

State of Hawaii 2023 Air Monitoring Network Plan

Submitted to the U.S. EPA Region 9
July 1, 2023

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Clean Air Branch

Document Control Number
HDOH – AMNP – 2023 - v01

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Table of Contents

List of Tables.....	3
List of Figures	3
Acronyms and Definitions.....	4
Introduction.....	5
1.0 Network Purpose and Design.....	6
1.1 Overview.....	6
1.1.1 State and Local Air Monitoring Stations (SLAMS)	7
1.1.2 Special Purpose Monitoring Stations (SPMS)	7
1.2 Network Design and Review Process	8
1.2.1 Monitoring Objectives and Site Types	8
1.2.2 PM _{2.5} Network Changes	9
1.3 Organizational Structure and Responsibilities	9
2.0 Network Evaluation	10
2.1 PM _{2.5} Network	11
2.2 PM ₁₀ Network.....	14
2.3 Pb Network	16
2.4 O ₃ Network	16
2.5 NO ₂ Network.....	18
2.6 CO Network	19
2.7 SO ₂ Network	20
2.8 NCore	21
2.9 H ₂ S Network	22
2.10 Site Closures	22
2.10.1 Pearl City SLAMS	22
2.10.2 Kihei SLAMS.....	22
2.10.3 Honaunau SPMS	22
2.11 Site Additions.....	23
2.12 Site Modifications.....	23
2.12.1 Kapolei SLAMS/NCore.....	23
2.12.2 Sand Island SLAMS	23
2.12.3 Niualu SPMS.....	23
2.12.4 Naalehu SPMS	23
2.12.5 Waikoloa SPMS	23
2.12.6 Keeau SPMS	24
2.13 Summary of Network and Changes.....	24
3.0 Detailed Site Descriptions	26
(DH) HONOLULU	27
(KA) KAPOLEI SLAMS and NCore	29
(SI) SAND ISLAND.....	34
(KL) KAHULUI	36
(NI) NIUMALU	38
(HL) HILO.....	40
(KN) KONA.....	42
(MV) MOUNTAIN VIEW	44
(OV) OCEAN VIEW	46
(PA) PAHALA	48
(KK) KAILUA-KONA	50
(KS) KEAAU	52
(LE) LEILANI COMMUNITY ASSOCIATION CENTER.....	54

(NA) NAALEHU	56
(WL) WAIKOLOA	58
(KE) KAHE	60
Appendix A: Public Notice Documentation.....	62
Appendix B: Request to Close the Pearl City SLAMS Air Monitoring Station (150032004)...	63
Appendix C: Request to Close the Kihei SLAMS Air Monitoring Station (150090006)	66
Appendix D: Request to Discontinue PM_{2.5} and NO₂ Parameters at the Niumalu SPMS Air Monitoring Station (150070007)	69
Appendix E: Request to Discontinue CO and SO₂ Parameters at the Kapolei SLAMS Air Monitoring Station (150030010)	72
Appendix F: Request to Close the Honaunau SPMS Air Monitoring Station (150013032)	75
Appendix G: AQS Reports in Support of Requests for Closures and Discontinuations....	78

List of Tables

Table 2-1	PM _{2.5} Network and Concentrations for Each MSA	12
Table 2-2	PM _{2.5} Minimum Monitoring Requirements for Each MSA.....	12
Table 2-3	PM _{2.5} Collocated Network	12
Table 2-4	PM ₁₀ Network and Concentrations for the Honolulu MSA.....	14
Table 2-5	PM ₁₀ Minimum Monitoring Requirements for Each MSA	14
Table 2-6	Minimum Pb Monitoring Requirement at NCore	16
Table 2-7	O ₃ Design Values for the Honolulu MSA.....	16
Table 2-8	O ₃ Minimum Monitoring Requirements for Each MSA	16
Table 2-9	Minimum Near-Road NO ₂ Monitoring Requirements for the MSA	18
Table 2-10	Minimum SO ₂ Monitoring Requirements.....	20
Table 2-11	Number of Monitors by Pollutant or Program.....	24
Table 2-12	Summary of Network Changes	25
Table 3-1	State of Hawaii Ambient Air Monitoring Network	26

List of Figures

Figure 2-1	PM _{2.5} Network.....	13
Figure 2-2	PM ₁₀ Network.....	15
Figure 2-3	O ₃ Network	17
Figure 2-4	NO ₂ Network.....	18
Figure 2-5	CO Network	19
Figure 2-6	SO ₂ Network	21

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 ₂ S	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
µg/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 (SO₂), carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), 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 (H₂S) 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, SO₂, CO, nitrogen oxide (NO), reactive oxides of nitrogen (NO_y), O₃, 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 (H₂S) 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 O₃ data is provided to EPA's AIRNow website for use in calculating the AQI, SO₂ data is provided for the Hawaii SO₂ Short Term Advisory, and PM_{2.5} and SO₂ 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, NO₂, O₃, SO₂, PM₁₀, 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 NO₂ monitor.
- one (1) NCore NO/NO_y monitor.
- one (1) SLAMS and one (1) NCore O₃ monitors.
- four (4) SLAMS, eight (8) SPMS, and one (1) NCore SO₂ monitors.
- one (1) SPMS H₂S monitor.
- one (1) SLAMS and one (1) NCore PM₁₀ 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 98th 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/m ³) 2020 – 2022	Percent of Annual NAAQS (12µg/m ³)	Daily Design Value (µg/m ³) 2020-2022	Percent of 24-Hour NAAQS (35 µg/m ³)
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/m ³ for 24-hr standard; ≥10.2 µg/m ³ for annual standard)		Most recent 3-year Design Value <85% of any PM _{2.5} NAAQS (<29.75 µg/m ³ for 24-hour standard; <10.2 µg/m ³ 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.

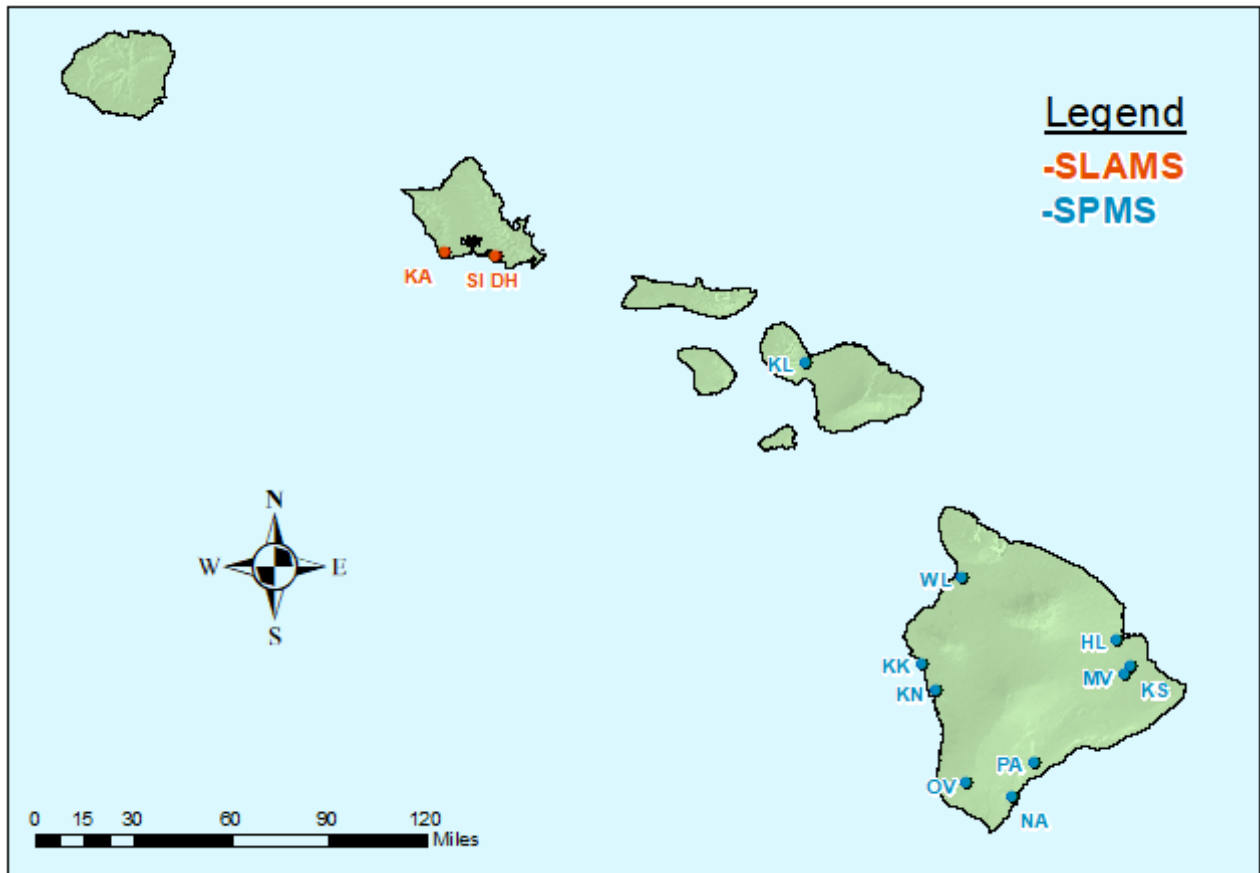
One collocated monitor is required for the stations using Method 238. One FRM collocated monitor is operating at the Kapolei NCore station to meet this requirement.

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 PM₁₀ Network

The minimum number of required PM₁₀ monitoring stations for the MSA is dependent upon population and concentration measurements. High concentration areas are those for which the ambient PM₁₀ data show concentrations exceeding the PM₁₀ NAAQS by 20 percent or more. Medium and low concentration areas are those for which ambient PM₁₀ data show concentrations exceeding 80 percent of the NAAQS, and concentrations less than 80 percent of the NAAQS, respectively.

PM₁₀ 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 PM₁₀ monitors (Table 2-5). In the absence of a PM₁₀ design value for the Maui MSA and with a population <250,000, no PM₁₀ monitoring is required in that MSA. The state meets the minimum PM₁₀ monitoring requirements with two PM₁₀ stations in the Honolulu MSA.

Table 2-4. PM₁₀ Network and Concentrations for the Honolulu MSA¹

Site Name	AQS No.	2022 Maximum 24-Hr Value (µg/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 PM₁₀ monitor operating in the Maui MSA.

² The Pearl City station discontinued operations on April 6, 2022.

