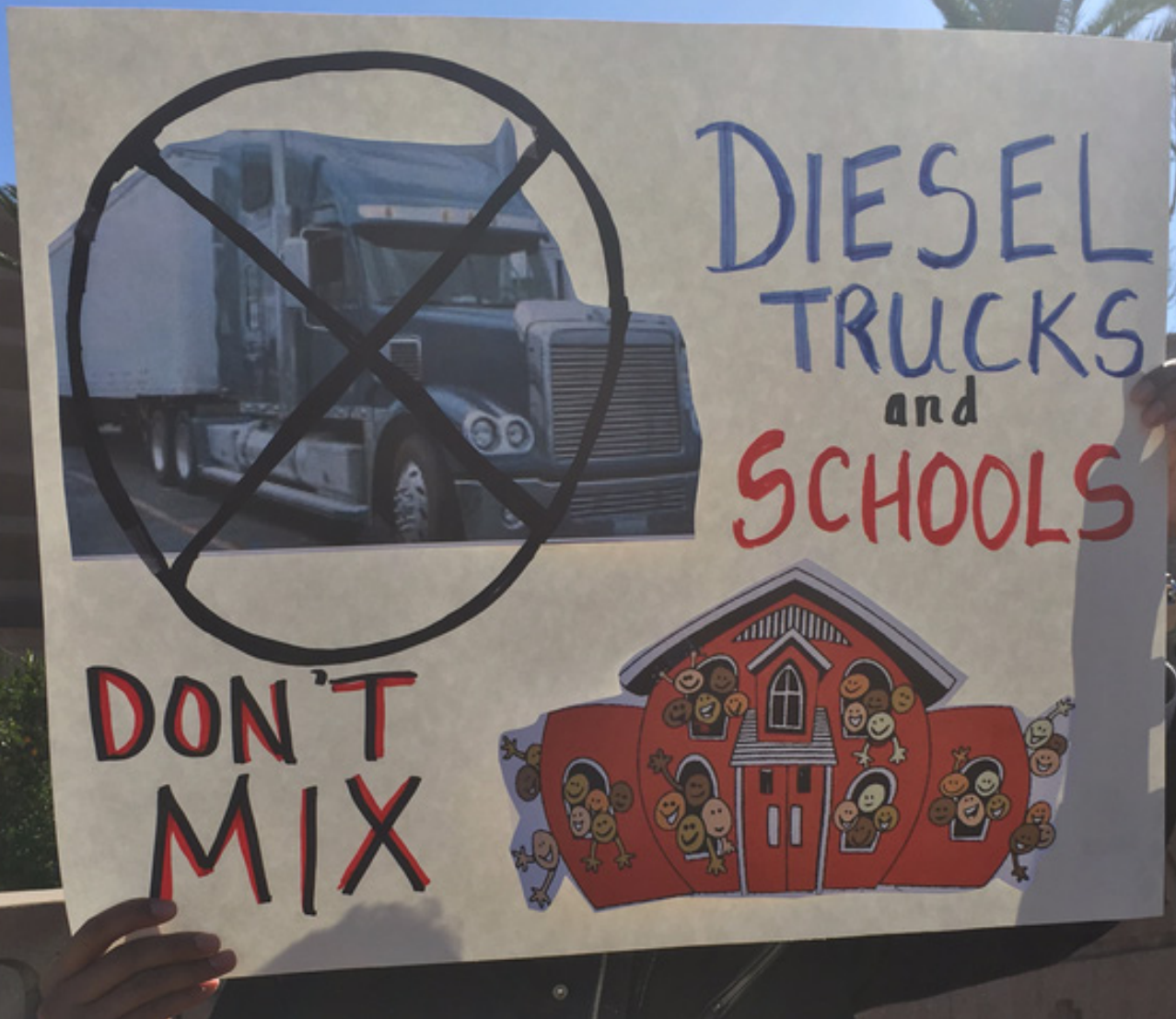


LARGE TRUCKS, LITTLE CHILDREN



How Poorly Planned Industrial Zoning Threatens Children's Health and Safety



Creating a Built Environment That is Safe for People to Walk, Bike, and Thrive

Children walking to school alongside streets heavy with enormous polluting trucks is dangerous and unhealthy. Emerging economic trends are leading to new industrial development, increased heavy truck traffic, and hazardous air pollution near schools and homes. Safe Routes to School advocates need to be aware of the dangers to children's health and active school travel that these changes pose.

