September 27, 2017

Carroll
1165 Lantana Rd.
Beaumont, CA 92223

Clerk of the Board
4080 Lemon St., 1st Floor
P.O.Box 1147
Riverside, CA 92502-1147

RE: Public Hearing EIR#534 San Gorgonio Crossing Warehouse

To whom it may concern:

I request to speak to the Riverside County Supervisors at their meeting on October 3, 2017 at 1:30 regarding their review of EIR#534 San Gorgonio Crossing.

I am opposed to this project and welcome the opportunity to tell the supervisors why I am opposed.

Thank You. Sincerely,

John Carroll
1165 Lantana Road
Beaumont, CA 92223

10/3/17 19.1
2017-10-130875

9-25-17

Dear Board of Supervisors:

I live within a mile of this project. I am very much against it. I have asthma & COPD. I am on oxygen. Between the air pollution from the trucks & the congestion trying to enter the freeway this warehouse would be a disaster for our community.

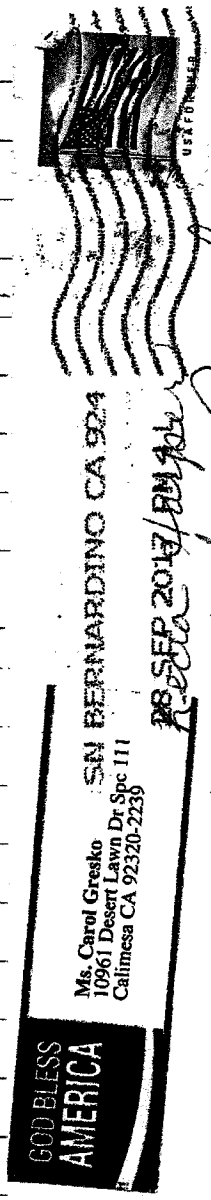
Please respect mine & all of my neighbors as we are all against this project.

Sincerely,

Mrs. Carol Gresko

10961 Desert Lawn Dr Space 111
Calimesa, Calif 92326

10/3/17 19.1
2017-10-136878



1736 Desert Almond Way
Beaumont, CA 95835

September 23, 2017

Riverside County Board of Supervisors
Clerk of the Board
P.O. Box 1147
Riverside, CA 92502-1147

RE: Fast track General Plan Amendment No. 1079 – October 3 BOS Agenda

Dear Sirs:

You will be hearing and reading impassioned and articulate statements about such things as health and pollution, traffic safety, and reductions in residential property values from the many opponents of the proposed Gateway/San Gorgonio Crossing mega-warehouse.

However, I wish to focus on another serious problem with this proposal that has not been widely discussed: **Environmental Justice.**

My friend Jim and his wife are seniors. They live in a senior community called Rancho Calimesa. Both of them suffer from respiratory disease. Jim is a veteran living on a fixed income, as are many of his neighbors in Rancho Calimesa and the three other senior communities surrounding the Gateway property.

Jim, his wife and their Rancho Calimesa neighbors will be faced with the noise and exhaust fumes from this 1.8 million sq. ft. warehouse (which will attract some 600 diesel big rigs a day). It will be located **only ¼ of a mile from their back fence** if you approve this zoning change.

I believe strongly that this warehouse proposal flies in the face of the county's General Plan as well as a new state law designed to protect disadvantaged communities.

First, I bring to your attention this statement from the Healthy Communities section of the General Plan:

"The policies in the Healthy Communities Element are intended to address Riverside County's key health issues and challenges with the goal of fostering the overall health and well being of Riverside County residents. **In addition, particular attention is paid to those residents who are considered especially vulnerable to public health risks, including children, the elderly, the disabled, and those in poverty.** The policies in this element address a wide range of issues that affect public health including: **Land use and community design...**"

10/3/17 19.1

More importantly, this zoning change would clearly violate the intent of SB 1000 the state law approved in September 2016.

Among other things, SB 1000 is designed to improve local planning efforts to reduce environmental and health impacts on California's most vulnerable residents. It requires counties to include **environmental justice** elements in their General Plans to ensure that local land use decisions do not pose environmental and safety risks to disadvantaged populations.

Here's what the new law says: "The **environmental justice** element shall identify objectives and policies to reduce the unique or compounded health risks in disadvantaged communities by means that include, but are not limited to, the reduction of pollution exposure, including the improvement of air quality."

In order to help you make the right decision on this proposal, we conducted a survey of the residents of Rancho Calimesa last year. The survey found that at least 80 percent of the residents have incomes low enough to qualify for Medi-Cal.

This is clearly the kind of disadvantaged community that SB 1000 is designed to protect. These are clearly the "especially vulnerable" citizens described in your General Plan. Your duty to them is clear.

There are plenty of available sites for warehouses and opportunities for job creation in the Pass without having to violate the county's General Plan and ruin people's lives.

Thousands of county citizens—and even a blue-ribbon committee selected by Supervisor Ashley—have stated that Cherry Valley is NOT an appropriate location for an industrial warehouse. Therefore, I respectfully urge you to vote down the proposed zoning change.

Sincerely,

Steve Mehlman

Linda Martinez D.D.S.
40285 Grand Ave
Cherry Valley CA 92223

September 27, 2017

Clerk of the Board
4080 Lemon Street
1st Floor
Post Office Box 1147
Riverside CA 92502

Re: General Plan Amendment as Submitted by W. Shopoff

On or about September 22, 2017, I received notification from the Riverside County Clerk of the Board (attached)

I have authored prior written concerns and regarding this Amendment. As elected officials of your districts and its residents, I strongly request you vote against this project. As you consider impact to the residents you represent, consider the following adverse results to your constituents from the Warehouse project:

- Degradation of community air quality in the form of small particulate exhaust emitted from diesel vehicles
- Traffic congestion in an already congested travel corridor. Please compare this to the Weigh/Inspection stations located east of Banning
- Destruction of wildlife habitat and precious water resources

Cherry Valley is a unique rural open space with land use designation compatible with uncongested "country style living". Please uphold the will of its residents and voters and vote against this amendment.

Dr. L Martinez DDS

Dr. L. Martinez, D.D.S.

10/3/17 19.1
2017-10-13G881

September 27, 2017

Clerk of the Board
4080 Lemon Street
1st Floor, PO Box 1147
Riverside, CA 92502-1147

Subject: Fast Track General Plan Amendment No. 1079, Change of Zone No. 7799, Plot Plan No. 25337, and Parcel Map No. 36564

To: Supervisor Marion Ashley and all Riverside County Supervisors

I strongly urge you to **VOTE NO** on the subject General Plan Change Request.

1- The proposed use of the property is not a good or proper fit with the community.

2- There is overwhelming opposition to the project from Beaumont City Council, environment and air quality groups and local residents who would be negatively impacted by the proposed development and truck traffic volume.

3- The Cherry Valley Blvd. overcrossing bridge over the 10 Fwy. Is only two lanes and the pavement is not in great shape. In my opinion, that bridge could not really accommodate all that heavy truck traffic, plus residential traffic.

PLEASE! Do the right thing for your constituents. **VOTE NO ON THE SUBJECT GENERAL PLAN CHANGE.**

Yours truly,

Lois Ingham

Lois Ingham
1736 Desert Poppy Lane
Beaumont, CA 92223

10/3/17 M.1
2017-10-13667

City of Calimesa

October 3, 2017

By Electronic Mail to BDawson@rctlma.org
and Overnight Mail

Riverside County Planning Department
4080 Lemon Street, 12th Floor
Riverside, CA 92501

ATTN: Mr. Brett Dawson

Re: Recirculated Draft Environmental Impact Report No. 534 (RDEIR) for San Gorgonio Crossings, including Change of Zone (CZ) No. 7799, General Plan Amendment (GPA) No. 1079, Plot Plan (PP) No. 25337, and Parcel Map (PM) No. 36564 (EA42179, SCH#20140110009), City of Calimesa (City) Conditions of Approval Comments

Dear Mr. Dawson:

The City of Calimesa (City) has reviewed the DEIR as well as the RDEIR and provided comment letters dated January 18, 2017 and July 10, 2017. Many of the City's initial comments were addressed in the RDEIR; however, comments related to the Transportation and Traffic required additional comments. The City desires that Project Conditions of Approval, Trans Condition 12 be modified to include:

The first sentence of MM Trans-1a shall be revised as follows: "The project Applicant shall pay, prior to issuance of building permits, the project's fair share toward the construction of the I-10 eastbound and westbound intersections at Cherry Valley Boulevard provided that one of the following arrangements is in place: (1) a fair share contribution program has been established that provides for full funding and a schedule for construction or (2) a multi-agency agreement has been entered into that provides for a cash payment toward ultimate improvements in the same amount that would have been spent on interim improvements."

In addition, add the following additional language to the end of Trans 12 condition: "If the City is successful in completing Caltrans approval processing (Project Study Report, Project Approval, Environmental Document, and Plans, Specifications, and Estimate) prior to issuance of Project building permits, the Applicant shall collaborate with the City to complete ultimate interchange improvements rather than interim improvements. Amounts not expended on the interim improvements shall be provided to the City for use in right-of-way acquisition and/or constructing the ultimate improvements. If the City is unsuccessful, interim improvements shall be constructed as proposed."

Should you have any questions, please do not hesitate to contact me.

Sincerely,

Bonnie Johnson
City Manager

cc: Honorable Mayor and Members of the City Council, City of Calimesa
Kevin G. Ennis, City Attorney, City of Calimesa
Amy Greyson, Assistant City Attorney, City of Calimesa
Michael P. Thornton, P.E., P.L.S., TKE Engineering, Inc.

Law Offices of Abigail Smith

1455 Frazee Road, Suite 500, San Diego, CA 92108

Abigail A. Smith, Esq.

Email: Abby@socalceqa.com
Telephone: (951) 506-9925
Facsimile: (951) 506-9725

VIA E-MAIL

October 3, 2017

County of Riverside Board of Supervisors
c/o Clerk of the Board
Ms. Kecia Harper-Ihem
4080 Lemon Street
Riverside, CA 92501
KHarper-Ihem@rivco.org

Mr. Brett Dawson, Project Planner
Riverside County Planning Department
4080 Lemon St., 12th Floor
Riverside, CA 92501
bdawson@rctlma.org

Re: October 3, 2017 Board of Supervisors Hearing, Item 19; Public Comments on San Gorgonio Crossings Project, Final EIR No. 53, Findings of Fact, Statement of Overriding Considerations and All Related Land Use and Other Approvals

To the County of Riverside Board of Supervisors:

On behalf of the Sierra Club, I respectfully urge you to deny the approval of the San Gorgonio Crossings Project. If approved, the Project would represent a marked, adverse change in land uses in the undeveloped area of Cherry Valley. The proposed land use amendments are simply not justified[1]. In addition, the significant impacts to area residents cannot be rationalized. The Project will introduce thousands of truck trips per day and substantial pollution to the predominately rural residential community. The Project is a large-scale industrial warehouse complex that is suitable for a *different* location.

At the outset, we emphasize that the Project demonstrably conflicts with the Pass Area Plan, which is a component of the County of Riverside General Plan.[2]. According to the EIR, the PAP provides "**area-specific policies** and requirements **to address local conditions and issues**."

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[1] One UCR Study found that warehouse jobs are generally "low paying". *See*, Exhibit "1" hereto.

[2]http://planning.rctlma.org/Portals/0/genplan/general_plan_2013/3%20Area%20Plan%20Volume%202/The%20Pass%20AP.pdf
This hyperlink and all hyperlinks cited herein are fully incorporated herein by reference.

The PAP encompasses several unincorporated communities within Riverside County, including Cherry Valley. The EIR states,

> Within the PAP, individual, unincorporated communities are identified as 'policy areas.' According to the PAP, a policy area is a portion of an Area Plan that contains special or unique characteristics that merit detailed attention and focused policies. The project site is located within the Cherry Valley Gateway Policy Area, which is located on the western edge of the CVPA and, as the name implies, serves as a gateway to Cherry Valley. ***The intent of the Cherry Valley Policy Area is to maintain the predominantly rural community nature of this area, while allowing existing uses that are of a higher density to remain legal conforming uses***. (emphasis added)

> The PAP also states regarding Cherry Valley, that:

> This community is located in the north-central portion of the Pass between the cities of Calimesa and Banning. ***Cherry Valley is a charming community distinguished by and named after a concentration of cherry orchards. It is a rural community characterized by large-lot residential, agricultural and animal-keeping uses***, with a commercial core along Beaumont Avenue, northerly of Cherry Valley Boulevard. There are also two large mobile home parks adjacent to the commercial core. Cherry Valley is designated by LAFCO as an Unincorporated Community ***in order to preserve this existing rural character***. (emphasis added)

The County should also be on alert that the Project may amount to impermissible "spot zoning." There is no demonstrated public interest for allowing the Project less restrictive zoning restrictions than those applicable to surrounding properties. (*See, Foothills Community Coalition v. County of Orange* (2014) 222 Cal.App.4th 1302.)

In sum, it is a mistake to amend the adopted land use plans in favor of allowing the massive industrial warehouse project in a community that is defined by rural residential uses, existing and planned.

The Final EIR Does Not Comply With CEQA

There are a number of flaws and inadequacies in the Final EIR. Among them include that:

1. Mitigation Measures Are Inadequate

Mitigation measures are still unenforceable and ineffective within the meaning of CEQA; and there are still feasible mitigation measures available for air quality and other impacts that have been ignored. The Final EIR's Responses to Comments do not remedy the problems with the mitigation program.

For instance, mitigation measures regarding truck queuing are uncertain; it is merely stated that "the site shall be designed such as any check-in point for trucks is well inside the facility to ensure that there are no trucks queuing outside the facility." This represents deferred mitigation and it is not known the measure can be effective. Indeed, it is not clear based on the record before you that there is sufficient space within the Project site to accommodate the number of trucks that may arrive at any given time; and street signage will not prevent queuing on public streets or parking and idling on public streets. Nor is it appropriate for the Project to rely on queuing or waiting outside the Project site. The EIR must demonstrate based on analysis that the Project will be designed in a manner to accommodate truck volumes to ensure that the assumptions of the EIR are correct.

Also for instance, the Project must adopt more aggressive and enforceable measures with respect to air quality. Feasible air quality mitigation includes:

(1) A requirement that construction contractors shall provide temporary electricity to the site to eliminate the need for diesel-powered electric generators. If truly infeasible, the contractor shall provide evidence to the County that hook ups at construction site are not feasible.

(2) A requirement that only Tier 4 construction equipment be used.

(3) A requirement that all trucks entering the site shall be 2010 model year or newer; not merely that "[t]enants shall maintain records on its fleet equipment and ensure that all Heavy-Heavy Duty Trucks (HHD) accessing the project site use year 2010 or newer engine." That is, the Project must be require that all heavy duty and medium duty trucks are model year 2010 or newer and trucks that do not meet this standard shall be prohibited from entering the site that do not meet this requirement; and this requirement must be specified in tenant leases and operator contracts, subject to cancellation of leases or contracts if the term is violated. To the extent that model year 2010 trucks are legally required by year 2023, this is feasible measure. (*See*, ARB website stating regulations) [3] (*See*, Exhibit 2 hereto [final condition of approval for Sycamore Canyon Business Park – City of Riverside, February 2017].)

(4) Required phase-in of electric, hybrid electric, hydrogen electric, or battery operated (*i.e.*, non-diesel) trucks. Non-diesel trucks are reasonably foreseeable in the commercial market and therefore are feasible within the life of the Project. (*See*, article describing Tesla unveiling electric semi-truck[4]; *see also*, article entitled "Nikola and Bosch set to battle Tesla with hydrogen-electric truck"[5], article describing Toyota working on hydrogen fuel cell semi-trucks[6]). A mitigation measure is feasible if it can be achieved

[3] https://www.arb.ca.gov/msprog/onrdiesel/documents/multirule.pdf
[4] http://mashable.com/2017/09/14/tesla-semi-truck-launch/#YlUeEqm9faqP
[5] http://mashable.com/2017/09/19/nikola-bosch-hyrdrogen-electric-development/#X1uV0KLxZiq4
[6] https://www.wired.com/2017/04/toyotas-still-serious-hydrogen-built-semi-prove/

in a reasonable period of time. (CEQA Guidelines § 15364) (*See*, 2013 comments by AQMD regarding AQMD's opinion that zero emission long-haul trucks are expected to be deployed in the near future.[7]) The Project should at least be required to reevaluate whether some portion of the fleet serving the Project must be zero emission or battery powered in the future. (*See*, article describing AQMD studying and working with manufacturers to develop zero emission Class 8 trucks,[8] article describing CARB using cap and trade funds to work with manufacturers to "accelerate the market for next generation of clean, heavy-duty trucks and buses, both those that run on electricity and on hydrogen"[9], article describing Transpower company testing "on road" zero emission trucks.[10] In fact, zero emission vehicles (ZVE's) are a priority in California.[11] The Governor's 2016 ZEV Action Plan (October 2016) identifies as a priority "Making ZEV technologies commercially viable in targeted applications the medium-duty, heavy-duty, and freight sectors". *Id.* The Ports of Los Angeles and Long Beach are drafting a new Climate Action Plan which proposes that "[s]tarting in 2018, phase in clean engine standards for new trucks entering port drayage registries followed by a truck rate structure that encourages the use of near-zero and zero emissions trucks, with the goal of transitioning to zero emissions drayage fleet by 2035."[12] It is not infeasible or impracticable to require the use of alternatively fueled trucks presently or at some reasonable time in the future. The AQMD and CARB both agree that zero emission trucks are the future and are necessary mitigation measures to go *beyond* the 2010 truck requirement, in order to meet Legislative targets for emission reductions. (*See,* Exhibits 3 and 4 hereto). CARB's *Sustainable Freight Pathways to Zero and Near-Zero Emissions Discussion Document* (April 2015) is a helpful resource in this regard. (Exhibit 5 hereto)

(5) Requirement that any "yard trucks" be electric or battery powered, or requiring the phase-in of the same. (*See,* ARB article noting that battery-electric Class 8 yard trucks will operate at facilities in southern California representing "a step toward the commercialization of heavy-duty, advanced, zero-emission technologies" with the deployment "providing a model for truck electrification that could be scaled to any facility"[13].)

