



Air Pollution Control District
San Luis Obispo County

SAN LUIS OBISPO COUNTY

OZONE EMERGENCY EPISODE PLAN

**PREPARED IN COMPLIANCE WITH
THE FEDERAL CLEAN AIR ACT**

September 25, 2019

Purpose

The San Luis Obispo County Ozone Emergency Episode Plan provides the basis for taking actions when ambient ozone concentrations reach a level that could endanger public health in San Luis Obispo (SLO) County. It identifies criteria for the four levels of emergency episodes and related components for public announcements whenever an episode has been identified. This document will be incorporated into the California Infrastructure State Implementation Plan (I-SIP).

Legal Authority

The Federal Clean Air Act ¹ gives the U.S. Environmental Protection Agency (EPA) the legal authority to halt the emission of air pollutants causing or contributing to the welfare or injury of the public. The EPA is further authorized to either bring a lawsuit in federal court or, if such civil action cannot assure prompt protection of public health or welfare, to issue such orders as may be necessary to protect public health, welfare, or the environment. The authority granted to the EPA Administrator is vested in the California Air Resources Board (CARB) and the air districts under the California Health & Safety Code (H&SC)². This section of California law applies to a range of emissions violations and imposes penalties that are equivalent to or exceed federal penalties for comparable violations. These penalties include the imposition of fines and/or imprisonment.

Under the authority of the H&SC, the CARB is responsible for controlling emissions from mobile sources while local air districts are responsible for controlling emissions from non-mobile sources. H&SC Section 41700 states that sources are prohibited from emitting any pollutant(s) that can cause injury, detriment, nuisance, or annoyance to the public, or that endanger the comfort, repose, health, or safety of the public. Furthermore, H&SC Section 42450, et seq., gives districts specific authority to abate emissions from any source violating H&SC Section 41700 or any other order, rule, or regulation that prohibits or limits the discharge of pollutants, consistent with applicable notice and hearing requirements. Under H&SC Section 41509 the CARB or other local agency rules cannot infringe upon a district's authority to declare, prohibit, or abate a nuisance, and California's Attorney General is authorized to enjoin any pollution or nuisance, either on his or her own, or by request.

In addition to the authority under H&SC, the local air districts can work with the local governing body of a city, county, or city and county, pursuant to the California Emergency Services Act³, to proclaim a local emergency when there are conditions of disaster or of extreme peril to the safety of persons and property within the territorial limits of a city, county, or both a city and county, caused by such conditions as air pollution⁴. When a local emergency is declared, cities and counties shall implement their emergency plans and take actions to mitigate or reduce the emergency threat. Actions may include deploying field-level emergency response personnel such as law enforcement, activating emergency operation centers, and issuing orders to protect the public. Through a local emergency declaration, the air districts will obtain law enforcement aids from local governing bodies to accomplish necessary actions for preventing ambient ozone concentration from reaching the harmful level.

¹ Federal Clean Air Act Section 110(a)(2)(G)

² California Health & Safety Code Section 42400 et seq.

³ California Emergency Services Act, California Government Code Section 8550-8668

⁴ California Government Code Section 8558 (c)

Federal Requirement of a Plan for the Prevention of Air Pollution Emergency Episodes

Under the Code of Federal Regulations (CFR)⁵, areas that have hourly ozone concentrations above 0.10 parts per million (ppm) are required to develop an Ozone Emergency Episode Plan which must, at a minimum, provide for taking action necessary to prevent ambient ozone concentrations at any location, in such region, from reaching the significant harm level of 0.6 ppm; averaged over two hours. As set forth in the CFR and presented in Table 1, three trigger levels (stages) are established for the ozone pollution episodes: Alert level (0.2 ppm), Warning level (0.35 ppm), and Emergency level (0.5 ppm)⁶. Corresponding actions for each specified trigger level are identified and will be implemented when the ambient ozone hourly concentration measurements reach the specified trigger levels. These elements and actions should provide for emission reductions to help mitigate high ozone concentrations.

Emergency Episode Criteria

Table 1 summarizes the four emergency episode trigger levels proposed by the San Luis Obispo County Air Pollution Control District (SLO County APCD) for the one-hour ozone concentration measurement in San Luis Obispo County. SLO County APCD proposes 0.15 ppm as a Health Advisory level to initiate emergency actions.

Table 1
Trigger Levels of Ozone Emergency Episodes in San Luis Obispo County

	Health Advisory	Alert (Stage 1)	Warning (Stage 2)	Emergency (Stage 3)
Ozone (one-hour average)	0.15 ppm	0.20 ppm	0.35 ppm	0.50 ppm

Background

Eastern San Luis Obispo County is classified as non-attainment for the 2008 and 2015 federal ozone eight-hour average standard⁷. The map presented in Figure 1 provides a graphical description of the non-attainment area. The line dividing the attainment area (western portion of San Luis Obispo County) and the non-attainment area (eastern portion of San Luis Obispo County) is defined as:

San Luis Obispo County, east of longitude -120.4 W and south of latitude 35.45 N and
San Luis Obispo County, east of longitude -120.3 W and north of latitude 35.45 N.

Because San Luis Obispo County had two days with the maximum one-hour concentration greater than 0.10 ppm between 2015 and 2017, the SLO County APCD is submitting this Ozone Emergency Episode Plan (Plan) as required by EPA regulations.

