received by June 15, 2023. For additional information, contact Ms. Lisa Young of the Clean Air Branch in Honolulu at (808) 586-4200.
(TGI1416031 5/17/23)

ICSP.NO.: _____

AFFIDAVIT OF PUBLICATION

IN THE MATTER OF
PUBLIC NOTICE
(Docket No. 23-CA-PA-08)

STATE OF HAWAII }
} SS.
City and County of Honolulu }

Doc. Date: MAY 17 2023 # Pages: 1
Notary Name: COLLEEN E. SORANAKA First Judicial Circuit
Doc. Description: Affidavit of Publication
MAY 18 2023
Notary Signature Date

COLLEEN E. SORANAKA NOTARY PUBLIC No. 90-263 STATE OF HAWAII

Kimberly Masu being duly sworn, deposes and says that she is a clerk, duly authorized to execute this affidavit of Oahu Publications, Inc. publisher of The Honolulu Star-Advertiser, MidWeek, The Garden Island, West Hawaii Today, and Hawaii Tribune-Herald, that said newspapers are newspapers of general circulation in the State of Hawaii, and that the attached notice is true notice as was published in the

Honolulu Star-Advertiser 1 times on:
05/17/2023
MidWeek 0 times on:
The Garden Island 0 times on:
Hawaii Tribune-Herald 0 times on:
West Hawaii Today 0 times on:

Other Publications: 0 times on:

And that affiant is not a party to or in any way interested in the above entitled matter.

Kimberly Masu

Subscribed to and sworn before me this 18th day of May A.D. 20 23

Colleen E. Soranaka, Notary Public of the First Judicial Circuit, State of Hawaii
My commission expires: Jan 06 2024

COLLEEN E. SORANAKA NOTARY PUBLIC No. 90-263 STATE OF HAWAII

Ad # 0001416015

ICSP.NO.: _____

PUBLIC NOTICE
(Docket No. 23-CA-PA-08)

The Department of Health, State of Hawaii, is notifying all interested persons of the report, "2023 Air Monitoring Network Plan." This report, based on 40 CFR 58.10, documents, and describes the establishment and maintenance of Hawaii's ambient air monitoring network.

The report is available for public review during regular office hours, Monday through Friday, 7:45 a.m. to 4:15 p.m., at the following locations:

Oahu:
- Clean Air Branch, Department of Health
  2827 Waimano Home Road, Room 130
  Pearl City, HI 96782

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- Hawaii District Health Office, Department of Health
  1582 Kamehameha Ave., Hilo, Hawaii 96720
- Clean Air Branch – Kona, Keakealani Building, Department of Health
  79-1020 Haukapila Street, Room 115, Kealakekua, Hawaii 96750

Kauai:
- Kauai District Health Office, Department of Health
  3040 Umi St., Lihue, Kauai 96766

Maui:
- Maui District Health Office, Department of Health (Environmental Health)
  54 High St., Room 300, Wailuku, Maui 96793

The network plan is also available for inspection on the Hawaii Department of Health, Clean Air Branch website at http://health.hawaii.gov/cab. Interested persons may submit written comments addressed to the Department of Health at:

Clean Air Branch, Department of Health
2827 Waimano Home Road, Room 130
Pearl City, HI 96782

The comments must be postmarked or received by June 15, 2023. For additional information, contact Ms. Lisa Young of the Clean Air Branch in Honolulu at (808) 586-4200.
(SA1416015 5/17/23)

AFFIDAVIT OF PUBLICATION

STATE OF HAWAII, }
County of Maui. } ss.

Brandy Emmanuel being duly sworn deposes and says, that she is in Advertising Sales of the Maui Publishing Co., Ltd., publishers of THE MAUI NEWS, a newspaper published in Wailuku, County of Maui, State of Hawaii; that the ordered publication as to PUBLIC NOTICE

of which the annexed is a true and correct printed notice, was published 1 time in THE MAUI NEWS, aforesaid, commencing on the 17th day of May, 2023, and ending on the 17th day of May, 2023, (one day inclusive), to-wit: on May 17, 2023

and that affiant is not a party to or in any way interested in the above entitled matter.

This 1 page PUBLIC NOTICE, dated May 17, 2023, was subscribed and sworn to before me this 19th day of May, 2023, in the Second Circuit of the State of Hawaii, by Brandy Emmanuel.

Notary Public, Second Judicial Circuit, State of Hawaii

KIMBERLY URADOMO NOTARY 06-397 PUBLIC STATE OF HAWAII

Kimberly Uradomo
Commission exp: 07/02/2026

PUBLIC NOTICE
(Docket No. 23-CA-PA-08)

The Department of Health, State of Hawaii, is notifying all interested persons of the report, "2023 Air Monitoring Network Plan." This report, based on 40 CFR 58.10, documents, and describes the establishment and maintenance of Hawaii's ambient air monitoring network.

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  2827 Waimano Home Road, Room 130
  Pearl City, HI 96782

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- Hawaii District Health Office, Department of Health
  1582 Kamehameha Ave.,
  Hilo Hawaii 96720
- Clean Air Branch – Kona, Keakealani Building, Department of Health
  79-1020 Haukapila Street, Room 115
  Kealakekua, Hawaii 96750

Kauai:
- Kauai District Health Office, Department of Health
  3040 Umi St., Lihue, Kauai 96766

Maui:
- Maui District Health Office, Department of Health (Environmental Health)
  54 High St., Room 300, Wailuku
  Maui 96793

The network plan is also available for inspection on the Hawaii Department of Health, Clean Air Branch website at http://health.hawaii.gov/cab. Interested persons may submit written comments addressed to the Department of Health at:

Clean Air Branch, Department of Health
2827 Waimano Home Road, Room 130
Pearl City, HI 96782

The comments must be postmarked or received by June 15, 2023. For additional information, contact Ms. Lisa Young of the Clean Air Branch in Honolulu at (808) 586-4200.

(MN: May 17, 2023)

AFFIDAVIT OF PUBLICATION

IN THE MATTER OF
PUBLIC NOTICE

STATE OF HAWAII }
} SS.
City and County of Honolulu }

Doc. Date: MAY 17 2023 # Pages: 1
Notary Name: COLLEEN E. SORANAKA First Judicial Circuit
Doc. Description: Affidavit of Publication
Notary Signature MAY 18 2023 Date

COLLEEN E. SORANAKA NOTARY PUBLIC No. 90-263 STATE OF HAWAII

Kimberly Masu being duly sworn, deposes and says that she is a clerk, duly authorized to execute this affidavit of Oahu Publications, Inc. publisher of The Honolulu Star-Advertiser, MidWeek, The Garden Island, West Hawaii Today, and Hawaii Tribune-Herald, that said newspapers are newspapers of general circulation in the State of Hawaii, and that the attached notice is true notice as was published in the

Honolulu Star-Advertiser 0 times on:

MidWeek 0 times on:

The Garden Island 0 times on:

Hawaii Tribune-Herald 0 times on:

West Hawaii Today 1 times on:
05/17/2023

Other Publications: 0 times on:

And that affiant is not a party to or in any way interested in the above entitled matter.

Kimberly Masu

Subscribed to and sworn before me this 18th day of May A.D. 2023

Colleen E. Soranaka, Notary Public of the First Judicial Circuit, State of Hawaii
My commission expires: Jan 06 2024

COLLEEN E. SORANAKA NOTARY PUBLIC No. 90-263 STATE OF HAWAII

Ad # 0001416030

ICSP.NO.: _____

PUBLIC NOTICE
(Docket No. 23-CA-PA-08)

The Department of Health, State of Hawaii, is notifying all interested persons of the report, "2023 Air Monitoring Network Plan." This report, based on 40 CFR 58.10, documents, and describes the establishment and maintenance of Hawaii's ambient air monitoring network.

The report is available for public review during regular office hours, Monday through Friday, 7:45 a.m. to 4:15 p.m., at the following locations:

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  2827 Waimano Home Road, Room 130
  Pearl City, HI 96782

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- Hawaii District Health Office, Department of Health
  1582 Kamehameha Ave., Hilo, Hawaii 96720
- Clean Air Branch – Kona, Keakealani Building, Department of Health
  79-1020 Haukapila Street, Room 115, Kealakekua, Hawaii 96750

Kauai:
- Kauai District Health Office, Department of Health
  3040 Umi St., Lihue, Kauai 96766

Maui:
- Maui District Health Office, Department of Health (Environmental Health)
  54 High St., Room 300, Wailuku, Maui 96793

The network plan is also available for inspection on the Hawaii Department of Health, Clean Air Branch website at http://health.hawaii.gov/cab. Interested persons may submit written comments addressed to the Department of Health at:

Clean Air Branch, Department of Health
2827 Waimano Home Road, Room 130
Pearl City, HI 96782

The comments must be postmarked or received by June 15, 2023. For additional information, contact Ms. Lisa Young of the Clean Air Branch in Honolulu at (808) 586-4200.
(WHT1416030 5/17/23)

AFFIDAVIT OF PUBLICATION

IN THE MATTER OF
PUBLIC NOTICE

STATE OF HAWAII }
} SS.
City and County of Honolulu }

Doc. Date: MAY 17 2023 # Pages: 1
Notary Name: COLLEEN E. SORANAKA First Judicial Circuit
Doc. Description: Affidavit of Publication
Notary Signature MAY 18 2023 Date

COLLEEN E. SORANAKA NOTARY PUBLIC No. 90-263 STATE OF HAWAII

Kimberly Masu being duly sworn, deposes and says that she is a clerk, duly authorized to execute this affidavit of Oahu Publications, Inc. publisher of The Honolulu Star-Advertiser, MidWeek, The Garden Island, West Hawaii Today, and Hawaii Tribune-Herald, that said newspapers are newspapers of general circulation in the State of Hawaii, and that the attached notice is true notice as was published in the

Honolulu Star-Advertiser 0 times on:

MidWeek 0 times on:

The Garden Island 0 times on:

Hawaii Tribune-Herald 1 times on:
05/17/2023

West Hawaii Today 0 times on:

Other Publications: 0 times on:

And that affiant is not a party to or in any way interested in the above entitled matter.

Kimberly Masu

Subscribed to and sworn before me this 18th day of May A.D. 2023

Colleen E. Soranaka, Notary Public of the First Judicial Circuit, State of Hawaii
My commission expires: Jan 06 2024

COLLEEN E. SORANAKA NOTARY PUBLIC No. 90-263 STATE OF HAWAII

Ad # 0001416028

ICSP.NO.: _____

PUBLIC NOTICE
(Docket No. 23-CA-PA-08)

The Department of Health, State of Hawaii, is notifying all interested persons of the report, "2023 Air Monitoring Network Plan." This report, based on 40 CFR 58.10, documents, and describes the establishment and maintenance of Hawaii's ambient air monitoring network.

The report is available for public review during regular office hours, Monday through Friday, 7:45 a.m. to 4:15 p.m., at the following locations:

Oahu:
- Clean Air Branch, Department of Health
  2827 Waimano Home Road, Room 130
  Pearl City, HI 96782

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- Hawaii District Health Office, Department of Health
  1582 Kamehameha Ave., Hilo, Hawaii 96720
- Clean Air Branch – Kona, Keakealani Building, Department of Health
  79-1020 Haukapila Street, Room 115, Kealakekua, Hawaii 96750

Kauai:
- Kauai District Health Office, Department of Health
  3040 Umi St., Lihue, Kauai 96766

Maui:
- Maui District Health Office, Department of Health (Environmental Health)
  54 High St., Room 300, Wailuku, Maui 96793

The network plan is also available for inspection on the Hawaii Department of Health, Clean Air Branch website at http://health.hawaii.gov/cab. Interested persons may submit written comments addressed to the Department of Health at:

Clean Air Branch, Department of Health
2827 Waimano Home Road, Room 130
Pearl City, HI 96782

The comments must be postmarked or received by June 15, 2023. For additional information, contact Ms. Lisa Young of the Clean Air Branch in Honolulu at (808) 586-4200.
(HTH1416028 5/17/23)

Appendix B

Request to Close the Pearl City SLAMS Air Monitoring Station (150032004)

The State of Hawaii is requesting EPA approval to permanently discontinue the Pearl City (PC) ambient air monitoring station (150032004). The station was initially established to measure neighborhood concentrations in a commercial and residential area and has been in operation since 1994.

PM_{10} data for 2022 showed the Honolulu MSA to be a low concentration area and is required to have one to two PM_{10} monitors. With this station's closure, there are two PM_{10} stations remaining in the Honolulu MSA, which meets the minimum PM_{10} monitoring requirements.

For $PM_{2.5}$ the most recent 3-year design values in the Honolulu MSA were less than 85% of any $PM_{2.5}$ NAAQS. The state currently operates three $PM_{2.5}$ monitors in the MSA, which meets the minimum requirement of one monitor for the Honolulu MSA. The PC site was shut down on April 6, 2022, and the sampling equipment has been removed from the roof of the building and placed into storage, including the collocated $PM_{2.5}$ FRM. DOH is requesting approval from EPA to permanently shut down this station.

According to 40 CFR 58.14, the state may request for discontinuance of a SLAMS station if any of the stated criteria are met and if requirements of Appendix D to Part 58 continues to be met. The PC station meets the following requirement for shutdown:

> Any criteria SLAMS monitor which has been in attainment during the previous five years, has a probability of less than 10 percent of exceeding 80 percent of the applicable NAAQS during the next three years, and which is not specifically required by an attainment or maintenance plan.

II. Data in Support of Discontinuing the PC Station

To comply with the removal requirements based on past and future expected attainment for all applicable NAAQS, the following tests must be met:

1) The PM_{10} and $PM_{2.5}$ monitors are currently in attainment and have been in attainment during the previous five years;
2) The probability is less than 10% that the monitors will exceed 80% of the applicable NAAQS during the next three years based on past concentrations, trends, and variability;
3) The monitors are not required by an attainment or maintenance plan; and
4) The monitors are not the last monitors in a nonattainment or maintenance area plan.

The State of Hawaii is in attainment for all NAAQS and therefore, PC is not specifically required for any attainment, non-attainment, or maintenance plan.

The following data is presented in support of station shutdown based on past compliance with, and the expectation that the monitors would not exceed all applicable NAAQS in the future.

Table AB-1. 2017-2021 Attainment of PM_{10} and $PM_{2.5}$ NAAQS at PC

Pollutant Standard	2017		2018		2019		2020		2021	
	Max	2nd Max	Max	2nd Max	Max	2nd Max	Max	2nd Max	Max	2nd Max
PM_{10} 24-hr Ave. (<150 µg/m³)	39	38	34	31	36	29	26	24	25	24
$PM_{2.5}$ 24-hr Ave. (<35 µg/m³)	18	16	21	11	15	10	11	7	8	7
$PM_{2.5}$ Annual Ave. (<12 µg/m³)	4.4		3.0		3.3		3.2		3.2	

To demonstrate a less than 10% probability that the monitors would exceed 80% of the applicable NAAQS, the following equation[a] was applied:

$$\overline{X} + \frac{t * s}{\sqrt{n}} < 0.8 * NAAQS$$

Where: $\overline{X}$ *= the average design value for the last 5 years*
t = student's t value for n-1 degrees of freedom at the 90% confidence level
s = standard deviation of the design values
n = number of records
NAAQS = applicable standard

[a] Equation used is from the EPA-454/D-07-001 document titled "Ambient Air Monitoring Network Assessment Guidance"

Table AB-2. Applicable NAAQS

Pollutant	Form of NAAQS	NAAQS	80% of NAAQS
PM_{10}	24-hour	150 µg/m³	**120 µg/m³**
$PM_{2.5}$	24-hour	35 µg/m³	**28 µg/m³**
	Annual average	12 µg/m³	**9.8 µg/m³**

Conservatively using the 2017 to 2021 maximum values or design concentrations for all applicable NAAQS from Table AB-1, the probability that any monitor would exceed 80% of the NAAQS was computed.

Table AB-3. Probability Computations for Applicable NAAQS at PC

Pollutant & Averaging Time	Average ($\overline{X}$) 2017-2021	Standard Deviation (*s*)	Student's t value (*t*)	No. of values (*n*)	90% upper confidence interval	Is the result <80% of NAAQS?
PM_{10}						
24-hour[1]	32 µg/m³	6.2	2.13	5	**37.9**	**Yes <120 µg/m³**
24-hour[2]	34 µg/m³	6.3	2.13	5	**40.0**	**Yes <120 µg/m³**
$PM_{2.5}$						
24-hour[3]	9.4 µg/m³	2.8	2.13	5	**12.1**	**Yes <28 µg/m³**
Annual[3]	3.5 µg/m³	0.4	2.13	5	**3.8**	**Yes <9.8 µg/m³**

1 Max value
2 Design concentration
3 Design Value

III. Continued Compliance with 40 CFR Part 58 Appendix D

Closing the PC air monitoring station will not affect compliance with the requirements of 40 CFR Part 58 Appendix D, “Network Design Criteria for Ambient Air Quality Monitoring.”

PM_{10} Design Criteria

One to two PM_{10} sites are required for a low concentration area with a population range of 500,000 to 1,000,000. The 2022 estimated census population for the Honolulu MSA was 995,638. With the closure of PC, two PM_{10} sites remain in the Honolulu MSA and the network would continue to meet PM_{10} design criteria.

$PM_{2.5}$ Design Criteria

One $PM_{2.5}$ site is required for a low concentration area with a population range of 500,000 to 1,000,000. The 2022 census population for the Honolulu MSA was 995,638. With the closure of PC, three $PM_{2.5}$ sites remain in the Honolulu MSA and the network would continue to meet $PM_{2.5}$ design criteria.

IV. Summary

Based on attainment with all applicable NAAQS in the past five or more years, a less than 10% probability of exceeding any NAAQS in the future, and continued compliance with network design criteria, closing the PC air monitoring station would meet the SLAMS discontinuance requirements of 40 CFR Part 58.

Appendix C

Request to Close the Kihei SLAMS Air Monitoring Station (150090006)

The State of Hawaii is requesting EPA approval to permanently discontinue the Kihei (KH) ambient air monitoring station (150090006). The station was established to monitor the impacts from sugar cane burning and started operating in 1999. The Hawaiian Commercial and Sugar Company shut down its sugar cane growing operations in 2016 after the last harvest. This site was shut down on March 30, 2022.

The most recent 3-year design values in the Maui MSA was less than 85% of any $PM_{2.5}$ NAAQS. $PM_{2.5}$ data for 2022 showed the Maui MSA to be a low concentration area, and with a population between 50,000 and 500,000, is not required to have any $PM_{2.5}$ monitors. With this station closure, there will be one $PM_{2.5}$ station remaining in the Maui MSA, which meets the minimum $PM_{2.5}$ monitoring requirements. DOH is requesting approval from EPA to permanently shut down this station.

According to 40 CFR 58.14, the state may request for discontinuance of a SLAMS station if any of the stated criteria are met and if requirements of Appendix D to Part 58 continues to be met. The KH station meets the following requirement for shutdown:

> Any criteria SLAMS monitor which has been in attainment during the previous five years, has a probability of less than 10 percent of exceeding 80 percent of the applicable NAAQS during the next three years, and which is not specifically required by an attainment or maintenance plan.

II. Data in Support of Discontinuing the Kihei Station

To comply with the removal requirements based on past and future expected attainment for all applicable NAAQS, the following tests must be met:

1) The $PM_{2.5}$ monitor is currently in attainment and has been in attainment during the previous five years;
2) The probability is less than 10% that the monitor will exceed 80% of the applicable NAAQS during the next three years based on past concentrations, trends, and variability;
3) The monitor is not required by an attainment or maintenance plan; and
4) The monitor is not the last monitor in a nonattainment or maintenance area plan.

The State of Hawaii is in attainment for all NAAQS and therefore, KH is not specifically required for any attainment, non-attainment, or maintenance plan.

The following data is presented in support of station shutdown based on past compliance with, and the expectation that the monitors would not exceed, all applicable NAAQS in the future.

Table AC-1. 2017-2021 Attainment of $PM_{2.5}$ NAAQS at KH

Pollutant Standard	2017		2018		2019		2020		2021	
	Max	2nd Max	Max	2nd Max	Max	2nd Max	Max	2nd Max	Max	2nd Max
$PM_{2.5}$ 24-hr Ave. (<35 µg/m³)	29	26	13	12	85[1]	46[1]	14	13	15	7
$PM_{2.5}$ Annual Ave. (<12 µg/m³)	4.2		4.1		4.2		3.9		3.2	

1 Brush fire

To demonstrate a less than 10% probability that the monitors would exceed 80% of the applicable NAAQS, the following equation[a] was applied:

$$\overline{X} + \frac{t * s}{\sqrt{n}} < 0.8 * NAAQS$$

Where: $\overline{X}$ *= the average design value for the last 5 years*
t = student's t value for n-1 degrees of freedom at the 90% confidence level
s = standard deviation of the design values
n = number of records
NAAQS = applicable standard

[a] Equation used is from the EPA-454/D-07-001 document titled "Ambient Air Monitoring Network Assessment Guidance"

Table AC-2. Applicable NAAQS

Pollutant	Form of NAAQS	NAAQS	80% of NAAQS
$PM_{2.5}$	24-hour	35 µg/m³	**28 µg/m³**
	Annual average	12 µg/m³	**9.8 µg/m³**

Conservatively using the 2017 to 2021 design values for all applicable NAAQS from Table AC-1, the probability that any monitor would exceed 80% of the NAAQS was computed.

Table AC-3. Probability Computations for Applicable NAAQS at KH

Pollutant & Averaging Time	Average ($\overline{X}$) 2017-2021	Standard Deviation (*s*)	Student's t value (*t*)	No. of values (*n*)	90% upper confidence interval	Is the result <80% of NAAQS?
$PM_{2.5}$						
24-hour[1]	11.6 µg/m³	1.1	2.13	5	**12.7**	**Yes <28 µg/m³**
Annual[1]	3.9 µg/m³	0.4	2.13	5	**4.3**	**Yes <9.8 µg/m³**

1 Design value

III. Continued Compliance with 40 CFR Part 58 Appendix D

Closing the KH air monitoring station will not affect compliance with the requirements of 40 CFR Part 58 Appendix D, "Network Design Criteria for Ambient Air Quality Monitoring."

$PM_{2.5}$ Design Criteria

No $PM_{2.5}$ site is required for a low concentration area with a population range of 50,000 to 500,000. The 2022 census population for the Maui MSA was 164,221. With the closure of KH, one $PM_{2.5}$ site remains in the Maui MSA and the network would continue to meet $PM_{2.5}$ design criteria.

IV. Summary

Based on attainment with all applicable NAAQS in the past five or more years, a less than 10% probability of exceeding any NAAQS in the future, and continued compliance with network design criteria, closing the KH air monitoring station would meet the SLAMS discontinuance requirements of 40 CFR Part 58.

Appendix D

Request to Discontinue $PM_{2.5}$ and NO_2 Parameters at the Niumalu SPMS Air Monitoring Station (150070007)

The State of Hawaii is requesting EPA approval to permanently discontinue $PM_{2.5}$ and NO_2 parameters at the Niumalu (NI) ambient air monitoring station (150070007). The station was initially established to monitor the impact of cruise ship emissions on nearby communities and started operating in April 2011. Sampling for $PM_{2.5}$ and NO_2 was discontinued on March 31, 2022.

The Niumalu station is not located in an MSA and therefore no $PM_{2.5}$ monitoring is required at this station. The $PM_{2.5}$ concentrations at this station has historically been low.

The state currently has one SLAMS NO_2 station in the Honolulu MSA which meets the state's minimum requirement for NO_2 monitoring. The NI station is not located in an MSA and therefore no NO_2 monitoring is required at this station. The NO_2 concentrations at this station have also historically been low.

Although NI is designated an SPMS, it has been operating for more than two years and therefore the concentrations may be used for comparison with the NAAQS. DOH is requesting approval from EPA to permanently shut down the $PM_{2.5}$ and NO_2 parameters at this station.

According to 40 CFR 58.14, the state may request for discontinuance of a SLAMS station if any of the stated criteria are met and if requirements of Appendix D to Part 58 continues to be met. The $PM_{2.5}$ and NO_2 monitors at the NI station meet the following requirement for shutdown:

> Any criteria SLAMS monitor which has been in attainment during the previous five years, has a probability of less than 10 percent of exceeding 80 percent of the applicable NAAQS during the next three years, and which is not specifically required by an attainment or maintenance plan.

II. Data in Support of Discontinuing $PM_{2.5}$ and NO_2 Parameters at the NI Station

To comply with the removal requirements based on past and future expected attainment for all applicable NAAQS, the following tests must be met:

1) The $PM_{2.5}$ and NO_2 monitors are currently in attainment and have been in attainment during the previous five years;
2) The probability is less than 10% that the monitors will exceed 80% of the applicable NAAQS during the next three years based on past concentrations, trends, and variability;
3) The monitors are not required by an attainment or maintenance plan; and
4) The monitors are not the last monitors in a nonattainment or maintenance area plan.

The State of Hawaii is in attainment for all NAAQS and therefore, NI is not specifically required for any attainment, non-attainment, or maintenance plan.

The following data is presented in support of station shutdown based on past compliance with, and the expectation that the monitors would not exceed, all applicable NAAQS in the future.

Table AD-1. 2017-2021 Attainment of $PM_{2.5}$ and NO_2 NAAQS at NI

	2017		2018		2019		2020		2021	
Pollutant Standard	Max	2nd Max	Max	2nd Max	Max	2nd Max	Max	2nd Max	Max	2nd Max
$PM_{2.5}$ 24-hr Ave. (<35 µg/m³)	13	11	12	11	19	10	10	10	8	8
$PM_{2.5}$ Annual Ave. (<12 µg/m³)	2.6		2.6		2.9		3.0		3.2	
NO_2 1-hr Ave. (<100 ppb)	38	35	47	47	46	43	41	41	19	18
NO_2 Annual Ave. (<53 ppb)	1.8		4.6		4.3		3.1		2.0	

To demonstrate a less than 10% probability that the monitors would exceed 80% of the applicable NAAQS, the following equation[a] was applied:

$$\overline{X} + \frac{t * s}{\sqrt{n}} < 0.8 * NAAQS$$

Where: $\overline{x}$ *= the average design value for the last 5 years*
t = student's t value for n-1 degrees of freedom at the 90% confidence level
s = standard deviation of the design values
n = number of records
NAAQS = applicable standard

[a] Equation used is from the EPA-454/D-07-001 document titled "Ambient Air Monitoring Network Assessment Guidance"

Table AD-2. Applicable NAAQS

Pollutant	Form of NAAQS	NAAQS	80% of NAAQS
$PM_{2.5}$	24-hour	35 µg/m³	**28 µg/m³**
	Annual average	12 µg/m³	**9.8 µg/m³**
NO_2	1-hour	100 ppb	**80 ppb**
	Annual average	53 ppb	**42.4 ppb**

Conservatively using the 2017 to 2021 maximum values or design concentrations for all applicable NAAQS from Table AD-1, the probability that any monitor would exceed 80% of the NAAQS was computed.