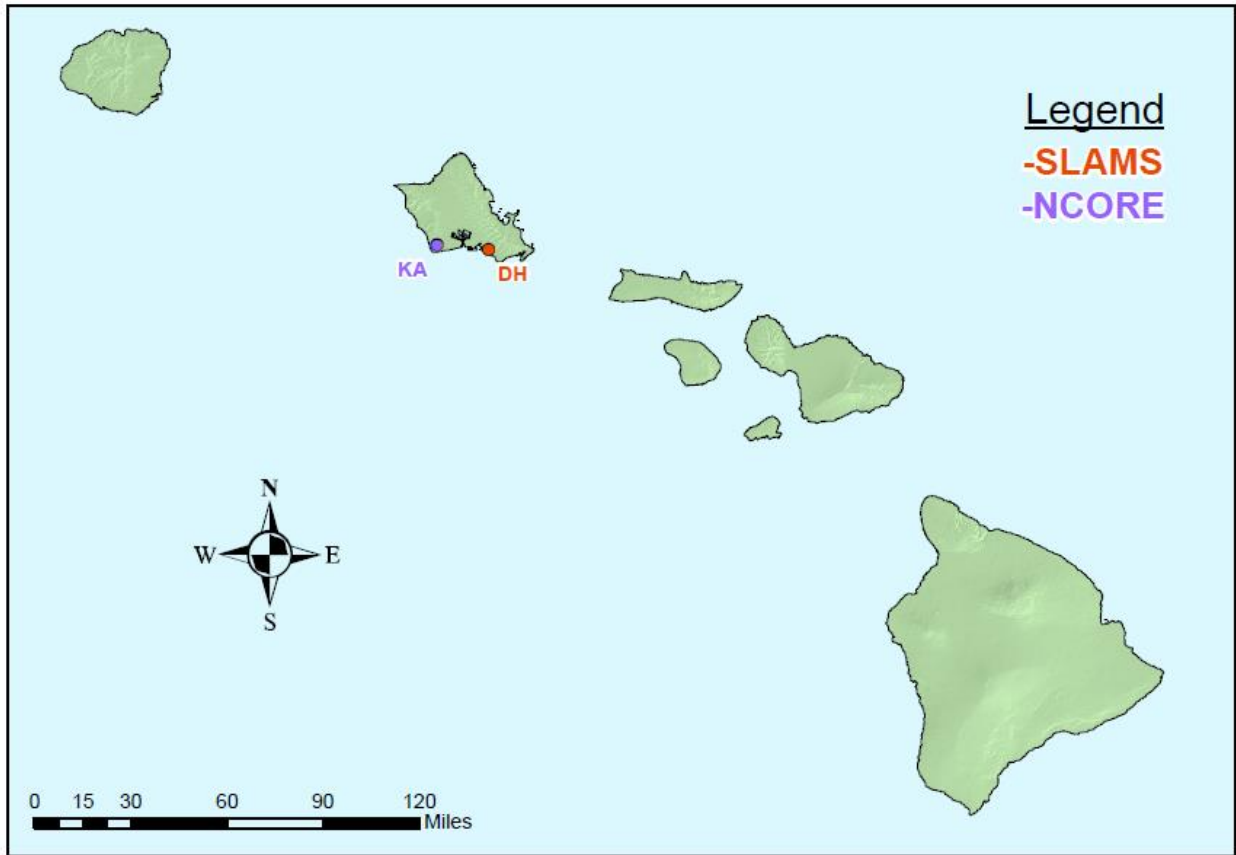
Table 2-5. PM₁₀ Minimum Monitoring Requirements for Each MSA

MSA Population Category (2022 Census) (40 CFR 58 Appendix D Table D-4)		High Concentration ≥120% of NAAQS (≥180 µg/m ³)	Medium Concentration >80% of NAAQS (>120 µg/m ³)	Low Concentration <80% of NAAQS (<120 µg/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 µg/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 PM₁₀ sites in the state. All the PM₁₀ stations are in the Honolulu MSA.

Figure 2-2. PM₁₀ 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 O₃ Network

Depending upon MSA population and typical peak concentrations, the state must operate a minimum number of O₃ monitors. NCore sites are intended to complement O₃ data collection and can be used to meet the minimum monitoring requirements.

The O₃ monitoring season for the State of Hawaii is 12-months from January to December. The O₃ design value is the 3-year average of the fourth-highest daily maximum 8-hour concentrations measured at each monitor.

The most recent O₃ design value concentrations at the Sand Island and Kapolei NCore stations in the Honolulu MSA showed less than 85% of the O₃ NAAQS (Table 2-7). The Maui MSA does not have any O₃ 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 O₃ monitor is required in the Maui MSA. The state meets the minimum O₃ network monitoring requirements.

Table 2-7. O₃ 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. O₃ Minimum Monitoring Requirements for Each MSA

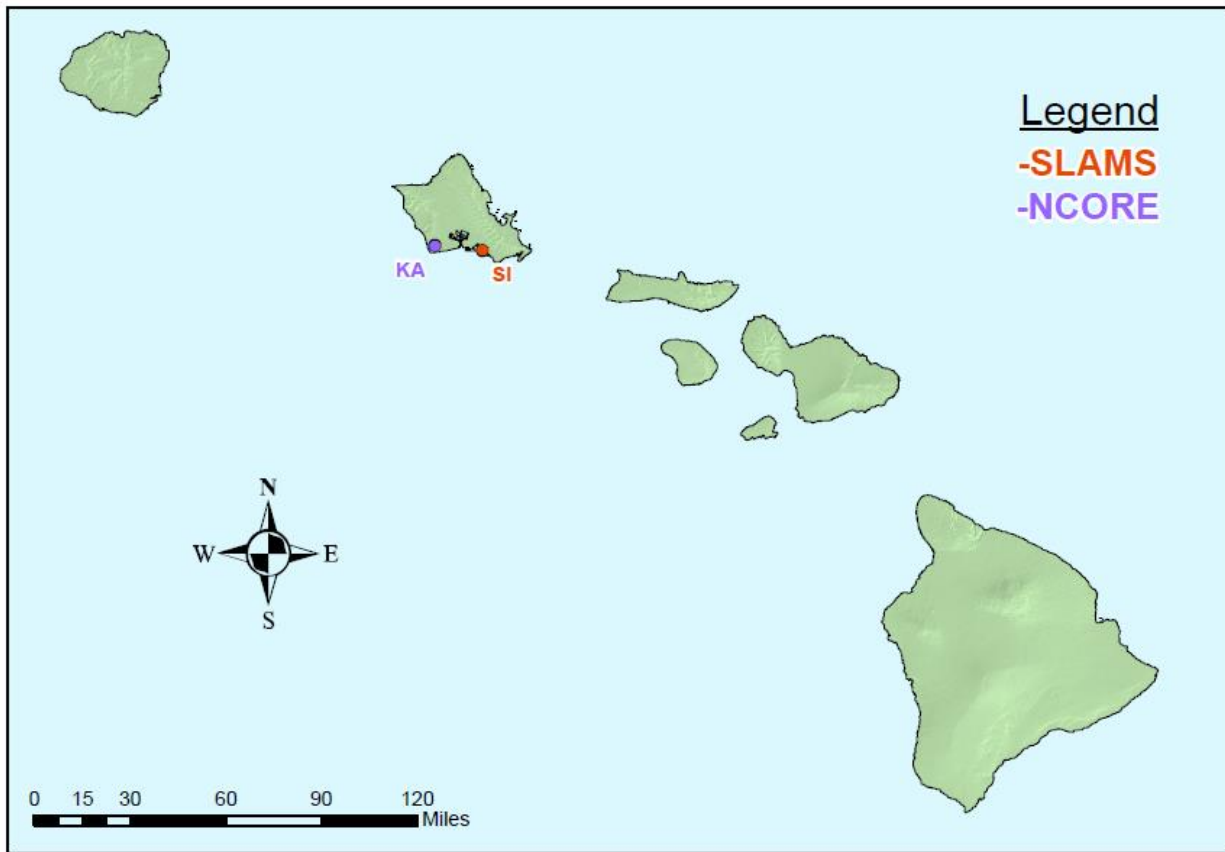
MSA Population Category (40 CFR 58 Appendix D Table D-2)	Most recent 3-year design value ≥85% of any O ₃ NAAQS (≥.064 ppm, 8-hr standard)	Most recent 3-year design value <85% of any O ₃ NAAQS (<.064 ppm, 8-hr standard) ¹
>10 million	4	2
4-10 million	3	1
350,000-<4 million	2	1
50,000-<350,000	1	0

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 O₃ 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 O₃ 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 O₃ stations. Both stations are in the Honolulu MSA.

Figure 2-3. O₃ Network



2.5 NO₂ Network

40 CFR Part 58, Appendix D Section 4.3.3 requires area wide NO₂ 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.

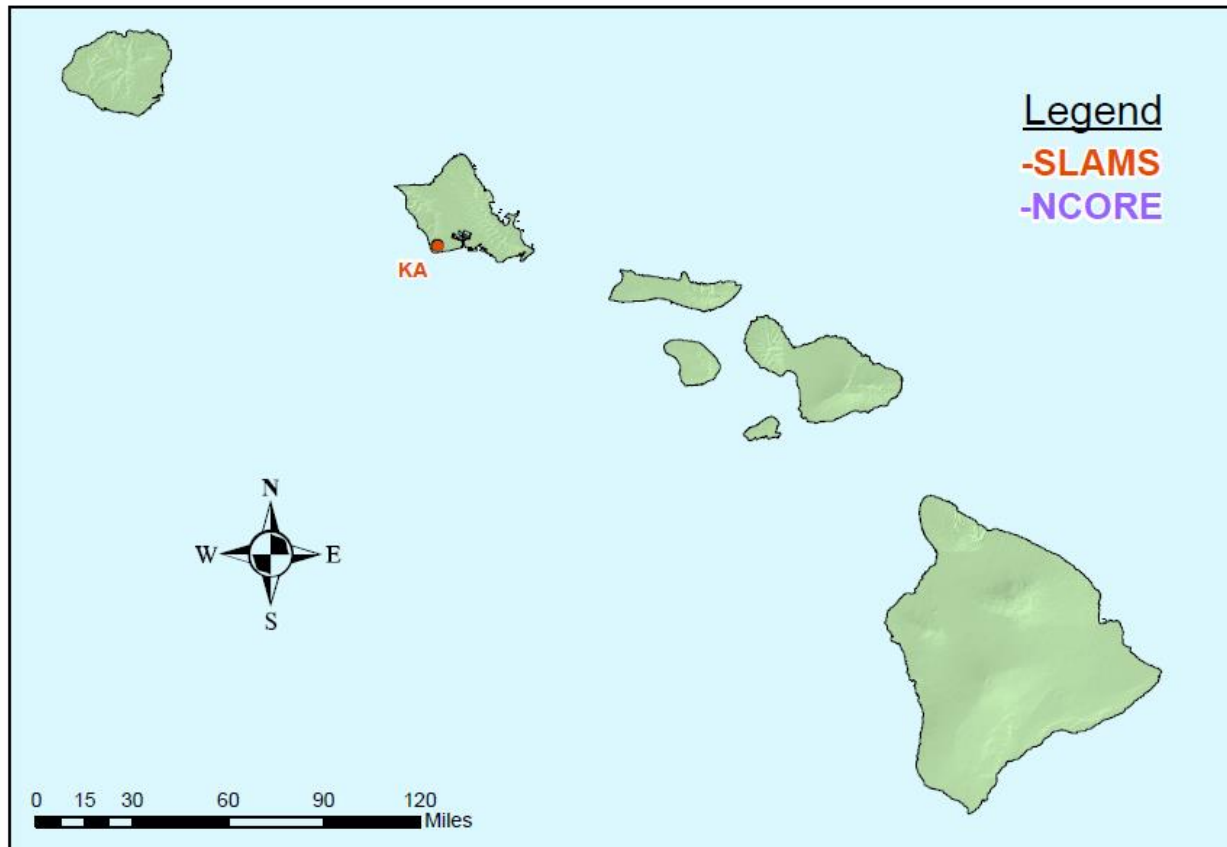
The state currently has one SLAMS NO₂ station in the Honolulu MSA which measures typical concentration in areas of high population density. Additionally, this location would be suitable as the area-wide monitor because it is in the area of highest expected concentration. No NO₂ monitoring is required in the Maui MSA.

Table 2-9. Minimum Near-Road NO₂ 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.

