

Clean Air for Schools Program

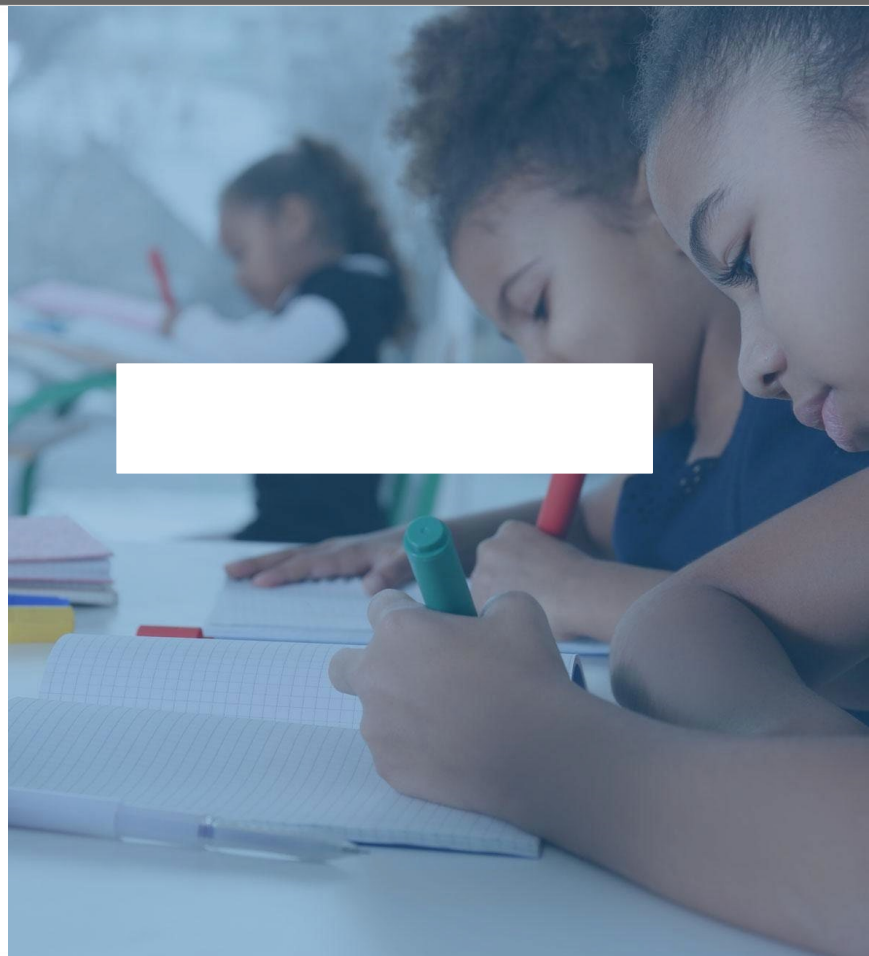




The IQAir Foundation works to bring clean air to more than 1 million children.

The IQAir Foundation seeks to promote environmental justice by helping to improve environmental health conditions in neighborhoods unfairly affected by pollution as a result of economic, ethnic or racial factors.

Through Clean Air for Kids, IQAir Foundation has a goal to bring air filtration to at least **120,000 additional school children every year**, which supports the IQAir Foundation's overarching goal of providing clean air to more than 1 million children.





Pollutants in Paramount

Paramount children are exposed to pollutants every day:

- Schools located near freeways
- Homes located near freeways
- Indoor Air Quality pollutants

Sources of pollutants and emissions:

- Port Traffic (710/91)
- CO₂ released from diesel trucks and some older cars
- Refineries and factories
- Other pollutants (Chromium 6)





