### AQI-Based Decision-Making Matrix

*(Excerpt from a Wildfire Smoke and Air Quality report to UC President Janet Napolitano, 2019)*

- The matrix is designed for use when wildfire smoke conditions result in worsening and unhealthy air quality. It does *not* apply if there is a direct threat of wildfire and/or other significant hazard to the location, or for smog-related air quality conditions.

- *Required actions* are in **bolded red text**. These are definitive actions that must take place when - but not before - the corresponding AQI threshold is met.

- Non-bolded actions are recommended for consideration and should be implemented at the location’s discretion.

- The Chancellor/Chief Executive or Executive Policy Group at the impacted location is responsible for decision-making and implementing measures based on the matrix.

- The matrix is not a stand-alone document. It should be used in conjunction with existing local response plans, protocols, and procedures including the *Emergency Operations Plan*, *Crisis Management Plan*, and *Continuity of Operations Plans (Enterprise and Departmental)*.

- If building indoor air quality is measured at a level consistent with the AQI thresholds, applicable mitigation measures should be implemented if feasible, and required actions listed in the matrix should be taken.

- Contractors working at UC locations should follow the advice of their own employers.

<table>
<thead>
<tr>
<th>AQI</th>
<th>Required Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-50</td>
<td>Non-bolded actions to consider.</td>
</tr>
<tr>
<td>51-150</td>
<td>Non-bolded actions to consider.</td>
</tr>
<tr>
<td>151-300</td>
<td>Non-bolded actions to consider.</td>
</tr>
<tr>
<td>301-500</td>
<td>Non-bolded actions to consider.</td>
</tr>
<tr>
<td>501+</td>
<td>Non-bolded actions to consider.</td>
</tr>
</tbody>
</table>

- The Pre-K-12 actions apply to UC-managed facilities only.

- The matrix incorporates actions required by Cal/OSHA Section 5141.1 including voluntary use of N95 respirators for outdoor workers at an AQI of 151-500 and mandatory N95 respiratory use, fit testing, respirator training and documentation when the AQI is above 500. At an AQI > 151, employees in buildings without filtered ventilation systems should be relocated to buildings with filtered air. If they cannot be relocated, they are subject to the actions required by Cal/OSHA Section 5141.1 where feasible.

- University sponsored outdoor events held at off-campus locations are subject to actions associated with that location’s AQI levels.

- Actions for athletic practice and competition were based on current National Collegiate Athletic Association (NCAA) guidance. Decisions regarding the cancellation and/or rescheduling of athletic competitions should be made in accordance with NCAA. Rescheduling of athletic competitions may take place when the AQI lowers to an acceptable level.

- Locations should ensure timely communication of AQI-based decisions and expected actions via multiple and redundant communication methods.

