

Smoke/Air Pollution Annex

Background

This document is meant to provide guidance for campus leadership to use when determining what steps to take when the campus may be experiencing smoke impacts from distant source wildfires.

Daily AQI Color	Levels of Concern	Values of Index	Description of Air Quality
Green	Good	0 to 50	Air quality is satisfactory, and air pollution poses little or no risk.
Yellow	Moderate	51 to 100	Air quality is acceptable. However, there may be a risk for some people, particularly those who are unusually sensitive to air pollution.
Orange	Unhealthy for Sensitive Groups	101 to 150	Members of sensitive groups may experience health effects. The general public is less likely to be affected.
Red	Unhealthy	151 to 200	Some members of the general public may experience health effects; members of sensitive groups may experience more serious health effects.
Purple	Very Unhealthy	201 to 300	Health alert: The risk of health effects is increased for everyone.
Maroon	Hazardous	301 and higher	Health warning of emergency conditions: everyone is more likely to be affected.

*Graphic from airnow.gov

Monitoring

Should there be concerns with air quality the campus emergency manager will monitor current as well as projected air quality forecasting. Both fire.airnow.gov and purpleair.com will be utilized. Cal Poly Humboldt has installed a Purple Air monitor on campus and it is considered to be the most accurate tool in measuring air quality on campus. If there is a chance of air quality exceeding an AQI of 150 minimal activation of the Emergency Operations Center (EOC) will be recommended.

When Purple Air is used the appropriate conversions will be applied using:

- US EPA PM 2.5 AQI and US EPA conversion equation
- Both must be applied to have accurate information regarding wildfire smoke impacts

Timing for decision making:

Prior to 6am the campus emergency manager or designee will look at the AQI forecast (from airnow.gov) to determine the forecast. Should that forecast result in the potential for actions impacting campus activities or operations the emergency manager will notify the EOC director or appropriate administrator. All decisions will be made by either the EOC director or by PMG.

Changes to operations or planned activities should be considered in the following blocks:

- Prior to 6am, the day's activities/operations may be canceled for the entire day.
- A partial day change to operations or activities will go until noon with another evaluation occurring at 10:00 am and follow up messaging to go out no later than 11am either confirming campus operations returning to normal or canceling the remaining activities for the day.
- Should the day already begin prior to problematic AQI readings, activities will continue based on the 24 hour average. Should that average be met then the appropriate actions will be taken immediately.

Levels of Concern	PM2.5 for 24 HR Average	Current AQI (1Hr AVG)	Who Is Affected	Actions					
				Outdoor Workers	Classes	Campus Operations	Athletics	Outdoor Events/Social Spaces	Child Care Centers
Good	0-12	0-50	None Expected	No action anticipated	No action anticipated	No action anticipated	No action anticipated	No action Anticipated	No action anticipated
Moderate	12.1-35.4	51-100	Unusually sensitive individuals (people with lung or heart issues) may be affected	Unusually sensitive individuals may require work accommodations	No action anticipated	No action anticipated	No action anticipated	No action Anticipated	No action anticipated
Unhealthy for Sensitive Groups	35.5-55.4	101-150	Sensitive groups which may include people with heart or lung disease, elderly, pregnant women and small children	Workers in sensitive groups may require work accommodations	No action anticipated	Consider reducing outdoor air intake for buildings	Athletic Training staff should consult with athletes that fall into the sensitive group to determine if outdoor activity is appropriate	Consider moving outdoor activities indoors	Consider taking more breaks when involved in outdoor activities
Unhealthy	55.5-150.4	151-200	Everyone	Limit outdoor work and heavy or prolonged exertion to under an hour Provide N95 respirators for voluntary use	Deans: Consider moving outdoor classes indoors Consider academic accommodations for students and faculty with pre-existing conditions	Provide N95 respirators for voluntary use	Shorten or modify outdoor practices to exertion Move activities indoors if approved by athletic department based off ventilation capabilities of indoor spaces	Cancel events that require heavy exertion Consider canceling non-exerting events (concerts)	Consider canceling activities if current AQI levels would exclude outdoor activities
Very Unhealthy	150.5-250.4	201-300	Everyone	Suspend outdoor work	Deans: Cancel or restructure classes if current AQI levels have been maintained in this range and are expected to remain in the range for the next four hours	Where feasible reduce campus operations to essential activities	Cancel or move outdoor activities indoors	Cancel all events	Cancel activities if current AQI levels have been maintained and are expected to continue
Hazardous	250.5-500	301-500	Everyone	See recommendations for Very Unhealthy	See recommendations for Very Unhealthy	See recommendations for Very Unhealthy	See recommendations for Very Unhealthy	See recommendations for Very Unhealthy	See recommendations for Very Unhealthy

Field Trips/Outdoor activities: Instructors should be aware of the matrix and use the matrix to determine if a field trip needs to be modified or canceled. Should an outdoor activity need to be moved indoors the instructor should contact [Conference & Event Services](#) and utilize [25Live](#) to determine appropriate available space.