

## Schools, Childcare Centers, Community Centers, Libraries, and Public Housing Projects – Exposure Reduction

### Background

The East Los Angeles, Boyle Heights, West Commerce communities identified children’s exposure to harmful air pollutants as a priority with additional focus on children in childcare centers, community spaces (such as community centers) and public housing developments. A major pollutant of concern in this community is diesel particulate matter (PM), generated by neighborhood and freeway truck traffic, and the railyards. The CSC also expressed concern about emissions from metal processing facilities, fugitive dust from general industrial sources, and auto body shops. Children, seniors, and people with certain medical conditions are especially sensitive to the impacts of air pollution. However, proactive steps such as installing high performance air filtration systems in schools and notifying the public when air quality is unhealthy can reduce the public’s exposure to harmful air pollutants.

### Community Air Quality Priority – Reducing Exposures at Schools, Childcare Centers, Community Centers, Libraries, and Public Housing Projects

CSC members identified schools and other places where children spend a lot of time (e.g., childcare centers, libraries, and community centers) as places where the South Coast AQMD should focus on reducing exposure to harmful air pollutants. The CSC provided examples of air pollution sources, such as the idling of diesel trucks, and dust from metal processing facilities and other general industrial sources that are near schools and community centers. The CSC members also shared instances where students and other sensitive populations near sources of air pollution experienced health problems.

To address community concerns about the health impacts of air pollution, the CSC members prioritized installing school air filtration systems, modifying routes for trucks to minimize movement through residential neighborhoods, and partnerships with community-based organizations for outreach and engagement efforts as ways to reduce exposure to harmful air pollutants. This includes providing information on pollutants of concern within this community, and proactive steps that can be taken to reduce exposures at schools, childcare centers, and community centers, when outdoor air pollution levels are unhealthy.

The CSC asked for the Community Emissions Reduction Plan (CERP) to focus installation of school air filtration systems at locations close to major sources of diesel PM and dust from industrial sources. Specific locations mentioned as priorities included schools near major traffic sources, such as freeways and truck routes, and metal processing facilities.

## Ongoing Efforts

### School Air Filtration Program

The installation of air filtration systems in schools can reduce exposure to air pollution inside school buildings. There are certain types of air filtration systems (“high efficiency air filters”) that are effective in filtering very small particles from diesel engines and other dust sources. Small particles can be inhaled deep into the lungs and cause health problems. These filtration systems may be beneficial to schools located near freeways, truck routes, rail yards, metal processing facilities, auto body shops plants and other sources<sup>1</sup> of particulate matter emissions.

South Coast AQMD has helped install air filtration systems at schools in the Los Angeles Unified School District since 2006, including 20 schools and one community center within the East Los Angeles, Boyle Heights, West Commerce community. Figure 5-1 shows a map of the schools and community centers with South Coast AQMD installed air filtration systems. Table 5-1 provides a list of these schools and community centers.