Table AD-3. Probability Computations for Applicable NAAQS at NI

Pollutant & Averaging Time	Average ($\overline{X}$) 2017-2021	Standard Deviation (*s*)	Student's t value (*t*)	No. of values (*n*)	90% upper confidence interval	Is the result <80% of NAAQS?
$PM_{2.5}$						
24-hour[1]	8 µg/m^3	0.55	2.13	5	**8.9**	**Yes <28 µg/m^3**
Annual[1]	2.9 µg/m^3	0.17	2.13	5	**3.1**	**Yes <9.8 µg/m^3**
NO_2						
1-hour[1]	34 ppb	3.27	2.13	5	**36.9**	**Yes <80 ppb**
Annual[1]	3 ppb	1.3	2.13	5	**4.4**	**Yes <42.4 ppb**

1 Design value

III. Continued Compliance with 40 CFR Part 58 Appendix D

Discontinuing the $PM_{2.5}$ and NO_2 parameters at the NI air monitoring station will not affect compliance with the requirements of 40 CFR Part 58 Appendix D, "Network Design Criteria for Ambient Air Quality Monitoring."

$PM_{2.5}$ Design Criteria

Kauai is not a part of an MSA and therefore no $PM_{2.5}$ monitor is required. With the discontinuation of $PM_{2.5}$ parameter at NI, the network would continue to meet $PM_{2.5}$ design criteria.

NO_2 Design Criteria

40 CFR Part 58, Appendix D Section 4.3.3 requires area wide NO_2 monitoring in the location of highest expected concentration in a CBSA with a population ≥1,000,000. The Honolulu MSA had a 2022 census population estimated at 995,638. Therefore, no NO_2 monitoring is currently required.

The state has one SLAMS NO_2 station remaining in the network, in the Honolulu MSA, which measures typical concentration in areas of high population density. With the discontinuation of NO_2 parameter at Niumalu, the network would continue to meet NO_2 design criteria.

IV. Summary

Based on attainment with all applicable NAAQS in the past five or more years, a less than 10% probability of exceeding any NAAQS in the future, and continued compliance with network design criteria, discontinuing the $PM_{2.5}$ and NO_2 parameters at the NI air monitoring station would meet the SLAMS discontinuance requirements of 40 CFR Part 58.

Appendix E

Request to Discontinue CO and SO_2 Parameters at the Kapolei SLAMS Air Monitoring Station (150030010)

The State of Hawaii is requesting EPA approval to permanently discontinue CO and SO_2 parameters at the Kapolei (KA) ambient air monitoring station (150030010). The station is located in the Kapolei Business Park in the city of Kapolei. The area is a mix of business, commercial, and government activities surrounded by an ever-expanding residential community. The site is also approximately 1.25 km northeast (upwind) of the state's largest industrial park on the southwest coast of Oahu. The station has been operating as a SLAMS station since 2002. Sampling for CO was discontinued on March 31, 2022 and SO_2 on February 28, 2022.

On October 30, 2009, EPA approved the Kapolei station as the state's NCore site and in addition to the SLAMS parameters, the station began collecting the required NCore parameters on January 1, 2011. With trace CO and trace SO_2 being required parameters for NCore, the SLAMS CO and SO_2 monitors were shut down to reduce duplicative sampling and increase program efficiency. DOH is requesting approval from EPA to permanently shut down the CO and SO_2 parameters at the Kapolei SLAMS station.

According to 40 CFR 58.14, the state may request for discontinuance of a SLAMS station if any of the stated criteria are met and if requirements of Appendix D to Part 58 continues to be met. The CO and SO_2 monitors at the Kapolei station meet the following requirement for shutdown:

> Any criteria SLAMS monitor which has been in attainment during the previous five years, has a probability of less than 10 percent of exceeding 80 percent of the applicable NAAQS during the next three years, and which is not specifically required by an attainment or maintenance plan.

II. Data in Support of Discontinuing CO and SO_2 Parameters at the Kapolei Station

To comply with the removal requirements based on past and future expected attainment for all applicable NAAQS, the following tests must be met:

1) The CO and SO_2 monitors are currently in attainment and have been in attainment during the previous five years;
2) The probability is less than 10% that the monitors will exceed 80% of the applicable NAAQS during the next three years based on past concentrations, trends, and variability;
3) The monitors are not required by an attainment or maintenance plan; and
4) The monitors are not the last monitors in a nonattainment or maintenance area plan.

The State of Hawaii is in attainment for all NAAQS and therefore, the CO and SO_2 monitors at the Kapolei Station are not specifically required for any attainment, non-attainment, or maintenance plan.

The following data is presented in support of station shutdown based on past compliance with, and the expectation that the monitors would not exceed, all applicable NAAQS in the future.

Table AE-1. 2017-2021 Attainment of CO and SO_2 NAAQS at KA

Pollutant Standard	2017		2018		2019		2020		2021	
	Max	2nd Max	Max	2nd Max	Max	2nd Max	Max	2nd Max	Max	2nd Max
CO 1-hr Ave. (<35 ppm)	1.7	1.7	3.2	3.2	0.9	0.5	1.2	0.6	0.8	0.6
CO 8-hr Ave. (<9 ppm)	1.1	1.0	2.5	2.5	0.3	0.3	0.4	0.3	0.4	0.3
SO_2 1-hr Ave. (<75 ppb)	12	10	13	7	15	13	9	8	4	4
SO_2 3-hr Ave. (<500 ppb)	6	6	10	6	13	8	5	5	3	2

To demonstrate a less than 10% probability that the monitors would exceed 80% of the applicable NAAQS, the following equation[a] was applied:

$$\overline{X} + \frac{t * s}{\sqrt{n}} < 0.8 * NAAQS$$

Where: $\overline{X}$ *= the average design value for the last 5 years*
t = student's t value for n-1 degrees of freedom at the 90% confidence level
s = standard deviation of the design values
n = number of records
NAAQS = applicable standard

[a] Equation used is from the EPA-454/D-07-001 document titled "Ambient Air Monitoring Network Assessment Guidance"

Table AE-2. Applicable NAAQS

Pollutant	Form of NAAQS	NAAQS	80% of NAAQS
CO	1-hour	35 ppm	**28 ppm**
	8-hour	9 ppm	**7.2 ppm**
SO_2	1-hour	75 ppb	**60 ppb**
	3-hour	500 ppb	**400 ppb**

Conservatively using the 2017 to 2021 maximum values or design concentrations for all applicable NAAQS from Table AE-1, the probability that any monitor would exceed 80% of the NAAQS was computed.

Table AE-3. Probability Computations for Applicable NAAQS at KA

Pollutant & Averaging Time	Average ($\overline{X}$) 2017-2021	Standard Deviation (*s*)	Student's t value (*t*)	No. of values (*n*)	90% upper confidence interval	Is the result <80% of NAAQS?
CO						
1-hour[1]	1.9 ppm	1.30	2.13	5	**3.1**	**Yes <28 ppm**
8-hour[1]	1.4 ppm	1.06	2.13	5	**2.4**	**Yes <7.2 ppm**
SO_2						
1-hour[1]	9 ppb	1.34	2.13	5	**9.9**	**Yes <60 ppb**
3-hour[1]	5 ppb	0.92	2.13	5	**5.9**	**Yes <400 ppb**

1 Design value

III. Continued Compliance with 40 CFR Part 58 Appendix D

Discontinuing the CO and SO_2 parameters at the Kapolei air monitoring station will not affect compliance with the requirements of 40 CFR Part 58 Appendix D, "Network Design Criteria for Ambient Air Quality Monitoring."

CO Design Criteria

40 CFR Part 58, Appendix D Section 4.2.2 requires one collocated CO monitor at near-road NO_2 sites in Core-Based Statistical Areas (CBSA) with populations ≥1,000,000. The Honolulu MSA had a 2022 census population estimated at 995,638 and therefore no CO monitor is currently required. There is currently one SLAMS CO monitor in addition to the required trace CO monitor at NCore. With the discontinuation of CO parameter at Kapolei, the network would continue to meet CO design criteria.

SO_2 Design Criteria

40 CFR Part 58, Appendix D Section 4.4.2, requires the use of the Population Weighted Emissions Index (PWEI) calculation to determine SO_2 monitoring requirements, and accordingly, Hawaii is currently required to operate one SO_2 monitor in the Honolulu MSA. The state currently has three SO_2 monitors in the Honolulu MSA, one SLAMS (DH), one SLAMS/DRR (KE), and one trace SO_2 monitor at the NCore station, which meets the minimum number of required SO_2 stations. With the discontinuation of SO_2 parameter at Kapolei, the network would continue to meet SO_2 design criteria.

IV. Summary

Based on attainment with all applicable NAAQS in the past five or more years, a less than 10% probability of exceeding any NAAQS in the future, and continued compliance with network design criteria, discontinuing the CO and SO_2 parameters at the Kapolei air monitoring station would meet the SLAMS discontinuance requirements of 40 CFR Part 58.

Appendix F

Request to Close the Honaunau SPMS Air Monitoring Station (150013032)

The State of Hawaii is requesting EPA approval to permanently discontinue the Honaunau (HN) ambient air monitoring station (150013032). This temporary SPMS site began collecting $PM_{2.5}$ data in August 2018. The main purpose was to address air quality on the west side of Hawaii Island due to the 2018 LERZ Kilauea volcano eruption. Due to budgetary and personnel considerations, a decision was made to shut down the monitor on January 5, 2022 since there are four other $PM_{2.5}$ monitors operating on the west side of Hawaii Island.

Hawaii Island is not a part of an MSA and therefore is not required to have any $PM_{2.5}$ monitors. DOH is requesting approval from EPA to permanently shut down this station.

The HN station operated for more than three years and thus the concentrations may be used for NAAQS comparison. According to 40 CFR 58.14, the state may request for discontinuance of a SLAMS station if any of the stated criteria are met and if requirements of Appendix D to Part 58 continues to be met. The HN station meets the following requirement for shutdown:

> Any criteria SLAMS monitor which has been in attainment during the previous five years, has a probability of less than 10 percent of exceeding 80 percent of the applicable NAAQS during the next three years, and which is not specifically required by an attainment or maintenance plan.

II. Data in Support of Discontinuing the Honaunau Station

To comply with the removal requirements based on past and future expected attainment for all applicable NAAQS, the following tests must be met:

1) The $PM_{2.5}$ monitor is currently in attainment and has been in attainment during the previous five years;
2) The probability is less than 10% that the monitor will exceed 80% of the applicable NAAQS during the next three years based on past concentrations, trends, and variability;
3) The monitor is not required by an attainment or maintenance plan; and
4) The monitor is not the last monitor in a nonattainment or maintenance area plan.

The State of Hawaii is in attainment for all NAAQS and therefore, Honaunau is not specifically required for any attainment, non-attainment, or maintenance plan.

The following data is presented in support of station shutdown based on past compliance with, and the expectation that the monitors would not exceed, all applicable NAAQS in the future.

Table AF-1. 2017-2021 Attainment of $PM_{2.5}$ NAAQS at HN

Pollutant Standard	2017		2018[1]		2019		2020[2]		2021	
	Max	2nd Max	Max	2nd Max	Max	2nd Max	Max	2nd Max	Max	2nd Max
$PM_{2.5}$ 24-hr Ave. (<35 µg/m³)	n/a	n/a	n/a	n/a	11	5	14	12	14	12
$PM_{2.5}$ Annual Ave. (<12 µg/m³)	n/a		n/a		2.4		2.6		1.9	

1 Partial year, data not included, monitor began operating 8/16/18.
2 Data completeness <50% in Q3 and Q4.

To demonstrate a less than 10% probability that the monitors would exceed 80% of the applicable NAAQS, the following equation[a] was applied:

$$\overline{X} + \frac{t * s}{\sqrt{n}} < 0.8 * NAAQS$$

Where: $\overline{X}$ *= the average design value for the last 5 years*
t = student's t value for n-1 degrees of freedom at the 90% confidence level
s = standard deviation of the design values
n = number of records
NAAQS = applicable standard

[a] Equation used is from the EPA-454/D-07-001 document titled "Ambient Air Monitoring Network Assessment Guidance"

Table AF-2. Applicable NAAQS

Pollutant	Form of NAAQS	NAAQS	80% of NAAQS
$PM_{2.5}$	24-hour	35 µg/m³	**28 µg/m³**
	Annual average	12 µg/m³	**9.8 µg/m³**

Conservatively using the 2019 to 2021 (only years with compete data available) design values for all applicable NAAQS from Table AC-1, the probability that any monitor would exceed 80% of the NAAQS was computed.

Table AF-3. Probability Computations for Applicable NAAQS at HN

Pollutant & Averaging Time	Average ($\overline{X}$) 2019-2021	Standard Deviation (*s*)	Student's t value (*t*)	No. of values (*n*)	90% upper confidence interval	Is the result <80% of NAAQS?
$PM_{2.5}$						
24-hour[1]	5.8 µg/m³	1.42	2.92	3	**8.1**	**Yes <28 µg/m³**
Annual[1]	2.3 µg/m³	0.12	2.92	3	**2.5**	**Yes <9.8 µg/m³**

1 Design value using 3 years of data from 2019 to 2021.

III. Continued Compliance with 40 CFR Part 58 Appendix D

Closing the HN air monitoring station will not affect compliance with the requirements of 40 CFR Part 58 Appendix D, "Network Design Criteria for Ambient Air Quality Monitoring."

$PM_{2.5}$ Design Criteria

Hawaii Island is not a part of an MSA and therefore is not required to have any $PM_{2.5}$ monitors. With the closure of Honaunau, thirteen $PM_{2.5}$ sites remain in the state with nine on Hawaii Island alone, the network would continue to meet $PM_{2.5}$ design criteria.

IV. Summary

Based on attainment with all applicable NAAQS in the past five or more years, a less than 10% probability of exceeding any NAAQS in the future, and continued compliance with network design criteria, closing the Honaunau air monitoring station would meet the SLAMS discontinuance requirements of 40 CFR Part 58.

Appendix G

AQS Reports in Support of Requests for Closures and Discontinuations

User ID: XGSWU

MAXIMUM VALUES REPORT

Report Request ID: 2075943 Report Code: AMP440 Feb. 6, 2023

GEOGRAPHIC SELECTIONS

Tribal Code	State	County	Site	Parameter	POC	City	AQCR	UAR	CBSA	CSA	EPA Region
	15	003	2004								

PROTOCOL SELECTIONS

Parameter Classification	Parameter	Method	Duration
CRITERIA			

SELECTED OPTIONS

Option Type	Option Value
AGENCY ROLE	PQAO
EVENTS PROCESSING	REPORT ALL EVENT RECORDS
MERGE PDF FILES	YES

SORT ORDER

Order	Column
1	PARAMETER_CODE
2	STATE_CODE
3	DURATION_CODE
4	DATES
5	COUNTY_CODE
6	SITE_ID
7	POC
8	EDT_ID

DATE CRITERIA

Start Date	End Date
2017	2021

APPLICABLE STANDARDS

Standard Description
CO 8-hour 1971
Lead 3-Month 2009
Lead 3-Month PM10 Surrogate 2009
NO2 Annual 1971
Ozone 8-hour 2015
PM10 24-hour 2006
PM25 Annual 2012
SO2 1-hour 2010

EXCEPTIONAL DATA TYPES

EDT	DESCRIPTION
0	NO EVENTS
1	EVENTS EXCLUDED
2	EVENTS INCLUDED
5	EVENTS WITH CONCURRENCE EXCLUDED

PM10 Total 0-10um STP (81102)

State: Hawaii
Duration: 1 HOUR
Year: 2017

Primary:
Secondary:
Unit: Micrograms/cubic meter (25 C)

Site ID	POC	County Name / City Name		Methods	Maximum Values					Num Obs	Num Exc	EDT ID
					1st Max	2nd Max	3rd Max	4th Max	5th Max			
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-2004	3	Honolulu	122		125	106	99	96	74	8406		0
		Pearl City			03/25:22	01/01:00	12/31:22	12/31:23	01/01:01			
					74	72	64	57	56			
					12/31:21	06/26:06	03/10:09	07/26:10	01/21:22			

PM10 Total 0-10um STP (81102)

State: Hawaii
Duration: 1 HOUR
Year: 2018

Primary:
Secondary:
Unit: Micrograms/cubic meter (25 C)

Site ID	POC	County Name / City Name		Methods	Maximum Values					Num Obs	Num Exc	EDT ID
					1st Max	2nd Max	3rd Max	4th Max	5th Max			
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-2004	3	Honolulu	122		467	64	61	56	55	8501		0
		Pearl City			01/01:00	04/20:12	11/18:22	11/28:14	02/15:13			
					55	54	54	54	53			
					12/26:12	02/27:08	07/27:13	10/15:20	05/19:10			

PM10 Total 0-10um STP (81102)

State: Hawaii
Duration: 1 HOUR
Year: 2019

Primary:
Secondary:
Unit: Micrograms/cubic meter (25 C)

Site ID	POC	County Name / City Name		Methods	Maximum Values					Num Obs	Num Exc	EDT ID
					1st Max	2nd Max	3rd Max	4th Max	5th Max			
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-2004	3	Honolulu	122		143	97	80	69	67	8620		0
		Pearl City			10/29:20	10/23:06	06/17:13	04/08:06	04/01:06			
					61	60	59	57	57			
					02/10:12	01/01:00	03/17:12	01/26:01	02/09:12			

PM10 Total 0-10um STP (81102)

State: Hawaii
Duration: 1 HOUR
Year: 2020

Primary:
Secondary:
Unit: Micrograms/cubic meter (25 C)

Site ID	POC	County Name / City Name		Methods	Maximum Values					Num Obs	Num Exc	EDT ID
					1st Max	2nd Max	3rd Max	4th Max	5th Max			
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-2004	3	Honolulu	122		119	61	59	57	55	8470		0
		Pearl City			01/01:00	01/15:13	02/14:11	01/08:13	01/08:15			
					54	54	52	51	49			
					01/09:16	02/14:09	01/27:14	03/23:13	01/01:11			

PM10 Total 0-10um STP (81102)

State: Hawaii
Duration: 1 HOUR
Year: 2021

Primary:
Secondary:
Unit: Micrograms/cubic meter (25 C)

Site ID	POC	County Name / City Name		Methods	Maximum Values					Num Obs	Num Exc	EDT ID
					1st Max	2nd Max	3rd Max	4th Max	5th Max			
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-2004	3	Honolulu	122		74	69	57	42	42	8235		0
		Pearl City			02/04:10	02/26:12	01/01:00	03/21:14	10/22:09			
					40	40	40	39	39			
					11/17:10	11/19:09	11/23:09	03/02:11	03/21:12			

PM10 Total 0-10um STP (81102)

State: Hawaii
Duration: 24-HR BLK AVG
Year: 2017

Primary: 150
Secondary: 150
Unit: Micrograms/cubic meter (25 C)

Site ID	POC	County Name / City Name		Methods	Maximum Values					Num Obs	Num Exc	EDT ID
					1st Max	2nd Max	3rd Max	4th Max	5th Max			
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-2004	3	Honolulu	122		39	38	36	35	34	350	0	0
		Pearl City			01/22:00	01/12:00	01/14:00	01/11:00	01/13:00			
					34	33	32	30	30			
					02/01:00	02/19:00	01/15:00	01/19:00	01/21:00			

PM10 Total 0-10um STP (81102)

State: Hawaii
Duration: 24-HR BLK AVG
Year: 2018

Primary: 150
Secondary: 150
Unit: Micrograms/cubic meter (25 C)

Site ID	POC	County Name / City Name		Methods	Maximum Values					Num Obs	Num Exc	EDT ID
					1st Max	2nd Max	3rd Max	4th Max	5th Max			
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-2004	3	Honolulu	122		34	31	27	23	23	357	0	0
		Pearl City			01/01:00	02/27:00	02/28:00	10/29:00	12/05:00			
					22	22	22	22	22			
					01/05:00	02/09:00	05/20:00	08/01:00	11/18:00			

PM10 Total 0-10um STP (81102)

State: Hawaii
Duration: 24-HR BLK AVG
Year: 2019

Primary: 150
Secondary: 150
Unit: Micrograms/cubic meter (25 C)

Site ID	POC	County Name / City Name		Methods	Maximum Values					Num Obs	Num Exc	EDT ID
					1st Max	2nd Max	3rd Max	4th Max	5th Max			
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-2004	3	Honolulu	122		36	29	27	26	26	363	0	0
		Pearl City			03/11:00	04/13:00	04/14:00	01/26:00	01/28:00			
					26	25	24	23	23			
					03/17:00	04/12:00	11/26:00	02/09:00	04/11:00			

PM10 Total 0-10um STP (81102)

State: Hawaii
Duration: 24-HR BLK AVG
Year: 2020

Primary: 150
Secondary: 150
Unit: Micrograms/cubic meter (25 C)

Site ID	POC	County Name / City Name		Methods	Maximum Values					Num Obs	Num Exc	EDT ID
					1st Max	2nd Max	3rd Max	4th Max	5th Max			
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-2004	3	Honolulu	122		26	24	22	22	20	354	0	0
		Pearl City			01/13:00	01/08:00	01/15:00	02/14:00	01/07:00			
					20	20	20	20	20			
					01/09:00	01/21:00	02/09:00	03/01:00	06/13:00			

PM10 Total 0-10um STP (81102)

State: Hawaii
Duration: 24-HR BLK AVG
Year: 2021

Primary: 150
Secondary: 150
Unit: Micrograms/cubic meter (25 C)

Site ID	POC	County Name / City Name		Methods	Maximum Values					Num Obs	Num Exc	EDT ID
					1st Max	2nd Max	3rd Max	4th Max	5th Max			
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-2004	3	Honolulu	122		25	24	22	22	22	345	0	0
		Pearl City			03/21:00	03/22:00	02/26:00	03/01:00	10/09:00			
					20	20	20	19	19			
					03/02:00	03/19:00	12/09:00	01/26:00	02/23:00			

PM2.5 - Local Conditions (88101)

State: Hawaii
Duration: 1 HOUR
Year: 2017

Primary:
Secondary:
Unit: Micrograms/cubic meter (LC)

Site ID	POC	County Name / City Name		Methods	Maximum Values					Num Obs	Num Exc	EDT ID
					1st Max	2nd Max	3rd Max	4th Max	5th Max			
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-2004	4	Honolulu	170		79.0	76.0	71.0	60.0	54.0	8590		0
		Pearl City			12/31:22	01/01:00	12/31:23	12/31:21	01/01:01			
					41.0	37.0	28.0	26.0	25.0			
					09/21:16	12/31:20	03/13:20	01/12:00	03/13:15			

PM2.5 - Local Conditions (88101)

State: Hawaii
Duration: 1 HOUR
Year: 2018

Primary:
Secondary:
Unit: Micrograms/cubic meter (LC)

Site ID	POC	County Name / City Name		Methods	Maximum Values					Num Obs	Num Exc	EDT ID
					1st Max	2nd Max	3rd Max	4th Max	5th Max			
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-2004	4	Honolulu	170		364.0	32.0	32.0	27.0	27.0	8381		0
		Pearl City			01/01:00	01/01:01	12/31:23	07/22:15	12/31:22			
					22.0	21.0	21.0	21.0	20.0			
					11/18:22	01/31:09	06/20:11	07/02:16	01/31:10			

PM2.5 - Local Conditions (88101)

State: Hawaii
Duration: 1 HOUR
Year: 2019
Primary:
Secondary:
Unit: Micrograms/cubic meter (LC)

Site ID	POC	County Name / City Name	Methods	Maximum Values					Num Obs	Num Exc	EDT ID
				1st Max	2nd Max	3rd Max	4th Max	5th Max			
				6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-2004	4	Honolulu	209 170	42.0	33.0	30.0	21.0	21.0	8619		0
		Pearl City		01/01:00	12/18:17	10/29:20	03/11:08	03/11:09			
				20.0	20.0	20.0	18.0	18.0			
				03/11:06	03/11:10	04/12:18	03/17:12	12/31:23			

PM2.5 - Local Conditions (88101)

State: Hawaii
Duration: 1 HOUR
Year: 2020
Primary:
Secondary:
Unit: Micrograms/cubic meter (LC)

Site ID	POC	County Name / City Name	Methods	Maximum Values					Num Obs	Num Exc	EDT ID
				1st Max	2nd Max	3rd Max	4th Max	5th Max			
				6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-2004	4	Honolulu	209	144.0	77.0	71.0	68.0	26.0	8269		0
		Pearl City		03/27:11	01/01:00	01/26:12	03/25:13	10/26:15			
				25.0	21.0	21.0	21.0	20.0			
				12/31:23	04/08:14	07/23:13	11/19:09	03/17:09			

PM2.5 - Local Conditions (88101)

State: Hawaii
Duration: 1 HOUR
Year: 2021
Primary:
Secondary:
Unit: Micrograms/cubic meter (LC)

Site ID	POC	County Name / City Name	Methods	Maximum Values					Num Obs	Num Exc	EDT ID
				1st Max	2nd Max	3rd Max	4th Max	5th Max			
				6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-2004	4	Honolulu	209	43.0	23.0	23.0	19.0	19.0	8122		0
		Pearl City		01/01:00	06/17:08	12/31:23	03/15:12	04/27:09			
				19.0	19.0	19.0	18.0	18.0			
				05/21:07	05/24:07	08/16:14	06/22:07	07/14:08			

PM2.5 - Local Conditions (88101)