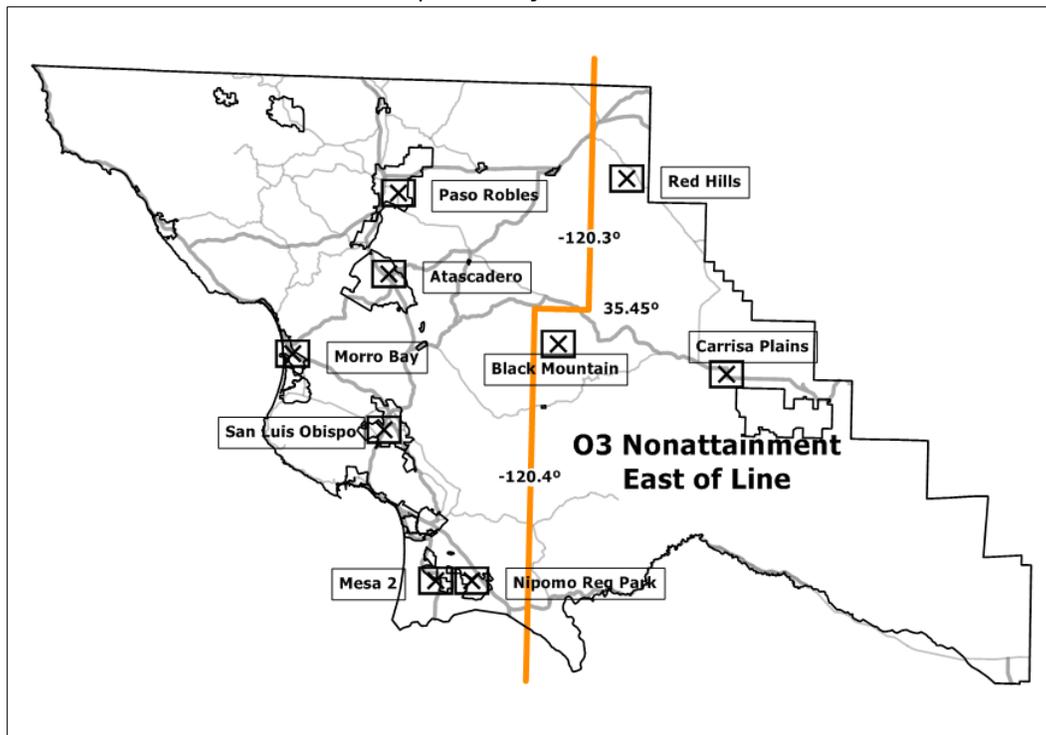
Red Hills reported a maximum one-hour concentration of 0.111 ppm on July 28, 2016 at hour 12. Carrizo Plains reported a maximum one-hour concentration of 0.101 ppm on August 4, 2016 at hour 16 and 0.102 ppm on July 28, 2016 at hour 15.

⁵ 40 CFR 51.150 and 51.151

⁶ 40 CFR 51 Appendix L

⁷ Eastern Portion of San Luis Obispo County as defined in this section.

Figure 1
Eastern San Luis Obispo County Federal Non-Attainment Area



Current air monitoring stations and the historical air monitoring station at Black Mountain. The attainment boundary dividing line is drawn in orange.

Table 2 lists the number of days exceeding the 0.10 ppm threshold at the San Luis Obispo County ozone monitoring sites from 2014 through 2017. During this time period, the maximum ozone one-hour concentration was 0.111 ppm, in 2016. Prior to 2016, the last time the maximum one-hour concentration greater than 0.10 ppm was in 2008, as shown in the graph in Figure 2.

Figure 2 shows that the highest ozone concentration recorded in San Luis Obispo County, since ozone monitoring began in 1974, is below the proposed Ozone Alert (Stage 1) level of 0.2 ppm. The highest ozone concentration throughout the 2000's was below the Ozone Health Advisory level of 0.15 ppm. The ozone concentration trend shows a general decrease over time. Accordingly, Figure 2 shows that the maximum ozone one-hour concentration in San Luis Obispo County has been reduced and would need a very significant ozone event to reach the Ozone Health Advisory level of 0.15 ppm.

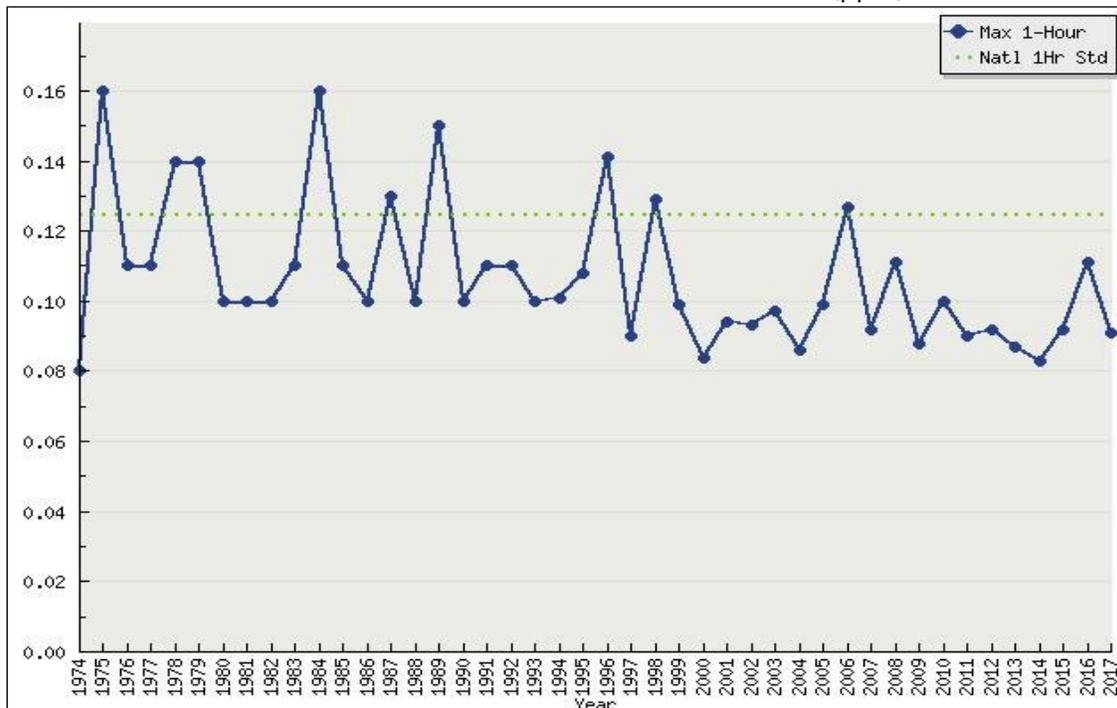
Ozone concentrations in San Luis Obispo County have been reduced through the implementation of existing control regulations and programs. Since the current federal ozone eight-hour average standard (0.070 ppm) is more stringent than the previous one-hour standard, SLO County APCD believes that the development and implementation of control regulations and programs identified by the ozone SIPs will ensure that the ozone one-hour maximum concentrations in San Luis Obispo County will continue decreasing. Therefore, it is highly unlikely that ozone concentrations would reach the proposed Healthy Advisory level of 0.15 ppm, unless there are very significant smoke impacts from a very large wildfire.