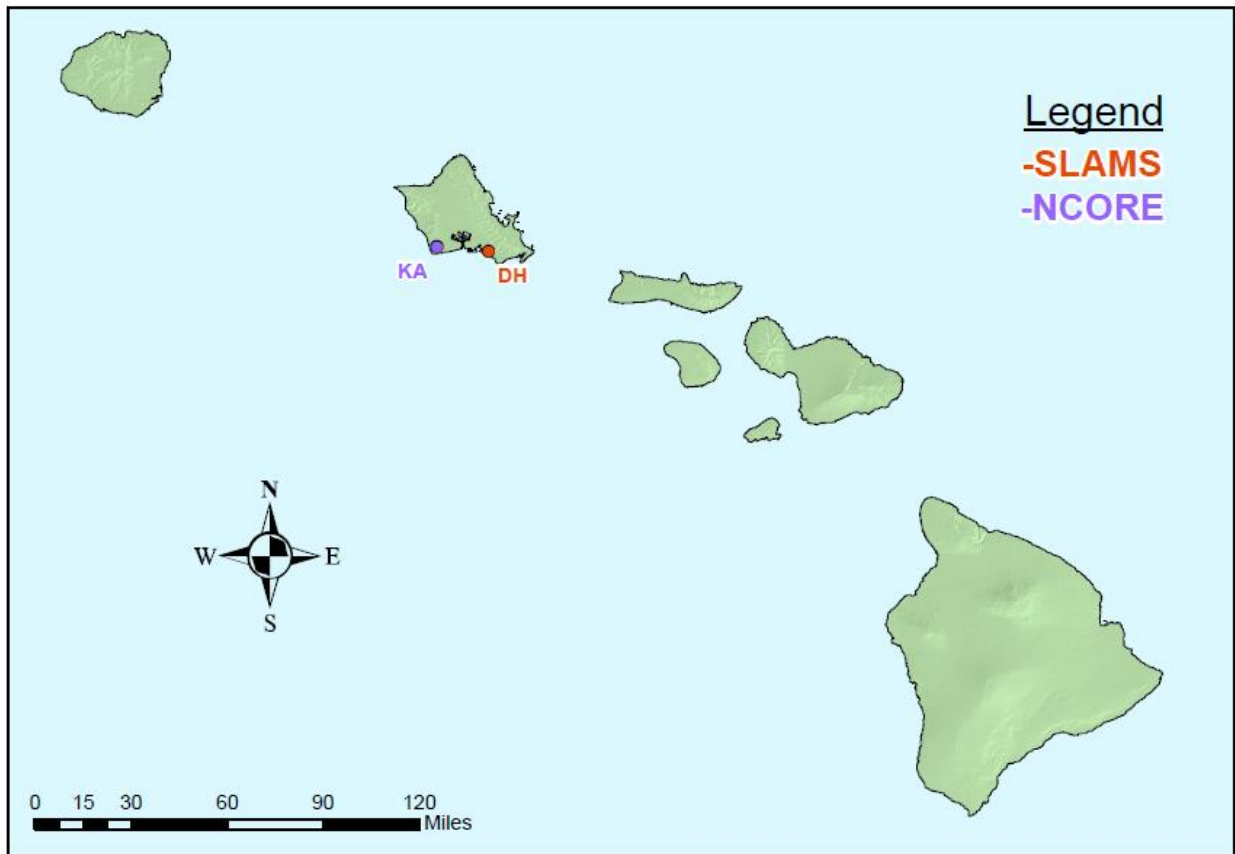
Figure 2-4. NO₂ Network



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 NO₂ sites in Core-based Statistical Areas (CBSA) with populations $\geq 1,000,000$. 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 SO₂ Network

According to the Population Weighted Emissions Index (PWEI) calculation, established to determine SO₂ monitoring requirements, Hawaii is required to operate one SO₂ monitor in the Honolulu MSA and none in the Maui MSA (Table 2-10). The state currently operates one SLAMS SO₂ monitor in the Honolulu MSA, and one at the NCore station in Kapolei which meets the minimum number of required SO₂ stations. There are no requirements for a SO₂ monitor in the Maui MSA.

The SPM station on Kauai was established to measure SO₂ from cruise ship emissions and will continue. The FEM monitors SO₂, 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 SO₂ 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 SO₂ monitoring on the north side of the island. Thus, an SO₂ monitor was added at the Waikoloa station.

To provide timely notification of SO₂ levels on Hawaii Island there are currently nine stations monitoring for SO₂, 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 SO₂ 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 SO₂ emissions data of 2,000 tons or more (see detailed site description for more information). DRR monitoring at Waiiau was discontinued on December 31, 2021 with EPA approval.

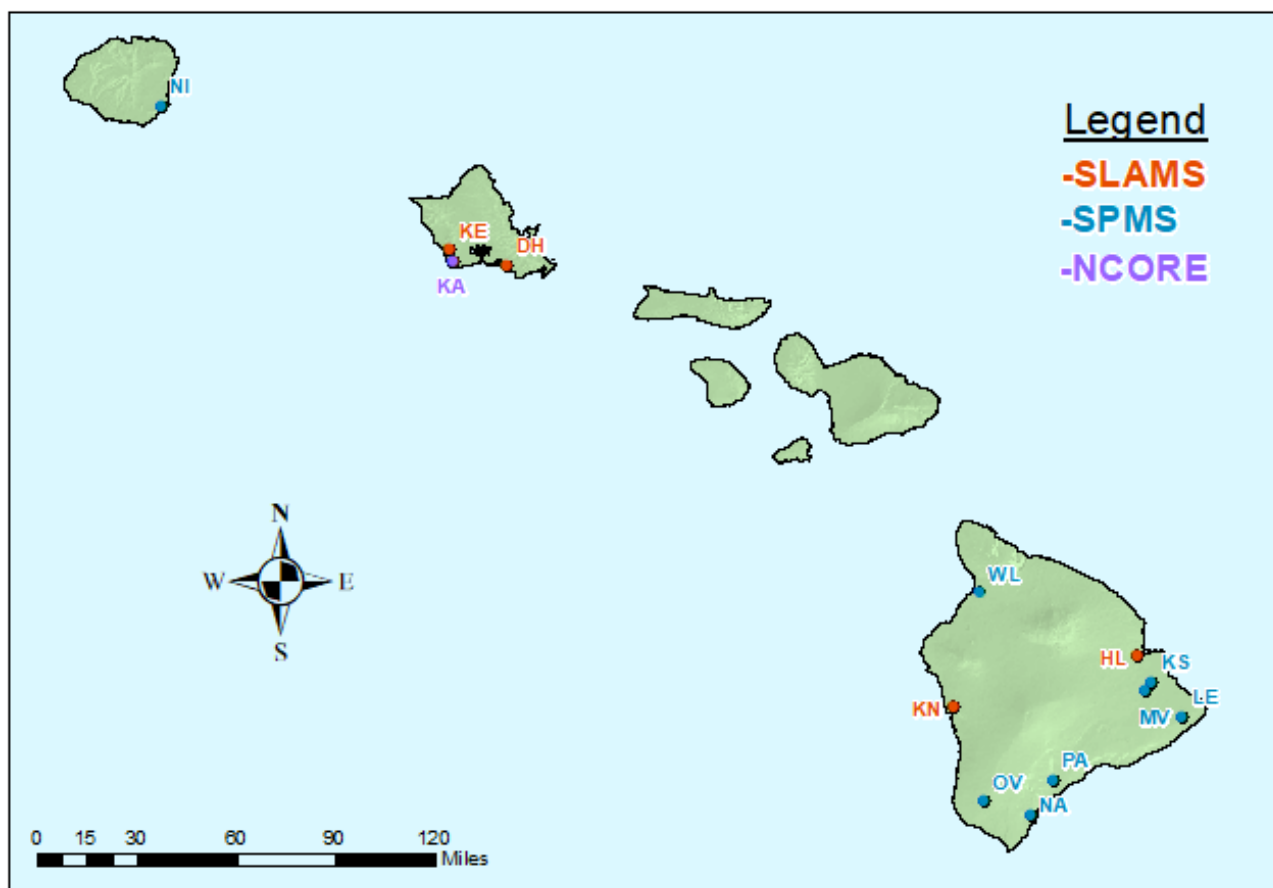
Table 2-10. Minimum SO₂ Monitoring Requirements

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 $\geq 5,000$ but $< 100,000$, a minimum of one SO₂ monitor is required.

² Data Requirements Rule for the 2010 1-Hour SO₂ Primary NAAQS.

Figure 2-6. SO₂ 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 SO₂, trace-level CO, O₃, 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 H₂S 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 (H₂S). The state has a one-hour H₂S 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 H₂S 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 PQA/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: PM₁₀, 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 SO₂

The CO and SO₂ 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: NO₂ and PM_{2.5}

Monitoring for NO₂ 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 SO₂ monitor.

2.12.5 Waikoloa (150012021) SPMS DWS Lalamilo (Parker 610), TMK 3-6-8-002-019, Waikoloa, Hawaii Parameter: SO₂

Partly in response to the November 27, 2022 Mauna Loa eruption, SO₂ 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 SO₂**

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 ₂ S	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 ₂ S, 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:

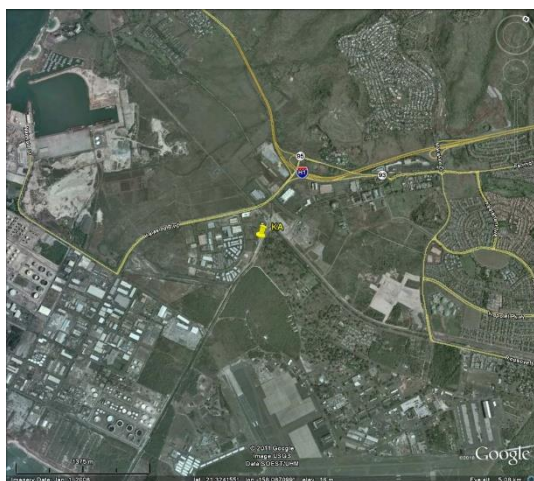
- ¹Site Types:
- 1) Located to determine the highest concentrations;
 - 2) Located to measure typical concentrations in areas of high population density;
 - 3) Located to determine the impact of significant sources or source categories on air quality;
 - 4) Located to determine general background concentration 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)				
	PM₁₀	PM_{2.5}	SO₂	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 N CORE			
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:

- ¹Site 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)				
	PM₁₀	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)			
	O₃	NO₂	
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 SO₂	NO/NO_y	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:

- ¹Site 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}	O₃	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:

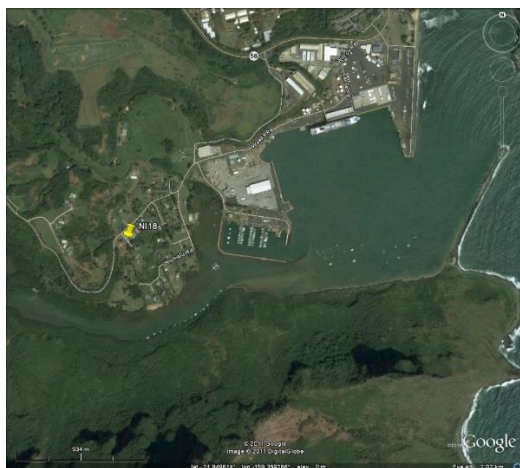
- ¹Site Types:
- 1) located to determine the highest concentrations;
 - 2) located to measure typical concentrations in areas of high population density;
 - 3) located to determine the impact of significant sources or source categories on air quality;
 - 4) located to determine general background concentration 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			

(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.	Niualu 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:

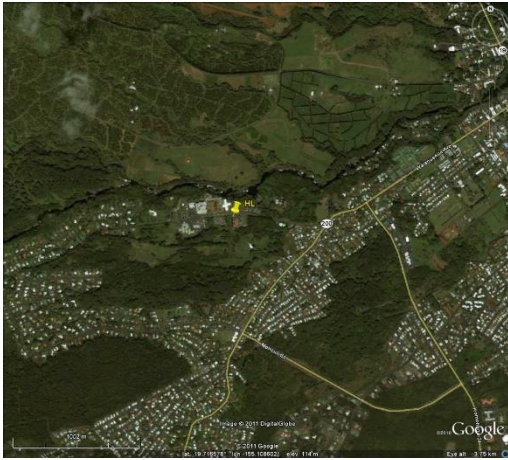
- ¹Site Types: 1) located to determine the highest concentrations;
 2) located to measure typical concentrations in areas of high population density;
 3) located to determine the impact of significant sources or source categories on air quality;
 4) located to determine general background concentration 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) Niimalu continued