State: Hawaii
Duration: 24 HOUR
Year: 2020

Primary:
Secondary:
Unit: Micrograms/cubic meter (LC)

Site ID	POC	County Name / City Name		Methods	Maximum Values					Num Obs	Num Exc	EDT ID
					1st Max	2nd Max	3rd Max	4th Max	5th Max			
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-2004	6	Honolulu	142		5.0	5.0	4.8	4.6	4.4	30		0
		Pearl City			05/09:00	12/05:00	10/06:00	06/14:00	11/23:00			
					4.1	4.1	4.1	4.0	3.9			
					07/26:00	09/06:00	11/11:00	06/08:00	05/15:00			

PM2.5 - Local Conditions (88101)

State: Hawaii
Duration: 24 HOUR
Year: 2021

Primary:
Secondary:
Unit: Micrograms/cubic meter (LC)

Site ID	POC	County Name / City Name		Methods	Maximum Values					Num Obs	Num Exc	EDT ID
					1st Max	2nd Max	3rd Max	4th Max	5th Max			
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-2004	6	Honolulu	142		5.7	5.0	5.0	4.8	4.6	54		0
		Pearl City			01/22:00	01/28:00	11/12:00	02/21:00	02/09:00			
					4.6	4.5	4.5	4.3	4.0			
					12/06:00	03/29:00	11/24:00	07/27:00	02/15:00			

PM2.5 - Local Conditions (88101)

State: Hawaii
Duration: 24-HR BLK AVG
Year: 2017

Primary:
Secondary:
Unit: Micrograms/cubic meter (LC)

Site ID	POC	County Name / City Name		Methods	Maximum Values					Num Obs	Num Exc	EDT ID
					1st Max	2nd Max	3rd Max	4th Max	5th Max			
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-2004	4	Honolulu	170		18.2	16.2	16.1	15.6	15.3	358		0
		Pearl City			03/13:00	02/04:00	11/02:00	01/12:00	01/14:00			
					14.3	14.2	14.1	14.0	13.4			
					10/01:00	01/11:00	03/10:00	02/03:00	12/31:00			

PM2.5 - Local Conditions (88101)

State: Hawaii
Duration: 24-HR BLK AVG
Year: 2018

Primary:
Secondary:
Unit: Micrograms/cubic meter (LC)

Site ID	POC	County Name / City Name	Methods	Maximum Values					Num Obs	Num Exc	EDT ID
				1st Max	2nd Max	3rd Max	4th Max	5th Max			
				6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-2004	4	Honolulu	170	21.0	10.5	10.3	10.0	9.9	349		0
		Pearl City		01/01:00	02/13:00	06/16:00	04/10:00	04/11:00			
				9.8	9.1	8.8	8.2	7.9			
				04/09:00	04/01:00	08/01:00	03/30:00	01/27:00			

PM2.5 - Local Conditions (88101)

State: Hawaii
Duration: 24-HR BLK AVG
Year: 2019

Primary:
Secondary:
Unit: Micrograms/cubic meter (LC)

Site ID	POC	County Name / City Name	Methods	Maximum Values					Num Obs	Num Exc	EDT ID
				1st Max	2nd Max	3rd Max	4th Max	5th Max			
				6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-2004	4	Honolulu	170 209	14.7	9.6	8.8	6.8	6.8	359		0
		Pearl City		03/11:00	04/13:00	03/17:00	04/12:00	04/14:00			
				6.6	6.5	6.3	6.3	6.2			
				04/11:00	01/26:00	04/05:00	12/24:00	04/23:00			

PM2.5 - Local Conditions (88101)

State: Hawaii
Duration: 24-HR BLK AVG
Year: 2020

Primary:
Secondary:
Unit: Micrograms/cubic meter (LC)

Site ID	POC	County Name / City Name	Methods	Maximum Values					Num Obs	Num Exc	EDT ID
				1st Max	2nd Max	3rd Max	4th Max	5th Max			
				6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-2004	4	Honolulu	209	10.7	7.2	7.0	6.7	6.6	344		0
		Pearl City		03/27:00	10/08:00	03/25:00	10/13:00	12/31:00			
				6.3	6.2	6.1	6.0	6.0			
				01/13:00	01/01:00	03/01:00	02/09:00	10/09:00			

UNITED STATES ENVIRONMENTAL PROCTECTION AGENCY
AIR QUALITY SUBSYSTEM
MAXIMUM VALUES REPORT

Feb. 6, 2023

PM2.5 - Local Conditions (88101)

State: Hawaii
Duration: 24-HR BLK AVG
Year: 2021

Primary:
Secondary:
Unit: Micrograms/cubic meter (LC)

Maximum Values

Site ID	POC	County Name / City Name	Methods	1st Max	2nd Max	3rd Max	4th Max	5th Max	Num Obs	Num Exc	EDT ID
				6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-2004	4	Honolulu	209	8.0	6.7	6.5	6.4	6.2	338		0
		Pearl City		11/13:00	10/09:00	04/20:00	03/21:00	10/10:00			
				6.1	6.1	6.0	5.8	5.8			
				01/15:00	03/22:00	01/14:00	01/22:00	01/27:00			

User ID: XGSWU

MAXIMUM VALUES REPORT

Report Request ID: 2076009 Report Code: AMP440 Feb. 6, 2023

GEOGRAPHIC SELECTIONS

Tribal Code	State	County	Site	Parameter	POC	City	AQCR	UAR	CBSA	CSA	EPA Region
	15	009	0006								

PROTOCOL SELECTIONS

Parameter Classification	Parameter	Method	Duration
CRITERIA			

SELECTED OPTIONS

Option Type	Option Value
AGENCY ROLE	PQAO
EVENTS PROCESSING	REPORT ALL EVENT RECORDS
MERGE PDF FILES	YES

SORT ORDER

Order	Column
1	PARAMETER_CODE
2	STATE_CODE
3	DURATION_CODE
4	DATES
5	COUNTY_CODE
6	SITE_ID
7	POC
8	EDT_ID

DATE CRITERIA

Start Date	End Date
2017	2021

APPLICABLE STANDARDS

Standard Description
CO 8-hour 1971
Lead 3-Month 2009
Lead 3-Month PM10 Surrogate 2009
NO2 Annual 1971
Ozone 8-hour 2015
PM10 24-hour 2006
PM25 Annual 2012
SO2 1-hour 2010

EXCEPTIONAL DATA TYPES

EDT	DESCRIPTION
0	NO EVENTS
1	EVENTS EXCLUDED
2	EVENTS INCLUDED
5	EVENTS WITH CONCURRENCE EXCLUDED

PM2.5 - Local Conditions (88101)

State: Hawaii
Duration: 1 HOUR
Year: 2017
Primary:
Secondary:
Unit: Micrograms/cubic meter (LC)

Site ID	POC	County Name / City Name	Methods	Maximum Values					Num Obs	Num Exc	EDT ID
				1st Max	2nd Max	3rd Max	4th Max	5th Max			
				6th Max	7th Max	8th Max	9th Max	10th Max			
15-009-0006	2	Maui	170	119.0	91.0	82.0	78.0	71.0	8395		0
		Kihei		06/29:15	01/21:23	06/29:13	06/29:16	06/29:12			
				69.0	68.0	66.0	65.0	65.0			
				01/21:14	01/22:00	06/30:14	06/29:11	06/29:14			

PM2.5 - Local Conditions (88101)

State: Hawaii
Duration: 1 HOUR
Year: 2018
Primary:
Secondary:
Unit: Micrograms/cubic meter (LC)

Site ID	POC	County Name / City Name	Methods	Maximum Values					Num Obs	Num Exc	EDT ID
				1st Max	2nd Max	3rd Max	4th Max	5th Max			
				6th Max	7th Max	8th Max	9th Max	10th Max			
15-009-0006	2	Maui	170	61.0	47.0	43.0	40.0	40.0	8129		0
		Kihei		07/03:17	03/06:13	05/20:13	05/22:14	05/22:15			
				38.0	37.0	33.0	31.0	31.0			
				07/03:15	03/06:14	05/22:12	01/17:15	07/04:19			

PM2.5 - Local Conditions (88101)

State: Hawaii
Duration: 1 HOUR
Year: 2019
Primary:
Secondary:
Unit: Micrograms/cubic meter (LC)

Site ID	POC	County Name / City Name	Methods	Maximum Values					Num Obs	Num Exc	EDT ID
				1st Max	2nd Max	3rd Max	4th Max	5th Max			
				6th Max	7th Max	8th Max	9th Max	10th Max			
15-009-0006	2	Maui	209 170	506.0	481.0	410.0	200.0	185.0	8591		0
		Kihei		07/11:15	07/11:16	07/11:17	09/07:16	07/14:16			
				180.0	168.0	139.0	123.0	111.0			
				08/01:18	07/14:15	07/14:14	07/14:13	08/01:20			

PM2.5 - Local Conditions (88101)

State: Hawaii
Duration: 1 HOUR
Year: 2020

Primary:
Secondary:
Unit: Micrograms/cubic meter (LC)

Site ID	POC	County Name / City Name		Methods	Maximum Values					Num Obs	Num Exc	EDT ID
					1st Max	2nd Max	3rd Max	4th Max	5th Max			
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-009-0006	2	Maui	209		58.0	51.0	43.0	41.0	38.0	7962		0
		Kihei			06/01:06	01/07:11	01/07:12	01/07:15	01/08:14			
					37.0	34.0	32.0	31.0	28.0			
					01/08:13	01/07:14	01/08:12	07/08:09	01/05:14			

PM2.5 - Local Conditions (88101)

State: Hawaii
Duration: 1 HOUR
Year: 2021

Primary:
Secondary:
Unit: Micrograms/cubic meter (LC)

Site ID	POC	County Name / City Name		Methods	Maximum Values					Num Obs	Num Exc	EDT ID
					1st Max	2nd Max	3rd Max	4th Max	5th Max			
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-009-0006	2	Maui	209		230.0	58.0	46.0	42.0	34.0	8482		0
		Kihei			12/31:20	12/31:22	07/04:20	10/09:14	06/28:10			
					33.0	29.0	23.0	22.0	21.0			
					08/19:16	07/04:21	06/11:14	10/09:13	01/02:15			

PM2.5 - Local Conditions (88101)

State: Hawaii
Duration: 24-HR BLK AVG
Year: 2017

Primary:
Secondary:
Unit: Micrograms/cubic meter (LC)

Site ID	POC	County Name / City Name		Methods	Maximum Values					Num Obs	Num Exc	EDT ID
					1st Max	2nd Max	3rd Max	4th Max	5th Max			
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-009-0006	2	Maui	170		29.1	26.2	15.8	13.4	12.1	349		0
		Kihei			06/29:00	01/21:00	02/04:00	06/30:00	03/13:00			
					11.3	11.3	11.2	10.9	10.4			
					01/22:00	11/01:00	02/19:00	10/16:00	01/30:00			

PM2.5 - Local Conditions (88101)

State: Hawaii
Duration: 24-HR BLK AVG
Year: 2018

Primary:
Secondary:
Unit: Micrograms/cubic meter (LC)

Site ID	POC	County Name / City Name	Methods	Maximum Values	1st Max	2nd Max	3rd Max	4th Max	5th Max	Num Obs	Num Exc	EDT ID
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-009-0006	2	Maui	170		12.7	11.7	11.6	11.3	11.0	339		0
		Kihei			02/13:00	07/04:00	06/16:00	07/03:00	04/01:00			
					10.9	10.6	10.2	9.8	9.7			
					05/22:00	03/06:00	07/02:00	03/31:00	07/15:00			

PM2.5 - Local Conditions (88101)

State: Hawaii
Duration: 24-HR BLK AVG
Year: 2019

Primary:
Secondary:
Unit: Micrograms/cubic meter (LC)

Site ID	POC	County Name / City Name	Methods	Maximum Values	1st Max	2nd Max	3rd Max	4th Max	5th Max	Num Obs	Num Exc	EDT ID
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-009-0006	2	Maui	170 209		84.5	45.9	40.5	24.0	23.6	357		0
		Kihei			07/11:00	07/14:00	08/01:00	07/13:00	09/07:00			
					19.3	18.8	16.9	16.2	13.2			
					07/31:00	11/30:00	07/15:00	07/25:00	07/19:00			

PM2.5 - Local Conditions (88101)

State: Hawaii
Duration: 24-HR BLK AVG
Year: 2020

Primary:
Secondary:
Unit: Micrograms/cubic meter (LC)

Site ID	POC	County Name / City Name	Methods	Maximum Values	1st Max	2nd Max	3rd Max	4th Max	5th Max	Num Obs	Num Exc	EDT ID
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-009-0006	2	Maui	209		14.4	13.0	11.2	10.3	9.1	332		0
		Kihei			01/07:00	01/08:00	07/09:00	07/08:00	01/09:00			
					8.5	7.2	6.9	6.5	6.3			
					01/06:00	01/05:00	08/30:00	10/08:00	01/13:00			

UNITED STATES ENVIRONMENTAL PROCTECTION AGENCY
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Feb. 6, 2023

PM2.5 - Local Conditions (88101)

State: Hawaii
Duration: 24-HR BLK AVG
Year: 2021

Primary:
Secondary:
Unit: Micrograms/cubic meter (LC)

Maximum Values

Site ID	POC	County Name / City Name	Methods	1st Max	2nd Max	3rd Max	4th Max	5th Max	Num Obs	Num Exc	EDT ID
				6th Max	7th Max	8th Max	9th Max	10th Max			
15-009-0006	2	Maui	209	15.4	6.7	6.6	6.4	6.1	355		0
		Kihei		12/31:00	10/09:00	03/25:00	04/20:00	03/26:00			
				5.7	5.7	5.7	5.6	5.4			
				01/15:00	02/15:00	07/04:00	04/21:00	02/22:00			

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

User ID: XGSWU

MAXIMUM VALUES REPORT

Report Request ID: 2076010 Report Code: AMP440 Feb. 6, 2023

GEOGRAPHIC SELECTIONS

Tribal Code	State	County	Site	Parameter	POC	City	AQCR	UAR	CBSA	CSA	EPA Region
	15	007	0007	42602							
	15	007	0007	88101							

PROTOCOL SELECTIONS

Parameter Classification	Parameter	Method	Duration
CRITERIA			

SELECTED OPTIONS

Option Type	Option Value
AGENCY ROLE	PQAO
EVENTS PROCESSING	REPORT ALL EVENT RECORDS
MERGE PDF FILES	YES

SORT ORDER

Order	Column
1	PARAMETER_CODE
2	STATE_CODE
3	DURATION_CODE
4	DATES
5	COUNTY_CODE
6	SITE_ID
7	POC
8	EDT_ID

DATE CRITERIA

Start Date	End Date
2017	2021

APPLICABLE STANDARDS

Standard Description
CO 8-hour 1971
Lead 3-Month 2009
Lead 3-Month PM10 Surrogate 2009
NO2 Annual 1971
Ozone 8-hour 2015
PM10 24-hour 2006
PM25 Annual 2012
SO2 1-hour 2010

EXCEPTIONAL DATA TYPES

EDT	DESCRIPTION
0	NO EVENTS
1	EVENTS EXCLUDED
2	EVENTS INCLUDED
5	EVENTS WITH CONCURRENCE EXCLUDED

Feb. 6, 2023

Nitrogen dioxide (NO2) (42602)

State: Hawaii
Duration: 1 HOUR
Year: 2017

Primary:
Secondary:
Unit: Parts per billion

Maximum Values

Site ID	POC	County Name / City Name	Methods	1st Max	2nd Max	3rd Max	4th Max	5th Max	Num Obs	Num Exc	EDT ID
				6th Max	7th Max	8th Max	9th Max	10th Max			
15-007-0007	1	Kauai	099 212 186	37.6	35.3	35.1	33.1	32.9	5979		0
		Not in a city		12/01:06	11/16:19	12/01:07	12/01:04	11/16:20			
				32.8	32.4	32.3	31.7	31.7			
				11/16:21	11/16:18	12/01:11	01/30:16	02/22:08			

Nitrogen dioxide (NO2) (42602)

State: Hawaii
Duration: 1 HOUR
Year: 2018

Primary:
Secondary:
Unit: Parts per billion

Maximum Values

Site ID	POC	County Name / City Name	Methods	1st Max	2nd Max	3rd Max	4th Max	5th Max	Num Obs	Num Exc	EDT ID
				6th Max	7th Max	8th Max	9th Max	10th Max			
15-007-0007	1	Kauai	212	46.7	46.5	45.1	44.8	44.6	7988		0
		Not in a city		12/14:00	12/13:20	12/13:21	12/14:02	12/14:03			
				44.6	44.3	44.3	44.0	43.1			
				12/20:18	12/13:19	12/13:22	12/10:09	12/13:18			

Nitrogen dioxide (NO2) (42602)

State: Hawaii
Duration: 1 HOUR
Year: 2019

Primary:
Secondary:
Unit: Parts per billion

Maximum Values

Site ID	POC	County Name / City Name	Methods	1st Max	2nd Max	3rd Max	4th Max	5th Max	Num Obs	Num Exc	EDT ID
				6th Max	7th Max	8th Max	9th Max	10th Max			
15-007-0007	1	Kauai	212	46.2	43.3	43.2	42.1	41.7	8390		0
		Not in a city		04/15:08	03/07:18	03/07:08	03/07:19	04/13:08			
				41.0	40.8	40.6	40.0	39.9			
				03/08:02	03/07:17	03/08:08	01/03:19	03/08:04			

Nitrogen dioxide (NO2) (42602)

State: Hawaii
Duration: 1 HOUR
Year: 2020
Primary:
Secondary:
Unit: Parts per billion

Site ID	POC	County Name / City Name		Methods	Maximum Values					Num Obs	Num Exc	EDT ID
					1st Max	2nd Max	3rd Max	4th Max	5th Max			
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-007-0007	1	Kauai	212		41.1	40.7	40.2	38.8	38.4	8528		0
		Not in a city			02/21:00	03/06:03	03/06:05	03/06:04	02/26:16			
					38.1	37.9	37.9	37.4	37.0			
					02/26:09	01/20:09	02/28:06	01/09:08	03/06:07			

Nitrogen dioxide (NO2) (42602)

State: Hawaii
Duration: 1 HOUR
Year: 2021
Primary:
Secondary:
Unit: Parts per billion

Site ID	POC	County Name / City Name		Methods	Maximum Values					Num Obs	Num Exc	EDT ID
					1st Max	2nd Max	3rd Max	4th Max	5th Max			
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-007-0007	1	Kauai	212		18.9	18.0	17.0	16.4	16.2	8149		0
		Not in a city			02/21:07	10/07:07	12/18:20	12/18:16	12/18:17			
					15.5	15.4	14.8	14.6	13.8			
					04/05:08	12/18:18	12/18:21	03/27:06	05/07:19			

PM2.5 - Local Conditions (88101)

State: Hawaii
Duration: 1 HOUR
Year: 2017
Primary:
Secondary:
Unit: Micrograms/cubic meter (LC)

Site ID	POC	County Name / City Name		Methods	Maximum Values					Num Obs	Num Exc	EDT ID
					1st Max	2nd Max	3rd Max	4th Max	5th Max			
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-007-0007	1	Kauai	170		108.0	69.0	24.0	22.0	20.0	8384		0
		Not in a city			07/04:20	01/01:00	07/04:21	12/31:22	12/05:22			
					19.0	19.0	18.0	18.0	17.0			
					12/03:06	12/31:21	03/14:15	03/14:16	01/12:00			

PM2.5 - Local Conditions (88101)

State: Hawaii
Duration: 1 HOUR
Year: 2018
Primary:
Secondary:
Unit: Micrograms/cubic meter (LC)

Site ID	POC	County Name / City Name	Methods	Maximum Values					Num Obs	Num Exc	EDT ID
				1st Max	2nd Max	3rd Max	4th Max	5th Max			
				6th Max	7th Max	8th Max	9th Max	10th Max			
15-007-0007	1	Kauai	170	28.0	27.0	26.0	24.0	23.0	7810		0
		Not in a city		12/31:21	03/30:20	03/30:17	03/30:18	01/01:02			
				23.0	22.0	22.0	21.0	21.0			
				08/30:19	03/30:19	07/04:19	03/30:16	03/31:17			

PM2.5 - Local Conditions (88101)

State: Hawaii
Duration: 1 HOUR
Year: 2019
Primary:
Secondary:
Unit: Micrograms/cubic meter (LC)

Site ID	POC	County Name / City Name	Methods	Maximum Values					Num Obs	Num Exc	EDT ID
				1st Max	2nd Max	3rd Max	4th Max	5th Max			
				6th Max	7th Max	8th Max	9th Max	10th Max			
15-007-0007	1	Kauai	209 170	51.0	43.0	42.0	39.0	31.0	8210		0
		Not in a city		12/24:11	11/17:10	11/17:14	10/15:14	09/30:12			
				30.0	29.0	25.0	24.0	23.0			
				01/01:00	03/11:10	03/11:11	03/11:08	03/11:07			

PM2.5 - Local Conditions (88101)

State: Hawaii
Duration: 1 HOUR
Year: 2020
Primary:
Secondary:
Unit: Micrograms/cubic meter (LC)

Site ID	POC	County Name / City Name	Methods	Maximum Values					Num Obs	Num Exc	EDT ID
				1st Max	2nd Max	3rd Max	4th Max	5th Max			
				6th Max	7th Max	8th Max	9th Max	10th Max			
15-007-0007	1	Kauai	209	26.0	23.0	19.0	18.0	18.0	7759		0
		Not in a city		07/26:07	03/06:17	08/04:01	02/29:11	03/18:11			
				17.0	17.0	17.0	17.0	16.0			
				03/24:09	03/24:13	05/07:09	07/09:11	01/09:19			

PM2.5 - Local Conditions (88101)

State: Hawaii
Duration: 1 HOUR
Year: 2021

Primary:
Secondary:
Unit: Micrograms/cubic meter (LC)

Site ID	POC	County Name / City Name		Methods	Maximum Values					Num Obs	Num Exc	EDT ID
					1st Max	2nd Max	3rd Max	4th Max	5th Max			
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-007-0007	1	Kauai	209		42.0	20.0	19.0	17.0	16.0	8193		0
		Not in a city			07/26:07	11/18:04	04/24:04	01/25:12	03/23:09			
					16.0	16.0	16.0	16.0	16.0			
					03/24:09	03/24:11	04/04:23	04/09:09	06/03:10			

PM2.5 - Local Conditions (88101)

State: Hawaii
Duration: 24-HR BLK AVG
Year: 2017

Primary:
Secondary:
Unit: Micrograms/cubic meter (LC)

Site ID	POC	County Name / City Name		Methods	Maximum Values					Num Obs	Num Exc	EDT ID
					1st Max	2nd Max	3rd Max	4th Max	5th Max			
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-007-0007	1	Kauai	170		13.2	11.2	11.1	10.2	10.0	350		0
		Not in a city			01/12:00	07/04:00	12/05:00	03/11:00	12/03:00			
					9.3	9.0	8.6	8.2	8.2			
					02/19:00	01/14:00	01/22:00	01/13:00	02/20:00			

PM2.5 - Local Conditions (88101)

State: Hawaii
Duration: 24-HR BLK AVG
Year: 2018

Primary:
Secondary:
Unit: Micrograms/cubic meter (LC)

Site ID	POC	County Name / City Name		Methods	Maximum Values					Num Obs	Num Exc	EDT ID
					1st Max	2nd Max	3rd Max	4th Max	5th Max			
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-007-0007	1	Kauai	170		11.6	11.3	10.9	10.0	9.4	327		0
		Not in a city			03/30:00	03/31:00	02/28:00	02/27:00	08/01:00			
					8.7	8.4	7.9	7.7	7.5			
					07/06:00	06/17:00	07/04:00	07/18:00	04/01:00			

PM2.5 - Local Conditions (88101)

State: Hawaii
Duration: 24-HR BLK AVG
Year: 2019
Primary:
Secondary:
Unit: Micrograms/cubic meter (LC)

Site ID	POC	County Name / City Name	Methods	Maximum Values					Num Obs	Num Exc	EDT ID
				1st Max	2nd Max	3rd Max	4th Max	5th Max			
				6th Max	7th Max	8th Max	9th Max	10th Max			
15-007-0007	1	Kauai	170 209	19.1	9.6	8.4	8.1	8.1	340		0
		Not in a city		03/11:00	03/17:00	02/09:00	01/26:00	12/21:00			
				7.9	7.5	7.5	7.4	6.9			
				01/29:00	11/23:00	12/24:00	03/10:00	12/17:00			

PM2.5 - Local Conditions (88101)

State: Hawaii
Duration: 24-HR BLK AVG
Year: 2020
Primary:
Secondary:
Unit: Micrograms/cubic meter (LC)

Site ID	POC	County Name / City Name	Methods	Maximum Values					Num Obs	Num Exc	EDT ID
				1st Max	2nd Max	3rd Max	4th Max	5th Max			
				6th Max	7th Max	8th Max	9th Max	10th Max			
15-007-0007	1	Kauai	209	9.9	9.7	9.4	9.2	8.7	322		0
		Not in a city		01/13:00	01/09:00	02/14:00	01/15:00	03/01:00			
				8.4	8.3	7.7	7.6	7.5			
				01/12:00	01/10:00	01/08:00	05/08:00	01/14:00			

PM2.5 - Local Conditions (88101)

State: Hawaii
Duration: 24-HR BLK AVG
Year: 2021
Primary:
Secondary:
Unit: Micrograms/cubic meter (LC)

Site ID	POC	County Name / City Name	Methods	Maximum Values					Num Obs	Num Exc	EDT ID
				1st Max	2nd Max	3rd Max	4th Max	5th Max			
				6th Max	7th Max	8th Max	9th Max	10th Max			
15-007-0007	1	Kauai	209	8.4	8.1	7.9	7.7	7.7	342		0
		Not in a city		02/27:00	02/22:00	02/23:00	02/26:00	03/01:00			
				7.7	7.2	7.1	7.1	7.0			
				03/21:00	02/28:00	01/26:00	01/27:00	03/22:00			

User ID: XGSWU

MAXIMUM VALUES REPORT

Report Request ID: 2075946 Report Code: AMP440 Feb. 6, 2023

GEOGRAPHIC SELECTIONS

Tribal Code	State	County	Site	Parameter	POC	City	AQCR	UAR	CBSA	CSA	EPA Region
	15	003	0010	42101							
	15	003	0010	42401							

