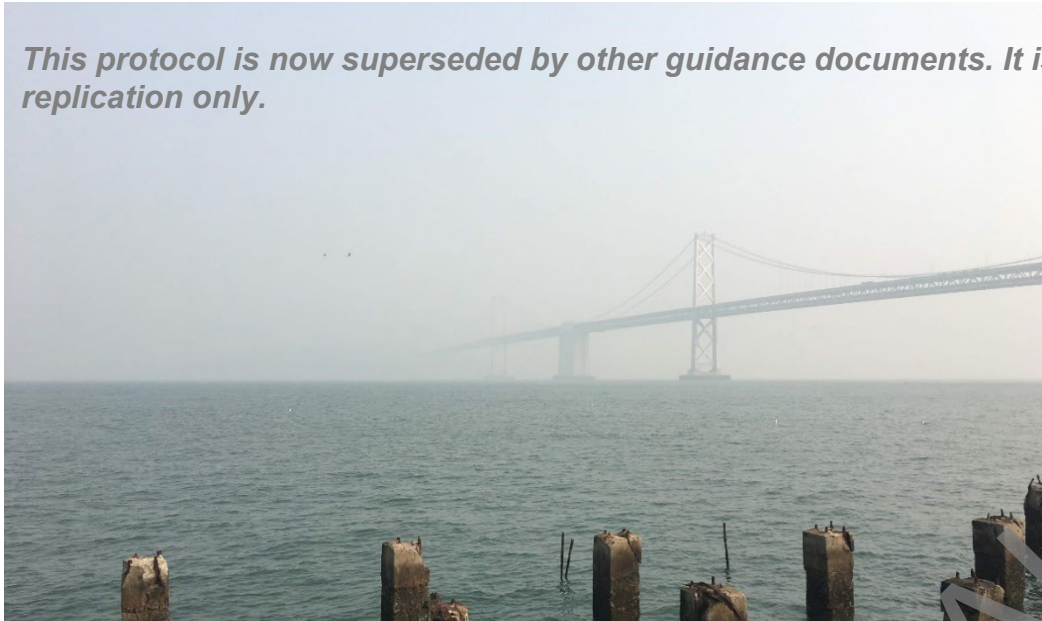


*This protocol is now superseded by other guidance documents. It is provided here for historical context and to assist replication only.*



## ALAMEDA COUNTY AIR QUALITY COMMUNICATIONS PROTOCOL

MAY 2021 REVISION



# Alameda County Air Quality Communications Protocol

Revised May 27, 2021

**Description:** This document serves as an action guide for County agencies and staff when the Air Quality Index levels change in Alameda County to aid tracking and mitigation efforts.

**Key Resources:** Air Quality Index: <https://airnow.gov/>

Bay Area Air Quality Management District Current Air Quality: <http://www.baaqmd.gov/about-air-quality/current-air-quality>

Alameda County Emergency Site: <http://www.acgov.org/emergencysite/>

Alameda County Public Health Air Quality Site: <https://acphd.org/air-quality/>

**Purpose:** As the frequency and duration of wildfires in California increase, the smoke from these wildfires can negatively impact the air quality for Alameda County and the Bay Area. Alameda County is committed to initiating appropriate communication protocols to limit and/or mitigate health risks associated with poor air quality caused by wildfire smoke. This document provides an overview of actions that will be taken by departments and partners when the air quality levels change. Actions will be based on changes in the Air Quality Index (AQI), an index for reporting air quality. The AQI conveys a daily measurement of air quality that includes information about how clean or polluted our air is, and what health effects associated with various levels of air quality degradation might be a concern.

The Air Quality Communications Protocol covers public alerts, initial alerting thresholds, and other recommended actions to be taken when the air quality risks increase.