NI MONITOR INFORMATION		(N/A = Not Applicable)		
	SO₂			
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:

- ¹Site 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}	SO₂	
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.	Mamalaho 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:

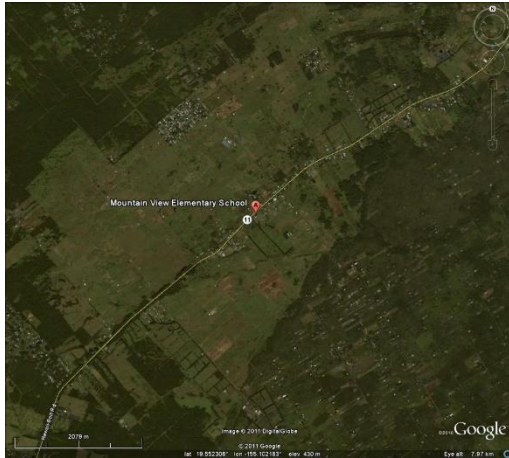
- ¹Site Types:
- 1) located to determine the highest concentrations;
 - 2) located to measure typical concentrations in areas of high population density;
 - 3) located to determine the impact of significant sources or source categories on air quality;
 - 4) located to determine general background concentration 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	SO₂	
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:

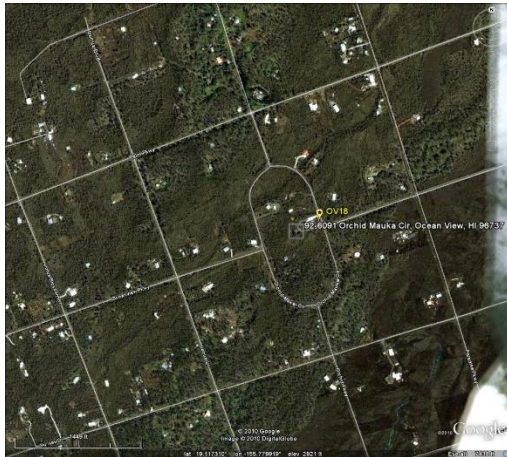
- ¹Site Types:
- 1) located to determine the highest concentrations;
 - 2) located to measure typical concentrations in areas of high population density;
 - 3) located to determine the impact of significant sources or source categories on air quality;
 - 4) located to determine general background concentration 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}	SO₂	
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:

- ¹Site 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}	SO₂	
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:

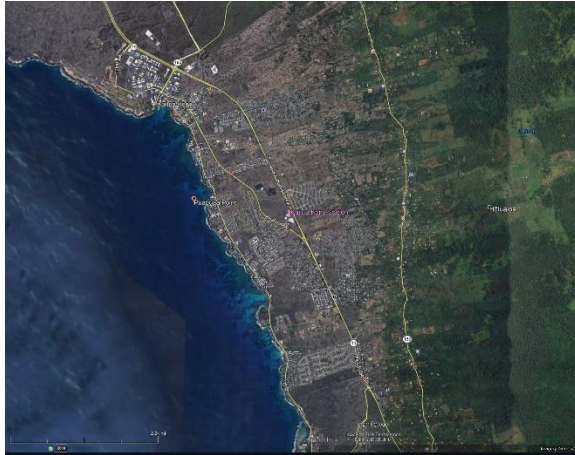
- ¹Site Types:
- 1) located to determine the highest concentrations;
 - 2) located to measure typical concentrations in areas of high population density;
 - 3) located to determine the impact of significant sources or source categories on air quality;
 - 4) located to determine general background concentration 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}	SO₂	
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:

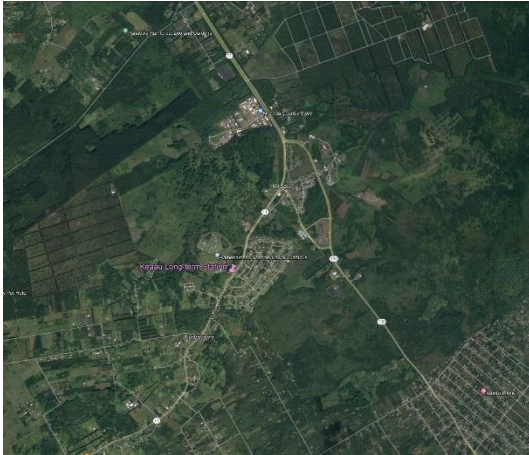
- ¹Site Types:
- 1) located to determine the highest concentrations;
 - 2) located to measure typical concentrations in areas of high population density;
 - 3) located to determine the impact of significant sources or source categories on air quality;
 - 4) located to determine general background concentration 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/Mamalaho 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:

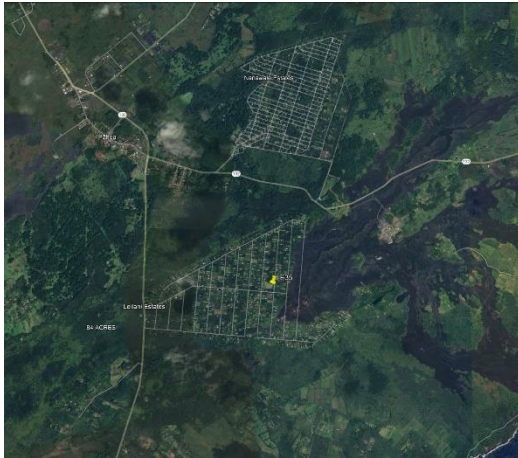
- ¹Site Types:
- 1) located to determine the highest concentrations;
 - 2) located to measure typical concentrations in areas of high population density;
 - 3) located to determine the impact of significant sources or source categories on air quality;
 - 4) located to determine general background concentration 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}	SO₂	
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, Paho, 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 ₂ S 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:

- ¹Site 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)			
	H₂S	SO₂	
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:

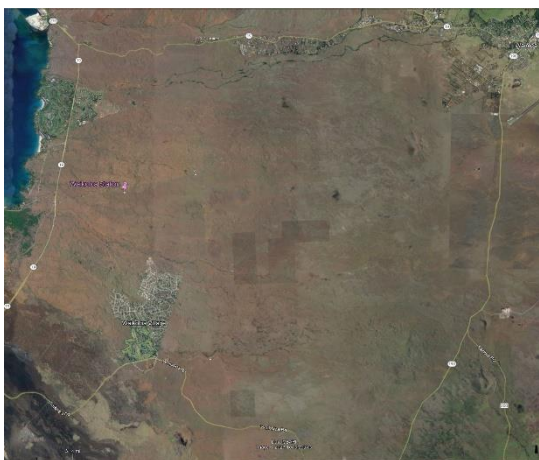
- ¹Site Types:
- 1) located to determine the highest concentrations;
 - 2) located to measure typical concentrations in areas of high population density;
 - 3) located to determine the impact of significant sources or source categories on air quality;
 - 4) located to determine general background concentration 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)			
	SO₂	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:

- ¹Site 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}	SO₂	
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:

- ¹Site 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)		
	SO₂			
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, Kealahou, 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

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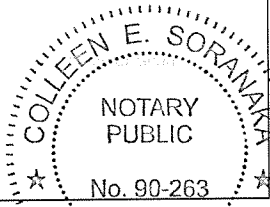
STATE OF HAWAII }
 } SS.
City and County of Honolulu }

Doc. Date: MAY 17 2023 # Pages: 1

Notary Name: COLLEEN E. SORANAKA First Judicial **Circuit**

Doc. Description: Affidavit of
Publication

[Signature] MAY 18 2023
Notary Signature Date



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:

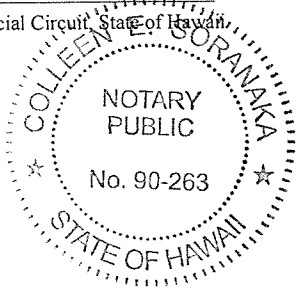
And that affiant is not a party to or in any way interested in the above entitled matter.

[Signature]
Kimberly Masu

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

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

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, Kealahou, 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

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.

[Signature]

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

[Signature]
Notary Public, Second Judicial
Circuit, 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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Department of Health
1582 Kamehameha Ave.,
Hilo Hawaii 96720
- Clean Air Branch – Kona, Keakealani
Building, Department of Health
79-1020 Haukapila Street, Room 115
Kealahou, 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

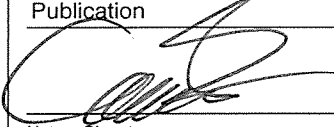
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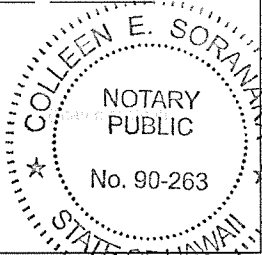
STATE OF HAWAII }
} SS.
City and County of Honolulu }

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



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:

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The Garden Island 0 times on:

Hawaii Tribune-Herald 0 times on:


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

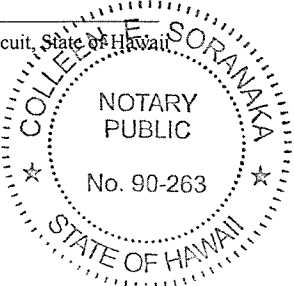
Other Publications: 0 times on:

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



Ad # 0001416030

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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Pearl City, HI 96782

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

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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)

ICSP.NO.: _____

AFFIDAVIT OF PUBLICATION

IN THE MATTER OF
PUBLIC NOTICE

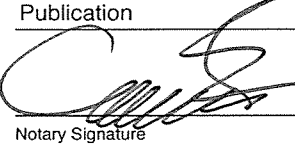
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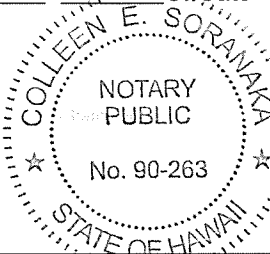
STATE OF HAWAII }
} SS.
City and County of Honolulu }

Doc. Date: MAY 17 2023 # Pages: 1

Notary Name: COLLEEN E. SORANAKA First Judicial Circuit

Doc. Description: Affidavit of Publication

Notary Signature:  Date: MAY 18 2023



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

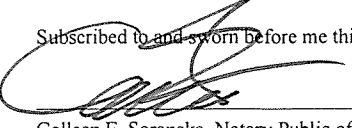
West Hawaii Today 0 times on:

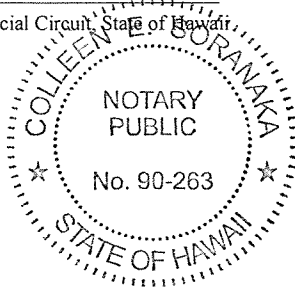
Other Publications: 0 times on:

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



Ad # 0001416028

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

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79-1020 Haukapila Street, Room 115, Kealahou, 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)

ICSP.NO.: _____

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.