In this case study, we will further explore how economic growth and poor land use planning are contributing to the decline in community health for the Inland Valley, especially for low-income people and communities of color in the region. We will also explore potential model mitigation strategies for existing conditions, as well as elevate the ways that environmental justice communities are currently organizing to develop advocacy strategies for better health outcomes.

The environmental justice movement recognizes that there are several accelerants contributing to environmental health disparities, including racism, poverty, and poor land use planning that keep injustices a reality for many communities. Whether looking at air quality concerns, pesticide exposure,² or groundwater threats, low-income and communities of color tend to carry the burden of environmental hazards. Race and ethnicity is the number one indicator determining the likelihood that a person lives near contaminated environments.³ Living near hazards is often due to financial constraints, shortage of affordable housing, and poor land use planning from public agencies. To develop strategies to address the issue, it is essential to understand the landscape, industries, and systems at play.

Environmental Justice in Jurupa Valley

Last summer, the National Partnership released a case study entitled [Environmental Justice and Safe Routes to School: Healthier Communities for Children and their Families to Walk and Bike, and Thrive](#).¹ As a part of the case study, we highlighted the City of Jurupa Valley and the community's challenges in overcoming health disparities resulting from environmental injustices including poor air quality.



Good Roads Movement Within Southern California: How One Industry Promotes Economic Growth but Conflicts with Our Region's Air Quality Goals

Goods movement is a system of economic distribution in which the pathways of trade depend on transportation modes like freight trucks to get goods from place to place.

Southern California is a key pathway for the goods movement system that starts with cargo containers that arrive the Port of Long Beach/Los Angeles, then move to the distribution warehousing centers in the Inland Valleys, including Riverside and San Bernardino Counties, and are then sent off to other parts of the country.⁴ In 2014, the Long Beach/Los Angeles Port offloaded \$360 billion dollars of goods.

The Inland Valleys (also known as the Inland Empire or “IE”), in particular have seen a dramatic increase in mega-warehouse logistic centers⁵ because the IE has cheaper land than Los Angeles County. Warehouses with accompanying heavy duty trucks are contributing to the IE’s spot among the top 25 most polluted areas in the entire country.⁶ Close to 40 percent of the nation’s consumer goods travel through the Inland Valleys and sit in warehouses before they are trucked out to other locations.⁷

According to the California Air Resources Board, mobile sources of greenhouse gases and particulate matter from emissions (such as those emitted by cars and trucks) are the most harmful and likely to cause adverse health effects. Freight trucks and their heavy duty emissions affect communities nestled along major arterials like the 60, 15 and 10 freeways. As freight trucks travel along these corridors and then into residential streets to get into warehouses distribution centers, they bring with them devastating consequences both from an air quality and traffic safety standpoint.

Why Should Safe Routes Advocates be Concerned about Warehouse Land Use Patterns? Because Industrialization Affects Neighborhood Health

The industrialization of residential and school neighborhoods are on the rise and pose a threat to safety as well as the health and well-being of our families. The way we plan our cities tends to impact low-income people and communities of color the most. Environmental racism happens when low-income and communities of color are disproportionately subjected to the harm of industries. We are seeing this happen more as cities make decisions to develop warehouses near affordable housing and low-income schools.

As more industrial companies are approved for development near residential homes and schools, the threat of traffic collisions between children walking and freight trucks become more imminent. Safe Routes to School policy advocates should play a critical role in ensuring local and regional general plans and policies are compliant with land use practices that protect pedestrians and bicyclists from freight traffic routes. Furthermore, it is essential that Safe Routes programs

also document freight traffic hazards in walking audits and coordinate with advocacy efforts to re-route trucks near schools and homes.

The 'gentrification of industry' is a concept where local jurisdictions rezone residential areas, allowing businesses to buy land and develop warehouses. Rezoning land from residential to industrial allows developers to build warehouses near homes. Businesses now have an advantage and can drive prices up or attempt to buy homes. This tactic displaces families from communities by making it harder to secure affordable housing and pushing families to move further and further away from schools. As low-income families move further away from schools, the threat of walking longer distance to schools near freight routes is a greater concern. For example, the [environmental impact report](#) of the Southwest Fontana Logistics Center reported that the project will displace Fontana residents but would not require an affordable housing mitigation measure.⁸ Displacing families is alarming since we know children in low-income areas are twice as likely to walk to school even though 50 percent of low-income areas lack sidewalks and the proper infrastructure to walk or bike safely.⁹

Lack of Safe Routes to School plans or programming make it harder for children to stay safe. Many of the walk audit assessments that are currently in wide use do not have questions identifying environmental justice hazards, which are important to assess in order to be sensitive to communities' lived realities. It is critical that Safe Routes to School advocates and practitioners make the connections between traffic safety and environmental hazards and realize that land use decisions impact both.