Other factors to consider when initiating action for an AQI level of 101 (Orange) or above include:

- Multiple expected days of 101 (Orange) or above
- Spare the Air Alerts
- Extreme heat (e.g., hot weather)
- Major Outdoor Event/s
- Nature of air quality impacts (wildfire, industrial and other contaminants, etc.)
- Public Safety Power Shutoffs or any other loss of power

**Scope:** This protocol is designed for air quality incidents that affect more than one city or jurisdiction in Alameda County. For these incidents, Alameda County Office of Emergency Services (OES) will coordinate with cities to determine if the notification needs to go out from the County level or the affected city/cities level.

Once air quality has reached 101 or above (Orange, Red, Purple or Maroon), an initial AC Alert message will be sent. After an initial message, subsequent messages will be considered when conditions change, when recommended protective actions change (such as when a new AQI level is reached), when requested by the County Health Officer, or after three days of continued poor air quality. When conditions return to normal, a final message will be considered.

Messages sent via social media should refer to official County, Public Health, and relevant fire services/departments (using social media tags, “@” referrals, etc.) as well as accounts such as National Weather Service Bay Area.

An incident where poor air quality is caused by wildfire smoke in another county, or due to some other source of poor air quality, is primarily a Public Health related incident. The County Health Officer has the responsibility to make recommendations and safety decisions for the public during incidents that can adversely affect the health and safety of individuals in our county and can issue Health Officer orders if needed to do so. The County Health Officer also has the authority to declare a local health emergency. In this protocol, the County Health Officer will provide technical guidance on protective actions to guard the health of Alameda County residents and visitors, which will then be disseminated through designated platforms and processes by County agencies. The County Health Officer, Sheriff’s Office of Emergency Services, County Fire Chief, and other departments and agencies, including the Bay Area Air Quality Management District, will coordinate closely to get the latest Air Quality Index information and forecasts and convey these to the public.

As we communicate, we intend to keep in mind groups within the County that are particularly vulnerable to the health impacts of poor air quality and those that may be hard to reach with health alert communications. These groups include older adults, children under age five, unsheltered residents, outdoor workers, residents with disabilities, low-income communities of color, monolingual non-English speakers, and other disadvantaged communities

This protocol will be updated following extreme poor air quality events and on an ongoing basis to incorporate lessons learned, new information, and improved clarity and effectiveness.

The following serves as a guide of considerations and actions by designated departments, based on AQI levels:

AQI	Activity	Department
<b>Good</b> <b>0-50</b>	<ul style="list-style-type: none"> <li>No action</li> </ul>	
<b>Moderate</b> <b>51-100</b>	<ul style="list-style-type: none"> <li>Office of Emergency Services (OES) will monitor AQI status</li> </ul>	OES
<b>Unhealthy for Sensitive Groups</b> <b>101-150</b>  Respond if AQI level persists >24 hours or in sustained or worsening poor air quality conditions	<ul style="list-style-type: none"> <li>Monitor AQI status and any ongoing threats</li> <li>Coordinate with County Health Officer to evaluate AQI status and any ongoing threats</li> <li>Consider issuing an AC Alert notification with this suggested template for core message: This is an advisory AC Alert from Alameda County. Air Quality is <b>Unhealthy for Sensitive Groups. Children, older adults and those w/ breathing or heart issues should limit outdoor activities.</b> Go to <a href="http://www.baaqmd.gov/">http://www.baaqmd.gov/</a> for info, and <a href="http://www.acphd.org/wildfire-smoke">www.acphd.org/wildfire-smoke</a> for tips.               <ul style="list-style-type: none"> <li>Once air quality has reached 101 or above (Orange, Red, Purple or Maroon), an initial AC Alert message will be sent. After an initial message, subsequent messages will be considered when conditions change, when recommended protective actions change (such as when a new AQI level is reached), when requested by the County Health Officer, or after three days of continued poor air quality.</li> <li>Specify projected duration if possible/necessary</li> <li>Add additional detail regarding protective actions, sensitive populations, and conditions in longer-form messages</li> <li>Once message is issued, issue conclusion message when air quality returns to normal</li> </ul> </li> <li>Inform County Administrator, Department Heads, County PIOs [Social Services Agency (SSA), Public Health Department (ACPHD), Health Care Services Agency (HCSA), Fire (ACFD), and Sheriff's Office (ACSO)], relevant regional/city PIOs, and partners such as Eden I&amp;R/2-1-1 of message that will be sent               <ul style="list-style-type: none"> <li>Consider convening a call with County Health Officer and these partners if policy or coordination issues or prolonged duration anticipated</li> </ul> </li> <li>Consult Association of Bay Area Health Officials Bay Area Regional Air Quality Messaging Toolkit as needed for messaging guidance</li> <li>Send AC Alert messages to community partners that can disseminate advisory messages</li> </ul>	OES
	<ul style="list-style-type: none"> <li>Consider partial activation of Health Care Services Agency (HCSA) Departmental Operations Center (DOC)</li> <li>Contact EMS to identify impacts on 911 system to inform public safety messages</li> <li>Disseminate school activity guidelines</li> </ul>	HCSA
	<ul style="list-style-type: none"> <li>Monitor AQI status</li> </ul>	Suggested actions for all County agencies