PM₁₀ data for 2022 showed the Honolulu MSA to be a low concentration area and is required to have one to two PM₁₀ monitors. With this station's closure, there are two PM₁₀ stations remaining in the Honolulu MSA, which meets the minimum PM₁₀ 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 PM₁₀ 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 PM₁₀ and PM_{2.5} NAAQS at PC

Pollutant Standard	2017		2018		2019		2020		2021	
	Max	2 nd Max	Max	2 nd Max	Max	2 nd Max	Max	2 nd Max	Max	2 nd Max
PM ₁₀ 24-hr Ave. (<150 µg/m ³)	39	38	34	31	36	29	26	24	25	24
PM _{2.5} 24-hr Ave. (<35 µg/m ³)	18	16	21	11	15	10	11	7	8	7
PM _{2.5} Annual Ave. (<12 µg/m ³)	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:

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

Where: \bar{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/m ³	120 µg/m³
PM _{2.5}	24-hour	35 µg/m ³	28 µg/m³
	Annual average	12 µg/m ³	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 (\bar{X}) 2017-2021	Standard Deviation (<i>s</i>)	Student's <i>t</i> value (<i>t</i>)	No. of values (<i>n</i>)	90% upper confidence interval	Is the result <80% of NAAQS?
PM₁₀ 24-hour ¹	32 µg/m ³	6.2	2.13	5	37.9	Yes <120 µg/m³
	34 µg/m ³	6.3	2.13	5	40.0	Yes <120 µg/m³
PM_{2.5} 24-hour ³	9.4 µg/m ³	2.8	2.13	5	12.1	Yes <28 µg/m³
	Annual ³ 3.5 µg/m ³	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.”

PM₁₀ Design Criteria

One to two PM₁₀ 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 PM₁₀ sites remain in the Honolulu MSA and the network would continue to meet PM₁₀ 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	2 nd Max	Max	2 nd Max	Max	2 nd Max	Max	2 nd Max	Max	2 nd Max
PM _{2.5} 24-hr Ave. (<35 µg/m ³)	29	26	13	12	85 ¹	46 ¹	14	13	15	7
PM _{2.5} Annual Ave. (<12 µg/m ³)	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:

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

Where: \bar{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/m ³	28 µg/m³
	Annual average	12 µg/m ³	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 (\bar{X}) 2017-2021	Standard Deviation (s)	Student's <i>t</i> value (<i>t</i>)	No. of values (<i>n</i>)	90% upper confidence interval	Is the result <80% of NAAQS?
PM _{2.5} 24-hour ¹	11.6 µg/m ³	1.1	2.13	5	12.7	Yes <28 µg/m³
Annual ¹	3.9 µg/m ³	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 NO₂ Parameters at the Niualu SPMS Air Monitoring Station (150070007)

The State of Hawaii is requesting EPA approval to permanently discontinue PM_{2.5} and NO₂ parameters at the Niualu (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 NO₂ was discontinued on March 31, 2022.

The Niualu 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 NO₂ station in the Honolulu MSA which meets the state's minimum requirement for NO₂ monitoring. The NI station is not located in an MSA and therefore no NO₂ monitoring is required at this station. The NO₂ 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 NO₂ 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 NO₂ 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 NO₂ 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 NO₂ 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 NO₂ NAAQS at NI

Pollutant Standard	2017		2018		2019		2020		2021	
	Max	2 nd Max	Max	2 nd Max	Max	2 nd Max	Max	2 nd Max	Max	2 nd Max
PM _{2.5} 24-hr Ave. (<35 µg/m ³)	13	11	12	11	19	10	10	10	8	8
PM _{2.5} Annual Ave. (<12 µg/m ³)	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:

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

Where: \bar{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/m ³	28 µg/m³
	Annual average	12 µg/m ³	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 (\bar{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/m³
Annual ¹	2.9 µg/m ³	0.17	2.13	5	3.1	Yes <9.8 µg/m³
NO₂						
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 NO₂ 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.

NO₂ Design Criteria

40 CFR Part 58, Appendix D Section 4.3.3 requires area wide NO₂ 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 NO₂ monitoring is currently required.

The state has one SLAMS NO₂ station remaining in the network, in the Honolulu MSA, which measures typical concentration in areas of high population density. With the discontinuation of NO₂ parameter at Niumalu, the network would continue to meet NO₂ 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 NO₂ 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 SO₂ Parameters at the Kapolei SLAMS Air Monitoring Station (150030010)

The State of Hawaii is requesting EPA approval to permanently discontinue CO and SO₂ 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 SO₂ 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 SO₂ being required parameters for NCore, the SLAMS CO and SO₂ 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 SO₂ 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 SO₂ 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 SO₂ 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 SO₂ 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 SO₂ 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 SO₂ NAAQS at KA

Pollutant Standard	2017		2018		2019		2020		2021	
	Max	2 nd Max	Max	2 nd Max	Max	2 nd Max	Max	2 nd Max	Max	2 nd 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:

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

Where: \bar{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 (\bar{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
SO₂						
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 SO₂ 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 NO₂ 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.

SO₂ 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 SO₂ monitoring requirements, and accordingly, Hawaii is currently required to operate one SO₂ monitor in the Honolulu MSA. The state currently has three SO₂ monitors in the Honolulu MSA, one SLAMS (DH), one SLAMS/DRR (KE), and one trace SO₂ monitor at the NCore station, which meets the minimum number of required SO₂ stations. With the discontinuation of SO₂ parameter at Kapolei, the network would continue to meet SO₂ 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 SO₂ 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	2 nd Max	Max	2 nd Max	Max	2 nd Max	Max	2 nd Max	Max	2 nd Max
PM _{2.5} 24-hr Ave. (<35 µg/m ³)	n/a	n/a	n/a	n/a	11	5	14	12	14	12
PM _{2.5} Annual Ave. (<12 µg/m ³)	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:

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

Where: \bar{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/m ³	28 µg/m³
	Annual average	12 µg/m ³	9.8 µg/m³

Conservatively using the 2019 to 2021 (only years with complete 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 (\bar{X}) 2019-2021	Standard Deviation (<i>s</i>)	Student's <i>t</i> value (<i>t</i>)	No. of values (<i>n</i>)	90% upper confidence interval	Is the result <80% of NAAQS?
PM_{2.5}						
24-hour ¹	5.8 µg/m ³	1.42	2.92	3	8.1	Yes <28 µg/m³
Annual ¹	2.3 µg/m ³	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
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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 PROTECTION AGENCY
 AIR QUALITY SUBSYSTEM
 MAXIMUM VALUES REPORT

Feb. 6, 2023

PM10 Total 0-10um STP (81102)

State:	Hawaii										Primary:
Duration:	1 HOUR										Secondary:
Year:	2017										Unit: Micrograms/cubic meter
											(25 C)
											Maximum Values
Site ID	POC	County Name		1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT
		City Name	Methods	6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID
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										Primary:
Duration:	1 HOUR										Secondary:
Year:	2018										Unit: Micrograms/cubic meter
											(25 C)
											Maximum Values
Site ID	POC	County Name		1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT
		City Name	Methods	6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID
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										Primary:
Duration:	1 HOUR										Secondary:
Year:	2019										Unit: Micrograms/cubic meter
											(25 C)
											Maximum Values
Site ID	POC	County Name		1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT
		City Name	Methods	6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID
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			

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 AIR QUALITY SUBSYSTEM
 MAXIMUM VALUES REPORT

Feb. 6, 2023

PM10 Total 0-10um STP (81102)

State:	Hawaii			Primary:								
Duration:	1 HOUR			Secondary:								
Year:	2020			Unit: Micrograms/cubic meter								
				Maximum Values					(25 C)			
Site ID	POC	County Name	Methods	1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT	
		City Name		6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID	
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			Primary:								
Duration:	1 HOUR			Secondary:								
Year:	2021			Unit: Micrograms/cubic meter								
				Maximum Values					(25 C)			
Site ID	POC	County Name	Methods	1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT	
		City Name		6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID	
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			Primary: 150								
Duration:	24-HR BLK AVG			Secondary: 150								
Year:	2017			Unit: Micrograms/cubic meter								
				Maximum Values					(25 C)			
Site ID	POC	County Name	Methods	1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT	
		City Name		6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID	
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				

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 AIR QUALITY SUBSYSTEM
 MAXIMUM VALUES REPORT

Feb. 6, 2023

PM10 Total 0-10um STP (81102)

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

Primary: 150
 Secondary: 150
 Unit: Micrograms/cubic meter

Maximum Values

(25 C)

Site ID	POC	County Name City Name	Methods	1st Max	2nd Max	3rd Max	4th Max	5th Max	Num Obs	Num Exc	EDT ID
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

Maximum Values

(LC)

Site ID	POC	County Name City Name	Methods	1st Max	2nd Max	3rd Max	4th Max	5th Max	Num Obs	Num Exc	EDT ID
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

Maximum Values

(LC)

Site ID	POC	County Name City Name	Methods	1st Max	2nd Max	3rd Max	4th Max	5th Max	Num Obs	Num Exc	EDT ID
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			

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 AIR QUALITY SUBSYSTEM
 MAXIMUM VALUES REPORT

Feb. 6, 2023

PM2.5 - Local Conditions (88101)

State:	Hawaii										Primary:
Duration:	24 HOUR										Secondary:
Year:	2020										Unit: Micrograms/cubic meter
											(LC)
											Maximum Values
Site ID	POC	County Name		1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT
		City Name	Methods	6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID
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										Primary:
Duration:	24 HOUR										Secondary:
Year:	2021										Unit: Micrograms/cubic meter
											(LC)
											Maximum Values
Site ID	POC	County Name		1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT
		City Name	Methods	6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID
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										Primary:
Duration:	24-HR BLK AVG										Secondary:
Year:	2017										Unit: Micrograms/cubic meter
											(LC)
											Maximum Values
Site ID	POC	County Name		1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT
		City Name	Methods	6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID
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		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 AIR QUALITY SUBSYSTEM
 MAXIMUM VALUES REPORT

Feb. 6, 2023

PM2.5 - Local Conditions (88101)

State:	Hawaii				Primary:							
Duration:	24-HR BLK AVG				Secondary:							
Year:	2018				Unit: Micrograms/cubic meter							
				Maximum Values					(LC)			
Site ID	POC	County Name	Methods	1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT	
		City Name		6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID	
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				Primary:							
Duration:	24-HR BLK AVG				Secondary:							
Year:	2019				Unit: Micrograms/cubic meter							
				Maximum Values					(LC)			
Site ID	POC	County Name	Methods	1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT	
		City Name		6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID	
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				Primary:							
Duration:	24-HR BLK AVG				Secondary:							
Year:	2020				Unit: Micrograms/cubic meter							
				Maximum Values					(LC)			
Site ID	POC	County Name	Methods	1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT	
		City Name		6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID	
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 PROTECTION 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

Site ID	POC	County Name City Name	Methods	Maximum Values					Unit: Micrograms/cubic meter (LC)		
				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
15-003-2004	4	Honolulu	209	8.0	6.7	6.5	6.4	6.2	338		0
		Pearl City		11/13:00 6.1 01/15:00	10/09:00 6.1 03/22:00	04/20:00 6.0 01/14:00	03/21:00 5.8 01/22:00	10/10:00 5.8 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
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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 PROTECTION AGENCY
 AIR QUALITY SUBSYSTEM
 MAXIMUM VALUES REPORT

Feb. 6, 2023

PM2.5 - Local Conditions (88101)

State:	Hawaii										Primary:
Duration:	1 HOUR										Secondary:
Year:	2017										Unit: Micrograms/cubic meter
											(LC)
											Maximum Values
Site ID	POC	County Name		1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT
		City Name	Methods	6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID
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										Primary:
Duration:	1 HOUR										Secondary:
Year:	2018										Unit: Micrograms/cubic meter
											(LC)
											Maximum Values
Site ID	POC	County Name		1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT
		City Name	Methods	6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID
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										Primary:
Duration:	1 HOUR										Secondary:
Year:	2019										Unit: Micrograms/cubic meter
											(LC)
											Maximum Values
Site ID	POC	County Name		1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT
		City Name	Methods	6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID
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			

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 AIR QUALITY SUBSYSTEM
 MAXIMUM VALUES REPORT

Feb. 6, 2023

PM2.5 - Local Conditions (88101)