Table 2
 San Luis Obispo County Ozone Monitoring Sites
 Current San Luis Obispo County stations with highest ozone concentrations
 Number of Days with Maximum one-hour Concentration Greater than 0.10 ppm*

		2014	2015	2016	2017
Red Hills	# of Days	0	0	1	0
	Max Conc.	0.083	0.082	0.111	0.079
Carrizo Plains	# of Days	0	0	2	0
	Max Conc.	0.079	0.092	0.102	0.091
Paso Robles, Santa Fe Avenue	# of Days	0	0	0	0
	Max Conc.	0.070	0.073	0.091	0.083
Atascadero, List Station #5	# of Days	---	0	0	0
	Max Conc.	---	0.073	0.084	0.077
San Luis Obispo, Higuera	# of Days	0	0	0	0
	Max Conc.	0.080	0.066	0.069	0.074
Nipomo Regional Park	# of Days	0	0	0	0
	Max Conc.	0.081	0.079	0.070	0.076

*Morro Bay has not recorded an ozone value greater than 0.010 ppm since 1989 and is not included in this table. Atascadero Lift Station #5 opened in 2015. Atascadero Lewis Avenue was operated prior to the installation of Atascadero Lift Station #5.

Figure 2
 San Luis Obispo County Peak One-Hour Ozone Concentrations – Source: CARB
 Annual maximum one-hour ozone concentration (ppm)



Annual maximum one-hour concentration in San Luis Obispo County from 1974 through 2017 is from the CARB on-line data base. --- Note: the EPA AQ5 data base reports San Luis Obispo County data back to 1975. The EPA data base reports the highest San Luis Obispo County hourly ozone value in AQ5 for the 1970's as 0.140 parts per million (ppm), recorded 7/14/1979 in Paso Robles (not the same location as the current station). For the 1980's, the highest hourly ozone value in AQ5 is 0.160 ppm, recorded 9/9/1984 at that same former station in Paso. AQ5 is also showing a value of 0.190 ppm at the current Paso Robles Station for 10/16/1992.

Emissions Sources and Emissions Inventory

San Luis Obispo County emissions sources listed in the CARB Pollution Mapping Tool are provided in Table 3. The CARB Pollution Mapping Tool is located: https://www.arb.ca.gov/ei/tools/pollution_map/
 The most current CARB emissions inventory may be obtained from:
<https://www.arb.ca.gov/ei/emissiondata.htm>

Table 3

San Luis Obispo County Emissions Sources listed in the CARB Pollution Mapping Tool as of July 2019
 Emissions data in Table 2 are derived from the 2015-2017 SLO County APCD emissions data

Source	Location	NOx (approx. range in tons/yr)	ROG or TOG (approx. range in tons/yr)	Contact Information (as of July 2019)
ConocoPhillips Santa Maria Refinery	2555 Willow Road, Arroyo Grande, CA 93420	190-220	53-61 (TOG)	Patrick Sidun Environmental Specialist Environmental Department Office: 805-343-3620 Email: patrick.sidun@p66.com 2555 Willow Rd, Arroyo Grande, Ca 93420 Alternate number: 805 489 4050
Sentinel Peak	1821 Price Canyon Rd., San Luis Obispo, CA 93401	5-12	1-6 (ROG)	Patrick Vowell Environmental Specialist Sentinel Peak Resources California, LLC 1821 Price Canyon Rd. San Luis Obispo, CA 93401 Mobile: (805) 260-0250 Office: (805) 597-1812 pvowell@sentinelpeakresources.com
California Polytechnic State University	1 Grand Ave Building 80, San Luis Obispo, CA 93407	4-10	1-11 (ROG)	Kim Porter 805 756 6664 kbusby@calpoly.edu Alternate number: 805 756 6661

Source of Maximum Ozone Concentrations

The maximum San Luis Obispo County one-hour ozone concentrations presented in Figure 2 shows the Ozone Alert level has never been reached in San Luis Obispo County since monitoring began in 1974. In SLO County, the Health Advisory level of 0.15 ppm has not been reached in over 25 years.

Since 2000, days with the maximum one-hour concentration in San Luis Obispo County greater than 0.10 ppm can be attributed mainly to an influx of ozone precursor gasses associated with pollution transport from wildfires. Ozone precursor gasses from wildfires are outside of the regulatory framework of SLO County APCD; therefore, the air district cannot directly reduce emissions from wildfires. In 2016, the one-

hour concentrations greater than 0.10 ppm recorded at the Red Hills and Carrizo Plains monitoring stations were directly related to wildfire smoke.

The following is an excerpt from the 2016 SLO County APCD Annual Monitoring Report:

Smoke from the Soberanes and Chimney wildfires had major impacts on air quality throughout the county in 2016. The Soberanes Fire started on July 22nd and burned over 130,000 acres in and around the Los Padres National Forest in Monterey County. The fire smoldered into October. The Chimney Fire burned more than 46,000 acres around Lake Nacimiento from August 13th into September. The District issued Air Quality Alerts related to these fires on July 26th and August 17th. The year's highest ozone concentrations at Paso Robles, Atascadero, Red Hills, and Carrizo Plains—including 6 of the 7 exceedances of the 8-hour standard—all occurred during this period.

SLO County APCD staff were present at the Red Hills monitoring station when the ozone monitor reported a maximum one-hour concentration of 0.111 ppm on July 28, 2016 at 12pm and observed very thick smoke impacting the ozone monitor. Staff said, "it was like pea soup out there", referring to the smoke evident around the Red Hills monitoring station.

Ozone transport from areas upwind of San Luis Obispo County, including San Joaquin Valley, urban parts of Southern California, and the San Francisco Bay area can also result in an increase in ozone concentrations at Red Hills and Carrizo Plains, as well as other parts of San Luis Obispo County. However, since 2000, wildfires were a key factor in producing the highest peak one-hour ozone concentrations in San Luis Obispo County.