<p><b>Unhealthy 151-200</b></p> <p>Respond if AQI level persists &gt;24 hours or in sustained or worsening poor air quality conditions</p>	<ul style="list-style-type: none"> <li>• Monitor AQI status and any ongoing threats</li> <li>• Coordinate a conference call with key technical partners such as County Health Officer, Public Health PIO, and County Fire Department, informed by Bay Area Air Quality Management District guidance and projections, to evaluate AQI status and any ongoing threats</li> <li>• Establish a schedule for AC Alert external messaging and inform County Administrator, Department Heads, County PIOs [Social Services Agency (SSA), Public Health Department (ACPHD), Fire (ACFD), and Sheriff's Office (ACSO)], relevant regional/city PIOs, and partners such as Eden I&amp;R/2-1-1 of message that will be sent <ul style="list-style-type: none"> <li>• Consider convening a call with County Health Officer and these partners if policy or coordination issues or prolonged duration anticipated</li> </ul> </li> <li>• Consult Association of Bay Area Health Officials Bay Area Regional Air Quality Messaging Toolkit as needed for messaging guidance</li> <li>• Consider issuing an AC Alert notification with this suggested template for core message: This is an advisory AC Alert from Alameda County. Air Quality is <b>Unhealthy. Everyone, especially children, older adults and those w/ breathing or heart issues, should limit outdoor activities.</b> Go to <a href="http://www.baaqmd.gov/">http://www.baaqmd.gov/</a> for info, and <a href="http://www.acphd.org/wildfire-smoke">http://www.acphd.org/wildfire-smoke</a> for tips. <ul style="list-style-type: none"> <li>• Once air quality has reached 101 or above (Orange, Red, Purple or Maroon), an initial AC Alert message will be sent. After an initial message, subsequent messages will be considered when conditions change, when recommended protective actions change (such as when a new AQI level is reached), when requested by the County Health Officer, or after three days of continued poor air quality.</li> <li>• Consider deferring to alternate communication channels if a message has already been sent for Orange (AQI of 101-150)</li> <li>• Specify projected duration if possible/necessary</li> <li>• Add additional detail regarding protective actions, sensitive populations, and conditions in longer-form messages</li> <li>• Once message is issued, issue conclusion message when air quality returns to normal</li> </ul> </li> <li>• Consider activating Joint Information Center (JIC)/Joint Information System (JIS)</li> <li>• Send AC Alert messages to community partners that can disseminate advisory messages</li> <li>• Send a message to city Emergency Managers reminding them to add any Cleaner Air Centers to the county list</li> <li>• Share with the public a list of Cleaner Air Center sites in Alameda County with air conditioning and/or air filtration according to the Environmental Protection Agency definition</li> </ul>	<p>OES</p>
	<ul style="list-style-type: none"> <li>• Consider partial or full activation of Health Care Services Agency (HCSA) Departmental Operations Center (DOC)</li> </ul>	<p>HCSA</p>