State:	Hawaii										Primary:
Duration:	1 HOUR										Secondary:
Year:	2020										Unit: Micrograms/cubic meter
											(LC)
											Maximum Values
Site ID	POC	County Name		1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT
		City Name	Methods	6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID
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										Primary:
Duration:	1 HOUR										Secondary:
Year:	2021										Unit: Micrograms/cubic meter
											(LC)
											Maximum Values
Site ID	POC	County Name		1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT
		City Name	Methods	6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID
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										Primary:
Duration:	24-HR BLK AVG										Secondary:
Year:	2017										Unit: Micrograms/cubic meter
											(LC)
											Maximum Values
Site ID	POC	County Name		1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT
		City Name	Methods	6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID
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		

UNITED STATES ENVIRONMENTAL PROTECTION 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

Site ID	POC	County Name City Name	Methods	Maximum Values					Unit: Micrograms/cubic meter (LC)		
				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
15-009-0006	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			

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
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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 PROTECTION AGENCY
 AIR QUALITY SUBSYSTEM
 MAXIMUM VALUES REPORT

Feb. 6, 2023

Nitrogen dioxide (NO2) (42602)

State:	Hawaii										Primary:
Duration:	1 HOUR										Secondary:
Year:	2020										Unit: Parts per billion
Maximum Values											
Site ID	POC	County Name		1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT
		City Name	Methods	6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID
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										Primary:
Duration:	1 HOUR										Secondary:
Year:	2021										Unit: Parts per billion
Maximum Values											
Site ID	POC	County Name		1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT
		City Name	Methods	6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID
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										Primary:
Duration:	1 HOUR										Secondary:
Year:	2017										Unit: Micrograms/cubic meter (LC)
Maximum Values											
Site ID	POC	County Name		1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT
		City Name	Methods	6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID
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			

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 AIR QUALITY SUBSYSTEM
 MAXIMUM VALUES REPORT

Feb. 6, 2023

PM2.5 - Local Conditions (88101)

State:	Hawaii										Primary:
Duration:	1 HOUR										Secondary:
Year:	2018										Unit: Micrograms/cubic meter
											(LC)
											Maximum Values
Site ID	POC	County Name		1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT
		City Name	Methods	6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID
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										Primary:
Duration:	1 HOUR										Secondary:
Year:	2019										Unit: Micrograms/cubic meter
											(LC)
											Maximum Values
Site ID	POC	County Name		1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT
		City Name	Methods	6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID
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										Primary:
Duration:	1 HOUR										Secondary:
Year:	2020										Unit: Micrograms/cubic meter
											(LC)
											Maximum Values
Site ID	POC	County Name		1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT
		City Name	Methods	6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID
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			

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 AIR QUALITY SUBSYSTEM
 MAXIMUM VALUES REPORT

Feb. 6, 2023

PM2.5 - Local Conditions (88101)

State:	Hawaii										Primary:
Duration:	1 HOUR										Secondary:
Year:	2021										Unit: Micrograms/cubic meter
											(LC)
											Maximum Values
Site ID	POC	County Name		1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT
		City Name	Methods	6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID
15-007-0007	1	Kauai	209	42.0	20.0	19.0	17.0	16.0	8193		0
				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										Primary:
Duration:	24-HR BLK AVG										Secondary:
Year:	2017										Unit: Micrograms/cubic meter
											(LC)
											Maximum Values
Site ID	POC	County Name		1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT
		City Name	Methods	6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID
15-007-0007	1	Kauai	170	13.2	11.2	11.1	10.2	10.0	350		0
				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										Primary:
Duration:	24-HR BLK AVG										Secondary:
Year:	2018										Unit: Micrograms/cubic meter
											(LC)
											Maximum Values
Site ID	POC	County Name		1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT
		City Name	Methods	6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID
15-007-0007	1	Kauai	170	11.6	11.3	10.9	10.0	9.4	327		0
				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			

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
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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 PROTECTION 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

Maximum Values

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

Maximum Values

Site ID	POC	County Name	City Name	Methods	1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT
					6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID
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

Maximum Values

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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 AIR QUALITY SUBSYSTEM
 MAXIMUM VALUES REPORT

Feb. 6, 2023

Carbon monoxide (42101)

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

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
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

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
15-003-0010	1	Honolulu	093	.3	.3				8327	0	0
		Not in a city		03/11:12	03/20:06						

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
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 PROTECTION 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

Maximum Values

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

Maximum Values

Site ID	POC	County Name	City Name	Methods	1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT
					6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID
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

Maximum Values

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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 AIR QUALITY SUBSYSTEM
 MAXIMUM VALUES REPORT

Feb. 6, 2023

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
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
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
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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 AIR QUALITY SUBSYSTEM
 MAXIMUM VALUES REPORT

Feb. 6, 2023

Sulfur dioxide (42401)

State: Hawaii
 Duration: 1 HOUR
 Year: 2018

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	Num	EDT		
				6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID		
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					

				Maximum Values									
Site ID	POC	County Name City Name	Methods	1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT		
				6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID		
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

				Maximum Values									
Site ID	POC	County Name City Name	Methods	1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT		
				6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID		
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					

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 AIR QUALITY SUBSYSTEM
 MAXIMUM VALUES REPORT

Feb. 6, 2023

Sulfur dioxide (42401)

State: Hawaii
 Duration: 1 HOUR
 Year: 2019

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
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

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
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
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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 AIR QUALITY SUBSYSTEM
 MAXIMUM VALUES REPORT

Feb. 6, 2023

Sulfur dioxide (42401)

State: Hawaii
 Duration: 1 HOUR
 Year: 2021

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
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			

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
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

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
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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 AIR QUALITY SUBSYSTEM
 MAXIMUM VALUES REPORT

Feb. 6, 2023

Sulfur dioxide (42401)

State:	Hawaii			Primary:							
Duration:	5 MINUTE			Secondary:							
Year:	2018			Unit: Parts per billion							
				Maximum Values							
Site ID	POC	County Name	Methods	1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT
		City Name		6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID
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			Primary:							
Duration:	5 MINUTE			Secondary:							
Year:	2019			Unit: Parts per billion							
				Maximum Values							
Site ID	POC	County Name	Methods	1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT
		City Name		6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID
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			Primary:							
Duration:	5 MINUTE			Secondary:							
Year:	2020			Unit: Parts per billion							
				Maximum Values							
Site ID	POC	County Name	Methods	1st Max	2nd Max	3rd Max	4th Max	5th Max	Num	Num	EDT
		City Name		6th Max	7th Max	8th Max	9th Max	10th Max	Obs	Exc	ID
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 PROTECTION 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

Site ID	POC	County Name City Name	Methods	Maximum Values					Num Obs	Num Exc	EDT ID
				1st Max 6th Max	2nd Max 7th Max	3rd Max 8th Max	4th Max 9th Max	5th Max 10th Max			
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 ('*').

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

Report Date: Feb. 6, 2023

Pollutant: PM10 Total 0-10um STP(81102)

Design Value Year: 2017

Standard Units: Micrograms/cubic meter (25 C) (001)

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

NAAQS Standard: PM10 24-hour 2006

Statistic: Annual Estimated Days > Standard **Level:** 150

State Name: Hawaii

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

- Notes:**
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 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 ('*').

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

Report Date: Feb. 6, 2023

Pollutant: PM10 Total 0-10um STP(81102)

Design Value Year: 2018

Standard Units: Micrograms/cubic meter (25 C) (001)

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

NAAQS Standard: PM10 24-hour 2006

Statistic: Annual Estimated Days > Standard **Level:** 150

State Name: Hawaii

<u>Site ID</u>	<u>POC</u>	<u>STREET ADDRESS</u>	2018				2017				2016				3 - Year	
			<u>Exceedances</u>	<u>#Comp</u>	<u>Cert&</u>	<u>Eval</u>	<u>Exceedances</u>	<u>#Comp</u>	<u>Cert&</u>	<u>Eval</u>	<u>Exceedances</u>	<u>#Comp</u>	<u>Cert&</u>	<u>Eval</u>	<u>Estimated</u>	<u>Validity</u>
			<u>Estimated</u>	<u>Count</u>	<u>Quarter</u>	<u>Eval</u>	<u>Estimated</u>	<u>Count</u>	<u>Quarter</u>	<u>Eval</u>	<u>Estimated</u>	<u>Count</u>	<u>Quarter</u>	<u>Eval</u>	<u>Exceedances</u>	<u>Ind.</u>
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 ('*').

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

Report Date: Feb. 6, 2023

Pollutant: PM10 Total 0-10um STP(81102)

Design Value Year: 2019

Standard Units: Micrograms/cubic meter (25 C) (001)

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

NAAQS Standard: PM10 24-hour 2006

Statistic: Annual Estimated Days > Standard **Level:** 150

State Name: Hawaii

<u>Site ID</u>	<u>POC</u>	<u>STREET ADDRESS</u>	2019			2018			2017			3 - Year				
			<u>Exceedances</u>	<u>#Comp</u>	<u>Cert&</u>	<u>Exceedances</u>	<u>#Comp</u>	<u>Cert&</u>	<u>Exceedances</u>	<u>#Comp</u>	<u>Cert&</u>	<u>Estimated</u>	<u>Validity</u>			
			<u>Estimated Count</u>	<u>Quarter</u>	<u>Eval</u>	<u>Estimated Count</u>	<u>Quarter</u>	<u>Eval</u>	<u>Estimated Count</u>	<u>Quarter</u>	<u>Eval</u>	<u>Exceedances</u>	<u>Ind.</u>			
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 ('*').

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

Report Date: Feb. 6, 2023

Pollutant: PM10 Total 0-10um STP(81102)

Design Value Year: 2020

Standard Units: Micrograms/cubic meter (25 C) (001)

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

NAAQS Standard: PM10 24-hour 2006

Statistic: Annual Estimated Days > Standard **Level:** 150

State Name: Hawaii

<u>Site ID</u>	<u>POC</u>	<u>STREET ADDRESS</u>	2020				2019				2018				3 - Year	
			<u>Exceedances</u>	<u>#Comp</u>	<u>Cert&</u>	<u>Eval</u>	<u>Exceedances</u>	<u>#Comp</u>	<u>Cert&</u>	<u>Eval</u>	<u>Exceedances</u>	<u>#Comp</u>	<u>Cert&</u>	<u>Eval</u>	<u>Estimated</u>	<u>Validity</u>
			<u>Estimated</u>	<u>Count</u>	<u>Quarter</u>										<u>Exceedances</u>	<u>Ind.</u>
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 ('*').

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

Report Date: Feb. 6, 2023

Pollutant: PM10 Total 0-10um STP(81102)

Design Value Year: 2021

Standard Units: Micrograms/cubic meter (25 C) (001)

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

NAAQS Standard: PM10 24-hour 2006

Statistic: Annual Estimated Days > Standard **Level:** 150

State Name: Hawaii

<u>Site ID</u>	<u>POC</u>	<u>STREET ADDRESS</u>	2021				2020				2019				3 - Year	
			<u>Exceedances</u>	<u>#Comp</u>	<u>Cert&</u>	<u>Eval</u>	<u>Exceedances</u>	<u>#Comp</u>	<u>Cert&</u>	<u>Eval</u>	<u>Exceedances</u>	<u>#Comp</u>	<u>Cert&</u>	<u>Eval</u>	<u>Estimated</u>	<u>Validity</u>
			<u>Estimated</u>	<u>Count</u>	<u>Quarter</u>	<u>Eval</u>	<u>Estimated</u>	<u>Count</u>	<u>Quarter</u>	<u>Eval</u>	<u>Estimated</u>	<u>Count</u>	<u>Quarter</u>	<u>Eval</u>	<u>Exceedances</u>	<u>Ind.</u>
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 ('*').

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

Report Date: Feb. 6, 2023

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 ('*').