The following data will illustrate that the amount of emissions in the Eastern San Luis County non-attainment area is small as compared to all of San Luis County and extremely small as compared to wildfire emissions. The Eastern San Luis Obispo County non-attainment area has a very small population (approximate population of 1334). Within the Eastern San Luis County non-attainment area, the Average Weekday Vehicle Miles Traveled (VMT) in 2015 was approximately 235,000 and the stationary source emissions total approximately 160 tons per year NO_x and 14 tons per year TOG. The most current CARB emissions inventory indicates the San Luis County emissions total is approximately 10150 tons per year NO_x and 18125 tons per year TOG. In 2015, the VMT for the entire county was approximately 8.2 million. A study of October 2003 wildfires in Southern California indicated 5 million metric tons of total pollutant emissions were produced over several days (Clinton, et al., 2006) which demonstrates that ozone precursor gasses from large wildfires can dwarf the ozone precursor emissions from stationary industrial sources within Eastern San Luis County.

Ozone Emergency Strategy for San Luis Obispo County

Smoke impacts from fires can produce large and rapid variations in air quality. When smoke is present, air quality can vary from the good range to the unhealthy range and back to the good range in a matter of minutes. Decision makers should take these rapid variations into consideration when taking an action to mitigate air quality impacts. Altering industrial processes in a safe manner takes time, possibly days in some cases. Evacuations may take many hours. Important information to make decisions may not be available until the emergency occurs.

At the time of the emergency, decision makers must weigh whether a curtailment at an industrial source will lower the ambient ozone concentration and mitigate the emergency. Since wildfires are the expected primary source of significant ozone precursor emissions during a potential ozone emergency, the SLO County APCD does not anticipate any curtailments of industrial ozone precursor emissions to lower ambient ozone concentrations. Reduction of ozone precursor gasses from stationary industrial sources would not have a measurable impact on the ozone concentrations at Red Hills and Carrizo Plains, the location of the measured hourly ozone concentrations above 0.10 ppm. Therefore, this Ozone Emergency Episode Plan has a focus of informing the public about current air quality during significant wildfire smoke events and recommending actions to protect public health.

The following data will provide evidence that this strategy is appropriate. In the absence of significant wildfire impacts, the maximum hourly ozone concentration from January 1, 2019 to July 29, 2019 was 0.069 ppm at Carrizo Plains and 0.065 ppm at Red Hills. During this period there were typical emissions from SLO County stationary industrial sources, mobile sources, area sources, pollution transport from upwind areas (San Francisco Bay Area, San Joaquin Valley, Southern California), as well as a very large prescribed burn and several small wildfires. In an atmosphere without pollution, the concentration of surface-based ozone is generally around 0.04 ppm. Therefore, during January 1, 2019 to July 29, 2019, the difference between an atmosphere without pollution and the hourly ozone peak was roughly 0.029 ppm at Carrizo Plains and 0.025 ppm at Red Hills, which is a very small amount. This demonstrates that in the absence of large wildfire emissions, the ozone concentrations generated from typical SLO County emission sources are expected to be well under the 0.15 ppm Ozone Health Advisory level.

The largest stationary industrial source in SLO County emits approximately 0.02% of the total NO_x emissions in SLO County. NO_x is an important precursor gas in the formation of surface-based ozone. The second and third largest stationary industrial sources emit approximately 0.001% of the total NO_x (These three sources are not located in the Eastern San Luis Obispo County non-attainment area where Red Hills and Carrizo Plains are located). Because the stationary industrial sources produce such a small percentage of the total NO_x emissions, it is doubtful that reducing emissions from any stationary industrial sources during a large wildfire will have a measurable impact on the ambient ozone concentrations at Red Hills and Carrizo Plains.

On-road motor vehicles emit approximately 34% of the NO_x in SLO County, which indicates an effective mitigation would be to reduce on-road motor vehicle use.

San Luis Obispo County Office of Emergency Services

In the unlikely event that the ozone emergency might be effectively mitigated by reduction of industrial sources, San Luis Obispo County Office of Emergency Services procedures will be used. San Luis Obispo County Office of Emergency Services has planning documents for emergencies and local hazards that can be utilized in an ozone emergency. If a curtailment is feasible and appropriate, any curtailments of industrial ozone precursor emissions will follow procedures outlined in these documents, which are located at the following links:

[https://www.slocounty.ca.gov/getattachment/40e9d234-8576-41a1-82fe-a07f3b67a20a/County-Emergency-Operations-Plan-\(EOP\).aspx](https://www.slocounty.ca.gov/getattachment/40e9d234-8576-41a1-82fe-a07f3b67a20a/County-Emergency-Operations-Plan-(EOP).aspx)

<https://www.slocounty.ca.gov/Departments/Office-of-Emergency-Services/Forms-Documents.aspx>

[slocounty.ca.gov/OESdocs](https://www.slocounty.ca.gov/OESdocs)

Proposed Actions for Ozone Emergency Episodes

The actions for ozone emergency episodes will focus on public notification when substantially high ozone concentration measurements occur or are forecasted to occur. Voluntary mitigation measures will also be recommended as described in the following sections.

Reduction of Motor Vehicle Emissions During an Ozone Emergency

As discussed previously, motor vehicle emissions comprise a significant contribution to the ozone precursor gasses in the San Luis Obispo County emissions inventory. During an ozone emergency, an advisory will be sent, via press and social media requesting the public refrain from any non-essential driving of motor vehicles until ozone concentrations drop below episode criteria.

Reduction of Smoke and Other Emissions During an Ozone Emergency

Ozone precursor gasses from fires can add to the existing ozone precursor emissions from other sources. During an ozone emergency, an advisory will be issued requesting the public refrain from any outdoor burning, outdoor cooking, and similar smoke producing activities until ozone concentrations drop below episode criteria. SLO County APCD will also refrain from authorizing agricultural burns, prescribed burns, training burns, and fire hazard reduction burns. Additional actions may include requesting the public cease painting, construction, lawn mowing, pesticide application, and charcoal grilling.

Reduction of Smoke and Other Emissions During Wildfires via a Prescribed Burn Program

SLO County APCD has a robust prescribed burn program that addresses reduction of fuel and can help reduce the impacts of large wildfires. Prescribed burns are conducted during optimal dispersion conditions during periods of good air quality which minimizes smoke health impacts.