PROTOCOL SELECTIONS

Parameter Classification	Parameter	Method	Duration
CRITERIA			

SELECTED OPTIONS

Option Type	Option Value
AGENCY ROLE	PQAO
EVENTS PROCESSING	REPORT ALL EVENT RECORDS
MERGE PDF FILES	YES

SORT ORDER

Order	Column
1	PARAMETER_CODE
2	STATE_CODE
3	DURATION_CODE
4	DATES
5	COUNTY_CODE
6	SITE_ID
7	POC
8	EDT_ID

DATE CRITERIA

Start Date	End Date
2017	2021

APPLICABLE STANDARDS

Standard Description
CO 8-hour 1971
Lead 3-Month 2009
Lead 3-Month PM10 Surrogate 2009
NO2 Annual 1971
Ozone 8-hour 2015
PM10 24-hour 2006
PM25 Annual 2012
SO2 1-hour 2010

EXCEPTIONAL DATA TYPES

EDT	DESCRIPTION
0	NO EVENTS
1	EVENTS EXCLUDED
2	EVENTS INCLUDED
5	EVENTS WITH CONCURRENCE EXCLUDED

UNITED STATES ENVIRONMENTAL PROCTECTION AGENCY
AIR QUALITY SUBSYSTEM
MAXIMUM VALUES REPORT

Feb. 6, 2023

Carbon monoxide (42101)

State: Hawaii
Duration: 8-HR RUN AVG END HOUR
Year: 2017

Primary: 9
Secondary: 9
Unit: Parts per million

Site ID	POC	County Name / City Name		Methods	Maximum Values 1st Max	2nd Max	3rd Max	4th Max	5th Max	Num Obs	Num Exc	EDT ID
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-0010	1	Honolulu	093		1.1	1.0				7968	0	0
		Not in a city			12/31:15	12/27:01						
15-003-0010	2	Honolulu	593		.3	.3				7638	0	0
		Not in a city			01/05:08	01/09:08						

Carbon monoxide (42101)

State: Hawaii
Duration: 8-HR RUN AVG END HOUR
Year: 2018

Primary: 9
Secondary: 9
Unit: Parts per million

Site ID	POC	County Name / City Name		Methods	Maximum Values 1st Max	2nd Max	3rd Max	4th Max	5th Max	Num Obs	Num Exc	EDT ID
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-0010	1	Honolulu	093		2.5	2.5				8031	0	0
		Not in a city			04/03:07	05/19:23						

Carbon monoxide (42101)

State: Hawaii
Duration: 8-HR RUN AVG END HOUR
Year: 2018

Primary: 9
Secondary: 9
Unit: Parts per million

Site ID	POC	County Name / City Name		Methods	Maximum Values 1st Max	2nd Max	3rd Max	4th Max	5th Max	Num Obs	Num Exc	EDT ID
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-0010	2	Honolulu	593		.4	.3				8118	0	0
		Not in a city			01/10:08	01/10:13						

Carbon monoxide (42101)

State: Hawaii
Duration: 8-HR RUN AVG END HOUR
Year: 2019

Primary: 9
Secondary: 9
Unit: Parts per million

Site ID	POC	County Name / City Name		Methods	Maximum Values 1st Max	2nd Max	3rd Max	4th Max	5th Max	Num Obs	Num Exc	EDT ID
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-0010	1	Honolulu	093		.3	.3				8327	0	0
		Not in a city			03/11:12	03/20:06						

Site ID	POC	County Name / City Name		Methods	Maximum Values 1st Max	2nd Max	3rd Max	4th Max	5th Max	Num Obs	Num Exc	EDT ID
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-0010	2	Honolulu	593		.3	.3				8091	0	0
		Not in a city			01/07:07	01/09:11						

Carbon monoxide (42101)

State: Hawaii
Duration: 8-HR RUN AVG END HOUR
Year: 2020

Primary: 9
Secondary: 9
Unit: Parts per million

UNITED STATES ENVIRONMENTAL PROCTECTION AGENCY
AIR QUALITY SUBSYSTEM
MAXIMUM VALUES REPORT

Feb. 6, 2023

Carbon monoxide (42101)

State: Hawaii
Duration: 8-HR RUN AVG END HOUR
Year: 2020

Primary: 9
Secondary: 9
Unit: Parts per million

Site ID	POC	County Name / City Name		Methods	Maximum Values 1st Max	2nd Max	3rd Max	4th Max	5th Max	Num Obs	Num Exc	EDT ID
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-0010	1	Honolulu	093		.4	.4				8376	0	0
		Not in a city			03/04:06	03/05:08						

Site ID	POC	County Name / City Name		Methods	Maximum Values 1st Max	2nd Max	3rd Max	4th Max	5th Max	Num Obs	Num Exc	EDT ID
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-0010	2	Honolulu	593		.4	.3				8554	0	0
		Not in a city			01/28:09	01/22:07						

Carbon monoxide (42101)

State: Hawaii
Duration: 8-HR RUN AVG END HOUR
Year: 2021

Primary: 9
Secondary: 9
Unit: Parts per million

Site ID	POC	County Name / City Name		Methods	Maximum Values 1st Max	2nd Max	3rd Max	4th Max	5th Max	Num Obs	Num Exc	EDT ID
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-0010	1	Honolulu	093		.4	.4				8298	0	0
		Not in a city			11/17:08	12/02:11						

Carbon monoxide (42101)

State: Hawaii
Duration: 8-HR RUN AVG END HOUR
Year: 2021

Primary: 9
Secondary: 9
Unit: Parts per million

Maximum Values

Site ID	POC	County Name / City Name		Methods	1st Max	2nd Max	3rd Max	4th Max	5th Max	Num Obs	Num Exc	EDT ID
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-0010	2	Honolulu	593		2.0	1.5				8140	0	0
		Not in a city			08/24:20	08/24:16						

Sulfur dioxide (42401)

State: Hawaii
Duration: 1 HOUR
Year: 2017

Primary: 75
Secondary:
Unit: Parts per billion

Maximum Values

Site ID	POC	County Name / City Name		Methods	1st Max	2nd Max	3rd Max	4th Max	5th Max	Num Obs	Num Exc	EDT ID
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-0010	1	Honolulu	060		12.4	10.2	8.6	8.3	7.0	8234	0	0
		Not in a city			09/14:11	02/26:18	02/08:11	11/18:16	02/25:17			
					6.6	6.4	6.1	5.3	4.9			
					05/20:16	12/07:10	04/29:10	02/18:15	12/16:12			

Maximum Values

Site ID	POC	County Name / City Name		Methods	1st Max	2nd Max	3rd Max	4th Max	5th Max	Num Obs	Num Exc	EDT ID
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-0010	2	Honolulu	600		18.3	17.0	10.6	10.5	8.9	7155	0	0
		Not in a city			10/25:11	02/26:18	09/14:11	11/18:16	03/09:17			
					8.2	7.9	7.3	6.9	6.5			
					02/25:17	02/18:15	12/12:16	01/11:14	12/28:10			

Sulfur dioxide (42401)

State: Hawaii
Duration: 1 HOUR
Year: 2018

Primary: 75
Secondary:
Unit: Parts per billion

Feb. 6, 2023

Sulfur dioxide (42401)

State: Hawaii
Duration: 1 HOUR
Year: 2018

Primary: 75
Secondary:
Unit: Parts per billion

Site ID	POC	County Name / City Name		Methods	Maximum Values					Num Obs	Num Exc	EDT ID
					1st Max	2nd Max	3rd Max	4th Max	5th Max			
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-0010	1	Honolulu	060		12.9	6.6	6.3	6.2	6.2	8256	0	0
		Not in a city			06/20:13	05/03:14	04/28:15	04/05:08	09/19:12			
					4.9	4.9	4.8	4.6	3.9			
					02/24:12	10/14:11	03/28:11	07/02:14	01/10:13			

Site ID	POC	County Name / City Name		Methods	Maximum Values					Num Obs	Num Exc	EDT ID
					1st Max	2nd Max	3rd Max	4th Max	5th Max			
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-0010	2	Honolulu	600		21.5	12.9	12.8	9.6	9.4	8157	0	0
		Not in a city			06/20:13	05/03:13	01/29:17	02/24:11	09/19:12			
					9.3	8.0	7.7	7.4	7.0			
					10/14:11	05/05:09	01/27:13	05/04:09	11/23:16			

Sulfur dioxide (42401)

State: Hawaii
Duration: 1 HOUR
Year: 2019

Primary: 75
Secondary:
Unit: Parts per billion

Site ID	POC	County Name / City Name		Methods	Maximum Values					Num Obs	Num Exc	EDT ID
					1st Max	2nd Max	3rd Max	4th Max	5th Max			
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-0010	1	Honolulu	060		15.3	13.4	4.6	3.4	3.3	7762	0	0
		Not in a city			02/09:17	01/06:16	02/11:14	01/25:10	04/03:14			
					3.2	3.1	3.1	3.1	3.0			
					01/15:12	02/22:12	07/09:21	08/13:20	10/18:19			

Feb. 6, 2023

Sulfur dioxide (42401)

State: Hawaii
Duration: 1 HOUR
Year: 2019

Primary: 75
Secondary:
Unit: Parts per billion

Site ID	POC	County Name / City Name	Methods	Maximum Values					Num Obs	Num Exc	EDT ID
				1st Max	2nd Max	3rd Max	4th Max	5th Max			
				6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-0010	2	Honolulu	600	15.8	14.8	11.2	10.9	8.3	8085	0	0
		Not in a city		01/06:16	02/09:17	05/21:08	01/25:09	05/22:15			
				8.0	7.7	7.7	7.7	6.7			
				05/13:13	02/23:17	09/22:11	12/26:17	02/26:08			

Sulfur dioxide (42401)

State: Hawaii
Duration: 1 HOUR
Year: 2020

Primary: 75
Secondary:
Unit: Parts per billion

Site ID	POC	County Name / City Name	Methods	Maximum Values					Num Obs	Num Exc	EDT ID
				1st Max	2nd Max	3rd Max	4th Max	5th Max			
				6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-0010	1	Honolulu	060	8.5	8.3	6.2	5.8	3.9	8262	0	0
		Not in a city		01/24:10	02/23:17	02/09:22	01/30:10	01/29:17			
				3.9	3.8	3.6	3.4	3.3			
				02/11:09	02/24:13	04/19:15	02/07:10	04/18:19			
				Maximum Values							
Site ID	POC	County Name / City Name	Methods	1st Max	2nd Max	3rd Max	4th Max	5th Max	Num Obs	Num Exc	EDT ID
				6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-0010	2	Honolulu	560 600	15.4	15.4	10.9	8.9	8.2	7843	0	0
		Not in a city		01/24:10	02/23:16	10/07:15	07/03:15	06/24:18			
				8.0	7.4	7.3	7.2	6.2			
				02/09:22	07/04:17	10/01:09	05/14:10	04/20:15			

Sulfur dioxide (42401)

State: Hawaii
Duration: 1 HOUR
Year: 2021

Primary: 75
Secondary:
Unit: Parts per billion

Sulfur dioxide (42401)

State: Hawaii
Duration: 1 HOUR
Year: 2021

Primary: 75
Secondary:
Unit: Parts per billion

Site ID	POC	County Name / City Name		Methods	Maximum Values					Num Obs	Num Exc	EDT ID
					1st Max	2nd Max	3rd Max	4th Max	5th Max			
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-0010	1	Honolulu	060		4.0	3.5	2.8	2.8	2.3	5985	0	0
		Not in a city			02/07:13	06/28:18	02/05:10	03/09:12	03/03:15			
					2.2	2.2	2.2	2.1	2.1			
					02/10:16	03/08:03	05/24:06	03/05:07	03/06:02			

Site ID	POC	County Name / City Name		Methods	Maximum Values					Num Obs	Num Exc	EDT ID
					1st Max	2nd Max	3rd Max	4th Max	5th Max			
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-0010	2	Honolulu	560		10.9	9.8	8.7	5.8	5.0	8354	0	0
		Not in a city			02/05:09	05/28:18	06/28:18	02/07:13	06/23:14			
					4.2	3.7	3.5	3.2	3.1			
					02/04:14	02/06:10	04/28:09	08/09:16	06/21:17			

Sulfur dioxide (42401)

State: Hawaii
Duration: 5 MINUTE
Year: 2017

Primary:
Secondary:
Unit: Parts per billion

Site ID	POC	County Name / City Name		Methods	Maximum Values					Num Obs	Num Exc	EDT ID
					1st Max	2nd Max	3rd Max	4th Max	5th Max			
					6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-0010	7	Honolulu	600		28.2	26.7	26.6	25.7	25.0	94362		0
		Not in a city			02/08:11	10/25:11	10/25:11	02/26:18	02/26:18			
					24.1	23.1	22.9	22.7	22.5			
					02/26:18	10/25:11	02/26:17	02/26:17	02/26:17			

Sulfur dioxide (42401)

State: Hawaii
Duration: 5 MINUTE
Year: 2018

Primary:
Secondary:
Unit: Parts per billion

Sulfur dioxide (42401)

State: Hawaii
Duration: 5 MINUTE
Year: 2018
Primary:
Secondary:
Unit: Parts per billion

Maximum Values

Site ID	POC	County Name / City Name	Methods	1st Max	2nd Max	3rd Max	4th Max	5th Max	Num Obs	Num Exc	EDT ID
				6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-0010	7	Honolulu	600	23.5	23.3	23.1	22.9	21.9	101275		0
		Not in a city		06/20:13	06/20:13	06/20:13	06/20:13	06/20:13			
				21.6	21.2	20.7	20.6	19.8			
				06/20:13	06/20:13	06/20:13	06/20:13	06/20:13			

Sulfur dioxide (42401)

State: Hawaii
Duration: 5 MINUTE
Year: 2019
Primary:
Secondary:
Unit: Parts per billion

Maximum Values

Site ID	POC	County Name / City Name	Methods	1st Max	2nd Max	3rd Max	4th Max	5th Max	Num Obs	Num Exc	EDT ID
				6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-0010	7	Honolulu	600	27.6	27.0	24.9	24.2	22.8	104243		0
		Not in a city		01/06:16	01/06:16	01/06:16	01/06:16	01/25:10			
				21.6	21.4	20.7	20.5	20.3			
				01/06:17	02/09:18	01/25:09	01/25:09	01/25:09			

Sulfur dioxide (42401)

State: Hawaii
Duration: 5 MINUTE
Year: 2020
Primary:
Secondary:
Unit: Parts per billion

Maximum Values

Site ID	POC	County Name / City Name	Methods	1st Max	2nd Max	3rd Max	4th Max	5th Max	Num Obs	Num Exc	EDT ID
				6th Max	7th Max	8th Max	9th Max	10th Max			
15-003-0010	7	Honolulu	560 600	32.2	30.4	27.7	26.8	23.0	93923		0
		Not in a city		02/23:16	02/23:16	10/07:15	02/23:16	02/23:16			
				21.8	21.8	21.6	21.3	21.1			
				01/24:10	02/23:16	01/24:10	02/23:16	01/24:10			

UNITED STATES ENVIRONMENTAL PROCTECTION AGENCY
AIR QUALITY SUBSYSTEM
MAXIMUM VALUES REPORT

Feb. 6, 2023

Sulfur dioxide (42401)

State: Hawaii
Duration: 5 MINUTE
Year: 2021

Primary:
Secondary:
Unit: Parts per billion

Maximum Values

Site ID	POC	County Name / City Name	Methods	1st Max / 6th Max	2nd Max / 7th Max	3rd Max / 8th Max	4th Max / 9th Max	5th Max / 10th Max	Num Obs	Num Exc	EDT ID
15-003-0010	7	Honolulu	560	57.4	57.1	56.5	55.8	54.2	76913		0
		Not in a city		06/23:11	06/23:11	06/23:11	06/23:11	06/23:11			
				36.9	33.8	33.4	25.3	24.1			
				06/23:11	06/28:18	06/23:11	06/28:18	02/05:09			

User ID: XJMYOSHIMOTO

DESIGN VALUE REPORT

Report Request ID: 2075939

Report Code: AMP480

Feb. 6, 2023

GEOGRAPHIC SELECTIONS

Tribal Code	State	County	Site	Parameter	POC	City	AQCR	UAR	CBSA	CSA	EPA Region
	15	003	2004								

PROTOCOL SELECTIONS

Parameter Classification	Parameter	Method	Duration
DESIGN VALUE	81102		

SELECTED OPTIONS

Option Type	Option Value
WORKFILE DELIMITER	,
SINGLE EVENT PROCESSING	EXCLUDE REGIONALLY CONCURRED EVENTS
QUARTERLY DATA IN WORKFILE	NO
AGENCY ROLE	PQAO
USER SITE METADATA	STREET ADDRESS
MERGE PDF FILES	YES
USE LINKED SITES	YES

DATE CRITERIA

Start Date	End Date
2017	2021

APPLICABLE STANDARDS

Standard Description
PM10 24-hour 2006

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
PRELIMINARY DESIGN VALUE REPORT

Report Date: Feb. 6, 2023

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Pollutant: PM10 Total 0-10um STP(81102)
Standard Units: Micrograms/cubic meter (25 C)(001)
NAAQS Standard: PM10 24-hour 2006
Statistic: Annual Estimated Days > Standard **Level:** 150

Design Value Year: 2017

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

State Name: Hawaii

			2017				2016				2015				3 - Year	
Site ID	POC	STREET ADDRESS	Exceedances Estimated	Count	#Comp Quarter	Cert& Eval	Exceedances Estimated	Count	#Comp Quarter	Cert& Eval	Exceedances Estimated	Count	#Comp Quarter	Cert& Eval	Estimated Exceedances	Validity Ind.
15-003-2004	3	860 4TH ST, PEARL CITY	0	0	4	Y	0	0	4	N	0	0	4	Y	0	Y

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Pollutant: PM10 Total 0-10um STP(81102)
Standard Units: Micrograms/cubic meter (25 C)(001)
NAAQS Standard: PM10 24-hour 2006
Statistic: Annual Estimated Days > Standard **Level:** 150

Design Value Year: 2018

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

State Name: Hawaii

			2018				2017				2016				3 - Year	
Site ID	POC	STREET ADDRESS	Exceedances Estimated	Count	#Comp Quarter	Cert& Eval	Exceedances Estimated	Count	#Comp Quarter	Cert& Eval	Exceedances Estimated	Count	#Comp Quarter	Cert& Eval	Estimated Exceedances	Validity Ind.
15-003-2004	3	860 4TH ST, PEARL CITY	0	0	4	M	0	0	4	Y	0	0	4	N	0	Y

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Pollutant: PM10 Total 0-10um STP(81102)
Standard Units: Micrograms/cubic meter (25 C)(001)
NAAQS Standard: PM10 24-hour 2006
Statistic: Annual Estimated Days > Standard **Level:** 150

Design Value Year: 2019

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

State Name: Hawaii

			2019				2018				2017				3 - Year	
Site ID	POC	STREET ADDRESS	Exceedances Estimated	Count	#Comp Quarter	Cert& Eval	Exceedances Estimated	Count	#Comp Quarter	Cert& Eval	Exceedances Estimated	Count	#Comp Quarter	Cert& Eval	Estimated Exceedances	Validity Ind.
15-003-2004	3	860 4TH ST, PEARL CITY	0	0	4	N	0	0	4	M	0	0	4	Y	0	Y

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Pollutant: PM10 Total 0-10um STP(81102)
Standard Units: Micrograms/cubic meter (25 C)(001)
NAAQS Standard: PM10 24-hour 2006
Statistic: Annual Estimated Days > Standard **Level:** 150

Design Value Year: 2020

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

State Name: Hawaii

			2020				2019				2018				3 - Year	
Site ID	POC	STREET ADDRESS	Exceedances Estimated	Count	#Comp Quarter	Cert& Eval	Exceedances Estimated	Count	#Comp Quarter	Cert& Eval	Exceedances Estimated	Count	#Comp Quarter	Cert& Eval	Estimated Exceedances	Validity Ind.
15-003-2004	3	860 4TH ST, PEARL CITY	0	0	4	N	0	0	4	N	0	0	4	M	0	Y

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Pollutant: PM10 Total 0-10um STP(81102)
Standard Units: Micrograms/cubic meter (25 C)(001)
NAAQS Standard: PM10 24-hour 2006
Statistic: Annual Estimated Days > Standard **Level:** 150

Design Value Year: 2021

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

State Name: Hawaii

			2021				2020				2019				3 - Year	
Site ID	POC	STREET ADDRESS	Exceedances Estimated	Count	#Comp Quarter	Cert& Eval	Exceedances Estimated	Count	#Comp Quarter	Cert& Eval	Exceedances Estimated	Count	#Comp Quarter	Cert& Eval	Estimated Exceedances	Validity Ind.
15-003-2004	3	860 4TH ST, PEARL CITY	0	0	4	N	0	0	4	N	0	0	4	N	0	Y

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

CERTIFICATION EVALUATION AND CONCURRENCE FLAG MEANINGS

FLAG	MEANING
M	The monitoring organization has revised data from this monitor since the most recent certification letter received from the state.
N	The certifying agency has submitted the certification letter and required summary reports, but the certifying agency and/or EPA has determined that issues regarding the quality of the ambient concentration data cannot be resolved due to data completeness, the lack of performed quality assurance checks or the results of uncertainty statistics shown in the AMP255 report or the certification and quality assurance report.
S	The certifying agency has submitted the certification letter and required summary reports. A value of "S" conveys no Regional assessment regarding data quality per se. This flag will remain until the Region provides an "N" or "Y" concurrence flag.
U	Uncertified. The certifying agency did not submit a required certification letter and summary reports for this monitor even though the due date has passed, or the state's certification letter specifically did not apply the certification to this monitor.
X	Certification is not required by 40 CFR 58.15 and no conditions apply to be the basis for assigning another flag value
Y	The certifying agency has submitted a certification letter, and EPA has no unresolved reservations about data quality (after reviewing the letter, the attached summary reports, the amount of quality assurance data submitted to AQS, the quality statistics, and the highest reported concentrations).

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

User ID: XJMYOSHIMOTO

DESIGN VALUE REPORT

Report Request ID: 2075938

Report Code: AMP480

Feb. 6, 2023

GEOGRAPHIC SELECTIONS

Tribal Code	State	County	Site	Parameter	POC	City	AQCR	UAR	CBSA	CSA	EPA Region
	15	003	2004								

PROTOCOL SELECTIONS

Parameter Classification	Parameter	Method	Duration
DESIGN VALUE	88101		

SELECTED OPTIONS

Option Type	Option Value
WORKFILE DELIMITER	,
SINGLE EVENT PROCESSING	EXCLUDE REGIONALLY CONCURRED EVENTS
QUARTERLY DATA IN WORKFILE	NO
AGENCY ROLE	PQAO
USER SITE METADATA	STREET ADDRESS
MERGE PDF FILES	YES
USE LINKED SITES	YES

DATE CRITERIA

Start Date	End Date
2017	2021

APPLICABLE STANDARDS

Standard Description
PM25 24-hour 2012
PM25 Annual 2012

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
PRELIMINARY DESIGN VALUE REPORT

Report Date: Feb. 6, 2023

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Pollutant: Site-LevelPM2.5 - Local Conditions(88101)
Standard Units: Micrograms/cubic meter (LC)(105)
NAAQS Standard: PM25 24-hour 2012 / PM25 Annual 2012
Statistic: Annual Weighted Mean **Level:** 12
Statistic: Annual 98th Percentile **Level:** 35

Design Value Year: 2017

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

State Name: Hawaii

Site_ID / STREET ADDRESS	2017 Cred. Days	2017 Comp. Qrtrs	2017 98th Perctil	2017 Wtd. Mean	2017 Cert& Eval	2016 Cred. Days	2016 Comp. Qrtrs	2016 98th Perctil	2016 Wtd. Mean	2016 Cert& Eval	2015 Cred. Days	2015 Comp. Qrtrs	2015 98th Perctil	2015 Wtd. Mean	2015 Cert& Eval	24-Hour Design Value	24-Hour Valid Ind.	Annual Design Value	Annual Valid Ind.
15-003-2004 860 4TH ST, PEARL CITY	358	4	14.1	4.4	N	365	4	11.7	2.6	N	353	4	11.4	5.2	N	12	Y	4.1	Y

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Pollutant: Site-LevelPM2.5 - Local Conditions(88101)
Standard Units: Micrograms/cubic meter (LC)(105)
NAAQS Standard: PM25 24-hour 2012 / PM25 Annual 2012
Statistic: Annual Weighted Mean **Level:** 12
Statistic: Annual 98th Percentile **Level:** 35

Design Value Year: 2018

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

State Name: Hawaii

Site_ID / STREET ADDRESS	2018 Cred. Days	2018 Comp. Qrtrs	2018 98th Perctil	2018 Wtd. Mean	2018 Cert& Eval	2017 Cred. Days	2017 Comp. Qrtrs	2017 98th Perctil	2017 Wtd. Mean	2017 Cert& Eval	2016 Cred. Days	2016 Comp. Qrtrs	2016 98th Perctil	2016 Wtd. Mean	2016 Cert& Eval	24-Hour Design Value	24-Hour Valid Ind.	Annual Design Value	Annual Valid Ind.
15-003-2004	349	4	9.1	3.0	M	358	4	14.1	4.4	N	365	4	11.7	2.6	N	12	Y	3.3	Y
860 4TH ST, PEARL CITY																			

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Pollutant: Site-LevelPM2.5 - Local Conditions(88101)
Standard Units: Micrograms/cubic meter (LC)(105)
NAAQS Standard: PM25 24-hour 2012 / PM25 Annual 2012
Statistic: Annual Weighted Mean **Level:** 12
Statistic: Annual 98th Percentile **Level:** 35

Design Value Year: 2019

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

State Name: Hawaii

Site_ID / STREET ADDRESS	2019 Cred. Days	2019 Comp. Qrtrs	2019 98th Perctil	2019 Wtd. Mean	2019 Cert& Eval	2018 Cred. Days	2018 Comp. Qrtrs	2018 98th Perctil	2018 Wtd. Mean	2018 Cert& Eval	2017 Cred. Days	2017 Comp. Qrtrs	2017 98th Perctil	2017 Wtd. Mean	2017 Cert& Eval	24-Hour Design Value	24-Hour Valid Ind.	Annual Design Value	Annual Valid Ind.
15-003-2004 860 4TH ST, PEARL CITY	359	4	6.3	3.3	N	349	4	9.1	3.0	M	358	4	14.1	4.4	N	10	Y	3.5	Y

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Pollutant: Site-LevelPM2.5 - Local Conditions(88101)
Standard Units: Micrograms/cubic meter (LC)(105)
NAAQS Standard: PM25 24-hour 2012 / PM25 Annual 2012
Statistic: Annual Weighted Mean **Level:** 12
Statistic: Annual 98th Percentile **Level:** 35

Design Value Year: 2020

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

State Name: Hawaii

Site_ID / STREET ADDRESS	2020 Cred. Days	2020 Comp. Qrtrs	2020 98th Perctil	2020 Wtd. Mean	2020 Cert& Eval	2019 Cred. Days	2019 Comp. Qrtrs	2019 98th Perctil	2019 Wtd. Mean	2019 Cert& Eval	2018 Cred. Days	2018 Comp. Qrtrs	2018 98th Perctil	2018 Wtd. Mean	2018 Cert& Eval	24-Hour Design Value	24-Hour Valid Ind.	Annual Design Value	Annual Valid Ind.
15-003-2004	345	4	6.2	3.2	Y	359	4	6.3	3.3	N	349	4	9.1	3.0	M	7	Y	3.2	Y
860 4TH ST, PEARL CITY																			

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Pollutant: Site-LevelPM2.5 - Local Conditions(88101)
Standard Units: Micrograms/cubic meter (LC)(105)
NAAQS Standard: PM25 24-hour 2012 / PM25 Annual 2012
Statistic: Annual Weighted Mean **Level:** 12
Statistic: Annual 98th Percentile **Level:** 35

Design Value Year: 2021

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

State Name: Hawaii

Site_ID / STREET ADDRESS	2021					2020					2019					24-Hour		Annual	
	Cred. Days	Comp. Qrtrs	98th Perctil	Wtd. Mean	Cert& Eval	Cred. Days	Comp. Qrtrs	98th Perctil	Wtd. Mean	Cert& Eval	Cred. Days	Comp. Qrtrs	98th Perctil	Wtd. Mean	Cert& Eval	Design Value	Valid Ind.	Design Value	Valid Ind.
15-003-2004 860 4TH ST, PEARL CITY	340	4	6.1	3.2	N	345	4	6.2	3.2	Y	359	4	6.3	3.3	N	6	Y	3.2	Y

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

CERTIFICATION EVALUATION AND CONCURRENCE FLAG MEANINGS

FLAG	MEANING
M	The monitoring organization has revised data from this monitor since the most recent certification letter received from the state.
N	The certifying agency has submitted the certification letter and required summary reports, but the certifying agency and/or EPA has determined that issues regarding the quality of the ambient concentration data cannot be resolved due to data completeness, the lack of performed quality assurance checks or the results of uncertainty statistics shown in the AMP255 report or the certification and quality assurance report.
S	The certifying agency has submitted the certification letter and required summary reports. A value of "S" conveys no Regional assessment regarding data quality per se. This flag will remain until the Region provides an "N" or "Y" concurrence flag.
U	Uncertified. The certifying agency did not submit a required certification letter and summary reports for this monitor even though the due date has passed, or the state's certification letter specifically did not apply the certification to this monitor.
X	Certification is not required by 40 CFR 58.15 and no conditions apply to be the basis for assigning another flag value
Y	The certifying agency has submitted a certification letter, and EPA has no unresolved reservations about data quality (after reviewing the letter, the attached summary reports, the amount of quality assurance data submitted to AQS, the quality statistics, and the highest reported concentrations).