(6) Limit the number of transport diesel trucks to the assumptions of the EIR.

(7) The requirement of USGBC LEED Certification Silver Level (v.4); and

(8) The requirement of "net zero" solar installation meaning solar panels to handle the peak energy demands from both buildings on-site. Thus the

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[7] http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2013/march/southern-california-international-gateway.pdf

[8] http://www.aqmd.gov/home/library/public-information/2016-news-archives/drayage-trucks

[9] https://www.arb.ca.gov/newsrel/newsrelease.php?id=915

[10] http://www.transpowerusa.com/on-road-trucks/

[11] http://www.energy.ca.gov/renewables/tracking_progress/documents/electric_vehicle.pdf

[12] http://www.cleanairactionplan.org/2017-clean-air-action-plan-update/

[13] https://www.arb.ca.gov/newsrel/newsrelease.php?id=900

Project should be required to increase its solar to a complete offset not the 23% proposed.

According to CARB, "[m]obile sources account for well over half of the emissions which contribute to ozone and particulate matter and nearly 40 percent of the greenhouse gas emissions in California. In order to meet California's health based air quality standards and greenhouse gas emission reduction goals, the cars we drive and the fuel we use must be transformed away from petroleum."[14] Accordingly, all feasible air quality mitigation targeting diesel must be adopted.

With respect to GHG impacts, the Project is new source of substantial GHG emissions mostly due to mobile emissions. Yet the EIR does not demonstrate how certain "design elements" of the Project building reduce the impacts to less-than-significant. MM GH G-1 is ineffective.

2. Aesthetics Impacts

Aesthetic impacts are significant despite the implementation of mitigation measures. Landscaping and visual elements do not reduce the adverse change to the visual environment. In addition, visual impacts due to grading including any manufactured slopes have not been fully evaluated and mitigated.

Final EIR Response to Comment - Response to Sierra 8 states that the height of the buildings has been corrected in the Errata; we submit that *limiting* building heights to 41 feet must be specified as a condition of approval and/or made a project mitigation measure to ensure this is carried through to Project design and implementation phases.

3. Air Quality Impacts

The assumption of a 40-mile average trip length is unreasonable for this Project. Response to Sierra 16 references the World Logistics Center truck trip assumptions as *support for* the assumptions of the EIR. In fact, the County of Riverside *sued* the City of Moreno Valley challenging its approval of the WLC, in Riverside Superior Court Case No. 151118.[15] Even assuming the recommendation of 40 miles is "standard", the Final EIR acknowledges that 40 miles is *not* conclusive. In fact, the assumption of 40 miles is not reasonable for this Project.

The assumptions of FEIR, Table 3-3 are based on generic information from the 2016 RTIP for Riverside County. It states that 94.5 percent of truck trips in Riverside County are internal. *This Project will receive goods from the Ports*, for transport to regional destinations. Thus the 40-mile average trip length is unreasonable. And Figure 3-2 is not an analysis of the Project's trips; it is a generic table regarding all of Riverside County. *The Project must evaluate its anticipated truck trips*, not rely on a generalized model applicable to the entirety of Riverside County. Moreover, is it assumed that only 1% of the Project's truck trips will be "Port-related or

[14] https://www.arb.ca.gov/msprog/zevprog/zevprog.htm
http://countyofriverside.us/NewsHighlights/TabId/96/ArtMID/487/ArticleID/276/Supervisors-agree-to-sue-Moreno-Valley-over-impacts-from-World-Logistics-Center.aspx

intermodal trips" within the region as indicated in Figure 3-2? If so, *the Project must be conditioned so that the number of truck trips and resulting impacts are consistent with the assumptions of the EIR.*

Contrary to the suggestion of Response to Sierra-19, there is no mitigation measure or condition of approval that would be require "additional CEQA review" to evaluate impacts due to refrigerated warehouse space. This must be adopted through the CEQA mitigation program. Refrigerated space must be *prohibited* unless additional mitigation measures are adopted to ensure that impacts are less than significant.

With respect to Response to Sierra-20, it states that the delivery trip is *assumed* to be a "short-turnaround trip" and therefore idling using an APU beyond 15 minutes is not expected. But again this is not a requirement of the Project and it is merely an assumption. APUs shall be *prohibited* from idling in excess of 5 minutes on site.

With respect to solar panels, the construction and operation of solar panels is still not a requirement of the CEQA mitigation program, which means solar is not an enforceable measure within the meaning of CEQA, and there is nothing to show that solar panels are otherwise a requirement of the Project. Furthermore, there is nothing to show that the Project cannot be "net zero" meaning that 100% of the Project's energy needs will be met by solar power. It is also not shown how the Project should be given credit for energy saving features when the majority of the space (*i.e.*, the "non-conditioned" space) will *not* include those features. Response to Sierra-28 suggests that because the Project creates more energy demand and then mitigates – to some extent for only a small portion of the Project buildings – its energy impacts that it should get credit for compliance with GHG reducing measures. This is a circular response to the comment that the Project fails to appropriately mitigate its new GHG emissions. Moreover, Response to Sierra-28 does not address the comment that the mitigation program allows the County to dispense with the purported measures described in the EIR and allow the applicant to achieve the 100 points with "equivalent" measures. This does not amount to certain mitigation within the meaning of CEQA.

4. Biological Impacts

Response to Sierra-30 does not show tht MM Bio-5b is effective in that the Final EIR does not indicate that there is a funding mechanism for the supposed conservation easement in perpetuity. Qualified entities will not accept conservation easements for long-term management of mitigation areas without an adequate fund.

5. Energy

There is no analysis of the Project's energy impacts. In the EIR's Utilities section, the document lists State CEQA Guidelines, Appendix F thresholds but fails to evaluate the Project's impacts to energy in terms of Appendix F.

CEQA Guidelines, § 15126.4 (a)(1)(C) states that, "energy conservation measures ... shall be discussed when appropriate." Appendix F provides that "The goal of conserving energy *implies the wise and efficient use of energy.* The means of achieving this goal include: (1)

decreasing overall per capita energy consumption; (2) decreasing reliance on fossil fuels such as goal, natural gas and oil, and (3) *increasing* reliance on renewable energy sources." (emphasis added) This Project does not evaluate the Project's consistency with Appendix F. A proper analysis would include a discussion of the energy impacts of the Project, "with particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy." The EIR's discussion of GHG impacts is not sufficient where it focuses on purported sustainability features and compliance with Title 24. (*See, Ukiah Citizens for Safety First v. City of Ukiah* (2016) 248 Cal.App.4th 256, 262- 265.) Further, the EIR does not evaluate "the project's projected transportation energy use requirements and its overall use of efficient transportation alternatives." (Appendix G, § II, B, 6.) The EIR must do more: it must assess transportation energy impacts and address renewable energy impacts. (*California Clean Energy Committee v. City of Woodland* (2014) 225 Cal.App.4th 173, 209-213.) It must also adopt through the mitigation program features which "increase" reliance on renewable energy sources.

6. Land Use

All FEIR responses to comments with respect to the Project's land use impacts are self-serving and unsupported. It is clear that this Project represents a dramatic change in land use from existing land uses, designations, and zoning. There are plans in place to protect this particular area from development which is inconsistent with existing uses; the Project proposes to amend these plans to accommodate the Project and for no other reason. The Project, however, because of the use, brings with it significant environmental impacts. This is the definition of a land use impact under CEQA.

7. Findings of Fact and Alternatives

This Project cannot be approved unless project alternatives have been found to be infeasible based on substantial evidence in the record. The Findings of Fact do not so demonstrate that alternatives are infeasible within the meaning of CEQA. Furthermore, there are feasible alternatives *and alternative sites* that have been improperly ignored.

Conclusion

For the reasons we have stated in this letter and in our previous letters (incorporated herein by reference), we urge you to deny this Project. Thank you for your consideration of these comments.

Sincerely,

Abigail Smith

Abigail Smith
Law Offices of Abigail Smith

Enclosure

EXHIBIT "1"

EXHIBIT "1"

UCR: Study calls warehouse jobs low-paying

BY IMRAN GHORI / STAFF WRITER

Published: July 30, 2015 Updated: July 31, 2015 5:22 p.m.

While Inland cities are increasingly looking to the logistics industry for economic growth, two recent studies by University of California, Riverside researchers say the mainly blue-collar employees who work at warehouses are paid poorly and lack proper access to health care.

But the study was heavily criticized by at least one prominent Inland economist.

The researchers, who surveyed 350 current and former warehouse workers in 2012 and 2013 about their work conditions, found that many of the jobs are filled through temporary staffing agencies, allowing employers not to provide health care and pay them less than the living wage. They recommended that Ontario, which has one of the largest concentrations of warehouses, increase its minimum wage as the city of Los Angeles did recently.

The two policy briefs compared their findings to other studies and statistics from the federal Bureau of Labor Statistics and found on average non-supervisory blue collar warehouse workers make $10.05 an hour. The estimated living wage – the amount needed to provide for basic necessities such as food and shelter -- for a single person in the Inland area is $11.59 an hour.

Those survey results "suggest that while warehouses do provide jobs for the region's workforce, these jobs are not necessarily good jobs," the researchers stated.

Ellen Reese, a professor of sociology and chair of UC Riverside's Labor Studies program who co-authored the studies, said cities can do more to improve wages for warehouse workers through agreements that require developers to provide permanent jobs and encouraging union contracts.

"If we're going to have more and warehouses in our region, I think we need to start making demands on those employers to provide decent wages to its workers -- all of its workers," she said.

Inland economist John Husing called the findings "utter nonsense" and "totally biased."

"There was a specific intent to prove that people were poorly paid," he said. "This was not going to be a fair and balanced study."

Among their findings in the study were that 63 percent of the warehouse workers they surveyed were temporary employees hired by a third-party agency; 85 percent were Latino; 28 percent were immigrants; and 65 percent had a high school or lower level of education.

For the wage study, researchers surveyed 136 workers at warehouses in Rancho Cucamonga, Ontario and Fontana and attempted to get a representative sample of different size warehouses and different ownership types, Reese said.

The health care survey interviewed a separate group of 224 current and former warehouse workers and found that only 35 percent had health care and only 15 percent through their employer.

Access to health care is especially important due to the high workplace injury statistics for warehouse workers, Reese said. Her study cites federal Bureau of Labor numbers that found that warehouse jobs had an injury and fatality rate three times the average of all workers.

The team's findings counter those advanced by developers and cities that have approved millions of square feet of warehouse space from Ontario to Redlands in the past couple of years. Industry supporters say warehouse projects put thousands of people to work and provide a pathway to a middle-class living.

Husing, who has worked as a consultant on warehouse projects for cities and other agencies, said the median wage for the logistics industry based on state employment data he's collected is $44,000 a year. His number includes all the different sectors that are part of the logistics industry -- including trucking and wholesale manufacturing -- while he said the UC Riverside study only looks at the bottom of the system.

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Inland economist John Husing called the findings "utter nonsense" and "totally biased."

"There was a specific intent to prove that people were poorly paid," he said. "This was not going to be a fair and balanced study."

Among their findings in the study were that 63 percent of the warehouse workers they surveyed were temporary employees hired by a third-party agency; 85 percent were Latino; 28 percent were immigrants; and 65 percent had a high school or lower level of education.

For the wage study, researchers surveyed 136 workers at warehouses in Rancho Cucamonga, Ontario and Fontana and attempted to get a representative sample of different size warehouses and different ownership types, Reese said.

The health care survey interviewed a separate group of 224 current and former warehouse workers and found that only 35 percent had health care and only 15 percent through their employer.

Access to health care is especially important due to the high workplace injury statistics for warehouse workers, Reese said. Her study cites federal Bureau of Labor numbers that found that warehouse jobs had an injury and fatality rate three times the average of all workers.

The team's findings counter those advanced by developers and cities that have approved millions of square feet of warehouse space from Ontario to Redlands in the past couple of years. Industry supporters say warehouse projects put thousands of people to work and provide a pathway to a middle-class living.

Husing, who has worked as a consultant on warehouse projects for cities and other agencies, said the median wage for the logistics industry based on state employment data he's collected is $44,000 a year. His number includes all the different sectors that are part of the logistics industry -- including trucking and wholesale manufacturing -- while he said the UC Riverside study only looks at the bottom of the system.

The authors of the UC Riverside study say they focused specifically on non-supervisory blue-collar workers in five areas: forklift drivers; laborers and material movers; packers and packagers; shipping clerks; and stock clerks and order fillers.

"Certainly, for managers and highly-skilled technical workers, it may be a good field to go into,' Reese said, "but there are tens of thousands of blue collar workers who are making poverty level wages.

Their research built upon a 2013 study by Juan De Lara, an assistant professor of American studies and ethnicity at the University of Southern California. His analysis also found that the warehouse industry relies heavily on temporary workers and that most full-time, blue-collar warehouse workers earn about $23,000 a year, and that women earn even less, about $19,000.

De Lara said it's important to look at that segment of logistics employees because they make up the largest category of people working inside warehouses.

"What's particular puzzling is why there's such a hesitancy to admit those jobs exist and why those people are making those wages," he said.

Sheheryar Kaoosji, co-director of the Warehouse Worker Resource Center advocacy group in Ontario, said he believes the study reflects what his group has seen with warehouse employees it works with. Many are temporary employees, get only part-time hours or are employed seasonally, and cannot afford basic health care, he said.

"A lot of the workers we talk to are working two or three jobs," Kaoosji said.

He said although warehouses also provide good-paying managerial and technical job, the system is bifurcated leaving little advancement opportunity for blue-collar workers.

Husing disputes that view, saying many warehouse managers started in blue-collar jobs.

"This is the sector that is providing jobs, providing potential for upward mobility to the middle class," he said.

And while he disagrees with the studies' findings, Husing agreed that increasing pay and access to health care for blue collar employees are worthy goals.

Contact the writer: 951-368-9558 or ighori@pe.com

WAREHOUSE STUDY FINDINGS

- Average hourly pay for blue-collar warehouse employee: $10.05
- Employed through temporary staffing agency: 63 percent.
- Average length of employment: 28 months.

EXHIBIT "2"

EXHIBIT "2"

CITY COUNCIL
FINAL APPROVED CONDITIONS

CITY COUNCIL MEETING: FEBRUARY 14, 2017

PLANNING CASES: **P14-1072** (Environmental Impact Report), **P14-1081**(Design Review), **P14-1082** (Minor Conditional Use Permit), **P16-0101** (General Plan and SP Amendments), **P16-0102** (Tentative Parcel Map) and **P16-0103** (Variance and Grading Exceptions)

Case Specific

- **Planning**

1. All mitigation measures, as outlined in the Mitigation, Monitoring and Reporting Plan in the FEIR, shall be completed in accordance with the designated schedule.

2. Approval of this project is contingent upon the Certification of the Environmental Impact Report associated with this project.

3. ***Advisory:*** Signs shall be permitted in accordance with Chapter 19.620 of the Zoning Code. Any signs shall be subject to separate review and assessment, including any required variances. A separate sign application, including fees and additional sets of plans, if necessary prior to any sign permit issuance.

4. Covenants, Conditions and Restrictions (CC&R) for 2010 diesel engine standards shall be required. This condition shall be a requirement of all leases. Lease CC&R

Prior to Map Recordation

5. General Plan Amendment and Specific Plan Amendment (P16-0101) shall be finalized and/or adopted.

6. The General Plan Amendment and Specific Plan Amendment shall be finalized and adopted concurrently with the development of this site.