	<ul style="list-style-type: none"> <li>• Contact EMS to identify impacts on 911 system to inform public safety messages</li> <li>• Work with Human Resource Services and Risk Management on providing guidance to County/city staff, including special recommendations for outdoor workers. Refer to relevant OSHA regulations.</li> <li>• County Health Officer and Public Health PIO should consider public communications to discuss protective actions, in consultation with the Association of Bay Area Health Officials (ABAHO), operational area partners, and others depending of the geographic scope of poor air quality</li> <li>• Consider issuing advisory to cancel outdoor events (e.g., concerts and competitive sports), based on public health and travel considerations; consider coordination with East Bay Regional Parks</li> <li>• Initiate community outreach regarding public indoor sites and wellness checks on the County's unsheltered residents; coordinate distribution of respiratory protection (N95 masks) for people who do not have the option to be indoors</li> <li>• Recommend that Cleaner Air Centers be opened in affected areas</li> </ul>	
	<ul style="list-style-type: none"> <li>• Provide air quality and County occupational health policy and protective actions information to all county employees</li> <li>• Distribute information about air filtration in County facilities, with information from General Services Agency</li> </ul>	Human Resource Services & Risk Management
	<ul style="list-style-type: none"> <li>• Notify client population, especially clients vulnerable to poor air quality</li> <li>• Draft voicemail message for agency staff to be placed on the staff emergency hotline</li> <li>• Provide guidance to employees</li> </ul>	Suggested actions for all County agencies
	<ul style="list-style-type: none"> <li>• Discuss and disseminate guidelines for school, Alameda County Juvenile Justice Center (JJC), and other youth settings for modifications and key considerations for school closures, depending on weather/forecast</li> </ul>	Office of Education/ HCSA

<p><b>Very Unhealthy</b></p> <p><b>201-300</b></p> <p>Respond if AQI level persists &gt;24 hours or in sustained or worsening poor air quality conditions</p>	<ul style="list-style-type: none"> <li>• Monitor AQI status and any ongoing threats</li> <li>• Coordinate a conference call with key technical partners such as County Health Officer, Public Health PIO, and County Fire Department, informed by Bay Area Air Quality Management District guidance and projections, to evaluate AQI status and any ongoing threats</li> <li>• Establish a schedule for AC Alert external messaging and inform County Administrator, Department Heads, County PIOs [Social Services Agency (SSA), Public Health Department (ACPHD), Fire (ACFD), and Sheriff's Office (ACSO)], relevant regional/city PIOs and partners such as Eden I&amp;R/2-1-1 of message that will be sent <ul style="list-style-type: none"> <li>• Consider convening a call with County Health Officer</li> <li>• and these partners if policy or coordination issues or prolonged duration anticipated</li> </ul> </li> <li>• Consult Association of Bay Area Health Officials Bay Area Regional Air Quality Messaging Toolkit as needed for messaging guidance.</li> <li>• Consider issuing an AC Alert notification with this suggested template for core message: This is an advisory AC Alert from Alameda County. Air Quality is <b>Very Unhealthy. Stay indoors with</b></li> </ul>	OES
---	---	-----