Health disparities among children resulting from freight traffic is of equal concern. The American Lung Association conducted various [studies](#) of the adverse impacts of air pollution on vulnerable communities like children and seniors.¹⁰ Children, in particular, are at risk of cardiovascular diseases such as asthma and even underdeveloped lung capacity.

Furthermore, the American Lung Association reports that short-term exposure to particulate matter from freight truck emission is linked to:¹¹

- Death from respiratory and cardiovascular causes, including strokes
- Increased mortality in infants and young children
- Increased numbers of heart attacks, especially among the elderly and in people with heart conditions
- Inflammation of lung tissue in young, healthy adults
- Increased hospitalization for cardiovascular disease, including strokes and congestive heart failure
- Increased emergency room visits for patients suffering from acute respiratory ailments
- Increased hospitalization for asthma among children
- Increased severity of asthma attacks in children

Long-term exposure can lead to the following health impairments:¹²

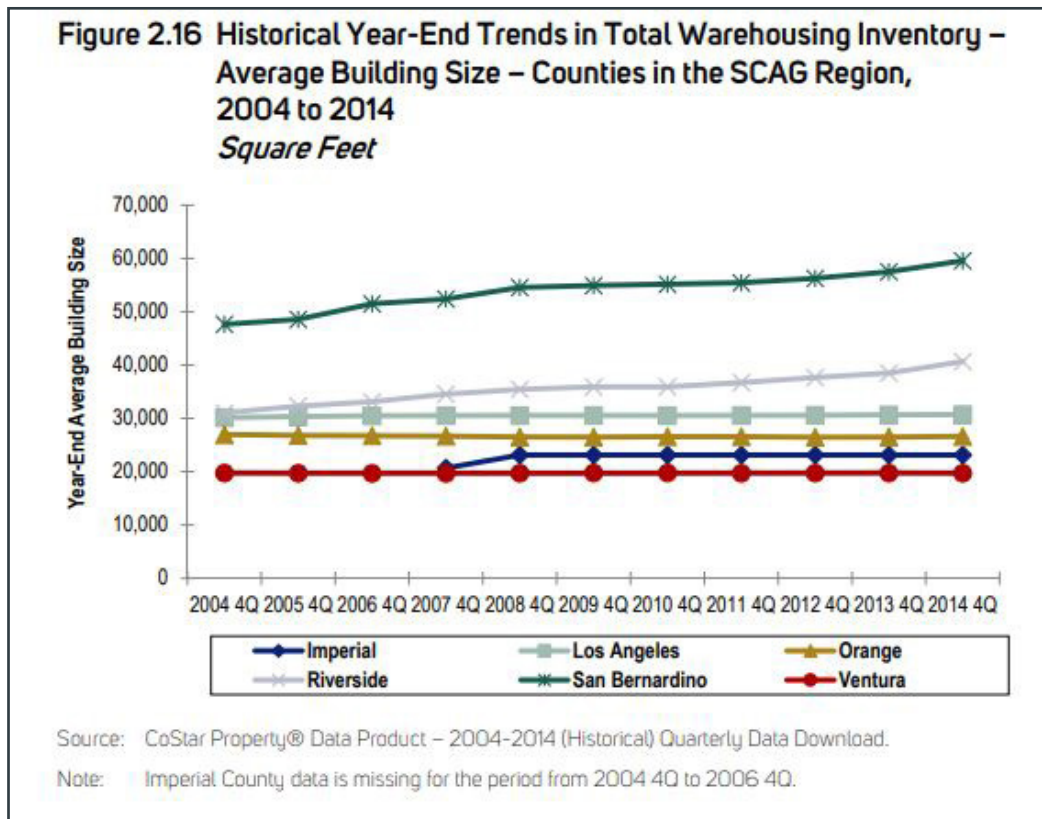
- Increased hospitalization for asthma attacks for children living near roads with heavy truck or trailer traffic
- Slowed lung function growth in children and teenagers
- Development of asthma in children up to age 14
- Significant damage to the small airways of the lungs
- Increased risk of death from cardiovascular disease
- Increased risk of lower birth weight and infant mortality



