

ODOR INVESTIGATION REPORT OVERVIEW

The following document provides an overview of the Western Placer Waste Management Authority's (WPWMA's) odor investigation report including an explanation of how to interpret the results.

The WPWMA utilizes a continuous odor monitoring system (developed and manufactured by [Odotech, Inc.](#)) to record the intensity of odors generated at its facility as well as produce estimates of odors generated by other nearby facilities not operated by the WPWMA. Using data from the WPWMA's on-site weather station and using the [CALPUFF](#) modeling system, the WPWMA is able to generate a graphical representation of the potential off-site transport and dispersion of odors and compute likely odor intensities at select locations. The WPWMA uses this information to provide a consistent and objective evaluation of whether the WPWMA's facility may have been the primary or contributing source of the reported odor. Furthermore, in situations where the WPWMA's facility was identified as a likely source of the reported odor, the specific on-site source (e.g. landfill gas, composting operations, waste processing operations, etc.) can be identified. This information is valuable in helping the WPWMA identify possible operational upgrades or actions at its facility to reduce the intensity or frequency of odors experienced by nearby residents.

As part of its odor investigation report, the WPWMA provides: 1) a 1-page summary of the odor notification and the WPWMA's analysis of reported event and 2) a short video clip from the WPWMA's odor monitoring and reporting system. These files will be sent to you via email if you provide your email address at the time you file an odor notification. These files are also sent to the Placer County Air Pollution Control District.

Additional details about each of these files are discussed in greater detail below.

ODOR NOTIFICATION SUMMARY REPORT

This report serves as the primary investigative report regarding the reported odor.

Odor Notification Information

This section summarizes the data submitted by the individual who experienced and reported the odor via the WPWMA's online odor notification form.

Weather Conditions

This section summarizes the average weather conditions, as measured at the WPWMA's on-site weather station, for the period of one (1) hour prior to the time the odor was first experienced and two (2) hours after the odor was first experienced.

While each of the weather parameters noted have the potential to influence the dispersion of odors, wind speed and direction are of particular interest. The WPWMA

has observed that low wind speeds tend to slow dispersion and cause odors to linger well after the conclusion of the event that may have generated the odor. Wind direction is important as it provides insight as to whether or not the location of the reported odor was downwind of the WPWMA's facility. In cases when the location of the reported odor was upwind of the WPWMA's facility, it is highly likely that a source other than the WPWMA's facility generated the odor.

Response Actions

This section provides a summary of any field investigations WPWMA staff was able to perform as a result of receiving the odor notification.

The WPWMA has found that conducting a field investigation is extremely valuable to both validate the results of the WPWMA's continuous odor monitoring system as well as to identify other possible sources of odors not included in the monitoring system model. To provide the best opportunity for WPWMA staff to experience the same odors you have, we request you notify as soon as possible after experiencing the odor.

WPWMA staff endeavor to perform field investigations whenever possible, and generally have staff available during normal business hours (i.e.: 8:00 am to 5:00 pm Monday through Friday) conduct the investigation. If staff are unable to conduct an investigation, a reason is provided in this section.

Results of Odor Monitoring

This chart summarizes the likely odor source and predicted odor intensity for the period of one (1) hour prior to the time the odor was first experienced and two (2) hours after the odor was first experienced. The data presented in the chart are the values computed by the WPWMA's continuous odor monitoring system for a pre-defined location that is nearest to the location the odor was experienced.

It is important to note that a blank chart **does not** suggest odors were not experienced but instead suggests that the odor may not have originated from the WPWMA's facility or the other off-site facilities included in the WPWMA's odor monitoring system.