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

User ID: XJMYOSHIMOTO

DESIGN VALUE REPORT

Report Request ID: 2075935

Report Code: AMP480

Feb. 6, 2023

GEOGRAPHIC SELECTIONS

Tribal Code	State	County	Site	Parameter	POC	City	AQCR	UAR	CBSA	CSA	EPA Region
	15	009	0006								

PROTOCOL SELECTIONS

Parameter Classification	Parameter	Method	Duration
DESIGN VALUE	88101		

SELECTED OPTIONS

Option Type	Option Value
WORKFILE DELIMITER	,
SINGLE EVENT PROCESSING	EXCLUDE REGIONALLY CONCURRED EVENTS
QUARTERLY DATA IN WORKFILE	NO
AGENCY ROLE	PQAO
USER SITE METADATA	STREET ADDRESS
MERGE PDF FILES	YES
USE LINKED SITES	YES

DATE CRITERIA

Start Date	End Date
2017	2021

APPLICABLE STANDARDS

Standard Description
PM25 24-hour 2012
PM25 Annual 2012

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
PRELIMINARY DESIGN VALUE REPORT

Report Date: Feb. 6, 2023

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Pollutant: Site-LevelPM2.5 - Local Conditions(88101)
Standard Units: Micrograms/cubic meter (LC)(105)
NAAQS Standard: PM25 24-hour 2012 / PM25 Annual 2012
Statistic: Annual Weighted Mean **Level:** 12
Statistic: Annual 98th Percentile **Level:** 35

Design Value Year: 2017

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

State Name: Hawaii

Site_ID / STREET ADDRESS	2017 Cred. Days	2017 Comp. Qrtrs	2017 98th Perctil	2017 Wtd. Mean	2017 Cert& Eval	2016 Cred. Days	2016 Comp. Qrtrs	2016 98th Perctil	2016 Wtd. Mean	2016 Cert& Eval	2015 Cred. Days	2015 Comp. Qrtrs	2015 98th Perctil	2015 Wtd. Mean	2015 Cert& Eval	24-Hour Design Value	24-Hour Valid Ind.	Annual Design Value	Annual Valid Ind.
15-009-0006 KAIHOI ST AND KAIOLOHIA ST	349	4	11.3	4.1	N	356	4	12.1	3.7	N	306	3	12.9*	4.8*	N	12	Y	4.2	Y

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Pollutant: Site-LevelPM2.5 - Local Conditions(88101)
Standard Units: Micrograms/cubic meter (LC)(105)
NAAQS Standard: PM25 24-hour 2012 / PM25 Annual 2012
Statistic: Annual Weighted Mean **Level:** 12
Statistic: Annual 98th Percentile **Level:** 35

Design Value Year: 2018

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

State Name: Hawaii

Site_ID / STREET ADDRESS	2018					2017					2016					24-Hour		Annual	
	Cred. Days	Comp. Qrtrs	98th Perctil	Wtd. Mean	Cert& Eval	Cred. Days	Comp. Qrtrs	98th Perctil	Wtd. Mean	Cert& Eval	Cred. Days	Comp. Qrtrs	98th Perctil	Wtd. Mean	Cert& Eval	Design Value	Valid Ind.	Design Value	Valid Ind.
15-009-0006	339	4	10.6	4.5	M	349	4	11.3	4.1	N	356	4	12.1	3.7	N	11	Y	4.1	Y
KAIHOI ST AND KAIOLOHIA ST																			

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Pollutant: Site-LevelPM2.5 - Local Conditions(88101)
Standard Units: Micrograms/cubic meter (LC)(105)
NAAQS Standard: PM25 24-hour 2012 / PM25 Annual 2012
Statistic: Annual Weighted Mean **Level:** 12
Statistic: Annual 98th Percentile **Level:** 35

Design Value Year: 2019

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

State Name: Hawaii

Site_ID / STREET ADDRESS	2019 Cred. Days	2019 Comp. Qrtrs	2019 98th Perctil	2019 Wtd. Mean	2019 Cert& Eval	2018 Cred. Days	2018 Comp. Qrtrs	2018 98th Perctil	2018 Wtd. Mean	2018 Cert& Eval	2017 Cred. Days	2017 Comp. Qrtrs	2017 98th Perctil	2017 Wtd. Mean	2017 Cert& Eval	24-Hour Design Value	24-Hour Valid Ind.	Annual Design Value	Annual Valid Ind.
15-009-0006 KAIHOI ST AND KAIOLOHIA ST	357	4	16.9	4.1	N	339	4	10.6	4.5	M	349	4	11.3	4.1	N	13	Y	4.2	Y

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Pollutant: Site-LevelPM2.5 - Local Conditions(88101)
Standard Units: Micrograms/cubic meter (LC)(105)
NAAQS Standard: PM25 24-hour 2012 / PM25 Annual 2012
Statistic: Annual Weighted Mean **Level:** 12
Statistic: Annual 98th Percentile **Level:** 35

Design Value Year: 2020

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

State Name: Hawaii

Site_ID / STREET ADDRESS	2020 Cred. Days	2020 Comp. Qrtrs	2020 98th Perctil	2020 Wtd. Mean	2020 Cert& Eval	2019 Cred. Days	2019 Comp. Qrtrs	2019 98th Perctil	2019 Wtd. Mean	2019 Cert& Eval	2018 Cred. Days	2018 Comp. Qrtrs	2018 98th Perctil	2018 Wtd. Mean	2018 Cert& Eval	24-Hour Design Value	24-Hour Valid Ind.	Annual Design Value	Annual Valid Ind.
15-009-0006 KAIHOI ST AND KAIOLOHIA ST	332	4	7.2	2.9	Y	357	4	16.9	4.1	N	339	4	10.6	4.5	M	12	Y	3.9	Y

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Pollutant: Site-LevelPM2.5 - Local Conditions(88101)
Standard Units: Micrograms/cubic meter (LC)(105)
NAAQS Standard: PM25 24-hour 2012 / PM25 Annual 2012
Statistic: Annual Weighted Mean **Level:** 12
Statistic: Annual 98th Percentile **Level:** 35

Design Value Year: 2021

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

State Name: Hawaii

Site_ID / STREET ADDRESS	2021 Cred. Days	2021 Comp. Qrtrs	2021 98th Perctil	2021 Wtd. Mean	2021 Cert& Eval	2020 Cred. Days	2020 Comp. Qrtrs	2020 98th Perctil	2020 Wtd. Mean	2020 Cert& Eval	2019 Cred. Days	2019 Comp. Qrtrs	2019 98th Perctil	2019 Wtd. Mean	2019 Cert& Eval	24-Hour Design Value	24-Hour Valid Ind.	Annual Design Value	Annual Valid Ind.
15-009-0006 KAIHOI ST AND KAIOLOHIA ST	355	4	5.7	2.5	N	332	4	7.2	2.9	Y	357	4	16.9	4.1	N	10	Y	3.2	Y

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

CERTIFICATION EVALUATION AND CONCURRENCE FLAG MEANINGS

FLAG	MEANING
M	The monitoring organization has revised data from this monitor since the most recent certification letter received from the state.
N	The certifying agency has submitted the certification letter and required summary reports, but the certifying agency and/or EPA has determined that issues regarding the quality of the ambient concentration data cannot be resolved due to data completeness, the lack of performed quality assurance checks or the results of uncertainty statistics shown in the AMP255 report or the certification and quality assurance report.
S	The certifying agency has submitted the certification letter and required summary reports. A value of "S" conveys no Regional assessment regarding data quality per se. This flag will remain until the Region provides an "N" or "Y" concurrence flag.
U	Uncertified. The certifying agency did not submit a required certification letter and summary reports for this monitor even though the due date has passed, or the state's certification letter specifically did not apply the certification to this monitor.
X	Certification is not required by 40 CFR 58.15 and no conditions apply to be the basis for assigning another flag value
Y	The certifying agency has submitted a certification letter, and EPA has no unresolved reservations about data quality (after reviewing the letter, the attached summary reports, the amount of quality assurance data submitted to AQS, the quality statistics, and the highest reported concentrations).

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

User ID: XGSWU

DESIGN VALUE REPORT

Report Request ID: 2076102 Report Code: AMP480 Feb. 6, 2023

GEOGRAPHIC SELECTIONS

Tribal Code	State	County	Site	Parameter	POC	City	AQCR	UAR	CBSA	CSA	EPA Region
	15	007	0007								

PROTOCOL SELECTIONS

Parameter Classification	Parameter	Method	Duration
DESIGN VALUE	88101		

SELECTED OPTIONS

Option Type	Option Value
WORKFILE DELIMITER	,
SINGLE EVENT PROCESSING	EXCLUDE REGIONALLY CONCURRED EVENTS
QUARTERLY DATA IN WORKFILE	NO
AGENCY ROLE	PQAO
USER SITE METADATA	STREET ADDRESS
MERGE PDF FILES	YES
USE LINKED SITES	YES

DATE CRITERIA

Start Date	End Date
2017	2021

APPLICABLE STANDARDS

Standard Description
PM25 24-hour 2012
PM25 Annual 2012

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
PRELIMINARY DESIGN VALUE REPORT

Report Date: Feb. 6, 2023

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Pollutant: Site-LevelPM2.5 - Local Conditions(88101)
Standard Units: Micrograms/cubic meter (LC)(105)
NAAQS Standard: PM25 24-hour 2012 / PM25 Annual 2012
Statistic: Annual Weighted Mean **Level:** 12
Statistic: Annual 98th Percentile **Level:** 35

Design Value Year: 2017

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

State Name: Hawaii

Site_ID / STREET ADDRESS	2017 Cred. Days	2017 Comp. Qrtrs	2017 98th Perctil	2017 Wtd. Mean	2017 Cert& Eval	2016 Cred. Days	2016 Comp. Qrtrs	2016 98th Perctil	2016 Wtd. Mean	2016 Cert& Eval	2015 Cred. Days	2015 Comp. Qrtrs	2015 98th Perctil	2015 Wtd. Mean	2015 Cert& Eval	24-Hour Design Value	24-Hour Valid Ind.	Annual Design Value	Annual Valid Ind.
15-007-0007	350	4	9.0	2.6	N	350	4	9.0	3.5	N	338	4	10.1	3.2	N	9	Y	3.1	Y
2342 HULEMALU ROAD, KAUAI																			

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Pollutant: Site-LevelPM2.5 - Local Conditions(88101)
Standard Units: Micrograms/cubic meter (LC)(105)
NAAQS Standard: PM25 24-hour 2012 / PM25 Annual 2012
Statistic: Annual Weighted Mean **Level:** 12
Statistic: Annual 98th Percentile **Level:** 35

Design Value Year: 2018

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

State Name: Hawaii

Site_ID / STREET ADDRESS	2018					2017					2016					24-Hour		Annual	
	Cred. Days	Comp. Qrtrs	98th Perctil	Wtd. Mean	Cert& Eval	Cred. Days	Comp. Qrtrs	98th Perctil	Wtd. Mean	Cert& Eval	Cred. Days	Comp. Qrtrs	98th Perctil	Wtd. Mean	Cert& Eval	Design Value	Valid Ind.	Design Value	Valid Ind.
15-007-0007	327	4	8.4	2.5	M	350	4	9.0	2.6	N	350	4	9.0	3.5	N	9	Y	2.9	Y
2342 HULEMALU ROAD, KAUAI																			

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Pollutant: Site-LevelPM2.5 - Local Conditions(88101)
Standard Units: Micrograms/cubic meter (LC)(105)
NAAQS Standard: PM25 24-hour 2012 / PM25 Annual 2012
Statistic: Annual Weighted Mean **Level:** 12
Statistic: Annual 98th Percentile **Level:** 35

Design Value Year: 2019

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

State Name: Hawaii

Site_ID / STREET ADDRESS	2019					2018					2017					24-Hour		Annual	
	Cred. Days	Comp. Qrtrs	98th Perctil	Wtd. Mean	Cert& Eval	Cred. Days	Comp. Qrtrs	98th Perctil	Wtd. Mean	Cert& Eval	Cred. Days	Comp. Qrtrs	98th Perctil	Wtd. Mean	Cert& Eval	Design Value	Valid Ind.	Design Value	Valid Ind.
15-007-0007	340	4	7.5	2.9	N	327	4	8.4	2.5	M	350	4	9.0	2.6	N	8	Y	2.7	Y
2342 HULEMALU ROAD, KAUAI																			

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Pollutant: Site-LevelPM2.5 - Local Conditions(88101)
Standard Units: Micrograms/cubic meter (LC)(105)
NAAQS Standard: PM25 24-hour 2012 / PM25 Annual 2012
Statistic: Annual Weighted Mean **Level:** 12
Statistic: Annual 98th Percentile **Level:** 35

Design Value Year: 2020

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

State Name: Hawaii

Site_ID / STREET ADDRESS	2020					2019					2018					24-Hour		Annual	
	Cred. Days	Comp. Qrtrs	98th Perctil	Wtd. Mean	Cert& Eval	Cred. Days	Comp. Qrtrs	98th Perctil	Wtd. Mean	Cert& Eval	Cred. Days	Comp. Qrtrs	98th Perctil	Wtd. Mean	Cert& Eval	Design Value	Valid Ind.	Design Value	Valid Ind.
15-007-0007	322	3	8.3	3.2*	Y	340	4	7.5	2.9	N	327	4	8.4	2.5	M	8	Y	2.9	Y
2342 HULEMALU ROAD, KAUAI																			

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Pollutant: Site-LevelPM2.5 - Local Conditions(88101)
Standard Units: Micrograms/cubic meter (LC)(105)
NAAQS Standard: PM25 24-hour 2012 / PM25 Annual 2012
Statistic: Annual Weighted Mean **Level:** 12
Statistic: Annual 98th Percentile **Level:** 35

Design Value Year: 2021

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

State Name: Hawaii

Site_ID / STREET ADDRESS	2021 Cred. Days	2021 Comp. Qrtrs	2021 98th Perctil	2021 Wtd. Mean	2021 Cert& Eval	2020 Cred. Days	2020 Comp. Qrtrs	2020 98th Perctil	2020 Wtd. Mean	2020 Cert& Eval	2019 Cred. Days	2019 Comp. Qrtrs	2019 98th Perctil	2019 Wtd. Mean	2019 Cert& Eval	24-Hour Design Value	24-Hour Valid Ind.	Annual Design Value	Annual Valid Ind.
15-007-0007	342	4	7.2	3.2	N	322	3	8.3	3.2 *	Y	340	4	7.5	2.9	N	8	Y	3.1	Y
2342 HULEMALU ROAD, KAUAI																			

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

CERTIFICATION EVALUATION AND CONCURRENCE FLAG MEANINGS

FLAG	MEANING
M	The monitoring organization has revised data from this monitor since the most recent certification letter received from the state.
N	The certifying agency has submitted the certification letter and required summary reports, but the certifying agency and/or EPA has determined that issues regarding the quality of the ambient concentration data cannot be resolved due to data completeness, the lack of performed quality assurance checks or the results of uncertainty statistics shown in the AMP255 report or the certification and quality assurance report.
S	The certifying agency has submitted the certification letter and required summary reports. A value of "S" conveys no Regional assessment regarding data quality per se. This flag will remain until the Region provides an "N" or "Y" concurrence flag.
U	Uncertified. The certifying agency did not submit a required certification letter and summary reports for this monitor even though the due date has passed, or the state's certification letter specifically did not apply the certification to this monitor.
X	Certification is not required by 40 CFR 58.15 and no conditions apply to be the basis for assigning another flag value
Y	The certifying agency has submitted a certification letter, and EPA has no unresolved reservations about data quality (after reviewing the letter, the attached summary reports, the amount of quality assurance data submitted to AQS, the quality statistics, and the highest reported concentrations).

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

User ID: XGSWU

DESIGN VALUE REPORT

Report Request ID: 2076104 Report Code: AMP480 Feb. 6, 2023

GEOGRAPHIC SELECTIONS

Tribal Code	State	County	Site	Parameter	POC	City	AQCR	UAR	CBSA	CSA	EPA Region
	15	007	0007								

PROTOCOL SELECTIONS

Parameter Classification	Parameter	Method	Duration
DESIGN VALUE	42602		

SELECTED OPTIONS

Option Type	Option Value
WORKFILE DELIMITER	,
SINGLE EVENT PROCESSING	EXCLUDE REGIONALLY CONCURRED EVENTS
QUARTERLY DATA IN WORKFILE	NO
AGENCY ROLE	PQAO
USER SITE METADATA	STREET ADDRESS
MERGE PDF FILES	YES
USE LINKED SITES	YES

DATE CRITERIA

Start Date	End Date
2017	2021

APPLICABLE STANDARDS

Standard Description
NO2 1-hour 2010

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
PRELIMINARY DESIGN VALUE REPORT

Report Date: Feb. 6, 2023

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Pollutant: Nitrogen dioxide (NO2)
Standard Units: Parts per billion(008)
NAAQS Standard: NO2 1-hour 2010
Statistic: Annual 98th Percentile **Level:** 100

Design Value Year: 2017

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

State Name: Hawaii

		2017			2016			2015			3-Year	
Site ID	STREET ADDRESS	Comp. Qtrs	98th Percentile	Cert& Eval	Comp. Qtrs	98th Percentile	Cert& Eval	Comp. Qtrs	98th Percentile	Cert& Eval	Design Value	DV Validity Indicator
15-007-0007	2342 HULEMALU ROAD, KAU	1	31.2	N	1	34.2	N	3	31.6	Y	32	N

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Pollutant: Nitrogen dioxide (NO2)
Standard Units: Parts per billion(008)
NAAQS Standard: NO2 1-hour 2010
Statistic: Annual 98th Percentile **Level:** 100

Design Value Year: 2018

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

State Name: Hawaii

		2018			2017			2016			3-Year	
Site ID	STREET ADDRESS	Comp. Qtrs	98th Percentile	Cert& Eval	Comp. Qtrs	98th Percentile	Cert& Eval	Comp. Qtrs	98th Percentile	Cert& Eval	Design Value	DV Validity Indicator
15-007-0007	2342 HULEMALU ROAD, KAU	4	39.3	M	1	31.2	N	1	34.2	N	35	N

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Pollutant: Nitrogen dioxide (NO2)
Standard Units: Parts per billion(008)
NAAQS Standard: NO2 1-hour 2010
Statistic: Annual 98th Percentile **Level:** 100

Design Value Year: 2019

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

State Name: Hawaii

		2019			2018			2017			3-Year	
Site ID	STREET ADDRESS	Comp. Qtrs	98th Percentile	Cert& Eval	Comp. Qtrs	98th Percentile	Cert& Eval	Comp. Qtrs	98th Percentile	Cert& Eval	Design Value	DV Validity Indicator
15-007-0007	2342 HULEMALU ROAD, KAU	4	38.0	Y	4	39.3	M	1	31.2	N	36	Y

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Pollutant: Nitrogen dioxide (NO2)
Standard Units: Parts per billion(008)
NAAQS Standard: NO2 1-hour 2010
Statistic: Annual 98th Percentile **Level:** 100

Design Value Year: 2020

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

State Name: Hawaii

		2020			2019			2018			3-Year	
Site ID	STREET ADDRESS	Comp. Qtrs	98th Percentile	Cert& Eval	Comp. Qtrs	98th Percentile	Cert& Eval	Comp. Qtrs	98th Percentile	Cert& Eval	Design Value	DV Validity Indicator
15-007-0007	2342 HULEMALU ROAD, KAU	4	33.8	Y	4	38.0	Y	4	39.3	M	37	Y

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Pollutant: Nitrogen dioxide (NO2)
Standard Units: Parts per billion(008)
NAAQS Standard: NO2 1-hour 2010
Statistic: Annual 98th Percentile **Level:** 100

Design Value Year: 2021

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

State Name: Hawaii

		2021			2020			2019			3-Year	
Site ID	STREET ADDRESS	Comp. Qtrs	98th Percentile	Cert& Eval	Comp. Qtrs	98th Percentile	Cert& Eval	Comp. Qtrs	98th Percentile	Cert& Eval	Design Value	DV Validity Indicator
15-007-0007	2342 HULEMALU ROAD, KAU	4	13.8	N	4	33.8	Y	4	38.0	Y	29	Y

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

CERTIFICATION EVALUATION AND CONCURRENCE FLAG MEANINGS

FLAG	MEANING
M	The monitoring organization has revised data from this monitor since the most recent certification letter received from the state.
N	The certifying agency has submitted the certification letter and required summary reports, but the certifying agency and/or EPA has determined that issues regarding the quality of the ambient concentration data cannot be resolved due to data completeness, the lack of performed quality assurance checks or the results of uncertainty statistics shown in the AMP255 report or the certification and quality assurance report.
S	The certifying agency has submitted the certification letter and required summary reports. A value of "S" conveys no Regional assessment regarding data quality per se. This flag will remain until the Region provides an "N" or "Y" concurrence flag.
U	Uncertified. The certifying agency did not submit a required certification letter and summary reports for this monitor even though the due date has passed, or the state's certification letter specifically did not apply the certification to this monitor.
X	Certification is not required by 40 CFR 58.15 and no conditions apply to be the basis for assigning another flag value
Y	The certifying agency has submitted a certification letter, and EPA has no unresolved reservations about data quality (after reviewing the letter, the attached summary reports, the amount of quality assurance data submitted to AQS, the quality statistics, and the highest reported concentrations).