Prior to Grading Permit Issuance:

7. General Plan Amendment and Specific Plan Amendment (P16-0101) shall be finalized and/or adopted.

8. The applicant shall offer to remove the existing fence north of the property at the discretion of the property owner. Neighbor

Prior to Grading Permit Issuance:

9. A 40-scale precise grading plan shall be submitted to the Planning Division and include the following:

EXHIBIT "3"

EXHIBIT "3"

Air Resources Board

Mary D. Nichols, Chairman
1001 I Street • P.O. Box 2815
Sacramento, California 95812 • www.arb.ca.gov

Matthew Rodriquez
Secretary for
Environmental Protection

Edmund G. Brown Jr.
Governor

June 8, 2015

Mr. Mark Gross
City of Moreno Valley
Community Development Department
14177 Frederick Street
PO Box 88005
Moreno Valley, California 92552

Re: World Logistics Center Final Environmental Impact Report
SCH# 2012021045

Dear Mr. Gross:

The Air Resources Board (ARB) has received and reviewed the World Logistics Center (WLC or project) Final Environmental Impact Report (FEIR). This project provides an opportunity to create a state-of-the-art facility that promotes the use of the cleanest technologies available and maximizes efficiency improvements during both the construction and operational phases at full build out in 2030.

ARB reviewed the Draft Environmental Impact Report (DEIR) and provided comments to the City of Moreno Valley (City) in a letter dated April 16, 2013. ARB's comment letter expressed concern over the increase in health risk in the immediate area and the significant and unavoidable air quality and greenhouse gas related impacts caused by the proposed WLC. To address those concerns, ARB recommended actions to support the development, demonstration, and deployment of zero and near-zero emission technology at the WLC.

Unfortunately, ARB finds the FEIR to be legally inadequate and unresponsive to the comments ARB provided in its April 16, 2013 letter regarding the DEIR. ARB appreciates the opportunity to comment on the FEIR, as we have significant concerns with the analysis and mitigation currently outlined in the document. We urge the City to revise and recirculate the EIR, to reflect needed changes in mitigation and to bolster the analysis of potential health risks posed by the project, as required by California Environmental Quality Act (CEQA).

In addition, we are aware of the possibility that the City may opt to move the WLC decision to a ballot measure. Given the potential emissions impacts and increase in health risk associated with project construction and operation, we strongly urge CEQA compliance by the City, irrespective of whether or not this project becomes a ballot measure.

CEQA Background Regarding Responses to Comments and Need for EIR Recirculation

When a significant environmental issue is raised in comments that object to the draft EIR's analysis, the response must be detailed and must provide a reasoned, good faith analysis. (14 CCR § 15088(c).) The responses to comments on a draft EIR must state reasons for rejecting suggestions and objections concerning significant environmental issues. (*City of Maywood v. Los Angeles Unified Sch. Dist.* (2012) 208 Cal.App.4th 362, 391.) The need for a reasoned, factual response is particularly acute when critical comments have been made by other agencies or by experts. (See *Berkeley Keep Jets Over the Bay Comm. v. Board of Port Comm'rs* (2001) 91 Cal.App.4th 1344, 1367,1371.)

If significant new information[1] is added to an Environmental Impact Report (EIR)[2] after notice of public review has occurred, but before final certification of the EIR, the lead agency must issue a new notice and recirculate the EIR for comments and consultation. (Pub. Res. Code § 21092.1; 14 CCR § 15088.5.) "Significant new information" triggering the need for EIR recirculation includes information showing that (1) a new or more severe environmental impact would result from the project, (2) a feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of a project but the project proponent declines to adopt it, or (3) the draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded. (14 CCR § 15088.5(a)(1)-(4).)

A decision not to recirculate an EIR must be supported by substantial evidence in the administrative record. (14 CCR § 15088.5(e).)

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[1] "Information" triggering recirculation can include additional data or other information. (14 CCR § 15088.5(a).)

[2] Note that even if new information is not "added to an EIR," it can still trigger the need for recirculation. (See, e.g., *Save Our Peninsula Comm. v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 131 (information on important new mitigation measure, added to record after EIR was completed, should have been included in EIR and circulated for public review and comment given questions raised about its effectiveness and potential impacts).

The Response to Comments Fails to Adequately Address ARB's Comments And Does Not Adopt All Feasible Mitigation Measures

In its previous comment letter, ARB recommended "actions to support the development, demonstration, and deployment of zero and near-zero emission technology to reduce localized health risk and regional emissions. We believe that use of these technologies is feasible within the build-out years of the Center." However, the FEIR discussion (in particular, responses to comment B-5-7 and B-5-8 and Master Response 3) regarding zero emission and hybrid electric trucks, vehicles, and equipment does not evaluate the current feasibility of hybrid technologies, or consider the potential for other zero and near-zero emission technologies to be feasible and commercially available, both at the present date and by project build-out in 2030. These technologies are feasible measures that would lessen the WLC's impacts on criteria and greenhouse gas emissions, as well as air toxics and health risk.[3]

Because these mitigation measures have not been fully adopted for the proposed project, the EIR must be recirculated to incorporate the feasible mitigation measures, or to make a supportable finding that the measures are infeasible. (See 14 CCR § 15088.5(a)(3).)

The information contained in the FEIR regarding feasibility and availability of these technologies relies largely on information from the Port of Long Beach and Los Angeles, most of which is at least two years old, and is but one source of information regarding the feasibility of zero or near-zero emissions vehicles. Today, zero and near-zero emission technologies are commercially available in vehicle and equipment applications typically used at warehouse and distribution centers. Examples include battery electric and fuel cell electric forklifts, battery electric and hybrid electric medium-duty trucks, and plug-in hybrid electric transportation refrigeration units. For more information, please see ARB's Heavy-Duty Technology and Fuels Assessment: Overview, found at http://www.arb.ca.gov/msprog/tech/techreport/ta_overview_v_4_3_2015_final_pdf.pdf.

However, the FEIR discussion (in particular, responses to comment B-5-7 and B-5-8 and Master Response 3) regarding zero emission and hybrid electric trucks, vehicles, and equipment does not adequately evaluate the current feasibility of hybrid technologies, or consider the potential for other zero and near-zero emission technologies to be feasible and commercially available, both at the present date and by project build-out.

[3] For the purposes of CEQA, "feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors. (California Code of Regulations, title 14, section 15364)

The response to comment B-5-7 states that "the project will support a variety of future users which are unknown at this time so it is not possible to specify or require future users to have zero emission or alternative fuel fleets since most logistics companies use independent contractors and truck drivers rather than maintain their own fleets." This response is contradictory and insufficient to show that the proposed mitigation measures are infeasible. This is particularly true given the FEIR's inclusion of several requirements that are applicable to all future tenants; specifically, that all medium and heavy-duty diesel trucks entering logistics sites shall meet or exceed 2010 engine emission standards and all yard trucks shall be powered by electricity, natural gas, propane, or an equivalent non-diesel fuel. If the mitigation measures can restrict access to the facility by truck engine year, there is no reason the mitigation measures cannot similarly restrict access by allowable technologies.

Furthermore, the response to comments rejected the proposed measure of requiring that trucks travelling between the project and any ports or rail yards within 100 miles use zero or near zero emission technology. The reasons for rejecting this measure are also unclear. The response to comments notes that "the Port of Los Angeles is testing various types of zero-emission technology solutions for heavy-duty vehicles," which the response to comments explains have a "range of travel between 100 miles and 200 miles per charge." (WLC Response to Comments at 234.) Therefore, it remains unclear why a measure requiring zero or near zero emission trucks for trips within 100 miles of the project would not be feasible, particularly by project build out in 2030.

With regard to onsite service vehicles and equipment, the response to comment B-5-8 further notes that the only included mitigation measure incorporated into the FEIR is prohibiting the use of diesel-powered onsite vehicles and equipment. (WLC Response to Comments at 185.) Again, the reasons for not including mitigation measures for these onsite vehicles remain unclear, since the response to comments does not clearly address why these types of vehicles and equipment are not available in zero or near-zero emission configurations.

The EIR should therefore be revised and recirculated to do the following:

- Fully evaluate mitigation measures for zero and near-zero emission technologies that are commercially available over the course of project development and by full build-out in 2030.
- Require all feasible mitigation measures and support the development, demonstration, and deployment of zero and near-zero emission technologies including requiring zero emission (such as battery electric or fuel cell electric) forklifts and battery electric and hybrid electric medium-duty trucks. These technologies are commercially available today. Additional advancements,

especially for on-road trucks, are expected in the next three to five years; well before project build-out in 2030.

Recirculation Is Required Due To Fundamental Inadequacies in the Project's Health Risk Assessment

Several elements of the health risk assessment section of the FEIR are flawed and inadequate, and require revision and recirculation. As noted above, one of the circumstances triggering the need for EIR recirculation is the addition of information showing that the EIR was fundamentally inadequate and conclusory in nature that meaningful public review and comment were precluded. (14 CCR § 15088.5(a).)

In this case, this recirculation "trigger" is present. The FEIR analysis has been revised since the draft EIR was released to include a new study regarding health impacts from diesel engines, specifically, the Advanced Collaborative Emissions Study (ACES). The FEIR repeatedly references that the ACES study concludes that the "application of new emissions control technology to diesel engines have virtually eliminated the health impacts of diesel exhaust." First, the use of only one study as the basis for this analysis is not sufficient for the purpose of providing a comprehensive analysis of health risk from project construction and operations. The ACES study is only one of many scientific studies related to health risk and emissions, and therefore, cannot serve as substantial evidence regarding the project impact to human health. In fact, there are many other studies that conclude that diesel particulate matter (PM) is a health hazard. For example, the International Agency for Research on Cancer evaluated the scientific literature as a whole and concluded in 2012 that diesel PM is carcinogenic to humans (class 1). Second, and more importantly, the ACES study's methodology and findings render it inadequate for inclusion in an environmental document, and cannot serve as substantial evidence supporting a finding that the project will not result in significant cancer risk impacts.[4] Therefore, use of and reference to the ACES study should be removed throughout the FEIR.[5]

[4] An EIR's CEQA significance findings must be supported by substantial evidence. "Substantial evidence" means enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached. (14 CCR § 15384(a).) Notably, argument, speculation, unsubstantiated opinion or narrative, evidence which is clearly erroneous or inaccurate, does not constitute substantial evidence. (*Id.*) In this case, the ACES study should not be used for the purposes of a CEQA analysis, as the exposure levels used in the ACES study were based on diluted NO2 and not particulate matter and therefore actual exposure of particulate matter in this study is unknown. Additionally, during the lab exposure testing, two 2007 Detroit Diesel engines were used, one for a total of 10,090 hours and one for 4031 hours with oil changes at every 250 hours (250 hours = 5,000 miles). Therefore, the study results are based on the best-case scenario and did not account for potential real world wear and tear on diesel engines, poor maintenance, and failure rates of diesel particulate filters.

Further, the air quality and health risk methodology and models used in the FEIR should be fully explained to ensure the information is accessible and understandable to the public. Specifically, the final document should include the presentation of all cancer and non-cancer health risks at the receptor locations of interest for all emissions from construction and operations at the WLC. The methodology should include the use of all the current Office of Environmental Health Hazard Assessment (OEHHA) approved risk assessment methodology contained in the OEHHA Air Toxics Hot Spots Program Risk Assessment Guidelines: Guidance Manual for the Preparation of Health Risk Assessments (February 2015).

Furthermore, we recommend the document include an evaluation of the potential health impacts at the major milestones identified for this project (e.g., beginning in 2015, 2022, and 2035) for each receptor of interest and appropriate exposure duration (i.e., resident would be 30 years). This analysis will allow the presentation of potential health impacts at key milestones and how the potential health risk estimates may change as the project is completed and the facility changes to full operation.

Other ARB Recommendations

Attainment of Federal Ambient Air Quality Standards

The FEIR determines that the proposed project would have significant long term air quality impacts. Specifically, the air quality analysis demonstrates that the project's operational nitrogen oxides (NOx) emissions far exceed the South Coast Air Quality Management District's significance threshold of 55 pounds per day. The projected rise in emissions of criteria pollutants may interfere with current strategy to bring the South Coast Air Basin into attainment with federal air quality standards. Given the level of impacts and the location in the South Coast Air Basin, the project needs to be revised to include substantial air quality mitigation by employing effective and feasible zero and near-zero emission technologies.

Use of Future Baseline in the Health Risk and Air Quality Analysis

Should the City re-circulate the EIR, ARB strongly recommends that the health risk and air quality analysis use both the existing conditions baseline (current conditions) and a future conditions baseline (full build out year, without the project.) This analysis will be useful to the public in understanding the full impacts of the project. *Neighbors for Smart Rail v Exposition Metro Line Construction Authority* (2013) 57 C4th 439 confirmed that the lead agency has discretion on how to best define a baseline under the

[5] For more information regarding diesel engine exhaust health impacts, please see http://oehha.ca.gov/public_info/DEEposter.html.

circumstances of rapidly changing environmental conditions. In this situation, the project site is located in a federal nonattainment area and is adjacent to residences; given the timeframe for full build out, those conditions may be significantly different from current conditions.

Specifically, it is important to analyze whether anticipated regional air quality improvements in future years as the result of State, federal, and local air quality programs, may be reduced or negated as the result of this project. For those reasons, it is important to ensure that the public has a complete understanding of the environmental impacts of the WLC, as compared to both existing conditions and future conditions.

Charging Infrastructure to Support Zero and Near-Zero Emission Technology

Should the City re-circulate the EIR, ARB recommends including mitigation measures that detail more robust plans for charging and fueling infrastructure, which will be necessary to support increased zero emission vehicles and equipment used on the project site. Mitigation measure 4.3.6.3C indicates that one alternative fueling station will be publicly available prior to the issuance of building permits for more than 25 million square feet. This mitigation measure should include a more comprehensive description of the fueling station, including how that fueling station will adequately meet the needs of the zero and near-zero emission equipment used on site.

Furthermore, mitigation measure 4.3.6.4A indicates two electric vehicle-charging stations for automobiles or light duty trucks shall be provided at each building. The project description does not include an estimation of how many buildings are expected to be developed on site. While the FEIR does provide an estimation of the number of daily trips by passenger vehicles and light duty trucks (54,714 and 2,385 daily trips, respectively), mitigation measure 4.3.6.4A and the associated analysis does not contain an estimation of how many of those trips will be made by electric vehicles and does not provide enough information to evaluate whether mitigation measure 4.3.6.4A satisfies potential charging demand. Given Governor's Executive Order B-16-2012 target of reaching 1.5 million zero emission vehicles on California roadways by 2025 and the Governor's goal of cutting petroleum use in half by 2030, mitigation measure 4.3.6.4A should be expanded to ensure that the charging infrastructure required on-site will meet the needs of the growing numbers of zero emission vehicles that will be accessing the project site.

Statewide Air Quality, Climate and Health Drivers to Reduce Emissions from Freight Hubs

To achieve California's air quality, climate and sustainability goals, and to reduce the health risk from diesel PM in communities located near freight hubs, the State, including public and private partners, must take effective action to transition to a zero and near-zero emission freight system. This effort is laid out in ARB's Sustainable Freight Pathways to Zero and Near-Zero Emissions Discussion Draft, which can be found at http://www.arb.ca.gov/qmp/sfti/Sustainable_Freight_Draft_4-3-2015.pdf.

Closing

Given the scale of the project, the substantial increases in criteria pollutants and greenhouse gas emissions, as well as the potential impact to health risk, it is critical that the FEIR require the use of zero and near-zero emission technologies. Furthermore, the health risk analysis must be revised to ensure that the potential impacts are fully analyzed and disclosed. We would be pleased to provide assistance to help develop the analysis and mitigation measures to ensure that this state-of-the-art facility is able to serve the region's distribution needs, while protecting air quality and public health, as well as minimizing the project's contribution to greenhouse gas emissions. Please include ARB on any further notifications related to the WLC.

If you have questions, please contact me at (916) 322-8382 or freight@arb.ca.gov.

Sincerely,

Heather Arias, Chief
Freight Transport Branch
Transportation and Toxics Division

cc: See next page

cc: Honorable Mayor and Council Members- City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

State Clearinghouse
P.O. Box 3044
Sacramento, CA 95812-3044

Mr. Ian MacMillan
Program Supervisor
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, California 91765

Mr. Thomas Jelenic
Vice President of Planning and Program Management
Highland Fairview
14225 Corporate Way
Moreno Valley, CA 92553

EXHIBIT "4"

EXHIBIT "4"

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4182
(909) 396-2000 • www.aqmd.gov

E-Mailed: June 24, 2015
markg@moval.org

June 24, 2015

Mr. Mark Gross
Community and Economic Development Department
14177 Frederick Street
Moreno Valley, CA 92553

**Final Program Environmental Impact Report (Final PEIR)
for the Proposed World Logistics Center Project**

The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to submit comments on the Final PEIR for the World Logistics Center Project. SCAQMD staff appreciates the time that city staff and the project applicant have taken to meet with us to discuss this project and the inclusion of some mitigation measures in the Final PEIR, such as the requirement for 100% Tier 4 construction equipment. However, we continue to have significant concerns about this project that were raised in previous comments, including those not adequately addressed in the Final PEIR.[1] Most importantly, given the magnitude of the air quality impacts, the project must provide more substantial mitigation for the significant emissions from the additional on-road truck trips generated by this project.