Notification Lists

The SLO County APCD will establish and periodically review and update an emergency episode notification list (List), which includes all San Luis Obispo County schools. Impacted school districts will be notified about any air quality events in their area. This list is updated frequently to ensure current contact information is maintained.

SLO County APCD staff to be notified during an ozone emergency:

Gary Arcemont	805-781-5998	garcemont@co.slo.ca.us
Meghan Field	805-781-1003	mfield@co.slo.ca.us
Gary Willey, Air Pollution Control Officer	805-781-5912	gwilley@co.slo.ca.us

Routine Air Quality Notification Actions

Air Pollution Forecasts, Press Releases and Email Notifications to Schools

SLO County APCD provides daily air quality forecasts for a 6-day period and nine forecast regions within the county. This forecast is displayed on the SLO County APCD website and is disseminated through the national AirNow website and EnviroFlash email system. When conditions would result in substantially high ozone concentration measurements or other significant air pollution events, a press release is issued and the impacted schools are notified via email. The notification includes recommendations that the public can take to protect their health. The notification can also include suggested voluntary actions to reduce ozone precursor emissions, such as voluntarily reducing vehicle emissions.

Air Quality Alert – Transmitted via National Weather Service Media Channels and Website

SLO County APCD works in conjunction with the National Weather Service to issue Air Quality Alerts during significant air quality events. The National Weather Service posts the Air Quality Alerts on the National Weather Service website and sends out the information via social media accounts across various platforms; including National Weather Service Twitter, Instagram, and Facebook accounts; which have a very wide reach to the public and media.

AirAware Alert Text Notification Program

AirAware Alerts is a SLO County APCD program that allows anyone with a mobile device to sign up to receive a text notification for a significant air quality event. The alert directs the public to the SLO County APCD website for detailed information and directions on how to protect public health. The public can sign up to receive these alerts via the SLO County APCD website.

Social Media

SLO County APCD actively maintains social media accounts across various platforms and uses them to disseminate information in quick and efficient ways. During an Air Quality Alert, or when Press Releases are issued, the SLO County APCD's Twitter, Instagram, and Facebook accounts are updated to provide current information.

EnviroFlash Program

The EnviroFlash Program emails air quality forecasts to subscribers. It utilizes the Air Quality Index or AQI, which is a color-coded scale used nationwide. EnviroFlash helps individuals stay informed of predicted air quality conditions and potential health impacts related to the air quality in their community. As of 23 July 2019, 875 individuals were registered with EnviroFlash to receive daily AQI emails for San Luis Obispo County air quality conditions. The notification can also include suggested voluntary actions to reduce ozone precursor emissions, such as voluntarily reducing vehicle emissions.

Additional Actions to be Put in Place During Ozone Emergency Episodes

Emergency Episode Declaration

Whenever the ozone one-hour concentration, measured at any location within San Luis Obispo County, reaches or is predicted to reach any of the episode trigger levels as shown in Table 1, the SLO County APCD shall declare that an emergency episode is in effect in San Luis Obispo County. In addition, should the Air Pollution Control Officer (APCO) of a district adjacent to the SLO County APCD declare a Stage 1, 2, or 3 episode within their district and request assistance, the SLO County APCO may implement measures as described in this Plan as if such episode level had been measured within SLO County APCD.

Notification of an Emergency Episode

When any emergency episode is declared, the SLO County APCO shall notify contacts on the emergency episode notification list which shall include, but is not limited to, the following:

1. California Air Resources Board;
2. The San Luis Obispo County Administrative Officer, chief executive officers of the incorporated municipalities within San Luis Obispo County, police chiefs, fire chiefs, and other public safety officers as deemed appropriate by the Air Pollution Control Officer;
3. The San Luis Obispo County Health Officer;
4. The San Luis Obispo County Office of Emergency Services;

5. The San Luis Obispo County Office of Education Superintendent, school district superintendents, and private school principals;
6. All air pollution control districts within the South Central Coast Air Basin (San Luis Obispo, Ventura and Santa Barbara), as well as all adjacent districts (Monterey, San Joaquin Valley);
7. Major newspapers in daily circulation and major television and radio stations (including those who are part of the emergency broadcast system) broadcasting within San Luis Obispo County for appropriate warnings, notices, and advisories;
8. Participants in the San Luis Obispo County Air Aware Program;
9. SLO County APCD permitted facilities; and
10. SLO County APCD Staff who are responsible for public outreach.

Content of Notification

Notification of an emergency episode shall include information on the predicted or current episode level, the expected duration of the episode, the expected geographic boundaries of the affected area, a statement for the public on the health significance of the air quality during the episode, and the appropriate voluntary or mandatory control actions proposed for each episode level.

Termination of an Emergency Episode

The SLO County APCD shall declare an episode as terminated when the one-hour ozone concentration measurements from all monitoring sites within San Luis Obispo County fall below the level of the Alert episode and the meteorological data indicates the ozone concentration is expected to continue decreasing.

Notification of the Termination of an Episode

Upon the declaration of the termination of an episode, the SLO County APCD shall notify those agencies and organizations specified on the List.

Actions for Each Emergency Episode

When an emergency episode is declared, the SLO County APCD shall implement the following control actions:

1. Ozone Health Advisory Episode:
 - a) Prepare the emergency episode notification;
 - b) Notify those public agencies and organizations identified in the plan that an Ozone Health Advisory Episode has been declared;
 - c) Advise the San Luis Obispo County Office of Education Superintendent that sustained strenuous activities by students (for both public and private schools) lasting longer than one hour should be discontinued;
 - d) SLO County APCD will request the news media broadcast the appropriate health advisory, which will include a recommendation that the public curtail non-essential motor vehicle operation and smoke emissions (such as outdoor burning and outdoor cooking);
 - e) Coordinate with the San Luis Obispo County Office of Emergency Services to identify possible actions which could be taken when San Luis Obispo County proclaims an Ozone Health Advisory Episode, which might include ceasing painting, construction, lawn mowing, pesticide application, and charcoal grilling.