	<p><b>windows and doors closed to avoid poor air quality.</b> Go to <a href="http://www.baaqmd.gov/">http://www.baaqmd.gov/</a> for info, and <a href="http://www.acphd.org/wildfire-smoke">http://www.acphd.org/wildfire-smoke</a> for tips.</p> <ul style="list-style-type: none"> <li>• Once air quality has reached 101 or above (Orange, Red, Purple or Maroon), an initial AC Alert message will be sent. After an initial message, subsequent messages will be considered when conditions change, when recommended protective actions change (such as when a new AQI level is reached), when requested by the County Health Officer, or after three days of continued poor air quality.</li> <li>• Specify projected duration if possible/necessary</li> <li>• Add additional detail regarding protective actions, sensitive populations, and conditions in longer-form messages</li> <li>• Once message is issued, issue conclusion message when air quality returns to normal</li> <li>• Consider activating Joint Information Center (JIC)/Joint Information System (JIS)</li> <li>• Send AC Alert messages to community partners that can disseminate advisories</li> <li>• Send a message to city Emergency Managers reminding them to add any Cleaner Air Centers to the county list</li> <li>• Share with the public a list of Cleaner Air Center sites in Alameda County with air conditioning and/or air filtration according to the Environmental Protection Agency definition</li> <li>• Consider convening partners to determine provision of other resources for vulnerable populations (e.g., cleaner air centers, respiratory protection, air filters, other)</li> </ul>	
	<ul style="list-style-type: none"> <li>• Consider partial or full activation of Health Care Services Agency (HCSA) Departmental Operations Center (DOC) if not already activated</li> <li>• Contact EMS to identify impacts on 911 system to inform public safety messages</li> <li>• Work with Human Resource Services and Risk Management on providing guidance to County/city staff, including special recommendations for outdoor workers. Refer to relevant OSHA regulations.</li> <li>• Develop and disseminate health advisory to healthcare providers</li> <li>• County Health Officer and Public Health PIO should provide public communications to discuss protective actions, in consultation with the Association of Bay Area Health Officials (ABAHO), operational area partners, and others depending on the geographic scope of poor air quality</li> <li>• Issue advisory to cancel outdoor events involving activity (e.g., competitive sports). Consider advising to cancel outdoor events that do not involve activity (e.g. concerts); consider coordination with East Bay Regional Parks</li> <li>• Initiate community outreach regarding public indoor sites and wellness checks on the County's unsheltered residents; coordinate distribution of respiratory protection (N95 masks) for people who do not have the option to be indoors</li> <li>• Recommend that Cleaner Air Centers be opened in affected areas</li> </ul>	HCSA
	<ul style="list-style-type: none"> <li>• Provide air quality and County occupational health policy and protective actions information to all county employees</li> <li>• Distribute information about air filtration in County facilities, with information from General Services Agency</li> </ul>	Human Resource Services & Risk Management

	<ul style="list-style-type: none"> <li>• Notify client population, especially clients vulnerable to poor air quality</li> <li>• Draft voicemail message for agency staff to be placed on the staff emergency hotline</li> <li>• Provide guidance to employees</li> </ul>	Suggested actions for all County agencies
	<ul style="list-style-type: none"> <li>• Discuss and disseminate guidelines for school, Alameda County Juvenile Justice Center (JJC), and other youth settings for modifications and key considerations for school closures, depending on weather/forecast</li> </ul>	Office of Education/ HCSA