SCAQMD staff recognizes the critical role that warehousing and goods movement have in our regional and national economy. While there has been tremendous growth in warehousing in our region over the past several years to accommodate the needs of the logistics sector, the scale of the proposed World Logistics Center is unprecedented. The 40.6 million square feet of new warehousing in this single project make up almost ten percent of the total new warehousing space projected to be needed in the region by 2035[2], and also represents an area that is bigger than 32 individual cities in our jurisdiction. As a further indication of the scale of this project, the estimated ~14,000 trucks per day serving this project at project build out will be more than half the total number of trucks that currently visit the entire Port of Long Beach[3]. Below we present the major air quality issues that the lead agency must address before it considers approving this project.

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[1] http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2012/march/world-logistics-center-specific-plan.pdf
http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2012/may/world-logistics-center-specific-plan-may-2012.pdf
http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2013/april/world-logistics-center.pdf
http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2015/june/fpeirworldlog.pdf

[2] Industrial Space in Southern California: Future Supply and Demand for Warehousing and Intermodal Facilities, Southern California Association of Governments (2010)
http://www.freightworks.org/DocumentLibrary/Comprehensive%20Regional%20Goods%20Movement%20Plan%20and%20Implementation%20Strategy%20-%20Regional%20Warehousing%20Needs%20Assessment%20Final%20Report.pdf

[3] Based on the most recent emission inventory: http://www.polb.com/civica/filebank/blobdload.asp?BlobID=12246

Inadequate Mitigation of Trucking Emissions

While the proposed project includes a seemingly stringent requirement to only allow trucks that meet the 2010 emissions standard onsite, in reality this measure will do very little to reduce air quality impacts beyond current regulatory requirements. Due to the state Air Resources Board's existing Truck and Bus Regulation, by the time the first warehouse will become operational (likely no sooner than 2018), approximately 75 percent of all truck miles in our region will already be driven by trucks meeting the 2010 emissions standard. By 2023 (when half of this project is still unbuilt), the proposed mitigation will affect no more than about 1 percent of the project's trucking emissions from then onwards.

As currently proposed, the mitigated emissions from this project will reach between about one half and three quarters of a ton of nitrogen oxide (NOx) emissions each day for the majority of the project's life.[4] To put this in perspective, this level of emissions is comparable to facilities in the top ten largest stationary sources of NOx in the air basin (e.g., power plants or refineries). Despite this substantial air quality impact, the proposed mitigation from this project does not include all feasible measures to reduce impacts, nor does it provide a fair-share reduction in NOx to meet air quality standards, as demonstrated below.

In order to meet federal requirements to achieve air quality standards, our air basin must reduce NOx emissions beyond existing regulations by up to 65% by 2023 and up to 75% by 2032[5]. If these ozone and particulate matter air quality standards are not achieved, the region faces two significant challenges. First, we will continue to experience poor air quality and the resulting health impacts, including lung damage and premature deaths. Second, federally mandated sanctions will be imposed, including higher operating costs for businesses with air permits and more importantly for this project, loss of federal transportation funding. It is for these reasons that we are disappointed that this project does not propose more measures to mitigate its air quality impacts. This project can and must do more.

The unprecedented scale of this project requires all feasible mitigation measures for the large amount of NOx emissions that will be generated by the project. Although the PEIR investigated the truck technologies currently utilized by the ports of Los Angeles and Long Beach to determine what is feasible to implement for this project today, it ignored the more important actions taken by both ports to encourage and implement newer technologies in the future. For example, because vehicle technology is evolving rapidly, both ports have programs in place to demonstrate and deploy newer truck tailpipe and infrastructure technologies as they become available.[6] These actions are implemented both as mitigation measures within individual CEQA projects[7], and as measures separate

[4] NOx is a key ingredient to both ozone and particulate matter formation in the atmosphere, two pollutants for which the air basin and the Inland Empire in particular do not meet air quality standards.
[5] Based on estimates from the 2012 Air Quality Management Plan.
[6] http://www.cleanairactionplan.org
[7] See the following Mitigation, Monitoring, and Reporting Programs for examples of how projects have incorporated future technology reviews and implementation into project approvals:

from development projects. This approach has proven to be generally successful to ensure continued growth at the ports by bringing stakeholders together to build consensus regarding feasible mitigation measures without excessive litigation and corresponding delays, subsequently resulting in sizable air quality improvements.

The Final PEIR's response to SCAQMD staff and ARB staff comments regarding the implementation of an alternative technology truck phase-in was not sufficient and did not consider the feasible measures that are, or soon will be, available to implement new technologies early and throughout the life of the project. It is inappropriate to simply dismiss as 'speculative' the comments of two public agencies who have considerable expertise in truck engine technologies and who have devoted considerable financial resources to ensure that these technologies will be commercially available in the time frames specified. Establishing a program of enforceable mitigation that actually will reduce emissions for most of the project's life is particularly important at this juncture because the PEIR is being used to approve a Development Agreement, which may not receive any further environmental review.

More specifically, the lead agency and project applicant should consider developing strategies that are consistent with ARB's Draft Sustainable Freight Strategy (SFS) document[8]. For example, the project could include a project-wide cap (e.g., SFS page 45) that declines through time as newer truck engine types become commercially available and/or are required to be manufactured per future regulations. Today there are already many trucks that are commercially available that have certification levels that are below ARB's current NOx standard (Attachment A). Further, trucks that meet ARB's lowest Optional NOx standard (90% lower than the current standard) are expected to be commercially available in the 2018 timeframe, very early in the life of the project (Attachment B). Lastly, engine technologies that may achieve even greater reductions in emissions are being demonstrated widely today for potential commercialization well before project buildout (Attachment C).

Requested Modification to PEIR[9]*:* SCAQMD staff strongly recommends that the PEIR implement a program that includes elements such as:

- Steps to implement new truck and infrastructure technologies as a part of the project based on periodic and frequent technology/feasibility reviews as individual buildings are leased or sold.
- Project-wide or building-specific emissions caps that decline through time. The lowering of emission caps could be tied to the advancement of engine technologies. For example, in a set period of time after the commercial introduction of trucks meeting ARB's lowest Optional NOx Standard the emission caps could be reduced by a certain percentage. These caps could be implemented as individual buildings are leased or sold.

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http://www.polb.com/civica/filebank/blobdload.asp?BlobID=6261 (e.g., MMAQ-8 & 25)
http://www.portoflosangeles.org/EIR/YTI/FEIR/MMRP_FINAL.pdf (e.g., MMAQ-8 & LMAQ-1 & 2 & 4)

[8] Draft document available here: http://www.arb.ca.gov/gmp/sfti/Sustainable_Freight_Draft_4-3-2015.pdf

[9] SCAQMD staff is available to help craft detailed revisions to the project's mitigation on an expedited basis.

- Similar to the SCAQMD Surplus Off-road Option for NOx (SOON) program for owners of off-road vehicles[10], tenants that occupy buildings in the project site should be required to apply in good faith for incentive funding assistance[11] to replace and retrofit older trucks. Should awards be granted, the applicant must also be required to use them.

Misleading Discussion of Potential Health Risks

The PEIR misinterprets and then relies heavily on a single study published by the Health Effects Institute (HEI) to determine that "*new technology diesel exhaust does not cause cancer.*" (PEIR pg. 4.3-1). The PEIR should not make such sweeping conclusions based on a single study. While the study identifies real reductions in the mass of particulate matter with newer truck technologies, the study size was too small to identify potential cancer effects for exposures similar to what people will experience from this project. This study did not, nor was it designed to, evaluate the question of whether the toxicity per unit mass of diesel exhaust particulate (e.g., the cancer potency factor) was different compared to older engines. At the concentrations studied, one would not expect to find any tumors given the number of animals used, even if the carcinogenic potency of the new technology particulate emissions were the same as that of the particulate from the older technology engines. From the study results, it is not possible to make any conclusions on the relative carcinogenic potency of diesel exhaust particulates.

Further, the state Office of Environmental Health Hazard Assessment (OEHHA) is charged with determining the cancer potency factors of all pollutants for use in Health Risk Assessment (HRAs) throughout the state. The cancer potency factors from OEHHA have been used in the HRA prepared for this EIR, and the emission factors from the state Air Resources Board's EMFAC model already account for the reduced diesel exhaust coming from 2010 trucks. Therefore, the EIR's conclusions regarding diesel exhaust from this single HEI study are wholly unsupported by the volume of studies that OEHHA and ARB rely on to determine the carcinogenicity of diesel particulate matter coming from 2010 trucks.

We note that in response to ARB staff's comments expressing concern about the misuse of the HEI study, the PEIR consultant provided a response using a partial quote taken from the study's Executive Summary.

> RESPONSE TO ARB STAFF'S CONCERNS ABOUT THE HEI STUDY IN JUNE 10, 2015 MEMO FROM LSA ASSOCIATES TO MORENO VALLEY PLANNING DEPARTMENT.
>
> *"The primary conclusion of the HEI ACES is 'that the [New Technology Diesel Exhaust] would not cause an increase in tumor formation or substantial toxic health effects.' (HEI ACES Report p.3)"*

SCAQMD staff is concerned that the lead agency is selecting this quote out of the full context of the report and ignoring an important aspect of the HEI publication process, the

[10] http://www.aqmd.gov/home/programs/business/business-detail?title=off-road-diesel-engines&parent=vehicle-engine-upgrades

[11] For example, Carl Moyer, Proposition 1B, VIP, or other similar funding programs. http://www.aqmd.gov/home/programs/business/business-detail?title=vehicle-engine-upgrades

independent peer review. Importantly, in the Commentary prepared by HEI's own independent review panel, the peer reviewers felt it necessary to modify the quote from above to the statement below.

> HEI PEER REVIEW PANEL CONCLUSION ON STUDY (PAGE 165 OF THE HEI STUDY) (**EMPHASIS ADDED**):
>
> *"Using appropriate statistical approaches to analyze the data, the investigators in this core study confirmed the a priori hypothesis, namely, that lifetime exposure to [New Technology Diesel Exhaust]* ***at the concentrations studied*** *would not cause an increase in tumor formation or substantial toxic health effects in rats, although some biologic effects might occur."*

The HEI study as designed cannot determine whether diesel exhaust from the World Logistics Center project would pose a potential cancer risk in the surrounding community. The study does not contain sufficient information to determine whether 2010 diesel truck exhaust can cause cancer in humans. The number of animals in the study was too low to detect any cancer risk that would be expected at the concentrations evaluated. Therefore in SCAQMD staff's expert opinion, the whole of the scientific literature leads us to conclude that 2010 diesel truck exhaust be considered carcinogenic.

> *Requested Modification to PEIR:* SCAQMD staff strongly recommends that the lead agency not rely on an approach that cherry picks and misuses a single study to conclude that diesel exhaust emitted from this project would not be carcinogenic. In particular, this study – which contradicts the general consensus of air quality experts that diesel exhaust is a carcinogen – should not be used as substantial evidence to support a Statement of Overriding Considerations. For significance determinations, the PEIR instead should only rely on the HRA that was already prepared following standard procedures to account for reduced emissions from 2010 trucks. If the lead agency chooses to keep references to the HEI study as part of the PEIR, then it should only be as supplementary information and characterized correctly.

Conclusion

As demonstrated in this letter, the project's mitigation is insufficient, but the city still has several options to improve this project and the PEIR prior to approval that would reduce the substantial and significant impacts on air quality. The choice is not about promoting jobs OR promoting clean air. It is about promoting a future that provides both. It has been done before and it should be done for this project.

ATTACHMENT A1

Trucks That Have Certification Levels That Are Lower Than the Current NOx Standard of 0.2 (g/bhp-hr)

ARB Executive Order	OEM/Engine MFR	Engine Family	Heavy-Duty Engine Model	Fuel Type	Liters	Max. BHP	Low BHP	NOx Cert. Level (g/bhp-hr)
A-364-0051	BAF	FBAFE06.83NN	V-10	CNG	6.8	285	285	0.100
A-364-0052	BAF	FBAFE06.89NN	V-10	CNG	6.8	242	242	0.050
A-338-0012	Capstone Turbine	FCSTH0.31NGL	Turbine	CNG		30kW	30kW	0.050
A-338-0013	Capstone Turbine	FCSTH0.51NGB	Turbine	CNG		65kW	65kW	0.050
A-338-0014	Capstone Turbine	FCSTH0.51NGH	Turbine	CNG		65kW	65kW	0.050
A-290-0148	Detroit Diesel Corp.	FDDXH14.8EAD	DD15	Diesel/SCR	14.8	505	455	0.090
A-290-0149	Detroit Diesel Corp.	FDDXH14.8EED	DD15	Diesel/SCR	14.8	560	455	0.090
A-290-0154	Detroit Diesel Corp.	FDDXH15.6GED	DD16	Diesel/SCR	15.6	600	475	0.070
A-010-1814-2	Ford Motor Company	FFMXE06.8BW5	F450/550 Chassis Cab; F650 Chassis Cab; Step Van; Motor Home	Gasoline	6.8	362	362	0.030
A-398-0012-1	Greenkraft, Inc.	FGKTE06.8FM1	V10	CNG	6.8	362	362	0.010
A-328-0068	IMPCO Technologies	FZ9XE06.0DCA	6.0L CNG	CNG	6.0	265	265	0.080
A-328-0069	IMPCO Technologies	FZ9XE06.8DC3	F- Series	CNG	6.8	308	308	0.080
A-328-0070	IMPCO Technologies	FZ9XE06.8DC2	E- Series	CNG	6.8	251	251	0.060
A-328-0074	IMPCO Technologies	FZ9XE06.8DC4	E- Series	CNG	6.8	251	251	0.060
A-400-0014	Landi Renzo USA	FLDRE06.8C10	F450/550 Chassis Cab; Step Van; Motor Home; F650 Chassis Cab	CNG	6.8	362	362	0.100
A-400-0018	Landi Renzo USA	FLDRE06.8B10	E450	CNG	6.8	362	362	0.080
A-415-0003-1	Power Solutions International	FPSIE08.8CNG	PSI CNG 235-180	CNG	8.8	235	180	0.100
A-415-0001-1	Power Solutions Intl	FPSIE08.8LPG	PSI LPG 270	LPG	8.8	270	270	0.100
A-344-0052-4	Roush Industries	FRIIE06.8BW5	Bluebird Vision School Bus: F450, 550, 650, Motor Home, Step Van	LPG	6.8	362	362	0.080
A-344-0056	Roush Industries	FRIIE06.8BWX	E450	LPG	6.8	305	305	0.090
A-242-0076	Volvo Powertrain Corp.	FVPTH10.8G01	MP7: 325E, 355E, 405E, 345A, 345C, 365C, 395C, 325M, 365M, 405M; D11H: 325, 355, 365, 385, 405	Diesel/SCR	10.8	405	325	0.060
A-242-0077	Volvo Powertrain Corp.	FVPTH12.8G01	D13H: 375, 405, 425, 435, 435P, 475, 500, 500P; MP8: 415 E, 415C, 425M, 445C, 445E, 455M, 505C, 505E	Diesel/SCR	12.8	505	375	0.060
A-242-0078	Volvo Powertrain Corp.	FVPTH16.1G01	D16H: 500, 550; MP10: 515M, 525C, 555M, 565C, 605C	Diesel/SCR	16.1	605	515	0.060

ATTACHMENT A2

Heavy Duty Vehicles that Have Emissions Benefits Beyond NOx Standard of 0.2 g/bhp-hr That are Funded Through the State HVIP Program

https://www.californiahvip.org/docs/HVIP_Year4_EligibleVehicles.pdf

Manufacturer: **Altec**

Type: **Utility**

Aerial Boom Vehicle with JEMS: 16-20 kWh Lithium-Ion battery and 3000 PSI maximum hydraulic pressure

Chassis Model	TA50, AM55	TA50, TA60, AM55, AM55E
Gross Vehicle Weight	> 26,000	> 26,000
Vehicle Year/Engine Model Year	All	All
Exportable Power	N/A	> 3.0 kW
Year 4 ARB Preliminary Voucher Amount	$20,000	$22,000

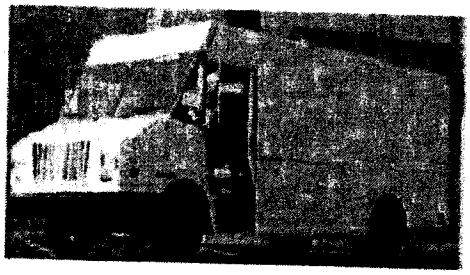
PDF Spec Sheet

Manufacturer: **AMP Electric Vehicles**

Type: **Delivery**

E-100 Workhorse Zero-Emissions Walk-In Van

Gross Vehicle Weight	19,501-26,000
Vehicle Year/Engine Model Year	2013/2013
Year 4 ARB Preliminary Voucher Amount	$90,000



PDF Spec Sheet

Manufacturer: **Autocar**

Type: **Refuse**

Xpeditor E3 Refuse Vehicle with Cummins ISL9 Engine and Parker RunWise Advanced Series Hydraulic Hybrid Drive

Gross Vehicle Weight	38,001-66,000	38,001-66,000
Vehicle Year/Engine Model Year	2013/2012	2015/2012
Year 4 ARB Preliminary Voucher Amount	$40,000	$40,000