2. Ozone Alert (Stage 1) Episode:
 - a) Prepare the emergency episode notification;
 - b) Notify those public agencies and organizations identified in the plan that an Ozone Alert Stage 1 Alert Episode has been declared by SLO County APCD;
 - c) Recommend the San Luis Obispo County Office of Education Superintendent contact the School Superintendents and coordinate with private schools, to suspend students' strenuous activities;
 - d) SLO County APCD will contact the news media to request the appropriate advisories be broadcast to the public, and include a request that the public curtail any non-essential motor vehicle operation;
 - e) Contact facilities where emission control actions could help mitigate the ozone emergency, to discuss actions as deemed appropriate by the San Luis Obispo County Administrative Officer, Health Officer, Air Pollution Control Officer, and local law enforcement agencies, in order to protect the health and welfare of the general public;
 - f) SLO County APCD will prohibit all open burning, including agricultural burning, and incineration throughout the affected area, except in an emergency as provided for in Section 41862 of the H&SC.

3. Ozone Warning (Stage 2) Episode: In addition to the actions associated with the Ozone Alert Stage 1 Episode, the following actions should be implemented in an Ozone Warning Stage 2 Episode.
 - a) Recommend that those agencies and organizations on the Notification List take the following actions, within the scope of their authority:
 - i. SLO County APCD will prohibit all types of open burning, including agricultural waste;
 - ii. Consider closing all non-essential public agency facilities, except emergency facilities and those facilities necessary in emergencies to protect national security or national defense; or consider shelter in place;
 - iii. Consider requesting that employees of closed public agency facilities avoid non-essential motor vehicle operation until the episode is terminated.
 - b) Consider closure of all public and private schools, colleges, and universities within San Luis Obispo County (or consider shelter in place);
 - c) Contact facilities where emission control actions could help mitigate the ozone emergency, to discuss actions as deemed appropriate by the San Luis Obispo County Administrative Officer, Health Officer, Air Pollution Control Officer, and local law enforcement agencies, in order to protect the health and welfare of the general public;
 - d) Recommend that the public refrain from non-essential vehicle use until the episode is terminated, and use public transit as an alternative (if available);
 - e) Recommend the suspension of all indoor and outdoor events at parks or recreational facilities open to the public;
 - f) Recommend the suspension of all scheduled athletic events;
 - g) Recommend that the San Luis Obispo County Administrative Officer and Health Officer consider proclaiming a local emergency for air pollution, and implement emergency control measures, pursuant to the California Emergency Services Act, when the ambient ozone concentration reaches the level of 0.45 ppm.

4. Ozone Emergency (Stage 3) Episode: In addition to the actions associated with the Ozone Emergency (Stage 3) Episode, the following actions should be considered:

- a) Recommend that the San Luis Obispo County Administrative Officer proclaim a local emergency for air pollution and initiate its emergency operations plan;
- b) Recommend the media broadcast that a local emergency exists for air pollution, due to high ozone concentrations;
- c) Consider directing the following actions:
 - i. Recommend closing all government facilities which are not immediately necessary for public health and safety, national security or national defense; or if appropriate, shelter in place;
 - ii. Recommend closing all recreational facilities, including but not limited to those servicing boating and off-road vehicles; or if appropriate, shelter in place;
 - iii. Discuss whether it would be appropriate to temporarily close certain commercial and industrial facilities; or if appropriate, shelter in place;
Contact facilities where emission control actions could help mitigate the ozone emergency, to discuss actions as deemed appropriate by the San Luis Obispo County Administrative Officer, Health Officer, Air Pollution Control Officer, and local law enforcement agencies, in order to protect the health and welfare of the general public;
 - iv. Hospitals within the affected area shall be notified to prepare for the possible increase in the number of patients seeking treatment.
- d) Recommend closing principal streets, as deemed necessary by the San Luis Obispo County Administrative Officer, Health Officer, Air Pollution Control Officer, and local law enforcement agencies, in order to protect the health and welfare of the general public;
- e) Request that the San Luis Obispo County Office of Emergency Services engage with the State for necessary actions pursuant to the California Emergency Services Act, which includes prohibiting the use of all motor vehicles except for emergencies, or any other action deemed warranted;
- f) Recommend restricting all construction and painting; and,
- g) Recommend restricting all lawn care and mowing activities and stop the use of lawn and garden chemicals.

The SLO County APCD commits to implementing the proposed SLO County APCD actions identified in this Plan. Actions will be made in consultation with San Luis Obispo County Office of Emergency Services and other agencies that participate in emergency response actions.

REFERENCES

Clinton, N., Gong, P., Scott, K., 2006. Quantification of pollutants emitted from very large wildland fires in Southern California USA. *Atmospheric Environment*, 40 (2006) 3686-3695

SAMPLE ADVISORIES

AirAware Text Notification Samples

8/6/18: Smoke from the Turkey Fire near Parkfield in Monterey County is impacting northern SLO County. We will continue to assess air quality and identify any potential health impacts. Find out more: <https://goo.gl/QpnzFr>

7/30/18: Better Breather Alert – Smoke from wildfires impacting SLO County. Impacts greatest in Eastern and Central SLO County, but coastal air quality can deteriorate as the smoke plume spreads. More info: <https://goo.gl/QpnzFr>

6/26/18: Fire breaks out at CAMP San Luis Obispo on shooting range. Smoke, at this time, does not appear to be impacting major populated areas. We will continue to monitor for impacts. For more up to date information, visit our website at SLOCleanAir.org.

6/26/18: Gilardi Road Prescribed Burn planned for tomorrow, June 27. This burn is off highway 1, northwest of Cuesta College. APCD staff have already deployed a mobile monitor at Cal Poly to monitor smoke impacts. Find out more: <https://goo.gl/QpnzFr>

Press Release Sample #1



Air Pollution Control District
San Luis Obispo County

FOR IMMEDIATE RELEASE: July 30, 2018

Contact: Meghan Field, 805-781-5912
SLO County Air Pollution Control District

Dr. Penny Borenstein, 805-781-5500
SLO County Public Health Department

BETTER BREATHER ALERT - SMOKE IMPACTING SAN LUIS OBISPO COUNTY

SAN LUIS OBISPO, CALIFORNIA, – The San Luis Obispo (SLO) County Air Pollution Control District and County Health Department informs individuals that air quality in San Luis Obispo County is being impacted by smoke from wildfires. As of 2 p.m. Monday, July 30, smoke impacts are the greatest in Eastern and Central San Luis Obispo County (including Paso Robles and Atascadero) and air quality is mostly good along the coast (including San Luis Obispo), but coastal air quality could deteriorate as the smoke plume spreads. Expect skies to be hazy and fine particulate (PM_{2.5}) and ozone concentrations to be higher than normal. Changing winds make it difficult to predict which areas of the county may be most affected as the week progresses. However, until the fires are put out, smoke will likely be intermittently present in our region.