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

User ID: XJMYOSHIMOTO

DESIGN VALUE REPORT

Report Request ID: 2075933

Report Code: AMP480

Feb. 6, 2023

GEOGRAPHIC SELECTIONS

Tribal Code	State	County	Site	Parameter	POC	City	AQCR	UAR	CBSA	CSA	EPA Region
	15	003	0010								

PROTOCOL SELECTIONS

Parameter Classification	Parameter	Method	Duration
DESIGN VALUE	42401		

SELECTED OPTIONS

Option Type	Option Value
WORKFILE DELIMITER	,
SINGLE EVENT PROCESSING	EXCLUDE REGIONALLY CONCURRED EVENTS
QUARTERLY DATA IN WORKFILE	NO
AGENCY ROLE	PQAO
USER SITE METADATA	STREET ADDRESS
MERGE PDF FILES	YES
USE LINKED SITES	YES

DATE CRITERIA

Start Date	End Date
2017	2021

APPLICABLE STANDARDS

Standard Description
SO2 1-hour 2010

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
PRELIMINARY DESIGN VALUE REPORT

Report Date: Feb. 6, 2023

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Pollutant: Sulfur dioxide(42401)
Standard Units: Parts per billion(008)
NAAQS Standard: SO2 1-hour 2010
Statistic: Annual 99th Percentile **Level:** 75

Design Value Year: 2017

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

State Name: Hawaii

		2017			2016			2015			3-Year	
Site ID	STREET ADDRESS	Comp. Qrtrs	99th Percentile	Cert& Eval	Comp. Qrtrs	99th Percentile	Cert& Eval	Comp. Qrtrs	99th Percentile	Cert& Eval	Design Value	Valid Ind.
15-003-0010	2052 LAUWILIWILI ST	4	8.3	Y	4	8.4	Y	4	15.0	Y	11	Y

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Pollutant: Sulfur dioxide(42401)
Standard Units: Parts per billion(008)
NAAQS Standard: SO2 1-hour 2010
Statistic: Annual 99th Percentile **Level:** 75

Design Value Year: 2018

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

State Name: Hawaii

		2018			2017			2016			3-Year	
Site ID	STREET ADDRESS	Comp. Qrtrs	99th Percentile	Cert& Eval	Comp. Qrtrs	99th Percentile	Cert& Eval	Comp. Qrtrs	99th Percentile	Cert& Eval	Design Value	Valid Ind.
15-003-0010	2052 LAUWILIWILI ST	4	6.2	M	4	8.3	Y	4	8.4	Y	8	Y

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Pollutant: Sulfur dioxide(42401)
Standard Units: Parts per billion(008)
NAAQS Standard: SO2 1-hour 2010
Statistic: Annual 99th Percentile **Level:** 75

Design Value Year: 2019

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

State Name: Hawaii

		2019			2018			2017			3-Year	
Site ID	STREET ADDRESS	Comp. Qrtrs	99th Percentile	Cert& Eval	Comp. Qrtrs	99th Percentile	Cert& Eval	Comp. Qrtrs	99th Percentile	Cert& Eval	Design Value	Valid Ind.
15-003-0010	2052 LAUWILIWILI ST	4	10.9	Y	4	6.2	M	4	8.3	Y	8	Y

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Pollutant: Sulfur dioxide(42401)
Standard Units: Parts per billion(008)
NAAQS Standard: SO2 1-hour 2010
Statistic: Annual 99th Percentile **Level:** 75

Design Value Year: 2020

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

State Name: Hawaii

		2020			2019			2018			3-Year	
Site ID	STREET ADDRESS	Comp. Qrtrs	99th Percentile	Cert& Eval	Comp. Qrtrs	99th Percentile	Cert& Eval	Comp. Qrtrs	99th Percentile	Cert& Eval	Design Value	Valid Ind.
15-003-0010	2052 LAUWILIWILI ST	4	5.8	Y	4	10.9	Y	4	6.2	M	8	Y

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

Pollutant: Sulfur dioxide(42401)
Standard Units: Parts per billion(008)
NAAQS Standard: SO2 1-hour 2010
Statistic: Annual 99th Percentile **Level:** 75

Design Value Year: 2021

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

State Name: Hawaii

		2021			2020			2019			3-Year	
Site ID	STREET ADDRESS	Comp. Qrtrs	99th Percentile	Cert& Eval	Comp. Qrtrs	99th Percentile	Cert& Eval	Comp. Qrtrs	99th Percentile	Cert& Eval	Design Value	Valid Ind.
15-003-0010	2052 LAUWILIWILI ST	4	5.8	N	4	5.8	Y	4	10.9	Y	8	Y

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

CERTIFICATION EVALUATION AND CONCURRENCE FLAG MEANINGS

FLAG	MEANING
M	The monitoring organization has revised data from this monitor since the most recent certification letter received from the state.
N	The certifying agency has submitted the certification letter and required summary reports, but the certifying agency and/or EPA has determined that issues regarding the quality of the ambient concentration data cannot be resolved due to data completeness, the lack of performed quality assurance checks or the results of uncertainty statistics shown in the AMP255 report or the certification and quality assurance report.
S	The certifying agency has submitted the certification letter and required summary reports. A value of "S" conveys no Regional assessment regarding data quality per se. This flag will remain until the Region provides an "N" or "Y" concurrence flag.
U	Uncertified. The certifying agency did not submit a required certification letter and summary reports for this monitor even though the due date has passed, or the state's certification letter specifically did not apply the certification to this monitor.
X	Certification is not required by 40 CFR 58.15 and no conditions apply to be the basis for assigning another flag value
Y	The certifying agency has submitted a certification letter, and EPA has no unresolved reservations about data quality (after reviewing the letter, the attached summary reports, the amount of quality assurance data submitted to AQS, the quality statistics, and the highest reported concentrations).

Notes: 1. Computed design values are a snapshot of the data at the time the report was run (may not be all data for year).
2. Some PM2.5 24-hour DVs for incomplete data that are marked invalid here may be marked valid in the Official report due to additional analysis.
3. Annual Values not meeting completeness criteria are marked with an asterisk ('*').

User ID: XGSWU

DATA COMPLETENESS REPORT

Report Request ID: 2076018 Report Code: AMP430 Feb. 6, 2023

GEOGRAPHIC SELECTIONS

Tribal Code	State	County	Site	Parameter	POC	City	AQCR	UAR	CBSA	CSA	EPA Region
	15	003	2004								

PROTOCOL SELECTIONS

Parameter Classification	Parameter	Method	Duration
CRITERIA			

SELECTED OPTIONS

Option Type	Option Value
AGENCY ROLE	REPORTING
OZONE EVALUATION	SEASONAL-HOURLY
MERGE PDF FILES	YES

SORT ORDER

Order	Column
1	EPA_REGION
2	STATE_CODE
3	MONITOR_TYPE
4	COUNTY_CODE
5	SITE_ID
6	PARAMETER_CODE
7	POC

DATE CRITERIA

Start Date	End Date
2017 01	2017 12

APPLICABLE STANDARDS

Standard Description
CO 1-hour 1971
Lead 3-Month 2009
Lead 3-Month PM10 Surrogate 2009
NO2 Annual 1971
Ozone 1-hour 1979
PM10 24-hour 2006
PM25 Annual 2012
SO2 1-hour 2010

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
DATA COMPLETENESS REPORT

Feb. 6, 2023

MONITORS NOT REPORTING

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
DATA COMPLETENESS REPORT

Feb. 6, 2023

MONITORS REPORTING

DATE RANGE: JAN. 01, 2017 THRU DEC. 31, 2017
REGION: (09) SAN FRANCISCO
STATE: Hawaii

REP ORG: Hawaii State Department Of Health
MONITOR TYPE: SLAMS

SITE ID / CITY / ADDRESS	PARAMETER	POC	DURATION / METHOD	OBSERVATIONS NUMBER / PERCENT JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
15-003-2004	81102 PM10 Total 0-10um STP	3	1	736	669	729	704	734	596	676	735	712	658	715	742	8406
Pearl City			122	99%	100%	98%	98%	99%	83%	91%	99%	99%	88%	99%	100%	96%
860 4TH ST, PEARL CITY																
15-003-2004	88101 PM2.5 - Local Conditions	4	1	739	666	742	719	741	717	740	731	691	742	620	742	8590
Pearl City			170	99%	99%	100%	100%	100%	100%	99%	98%	96%	100%	86%	100%	98%
860 4TH ST, PEARL CITY																

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
DATA COMPLETENESS REPORT

Feb. 6, 2023

REPORT SUMMARY

DATE RANGE: JAN. 01, 2017 THRU DEC. 31, 2017
REGION: (09) SAN FRANCISCO
STATE: Hawaii
REP ORG: Hawaii State Department Of Health
MONITOR TYPE: SLAMS

PARAMETER	ACTIVE MONITORS	# NOT REPORTING	# MONITORS > 75%	MONITORS AVG COMPLETENESS
81102 PM10 Total 0-10um STP	1	0	1	96.0%
88101 PM2.5 - Local Conditions	1	0	1	98.0%
MT SUMMARY: SLAMS	2	0	2	97.0%
RO SUMMARY: Hawaii State Department Of Health	2	0	2	97.0%
STATE SUMMARY: Hawaii	2	0	2	97.0%
REGION SUMMARY: (09) SAN FRANCISCO	2	0	2	97.0%
REPORT SUMMARY:	2	0	2	97.0%

User ID: XGSWU

DATA COMPLETENESS REPORT

Report Request ID: 2076032 Report Code: AMP430 Feb. 6, 2023

GEOGRAPHIC SELECTIONS

Tribal Code	State	County	Site	Parameter	POC	City	AQCR	UAR	CBSA	CSA	EPA Region
	15	003	2004								

PROTOCOL SELECTIONS

Parameter Classification	Parameter	Method	Duration
CRITERIA			

SELECTED OPTIONS

Option Type	Option Value
AGENCY ROLE	REPORTING
OZONE EVALUATION	SEASONAL-HOURLY
MERGE PDF FILES	YES

SORT ORDER

Order	Column
1	EPA_REGION
2	STATE_CODE
3	MONITOR_TYPE
4	COUNTY_CODE
5	SITE_ID
6	PARAMETER_CODE
7	POC

DATE CRITERIA

Start Date	End Date
2018 01	2018 12

APPLICABLE STANDARDS

Standard Description
CO 1-hour 1971
Lead 3-Month 2009
Lead 3-Month PM10 Surrogate 2009
NO2 Annual 1971
Ozone 1-hour 1979
PM10 24-hour 2006
PM25 Annual 2012
SO2 1-hour 2010

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
DATA COMPLETENESS REPORT

Feb. 6, 2023

MONITORS NOT REPORTING

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
DATA COMPLETENESS REPORT

Feb. 6, 2023

MONITORS REPORTING

DATE RANGE: JAN. 01, 2018 THRU DEC. 31, 2018
REGION: (09) SAN FRANCISCO
STATE: Hawaii
REP ORG: Hawaii State Department Of Health
MONITOR TYPE: SLAMS

SITE ID / CITY / ADDRESS	PARAMETER	POC	DURATION / METHOD	OBSERVATIONS NUMBER / PERCENT JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
15-003-2004	81102 PM10 Total 0-10um STP	3	1	730	660	738	711	733	713	737	622	711	697	715	734	8501
Pearl City			122	98%	98%	99%	99%	99%	99%	99%	84%	99%	94%	99%	99%	97%
860 4TH ST, PEARL CITY																
15-003-2004	88101 PM2.5 - Local Conditions	4	1	729	666	739	717	731	714	724	621	699	707	658	676	8381
Pearl City			170	98%	99%	99%	100%	98%	99%	97%	83%	97%	95%	91%	91%	96%
860 4TH ST, PEARL CITY																

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
DATA COMPLETENESS REPORT

Feb. 6, 2023

REPORT SUMMARY

DATE RANGE: JAN. 01, 2018 THRU DEC. 31, 2018
REGION: (09) SAN FRANCISCO
STATE: Hawaii
REP ORG: Hawaii State Department Of Health
MONITOR TYPE: SLAMS

PARAMETER	ACTIVE MONITORS	# NOT REPORTING	# MONITORS > 75%	MONITORS AVG COMPLETENESS
81102 PM10 Total 0-10um STP	1	0	1	97.0%
88101 PM2.5 - Local Conditions	1	0	1	96.0%
MT SUMMARY: SLAMS	2	0	2	96.5%
RO SUMMARY: Hawaii State Department Of Health	2	0	2	96.5%
STATE SUMMARY: Hawaii	2	0	2	96.5%
REGION SUMMARY: (09) SAN FRANCISCO	2	0	2	96.5%
REPORT SUMMARY:	2	0	2	96.5%

User ID: XGSWU

DATA COMPLETENESS REPORT

Report Request ID: 2076044 Report Code: AMP430 Feb. 6, 2023

GEOGRAPHIC SELECTIONS

Tribal Code	State	County	Site	Parameter	POC	City	AQCR	UAR	CBSA	CSA	EPA Region
	15	003	2004								

PROTOCOL SELECTIONS

Parameter Classification	Parameter	Method	Duration
CRITERIA			

SELECTED OPTIONS

Option Type	Option Value
AGENCY ROLE	REPORTING
OZONE EVALUATION	SEASONAL-HOURLY
MERGE PDF FILES	YES

SORT ORDER

Order	Column
1	EPA_REGION
2	STATE_CODE
3	MONITOR_TYPE
4	COUNTY_CODE
5	SITE_ID
6	PARAMETER_CODE
7	POC

DATE CRITERIA

Start Date	End Date
2019 01	2019 12

APPLICABLE STANDARDS

Standard Description
CO 1-hour 1971
Lead 3-Month 2009
Lead 3-Month PM10 Surrogate 2009
NO2 Annual 1971
Ozone 1-hour 1979
PM10 24-hour 2006
PM25 Annual 2012
SO2 1-hour 2010

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
DATA COMPLETENESS REPORT

Feb. 6, 2023

MONITORS NOT REPORTING

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
DATA COMPLETENESS REPORT

Feb. 6, 2023

MONITORS REPORTING

DATE RANGE: JAN. 01, 2019 THRU DEC. 31, 2019
REGION: (09) SAN FRANCISCO
STATE: Hawaii
REP ORG: Hawaii State Department Of Health
MONITOR TYPE: SLAMS

SITE ID / CITY / ADDRESS	PARAMETER	POC	DURATION / METHOD	OBSERVATIONS NUMBER / PERCENT JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
15-003-2004	81102 PM10 Total 0-10um STP	3	1	715	656	737	717	738	709	735	728	708	735	711	731	8620
Pearl City			122	96%	98%	99%	100%	99%	98%	99%	98%	98%	99%	99%	98%	98%
860 4TH ST, PEARL CITY																
15-003-2004	88101 PM2.5 - Local Conditions	4	1	741	653	741	718	730	715	740	738	646	742	716	739	8619
Pearl City			000	100%	97%	100%	100%	98%	99%	99%	99%	90%	100%	99%	99%	98%
860 4TH ST, PEARL CITY																

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
DATA COMPLETENESS REPORT

Feb. 6, 2023

REPORT SUMMARY

DATE RANGE: JAN. 01, 2019 THRU DEC. 31, 2019
REGION: (09) SAN FRANCISCO
STATE: Hawaii
REP ORG: Hawaii State Department Of Health
MONITOR TYPE: SLAMS

PARAMETER	ACTIVE MONITORS	# NOT REPORTING	# MONITORS > 75%	MONITORS AVG COMPLETENESS
81102 PM10 Total 0-10um STP	1	0	1	98.0%
88101 PM2.5 - Local Conditions	1	0	1	98.0%
MT SUMMARY: SLAMS	2	0	2	98.0%
RO SUMMARY: Hawaii State Department Of Health	2	0	2	98.0%
STATE SUMMARY: Hawaii	2	0	2	98.0%
REGION SUMMARY: (09) SAN FRANCISCO	2	0	2	98.0%
REPORT SUMMARY:	2	0	2	98.0%

User ID: XGSWU

DATA COMPLETENESS REPORT

Report Request ID: 2076047 Report Code: AMP430 Feb. 6, 2023

GEOGRAPHIC SELECTIONS

Tribal Code	State	County	Site	Parameter	POC	City	AQCR	UAR	CBSA	CSA	EPA Region
	15	003	2004								

PROTOCOL SELECTIONS

Parameter Classification	Parameter	Method	Duration
CRITERIA			

SELECTED OPTIONS

Option Type	Option Value
AGENCY ROLE	REPORTING
OZONE EVALUATION	SEASONAL-HOURLY
MERGE PDF FILES	YES

SORT ORDER

Order	Column
1	EPA_REGION
2	STATE_CODE
3	MONITOR_TYPE
4	COUNTY_CODE
5	SITE_ID
6	PARAMETER_CODE
7	POC

DATE CRITERIA

Start Date	End Date
2020 01	2020 12

APPLICABLE STANDARDS

Standard Description
CO 1-hour 1971
Lead 3-Month 2009
Lead 3-Month PM10 Surrogate 2009
NO2 Annual 1971
Ozone 1-hour 1979
PM10 24-hour 2006
PM25 Annual 2012
SO2 1-hour 2010

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
DATA COMPLETENESS REPORT

Feb. 6, 2023

MONITORS NOT REPORTING

DATE RANGE: JAN. 01, 2020 THRU DEC. 31, 2020
REGION: (09) SAN FRANCISCO
STATE: Hawaii
REP ORG: Hawaii State Department Of Health
MONITOR TYPE: SLAMS

SITE ID	PARAMETER	POC	CITY	ADDRESS
15-003-2004	88101 PM2.5 - Local Conditions	5	Pearl City	860 4TH ST, PEARL CITY

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
DATA COMPLETENESS REPORT

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MONITORS REPORTING

DATE RANGE: JAN. 01, 2020 THRU DEC. 31, 2020
REGION: (09) SAN FRANCISCO
STATE: Hawaii
REP ORG: Hawaii State Department Of Health
MONITOR TYPE: SLAMS

SITE ID / CITY / ADDRESS	PARAMETER	POC	DURATION / METHOD	OBSERVATIONS NUMBER / PERCENT JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
15-003-2004	81102 PM10 Total 0-10um STP	3	1	739	686	730	692	632	679	728	733	703	704	711	733	8470
Pearl City			122	99%	99%	98%	96%	85%	94%	98%	99%	98%	95%	99%	99%	96%
860 4TH ST, PEARL CITY																
15-003-2004	88101 PM2.5 - Local Conditions	4	1	712	351	737	711	734	714	735	739	713	741	658	724	8269
Pearl City			209	96%	50%	99%	99%	99%	99%	99%	99%	99%	100%	91%	97%	94%
860 4TH ST, PEARL CITY																
15-003-2004	88101 PM2.5 - Local Conditions	6	7				0	4	4	4	2	5	4	5	2	30
Pearl City			142				0%	80%	80%	80%	33%	100%	80%	100%	40%	65%
860 4TH ST, PEARL CITY																

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
DATA COMPLETENESS REPORT

Feb. 6, 2023

REPORT SUMMARY

DATE RANGE: JAN. 01, 2020 THRU DEC. 31, 2020
REGION: (09) SAN FRANCISCO
STATE: Hawaii
REP ORG: Hawaii State Department Of Health
MONITOR TYPE: SLAMS

PARAMETER	ACTIVE MONITORS	# NOT REPORTING	# MONITORS > 75%	MONITORS AVG COMPLETENESS
81102 PM10 Total 0-10um STP	1	0	1	96.0%
88101 PM2.5 - Local Conditions	3	1	1	53.0%
MT SUMMARY: SLAMS	4	1	2	63.8%
RO SUMMARY: Hawaii State Department Of Health	4	1	2	63.8%
STATE SUMMARY: Hawaii	4	1	2	63.8%
REGION SUMMARY: (09) SAN FRANCISCO	4	1	2	63.8%
REPORT SUMMARY:	4	1	2	63.8%

User ID: XGSWU

DATA COMPLETENESS REPORT

Report Request ID: 2076048 Report Code: AMP430 Feb. 6, 2023

GEOGRAPHIC SELECTIONS

Tribal Code	State	County	Site	Parameter	POC	City	AQCR	UAR	CBSA	CSA	EPA Region
	15	003	2004								

PROTOCOL SELECTIONS

Parameter Classification	Parameter	Method	Duration
CRITERIA			

SELECTED OPTIONS

Option Type	Option Value
AGENCY ROLE	REPORTING
OZONE EVALUATION	SEASONAL-HOURLY
MERGE PDF FILES	YES

SORT ORDER

Order	Column
1	EPA_REGION
2	STATE_CODE
3	MONITOR_TYPE
4	COUNTY_CODE
5	SITE_ID
6	PARAMETER_CODE
7	POC

DATE CRITERIA

Start Date	End Date
2021 01	2021 12

APPLICABLE STANDARDS

Standard Description
CO 1-hour 1971
Lead 3-Month 2009
Lead 3-Month PM10 Surrogate 2009
NO2 Annual 1971
Ozone 1-hour 1979
PM10 24-hour 2006
PM25 Annual 2012
SO2 1-hour 2010

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
DATA COMPLETENESS REPORT

Feb. 6, 2023

MONITORS NOT REPORTING

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
DATA COMPLETENESS REPORT

Feb. 6, 2023

MONITORS REPORTING

DATE RANGE: JAN. 01, 2021 THRU DEC. 31, 2021
REGION: (09) SAN FRANCISCO
STATE: Hawaii
REP ORG: Hawaii State Department Of Health
MONITOR TYPE: SLAMS

SITE ID / CITY / ADDRESS	PARAMETER	POC	DURATION / METHOD	OBSERVATIONS NUMBER / PERCENT JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
15-003-2004	81102 PM10 Total 0-10um STP	3	1	735	662	589	713	736	701	737	726	700	725	710	501	8235
Pearl City			122	99%	99%	79%	99%	99%	97%	99%	98%	97%	97%	99%	67%	94%
860 4TH ST, PEARL CITY																
15-003-2004	88101 PM2.5 - Local Conditions	4	1	742	601	541	716	741	712	738	741	718	741	393	738	8122
Pearl City			209	100%	89%	73%	99%	100%	99%	99%	100%	100%	100%	55%	99%	93%
860 4TH ST, PEARL CITY																
15-003-2004	88101 PM2.5 - Local Conditions	6	7	3	4	4	3	5	4	5	5	5	6	5	5	54
Pearl City			142	60%	80%	80%	60%	100%	80%	100%	100%	100%	100%	100%	100%	89%
860 4TH ST, PEARL CITY																

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
DATA COMPLETENESS REPORT

Feb. 6, 2023

REPORT SUMMARY

DATE RANGE: JAN. 01, 2021 THRU DEC. 31, 2021
REGION: (09) SAN FRANCISCO
STATE: Hawaii
REP ORG: Hawaii State Department Of Health
MONITOR TYPE: SLAMS

PARAMETER	ACTIVE MONITORS	# NOT REPORTING	# MONITORS > 75%	MONITORS AVG COMPLETENESS
81102 PM10 Total 0-10um STP	1	0	1	94.0%
88101 PM2.5 - Local Conditions	2	0	2	91.0%
MT SUMMARY: SLAMS	3	0	3	92.0%
RO SUMMARY: Hawaii State Department Of Health	3	0	3	92.0%
STATE SUMMARY: Hawaii	3	0	3	92.0%
REGION SUMMARY: (09) SAN FRANCISCO	3	0	3	92.0%
REPORT SUMMARY:	3	0	3	92.0%

User ID: XGSWU

DATA COMPLETENESS REPORT

Report Request ID: 2076083 Report Code: AMP430 Feb. 6, 2023

GEOGRAPHIC SELECTIONS

Tribal Code	State	County	Site	Parameter	POC	City	AQCR	UAR	CBSA	CSA	EPA Region
	15	003	0010	42101							
	15	003	0010	42401							
	15	009	0006	88101							
	15	007	0007	42602							
	15	007	0007	88101							

PROTOCOL SELECTIONS

Parameter Classification	Parameter	Method	Duration
CRITERIA			

SELECTED OPTIONS

Option Type	Option Value
AGENCY ROLE	REPORTING
OZONE EVALUATION	SEASONAL-HOURLY
MERGE PDF FILES	YES

SORT ORDER

Order	Column
1	EPA_REGION
2	STATE_CODE
3	MONITOR_TYPE
4	COUNTY_CODE
5	SITE_ID
6	PARAMETER_CODE
7	POC

DATE CRITERIA

Start Date	End Date
2017 01	2017 12

APPLICABLE STANDARDS

Standard Description
CO 1-hour 1971
Lead 3-Month 2009
Lead 3-Month PM10 Surrogate 2009
NO2 Annual 1971
Ozone 1-hour 1979
PM10 24-hour 2006
PM25 Annual 2012
SO2 1-hour 2010

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
DATA COMPLETENESS REPORT

Feb. 6, 2023

MONITORS NOT REPORTING

MONITORS REPORTING

DATE RANGE: JAN. 01, 2017 THRU DEC. 31, 2017
REGION: (09) SAN FRANCISCO
STATE: Hawaii

REP ORG: Hawaii State Department Of Health
MONITOR TYPE: SLAMS

SITE ID / CITY / ADDRESS	PARAMETER		POC	DURATION / METHOD	OBSERVATIONS NUMBER / PERCENT JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
15-003-0010	42101	Carbon monoxide	1	1	705	640	704	640	708	676	705	706	688	655	681	699	8207
				093	95%	95%	95%	89%	95%	94%	95%	95%	96%	88%	95%	94%	94%
2052 LAUWILIWILI ST																	
15-003-0010	42101	Carbon monoxide	2	1	733	450	727	133	665	701	683	739	652	721	713	736	7653
				593	99%	67%	98%	18%	89%	97%	92%	99%	91%	97%	99%	99%	87%
2052 LAUWILIWILI ST																	
15-003-0010	42401	Sulfur dioxide	1	1	693	640	704	672	708	680	705	704	688	655	681	704	8234
				060	93%	95%	95%	93%	95%	94%	95%	95%	96%	88%	95%	95%	94%
2052 LAUWILIWILI ST																	
15-003-0010	42401	Sulfur dioxide	2	1	695	273	726	154	631	548	661	597	698	726	712	734	7155
				600	93%	41%	98%	21%	85%	76%	89%	80%	97%	98%	99%	99%	82%
2052 LAUWILIWILI ST																	
15-003-0010	42401	Sulfur dioxide	7	H	5486	8028	8726	4790	7762	8532	8207	8296	8412	8728	8566	8829	94362
				600	61%	100%	98%	55%	87%	99%	92%	93%	97%	98%	99%	99%	90%
2052 LAUWILIWILI ST																	
15-009-0006	88101	PM2.5 - Local Conditions	2	1	737	653	728	668	738	715	735	739	575	726	719	662	8395
Kihei				170	99%	97%	98%	93%	99%	99%	99%	99%	80%	98%	100%	89%	96%
KAIHOI ST AND KAIOLOHIA ST																	

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
DATA COMPLETENESS REPORT

Feb. 6, 2023

MONITORS REPORTING

DATE RANGE: JAN. 01, 2017 THRU DEC. 31, 2017
REGION: (09) SAN FRANCISCO
STATE: Hawaii
REP ORG: Hawaii State Department Of Health
MONITOR TYPE: SPM