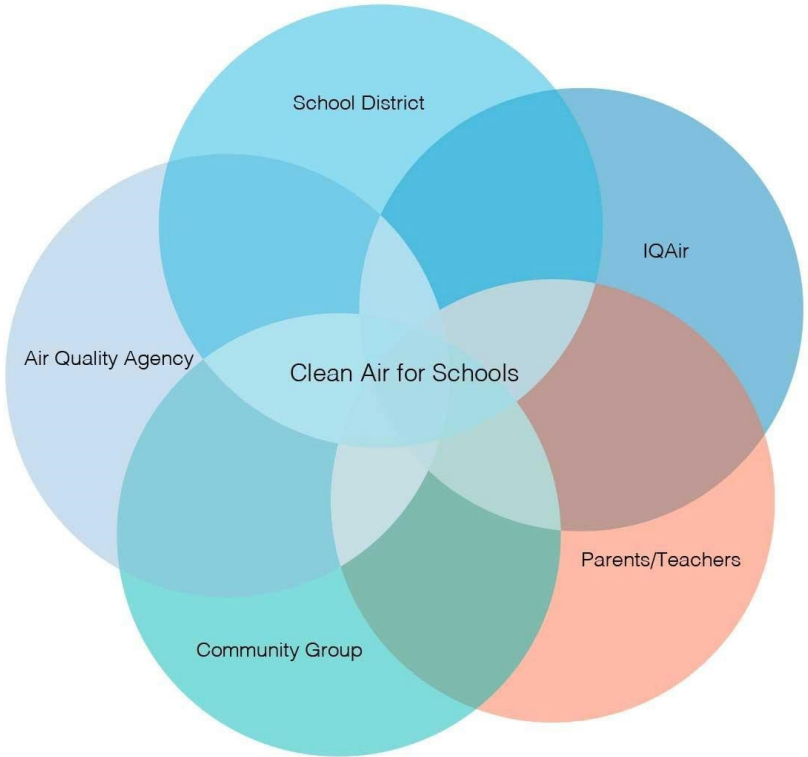
Mitigation

Clean Air for Schools

We don't need to wait 20 years for the air to be cleaner in order to mitigate air pollution. Children in impacted communities can breathe up to 90% cleaner air today through the **Clean Air for School Program** has funding available for impacted areas.

Children can breathe clean air in schools today!







Key benefits of the Clean Air School Program

1. **Clean Air:** The program provides up to a 90% reduction of harmful pollutant particles in classrooms.
2. **Quieter Classrooms:** The program quiets classrooms suffering from noisy HVAC systems and brings them in line with recommended sound levels of 45 decibels or less.
3. **Recommended Ventilation Rates:** Classrooms without automatic HVAC operation will be brought into compliance with classroom ventilation requirements and best practices.
4. **Green:** The Clean Air School Program monitors HVAC filter life with differential pressure drop, as recommended by the EPA and Collaborative for High Performance Schools.
5. **Energy Efficient:** Program schools save energy while promoting a healthful learning environment through the use of smart occupancy-based HVAC energy monitors.





The road to becoming a Clean Air School includes these steps:

- **Assessment and Creation of a Solutions Report:** Clean air specialists assess your school buildings and mechanical systems. They generate a comprehensive Solutions Report including recommended technology installations and other actions to improve air quality and optimize heating, ventilation and air conditioning systems performance.
- **Funding Opportunities :**
 - ✓ Port of Long Beach
 - ✓ SEP
- **Installation of one or a combination of recommended technologies :** Air cleaning and HVAC specialists install upgraded HVAC filters , stand alone air filtration systems, occupancy-based HVAC energy management systems, HVAC silencers and other recommended technologies.
- **Verification:** Air cleaning and HVAC specialists verify that your school meets the Clean Air School Requirements.
- **Continuous monitoring and maintenance:** Your school's facilities and maintenance staff is trained on the newly installed technologies, filter replacement and other maintenance requirements. The installation team continues to check in and monitor system performance throughout the designated





Administrators at the district and school levels play a key role

As school administrators, including principals, your leadership and support for the Clean Air Program is vital. **Success requires collaboration** between you, teachers, staff, facilities and maintenance personnel and, of course, students and parents. Your role in supporting the Clean Air Schools Program at your school or in your district might include:

- **Engaging teachers and staff** in a dialogue of support to meet the requirements of the program.
- **Sending a pamphlet** to parents of students regarding the Clean Air School Program. IQAir Foundation can supply you with suitable templates.
- **Hosting an introductory on-site meeting** for the Clean Air School Program with teachers, facilities and maintenance personnel and other key staff.
- **Engaging in community/ media-relations events**, this is an optional event where a certification plaque is awarded to the school.





Nearly 100,000 school children in over 150 schools in California have been upgraded with clean air technologies.

The program's comprehensive approach removes up to 90% of outdoor ultra-fine particles, such as diesel soot.

The Process

More than 100 air filtration manufacturers were contacted and submitted their technologies for testing.

Submissions included HVAC-mounted filtration systems and standalone systems.

Testing was conducted in a portable classroom at Sunnyslope Elementary School in Riverside, Calif. The classroom is typical of those in public school districts throughout the U.S.