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

Report Date: Feb. 6, 2023

Pollutant: Site-Level PM2.5 - 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

<u>Site_ID</u> / <u>STREET ADDRESS</u>	2017					2016					2015					24-Hour		Annual	
	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Design	Valid	Design	Valid
	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Value</u>	<u>Ind.</u>	<u>Value</u>	<u>Ind.</u>
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 ('*').

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

Report Date: Feb. 6, 2023

Pollutant: Site-Level PM2.5 - 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

<u>Site_ID</u> / <u>STREET ADDRESS</u>	2018					2017					2016					24-Hour		Annual	
	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Design	Valid	Design	Valid
	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Value</u>	<u>Ind.</u>	<u>Value</u>	<u>Ind.</u>
15-003-2004 860 4TH ST, PEARL CITY	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

- 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 ('*').

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

Report Date: Feb. 6, 2023

Pollutant: Site-Level PM2.5 - 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

<u>Site_ID</u> / <u>STREET ADDRESS</u>	2019					2018					2017					24-Hour		Annual	
	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Design	Valid	Design	Valid
	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Value</u>	<u>Ind.</u>	<u>Value</u>	<u>Ind.</u>
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 ('*').

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

Report Date: Feb. 6, 2023

Pollutant: Site-Level PM2.5 - 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

<u>Site_ID</u> / <u>STREET ADDRESS</u>	2020					2019					2018					24-Hour		Annual	
	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Design	Valid	Design	Valid
	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Value</u>	<u>Ind.</u>	<u>Value</u>	<u>Ind.</u>
15-003-2004 860 4TH ST, PEARL CITY	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

- 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 ('*').

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

Report Date: Feb. 6, 2023

Pollutant: Site-Level PM2.5 - 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

<u>Site_ID</u> / <u>STREET ADDRESS</u>	2021					2020					2019					24-Hour		Annual	
	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Design	Valid	Design	Valid
	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Value</u>	<u>Ind.</u>	<u>Value</u>	<u>Ind.</u>
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 ('*').

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

Report Date: Feb. 6, 2023

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 ('*').

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

Report Date: Feb. 6, 2023

Pollutant: Site-Level PM2.5 - 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

<u>Site_ID</u> / <u>STREET ADDRESS</u>	2017					2016					2015					24-Hour		Annual	
	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Design	Valid	Design	Valid
	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Value</u>	<u>Ind.</u>	<u>Value</u>	<u>Ind.</u>
15-009-0006 KAIHOI ST AND KAILOHIA 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 ('*').

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

Report Date: Feb. 6, 2023

Pollutant: Site-Level PM2.5 - 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

<u>Site_ID</u> / <u>STREET ADDRESS</u>	2018					2017					2016					24-Hour		Annual	
	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Design	Valid	Design	Valid
	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Value</u>	<u>Ind.</u>	<u>Value</u>	<u>Ind.</u>
15-009-0006 KAIHOI ST AND KAILOHIA ST	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

- 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 ('*').

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

Report Date: Feb. 6, 2023

Pollutant: Site-Level PM2.5 - 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

<u>Site_ID</u> / <u>STREET ADDRESS</u>	2019					2018					2017					24-Hour		Annual	
	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Design Valid	Design Valid		
	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Value</u>	<u>Ind.</u>	<u>Value</u>	<u>Ind.</u>
15-009-0006 KAIHOI ST AND KAILOHIA 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 ('*').

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

Report Date: Feb. 6, 2023

Pollutant: Site-Level PM2.5 - 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

<u>Site_ID</u> / <u>STREET ADDRESS</u>	2020					2019					2018					24-Hour		Annual	
	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Design Valid	Design Valid		
	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Value</u>	<u>Ind.</u>	<u>Value</u>	<u>Ind.</u>
15-009-0006 KAIHOI ST AND KAILOLOHIA 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 ('*').

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

Report Date: Feb. 6, 2023

Pollutant: Site-Level PM2.5 - 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

<u>Site_ID</u> / <u>STREET ADDRESS</u>	2021					2020					2019					24-Hour		Annual	
	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Design Valid	Design Valid		
	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Value</u>	<u>Ind.</u>	<u>Value</u>	<u>Ind.</u>
15-009-0006 KAIHOI ST AND KAILOHIA 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 ('*').

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

Report Date: Feb. 6, 2023

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 ('*').

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

Report Date: Feb. 6, 2023

Pollutant: Site-Level PM2.5 - 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

<u>Site_ID</u> / <u>STREET ADDRESS</u>	2017					2016					2015					24-Hour		Annual	
	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Design	Valid	Design	Valid
	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Value</u>	<u>Ind.</u>	<u>Value</u>	<u>Ind.</u>
15-007-0007 2342 HULEMALU ROAD, KAUAI	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

- 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 ('*').

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

Report Date: Feb. 6, 2023

Pollutant: Site-Level PM2.5 - 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

<u>Site_ID</u> / <u>STREET ADDRESS</u>	2018					2017					2016					24-Hour		Annual	
	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Design	Valid	Design	Valid
	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Value</u>	<u>Ind.</u>	<u>Value</u>	<u>Ind.</u>
15-007-0007 2342 HULEMALU ROAD, KAUAI	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

- 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 ('*').

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

Report Date: Feb. 6, 2023

Pollutant: Site-Level PM2.5 - 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

<u>Site_ID</u> / <u>STREET ADDRESS</u>	2019					2018					2017					24-Hour		Annual	
	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Design	Valid	Design	Valid
	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Value</u>	<u>Ind.</u>	<u>Value</u>	<u>Ind.</u>
15-007-0007 2342 HULEMALU ROAD, KAUAI	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

- 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 ('*').

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

Report Date: Feb. 6, 2023

Pollutant: Site-Level PM2.5 - 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

<u>Site_ID</u> / <u>STREET ADDRESS</u>	2020					2019					2018					24-Hour		Annual	
	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Design	Valid	Design	Valid
	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Value</u>	<u>Ind.</u>	<u>Value</u>	<u>Ind.</u>
15-007-0007 2342 HULEMALU ROAD, KAUAI	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

- 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 ('*').

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

Report Date: Feb. 6, 2023

Pollutant: Site-Level PM2.5 - 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

<u>Site_ID</u> / <u>STREET ADDRESS</u>	2021					2020					2019					24-Hour		Annual	
	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Cred.	Comp.	98th	Wtd.	Cert&	Design	Valid	Design	Valid
	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Days</u>	<u>Qtrrs</u>	<u>Perctil</u>	<u>Mean</u>	<u>Eval</u>	<u>Value</u>	<u>Ind.</u>	<u>Value</u>	<u>Ind.</u>
15-007-0007 2342 HULEMALU ROAD, KAUAI	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

- 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 ('*').

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

Report Date: Feb. 6, 2023

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 ('*').

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

Report Date: Feb. 6, 2023

Pollutant: Nitrogen dioxide (NO2)
Standard Units: Parts per billion(008)
NAAQS Standard: NO2 1-hour 2010

Design Value Year: 2017

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

Statistic: Annual 98th Percentile **Level:** 100

State Name: Hawaii

<u>Site ID</u>	<u>STREET ADDRESS</u>	2017			2016			2015			3-Year	
		<u>Comp.</u> <u>Qtrs</u>	<u>98th</u> <u>Percentile</u>	<u>Cert&</u> <u>Eval</u>	<u>Comp.</u> <u>Qtrs</u>	<u>98th</u> <u>Percentile</u>	<u>Cert&</u> <u>Eval</u>	<u>Comp.</u> <u>Qtrs</u>	<u>98th</u> <u>Percentile</u>	<u>Cert&</u> <u>Eval</u>	<u>Design</u> <u>Value</u>	<u>DV</u> <u>Validity</u> <u>Indicator</u>
15-007-0007	2342 HULEMALU ROAD, KAUAI	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 ('*').

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

Report Date: Feb. 6, 2023

Pollutant: Nitrogen dioxide (NO2)
Standard Units: Parts per billion(008)
NAAQS Standard: NO2 1-hour 2010

Design Value Year: 2018

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

Statistic: Annual 98th Percentile **Level:** 100

State Name: Hawaii

<u>Site ID</u>	<u>STREET ADDRESS</u>	2018			2017			2016			3-Year	
		<u>Comp.</u> <u>Qtrs</u>	<u>98th</u> <u>Percentile</u>	<u>Cert&</u> <u>Eval</u>	<u>Comp.</u> <u>Qtrs</u>	<u>98th</u> <u>Percentile</u>	<u>Cert&</u> <u>Eval</u>	<u>Comp.</u> <u>Qtrs</u>	<u>98th</u> <u>Percentile</u>	<u>Cert&</u> <u>Eval</u>	<u>Design</u> <u>Value</u>	<u>DV</u> <u>Validity</u> <u>Indicator</u>
15-007-0007	2342 HULEMALU ROAD, KAUAI	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 ('*').

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

Report Date: Feb. 6, 2023

Pollutant: Nitrogen dioxide (NO2)
Standard Units: Parts per billion(008)
NAAQS Standard: NO2 1-hour 2010

Design Value Year: 2019

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

Statistic: Annual 98th Percentile **Level:** 100

State Name: Hawaii

<u>Site ID</u>	<u>STREET ADDRESS</u>	2019			2018			2017			3-Year	
		<u>Comp.</u> <u>Qtrs</u>	<u>98th</u> <u>Percentile</u>	<u>Cert&</u> <u>Eval</u>	<u>Comp.</u> <u>Qtrs</u>	<u>98th</u> <u>Percentile</u>	<u>Cert&</u> <u>Eval</u>	<u>Comp.</u> <u>Qtrs</u>	<u>98th</u> <u>Percentile</u>	<u>Cert&</u> <u>Eval</u>	<u>Design</u> <u>Value</u>	<u>DV</u> <u>Validity</u> <u>Indicator</u>
15-007-0007	2342 HULEMALU ROAD, KAUAI	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 ('*').

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

Report Date: Feb. 6, 2023

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

<u>Site ID</u>	<u>STREET ADDRESS</u>	2020			2019			2018			3-Year	
		<u>Comp.</u> <u>Qtrs</u>	<u>98th</u> <u>Percentile</u>	<u>Cert&</u> <u>Eval</u>	<u>Comp.</u> <u>Qtrs</u>	<u>98th</u> <u>Percentile</u>	<u>Cert&</u> <u>Eval</u>	<u>Comp.</u> <u>Qtrs</u>	<u>98th</u> <u>Percentile</u>	<u>Cert&</u> <u>Eval</u>	<u>Design</u> <u>Value</u>	<u>DV</u> <u>Validity</u> <u>Indicator</u>
15-007-0007	2342 HULEMALU ROAD, KAUAI	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.
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 AIR QUALITY SYSTEM
 PRELIMINARY DESIGN VALUE REPORT

Report Date: Feb. 6, 2023

Pollutant: Nitrogen dioxide (NO2)
Standard Units: Parts per billion(008)
NAAQS Standard: NO2 1-hour 2010

Design Value Year: 2021

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

Statistic: Annual 98th Percentile **Level:** 100

State Name: Hawaii

<u>Site ID</u>	<u>STREET ADDRESS</u>	2021			2020			2019			3-Year	
		<u>Comp.</u> <u>Qtrs</u>	<u>98th</u> <u>Percentile</u>	<u>Cert&</u> <u>Eval</u>	<u>Comp.</u> <u>Qtrs</u>	<u>98th</u> <u>Percentile</u>	<u>Cert&</u> <u>Eval</u>	<u>Comp.</u> <u>Qtrs</u>	<u>98th</u> <u>Percentile</u>	<u>Cert&</u> <u>Eval</u>	<u>Design</u> <u>Value</u>	<u>DV</u> <u>Validity</u> <u>Indicator</u>
15-007-0007	2342 HULEMALU ROAD, KAUAI	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 ('*').

