



# Pollution Reduction Strategy 2: Outdoor Air Quality and Community Health Improvements

## Outdoor Air Quality 101

Polluted air in a community can cause serious health problems, especially among children and older people. Air pollution can come from vehicles, buildings, construction sites, wildfires, and other sources. Communities can deal with outdoor air quality challenges by reducing air pollution at the source and applying community design policies and practices to limit exposure. Here are some useful outdoor air quality terms to know:



**Mobile sources of air pollution:** Passenger cars and trucks, commercial trucks and buses, motorcycles, nonroad vehicles like planes, trains, ships, recreational vehicles, construction equipment, and small engines / tools like lawnmowers and leaf blowers.



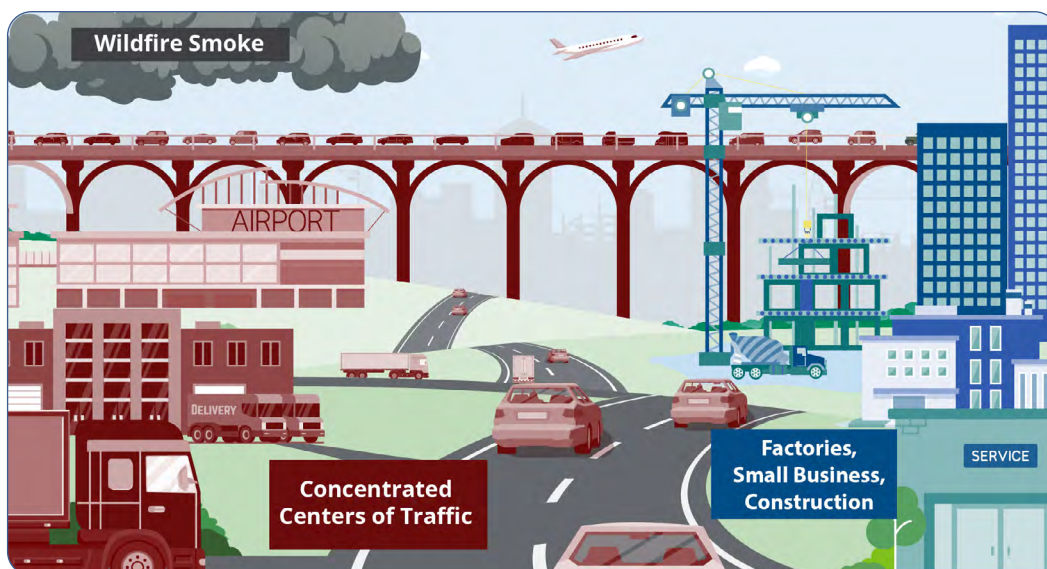
**Stationary sources of air pollution:** Power plants, factories and other industrial buildings, small businesses, and large residential buildings, among others.



**“Last mile” delivery:** The final step of the delivery process, where a package is transported from a central warehouse to its final destination. These deliveries can cause lots of traffic. Idling trucks pollute the surrounding air.



**Vegetative barriers:** Plants that can help reduce exposure to air pollution for communities located near busy roads, highways, and other nearby air pollution sources.



*Factors affecting outdoor air quality*

# Outdoor Air Quality and Community Health Improvements

## Outdoor Air Quality Solutions for Community Challenges



### Air Pollution from Concentrated Centers of Truck and Bus Traffic

Community Challenges	Possible Solutions
<p>Warehouses, garages, truck stops, ports, and airports are associated with high levels of diesel emissions.</p> <ul style="list-style-type: none"><li>• Members of disadvantaged communities are more likely to live near these sites.</li><li>• Diesel emissions can lead to asthma attacks, worsen existing heart and lung disease, and are especially harmful for children and the elderly.</li></ul>	<ul style="list-style-type: none"><li>• Electrify truck stops, diesel equipment at airports, <a href="#">ports</a>, construction equipment, and government-owned fleets such as garbage trucks and school buses.</li><li>• Retrofit trucks and other diesel equipment to reduce harmful emissions.</li><li>• Create alternative truck routes away from disadvantaged communities.</li><li>• Create rules to reduce idling of trucks and ships around ports.</li><li>• Install vegetative barriers around heavily trafficked areas.</li></ul>