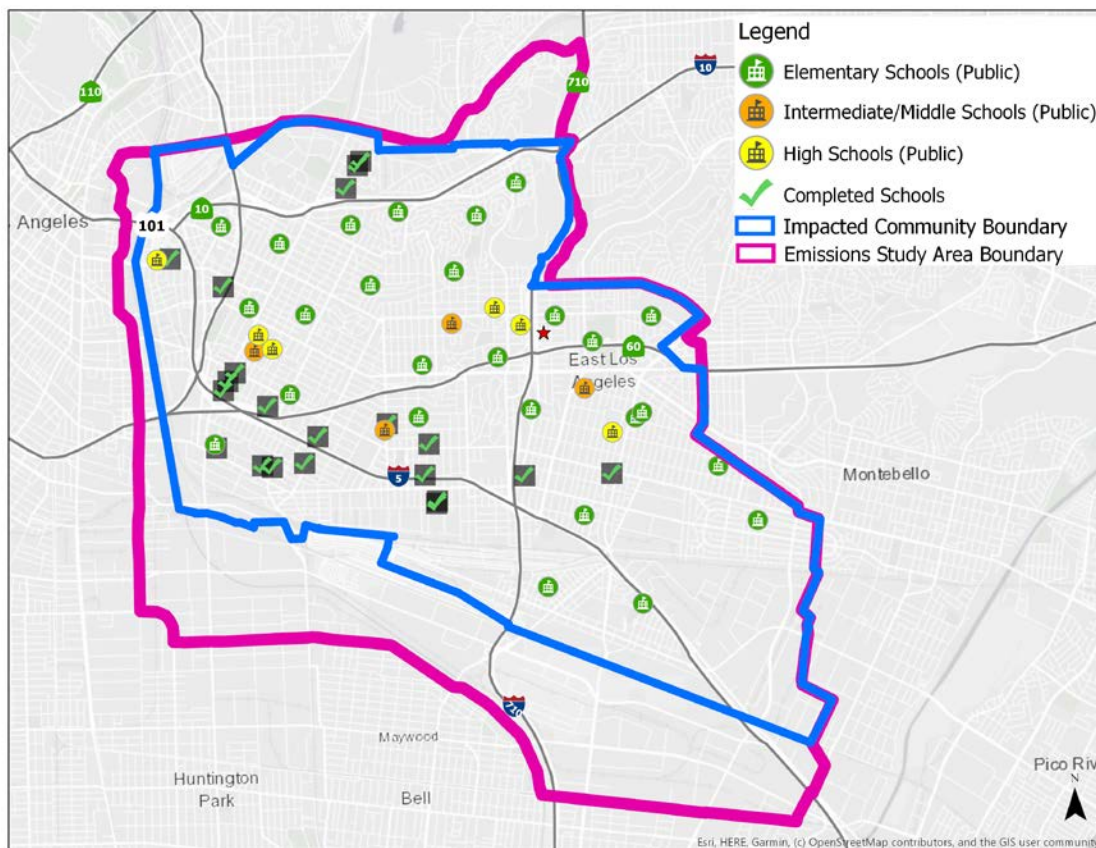


Figure 5-1. Map of completed schools in the East Los Angeles, Boyle Heights, West Commerce community with air filtration systems installed through programs administered by the South Coast AQMD, and potential schools in this community for implementing air filtration systems.

<sup>1</sup> Polidori, A., et al. “Pilot Study of High-Performance Air Filtration for Classroom Applications.” *Indoor Air*, vol. 23, no. 3, 2012, pp. 185–195., doi:10.1111/ina.12013

Table 5-1. List of schools and community centers in East Los Angeles, Boyle Heights, West Commerce community with air filtration systems installed through the South Coast AQMD program

Name of School	
Amanecer Primary Center	Murchison Elementary School
Carmen Lomas Garza Primary Center	Plaza Community Services
Christopher Dena Elementary School	Resurrection Elementary School
Dacotah Early Elementary Center	Salesian High School
Eastman Avenue Early Education Center	Santa Isabel Elementary School
Ford Boulevard Elementary School	Santa Teresita Elementary School
Kipp Academy of Innovation	Second Street Elementary School
Las Flores Preschool	Soto Street Elementary School
Lorena Street Elementary School	Sunrise Elementary School
Murchison Early Education Center	Utah Street Elementary School

*Environmental Justice Community Partnership (EJCP)<sup>2</sup> Clean Air Ranger Education (CARE)<sup>3</sup>*

The EJCP is designed to build relationships with community members and organizations to achieve clean air and healthy, sustainable communities. The Clean Air Ranger Education (CARE) Pilot Program is a program designed for elementary school education and includes topics on air pollution and health, air quality advisories, air quality flags, and zero-emission technologies.

*Kids Making Sense Program<sup>4</sup>*

Low-cost sensor technology allows the South Coast AQMD to implement a new program for high school teachers and students in environmental justice communities by combining science, technology, engineering, and math education with air quality coursework.

<sup>2</sup> South Coast AQMD, Environmental Justice Community Partnership, <http://www.aqmd.gov/ejcp>, Accessed June 6, 2019.

<sup>3</sup> South Coast AQMD, Environmental Justice Community Partnership Advisory Council, June 2019, <http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/2019-ejcp-agenda-june-5.pdf>, Accessed June 6, 2019.

<sup>4</sup> Sonoma Technology, Kids Making Sense, 2017, <https://kidsmakingsense.org/>, Accessed June 6, 2019.

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Opportunities for Action

In addition to air filtration systems, the CSC prioritized education and outreach as a way to reduce exposure to harmful air pollutants. In addition, Chapter 5b: Neighborhood Truck Traffic describes actions to provide data on truck traffic and potential emissions near schools, which may be useful to support decision-making for truck routing.

<b>Action 1: Reduce Exposure to Harmful Air Pollutants through Public Outreach</b>	
<b>Course of Action(s):</b>	<ul style="list-style-type: none"> <li>• Provide air quality related programs to schools, including the Clean Air Ranger Education (CARE) program and Kids Making Sense program</li> <li>• Partner with AltaMed, Council of Mexican Federations (COFEM), and <i>[specify additional collaborating entity here]</i> to provide information to the public on how to receive air quality advisories, and how to reduce exposure to air pollution, particularly for sensitive populations</li> <li>• Partner with community-based organizations such as AltaMed and COFEM to share information or provide outreach to schools for asthma-related programs</li> <li>• Work with appropriate parties to negotiate access to conduct school-based air monitoring to provide air quality information at that location for limited-term assessments</li> </ul>
<b>Strategies:</b>	<ul style="list-style-type: none"> <li>• Public Information and Outreach</li> <li>• Collaboration</li> <li>• Monitoring</li> </ul>
<b>Goal(s):</b>	<ul style="list-style-type: none"> <li>• Participate in 12 public outreach events (e.g., health fairs, Earth Week event) at schools or childcare centers to provide information relating to air quality and reducing exposure, over the next 4 years</li> <li>• Provide <i>[specify number]</i> of childcare centers with information relating to air quality effects on young children and reducing exposure, prioritizing centers based on CSC input</li> <li>• Implement CARE and Kids Making Sense programs at schools reaching over 300 students in this community over the next 3 years</li> <li>• Collaborate with community-based organizations (e.g., AltaMed and COFEM) and co-host outreach meetings</li> <li>• Work with appropriate entities to negotiate access to conduct school-based air monitoring for limited-term assessments</li> </ul>