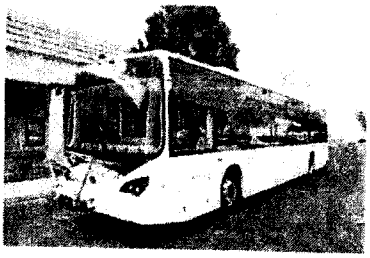
PDF Spec Sheet

Manufacturer: **BYD Motors**

Type: **Bus**

40-Ft All Electric Zero-Emission Transit Bus

Gross Vehicle Weight	33,001-55,000	33,001-55,000
Li-Ion Battery Specification	324 kWh	324kWh
Vehicle Year/Engine Model Year	2014/2014	2015/2015
Year 4 ARB Preliminary Voucher Amount	$95,000	$95,000

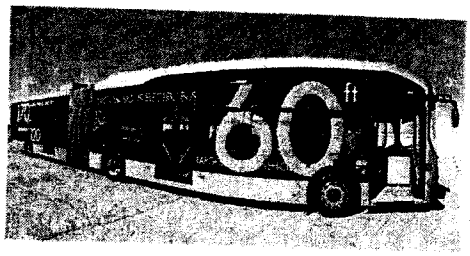


PDF Spec Sheet

60-Ft Articulated All Electric Zero-Emission Transit Bus

Gross Vehicle Weight	33,001-55,000
Li-Ion Battery Specification	547.5 kWh
Vehicle Year/Engine Model Year	2015/2015
Year 4 ARB Preliminary Voucher Amount	$95,000

PDF Spec Sheet



30-Ft All Electric Zero-Emission Transit Bus

Gross Vehicle Weight	>26,000
Li-Ion Battery Specification	182.5 kWh
Vehicle Year/Engine Model Year	2015/2015
Year 4 ARB Preliminary Voucher Amount	$95,000

PDF Spec Sheet

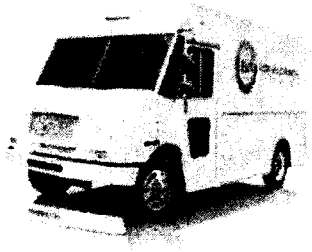
Manufacturer: **EVI**

Type: **Delivery**

EVI WI (Walk In)

Gross Vehicle Weight	14,001-19,500	19,501-26,000
Vehicle Year/Engine Model Year	2013/2013	2013/2013
Year 4 ARB Preliminary Voucher Amount	$80,000	$90,000

PDF Spec Sheet



EVI MD (Medium Duty)

Gross Vehicle Weight	14,001-19,500	19,501-26,000	19,501-26,000
Vehicle Year/Engine Model Year	2013/2013	2013/2013	2014/2014
Year 4 ARB Preliminary Voucher Amount	$80,000	$90,000	$90,000

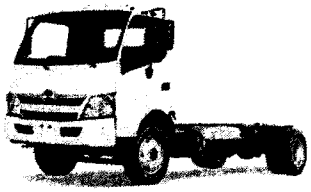
PDF Spec Sheet

Manufacturer: Hino Motors

Type: Delivery

195h Delivery Truck with Parallel Hybrid System

Delivery Type	Beverage Delivery	Package Delivery	Food Distribution	Liquid Propane Pick-Up & Delivery	Uniform & Linen Delivery	Other Delivery
Gross Vehicle Weight	14,001-19,500	14,001-19,500	14,001-19,500	14,001-19,500	14,001-19,500	14,001-19,500
Vehicle Year/Engine Model Year	2016/2015	2016/2015	2016/2015	2016/2015	2016/2015	2016/2015
	2015/2014	2015/2014	2015/2014	2015/2014	2015/2014	2015/2014
	2014/2013	2014/2013	2014/2013	2014/2013	2014/2013	2014/2013
Year 4 ARB Preliminary Voucher Amount	$18,000	$18,000	$18,000	$18,000	$18,000	$18,000



PDF Spec Sheet

195h-DC Delivery Truck with Parallel Hybrid System

Delivery Type	Package Delivery	Other Delivery
Gross Vehicle Weight	14,001-19,500	14,001-19,500
Vehicle Year/Engine Model Year	2016/2015	2016/2015
Year 4 ARB Preliminary Voucher Amount	$18,000	$18,000

PDF Spec Sheet

Manufacturer: Motiv Power

Zero-Emission FE4 Vehicle with Ford Chassis

Chassis Model	School Bus, Shuttle Bus, Delivery, Utility	School Bus, Shuttle Bus, Delivery, Utility
Gross Vehicle Weight	14,500	22,000
Li-Ion Battery Specification	80 kWh, 100 kWh, 120 kWh	4, 5, and 6-Battery Variations
Vehicle Year/Engine Model Year	2015/2015	2015/2015
Year 4 ARB Preliminary Voucher Amount	$80,000	$90,000

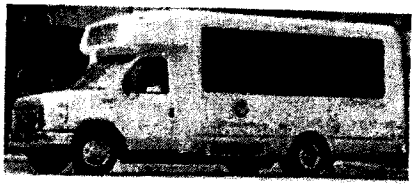
PDF Spec Sheet

Manufacturer: Phoenix

Type: Bus

ZEUS 300 Bus with Lithium-Ion 102-120kWh Battery Pack

Chassis Model	Shuttle Bus
Gross Vehicle Weight	10,001-14,000
Vehicle Year/Engine Model Year	2015/2015
Year 4 ARB Preliminary Voucher Amount	$50,000



PDF Spec Sheet

Type: Utility

Zero-Emission Flat Bed Truck with Lithium-Ion 102kWh Battery Pack

Chassis Model	Shuttle Bus
Gross Vehicle Weight	10,001-14,000
Vehicle Year/Engine Model Year	2015/2015
Year 4 ARB Preliminary Voucher Amount	$50,000

PDF Spec Sheet

No Photo Available.

Manufacturer: **New Flyer**

Type: Bus

Xcelsior Bus with Lithium-Ion Battery Pack

Chassis Model	XE35	XE40
Gross Vehicle Weight	42,540-44,312	42,540-44,312
Li-Ion Battery Specification	100 kWh, 150 kWh, 200 kWh	100 kWh, 150 kWh, 200 kWh, 300 kWh
Vehicle Year/Engine Model Year	2015/2015	2015/2015
Year 4 ARB Preliminary Voucher Amount	$117,000	$117,000

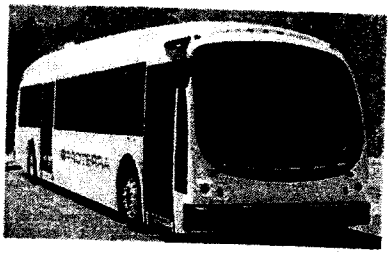
PDF Spec Sheet

Manufacturer: **Proterra**

Type: Bus

Catalyst 40-foot Urban Transit Bus

Chassis Model	BE40	BE35-74T
Gross Vehicle Weight	>38,000	>26,000
Vehicle Year/Engine Model Year	2015/2015	2013/2013
Year 4 ARB Preliminary Voucher Amount	$115,000	$115,000



PDF Spec Sheet

Manufacturer: **Smith Electric**

Type: Delivery

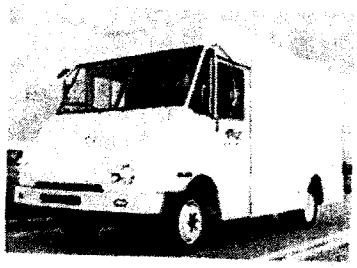
Newton Box Truck

Gross Vehicle Weight	14,001-19,500	19,501-26,000	26,001-33,000
Chassis Length (ft.)	18.8, 21.3, 23.8	18.8, 21.3, 23.8	18.8, 21.3, 23.8
Vehicle Year/Engine Model Year	2013/2013	2013/2013	2013/2013
Year 4 ARB Preliminary Voucher Amount	$80,000	$90,000	$95,000

PDF Spec Sheet

Newton Step Van			
Gross Vehicle Weight	14,001-19,500	19,501-26,000	26,001-33,000
Chassis Length (ft.)	18.8, 21.3, 23.8	18.8, 21.3, 23.8	18.8, 21.3, 23.8
Vehicle Year/Engine Model Year	2013/2013	2013/2013	2013/2013
Year 4 ARB Preliminary Voucher Amount	$80,000	$90,000	$95,000

PDF Spec Sheet

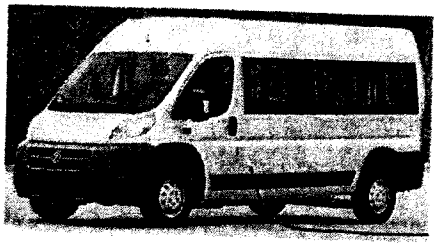


Manufacturer: Zenith Motors

Type: Bus

Electric Shuttle Van		
Gross Vehicle Weight	8,500-10,000	10,001-14,000
Li-Ion Battery Specification	51.84kWh	62.1kWh
Vehicle Year/Engine Model Year	2014/2014	2014/2014
Year 4 ARB Preliminary Voucher Amount	$25,000	$50,000

PDF Spec Sheet



Type: Delivery

Electric Cargo Van		
Gross Vehicle Weight	10,001-14,000	10,001-14,000
Wheelbase	159"	136"
Li-Ion Battery Specification	62.1kWh	51.8kWh
Vehicle Year/Engine Model Year	2014/2014	2014/2014
Year 4 ARB Preliminary Voucher Amount	$50,000	$50,000

ATTACHMENT B

Trucks Engines That Will Be Available Very Early in The Life of the Project That Will Meet ARB's Optional NOx Standard

http://www.cumminswestport.com/press-releases/2015/near-zero-nox-emissions-isl-g-natural-gas-engine-proprietary-technology-capable-of-reducing-nox-emissions-by-90

Westport

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- Press Releases

Near Zero NOx Emissions ISL G Natural Gas Engine ~Proprietary technology capable of reducing NOx emissions by 90%~

May 6, 2015

VANCOUVER, May 6, 2015 - Cummins Westport (CWI) announced it will begin field tests this year in California in transit buses with a spark ignited natural gas engine capable of producing Near Zero NOx emissions well before the 2023 California Near Zero NOx schedule for Low NOx vehicles.

CWI believes its proprietary Stoichiometric EGR Spark Ignited (SESI) natural gas engine technology as released on its ISL G and ISX12 G engines is ideally suited to continue to provide an economic and efficient solution to California air quality improvement initiatives.

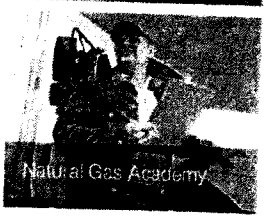
With funding support from South Coast Air Quality Management District (SCAQMD), SoCal Gas and California Energy Commission (CEC), CWI has recently invested significantly on leveraging the SESI platform to develop a new Near Zero NOx technology pathway to 0.02 grams per brake-horsepower hour NOx. CWI has demonstrated this technology and will now field test a transit bus with the new Cummins Westport Near Zero NOx ISL G that will reduce NOx emissions by 90% from the current EPA limit of 0.2 g/bhp-hr to 0.02 g/bhp-hr NOx while also meeting the 2017 EPA greenhouse gas emission requirements.

The new Near Zero NOx ISL G will continue to offer customers the benefit of performance with the lowest emissions utilizing maintenance-free Three Way Catalyst (TWC) aftertreatment. TWCs are effective, simple, passive devices, packaged as part of the muffler.

Cummins Westport natural gas engines do not require active aftertreatment such as a Diesel Particulate Filter (DPF) or Selective Catalytic Reduction (SCR).

Since it was first introduced in 2007, the ISL G 8.9 liter engine has become the leading natural gas engine for transit buses and refuse trucks which represents a significant portion of on-highway and urban power in California.

While commercial availability will be announced at a later date, the Near Zero NOx technology in the ISLG engine will be made available as a first fit engine with transit and refuse OEMs and as an engine replacement for existing ISL G vehicles resulting in an immediate NOx emission reduction well before the 2023 Near Zero NOx goals set in California.



ATTACHMENT C

Advanced Technology Demonstration Projects for Truck Engines That Will Meet or Surpass ARB's Optional NOx Standard Before Full Project Buildout

Project	Truck Manufacturer	Number of Vehicles in Project	Truck Class	Technology Type	Project Completion Year	Total Project Cost
Zero Emission Cargo Transport (ZECT) I - 2012	TransPower	4	8	Battery Electric	2016	$2.8M
ZECT I - 2012	US Hybrid	2	8	Battery Electric	2017	$2.0M
ZECT I - 2012	TransPower	2	8	CNG plug in hybrid	2017	$2.1M
ZECT I - 2012	US Hybrid	3	8	LNG plug in hybrid	2017	$2.1M
ZECT II -2014	BAE Systems	1	8	Battery Electric - Hydrogen Fuel Extender	2018	$7.1M
ZECT II -2014	TransPower	2	8	Battery Electric - Hydrogen Fuel Extender	2017	$2.4M
ZECT II -2014	US Hybrid	2	8	Battery Electric - Hydrogen Fuel Generator	2017	$3.2M
ZECT II -2014	BAE Systems & Kenworth	1	8	Battery Electric - CNG Range Extender	2018	$5.6M
Volvo PHEV Project	International Rectifier	1	8	Plug in Hybrid	2017	$1.7M
SCAQMD Project	Volvo	1	8	Plug in Hybrid	2014	$2.4M
Siemens Project	Transpower	2	8	Catenary	2016	$3.2M
UPS	Siemens + Volvo	1	8	Infrastructure + 1 Volvo PHEV catenary truck	2016	$13.5M
	EVI	40	6	Electric	2013	$7.45M

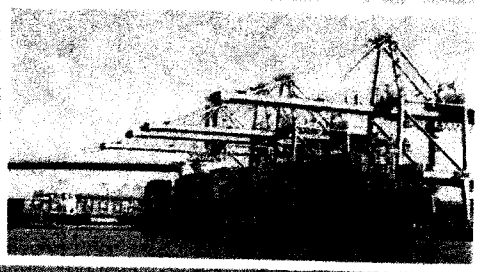
EXHIBIT "5"

EXHIBIT "5"

April 2015





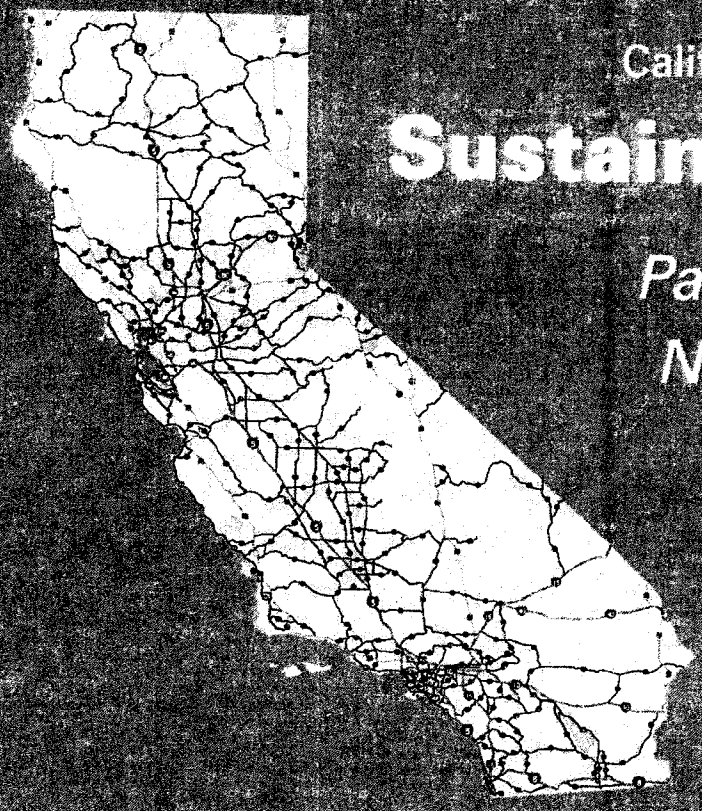



California Air Resources Board

Sustainable Freight

Pathways to Zero and Near-Zero Emissions

DISCUSSION DOCUMENT



CALIFORNIA
SUSTAINABLE FREIGHT INITIATIVE

Discussion Document

Sustainable Freight: Pathways to Zero and Near-Zero Emissions – A Discussion Document –

AIR RESOURCES BOARD (ARB) DISCUSSION

The Board will hear an update and public testimony on development of the Sustainable Freight Strategy, and will discuss this document, at its regular April 23, 2015, meeting at 1001 "I" Street, Sacramento, California, 95814. The Board agenda will be available 10 days prior to the meeting at: http://www.arb.ca.gov/board/ma/2015/ma042315.pdf
Comments can be submitted electronically at:
http://www.arb.ca.gov/lispub/comm/bclist.php

PROGRAM WEBPAGE

For more information on this topic and upcoming meetings, please see the program website at:
http://www.arb.ca.gov/gmp/sfti/sfti.htm

DOCUMENT AVAILABILITY

Electronic copies of this document and related materials can be found at: http://www.arb.ca.gov/gmp/sfti/sfti.htm . Alternatively, paper copies may be obtained from ARB's Public Information Office, 1001 I Street, 1st Floor, Visitors and Environmental Services Center, Sacramento, California, 95814, (916) 322-2990.