### Air Pollution from Mobile Sources & Small Motor Appliances

Community Challenges	Possible Solutions
<p>Heavy traffic in dense urban areas can worsen nearby outdoor air quality.</p> <ul style="list-style-type: none"><li>• Members of disadvantaged communities may be dependent on walking or biking to get from place to place. This may mean they are breathing unfiltered outdoor air along roadways.</li><li>• Members of disadvantaged communities may also be likely to work outside in jobs that involve physical labor.</li></ul>	<ul style="list-style-type: none"><li>• Encourage “last-mile” delivery by electric delivery vehicles.</li><li>• Create “no idling” zones, especially around schools.</li><li>• Encourage alternative transportation choices: add bike lanes, make it easier and safer to walk, increase bus service, and reduce required parking spots for new construction.</li><li>• Provide funding to replace diesel-powered leaf blowers and lawn mowers with zero-emission options.</li><li>• Build charging stations for electric vehicles.</li></ul>

# Outdoor Air Quality and Community Health Improvements

## Outdoor Air Quality Solutions for Community Challenges



### Air Pollution from Factories, Small Business, Residential Buildings, and Construction Sites

Community Challenges	Possible Solutions
<p>Air pollution from buildings and construction sites can worsen nearby outdoor air quality.</p> <ul style="list-style-type: none"><li>• Certain polluting industries and businesses are more likely to be in disadvantaged communities.</li></ul>	<ul style="list-style-type: none"><li>• Work with local small businesses to help them reduce pollution. For example, fund retrofits of spray booths in auto body paint shops or require gas stations to install vapor recovery systems.</li><li>• Provide funds for backup battery systems to replace diesel generators for homes, small businesses, and public buildings.</li><li>• Require and provide funding for construction practices and equipment that produce less dust and emissions.</li></ul>



### Air Pollution from Wildfire Smoke

Community Challenges	Possible Solutions
<p>Smoke from wildfires can quickly and drastically worsen outdoor air quality in nearby and faraway communities.</p> <ul style="list-style-type: none"><li>• Members of disadvantaged communities may be more likely to have jobs that require them to work outside during poor air quality days.</li></ul>	<ul style="list-style-type: none"><li>• Conduct trainings in wildfire smoke preparedness.</li><li>• Create policies for employers that will help reduce workers' exposure. For example, provide an indoor break area with filtered air, shift work to a place or time that is less hazardous, and/or provide and require the use of appropriate protective equipment.</li><li>• Help schools develop plans to limit exposure for students during poor air quality days and provide funding for air purification equipment and HVAC upgrades.</li></ul>

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## Outdoor Air Quality Solutions for Community Challenges



### Air Pollution in Rural Areas

Community Challenges	Possible Solutions
<p>Rural areas have their own air quality challenges related to farming, oil and gas infrastructure, wood stove usage, and more.</p> <ul style="list-style-type: none"><li>Rural disadvantaged communities may face more barriers to access vital services.</li></ul>	<ul style="list-style-type: none"><li>Use the resources from EPA's Burn Wise program to encourage practices that reduce pollution from wood stoves and fund upgrades to EPA-approved wood stoves and maintenance.</li><li>Avoid burning trash and debris in backyard burn barrels, which is a hazardous practice. Instead, subsidize trash pickup or transport of trash to an official processing site.</li><li>Conduct trainings in wildfire smoke preparedness.</li><li>Provide funding for farmers to follow air quality best practices for farming.</li><li>Plug abandoned oil and gas wells.</li></ul>

Disclaimer: This document was created to help Community Change Grant applicants think through various potential solutions to the problems their community may be facing. All the listed "Community Challenges" and "Possible Solutions" are only examples. We did not attempt to list all possible challenges or solutions.

For more information on outdoor air quality, see EPA's [Outdoor Air Quality](#) and [Air Pollution](#) pages.

For more information on the Outdoor Air Quality Pollution Reduction Strategy, read Section I.G. and Appendices D and F of the Notice of Funding Opportunity (NOFO).

For further questions regarding technical assistance, please contact [EJ\\_TechAssist@epa.gov](mailto:EJ_TechAssist@epa.gov) or call 1(800) 540-8123.

For questions regarding the Notice of Funding Opportunity (NOFO), please contact [CCGP@epa.gov](mailto:CCGP@epa.gov).



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