If you smell smoke or see ash fall, County officials recommend you take precautions and use common sense to reduce the harmful health effects associated with smoke exposure. When it is obvious that smoke is in the air, individuals should avoid strenuous outdoor activity and remain indoors as much as possible. These precautions are especially important for people with existing respiratory illness and heart conditions, as they are particularly vulnerable to the health effects of declining air quality. If smoke impacts increase, healthy people could be affected as well. If a cough, shortness of breath, wheezing, exhaustion, light-headedness or chest pain occurs, outdoor activity should be stopped immediately, and the affected person should seek medical attention. More information can be found at slocleanair.org/air-quality/wildfire.

To clean ash, please do the following: use a damp cloth and spray areas lightly with water, directing ash-filled water to ground areas, and away from the runoff system; take your vehicle to the car wash; wash off toys that have been outside in the ash; clean ash off pets; due to the corrosive nature of ash, avoid any skin contact with the ash (wear gloves, long-sleeved shirts); and do not use leaf blowers. Please note, if you have existing heart or lung conditions, avoid doing ash clean-up yourself or anything else that stirs the particles back up into the air. In addition, do not allow children to play in the ash.

APCD and County officials will continue to closely monitor smoke impacts and air quality in San Luis Obispo County. By following the air quality index (AQI), the public can also monitor real-time air quality throughout SLO County. The AQI focuses on health effects individuals may experience within a few hours or days after breathing polluted air. The current and forecasted AQI is available via the APCD website: slocleanair.org. Sign up to receive the daily AQI air quality forecast via email by subscribing online at enviroflash.info, sign up for our AirAware text notifications and check our Twitter feed for the latest updates (@slocleanair).

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Press Release Sample #2



Air Pollution Control District
San Luis Obispo County

FOR IMMEDIATE RELEASE: August 6, 2018

Contact: Meghan Field, 805-781-5912
SLO County Air Pollution Control District

Dr. Penny Borenstein, 805-781-5500
SLO County Public Health Department

SLO County Office of Emergency Services, 805-781-5011

HEALTH ADVISORY - SMOKE IMPACTING NORTHERN SAN LUIS OBISPO COUNTY

SAN LUIS OBISPO, CALIFORNIA. – The San Luis Obispo (SLO) County Air Pollution Control District Public Health Department and Office of Emergency Services are working in partnership to assess the air quality in order to identify any potential health impacts and to inform the community about safeguarding individual health. At this time, San Luis Obispo County is being impacted by smoke from wildfires across California and by a developing fire in Monterey County named the Turkey Fire.

Expect skies to be hazy and fine particulate (PM_{2.5}) concentrations to be higher than normal. Air quality is ranging from Moderate to Unhealthy for Sensitive Groups. Changing winds make it difficult to predict which areas of the county may be most affected. However, until the fires are put out, smoke will likely be intermittently present in our region.

If you smell smoke or see ash fall:

Air District officials recommend that if you smell smoke or see ash, take precautions and use common sense to reduce your exposure to smoke. All adults and children should:

- Avoid strenuous outdoor activity
- Remain indoors as much as possible
- Close all windows and doors that lead outside to prevent bringing additional smoke inside
- Set any heating/air conditioning/ventilation systems to recirculate

These precautions are especially important for sensitive groups, including children, older adults, and people with existing respiratory illness and heart conditions, as they are particularly vulnerable to the health effects of poor air quality. Families with small children should be aware that even if adults in the household have no symptoms, children may experience symptoms due to their smaller body mass and developing lungs. If smoke increases, healthy people could be affected as well. If you experience a cough, shortness of breath, wheezing, exhaustion, light-headedness or chest pain, stop any outdoor activity immediately and seek medical attention. More information can be found at slocleanair.org/air-quality/wildfire.

For updates:

APCD and County officials will continue to closely monitor smoke impacts and air quality in San Luis Obispo County. By following the air quality index (AQI), the public can also monitor real-time air quality throughout SLO County. The AQI focuses on health effects individuals may experience within a few hours or days after breathing polluted air. The current and forecasted AQI is available via the APCD website: slocleanair.org and you can also follow the SLO County APCD and Public Health Department Twitter feeds for the latest updates (@slocleanair and @SLOPublicHealth). You can also sign up for AirAware alerts right on your phone by visiting our website at SLOCleanAir.org.

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Press Release Sample #3



Air Pollution Control District
San Luis Obispo County

FOR IMMEDIATE RELEASE: August 6, 2018

Contact: Meghan Field, 805-781-5912
SLO County Air Pollution Control District

Dr. Penny Borenstein, 805-781-5500
SLO County Public Health Department

**BETTER BREATHER ALERT - SMOKE AND BLOWING DUST
IMPACTING SAN LUIS OBISPO COUNTY**

SAN LUIS OBISPO, CALIFORNIA, – The San Luis Obispo (SLO) County Air Pollution Control District and County Health Department are advising the public that air quality in San Luis Obispo County is being impacted by smoke from wildfires (countywide) as well as blowing dust in the area of the Oceano Dunes/Nipomo Mesa area. As of 2 p.m. Monday, August 6, smoke impacts are the greatest in Eastern and Central San Luis Obispo County (including Paso Robles and Atascadero) and air quality is Moderate along the coast (including San Luis Obispo), coastal air quality could continue to deteriorate as the smoke plume spreads. Expect skies to be hazy and fine particulate (PM_{2.5}) and ozone concentrations to be higher than normal. Changing winds make it difficult to predict which areas of the county may be most affected as the week progresses. However, until the fires are put out, smoke will likely be intermittently present in our region.