Results

The final report, "Performance Evaluation of Air Filtration Devices," was prepared for the South Coast Air Quality Management District (SCAQMD) in late 2010. Research was conducted by Dr. Robert L. Russell, William A. Welch and James Gutierrez.





Pilot study: high-performance air filtration for classrooms

Conducted in 2008 with South Coast Air Quality Management District (SCAQMD)

- 9 classrooms at 3 elementary schools in 2 districts
- Los Angeles Unified School District: Del Amo Elementary & Dominguez Elementary
- Long Beach Unified School District: Hudson Elementary

Investigated effectiveness of three air purification systems in reducing and removing contaminants

- HVAC-based high-performance panel filter
- Register-based airpurifier
- Stand alone system

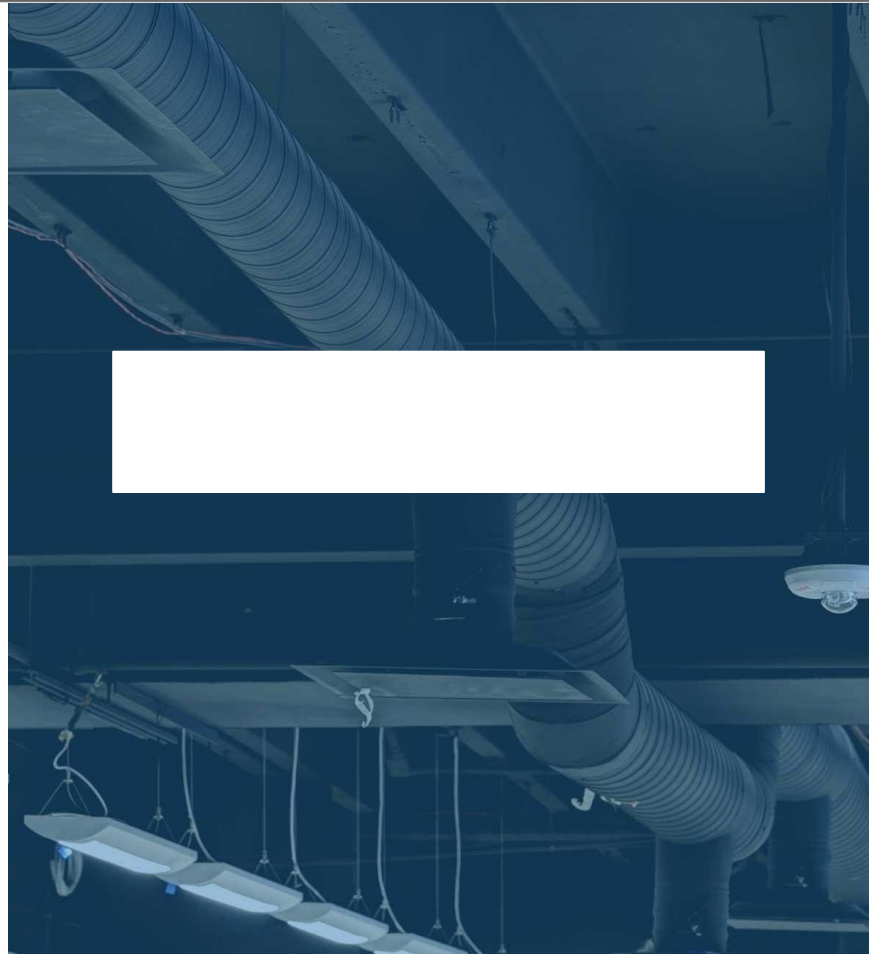
Findings : IQAir technology **removed up to 90%** of diesel soot, particulate matter and other pollutants in classrooms.





Customized solutions for individual schools include the following technologies:

- Air quality monitors
- Upgraded HVAC panel filters
- Standalone air filtration systems
- Diffuser and other HVAC upgrades
- HVAC silencers and other noise abatements
- Filter life sensors





Air Quality Monitoring: IQAir AirVisualPro

- The world's **smartest air quality monitor**
- **Monitor outdoor and Indoor Air Quality**
In real time including CO₂ and particulate matter from streets and highways.
- **View data** from an international network of air quality monitors.
- **Use the free AirVisual App** to access the world's largest air quality database of over 10,000 cities.





Clean Air Technology..Its Time to Make a Difference in classrooms and the communities.

Thank you.