SITE ID / CITY / ADDRESS	PARAMETER	POC	DURATION / METHOD	OBSERVATIONS NUMBER / PERCENT												
				JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
15-007-0007	42602 Nitrogen dioxide (NO2)	1	1	710	495		258	415	711	533	734	684	59	642	738	5979
			000	95%	74%		36%	56%	99%	72%	99%	95%	8%	89%	99%	68%
2342 HULEMALU ROAD, KAUAI																
15-007-0007	88101 PM2.5 - Local Conditions	1	1	738	658	741	606	737	571	720	713	704	741	714	741	8384
			170	99%	98%	100%	84%	99%	79%	97%	96%	98%	100%	99%	100%	96%
2342 HULEMALU ROAD, KAUAI																

Feb. 6, 2023

REPORT SUMMARY

DATE RANGE: JAN. 01, 2017 THRU DEC. 31, 2017
REGION: (09) SAN FRANCISCO
STATE: Hawaii
REP ORG: Hawaii State Department Of Health
MONITOR TYPE: SLAMS

PARAMETER		ACTIVE MONITORS	# NOT REPORTING	# MONITORS > 75%	MONITORS AVG COMPLETENESS
42101	Carbon monoxide	2	0	2	90.5%
42401	Sulfur dioxide	3	0	3	88.7%
88101	PM2.5 - Local Conditions	1	0	1	96.0%
MT SUMMARY:	SLAMS	6	0	6	90.5%

MONITOR TYPE: SPM

PARAMETER		ACTIVE MONITORS	# NOT REPORTING	# MONITORS > 75%	MONITORS AVG COMPLETENESS
42602	Nitrogen dioxide (NO2)	1	0	0	68.0%
88101	PM2.5 - Local Conditions	1	0	1	96.0%
MT SUMMARY:	SPM	2	0	1	82.0%
RO SUMMARY:	Hawaii State Department Of Health	8	0	7	88.4%
STATE SUMMARY:	Hawaii	8	0	7	88.4%
REGION SUMMARY:	(09) SAN FRANCISCO	8	0	7	88.4%
REPORT SUMMARY:		8	0	7	88.4%

User ID: XGSWU

DATA COMPLETENESS REPORT

Report Request ID: 2076079 Report Code: AMP430 Feb. 6, 2023

GEOGRAPHIC SELECTIONS

Tribal Code	State	County	Site	Parameter	POC	City	AQCR	UAR	CBSA	CSA	EPA Region
	15	003	0010	42101							
	15	003	0010	42401							
	15	009	0006	88101							
	15	007	0007	42602							
	15	007	0007	88101							

PROTOCOL SELECTIONS

Parameter Classification	Parameter	Method	Duration
CRITERIA			

SELECTED OPTIONS

Option Type	Option Value
AGENCY ROLE	REPORTING
OZONE EVALUATION	SEASONAL-HOURLY
MERGE PDF FILES	YES

SORT ORDER

Order	Column
1	EPA_REGION
2	STATE_CODE
3	MONITOR_TYPE
4	COUNTY_CODE
5	SITE_ID
6	PARAMETER_CODE
7	POC

DATE CRITERIA

Start Date	End Date
2018 01	2018 12

APPLICABLE STANDARDS

Standard Description
CO 1-hour 1971
Lead 3-Month 2009
Lead 3-Month PM10 Surrogate 2009
NO2 Annual 1971
Ozone 1-hour 1979
PM10 24-hour 2006
PM25 Annual 2012
SO2 1-hour 2010

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
DATA COMPLETENESS REPORT

Feb. 6, 2023

MONITORS NOT REPORTING

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
DATA COMPLETENESS REPORT

Feb. 6, 2023

MONITORS REPORTING

DATE RANGE: JAN. 01, 2018 THRU DEC. 31, 2018
REGION: (09) SAN FRANCISCO
STATE: Hawaii
REP ORG: Hawaii State Department Of Health
MONITOR TYPE: SLAMS

SITE ID / CITY / ADDRESS	PARAMETER		POC	DURATION / METHOD	OBSERVATIONS NUMBER / PERCENT JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
15-003-0010	42101	Carbon monoxide	1	1	713	486	689	679	708	706	730	582	686	671	693	715	8058
				093	96%	72%	93%	94%	95%	98%	98%	78%	95%	90%	96%	96%	92%
2052 LAUWILIWILI ST																	
15-003-0010	42101	Carbon monoxide	2	1	738	665	651	713	691	715	713	623	702	579	703	712	8205
				593	99%	99%	88%	99%	93%	99%	96%	84%	98%	78%	98%	96%	94%
2052 LAUWILIWILI ST																	
15-003-0010	42401	Sulfur dioxide	1	1	715	645	689	703	724	706	730	582	686	668	693	715	8256
				060	96%	96%	93%	98%	97%	98%	98%	78%	95%	90%	96%	96%	94%
2052 LAUWILIWILI ST																	
15-003-0010	42401	Sulfur dioxide	2	1	736	661	727	710	690	712	597	624	703	583	702	712	8157
				600	99%	98%	98%	99%	93%	99%	80%	84%	98%	78%	98%	96%	93%
2052 LAUWILIWILI ST																	
15-003-0010	42401	Sulfur dioxide	7	H	8857	7964	8744	8544	8858	8567	8845	7504	8450	7642	8445	8855	101275
				600	99%	99%	98%	99%	99%	99%	99%	84%	98%	86%	98%	99%	96%
2052 LAUWILIWILI ST																	
15-009-0006	88101	PM2.5 - Local Conditions	2	1	533	582	742	718	741	718	581	727	714	731	709	633	8129
Kihei				170	72%	87%	100%	100%	100%	100%	78%	98%	99%	98%	98%	85%	93%
KAIHOI ST AND KAIOLOHIA ST																	

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
DATA COMPLETENESS REPORT

Feb. 6, 2023

MONITORS REPORTING

DATE RANGE: JAN. 01, 2018 THRU DEC. 31, 2018
REGION: (09) SAN FRANCISCO
STATE: Hawaii
REP ORG: Hawaii State Department Of Health
MONITOR TYPE: SPM

SITE ID / CITY / ADDRESS	PARAMETER	POC	DURATION / METHOD	OBSERVATIONS NUMBER / PERCENT												
				JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
15-007-0007	42602 Nitrogen dioxide (NO2)	1	1	702	657	644	700	726	691	722	728	682	624	548	564	7988
			212	94%	98%	87%	97%	98%	96%	97%	98%	95%	84%	76%	76%	91%
2342 HULEMALU ROAD, KAUAI																
15-007-0007	88101 PM2.5 - Local Conditions	1	1	412	664	737	544	738	717	619	736	720	714	568	641	7810
			170	55%	99%	99%	76%	99%	100%	83%	99%	100%	96%	79%	86%	89%
2342 HULEMALU ROAD, KAUAI																

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
DATA COMPLETENESS REPORT

Feb. 6, 2023

REPORT SUMMARY

DATE RANGE: JAN. 01, 2018 THRU DEC. 31, 2018
REGION: (09) SAN FRANCISCO
STATE: Hawaii
REP ORG: Hawaii State Department Of Health
MONITOR TYPE: SLAMS

PARAMETER		ACTIVE MONITORS	# NOT REPORTING	# MONITORS > 75%	MONITORS AVG COMPLETENESS
42101	Carbon monoxide	2	0	2	93.0%
42401	Sulfur dioxide	3	0	3	94.3%
88101	PM2.5 - Local Conditions	1	0	1	93.0%
MT SUMMARY:	SLAMS	6	0	6	93.7%

MONITOR TYPE: SPM

PARAMETER		ACTIVE MONITORS	# NOT REPORTING	# MONITORS > 75%	MONITORS AVG COMPLETENESS
42602	Nitrogen dioxide (NO2)	1	0	1	91.0%
88101	PM2.5 - Local Conditions	1	0	1	89.0%
MT SUMMARY:	SPM	2	0	2	90.0%
RO SUMMARY:	Hawaii State Department Of Health	8	0	8	92.8%
STATE SUMMARY:	Hawaii	8	0	8	92.8%
REGION SUMMARY:	(09) SAN FRANCISCO	8	0	8	92.8%
REPORT SUMMARY:		8	0	8	92.8%

User ID: XGSWU

DATA COMPLETENESS REPORT

Report Request ID: 2076057 Report Code: AMP430 Feb. 6, 2023

GEOGRAPHIC SELECTIONS

Tribal Code	State	County	Site	Parameter	POC	City	AQCR	UAR	CBSA	CSA	EPA Region
	15	003	0010	42101							
	15	003	0010	42401							
	15	009	0006	88101							
	15	007	0007	42602							
	15	007	0007	88101							

PROTOCOL SELECTIONS

Parameter Classification	Parameter	Method	Duration
CRITERIA			

SELECTED OPTIONS

Option Type	Option Value
AGENCY ROLE	REPORTING
OZONE EVALUATION	SEASONAL-HOURLY
MERGE PDF FILES	YES

SORT ORDER

Order	Column
1	EPA_REGION
2	STATE_CODE
3	MONITOR_TYPE
4	COUNTY_CODE
5	SITE_ID
6	PARAMETER_CODE
7	POC

DATE CRITERIA

Start Date	End Date
2019 01	2019 12

APPLICABLE STANDARDS

Standard Description
CO 1-hour 1971
Lead 3-Month 2009
Lead 3-Month PM10 Surrogate 2009
NO2 Annual 1971
Ozone 1-hour 1979
PM10 24-hour 2006
PM25 Annual 2012
SO2 1-hour 2010

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
DATA COMPLETENESS REPORT

Feb. 6, 2023

MONITORS NOT REPORTING

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
DATA COMPLETENESS REPORT

Feb. 6, 2023

MONITORS REPORTING

DATE RANGE: JAN. 01, 2019 THRU DEC. 31, 2019
REGION: (09) SAN FRANCISCO
STATE: Hawaii
REP ORG: Hawaii State Department Of Health
MONITOR TYPE: SLAMS

SITE ID / CITY / ADDRESS	PARAMETER		POC	DURATION / METHOD	OBSERVATIONS NUMBER / PERCENT JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
15-003-0010	42101	Carbon monoxide	1	1	718	646	725	696	728	699	719	715	695	718	690	721	8470
				093	97%	96%	97%	97%	98%	97%	97%	96%	97%	97%	96%	97%	97%
2052 LAUWILIWILI ST																	
15-003-0010	42101	Carbon monoxide	2	1	728	642	685	711	711	694	716	720	712	695	381	734	8129
				593	98%	96%	92%	99%	96%	96%	96%	97%	99%	93%	53%	99%	93%
2052 LAUWILIWILI ST																	
15-003-0010	42401	Sulfur dioxide	1	1	718	558	488	696	728	699	719	715	692	553	480	716	7762
				060	97%	83%	66%	97%	98%	97%	97%	96%	96%	74%	67%	96%	89%
2052 LAUWILIWILI ST																	
15-003-0010	42401	Sulfur dioxide	2	1	727	644	714	711	712	672	723	728	715	673	331	735	8085
				600	98%	96%	96%	99%	96%	93%	97%	98%	99%	90%	46%	99%	92%
2052 LAUWILIWILI ST																	
15-003-0010	42401	Sulfur dioxide	7	H	8856	7980	8856	8545	8832	8595	8825	8866	8590	8888	8563	8847	104243
				600	99%	99%	99%	99%	99%	99%	99%	99%	99%	100%	99%	99%	99%
2052 LAUWILIWILI ST																	
15-009-0006	88101	PM2.5 - Local Conditions	2	1	711	632	743	718	741	669	724	742	717	741	715	738	8591
Kihei				000	96%	94%	100%	100%	100%	93%	97%	100%	100%	100%	99%	99%	98%
KAIHOI ST AND KAIOLOHIA ST																	

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
DATA COMPLETENESS REPORT

Feb. 6, 2023

MONITORS REPORTING

DATE RANGE: JAN. 01, 2019 THRU DEC. 31, 2019
REGION: (09) SAN FRANCISCO
STATE: Hawaii
REP ORG: Hawaii State Department Of Health
MONITOR TYPE: SPM

SITE ID / CITY / ADDRESS	PARAMETER	POC	DURATION / METHOD	OBSERVATIONS NUMBER / PERCENT												
				JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
15-007-0007	42602 Nitrogen dioxide (NO2)	1	1	724	651	730	696	722	675	705	718	693	706	679	691	8390
			212	97%	97%	98%	97%	97%	94%	95%	97%	96%	95%	94%	93%	96%
2342 HULEMALU ROAD, KAUAI																
15-007-0007	88101 PM2.5 - Local Conditions	1	1	741	668	630	370	741	716	738	739	712	736	712	707	8210
			000	100%	99%	85%	51%	100%	99%	99%	99%	99%	99%	99%	95%	94%
2342 HULEMALU ROAD, KAUAI																

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
DATA COMPLETENESS REPORT

Feb. 6, 2023

REPORT SUMMARY

DATE RANGE: JAN. 01, 2019 THRU DEC. 31, 2019
REGION: (09) SAN FRANCISCO
STATE: Hawaii
REP ORG: Hawaii State Department Of Health
MONITOR TYPE: SLAMS

PARAMETER		ACTIVE MONITORS	# NOT REPORTING	# MONITORS > 75%	MONITORS AVG COMPLETENESS
42101	Carbon monoxide	2	0	2	95.0%
42401	Sulfur dioxide	3	0	3	93.3%
88101	PM2.5 - Local Conditions	1	0	1	98.0%
MT SUMMARY:	SLAMS	6	0	6	94.7%

MONITOR TYPE: SPM

PARAMETER		ACTIVE MONITORS	# NOT REPORTING	# MONITORS > 75%	MONITORS AVG COMPLETENESS
42602	Nitrogen dioxide (NO2)	1	0	1	96.0%
88101	PM2.5 - Local Conditions	1	0	1	94.0%
MT SUMMARY:	SPM	2	0	2	95.0%
RO SUMMARY:	Hawaii State Department Of Health	8	0	8	94.8%
STATE SUMMARY:	Hawaii	8	0	8	94.8%
REGION SUMMARY:	(09) SAN FRANCISCO	8	0	8	94.8%
REPORT SUMMARY:		8	0	8	94.8%

User ID: XGSWU

DATA COMPLETENESS REPORT

Report Request ID: 2076056 Report Code: AMP430 Feb. 6, 2023

GEOGRAPHIC SELECTIONS

Tribal Code	State	County	Site	Parameter	POC	City	AQCR	UAR	CBSA	CSA	EPA Region
	15	003	0010	42101							
	15	003	0010	42401							
	15	009	0006	88101							
	15	007	0007	42602							
	15	007	0007	88101							

PROTOCOL SELECTIONS

Parameter Classification	Parameter	Method	Duration
CRITERIA			

SELECTED OPTIONS

Option Type	Option Value
AGENCY ROLE	REPORTING
OZONE EVALUATION	SEASONAL-HOURLY
MERGE PDF FILES	YES

SORT ORDER

Order	Column
1	EPA_REGION
2	STATE_CODE
3	MONITOR_TYPE
4	COUNTY_CODE
5	SITE_ID
6	PARAMETER_CODE
7	POC

DATE CRITERIA

Start Date	End Date
2020 01	2020 12

APPLICABLE STANDARDS

Standard Description
CO 1-hour 1971
Lead 3-Month 2009
Lead 3-Month PM10 Surrogate 2009
NO2 Annual 1971
Ozone 1-hour 1979
PM10 24-hour 2006
PM25 Annual 2012
SO2 1-hour 2010

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
DATA COMPLETENESS REPORT

Feb. 6, 2023

MONITORS NOT REPORTING

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
DATA COMPLETENESS REPORT

Feb. 6, 2023

MONITORS REPORTING

DATE RANGE: JAN. 01, 2020 THRU DEC. 31, 2020
REGION: (09) SAN FRANCISCO
STATE: Hawaii
REP ORG: Hawaii State Department Of Health
MONITOR TYPE: SLAMS

SITE ID / CITY / ADDRESS	PARAMETER		POC	DURATION / METHOD	OBSERVATIONS NUMBER / PERCENT JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
15-003-0010	42101	Carbon monoxide	1	1	726	678	715	695	727	697	728	724	693	719	693	720	8515
				093	98%	97%	96%	97%	98%	97%	98%	97%	96%	97%	96%	97%	97%
2052 LAUWILIWILI ST																	
15-003-0010	42101	Carbon monoxide	2	1	694	692	739	712	735	715	712	739	713	737	665	715	8568
				593	93%	99%	99%	99%	99%	99%	96%	99%	99%	99%	92%	96%	98%
2052 LAUWILIWILI ST																	
15-003-0010	42401	Sulfur dioxide	1	1	720	678	713	692	723	697	728	724	468	713	690	716	8262
				060	97%	97%	96%	96%	97%	97%	98%	97%	65%	96%	96%	96%	94%
2052 LAUWILIWILI ST																	
15-003-0010	42401	Sulfur dioxide	2	1	712	691	716	701	734	714	734	601	131	737	640	732	7843
				000	96%	99%	96%	97%	99%	99%	99%	81%	18%	99%	89%	98%	89%
2052 LAUWILIWILI ST																	
15-003-0010	42401	Sulfur dioxide	7	H	8837	8308	7359	8238	8855	8579	8826	7194	1574	8852	8496	8805	93923
				000	99%	99%	82%	95%	99%	99%	99%	81%	18%	99%	98%	99%	89%
2052 LAUWILIWILI ST																	
15-009-0006	88101	PM2.5 - Local Conditions	2	1	741	310	740	718	736	709	628	737	714	654	536	739	7962
Kihei				209	100%	45%	99%	100%	99%	98%	84%	99%	99%	88%	74%	99%	91%
KAIHOI ST AND KAIOLOHIA ST																	

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
DATA COMPLETENESS REPORT

Feb. 6, 2023

MONITORS REPORTING

DATE RANGE: JAN. 01, 2020 THRU DEC. 31, 2020
REGION: (09) SAN FRANCISCO
STATE: Hawaii
REP ORG: Hawaii State Department Of Health
MONITOR TYPE: SPM

SITE ID / CITY / ADDRESS	PARAMETER	POC	DURATION / METHOD	OBSERVATIONS NUMBER / PERCENT												
				JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
15-007-0007	42602 Nitrogen dioxide (NO2)	1	1	728	675	719	701	728	696	728	721	697	728	697	710	8528
			212	98%	97%	97%	97%	98%	97%	98%	97%	97%	98%	97%	95%	97%
2342 HULEMALU ROAD, KAUAI																
15-007-0007	88101 PM2.5 - Local Conditions	1	1	716	615	741	714	738	715	735	720	60	554	715	736	7759
			209	96%	88%	100%	99%	99%	99%	99%	97%	8%	74%	99%	99%	88%
2342 HULEMALU ROAD, KAUAI																

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
DATA COMPLETENESS REPORT

Feb. 6, 2023

REPORT SUMMARY

DATE RANGE: JAN. 01, 2020 THRU DEC. 31, 2020
REGION: (09) SAN FRANCISCO
STATE: Hawaii
REP ORG: Hawaii State Department Of Health
MONITOR TYPE: SLAMS

PARAMETER		ACTIVE MONITORS	# NOT REPORTING	# MONITORS > 75%	MONITORS AVG COMPLETENESS
42101	Carbon monoxide	2	0	2	97.5%
42401	Sulfur dioxide	3	0	3	90.7%
88101	PM2.5 - Local Conditions	1	0	1	91.0%
MT SUMMARY:	SLAMS	6	0	6	93.0%

MONITOR TYPE: SPM

PARAMETER		ACTIVE MONITORS	# NOT REPORTING	# MONITORS > 75%	MONITORS AVG COMPLETENESS
42602	Nitrogen dioxide (NO2)	1	0	1	97.0%
88101	PM2.5 - Local Conditions	1	0	1	88.0%
MT SUMMARY:	SPM	2	0	2	92.5%
RO SUMMARY:	Hawaii State Department Of Health	8	0	8	92.9%
STATE SUMMARY:	Hawaii	8	0	8	92.9%
REGION SUMMARY:	(09) SAN FRANCISCO	8	0	8	92.9%
REPORT SUMMARY:		8	0	8	92.9%

User ID: XGSWU

DATA COMPLETENESS REPORT

Report Request ID: 2076055 Report Code: AMP430 Feb. 6, 2023

GEOGRAPHIC SELECTIONS

Tribal Code	State	County	Site	Parameter	POC	City	AQCR	UAR	CBSA	CSA	EPA Region
	15	003	0010	42101							
	15	003	0010	42401							
	15	009	0006	88101							
	15	007	0007	42602							
	15	007	0007	88101							

PROTOCOL SELECTIONS

Parameter Classification	Parameter	Method	Duration
CRITERIA			

SELECTED OPTIONS

Option Type	Option Value
AGENCY ROLE	REPORTING
OZONE EVALUATION	SEASONAL-HOURLY
MERGE PDF FILES	YES

SORT ORDER

Order	Column
1	EPA_REGION
2	STATE_CODE
3	MONITOR_TYPE
4	COUNTY_CODE
5	SITE_ID
6	PARAMETER_CODE
7	POC

DATE CRITERIA

Start Date	End Date
2021 01	2021 12

APPLICABLE STANDARDS

Standard Description
CO 1-hour 1971
Lead 3-Month 2009
Lead 3-Month PM10 Surrogate 2009
NO2 Annual 1971
Ozone 1-hour 1979
PM10 24-hour 2006
PM25 Annual 2012
SO2 1-hour 2010

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
DATA COMPLETENESS REPORT

Feb. 6, 2023

MONITORS NOT REPORTING

MONITORS REPORTING

DATE RANGE: JAN. 01, 2021 THRU DEC. 31, 2021
REGION: (09) SAN FRANCISCO
STATE: Hawaii

REP ORG: Hawaii State Department Of Health
MONITOR TYPE: SLAMS

SITE ID / CITY / ADDRESS	PARAMETER		POC	DURATION / METHOD	OBSERVATIONS NUMBER / PERCENT JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
15-003-0010	42101	Carbon monoxide	1	1	726	656	724	704	717	700	728	724	681	724	694	675	8453
				093	98%	98%	97%	98%	96%	97%	98%	97%	95%	97%	96%	91%	96%
2052 LAUWILIWILI ST																	
15-003-0010	42101	Carbon monoxide	2	1	697	504	700	700	704	677	736	738	650	743	720	675	8244
				593	94%	75%	94%	97%	95%	94%	99%	99%	90%	100%	100%	91%	94%
2052 LAUWILIWILI ST																	
15-003-0010	42401	Sulfur dioxide	1	1	560	656	724	704	717	700	728	724	275			197	5985
				060	75%	98%	97%	98%	96%	97%	98%	97%	38%			26%	68%
2052 LAUWILIWILI ST																	
15-003-0010	42401	Sulfur dioxide	2	1	702	649	678	679	726	689	734	738	709	642	710	698	8354
				560	94%	97%	91%	94%	98%	96%	99%	99%	98%	86%	99%	94%	95%
2052 LAUWILIWILI ST																	
15-003-0010	42401	Sulfur dioxide	7	H	8842	7995	8847	8538	8862	8563	531	18	16	7729	8537	8435	76913
				560	99%	99%	99%	99%	99%	99%	6%	0%	0%	87%	99%	94%	73%
2052 LAUWILIWILI ST																	
15-009-0006	88101	PM2.5 - Local Conditions	2	1	737	666	740	710	728	711	733	736	714	565	713	729	8482
Kihei				209	99%	99%	99%	99%	98%	99%	99%	99%	99%	76%	99%	98%	97%
KAIHOI ST AND KAIOLOHIA ST																	

Feb. 6, 2023

MONITORS REPORTING

DATE RANGE: JAN. 01, 2021 THRU DEC. 31, 2021
REGION: (09) SAN FRANCISCO
STATE: Hawaii

REP ORG: Hawaii State Department Of Health
MONITOR TYPE: SPM

SITE ID / CITY / ADDRESS	PARAMETER	POC	DURATION / METHOD	OBSERVATIONS NUMBER / PERCENT												
				JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
15-007-0007	42602 Nitrogen dioxide (NO2)	1	1	728	618	708	703	717	704	674	692	475	720	695	715	8149
			212	98%	92%	95%	98%	96%	98%	91%	93%	66%	97%	97%	96%	93%
2342 HULEMALU ROAD, KAUAI																
15-007-0007	88101 PM2.5 - Local Conditions	1	1	736	526	736	713	737	712	737	734	716	404	709	733	8193
			209	99%	78%	99%	99%	99%	99%	99%	99%	99%	54%	98%	99%	94%
2342 HULEMALU ROAD, KAUAI																

REPORT SUMMARY

DATE RANGE: JAN. 01, 2021 THRU DEC. 31, 2021
REGION: (09) SAN FRANCISCO
STATE: Hawaii
REP ORG: Hawaii State Department Of Health
MONITOR TYPE: SLAMS

PARAMETER	ACTIVE MONITORS	# NOT REPORTING	# MONITORS > 75%	MONITORS AVG COMPLETENESS
42101 Carbon monoxide	2	0	2	95.0%
42401 Sulfur dioxide	3	0	1	78.7%
88101 PM2.5 - Local Conditions	1	0	1	97.0%
MT SUMMARY: SLAMS	6	0	4	87.2%

MONITOR TYPE: SPM

PARAMETER	ACTIVE MONITORS	# NOT REPORTING	# MONITORS > 75%	MONITORS AVG COMPLETENESS
42602 Nitrogen dioxide (NO2)	1	0	1	93.0%
88101 PM2.5 - Local Conditions	1	0	1	94.0%
MT SUMMARY: SPM	2	0	2	93.5%
RO SUMMARY: Hawaii State Department Of Health	8	0	6	88.8%
STATE SUMMARY: Hawaii	8	0	6	88.8%
REGION SUMMARY: (09) SAN FRANCISCO	8	0	6	88.8%
REPORT SUMMARY:	8	0	6	88.8%

EPA Approval Letter

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

October 30, 2023

Marianne Rossio, P.E.
Manager, Clean Air Branch
Hawaii Department of Health
P.O. Box 3378
Honolulu, Hawaii 96801

Dear Manager Rossio:

Thank you for your submission of the State of Hawaii *2023 Air Monitoring Network Plan* on June 26, 2023. We have reviewed the submitted document based on the requirements set forth in 40 CFR Part 58. Based on the information provided in the plan, the U.S. Environmental Protection Agency (EPA) approves all portions of the network plan except those specifically identified below.