- Higher AQI thresholds automatically incorporate all guidance and actions associated with lower AQI level.
<table>
<thead>
<tr>
<th>Levels of Health Concern</th>
<th>PM2.5 (24hr avg; μg/m^3)</th>
<th>Current AQI Value</th>
<th>Who is Affected?</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>0-12</td>
<td>0-50</td>
<td>None Expected</td>
<td>No Action Anticipated</td>
</tr>
</tbody>
</table>
| Moderate                | 12.1-35.4                | 51-100            | Unusually Sensitive Individuals (people with lung and heart disease) may be affected. | Outdoor Workers/Volunteers: Unusually sensitive people may require work accommodations.  
Academic Classes: No Action Anticipated  
Campus Operations: No Action Anticipated  
Health System Operations: In patient care areas, consider modifying filtered mechanical ventilation systems and/or implementing other controls to reduce outdoor air intake.  
Athletics & Outdoor Rec: No Action Anticipated  
Outdoor Camps/Events: No Action Anticipated  
Pre-K-12: No Action Anticipated |
| Unhealthy for Sensitive Groups | 35.5-55.4 | 101-150 | Sensitive groups including people with heart or lung disease, older adults, pregnant women, and children. | Outdoor Workers/Volunteers: Workers in sensitive groups may require work accommodations.  
Academic Classes: No Action Anticipated  
Campus Operations: Consider closing building doors and windows to reduce outdoor air intake.  
Health System Operations: As feasible, modify filtered mechanical ventilation systems to reduce outdoor air intake in patient care areas.  
Athletics & Outdoor Rec: Medical/athletic staff/outdoor recreation staff should consult with individuals who fall into the sensitive groups about participation in practice, competition, and/or outdoor events.  
Outdoor Camps/Events: At higher end of range, consider moving activities indoors.  
Pre-K-12: For longer activities such as athletic practice, take more breaks and do less intense activities |
<table>
<thead>
<tr>
<th>Levels of Health Concern</th>
<th>PM2.5 (24hr avg; μg/m³)</th>
<th>Current AQI Value</th>
<th>Who is Affected?</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unhealthy</td>
<td>55.5-150.4</td>
<td>151-200</td>
<td>Everyone</td>
<td></td>
</tr>
</tbody>
</table>
|                          |                          |                   | Outdoor Workers/Volunteers | • Limit outdoor work and prolonged or heavy exertion if practicable.  
• Reassign employees who work outdoors for more than one hour or provide N95 respirators for voluntary use. |
|                          |                          |                   | Academic Classes | • Consider academic accommodations for students and faculty with pre-existing health conditions.  
• Consider cancelling or moving outdoor classes indoors. |
|                          |                          |                   | Campus Operations | • Consider making N95 respirators and use/care guidance available for voluntary use.  
• Consider increasing campus-managed shuttle/bus service.  
• As feasible, modify filtered mechanical ventilation systems to reduce outdoor air intake. |
|                          |                          |                   | Health System Operations | • Consider making N95 respirators and use/care guidance available for voluntary use.  
• In patient care areas, consider monitoring indoor air quality and implement mitigation actions if indoor AQI is within this range. |
|                          |                          |                   | Athletics & Outdoor Rec | • Medical/athletic training staff should closely monitor the health of all athletes in practice and competition. Modifications to athletic activities should be considered and implemented as necessary.  
• Shorten/modify outdoor recreational activity to limit prolonged or heavy exertion. |
|                          |                          |                   | Outdoor Camps/Events | • Consider cancellation of more intense outdoor events or move events indoors. |
|                          |                          |                   | Pre-K-12 | • For all outdoor activities, take more breaks and do less intense activities.  
• Consider moving longer or more intense activities indoors or rescheduling them to another day or time |
<table>
<thead>
<tr>
<th>Levels of Health Concern</th>
<th>PM2.5 (24 hr avg; μg/m³)</th>
<th>Current AQI Value</th>
<th>Who is Affected?</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Unhealthy</td>
<td>150.5-250.4</td>
<td>201-300</td>
<td>Everyone</td>
<td></td>
</tr>
</tbody>
</table>

**Outdoor Workers/Volunteers**
- Suspend outdoor work. If work is absolutely necessary, provide N95 respirators for voluntary use.

**Academic Classes**
- Per local procedures and in consultation with the divisional Academic Senate Chair or designee, cancel or restructure classes if current AQI levels have maintained in this range and are expected to continue (academic activities that support clinical operations or research may be excluded from cancellation).

**Campus Operations**
- To the extent possible, curtail campus operations.
- Consider monitoring indoor air quality and implement mitigation actions if indoor AQI is within this range.

**Health System Operations**
- To the extent possible, curtail health system operations.
- Consider monitoring indoor air quality and implement mitigation actions if indoor AQI is within this range.

**Athletics/Outdoor Rec**
- Outdoor athletic activities should be moved indoors or delayed/postponed/relocated.
- Cancel or move indoors outdoor recreational activities.

**Outdoor Camps/Events**
- Cancel outdoor events involving activity (e.g., sports).
- Consider cancellation of outdoor events that do not involve activity (e.g., concerts).

**Pre-K-12**
- Close school if current AQI levels have maintained in this range and are expected to continue.
<table>
<thead>
<tr>
<th>Levels of Health Concern</th>
<th>PM2.5 (24hr avg; μg/m³)</th>
<th>Current AQI Value</th>
<th>Who is Affected?</th>
<th>Actions</th>
</tr>
</thead>
</table>
| Hazardous                | 250.5-500.4             | 301-500           | Everyone         | Outdoor Workers/Volunteers • **Follow recommendations for the Very Unhealthy category.**  
Academic Classes         |                         |                   | • **Follow recommendations for the Very Unhealthy category.**  
Campus Operations        |                         |                   | • **Follow recommendations for the Very Unhealthy category.**  
Health System Operations |                         |                   | • **Follow recommendations for the Very Unhealthy category.**  
Athletics/Outdoor Rec    |                         |                   | • **Cancel or move indoors all outdoor athletic and recreation events/activities.**  
|                          |                         |                   | • Consider cancellation of indoor events/activities based on indoor air quality measurements.  
Outdoor Camps/Events     |                         |                   | • **Cancel all outdoor events and camp activities**  
|                          |                         |                   | • Consider cancellation of indoor camps that require participants or families to travel to and from campus.  
Pre-K-12                  |                         |                   | • **Follow recommendations for the Very Unhealthy category.**  
| Beyond the AQI           | > 500.4                 | > 500             | Everyone         | All groups • **Follow recommendations for the Hazardous Category.**  
|                          |                         |                   | • **Suspend outdoor work and activities. If outdoor work is absolutely necessary, N95 respirators are mandatory and require training and fit testing.**  