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

Report Date: Feb. 6, 2023

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 ('*').

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

Report Date: Feb. 6, 2023

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

Design Value Year: 2017

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

Level: 75

State Name: Hawaii

<u>Site ID</u>	<u>STREET ADDRESS</u>	2017			2016			2015			3-Year	
		<u>Comp. Qtrs</u>	<u>99th Percentile</u>	<u>Cert& Eval</u>	<u>Comp. Qtrs</u>	<u>99th Percentile</u>	<u>Cert& Eval</u>	<u>Comp. Qtrs</u>	<u>99th Percentile</u>	<u>Cert& Eval</u>	<u>Design Value</u>	<u>Valid Ind.</u>
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 ('*').

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

Report Date: Feb. 6, 2023

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

Design Value Year: 2018
REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.
State Name: Hawaii

<u>Site ID</u>	<u>STREET ADDRESS</u>	2018			2017			2016			3-Year	
		<u>Comp. Qtrs</u>	<u>99th Percentile</u>	<u>Cert& Eval</u>	<u>Comp. Qtrs</u>	<u>99th Percentile</u>	<u>Cert& Eval</u>	<u>Comp. Qtrs</u>	<u>99th Percentile</u>	<u>Cert& Eval</u>	<u>Design Value</u>	<u>Valid Ind.</u>
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 ('*').

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

Report Date: Feb. 6, 2023

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

Design Value Year: 2019
REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.
State Name: Hawaii

<u>Site ID</u>	<u>STREET ADDRESS</u>	2019			2018			2017			3-Year	
		<u>Comp. Qtrs</u>	<u>99th Percentile</u>	<u>Cert& Eval</u>	<u>Comp. Qtrs</u>	<u>99th Percentile</u>	<u>Cert& Eval</u>	<u>Comp. Qtrs</u>	<u>99th Percentile</u>	<u>Cert& Eval</u>	<u>Design Value</u>	<u>Valid Ind.</u>
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 ('*').

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

Report Date: Feb. 6, 2023

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

Design Value Year: 2020

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

Level: 75

State Name: Hawaii

<u>Site ID</u>	<u>STREET ADDRESS</u>	2020			2019			2018			3-Year	
		<u>Comp. Qtrs</u>	<u>99th Percentile</u>	<u>Cert& Eval</u>	<u>Comp. Qtrs</u>	<u>99th Percentile</u>	<u>Cert& Eval</u>	<u>Comp. Qtrs</u>	<u>99th Percentile</u>	<u>Cert& Eval</u>	<u>Design Value</u>	<u>Valid Ind.</u>
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 ('*').

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

Report Date: Feb. 6, 2023

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

Design Value Year: 2021

REPORT EXCLUDES MEASUREMENTS WITH REGIONALLY CONCURRED EVENT FLAGS.

Level: 75

State Name: Hawaii

<u>Site ID</u>	<u>STREET ADDRESS</u>	2021			2020			2019			3-Year	
		<u>Comp. Qtrs</u>	<u>99th Percentile</u>	<u>Cert& Eval</u>	<u>Comp. Qtrs</u>	<u>99th Percentile</u>	<u>Cert& Eval</u>	<u>Comp. Qtrs</u>	<u>99th Percentile</u>	<u>Cert& Eval</u>	<u>Design Value</u>	<u>Valid Ind.</u>
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 ('*').

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

Report Date: Feb. 6, 2023

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

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

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

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
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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

<u>SITE ID</u>	<u>PARAMETER</u>	<u>POC</u>	<u>CITY</u>	<u>ADDRESS</u>
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

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

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

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
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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												YEAR
				NUMBER / PERCENT												
				JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
15-003-0010 2052 LAUWILIWILI ST	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%
15-003-0010 2052 LAUWILIWILI ST	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%
15-003-0010 2052 LAUWILIWILI ST	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%
15-003-0010 2052 LAUWILIWILI ST	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%
15-003-0010 2052 LAUWILIWILI ST	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%
15-009-0006 Kihei KAIHOI ST AND KAILOHIA ST	88101 PM2.5 - Local Conditions	2	1	737	653	728	668	738	715	735	739	575	726	719	662	8395
			170	99%	97%	98%	93%	99%	99%	99%	99%	80%	98%	100%	89%	96%

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	PARAMETER	POC	DURATION	OBSERVATIONS												YEAR
				NUMBER / PERCENT												
CITY	ADDRESS		METHOD	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
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															

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
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
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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												YEAR
				NUMBER / PERCENT												
				JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
15-003-0010 2052 LAUWILIWILI ST	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%
15-003-0010 2052 LAUWILIWILI ST	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%
15-003-0010 2052 LAUWILIWILI ST	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%
15-003-0010 2052 LAUWILIWILI ST	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%
15-003-0010 2052 LAUWILIWILI ST	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%	99%	84%	98%	86%	98%	99%
15-009-0006 Kihei KAIHOI ST AND KAILOHIA ST	88101 PM2.5 - Local Conditions	2	1	533	582	742	718	741	718	581	727	714	731	709	633	8129
			170	72%	87%	100%	100%	100%	100%	78%	98%	99%	98%	98%	85%	93%

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	PARAMETER	POC	DURATION	OBSERVATIONS												YEAR
				NUMBER / PERCENT												
CITY	ADDRESS		METHOD	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
15-007-0007	42602 Nitrogen dioxide (NO2)	1	1	702	657	644	700	726	691	722	728	682	624	548	564	7988
	2342 HULEMALU ROAD, KAUAI		212	94%	98%	87%	97%	98%	96%	97%	98%	95%	84%	76%	76%	91%
15-007-0007	88101 PM2.5 - Local Conditions	1	1	412	664	737	544	738	717	619	736	720	714	568	641	7810
	2342 HULEMALU ROAD, KAUAI		170	55%	99%	99%	76%	99%	100%	83%	99%	100%	96%	79%	86%	89%

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
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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												YEAR
				NUMBER / PERCENT												
				JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
15-003-0010 2052 LAUWILIWILI ST	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%
15-003-0010 2052 LAUWILIWILI ST	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%
15-003-0010 2052 LAUWILIWILI ST	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%
15-003-0010 2052 LAUWILIWILI ST	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%
15-003-0010 2052 LAUWILIWILI ST	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%	99%	100%	99%	99%
15-009-0006 Kihei KAIHOI ST AND KAILOHIA ST	88101 PM2.5 - Local Conditions	2	1	711	632	743	718	741	669	724	742	717	741	715	738	8591
			000	96%	94%	100%	100%	100%	93%	97%	100%	100%	100%	99%	99%	98%

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	PARAMETER	POC	DURATION	OBSERVATIONS												YEAR
				NUMBER / PERCENT												
CITY	ADDRESS		METHOD	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
15-007-0007	42602 Nitrogen dioxide (NO2)	1	1	724	651	730	696	722	675	705	718	693	706	679	691	8390
	2342 HULEMALU ROAD, KAUAI		212	97%	97%	98%	97%	97%	94%	95%	97%	96%	95%	94%	93%	96%
15-007-0007	88101 PM2.5 - Local Conditions	1	1	741	668	630	370	741	716	738	739	712	736	712	707	8210
	2342 HULEMALU ROAD, KAUAI		000	100%	99%	85%	51%	100%	99%	99%	99%	99%	99%	99%	95%	94%

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
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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												YEAR
				NUMBER / PERCENT												
				JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
15-003-0010	42101 Carbon monoxide	1	1 093	726 98%	678 97%	715 96%	695 97%	727 98%	697 97%	728 98%	724 97%	693 96%	719 97%	693 96%	720 97%	8515 97%
2052 LAUWILIWILI ST																
15-003-0010	42101 Carbon monoxide	2	1 593	694 93%	692 99%	739 99%	712 99%	735 99%	715 99%	712 96%	739 99%	713 99%	737 99%	665 92%	715 96%	8568 98%
2052 LAUWILIWILI ST																
15-003-0010	42401 Sulfur dioxide	1	1 060	720 97%	678 97%	713 96%	692 96%	723 97%	697 97%	728 98%	724 97%	468 65%	713 96%	690 96%	716 96%	8262 94%
2052 LAUWILIWILI ST																
15-003-0010	42401 Sulfur dioxide	2	1 000	712 96%	691 99%	716 96%	701 97%	734 99%	714 99%	734 99%	601 81%	131 18%	737 99%	640 89%	732 98%	7843 89%
2052 LAUWILIWILI ST																
15-003-0010	42401 Sulfur dioxide	7	H 000	8837 99%	8308 99%	7359 82%	8238 95%	8855 99%	8579 99%	8826 99%	7194 81%	1574 18%	8852 99%	8496 98%	8805 99%	93923 89%
2052 LAUWILIWILI ST																
15-009-0006	88101 PM2.5 - Local Conditions	2	1 209	741 100%	310 45%	740 99%	718 100%	736 99%	709 98%	628 84%	737 99%	714 99%	654 88%	536 74%	739 99%	7962 91%
Kihei KAIHOI ST AND KAILOHIA 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												YEAR
				NUMBER / PERCENT												
				JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
15-007-0007 2342 HULEMALU ROAD, KAUAI	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%
15-007-0007 2342 HULEMALU ROAD, KAUAI	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%

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
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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												YEAR
				NUMBER / PERCENT												
				JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
15-003-0010	42101 Carbon monoxide	1	1 093	726 98%	656 98%	724 97%	704 98%	717 96%	700 97%	728 98%	724 97%	681 95%	724 97%	694 96%	675 91%	8453 96%
2052 LAUWILIWILI ST																
15-003-0010	42101 Carbon monoxide	2	1 593	697 94%	504 75%	700 94%	700 97%	704 95%	677 94%	736 99%	738 99%	650 90%	743 100%	720 100%	675 91%	8244 94%
2052 LAUWILIWILI ST																
15-003-0010	42401 Sulfur dioxide	1	1 060	560 75%	656 98%	724 97%	704 98%	717 96%	700 97%	728 98%	724 97%	275 38%			197 26%	5985 68%
2052 LAUWILIWILI ST																
15-003-0010	42401 Sulfur dioxide	2	1 560	702 94%	649 97%	678 91%	679 94%	726 98%	689 96%	734 99%	738 99%	709 98%	642 86%	710 99%	698 94%	8354 95%
2052 LAUWILIWILI ST																
15-003-0010	42401 Sulfur dioxide	7	H 560	8842 99%	7995 99%	8847 99%	8538 99%	8862 99%	8563 99%	531 6%	18 0%	16 0%	7729 87%	8537 99%	8435 94%	76913 73%
2052 LAUWILIWILI ST																
15-009-0006	88101 PM2.5 - Local Conditions	2	1 209	737 99%	666 99%	740 99%	710 99%	728 98%	711 99%	733 99%	736 99%	714 99%	565 76%	713 99%	729 98%	8482 97%
Kihei KAIHOI ST AND KAILOHIA ST																

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: SPM

SITE ID	PARAMETER	POC	DURATION	OBSERVATIONS												YEAR
				NUMBER / PERCENT												
CITY	ADDRESS		METHOD	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
15-007-0007	42602 Nitrogen dioxide (NO2)	1	1	728	618	708	703	717	704	674	692	475	720	695	715	8149
	2342 HULEMALU ROAD, KAUAI		212	98%	92%	95%	98%	96%	98%	91%	93%	66%	97%	97%	96%	93%
15-007-0007	88101 PM2.5 - Local Conditions	1	1	736	526	736	713	737	712	737	734	716	404	709	733	8193
	2342 HULEMALU ROAD, KAUAI		209	99%	78%	99%	99%	99%	99%	99%	99%	99%	54%	98%	99%	94%

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
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%