For individuals with sensory disabilities, this document is available in Braille, large print, audiocassette or computer disk. Please contact the Air Resources Board's Disability Coordinator at (916) 323-4916 by voice or through the California Relay Services at 711, to place your request for disability services. If you are a person with limited English and would like to request interpreter services, please contact the Air Resources Board's Bilingual Manager at (916) 323-7053.

QUESTIONS

Ms. Heather Arias
Freight Transport Branch
Air Resources Board
(916) 322-8382 or via email at: freight@arb.ca.gov

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California Environmental Protection Agency
Air Resources Board

Forward

In 2012, the California Air Resources Board (ARB or Board) directed staff to identify and implement actions to quickly reduce health risk from diesel particulate matter.

The Sustainable Freight Pathways to Zero and Near-Zero Discussion Document (Discussion Document) describes actions that respond to the Board's direction to identify, prioritize, and recommend specific measures and actions to meet the State's air quality attainment and climate needs. The Board heard an informational update on the Discussion Document, considered testimony, and adopted Resolution 15-22 in April 2015. Board Resolution 15-22, as adopted, is on the following page. The April 2015 Board meeting transcripts and written public comments can be found at the following links:

- *April 23 Board Meeting Transcript.* http://www.arb.ca.gov/board/mt/2015/mt042315.pdf
- *Written public comments on the Discussion Draft.* http://www.arb.ca.gov/lispub/comm/bccommlog.php?listname=freight2015

As part of Resolution 15-22, the Board directed staff to develop a comprehensive, integrated sustainable freight plan, in partnership with other State and local agencies - the California Sustainable Freight Strategy. The Board considers the development of the California Sustainable Freight Strategy a high priority to address localized health impacts, attainment of air quality standards, and achieving climate goals. The Discussion Document describes ARB's initial air quality policy contribution to this effort.

Moving forward, staff will work to incorporate direction received via Board Resolution 15-22 and anticipates coming back to the Board with an update in late 2015.

In addition, the following clarifications were made to the draft version of the Discussion Document:

- Table numbering (throughout the document)
- Updates to the following text:
  - Freight-dependent industries accounted for over ~~$650~~ 700 billion or 32 percent of the California economy in 2013, and over 5 million or 33 percent of California jobs. (pg. 10)
  - However, freight-related sulfate formation is expected ~~and~~ to be relatively low because of the successful implementation of low-sulfur fuels throughout the California freight transport system. (pg. 15)
  - Additionally, such studies, along with baseline incidence rates ~~promote the ability to develop~~ allow the calculation of quantitative health risk estimates. (pg. 16)
  - The ~~costs~~ economic valuation associated with health impacts discussed here ~~are~~ is high. (pg. 16)
  - Develop an ocean-going vessel renewable biofuels market through proposal of an amendment ~~allowing~~ that allows renewable biofuels suppliers to opt-in

~~the option of such fuels~~ into the Low Carbon Fuel Standard if ~~it is~~ the amendment is adopted, or inclusion in Cap and Trade (pg. 37).

State of California
AIR RESOURCES BOARD

Update on Sustainable Freight Strategy

Resolution 15-22

April 23, 2015

Agenda Item No.: 15-3-4

WHEREAS, section 39003 of the Health and Safety Code charges the Air Resources Board (ARB or Board) with coordinating efforts to attain and maintain ambient air quality standards, to conduct research into the causes of and solution to air pollution, and to systematically attack the serious problem caused by motor vehicles;

WHEREAS, sections 39600 and 39601 of the Health and Safety Code authorize the Board to adopt standards, rules, and regulations and to do such acts as may be necessary for the proper execution of the powers and duties granted to and imposed upon the Board by law;

WHEREAS, sections 39666 and 39667 of the Health and Safety Code authorize the Board to regulate emissions of toxic air contaminants from non-vehicular and vehicular sources;

WHEREAS, sections 39666 and 39667 of the Health and Safety Code require an airborne toxic control measure for an existing source for which the Board has not specified a threshold exposure level, including a mobile source, be based on application or utilization of the best available control technologies or more effective control methods, unless the Board determines, based on an assessment of risk, that an alternative level of emission reduction is adequate or necessary to prevent an endangerment of public health;

WHEREAS, on August 27, 1998, the Board identified diesel particulate matter (PM) as a toxic air contaminant pursuant to article 1 (commencing with section 39650), chapter 3.5, part 2, division 26 of the Health and Safety Code;

WHEREAS, the trucks, ships, locomotives, aircraft, harbor craft, and equipment that move freight in California currently contribute about half of the total statewide diesel PM emissions;

WHEREAS, sections 43013 and 43018 of the Health and Safety Code authorize the Board to adopt and implement regulations, to control air pollution from motor vehicles and off-road or non-vehicle engine categories, which the Board has found to be necessary, cost-effective, and technologically feasible;

WHEREAS, the federal Clean Air Act requires the Board and local air districts to prepare State Implementation Plans (SIPs) demonstrating how each nonattainment region will attain the national 8-hour ozone and fine particulate matter (PM2.5) standards, with plans due in 2016;

WHEREAS, freight equipment currently accounts for 45 percent of the statewide oxides of nitrogen (NOx) emissions that react in the atmosphere to form ozone and PM2.5;

WHEREAS, the California Global Warming Solutions Act of 2006 (Assembly Bill 32; Chapter 488 Statutes of 2006; Health & Safety Code section 38500 et seq.) declares that global warming poses a serious threat to the economic well-being, public health, natural resources, and environment of California; it granted ARB the authority to monitor and regulate greenhouse gas emissions from all sources, and provided initial direction on creating a comprehensive multi-year program to reduce California's greenhouse gas emissions to 1990 levels by 2020, maintain and continue reductions beyond 2020, and initiate the transformations required to achieve the State's long range climate goals;

WHEREAS, Executive Order S-3-05 established a California greenhouse gas emission reduction target of 80 percent below 1990 levels by 2050; this target was reaffirmed in Executive Order B-16-2012, which established a California target for the reduction of greenhouse gas emissions from the transportation sector of 80 percent below 1990 levels by 2050;

WHEREAS, Assembly Bill 32 added section 38501 to the Health and Safety Code, which expresses the Legislature's intent that ARB coordinate with State agencies and consult with the environmental justice community, industry sectors, business groups, academic institutions, environmental organizations, and other stakeholders in implementing AB 32, and that ARB design emissions reduction measures in a manner that minimizes costs and maximizes benefits for California's economy, maximizes additional environmental and economic co-benefits for California, and complements the State's efforts to improve air quality;

WHEREAS, section 38560 of the Health and Safety Code directs the Board to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective greenhouse gas emissions reductions from sources or categories of sources;

WHEREAS, freight equipment is a substantial contributor to black carbon emissions, a potent short-lived climate pollutant, and currently accounts for 6 percent of the statewide greenhouse gas emissions with growth projected in future years;

WHEREAS, local air districts, ports, transportation and energy agencies, cargo owners, trucking firms, railroads, shipping lines, and terminal operators are initiating or continuing activities to reduce freight-related emissions; these actions are integral to the success of California's air quality and climate programs;

WHEREAS, Resolution 14-2 directs staff to work with stakeholders to identify and implement near-term actions to reduce localized risk in communities near freight facilities, identify and prioritize actions to move California towards a sustainable freight

transport system, and evaluate and implement opportunities to prioritize transformative zero and near-zero emission technologies;

WHEREAS, implementation of a sustainable freight transport system that relies on zero and near-zero emission equipment powered by renewable energy sources needs to meet multiple goals, including: enhancing the economic competitiveness and efficiency of California's ports and logistics industries, creating jobs, and increasing the safety and livability of freight corridors;

WHEREAS, State environmental, energy, and transportation agencies, together with the business development office, will be working with local partners and stakeholders to develop a proposed comprehensive, integrated sustainable freight plan– the California Sustainable Freight Strategy—that will include actions and milestones to transition California to a sustainable freight transport system;

WHEREAS, on April 3, 2015, ARB staff released a document entitled "Sustainable Freight: Pathways to Zero and Near-Zero Emissions, Discussion Draft" (Discussion Draft) to seek input from the public and the Board; and

WHEREAS, the Board finds that the Discussion Draft advances the objectives identified in Resolution 14-2 and:

1. The Discussion Draft sets out ARB's vision of a clean freight system and immediate and potential near-term ARB actions that staff will develop for future Board consideration or Executive Officer implementation, as appropriate under State law, to address localized health impacts, attainment of air quality standards, and climate goals.

2. The Discussion Draft outlines the immediate steps ARB intends to pursue, and potential near-term actions ARB will consider, to advance California towards a zero and near-zero emission freight transportation system.

3. As described in the Discussion Draft, and consistent with the objectives outlined in Resolution 14-2, staff has initiated efforts to develop a proposed California Sustainable Freight Strategy for future consideration by the Board, in partnership with the California Transportation Agency, the California Environmental Protection Agency, the Office of Business and Economic Development, the California Department of Transportation, and the California Energy Commission.

4. The Discussion Draft provides ARB's initial proposed air quality policy contribution to the broader California Sustainable Freight Strategy effort.

NOW, THEREFORE, BE IT RESOLVED that the Board directs staff to:

1. Pursue development of the potential near-term actions described in the Discussion Draft for Board consideration or Executive Officer implementation, as appropriate under State law, as quickly as possible to meet public health and climate change needs.

2. Evaluate the potential ARB levers described in the "Vision for the Future" section of the Discussion Draft for inclusion in future planning documents that address federal and State air quality and climate change goals.

3. Evaluate and consider both the potential ARB levers and the broad-based approaches for freight facilities and systems described in the Discussion Draft, especially the range of system efficiency improvements that depend on industry participation and leadership, as part of the development of a proposed California Sustainable Freight Strategy.

4. Work closely with local air districts in the preparation of the 2016 State Implementation Plan, and give strong consideration to actions identified in the Sustainable Freight Strategy in the development of that State Implementation Plan.

BE IT FURTHER RESOLVED that the Board considers the development of a comprehensive California Sustainable Freight Strategy to be a high priority for the agency and directs staff to:

1. Continue engaging cargo owners; the logistics industry; labor; ports and airports; utilities; business leaders; environmental and community groups; environmental justice groups; academics; air districts; metropolitan planning organizations; federal government agencies; and other interested stakeholders on development of a proposed California Sustainable Freight Strategy.

2. Continue working with the identified State agencies, in addition to the California Department of Food and Agriculture, and other affected Boards and Commissions to develop a proposed California Sustainable Freight Strategy for consideration that addresses the State's air quality, climate, energy, transportation, and economic objectives.

3. Explore revenue opportunities to provide funding to the measures in a proposed California Sustainable Freight Strategy.

BE IT FURTHER RESOLVED that the Board directs staff to incorporate revisions identified by the Board into the Discussion Draft, return to the Board in late 2015 with an informational update on the immediate actions and potential near-term actions described in the Discussion Draft, and continue efforts to contribute to development of a proposed California Sustainable Freight Strategy.

I hereby certify that the above is a true and correct copy of Resolution 15-22 as adopted by the Air Resources Board.

Tracy Jensen, Clerk of the Board

Contents

Executive Summary

To achieve its healthy air quality, climate, and sustainability goals, California must take effective, well-coordinated actions to transition to a zero emission transportation system for both passengers and freight.

The freight transport system is a major economic engine for our State, but also accounts for about half of toxic diesel particulate matter (diesel PM), 45 percent of the emissions of nitrogen oxides (NOx) that form ozone and fine particulate matter in the atmosphere, and six percent of the greenhouse gas (GHG) emissions in California. These statistics include emissions from trucks, ships, locomotives, aircraft, harborcraft, and all types of equipment used to move freight at seaports, airports, railyards, warehouses and distribution centers.

It is clear that in order to meet our public health mandates, climate goals, and economic needs, the transition to a less-polluting, more efficient, modern freight transport system is a preeminent policy objective for the State of California – and will continue to be so for several decades to come. It will require us to make steady and continual progress in moving both domestic and international cargo in California more efficiently, with zero emissions everywhere feasible, and near-zero emissions with renewable fuels everywhere else.

The transition to this modern freight system will rely on public and private funds invested in infrastructure projects, vehicle and equipment purchases, technology applications, and system management approaches. It will also require regulatory and other programs to spur zero emission and other clean technology development and deployment. Many of the needed steps have happened already. Others must happen over the coming years. In some cases, the move to zero emission technology can happen immediately. In other cases, the technology needs to be further developed, and intermediate steps to ever-cleaner technologies will take us toward the ultimate goal of zero emissions.

California's freight system is part of the vast interconnected national and global system. As the global system changes in response to economic forces, California's system will also evolve. This evolution presents a tremendous opportunity to make increased system efficiency and zero emission technology mutually reinforcing. Computerized logistics systems and technologies to physically move containers and trucks more efficiently will reduce emissions, but can also benefit from the performance characteristics and operation of modem zero emission drive systems. Approached this way, California can move more goods, with less energy, and less pollution.

A more efficient, zero and near-zero emission freight system will demand not only new equipment and fuels, but also new transportation infrastructure, communications, and industry operating practices. We will need workers trained to build, maintain, and operate this advanced equipment and communications systems. To help fund these efforts, California's logistics industry must remain profitable in the face of increasing competition from other North American seaports and supply chains. The ability to readily adapt to changing trends and expand operations is key to improving the

competitiveness of the system. Community acceptance of industry expansion often depends on the prospects for new local jobs, clean air, and safe operations.

The California Air Resources Board (ARB or Board) is working with the State's transportation and energy agencies, as well as its economic development office, local partners, and stakeholders to develop a comprehensive, integrated plan—the California Sustainable Freight Strategy. A sustainable freight system is one that meets California's environmental, energy, mobility, safety, and economic needs by: enhancing system efficiency; deploying zero and near-zero emission freight equipment powered by renewable energy sources; providing reliable velocity while increasing safety, mobility and capacity; and improving the competitiveness of our logistics system.

To inform that effort, this report sets out ARB's vision of a clean freight system, together with the immediate and near-term steps that ARB will take to support use of zero and near-zero emission technology.

Need to Accelerate Progress

Together with our local and federal government partners, we have motivated and required extensive changes across the State. Truck owners, ocean carriers, terminal operators, and railroads have made substantial investments to transition their diesel-fueled freight equipment to cleaner models, while refineries retooled to produce cleaner diesel fuels. We are seeing the real-world benefits of those investments—measurably cleaner air in communities near seaports, railyards, and freeways over the last decade. For example, these combined actions have cut toxic diesel PM at the State's largest ports by 80 percent over the last decade.

However, the need to accelerate air quality progress for public health is urgent and the scope of emission reductions required to meet our mandates is vast. California must pursue immediate actions to reduce the unacceptably high risk from freight sources, and re-orient our freight system to meet our State Implementation Plan, and ultimately reshape the freight system to meet our long-term climate goals. This presents California with some notable challenges:

- **Health risks**: Despite substantial progress over the last decade, the remaining localized risks of cancer and other adverse effects near major freight hubs is not acceptable and must be significantly reduced. New health science tells us that infants and children are 1.5 to three times more sensitive to the harmful effects of exposure to air toxics, like those emitted from freight equipment, than we previously understood, which heightens the need for further risk reduction.

- **More protective air quality standards**: Current control programs will reduce NOx and PM2.5 emissions over 50 percent by 2030, but the next State Implementation Plans required by federal law to demonstrate our path to attain ozone and diesel PM air quality standards will compel significant additional emission reductions in the South Coast and San Joaquin Valley.

- **Climate change goals**: New efforts in response to climate change are ramping up the pressure for further progress in the 2030 and 2050 timeframes to reduce GHG and short-lived climate pollutants, like black carbon from diesel equipment.

Actions to Further Reduce Emissions from Freight Operations

At two meetings in 2014, the Board directed ARB staff to identify and implement actions to quickly reduce the health risk from diesel PM in the most impacted communities around freight hubs. This report describes near-term actions that respond to the Board's direction, as well as the potential new measures and other approaches we are evaluating to meet all of our air quality and climate goals. These actions build on the conclusions of a companion document entitled *Draft Heavy-Duty Technology and Fuels Assessment Overview, April 2015,* developed by ARB staff with agency partners.

Immediate ARB Actions. ARB staff is initiating actions now to enhance enforcement and deploy incentives to deliver new emission reductions and further reduce health risks in impacted communities in 2015.

- We are expanding enforcement at or near freight hubs through several mechanisms:
  - First, ARB is reassigning existing personnel to assist with these focused enforcement efforts and continuing to seek additional air district and port partners that can enforce ARB regulations in their jurisdictions.
  - Second, staff will maximize compliance and enforcement efforts at freight hubs by: conducting over 50 percent of heavy-duty diesel truck inspections at seaports, intermodal railyards, and distribution centers in or near disadvantaged communities.
  - Third, to increase the efficiency of our enforcement of the Statewide Truck and Bus Rule, we are focusing on larger truck fleets and brokers first.
  - And fourth, staff is developing a pilot program to use remote imaging and sensing to identify non-compliant trucks and target them for compliance assistance.