Please note that we cannot approve portions of the annual network plan for which the information in the plan is insufficient to judge whether the requirement has been met, or for which the information provided does not meet the requirements as specified in 40 CFR 58.10 and the associated appendices. EPA Region 9 also cannot approve portions of the plan for which the EPA Administrator has not delegated approval authority to the regional offices. Enclosure A (*A. Annual Monitoring Network Plan Checklist*) is the checklist EPA used to review your plan for items that are required to be included in the annual network plan along with our assessment of whether the plan submitted by your agency addresses those requirements. Items highlighted in yellow are those EPA Region 9 is not acting on, as we either lack the authority to approve the specific item, or we have determined that a requirement is either not met or information in the plan is insufficient to judge whether the requirement has been met. Please note that we are not acting on the following system modifications: the discontinuation of the $PM_{2.5}$ monitor at Honaunau (AQS ID: 15-003-3032), the discontinuation of Pearl City (AQS ID: 15-003-2004) PM_{10} and $PM_{2.5}$ monitors, the discontinuation of Kihei (AQS ID: 15-009-0006) $PM_{2.5}$ monitor, the discontinuation of Niumalu (AQS ID: 15-007-0007) $PM_{2.5}$ and NO_2 monitors, and the discontinuation of Kapolei (AQS ID: 15-003-0010) CO and SO_2 monitors. Items highlighted in green in Enclosure A require attention in order to improve next year's plan. All comments conveyed via this letter and enclosure should be addressed prior to submittal of next year's annual monitoring network plan to EPA.

Additionally, EPA supports state and local government partners in advancing environmental justice efforts while ensuring compliance with applicable civil rights laws. To this end, we see an opportunity for all monitoring organizations to address and advance environmental justice in their annual network plans. Through the development and implementation of annual network plans, activities to advance environmental justice could include identifying monitoring sites in or near communities with environmental justice concerns, describing how environmental justice is considered in network design,

considering environmental justice factors in siting, relocating, or discontinuing air monitors, and engaging with specific communities when plans are out for public comment. EPA encourages monitoring organizations to continue considering these issues throughout the year, and to convey yearly updates to the public and EPA on these important areas through the annual network plan process. EPA's EJSCREEN mapping and screening tool, including the environmental justice indexes and demographic indicators, may be useful in support of these efforts.[1] We also encourage you to provide us with any suggestions or requests that could further advance environmental justice in your ambient air monitoring programs.

If you have any questions regarding this letter or the enclosure, please feel free to contact me at (415) 972-3134 or Julia Carlstad at (415) 947-4107.

Sincerely,

Dena Vallano, Manager
Monitoring and Analysis Section

Enclosure:
A. Annual Monitoring Network Plan Checklist

cc (via email): Lisa Young, HDOH
Lisa Wallace, HDOH

[1] U.S. EPA. 2022. EJScreen: Environmental Justice Screening and Mapping Tool, Version 2.0, https://www.epa.gov/ejscreen.

A. ANNUAL MONITORING NETWORK PLAN CHECKLIST
(Updated July 25, 2023)

Year: 2023
Agency: Hawaii Department of Health (HDOH)

40 CFR 58.10(a)(1) requires that each Annual Network Plan (ANP) shall provide for the documentation of the establishment and maintenance of an air quality surveillance system that consists of a network of SLAMS monitoring stations that can include FRM, FEM, and ARM monitors that are part of SLAMS, NCore, CSN, PAMS, and SPM stations.

40 CFR 58.10(a)(1) further directs that, "The plan shall include a statement of whether the operation of each monitor meets the requirements of appendices A, B, C, D, and E of this part, where applicable. The Regional Administrator may require additional information in support of this statement." On this basis, review of the ANPs is based on the requirements listed in 58.10 along with those in Appendices A, C, D, and E.

EPA Region 9 will not take action to approve or disapprove any item for which Part 58 grants approval authority to the Administrator rather than the Regional Administrators, but we will do a check to see if the required information is included and correct. The items requiring approval by the Administrator are: NCore, and Speciation (STN/CSN).

Please note that this checklist summarizes many of the requirements of 40 CFR Part 58, but does not substitute for those requirements, nor do its contents provide a binding determination of compliance with those requirements. The checklist is subject to revision in the future and we welcome comments on its contents and structure.

Key:

White	meets the requirement
Yellow	requirement is not met, or information is insufficient to make a determination. Action requested in next year's plan or outside the ANP process.
Green	item requires attention in order to improve next year's plan.

	ANP requirement	Citation within 40 CFR 58[2]	Was the information submitted?[3] If yes, section or page #s.	Does the information provided[4] meet the requirement?[5]	Notes
GENERAL PLAN REQUIREMENTS					
1.	Submit plan by July 1st	58.10 (a)(1)	Y, via email	Y	
2.	30-day public comment / inspection period	58.10 (a)(1); 58.10 (c)	Y, Appendix A	Y	
3.	Statement of whether the operation of each monitor meets the requirements of appendices A, B, C, D, and E, where applicable	58.10 (a)(1)	Y, p. 25	Y	
4.	Modifications to SLAMS network – case when we are not approving system modifications	58.10 (a)(2); 58.10 (b)(5); 58.10 (e); 58.14	Y, Appendix F	Y	Data for Honaunau (AQS ID: 15-003-3032) is not uploaded to AQS. Data is not certified or has been modified after certification for the following monitors: • Pearl City (AQS ID: 15-003-2004) PM_{10} and $PM_{2.5}$ • Kihei (AQS ID: 15-009-0006) $PM_{2.5}$ • Niumalu (AQS ID: 15-007-0007) $PM_{2.5}$ and NO_2 • Kapolei (AQS ID: 15-003-0010) CO POC 1 and SO_2 POC 1 Please work with EPA to submit additional information for these monitors, as needed.
5.	Modifications to SLAMS network – case when we are approving system modifications per 58.14	58.10 (a)(2); 58.10 (b)(5); 58.10 (e); 58.14	Y, Appendices B, C, D, E	NA	
6.	Does plan include documentation (e.g., attached approval letter) for system modifications that have been approved since last ANP approval?		NA	NA	
7.	Any proposals to remove or move a monitoring	58.10 (b)(5)	NA	NA	

[2] Unless otherwise noted.
[3] Response options: NA (Not Applicable), Yes, No, or Incomplete.
[4] Assuming the information is correct.
[5] Response options: NA (Not Applicable) – [reason], Yes, No, Insufficient to Judge, or Incorrect

	ANP requirement	Citation within 40 CFR 58[2]	Was the information submitted?[3] If yes, section or page #s.	Does the information provided[4] meet the requirement?[5]	Notes
	station within a period of 18 months following plan submittal				
8.	Precision/Accuracy reports submitted to AQS	58.16 (a)	Y, detailed site tables	Y	Confirmed by query of the AMP256.
9.	Annual data certification submitted	58.15	Y, detailed site tables	Y	
10.	Statement that SPMs operating an FRM/FEM/ARM that meet Appendix E also meet either Appendix A or an approved alternative. Documentation for any Appendix A approved alternative should be included.[6]	58.11 (a)(2)	Y, pp. 7-8	Y	
11.	SPMs operating FRM/FEM/ARM monitors for over 24 months are listed as comparable to the NAAQS or the agency provided documentation that requirements from Appendices A, C, or E were not met.[7]	58.20 (c)	Y, p. 8	Insufficient to judge	On p.7 of the ANP, HDOH states "[a]ll data from SPMS which have operated for more than 24 months is eligible for comparison to respective NAAQS." However, data have not been submitted to AQS or provided to EPA per requirements.
12.	For agencies that share monitoring responsibilities in an MSA/CSA: this agency meets full monitoring requirements or an agreement between the affected agencies and the EPA Regional Administrator is in place	App D 2(e)	NA	NA	
GENERAL PARTICULATE MONITORING REQUIREMENTS (PM_{10}, $PM_{2.5}$, Pb-TSP, Pb-PM_{10})					
13.	Designation of a primary monitor if there is more than one monitor for a pollutant at a site.	App. A 3.2.3	Y, detailed site tables	Insufficient to judge	Please clearly label the primary monitor at Sand Island.
14.	Distance between QA collocated monitors. For low volume PM instruments (flow rate < 200 liters/minute) > 1 m. For high volume PM instruments (flow rate > 200 liters/minute) > 2m. [Note: waiver request or the date of	App. A 3.2.3.4 (c) and 3.3.4.2 (c)	Y, detailed site tables	Y	

[6] Alternatives to the requirements of appendix A may be approved for an SPM site as part of the approval of the annual monitoring plan, or separately.
[7] This requirement only applies to monitors that are eligible for comparison to the NAAQS per 40 CFR §§58.11(e) and 58.30.

	ANP requirement	Citation within 40 CFR 58[2]	Was the information submitted?[3] If yes, section or page #s.	Does the information provided[4] meet the requirement?[5]	Notes
	previous waiver approval must be included if the distance deviates from requirement.]				
$PM_{2.5}$ –SPECIFIC MONITORING REQUIREMENTS					
15.	Document how states and local agencies provide for the review of changes to a $PM_{2.5}$ monitoring network that impact the location of a violating $PM_{2.5}$ monitor.	58.10 (c)	Y, p. 9	Y	
16.	Identification of any $PM_{2.5}$ FEMs and/or ARMs not eligible to be compared to the NAAQS due to poor comparability to FRM(s) [Note 1: must include required data assessment.] [Note 2: Required SLAMS must monitor $PM_{2.5}$ with NAAQS-comparable monitor at the required sample frequency.]	58.10 (b)(13) 58.11 (e)	NA	NA	
17.	Minimum # of monitoring **sites** for $PM_{2.5}$ [Note 1: should be supported by MSA ID, MSA population, DV, # monitoring sites, and # required monitoring sites] [Note 2: Only monitors considered to be required SLAMs are eligible to be counted towards meeting minimum monitoring requirements.]	App. D 4.7.1(a) and Table D-5	Y, p. 12	Y	
18.	Requirements for continuous $PM_{2.5}$ monitoring (number of monitors and collocation)	App. D 4.7.2	Y, p. 12	Y	
19.	FRM/FEM/ARM $PM_{2.5}$ QA collocation	App. A 3.2.3	Y, p. 12	Y	
20.	$PM_{2.5}$ Chemical Speciation requirements for official STN sites	App. D 4.7.4	Y, detailed site tables	Y	
21.	Identification of sites suitable and sites not suitable for comparison to the annual $PM_{2.5}$ NAAQS as described in Part 58.30	58.10 (b)(7)	Y, detailed site tables	Insufficient to judge, in certain instances	In future ANPs, if a site is considered not suitable for comparison to the annual NAAQS, please provide a justification. It is unclear why Kailua-Kona, Naalehu, Waikoloa, and Keaau are not suitable for comparison to the annual $PM_{2.5}$ NAAQS.
22.	Required $PM_{2.5}$ sites represent area-wide air quality	App. D 4.7.1(b)	Y, detailed site tables	Y	
23.	For $PM_{2.5}$, within each MSA, at least one site at	App. D	Y, detailed site	Y	

	ANP requirement	Citation within 40 CFR 58[2]	Was the information submitted?[3] If yes, section or page #s.	Does the information provided[4] meet the requirement?[5]	Notes
	neighborhood or larger scale in an area of expected maximum concentration	4.7.1(b)(1)	tables		
24.	If additional SLAMS $PM_{2.5}$ is required, there is a site in an area of poor air quality	App. D 4.7.1(b)(3)	Y, detailed site tables	Y	
25.	States must have at least one $PM_{2.5}$ regional background and one $PM_{2.5}$ regional transport site.	App. D 4.7.3	Y, p. 11	Y	
26.	Sampling schedule for $PM_{2.5}$ - applies to year-round and seasonal sampling schedules (note: date of waiver approval must be included if the sampling season deviates from requirement)	58.10 (b)(4); 58.12(d); App. D 4.7	Y, detailed site tables	Y	
27.	Frequency of flow rate verification for automated and manual $PM_{2.5}$ monitors	App. A 3.2.1	Y, detailed site tables	Y	
28.	Dates of two semi-annual flow rate audits conducted in **the previous CY** for $PM_{2.5}$ monitors [Note: 5 -7 month interval is recommended but not a requirement.]	App. A 3.2.2	Y, detailed site tables	Insufficient to judge	With instrument changeouts, it is not clear if there were semi-annual flow rate audits conducted twice during the past calendar year. In the future, if instruments are changed out, please still include the information elsewhere in the plan to assess this criterion.
PM_{10} –SPECIFIC MONITORING REQUIREMENTS					
29.	Minimum # of monitoring sites for PM_{10} [Note: Only monitors considered to be required SLAMs are eligible to be counted towards meeting minimum monitoring requirements.]	App. D, 4.6 (a) and Table D-4	Y, p. 14	Y	
30.	Manual PM_{10} method collocation (note: continuous PM_{10} does not have this requirement)	App. A 3.3.4	NA	NA	
31.	Sampling schedule for PM_{10}	58.10 (b)(4); 58.12(e); App. D 4.6	Y, detailed site tables	Y	
32.	Frequency of flow rate verification for automated and manual PM_{10} monitors	App. A 3.3.1 and 3.3.2	Y, detailed site tables	Y	
33.	Dates of two semi-annual flow rate audits conducted in **the previous CY** for PM_{10}	App. A 3.3.3	Y, detailed site tables	Insufficient to judge	With instrument changeouts, it is not clear if there were semi-annual flow rate audits

	ANP requirement	Citation within 40 CFR 58[2]	Was the information submitted?[3] If yes, section or page #s.	Does the information provided[4] meet the requirement?[5]	Notes
	monitors [Note: 5 -7 month interval is recommended but not a requirement.]				conducted twice during the past calendar year. In the future, if instruments are changed out please still include the information elsewhere in the plan to assess this criterion.
Pb –SPECIFIC MONITORING REQUIREMENTS					
34.	Minimum # of monitors for airport and non-airport Pb sources according to the most recent National Emissions Inventory (NEI) or other scientifically justifiable methods and data (such as improved emissions factors or site-specific data) [Note: Only monitors considered to be required SLAMs are eligible to be counted towards meeting minimum monitoring requirements.]	App D 4.5 (a)	Y, p. 16	Y	
35.	Pb collocation: for non-NCore sites	App A 3.4.4 and 3.4.5	NA	NA	
36.	Any source-oriented Pb site for which a waiver has been granted by EPA Regional Administrator (Note: Waivers must be renewed every 5 years as part of the network assessment required under §58.10 (d). EPA expects agencies to the append waivers in each ANP submission.	58.10 (b)(10)	NA	NA	
37.	Any Pb monitor for which a waiver has been requested or granted by EPA Regional Administrator for use of Pb-PM_{10} in lieu of Pb-TSP	58.10 (b)(11)	NA	NA	
38.	Does the agency intend to submit a waiver in the next 18 months?	App D 4.5 (a) (iii); 58.10 (b)(10)	NA	NA	
39.	Designation of any Pb monitors as either source-oriented or non-source-oriented	58.10 (b)(9)	NA	NA	
40.	Sampling schedule for Pb	58.10 (b)(4); 58.12(b); App A 3.4.4.2 (c)	NA	NA	

	ANP requirement	Citation within 40 CFR 58[2]	Was the information submitted?[3] If yes, section or page #s.	Does the information provided[4] meet the requirement?[5]	Notes
		and 3.4.5.3 (c)			
41.	Frequency of flow rate verification for Pb monitors audit	App A 3.4.1 and 3.4.2	NA	NA	
42.	Dates of two semi-annual flow rate audits conducted in **the previous CY** for Pb monitors [Note: 5 -7 month interval is recommended but not a requirement.]	App A 3.4.3	NA	NA	
GENERAL GASEOUS MONITORING REQUIREMENTS					
43.	Frequency of one-point QC check (gaseous)	App. A 3.1.1	Y, detailed site tables	Y	
44.	Date of Annual Performance Evaluation (gaseous) conducted in **the previous CY**	App. A 3.1.2	Y, detailed site tables	N, in some instances	Kapolei NO/NOy did not have an annual performance evaluation conducted in 2022.
O_3 –SPECIFIC MONITORING REQUIREMENTS					
45.	Minimum # of monitoring sites for O_3 [Note 1: should be supported by MSA ID, MSA population, DV, # monitoring sites, and # required monitoring sites] [Note 2: Only monitors considered to be required SLAMs are eligible to be counted towards meeting minimum monitoring requirements.] [Note 3: monitors that do not meet traffic count/distance requirements to be neighborhood or urban scale (40 CFR Appendix E, Table E-1) cannot be counted towards meeting minimum monitoring requirements]	App D 4.1(a) and Table D-2	Y, p. 16	Y	
46.	Identification of maximum concentration O_3 site(s)	App D 4.1 (b)	Y, p. 16	Y	
47.	Sampling season for O_3 (Note: Waivers must be renewed annually. EPA expects agencies to submit re-evaluations of the relevant data each year with the ANP. EPA will then respond as part of the ANP response.)	58.10 (b)(4); App D 4.1(i)	Y, detailed site tables	Y	
NO_2 –SPECIFIC MONITORING REQUIREMENTS					

	ANP requirement	Citation within 40 CFR 58[2]	Was the information submitted?[3] If yes, section or page #s.	Does the information provided[4] meet the requirement?[5]	Notes
48.	Minimum monitoring requirements for area-wide NO_2 monitor in location of expected highest NO_2 concentrations representing neighborhood or larger scale	App D 4.3.3	Y, p. 18	Y	
49.	Minimum monitoring requirements for susceptible and vulnerable populations monitoring (aka RA40) NO_2	App D 4.3.4	NA	NA	
50.	Identification of required NO_2 monitors as either near-road, area-wide, or vulnerable and susceptible population (aka RA40)	58.10 (b)(12)	NA	NA	
NEAR ROADWAY – SPECIFIC MONITORING REQUIREMENTS					
In CBSAs ≥ 2.5 million, the following near-roadway minimum monitoring requirements apply:					
51.	Two NO_2 monitors	App. D 4.3.2(a); 58.13(c)(3) and (4)	NA	NA	
52.	One CO monitor	App. D 4.2.1(a); 58.13(e)(2)	NA	NA	
53.	One $PM_{2.5}$ monitor	App. D 4.7.1(b)(2); 58.13(f)(2)	NA	NA	
In CBSAs ≥ 1 million and AADT ≥ 250K, the following near-roadway minimum monitoring requirements apply:					
54.	Two NO_2 monitors	App. D 4.3.2(a); 58.13(c)(3) and (4)	Y, p. 18	Y	As noted in the plan, the population of the Honolulu MSA has dropped below the 1,000,000 threshold based on 2022 U.S. Census Bureau estimates. Please continue to include the population and discuss with EPA if monitoring becomes required.
55.	One CO monitor	App. D 4.2.1(a); 58.13(e)(2)	Y, p. 18	Y	As noted in the plan, the population of the Honolulu MSA has dropped below the 1,000,000 threshold based on 2022 U.S. Census Bureau estimates. Please continue to include the population and discuss with EPA if monitoring becomes required.

	ANP requirement	Citation within 40 CFR 58[2]	Was the information submitted?[3] If yes, section or page #s.	Does the information provided[4] meet the requirement?[5]	Notes
56.	One $PM_{2.5}$ monitor	App. D 4.7.1(b)(2); 58.13(f)(2)	NA	NA	As noted in the plan, the population of the Honolulu MSA has dropped below the 1,000,000 threshold based on 2022 U.S. Census Bureau estimates. Please continue to include the population and discuss with EPA if monitoring becomes required.
In CBSAs ≥ 1 million and ≤ 2.5 million **AND** AADT < 250K, the following near-roadway minimum monitoring requirements apply:					
57.	One NO_2 monitor	App. D 4.3.2(a); 58.13(c)(3)	NA	NA	
58.	One CO monitor	App. D 4.2.1(a); 58.13(e)(2)	NA	NA	
59.	One $PM_{2.5}$ monitor	App. D 4.7.1(b)(2); 58.13(f)(2)	NA	NA	
SO_2 –SPECIFIC MONITORING REQUIREMENTS					
60.	Minimum monitoring requirements for SO_2 based on PWEI and/or RA required monitors under Appendix D 4.4.3 [Note: Only monitors considered to be required SLAMs are eligible to be counted towards meeting minimum monitoring requirements.]	App D 4.4	Y, pp. 20-21	Y	
61.	Monitors used to meet Data Requirements Rule	51.1203(c)	Y, p. 20	Y	
NCORE –SPECIFIC MONITORING REQUIREMENTS					
62.	NCore site and all required parameters operational: year-round O_3, SO_2, CO, NO_y, NO, $PM_{2.5}$ mass, $PM_{2.5}$ continuous, $PM_{2.5}$ speciation, $PM_{10-2.5}$ mass, resultant wind speed at 10m, resultant wind direction at 10m, ambient temperature, relative humidity. NOy waiver, if applicable.	App. D 3(b)	Y, p. 21	Y	
63.	A plan for making Photochemical Assessment Monitoring Stations (PAMS) measurements, if applicable. When the population in a CBSA with an NCore station subsequently meets the	58.10 (a)(10); 58.13 (h) App. D 5(f)	Y, p. 21	Y	As noted in the plan, the population of the Honolulu MSA has dropped below the 1,000,000 threshold based on 2022 U.S. Census Bureau estimates. Please continue to

	ANP requirement	Citation within 40 CFR 58[2]	Was the information submitted?[3] If yes, section or page #s.	Does the information provided[4] meet the requirement?[5]	Notes
	1M population threshold, discussions and planning for establishment of a PAMS site needs to occur with EPA and preparation of a PAMS plan.				include the population and discuss with EPA if monitoring becomes required.
SITE OR MONITOR - SPECIFIC REQUIREMENTS (OFTEN INCLUDED IN DETAILED SITE INFORMATION TABLES)					
64.	AQS site identification number for each site	58.10 (b)(1)	Y, Table 3-1 on p. 26 and detailed site tables	Y	
65.	Location of each site: street address and geographic coordinates	58.10 (b)(2)	Y, detailed site tables	Y	Addresses at Ocean View and Kahului are not complete in AQS and differ from the addresses shown in the ANP.
66.	MSA, CBSA, CSA or other area represented by the monitor	58.10 (b)(8)	Y, detailed site tables	Y	
67.	Parameter occurrence code for each monitor	Needed to determine if other requirements (e.g., min # and collocation) are met	Y, detailed site tables	Y	
68.	Basic monitoring objective for each monitor	App D 1.1; 58.10 (b)(6)	Y, Table 3-1 on p. 26 and detailed site tables	Y	
69.	Site type for each monitor	App D 1.1.1	Y, Table 3-1 on p. 26 and detailed site tables	Y	
70.	Monitor type for each monitor, and Network Affiliation(s) as appropriate	Needed to determine if other requirements (e.g., min # and collocation) are met	Y, detailed site tables	Y	
71.	Scale of representativeness for each monitor as	58.10(b)(6);	Y, detailed site	Y	

	ANP requirement	Citation within 40 CFR 58[2]	Was the information submitted?[3] If yes, section or page #s.	Does the information provided[4] meet the requirement?[5]	Notes
	defined in Appendix D	App D	tables		
72.	Parameter code for each monitor	Needed to determine if other requirements (e.g., min # and collocation) are met	Y, detailed site tables	Y	
73.	Method code and description (e.g., manufacturer & model) for each monitor	58.10 (b)(3); App C 2.4.1.2	Y, detailed site tables	Y	
74.	Sampling start date for each monitor	Needed to determine if other requirements (e.g., min # and collocation) are met	Y, detailed site tables	Y	
75.	Distance of monitor from nearest road	App E 6	Y, detailed site tables	Y	
76.	Traffic count of nearest road	App E	Y, detailed site tables	Y	
77.	Groundcover	App E 3(a)	Y, detailed site tables	Y	
78.	Probe height	App E 2	Y, detailed site tables	Y	
79.	Distance from supporting structure (vertical and horizontal, if applicable, should be provided)	App E 2	Y, detailed site tables	Y	
80.	Distance from obstructions on roof (horizontal distance to the obstruction and vertical height of the obstruction above the probe should be provided)	App E 4(b)	Y, detailed site tables	Y	
81.	Distance from obstructions not on roof (horizontal distance to the obstruction and vertical height of the obstruction above the probe should be provided)	App E 4(a)	Y, detailed site tables	Y	
82.	Distance from the drip line of closest tree(s)	App E 5	Y, detailed site tables	N, in some instances	Ocean View and Mountain View sites are too close to nearest trees. The Ocean View $PM_{2.5}$ and SO_2 monitors are 3.7 meters and

	ANP requirement	Citation within 40 CFR 58[2]	Was the information submitted?[3] If yes, section or page #s.	Does the information provided[4] meet the requirement?[5]	Notes
					5.5 meters respectively from the drip line of the nearest tree. Mountain View $PM_{2.5}$ and SO_2 monitors are 4 meters and 2 meters respectively from the drip line of the nearest tree.
83.	Distance to furnace or incinerator flue	App E 3(b)	Y, detailed site tables	Y	
84.	Unrestricted airflow (expressed as degrees around probe/inlet or percentage of monitoring path)	App E, 4(a) and 4(b)	Y, detailed site tables	N, in some instances	Naalehu SO_2 only has 180 degrees of unrestricted airflow.
85.	Probe material ($NO/NO_2/NO_y$, SO_2, O_3; For PAMS: VOCs, Carbonyls)	App E 9	Y, detailed site tables	Y	
86.	Residence time ($NO/NO_2/NO_y$, SO_2, O_3; For PAMS: VOCs, Carbonyls)	App E 9	Y, detailed site tables	Y	

Public Comments on Annual Network Plan

Were comments submitted to the S/L/T agency during the public comment period?	**No**
Were comments included in ANP submittal?	**NA**
Were any of the comments substantive? If yes, which ones? If comments were not substantive provide rationale.	**NA**
Were S/L/T responses to substantive comments included in ANP submittal?	**NA**
Were the S/L/T responses to substantive comments adequate?	**NA**
Do the substantive comments require separate EPA response (i.e., agency response wasn't adequate)?	**NA**
Are the sections of the annual network plan that received substantive comments approvable after consideration of comments? If yes, provide rationale	**NA**