

**Ambient Community Air Monitoring Weekly Report
For the Hawaii Department of Health – Clean Air Branch**

Kula, Maui

11/08/2023-11/15/2023

As a result of ongoing debris removal operations in response to the Maui Wildfires, a community air monitoring and sampling plan (CAMSP, 2023) has been developed and sampling is being performed at three community locations across the area of Kula.

This approach includes ambient community air monitoring and sampling to monitor conditions and ensure debris removal activities, taking place under the U.S. Army Corps of Engineers (USACE), does not significantly impact air quality in the area of Kula. Data collected is made available to HDOH via online shared site and this weekly report. This approach to air monitoring and sampling will continue until debris removal activities are complete or until HDOH CAB advises otherwise.

Air quality monitoring for particulate matter was collected at all three community locations over a 24-hour period each day in accordance with the CAMSP. Additionally, daily air samples were collected at all community locations for asbestos and heavy metals. Summary analytical data is presented in **Tables 1 and 2**. **Figure 1** depicts the community air monitoring and sampling locations. **Appendix 1** provides detailed analytical results for all community locations where air sampling was performed. Analytical results were compared to site-specific screening levels for particulate matter, asbestos, and heavy metals as published in the CAMSP (Tetra Tech 2023; see Table 2).

Project Summary:

The results and data summary provided in this report are representative of the first week and air monitoring and sampling in response to wildfire cleanup operations.

Mobilization of field staff and equipment took place the week of November 6. Set up of the EBAMs for particulate monitoring took place from November 7th to November 8th.

Following the arrival of metals and asbestos sampling equipment and media, high flow asbestos samples began on November 9th, although low volume samples at all three locations resulted in voided samples. The first valid samples began on November 10th. Sampling for metals began at one location on November 11th, with sampling at all three commenced the following workday.

A database is currently being created for storage and display of particulate and analytical data. Lab reports in the form of pdfs, are being uploaded to a shared Teams folder following validation. Current air monitoring data from the PM_{2.5} monitors has also been shared and can be found displayed on the EPA Fire and Smoke Map. PM₁₀ data has also been shared, and efforts are underway to also incorporate onto the map..

A draft sampling plan was sent to HDOH for review on November 9th, including an outline of project deliverables, sampling methods and procedures, and calculated site-specific screening levels. Comments have been received and corresponding edits were made. A final version will be submitted following confirmation of no additional comments.

Results for Community Locations:

Ambient particulate air monitoring was performed to assess for the presence and concentrations of airborne particulates with a particle size aerodynamic diameter of 2.5 micrometers (μm) and less ($\text{PM}_{2.5}$), as well as 10 micrometers (μm) and less (PM_{10}). This particle size diameter is recognized for health evaluations and is identified as “ $\text{PM}_{2.5}$ ” and “ PM_{10} ”. The particle size diameters of 2.5 micrometers (μm) and 10 micrometers (μm) are small enough to be inhaled into a person’s lungs. Monitoring for $\text{PM}_{2.5}$ and PM_{10} was conducted 7 days a week at each of the following locations: Top Property (AM-01) (November 8 – 15), Middle Property (AM-02) 2 (November 8 – 15), Lower Property (AM-03) (November 8 – 15).

The results of PM_{10} monitoring found that screening levels were exceeded at the Top Property air monitoring station on November 14. High winds were reported in conjunction with the homeowners of the property spreading woodchips.

The results of $\text{PM}_{2.5}$ monitoring found that screening levels were exceeded at the Top Property air monitoring station on November 15. It was recorded that the homeowners were spreading woodchips around the property as well as operating a woodchipper at the adjacent property.

Neither exceedance of particulate screening levels is likely to be attributable to USACE debris removal operations.

There were eighteen samples collected for asbestos fibers at community monitoring locations throughout this time frame. No asbestos sample returned a value above the laboratory’s detection limit, indicating fibers were not present in air sampled. All asbestos results were below the public health screening level of 0.0034 fibers/cc (as well as the laboratory’s detection limits), and therefore not a concern.

Some extremely low levels of heavy metals were detected in ambient air samples at community locations. Although detected, all detections were below the public health screening levels for heavy metals. Details for particulates, heavy metal and asbestos sampling data for community locations are found in Attachment 1.

Attachments:

Analytical Sampling Results and Particulate Monitoring Results

Air Monitoring and Sampling Locations

Appendix:

Analytical Reports