- Through the State-funded incentive programs administered by ARB and the local air districts, we expect that 1,500-1,700 new trucks and other freight equipment will be put into service in 2015. These include zero emission and hybrid trucks, as well as diesel and natural gas trucks, locomotives, and marine vessels that are replacing older, higher-emitting models.

Near-Term ARB Measures. ARB staff has identified a range of measures that we intend to begin developing in 2015-2016 for Board consideration within the next few years (or near-term implementation for steps that do not require Board action). These focus on both cleaner combustion technologies and introduction of zero emission equipment.

Summary of Near-Term ARB Measures

Near-Term ARB Measures	ARB Action	ARB Implementation
Cleaner Combustion		
Trucks		
Trucks Action 1: Develop and propose strategies to ensure durability and in-use performance. Such strategies may include: • Reduced exhaust opacity limits for PM filter-equipped trucks. • New certification and warranty requirements for low in-use emissions. • Strengthen existing emission warranty information reporting and enable corrective action based on high warranty repair rates. • Clarification on the State's authority to inspect heavy-duty warranty repair facilities to ensure proper emission warranty repairs are being conducted.	2015-2017	2017+
Trucks Action 2: Develop and propose increasing flexibility for manufacturers to certify advanced innovative truck engine and vehicle systems in heavy-duty applications. Enables accelerated introduction of new technologies to market.	2015	2016
Trucks Action 3: Develop and propose new, stringent California Phase 2 GHG requirements to reduce emissions from trucks and trailers, and provide fuel savings.	2016-2017	2018+
Trucks Action 4: Petition U.S. EPA to develop lower NOx standards for new heavy-duty truck engines for rulemaking in 2018.	2015	--
Trucks Action 5: (if U.S. EPA does not complete Trucks Action 4): Develop and propose California specific standards for new heavy-duty truck engines to provide benefits above national standards.	2018	2023+
Ocean-Going Vessels		
Ocean-Going Vessels Action 1: Advocate with international partners for new International Maritime Organization Tier 4 NOx/PM standards, and efficiency targets for existing vessels in Ship Energy Efficiency Management Plans for International Maritime Organization action 2018-2020.	2015	--
Ocean-Going Vessels Action 2: Define criteria for "Super Low Emission Efficient Ship" and achieve early implementation of clean technologies (liquefied natural gas, Tier 3, or better) for newer vessels via existing and enhanced seaport incentive programs (e.g. Green Ship, Ship Index, etc.).	2016	2018
Ocean-Going Vessels Action 3: Develop and propose amendments to the At-Berth Regulation to include other vessel fleets and types to achieve additional emission reductions.	2016	2020+

Summary of Near-Term ARB Measures, continued

Near-Term ARB Measures	ARB Action	ARB Implementation
Locomotives		
Locomotives Action 1: Petition U.S. EPA to develop a Tier 5 national locomotive emissions standard for criteria pollutants and GHG (based on aftertreatment, liquefied natural gas, and/or zero emission track miles) for rulemaking in 2018 and introduction in 2025 and beyond.	2015	--
Locomotives Action 2: Petition U.S. EPA to amend its regulations that define a preempted "new" locomotive engine for rulemaking in 2017. The desired outcome is to limit federal preemption to the initial useful life (typically seven to ten years) of the locomotive engine.	2015	--
Locomotives Action 3 (contingent on Locomotives Action 2): Develop and propose a regulation applicable to all non-new locomotives to maximize the use of Tier 4 engines, liquefied natural gas, or better line-haul, medium horsepower, and switch locomotives (provide credit for zero emission track miles and zero emission locomotives).	2018	2020-2030
All sectors/freight hubs		
All sectors/freight hubs: Collect data (such as facility location, equipment, activity, and proximity to sensitive receptors) from seaports, airports, railyards, warehouse and distribution centers, truck stops, etc. to identify and support proposal of facility-based approach and/or sector-specific actions to reduce emissions and health risk, as well as efficiency improvements.	2015	2015-2016
Zero Emissions		
Delivery Vans/Small Trucks: Develop proposal to accelerate penetration of zero emission trucks in last mile freight delivery applications, with potential incentive support.	2017	2020
Large Spark-Ignition Equipment (forklifts, etc): Develop proposal to establish purchase requirements to support broad scale deployment of zero emissions equipment.	2016-2018	2020
Transit Buses: Develop proposal to deploy commercially available zero emission buses in transit, and other applications, beginning with incentives for pilot programs and expanding purchase requirements, as appropriate, to further support market development of zero emission technologies in the heavy-duty sector with potential incentive support.	2016	2018
Airport Shuttles: Develop proposal to deploy zero emission airport shuttles to further support market development of zero emission technologies in the heavy-duty sector, with potential incentive support.	2017-2018	2020
Transport Refrigeration Units: Develop and propose a regulatory requirement to prohibit the use of fossil-fueled transport refrigeration units for cold storage in phases, with incentive support for infrastructure.	2016	2020+
Incentive programs: Develop modifications to existing incentive programs to increase the emphasis on and support for zero and near-zero equipment used in freight operations, including introduction of truck engines certified to optional low-NOx standards.	2015-2016	2016-2020

Vision for the Future

Although the time horizon to commercialize and introduce zero emission technology may be long-term for some equipment categories and applications, the potential levers that ARB could exercise to accelerate that introduction cover the time spectrum from 2015 through the next several decades. They also include actions to achieve interim progress through use of near-zero emission technologies powered by low-carbon energy sources.

The report includes summary tables that describe the prospects to accelerate progress toward zero emissions for trucks, ocean-going vessels, locomotives, transport refrigeration units, cargo/industrial/ground service equipment, commercial harbor craft, and aircraft. These tables reflect ARB staff's current vision for each equipment category, list key challenges to the development and widespread deployment of zero and near-zero emission technologies, and identify potential levers available to ARB.

After the April 2015 Board meeting, ARB staff will further evaluate and develop, as appropriate, a subset of the potential levers identified in this section in partnership with other agencies and in consultation with stakeholders. These may become additional near-term measures, or new mid-term measures, that support the State Implementation Plan, the Climate Change Scoping Plan, and other efforts.

Additional Approaches to Support System Transformation and Efficiency

In addition to the specific ARB levers and actions discussed above, the report discusses other approaches for the freight industry to reduce emissions, through a facility-based emissions cap, use of land use and transportation planning mechanisms, and systemwide efficiency improvements.

Next Steps

This report is an outline of the initial steps ARB intends to take to achieve a zero and near-zero emissions freight system. We will be working with our State, local, and federal agency partners on the Sustainable Freight Strategy, in consultation with all interested stakeholders over the next year. ARB staff expects to bring a proposal to the Board for consideration in the first half of 2016 that includes the strategies, as well as the required environmental and economic analyses.

Work is also underway on the development of State Implementation Plans and the Climate Change Scoping Plan that will draw from the immediate actions and near-term measures described in this report, as well as additional measures (regulatory or voluntary) and partnerships to be identified in the Sustainable Freight Strategy. This document and the Sustainable Freight Strategy are part of a comprehensive step-wise planning and implementation effort to meet the State's multiple environmental and public heath goals.

Following public comment and Board direction at its April 23, 2015 meeting, staff will finalize this report and focus on the integrated Sustainable Freight Strategy. The full Strategy will include additional measures to reduce emissions to meet the State Implementation Plan and Climate Change Scoping Plan needs as well as other objectives. We expect to provide an update to the Board in late 2015 on both the near-term ARB actions and planning underway. Staff anticipates bringing a proposed Sustainable Freight Strategy to the Board for consideration in the first half of 2016.

I. Background

This section provides background on the framework of the freight system, air pollutant emissions and health impacts, and our air quality and climate goals.

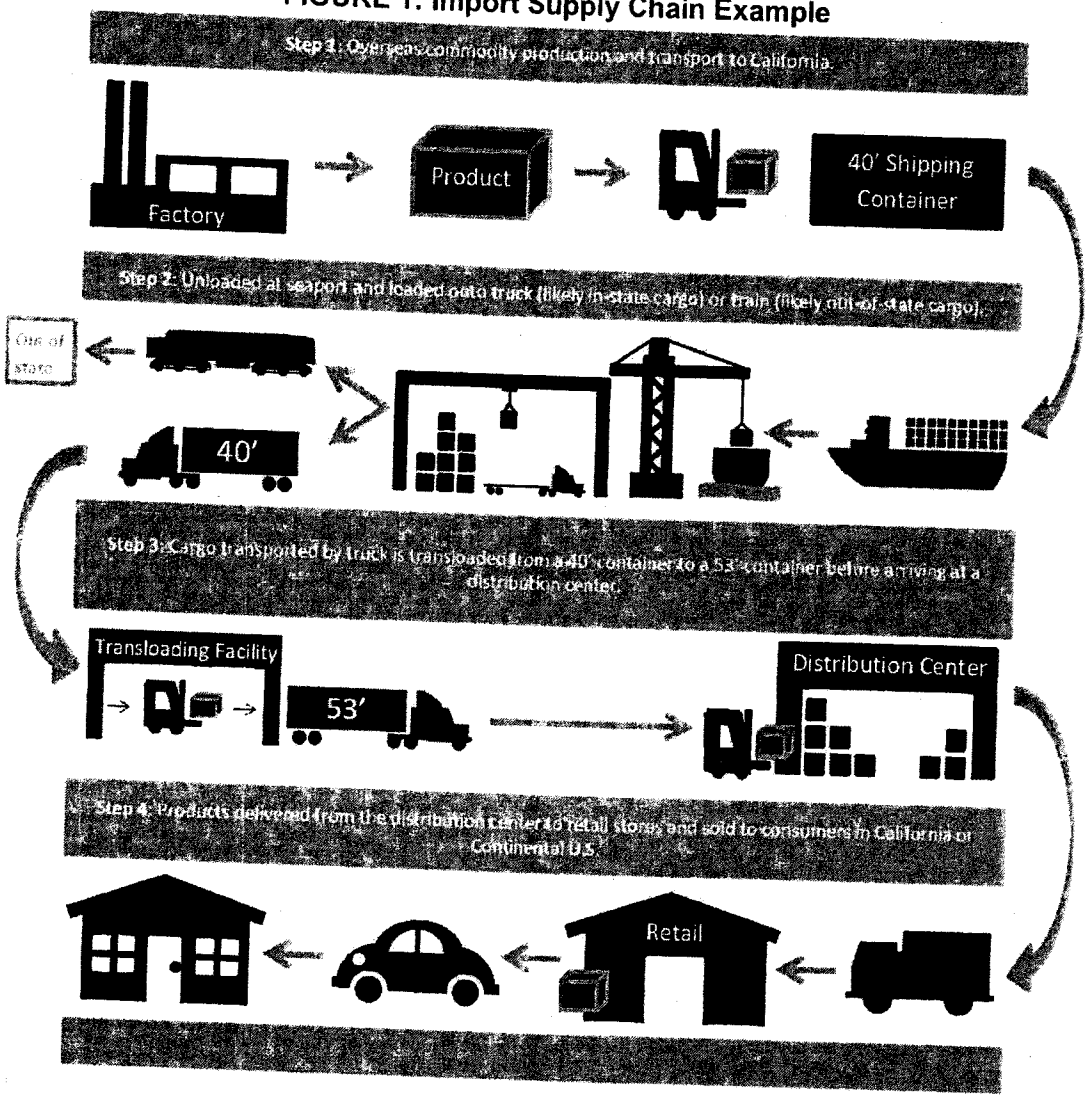
A. Freight Transport System

The smooth functioning of California's freight transport system depends on the interactions between equipment, infrastructure, and facilities. The vehicles and equipment that move freight range from aircraft and ocean-going vessels for international transport, to locomotives and trucks for interstate transport, and smaller trucks/vans and harborcraft for in-state operations. A wide variety of cargo handling, industrial, and ground service equipment is used at freight hubs like seaports, railyards, airports, distribution centers, warehouses, and truck stops. Also, moving perishable products requires transport refrigeration units to provide the necessary cooling.

We consider all of the freight hubs to be freight facilities, along with the network of roads, land ports of entry (border crossings), railways, and waterways that provide the transportation infrastructure.

For illustrative purposes, Figure 1 shows the key steps in one example of an import supply chain for an international product purchased at a retail location by a consumer. It is a simplistic depiction of the transport modes, equipment, and facilities often used to move imports from the manufacturer to the destination market, whether in California or elsewhere in the U.S.

FIGURE 1: Import Supply Chain Example



California's economy is supported by commerce and trade-related activities that rely on a complex freight transport system. In 2013, California's $2.2 trillion economy was the world's eighth largest, as measured by gross domestic product, the value of all goods and services produced in the State. California also accounted for 13 percent of the nation's gross domestic product ($16.8 trillion) in 2013, while accounting for 12 percent of the population.[1,2,3] California's diverse economy and prosperity are tied to the export

[1] United States Department of Commerce, Bureau of Economic Analysis, "Current-Dollar and 'Real' Gross Domestic Product," January 2015, <http://bea.gov/national/xls/gdplev.xls>, accessed March 17, 2015.
[2] United States Department of Commerce, Bureau of Economic Analysis, "Widespread but Slower Growth in 2013: Advance 2013 and Revised 1997–2012 Statistics of GDP

and import of freight moving throughout the State, and are dependent on an integrated freight transport system.

Freight-dependent industries are defined in this report as those industries where freight transport is of high-level importance to their operations. These industries rely heavily on the transport of raw materials, intermediate goods, and finished products. They also typically include transportation, warehousing and utilities, wholesale and retail trade, manufacturing, agriculture, and mining. Freight-dependent industries accounted for over $700 billion or 32 percent of the California economy in 2013, and over 5 million or 33 percent of California jobs.

Job metrics are frequently used to measure the economic impacts of transportation. Determining the number of freight-transportation related jobs requires identifying industries that are interlinked with the freight transport system; a narrow application would only include jobs that are directly affected by freight. However, considering the extensive supply-chain activities that the freight transport system connects, it is reasonable to include industries that are freight-dependent in job calculations. This approach is consistent with recent reports prepared for California agencies.

Throughout the freight transport system, jobs are created in the manufacturing, retailing, wholesaling, construction, transportation, and warehousing sectors. The freight transport system is also interlinked with regional and national economies. Understanding the relationships between the freight transport system, economic indicators (including employment, number of establishments, and gross state product), and funding needs is critical.

B. Emissions

The engines that move freight in California contribute to our primary air pollutants. In response, ARB and its partners have motivated and required extensive changes across the State focused on the use of cleaner technologies. Industry has made substantial investments to transition its mostly diesel-fueled freight equipment to cleaner models, while refineries retooled to produce cleaner fuels.

ARB has adopted and implemented over a dozen regulations, as well as agreements with industry and incentive programs, to reduce freight emissions. We are seeing the real-world benefits of those investments—measurably cleaner air in communities near seaports, railyards, and freeways. Since 2005, the Port of Los Angeles and Port of Long Beach have achieved an 80 percent reduction in diesel PM emissions based on

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by State," June 11, 2014, <http://bea.gov/newsreleases/regional/gdp_state/2014/pdf/gsp0614.pdf.>, accessed March 18, 2015.

[3] The World Bank, "GDP (current US$)," 2015, http://data.worldbank.org/indicator/NY.GDP.MKTP.CD?order=wbapi_data_value_2012+wbapi_data_value&sort=desc, accessed March 18, 2015.

ARB rules and port initiatives. Figures 2-5 show how these regulations and investments have cut statewide freight emissions of NOx, sulfur oxides (SOx), particulate matter 2.5 microns or less in diameter (PM2.5), GHG, and the expected future reductions.