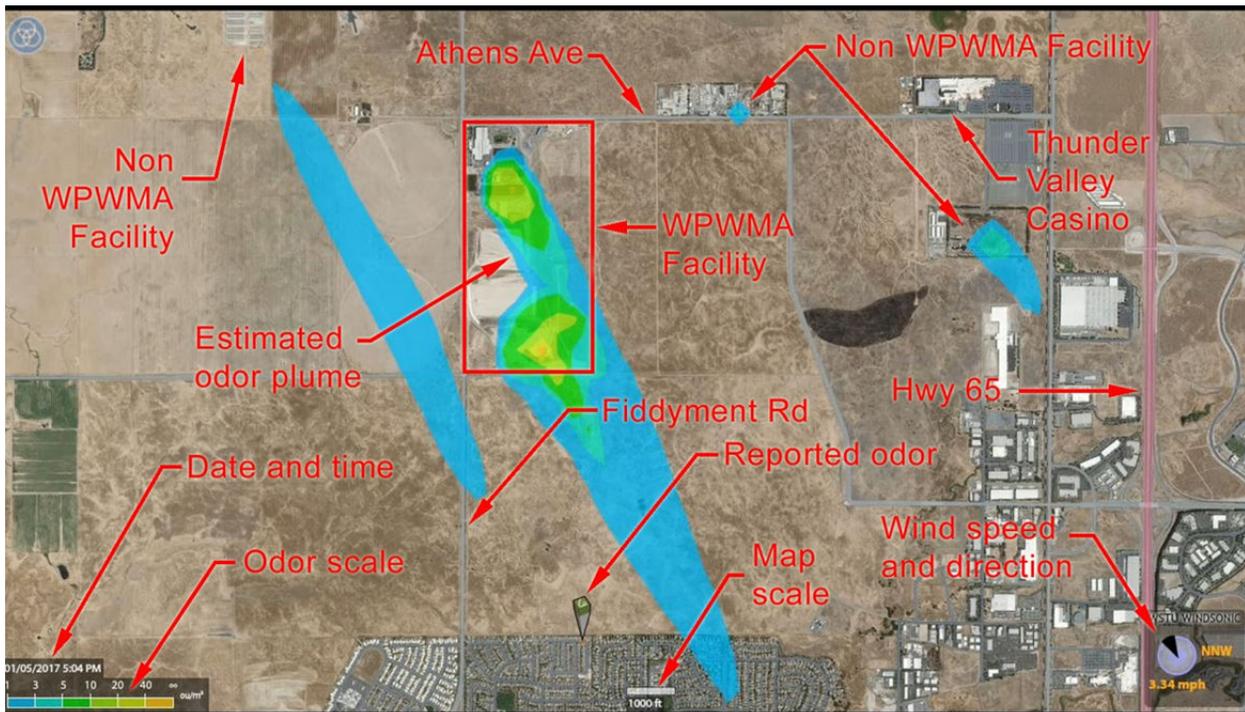
The odor intensities are presented in odor units per cubic meter (ou/m^3) which is defined in greater detail [here](#). According to Odotech, the following ou/m^3 ranges generally correspond to the following conditions:

>1 ou/m^3	Odor concentration is below the odor threshold
1 ou/m^3	50% of the population can detect an odor.
3 ou/m^3	50% of the population can qualify the odor
5 ou/m^3	The odor is recognizable and identifiable
10 ou/m^3	The odor is sufficient enough to be considered an annoyance

VIDEO CLIP FROM THE WPWMA'S ODOR MONITORING SYSTEM

The video clip provides an animation of the odor dispersion calculations produced by the WPWMA's continuous odor monitoring system overlaid on a Google Maps satellite image prior to, during and immediately after the timeframe of the reported odor.

The following highlights and describes elements of the video clip.



WPWMA Facilities

Shown bounded by the red rectangle, the WPWMA's facility includes: 1) an active, non-hazardous solid waste landfill, 2) landfill gas collection and destruction infrastructure, 3) a green waste composting facility, and 4) a materials recovery facility. Each of these major elements has the potential to generate odors which may be experienced off site by nearby residents.

Non WPWMA Facilities

Numerous facilities near the WPWMA's facility (and which are not owned and operated by the WPWMA) have the potential to generate odors. Several of these facilities, including a biomass facility, septage processing facility and livestock farm are shown on the above figure. Others not shown (and which are not included in the WPWMA's continuous odor monitoring system model) include several waste water treatment facilities, a dairy, periodic cattle grazing operations, other smaller composting facilities and a propane dealer dispensary.

Odor Scale

The scale represents the estimated odor intensity of the computed odor plume utilizing the same numerical scale as noted in the section entitled “Results of Odor Monitoring” described previously in this document.

Wind Speed and Direction

Indicates the wind speed and direction recorded at the WPWMA’s on-site weather station.

Estimated Odor Plume

Displays the estimated location and intensity of odors as computed by the WPWMA’s continuous odor monitoring system. Areas outside of the plume have a computed odor unit value of less than one (1) odor unit and are considered to have odor intensities below the odor threshold.

Reported Odor

This icon denotes the reported location of the odor and the timeframe in which the odor was reported as having been experienced. At the time the odor was first experienced, the icon appears on the screen and is highlighted green. At the end of the period the odor was experienced, the icon remains visible but the highlighting changes from green to grey. When the icon is shaded grey, it suggests the individual who reported the odor may no longer be experiencing the odor.

More than one odor icon may be displayed on the video clip. This situation indicates multiple reports of odors were received during the same time period. A number near any icon denotes the number of reported odor incidents at (or near) a specific location.