Current Conditions Throughout the Inland Valleys Counties

Throughout both San Bernardino and Riverside Counties, environmental impact reports (EIR) for warehouse logistic projects are being rapidly approved, sometimes even if they are not complying with a jurisdiction's general plan or the region's air quality management plan. Inland Valley cities alongside the 60, 15, and 10 freeways once had prosperous vineyards and dairy farms. Now, driving alongside those same interchanges near places like Ontario or Rancho Cucamonga, cities are virtually unrecognizable from just a few years ago. One of the most notable larger projects in the area include Moreno Valley's World Logistics Center, which would be 40.6 million square feet on 2,610 acres adding up to 700 football fields long. Litigation with Highland Fairview Developers of the World Logistics Center has been filed from many sides, including environmental groups and the Riverside County Transportation Commission.¹³ The WLC's [draft EIR](#)¹⁴ acknowledges "significant cancer risk increases from diesel exhaust associated directly with the project. Up to 100 cases per million ADDITIONAL cancer cases just from this project."¹⁵

Still, city and county governing bodies have been approving projects, stating there are overriding conditions that cause them to accept the environmental impacts that will occur. The Southern California Association of Governments (SCAG) conducted an industrial warehouse study on regional projects.¹⁶ The study examined the location and size of warehouses, distribution centers, truck terminals, and cold storage facilities by county. The SCAG region (consisting of all 6 southern California counties: San Bernardino, Imperial, Los Angeles, Orange, Riverside and Ventura) contains 34,304 warehouse buildings with 1,185,490,354 square feet of estimated total building area (supply) and 1,136,423,252 square feet of estimated total occupied space (demand). The largest warehouse building size is in San Bernardino County (about 60,000 square feet). SCAG notes that the larger "big box" warehouse buildings (building size greater than 100,000 square feet) distribution facilities tend to exist in areas around the Inland Empire. Figure 1 depicts the pattern of warehouse building sizes within the region. San Bernardino County's warehouse building sizes saw a dramatic increase in square feet from 2004-2014; Riverside County follows a similar trend upward. Bigger warehouse facilities hold many more trucks and there is a concern about the number of large trucks driving near schools.



Average Building Sizes within the SCAG region, Courtesy of SCAG, 2018

For communities like Jurupa Valley or Bloomington, air quality associated with increasing truck capacity has real health disparities. In the Jurupa Valley and Mira Loma area, a study found that children residing in this area had the weakest lung capacity and the slowest lung growth of all children in the region due to exposure to diesel exhaust, and a majority of the children affected were Latino and low-income.¹⁷

San Bernadino County: A County in Peril Looks Onward for New Planning Prospects

Made up of rural and urban areas, San Bernardino County is the largest county in the United States in terms of size. The unique positioning of the County makes it attractive to prospective developers, who are in the business of moving goods across the country. Because of its geography, it's no wonder that so many developers look to San Bernardino for vast and cheap land. San Bernardino County has seen its share of economic struggles, with many of its cities experiencing bankruptcy over the last decade. In the summer of 2017, the City of San Bernardino lifted itself from bankruptcy but now must pay its creditors.¹⁸ It is understandable that San Bernardino County would look for new revenue sources for financial stability, and industrialization via warehousing projects can seem like an easy avenue to rebuild its finances.

During the latter part of 2017 extending into 2018, the County will undergo a general plan process. The general plan process will need to cover elements such as housing and circulation, and as of 2018 will also need to include the newly required environmental justice element. The countywide plan update, especially the environmental justice element, could be the key to developing a long term countywide strategy for better land use decisions.¹⁹



Warehouse Developments in Progress (Bloomington and Fontana)

Bloomington, an unincorporated area within San Bernardino County, is undergoing a community plan as a part of the County's general plan update. The draft community plan contains land use designation changes and is currently up for consideration with regional workshops scheduled in Fall 2018. Figure 2 depicts a map of Bloomington with blue boxes as schools, red boxes as warehouses and yellow boxes as proposed warehouse projects. A 680,000 square foot warehouse project was recently approved by San Bernardino County's Planning Commission and it is scheduled to be developed within 50 to 100 feet of Walter Zimmerman and Crestmore Elementary schools. The Center for Community Action and Environmental Justice (CCA EJ)²⁰ has been organizing Bloomington residents to provide testimony at the Colton Unified School District.