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<b>Estimated Timeline:</b>	
<ul style="list-style-type: none"> <li>• Fourth quarter of 2019, begin working with AltaMed on developing health messaging for advisories</li> <li>• Early 2020, begin outreach efforts with community based organizations</li> <li>• Installation of air monitoring in <i>[insert number to be discussed by CSC members]</i> schools<sup>5</sup>, childcare centers, libraries, and community centers with priority given to <i>[insert prioritizing criteria or schools, to be discussed by CSC members]</i>, for limited-term assessments</li> </ul>	
<b>Implementing Agency, Organization, Business or Other Entity:</b>	
<b>Name:</b>	<b>Responsibility:</b>
South Coast AQMD	<ul style="list-style-type: none"> <li>• Implement the CARE program and Kids Making Sense program to schools</li> <li>• Partner with community-based organizations on asthma-based programs and air quality notifications that inform the community about proactive steps to reduce exposure to harmful air pollutants</li> <li>• Collaborate with organizations to implement outreach events</li> <li>• Work with appropriate entities to negotiate access to conduct school-based air monitoring</li> <li>• Participate in AltaMed Environmental Health Working Group to identify and address local air quality issues</li> </ul>
Community-Based Organizations (AltaMed, COFEM)	Partner with South Coast AQMD to develop health messaging and share information and/or provide outreach to schools for air quality, public health, asthma-related programs
<b>References:</b>	
For More Information about COFEM: <a href="https://www.cofem.org/">https://www.cofem.org/</a> For More Information about AltaMed: <a href="https://www.altamed.org/">https://www.altamed.org/</a>	

## Action 2: Reduce Exposure to Harmful Air Pollutants at Schools, Childcare Centers, Libraries and Community Centers

### Course of Action(s):

- Work with Los Angeles Unified School District and *[insert Collaborating Agency here]* to implement installation of high efficiency air filtration systems by working with the

<sup>5</sup> Some schools or community centers have had air filtration systems previously installed; however, filter replacements may be needed. Given that these projects are dependent on available funding, the CSC will need to prioritize schools for air filtration systems.

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<p>school district and community to prioritize schools, childcare centers, libraries, and community centers near truck routes, railyards, and other industrial sources identified by the CSC<sup>6</sup></p> <ul style="list-style-type: none"> <li>• Work with appropriate agencies toward replacing filters at schools that have existing air filtration systems and installing systems at schools, childcare centers, libraries and community centers that do not have these systems</li> </ul>	
<p><b>Strategy:</b></p> <ul style="list-style-type: none"> <li>• Exposure Reduction</li> </ul>	
<p><b>Goal:</b></p> <ul style="list-style-type: none"> <li>• Installation of air filtration systems in <i>[insert number of filtration systems to be discussed by CSC members]</i> schools<sup>7</sup>, childcare centers, libraries, and community centers with priority given to <i>[insert prioritizing criteria or schools, to be discussed by CSC members]</i></li> </ul>	
<p><b>Estimated Timeline:</b></p> <ul style="list-style-type: none"> <li>• Mid-2020, begin deployment of <i>[specify number]</i> of school air filtration systems</li> </ul>	
<p><b>Implementing Agency, Organization, Business or Other Entity:</b></p>	
<b>Name:</b>	<b>Responsibility:</b>
South Coast AQMD	Implement air filtration systems at prioritized schools, childcare centers, libraries and/or community centers
Los Angeles Unified School District and <i>[insert Collaborating District here]</i>	Partner with South Coast AQMD on the installation of air filtration systems at schools and childcare centers at prioritized locations
<i>[insert Collaborating agencies here]</i>	Partner with South Coast AQMD on the installation of air filtration systems at libraries and community centers, if these community spaces are prioritized by the CSC
<p><b>References:</b></p> <p>For more information on air filtration systems in schools:  <a href="https://www.aqmd.gov/docs/default-source/ceqa/handbook/aqmdpilotstudyfinalreport.pdf">https://www.aqmd.gov/docs/default-source/ceqa/handbook/aqmdpilotstudyfinalreport.pdf</a></p>	

<sup>6</sup> Public schools, including charter schools, childcare centers, and public community centers, are eligible for the South Coast AQMD program.

<sup>7</sup> Some schools or community centers have had air filtration systems previously installed; however, filter replacements may be needed. Given that these projects are dependent on available funding, the CSC will need to prioritize schools for air filtration systems.

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