HISTORICAL ONLY



<p><b>Hazardous 301-500</b></p> <p>Respond if AQI level persists &gt;24 hours or in sustained or worsening poor air quality conditions</p>	<ul style="list-style-type: none"> <li>• Monitor AQI status and any ongoing threats</li> <li>• Coordinate a conference call with key technical partners such as County Health Officer, Public Health PIO, and County Fire Department, informed by Bay Area Air Quality Management District guidance and projections, to evaluate AQI status and any ongoing threats</li> <li>• Establish a schedule for AC Alert external messaging and inform County Administrator, Department Heads, County PIOs [Social Services Agency (SSA), Public Health Department (ACPHD), Fire (ACFD), and Sheriff's Office (ACSO)], relevant regional/city PIOs, and partners such as Eden I&amp;R/2-1-1 of message that will be sent <ul style="list-style-type: none"> <li>• Consider convening a call with County Health Officer and these partners if policy or coordination issues or prolonged duration anticipated</li> </ul> </li> <li>• Consult Association of Bay Area Health Officials Bay Area Regional Air Quality Messaging Toolkit as needed for messaging guidance.</li> <li>• Consider issuing an AC Alert notification with this suggested template for core message: This is AC Alert Alameda County. Air Quality is <b>Hazardous. Avoid all activity outdoors. Sensitive groups: Remain indoors &amp; keep activity levels low.</b> Go to <a href="http://www.baagmd.gov/">http://www.baagmd.gov/</a> for info, and <a href="http://www.acphd.org/wildfire-smoke">http://www.acphd.org/wildfire-smoke</a> for tips. <ul style="list-style-type: none"> <li>• Once air quality has reached 101 or above (Orange, Red, Purple or Maroon), an initial AC Alert message will be sent. After an initial message, subsequent messages will be considered when conditions change, when recommended protective actions change (such as when a new AQI level is reached), when requested by the County Health Officer, or after three days of continued poor air quality.</li> <li>• Specify projected duration if possible/necessary</li> <li>• Add additional detail regarding protective actions, sensitive populations, and conditions in longer-form messages</li> <li>• Once message is issued, issue conclusion message when air quality returns to normal</li> </ul> </li> <li>• Consider activating Joint Information Center (JIC)/Joint Information System (JIS)</li> <li>• Send AC Alert messages to community partners that can disseminate advisories</li> <li>• Consider activating Emergency Operations Center (EOC)</li> <li>• Send a message to city Emergency Managers reminding them to add any Cleaner Air Centers to the county list</li> <li>• Share with the public a list of Cleaner Air Center sites in Alameda County with air conditioning and/or air filtration according to the Environmental Protection Agency definition</li> <li>• Consider convening partners to determine provision of other resources for vulnerable populations (e.g., cleaner air centers, respiratory protection, air filters, other)</li> <li>• Consider the use of Wireless Emergency Alert (WEA); align with regional health messaging</li> </ul>	<p>OES</p>
	<ul style="list-style-type: none"> <li>• Notify client population, especially clients vulnerable to poor air quality</li> <li>• Draft voicemail message for agency staff to be placed on the staff emergency hotline</li> <li>• Provide guidance to employees</li> </ul>	<p>Suggested actions for all County agencies</p>

	<ul style="list-style-type: none"> <li>• Partial or full activation of Health Care Services Agency (HCSA) Departmental Operations Center (DOC) if not already activated</li> <li>• Contact EMS to identify impacts on 911 system to inform public safety messages</li> <li>• Work with Human Resource Services and Risk Management on providing guidance to County/city staff, including special recommendations for outdoor workers. Refer to relevant OSHA regulations.</li> <li>• Develop and disseminate health advisory to healthcare providers</li> <li>• County Health Officer and Public Health PIO should provide public communications to discuss protective actions, in consultation with the Association of Bay Area Health Officials (ABAHO), operational area partners, and others depending on the geographic scope of poor air quality</li> <li>• Health Officer considers further actions regarding outdoor workers and vulnerable populations</li> <li>• Issue advisory to cancel outdoor events (e.g., concerts and competitive sports); consider coordination with East Bay Regional Parks</li> <li>• Initiate community outreach regarding public indoor sites and wellness checks on the County's unsheltered residents; coordinate distribution of respiratory protection (N95 masks) for people who do not have the option to be indoors</li> <li>• Recommend that Cleaner Air Centers be opened in affected areas</li> </ul>	HCSA
	<ul style="list-style-type: none"> <li>• Provide air quality and County occupational health policy and protective actions information to all county employees</li> <li>• Distribute information about air filtration in County facilities, with information from General Services Agency</li> </ul>	Human Resource Services & Risk Management
	<ul style="list-style-type: none"> <li>• Discuss and disseminate guidelines for school, Alameda County Juvenile Justice Center (JJC), and other youth settings for modifications and key considerations for school closures, depending on weather/forecast</li> </ul>	Office of Education/ HCSA

**Appendix: Template for Actions by County Agencies**

Actions by County agencies to protect the health of the public and/or county employees will be determined by agency leadership, informed by relevant policies. Prior to an air quality event, agencies are encouraged to:

- Identify staff members to monitor AQI status, and have them sign up for email notifications when an Air Quality Action Day is declared at [www.enviroflash.info](http://www.enviroflash.info)
- Promote County alerts to community partners or institutions that can help disseminate alert messages to the general public and/or vulnerable communities. Invite community organizations to sign up for AC Alert and select the “Alerts for Community Partners” subscription ([www.acalert.org](http://www.acalert.org); find more information on the County’s Emergency Site, [www.acalert.org/emergencysite](http://www.acalert.org/emergencysite)).
- Assess air filtration in any facilities or buildings housing agency staff
- Develop an agency-specific Air Quality Communications Protocol and draft messages

Considerations and actions that can be used as a suggested template for an agency-specific protocol include:

AQI	Suggested Activity (if AQI level persists >24 hours or in sustained or worsening poor air quality conditions)
<b>Unhealthy for Sensitive Groups</b> 101-150	<ul style="list-style-type: none"> <li>• Monitor AQI Status</li> </ul>
<b>Unhealthy</b> 151-200	<ul style="list-style-type: none"> <li>• Notify client population, especially clients vulnerable to poor air quality</li> <li>• Draft voicemail message for agency staff to be placed on the staff emergency hotline</li> <li>• Provide guidance to employees</li> </ul>
<b>Very Unhealthy</b> 201-300	<ul style="list-style-type: none"> <li>• Notify client population, especially clients vulnerable to poor air quality</li> <li>• Draft voicemail message for agency staff to be placed on the staff emergency hotline</li> <li>• Provide guidance to employees</li> </ul>
<b>Hazardous</b> 301-500	<ul style="list-style-type: none"> <li>• Notify client population, especially clients vulnerable to poor air quality</li> <li>• Draft voicemail message for agency staff to be placed on the staff emergency hotline</li> <li>• Provide guidance to employees</li> </ul>

In the **Air Quality Index (AQI)**, the Environmental Protection Agency has assigned a color to each category to make it easier for people to understand quickly whether air pollution is reaching unhealthy levels in their community, and which protective actions are recommended.

Air Quality Index	Who Needs to be Concerned?	What Should I Do?
Good 0-50	It's a great day to be active outside.	
Moderate 51-100	Some people who may be unusually sensitive to particle pollution.	<p><b>Unusually sensitive people:</b> Consider reducing prolonged or heavy exertion. Watch for symptoms such as coughing or shortness of breath. These are signs to take it easier.</p> <p><b>Everyone else:</b> It's a good day to be active outside.</p>
Unhealthy for Sensitive Groups 101-150	Sensitive groups include people with heart or lung disease, older adults, children and teenagers.	<p><b>Sensitive groups:</b> Reduce prolonged or heavy exertion. It's OK to be active outside, but take more breaks and do less intense activities. Watch for symptoms such as coughing or shortness of breath.</p> <p><b>People with asthma</b> should follow their asthma action plans and keep quick relief medicine handy.</p> <p><b>If you have heart disease:</b> Symptoms such as palpitations, shortness of breath, or unusual fatigue may indicate a serious problem. If you have any of these, contact your health care provider.</p>
Unhealthy 151 to 200	<b>Everyone</b>	<p><b>Sensitive groups:</b> Avoid prolonged or heavy exertion. Move activities indoors or reschedule to a time when the air quality is better.</p> <p><b>Everyone else:</b> Reduce prolonged or heavy exertion. Take more breaks during all outdoor activities.</p>
Very Unhealthy 201-300	<b>Everyone</b>	<p><b>Sensitive groups:</b> Avoid all physical activity outdoors. Move activities indoors or reschedule to a time when air quality is better.</p> <p><b>Everyone else:</b> Avoid prolonged or heavy exertion. Consider moving activities indoors or rescheduling to a time when air quality is better.</p>
Hazardous 301-500	<b>Everyone</b>	<p><b>Everyone:</b> Avoid all physical activity outdoors.</p> <p><b>Sensitive groups:</b> Remain indoors and keep activity levels low. Follow tips for keeping particle levels low indoors.</p>

Source: <https://www.epa.gov/pmcourse/patient-exposure-and-air-quality-index>