County officials recommend you take precautions and use common sense to reduce the harmful health effects associated with particulate matter exposure. When it is obvious that smoke or dust is in the air, individuals should avoid strenuous outdoor activity and remain indoors as much as possible. These precautions are especially important for people with existing respiratory illness and heart conditions, as they are particularly vulnerable to the health effects of declining air quality. If smoke impacts increase, healthy people could be affected as well. If a cough, shortness of breath, wheezing, exhaustion, light-headedness or chest pain occurs, outdoor activity should be stopped immediately, and the affected person should seek medical attention. More information can be found at slocleanair.org/air-quality/wildfire.

APCD and County officials will continue to closely monitor smoke impacts and air quality in San Luis Obispo County. By following the air quality index (AQI), the public can also monitor real-time air quality throughout SLO County. The AQI focuses on health effects individuals may experience within a few hours or days after breathing polluted air. The current and forecasted AQI is available via the APCD website: slocleanair.org. Sign up to receive the daily AQI air quality forecast via email by subscribing online at enviroflash.info, sign up for our AirAware text notifications and check our Twitter feed for the latest updates (@slocleanair).

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School Notification Email Sample #1

Sent: Friday, August 24, 2018 9:32 AM

Subject: Unhealthy air quality in San Luis Obispo County

Air quality has deteriorated significantly in San Luis Obispo County this morning.

Air Quality is unhealthy for everyone in San Luis Obispo and Nipomo.

Air Quality is unhealthy for sensitive individuals (such as children and adults with existing respiratory or heart conditions) in the rest of San Luis Obispo County.

The particulate pollution could be coming from a variety of sources, including urban areas and wildfires. Some of the impacts are coming directly from the Front Fire in Southern San Luis Obispo County. The Front Fire is burning in the Rockfront OHV area of the Los Padres National Forest in the Santa Lucia Ranger District.

The San Luis Obispo County Air Pollution Control District recommends rescheduling outdoor activities, remain indoors as much as possible and set any heating/air conditioning/ventilation systems to recirculation.

Exposure to particulate pollution can cause serious health problems, aggravate lung disease, cause asthma attacks and acute bronchitis and increase risk of respiratory infections.

If health problems occur, the affected person should seek medical attention.

If you have any questions, please call 805 781 5998.

Thank you.

Gary Arcemont
Air Quality Specialist
San Luis Obispo County Air Pollution Control District

School Notification Email Sample #2

Sent: Friday, March 29, 2019 4:16 PM

Subject: Blowing sand and dust is currently impacting the Nipomo area

Blowing sand and dust is currently impacting the Nipomo area and is expected to continue until approximately 7pm this evening.

Exceptionally sensitive individuals such as children and adults with existing respiratory or heart conditions may experience adverse health effects when blowing dust is in the air. The APCD recommends rescheduling strenuous outdoor activities to occur when there is no visible dust. As long as blowing dust and sand is visible in the air, the APCD recommends all adults and children avoid strenuous outdoor activity, remain indoors as much as possible and set any heating/air conditioning/ventilation systems to recirculation.

If you have any questions, please call 805 781 5998.

Thank you.

Gary Arcemont
Air Quality Specialist
San Luis Obispo County Air Pollution Control District

AirNow EnviroFlash Email - Sample

Forecast for Red Hills, CA

Today and Tomorrow's Forecast

Thursday, Sep 27: 98 AQI Moderate **Yellow** Ozone

Friday, Sep 28: 59 AQI Moderate **Yellow** Ozone

Extended Forecast

Saturday, Sep 29: 47 AQI Good **Green** Ozone

Sunday, Sep 30: 42 AQI Good **Green** Ozone

Monday, Oct 1: 38 AQI Good **Green** Ozone

Tuesday, Oct 2: 33 AQI Good **Green** Ozone

9/27/18 through 9/28/18: Ozone - Better Breathers Alert: Ozone concentrations will increase significantly midday, afternoon and evening. People who are sensitive to air pollution should limit time outside during midday, afternoon and early evening. During periods of high ozone, health impacts of ozone air pollution can be minimized by reducing strenuous activities and staying indoors. San Luis Obispo County residents are encouraged to reduce emission causing activities by limiting vehicle use.

The Air Quality Forecast is provided by the San Luis Obispo County Air Pollution Control District.

For more information, visit <http://www.slocleanair.org>

To view the current Air Quality Index (AQI) for your location, visit:
http://airnow.gov/index.cfm?action=airnow.national_summary#CA
then scroll down to your city. San Luis Obispo County cities are located near the bottom of the California listing.

*San Luis Obispo County Air Pollution Control District
Ozone Emergency Episode Plan
September 25, 2019*

For an explanation of the Air Quality Index (AQI) and the AQI colors,
visit <http://www.airnow.gov/index.cfm?action=aqibasics.aqi>

Do not reply directly to this email. If you want more information on the air quality forecast, or other aspects of the local air quality program, please contact your local air quality agency using the information above. For more information on the U.S. EPA's AIRNow Program, visit <http://www.airnow.gov>.

To unsubscribe or edit your EnviroFlash account

This message is compliant with the federal Can Spam Act of 2003 (Public Law 108-187)

Air Quality Alert – Transmitted via National Weather Service Media Channels and Website - Sample

San Luis Obispo County - Eastern and Central -
Including Paso Robles, San Miguel, Atascadero, Templeton, Santa Margarita
and Carrizo Plains
200 PM PDT Mon Jul 30, 2018

...AIR QUALITY ALERT DUE TO SMOKE IMPACTS FROM WILDFIRES...

The San Luis Obispo County Air Pollution Control District has issued an air quality alert due to smoke impacts in San Luis Obispo County. Smoke from wildfires is being transported into San Luis Obispo County and is mainly impacting the Eastern and Central parts of the county; however, smoke may be intermittently present in the coastal areas as well.

Exposure to particle pollution can cause serious health problems, aggravate lung disease, cause asthma attacks and acute bronchitis, and increase risk of respiratory infections.

Residents are advised to use caution as conditions warrant. People with heart or lung disease should follow their doctor's advice for dealing with episodes of blowing dust.

Additionally, older adults and children should avoid prolonged exposure, strenuous activity or heavy exertion, as conditions dictate.

For the latest air quality forecasts and information, visit the San Luis Obispo County Air Pollution Control District website at www.slocleanair.org. or call 805 781 5912