

# Best Practices for Reducing Near-Road Pollution Exposure at Schools: Additional Resources

General information concerning schools: <https://epa.gov/schools>

## Ventilation, Filtration, and Indoor Air Quality

- General information about indoor air quality: <https://www.epa.gov/indoor-air-quality-iaq>
- Creating healthy indoor environments in schools: <https://www.epa.gov/iaq-schools>
- School IAQ Assessment Mobile App: <https://www.epa.gov/iaq-schools/school-iaq-assessment-mobile-app>
- Energy Savings Plus Health: Indoor Air Quality Guidelines for School Building Upgrades: [https://www.epa.gov/sites/production/files/2014-10/documents/energy\\_savings\\_plus\\_health\\_guideline.pdf](https://www.epa.gov/sites/production/files/2014-10/documents/energy_savings_plus_health_guideline.pdf)
- EPA Guide to Air Purification/Cleaners: <https://www.epa.gov/indoor-air-quality-iaq/air-cleaners-and-air-filters-home>
- HVAC systems in schools:
  - Designing new schools: <https://www.epa.gov/iaq-schools/heating-ventilation-and-air-conditioning-systems-part-indoor-air-quality-design-tools>
  - Existing Schools: EPA's IAQ Tools for Schools Kit Ventilation Information: [www.epa.gov/iaq-schools/ventilation-checklist-indoor-air-quality-tools-schools](http://www.epa.gov/iaq-schools/ventilation-checklist-indoor-air-quality-tools-schools)
  - Preventive maintenance: [www.epa.gov/iaq-schools/indoor-air-quality-tools-schools-preventive-maintenance-guidance-documents](http://www.epa.gov/iaq-schools/indoor-air-quality-tools-schools-preventive-maintenance-guidance-documents)

## Actions for Building Occupants

- Recess planning in schools: [https://www.cdc.gov/healthyschools/physicalactivity/pdf/2016\\_12\\_16\\_schoolrecessplanning\\_508.pdf](https://www.cdc.gov/healthyschools/physicalactivity/pdf/2016_12_16_schoolrecessplanning_508.pdf)
- Air Quality and Outdoor Activity Guidance for Schools: <https://www.airnow.gov/sites/default/files/2018-09/air-quality-and-outdoor-activity-guidance-2014.pdf>
- EPA School Flag Program: <https://www.airnow.gov/air-quality-flag-program/>

## Site-Related Strategies

### Transport Policies

- EPA Reducing Diesel Emissions from School Buses: <https://www.epa.gov/dera/making-school-buses-cleaner>

- The Diesel Emissions Reduction Act (DERA) Program, which funds grants and rebates that protect human health and improve air quality by reducing harmful emissions from diesel engines: <https://www.epa.gov/dera>
- School Bus Rebates: The Diesel Emissions Reduction Act (DERA): <https://www.epa.gov/dera/rebates>
- Idle Free Utah Program Resources: <http://utahcleancities.org/idle-free/>

### **Site Locations and Design**

- EPA School Siting Guidelines: <https://www.epa.gov/schools/view-download-or-print-school-siting-guidelines>
- Information on school renovations: <https://www.epa.gov/schools/sensible-guide-healthier-school-renovations>

### **Roadside Barriers**

- The Role of Vegetation in Mitigating Air Quality Impacts from Traffic Emissions: <https://archive.epa.gov/nrmrl/archive-appcd/web/pdf/baldauf.pdf>
- EPA recommendations on vegetative barriers: <https://www.epa.gov/air-research/recommendations-constructing-roadside-vegetation-barriers-improve-near-road-air-quality>

### **Air Quality Measurements**

- Information and guidance on air sensors: <https://www.epa.gov/air-sensor-toolbox>
- Building Capacity to Measure Air Pollution Mitigation Strategies at Schools: <https://www.epa.gov/innovation/building-capacity-measure-air-pollution-mitigation-strategies-schools>

## **Other Useful Resources**

- California Air Resources Board, Air Quality and Land Use Handbook: <https://ww3.arb.ca.gov/ch/handbook.pdf>
- South Coast Air Quality Management District, Air Quality Issues in School Site Selection: Guidance Document: [http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/school\\_guidance.pdf](http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/school_guidance.pdf)
- South Coast Air Quality Management District, Near-Road Mitigation Measures and Technology Forum materials: <https://www.aqmd.gov/home/technology/technology-forums>
- Air Quality Sensor Performance Evaluation Center (AQ-Spec): <http://www.aqmd.gov/aq-spec>
- California Department of Education, School Site Selection and Approval Guide: <https://www.cde.ca.gov/ls/fa/sf/schoolsiteguide.asp>
- Los Angeles Unified School District, Distance Criteria for School Siting: [http://www.lausd-oehs.org/docs/Misc/DistanceCriteriaTable%20Rev12\\_10\\_08.pdf](http://www.lausd-oehs.org/docs/Misc/DistanceCriteriaTable%20Rev12_10_08.pdf)

- ASHRAE Standards for Ventilation and Indoor Air Quality: <https://www.ashrae.org/technical-resources/bookstore/standards-62-1-62-2>
- ASHRAE Indoor Air Quality Guide: Best Practices for Design, Construction, and Commissioning, 2009: <https://www.ashrae.org/resources--publications/bookstore/indoor-air-quality-guide>
- The National Energy Management Institute (NEMI)'s Ventilation Verification for assessment of existing HVAC infrastructure: <https://www.nemionline.org/ventilation-verification/>
- Colorado's Clean Air at Schools (CASEO) Program: [http://enginesoff.com/2\\_4\\_schools.htm](http://enginesoff.com/2_4_schools.htm)
- Green Heart Louisville: <https://greenheartlouisville.com/>
- Love My Air: <https://www.denvergov.org/Government/Departments/Public-Health-Environment/Environmental-Quality/Air-Quality/Love-My-Air>

## Resources Related to Schools and COVID-19 and Other Infectious Diseases

Teachers and school officials need to use their judgment on whether to initiate practices presented in this document while COVID-19 and other infectious diseases are a concern. There are a number of guides for schools related to COVID exposure reduction that should be consulted and compared with the recommendations presented here, including the following:

- EPA guidance on cleaning and disinfecting: <https://www.epa.gov/coronavirus/guidance-cleaning-and-disinfecting-public-spaces-workplaces-businesses-schools-and-homes>
- EPA guidance on coronavirus and indoor air: <https://www.epa.gov/coronavirus/indoor-air-and-coronavirus-covid-19>
- EPA guidance on coronavirus and ventilation: <https://www.epa.gov/coronavirus/ventilation-and-coronavirus-covid-19>
- EPA guidance on coronavirus and air filtration: <https://www.epa.gov/coronavirus/air-cleaners-hvac-filters-and-coronavirus-covid-19>
- EPA webinar series on indoor air quality at schools: <https://www.epa.gov/iaq-schools/healthy-indoor-environments-schools-plans-practices-and-principles-maintaining-healthy>
- ASHRAE frequently asked questions regarding filtration and disinfection: <https://www.ashrae.org/technical-resources/filtration-and-disinfection-faq>
- EPA and CDC guidance for cleaning and disinfecting public spaces, workplaces, businesses, schools, and homes: [https://www.cdc.gov/coronavirus/2019-ncov/community/pdf/reopening\\_america\\_guidance.pdf](https://www.cdc.gov/coronavirus/2019-ncov/community/pdf/reopening_america_guidance.pdf)
- CDC website for school administrators: <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/schools-faq.html>