Public testimony from the National Partnership, CCA EJ, Inland Empire Biking Alliance, and residents asked the school board members to halt the project and pass a board resolution to publicly denounce warehouses near schools.²¹ CCA EJ has hosted community meetings to identify residents' top concerns about new warehouses, which include traffic safety, public health/environmental justice disparities, and instability of jobs (economic downturn of warehouse industries). Although the Bloomington warehouse was officially approved by the San Bernardino County Board of Supervisors and the Planning Commission, advocates are still hopeful that an environmental justice element in the 2018 update of the County's general plan could help to mitigate impacts and prevent other proposed nearby warehouses from moving forward.



Figure 2: Map of Bloomington, 2017. Image courtesy of CCA EJ.



Fontana: Warehouse Expansion Approved Despite Warnings in EIR

The City of Fontana is facing similar development prospects. The Southwest Fontana Logistics Center prepared a warehouse expansion proposal and underwent an EIR approval process with the planning commission and the Fontana City Council.²² The EIR documented that the project was inconsistent with the City's General Plan Circulation Element, displaces homes to make way for the construction expansion, and will cause significant air quality issues. The National Partnership, Sierra Club, and the Inland Empire Biking Alliance submitted a joint comment letter expressing concerns over the project expansion's proximity to Jurupa Hills High School, churches, and various residential homes.²³ Our coalition of community groups held various meetings with both the developer and various city planners to discuss why the group was in opposition to the expansion. We also discussed mitigation solutions, like a restricted truck route away from schools, should the project be approved. The City received dozens of letters and more than 40 community members gave testimony urging the project be rejected. Despite the EIR's evidence that the project would cause major inconsistencies with the general plan and increase air quality concerns for schoolchildren and local residents, the City Council voted 3-2-1 in favor to override concerns and approve the project.

Our coalition hopes to work with the City on implementation of park, bike lane, and crosswalk infrastructure projects that are being provided by the developer as a way to mitigate the expansion impacts. Andrea Vidaurre, a former resident of Fontana who now works as an organizer for CCAEJ, comments:

"We are undergoing massive changes in some parts of the the city of Fontana that are directly impacting our health, prosperity, and futures. In our neighborhoods, we are seeing an eruption of multiple warehouse developments coming dangerously close to our homes and schools leaving the encroached communities vulnerable to the inevitable health impacts that they bring. Warehouse development invites hundreds of diesel trucks to drive in and out of our communities leaving irreparable pollution traces in their tracks. Furthermore, the communities adjacent to the warehouse development and trucks routes have had little tools to fight against the proliferation of the development leaving them at the center of our pollution crisis."

Conclusion: What Can We Do About Emerging Warehouses Near Schools?

In response to the growing number of warehouse projects and their dangerous implications for children and families, a new coalition has formed that is focused on growing concerns regarding environmental justice and active transportation traffic safety. The National Partnership joined local groups including the Center for Community Action and Environmental Justice, Inland Empire Biking Alliance, California League of Conservation Voters, and the Inland Empire's chapter of Sierra Club to form the Inland Empire Coalition for Equity and Prosperity (IE CEP). The Coalition meets regularly to discuss an organized and dedicated approach to advocating for a fair EIR process and California Environmental Quality Act (CEQA) analysis of proposed warehouses. The Coalition is opposed to locating warehouses near schools and homes, instead urging that warehouses remain in industrially zoned areas and also advocating for fair labor practices. IE CEP has scheduled meetings with local decision makers and has developed a mission statement to formulate strategies.

IE CEP seeks a countywide regional solution to ensure that manufacturing impacts are not a burden carried by the health of children and families, especially low-income and communities of color. IE CEP believes community engagement and leadership must be centralized in this process and has worked together to build engagement practices that bring local residents in strategy decisions. The coalition's community engagement guide principles support and elevate leadership from residents.



CCAIEJ hosts a community demonstration at the San Bernardino County Board of Supervisors Building.

New Policy Opportunities: How the Indirect Source Rule Holds Promise of Accountability

At the May 2018 board meeting of the South Coast Air Quality Management District (SCAQMD), members voted to develop an indirect source rule (ISR).²⁴ The ISR would include voluntary and regulatory measures to reduce emissions from ports, warehouse, airports, rail yards, and new development. This a great victory for advocates because the regulatory and voluntary measures set up a promising accountability process for emission standards, warehouse sizes, traffic safety and public health. SCAQMD is creating subcommittees for the development of the ISR and will rely on both EJ advocates and industry to lead the direction of the ISR. Our IE coalition is staying engaged in this process as the rule is developed.



Colton Unified School District Board meeting to discuss Warehouse Development near Walter Zimmerman Elementary School.

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