FIGURE 2: Statewide NOx Emissions from Freight Sources
(tons per day)

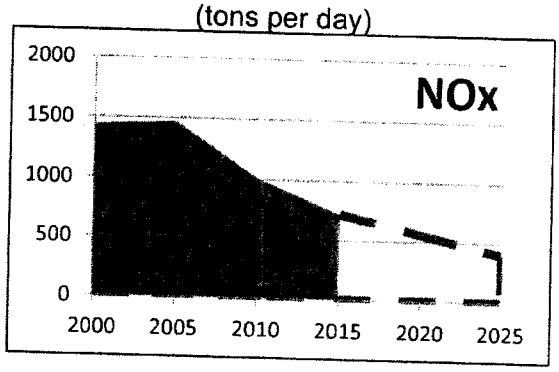


FIGURE 3: Statewide SOx Emissions from Freight Sources
(tons per day)

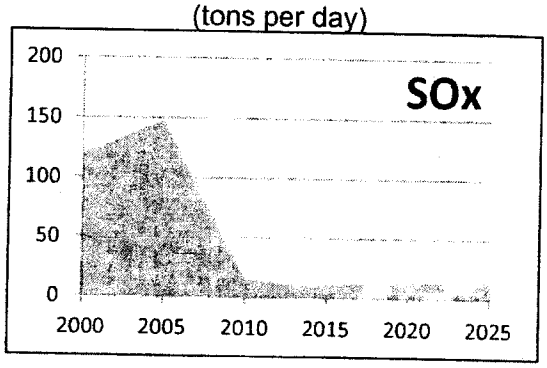


FIGURE 4: Statewide PM2.5 Emissions from Freight Sources
(tons per day)

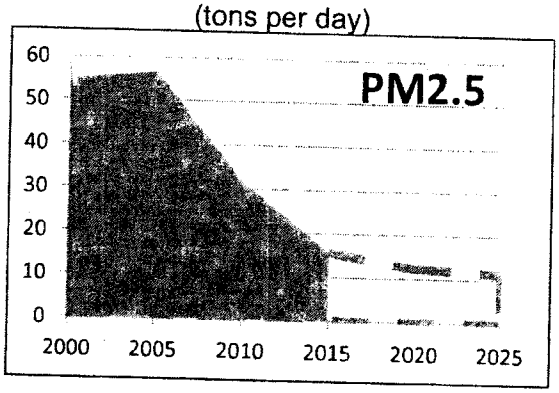
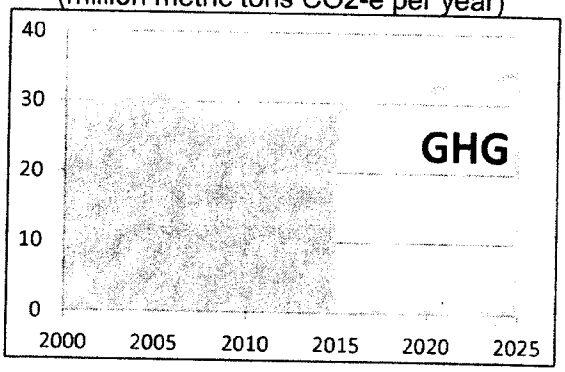


FIGURE 5: Statewide GHG Emissions from Freight Sources
(million metric tons CO2-e per year)

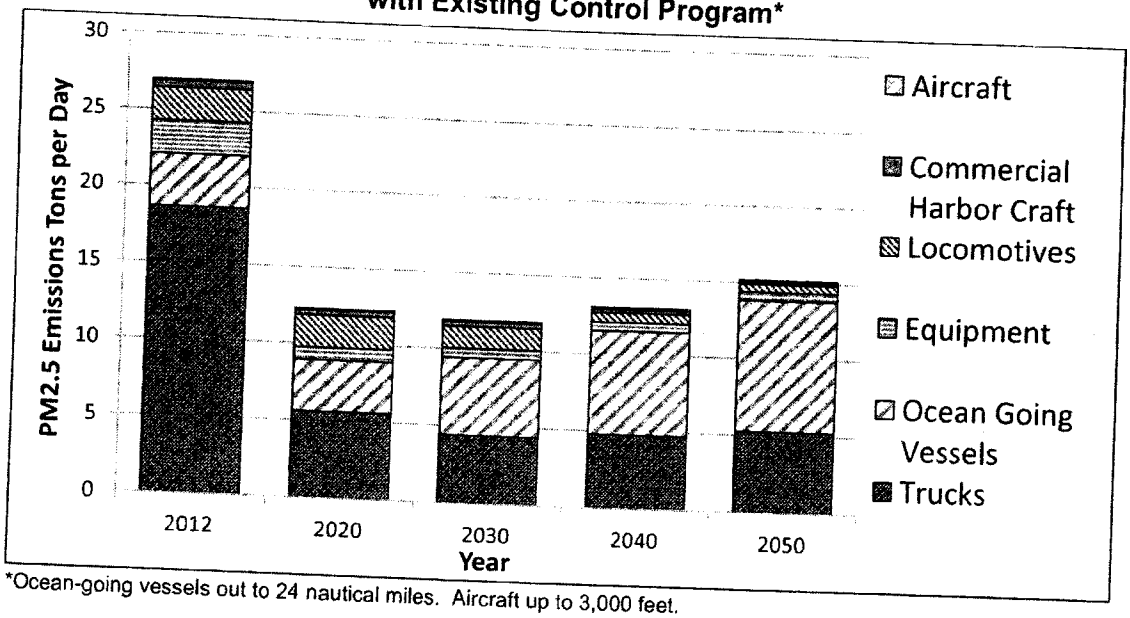


Despite the progress made, freight transport emissions remain a large contributor to air pollution. Freight equipment currently accounts for about half of the statewide diesel PM emissions, which are both a toxic air contaminant and a contributor to black carbon, a powerful short-lived climate pollutant. Freight operations also account for approximately 45 percent of the statewide NOx emissions and six percent of the statewide GHG emissions.

Looking ahead, emissions from some categories, like trucks, continue to decline over the next decade as adopted controls are fully implemented, then begin to increase as growth in activity overcomes the benefits of the existing controls. For other categories like ships and aircraft, that are subject to fewer controls, the emissions continue to steadily grow. Appendix A provides additional information regarding emissions and growth assumptions.

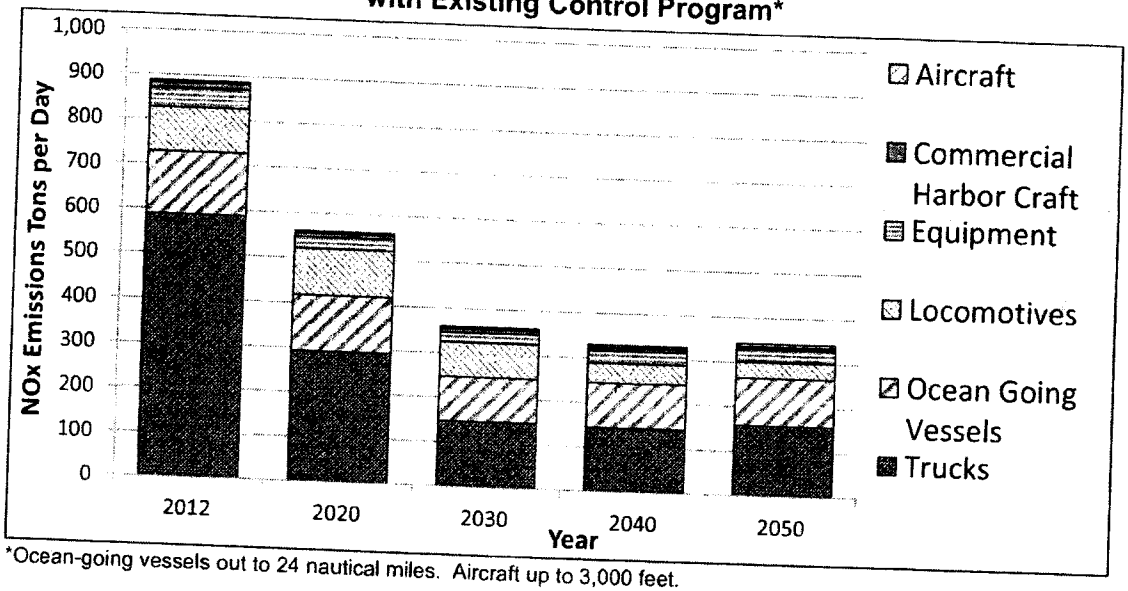
Figures 6 and 7 show projected statewide PM2.5 and NOx emissions by sector from 2012 through 2050. Projected emissions reflect anticipated increases in cargo activity, along with the benefits of existing control programs. Eventually, growth in freight activity overcomes the benefits of adopted controls. The single largest contributor in 2012 is the trucking sector. In later years after implementation of the existing truck regulations is complete, the ocean-going vessel sector replaces it as the largest contributor.

FIGURE 6: Statewide PM2.5 Emissions from Freight Sources with Existing Control Program*



*Ocean-going vessels out to 24 nautical miles. Aircraft up to 3,000 feet.

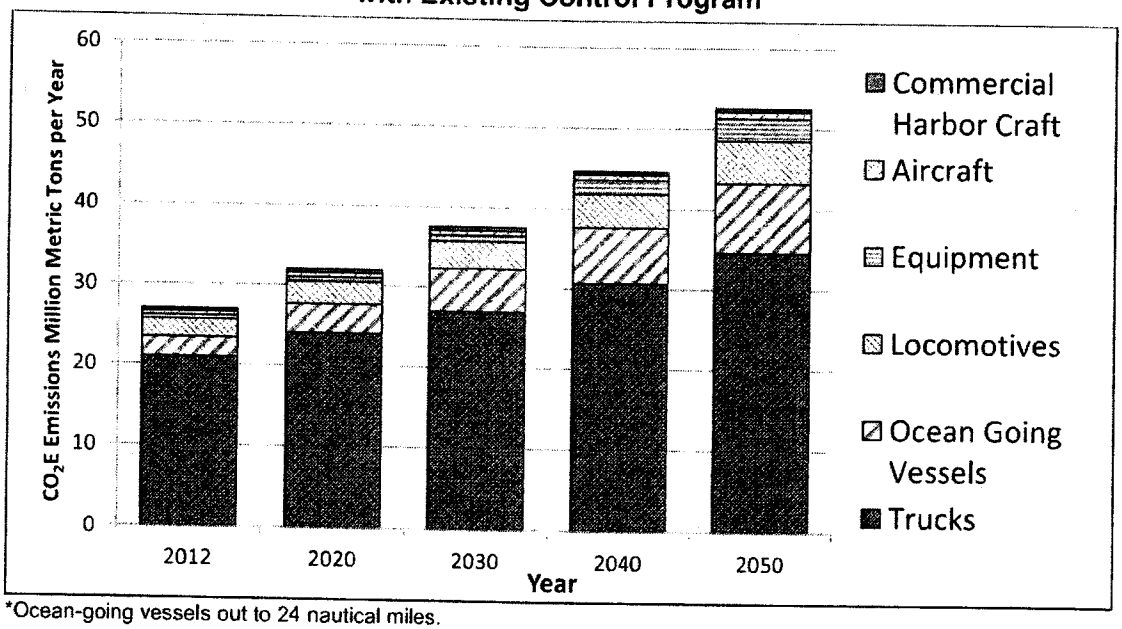
FIGURE 7: Statewide NOx Emissions from Freight Sources with Existing Control Program*



*Ocean-going vessels out to 24 nautical miles. Aircraft up to 3,000 feet.

Figure 8 reflects increasing GHG emissions by sector through 2050. Unlike other pollutants, total freight GHG emissions continually increase because existing control strategies for this industry have primarily focused on reducing toxic and criteria pollutants. The largest contributors are the trucks, ocean-going vessels, and locomotives sectors. Existing programs targeted at reducing GHG from the trucking sector include the federal Phase I rule for trucks and ARB's Tractor-Trailer GHG Reduction Regulation. Development of federal and California-specific Phase 2 GHG rules are underway; both aim to achieve further reductions after 2018. ARB's shorepower regulation for ships at berth is eliminating GHGs and other pollutants through the use of grid-based electrical power.

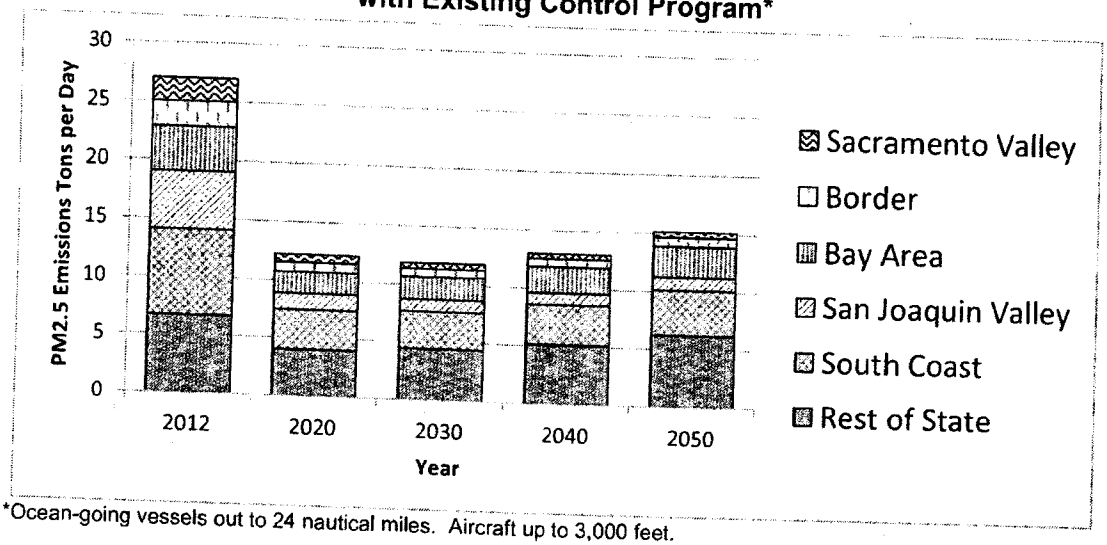
FIGURE 8: Statewide GHG Emissions from Freight Sources with Existing Control Program*



*Ocean-going vessels out to 24 nautical miles.

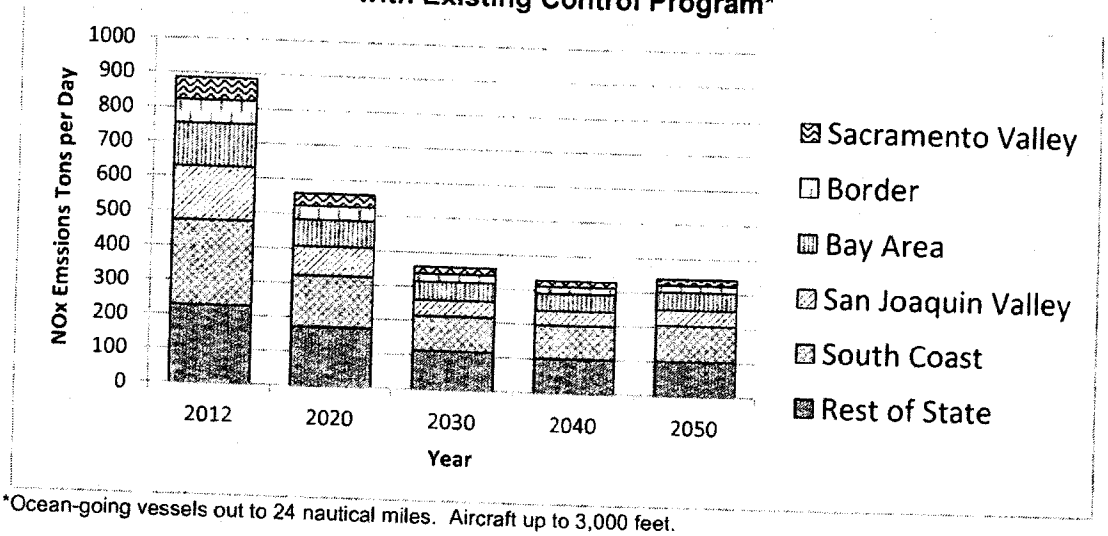
Figures 9 and 10 show PM2.5 and NOx emissions for major freight corridors. Both pollutants show dramatic near-term reductions with longer-term increases as growth in cargo activity overcomes the benefits of adopted controls. All areas of California experience benefits from reduced PM2.5 emissions and the associated health risk. Current control programs will reduce NOx and PM2.5emissions by over 50 percent by 2030. However, meeting federal ozone and PM2.5 standards in the South Coast and San Joaquin Valley will require significant further reductions over the next fifteen years. This includes meeting the 80 parts per billion 8-hour ozone standard by 2023, and the 75 parts per billion 8-hour ozone standard by 2031, as well as the 12 micrograms per cubic meter annual PM2.5 standard by 2021 to 2025. Efforts to achieve further near-term emission reductions are essential in meeting these air quality standards.

FIGURE 9: Regional PM2.5 Emissions from Freight Sources with Existing Control Program*



*Ocean-going vessels out to 24 nautical miles. Aircraft up to 3,000 feet.

FIGURE 10: Regional NOx Emissions from Freight Sources with Existing Control Program*



*Ocean-going vessels out to 24 nautical miles. Aircraft up to 3,000 feet.

C. Health Impacts

The emissions from the heavy equipment that transports freight within and through California contributes to both elevated ambient levels of criteria pollutants such as PM2.5 and ozone, as well as localized impacts near freight hubs and facilities. This section summarizes our current understanding of the effect of freight emissions on both the statewide health effects and valuation due to ambient PM2.5 levels, as well as the excess cancer risk from near-source exposure to PM2.5.

1. Statewide Health Impacts

The estimation of premature deaths, hospitalizations, and emergency room visits related to PM2.5 exposure presented below is based on a peer-reviewed methodology developed by the U.S. Environmental Protection Agency (U.S. EPA), updated with observed relationships between emissions and exposure, and California-specific demographic and baseline health incidence rate data.[4] Table 2 shows the premature deaths, hospitalizations, and emergency room visits associated with freight emissions of both primary PM2.5 and secondary PM2.5 (particle nitrates formed from photochemical reactions of the precursor NOx).

ARB staff updated its estimates of the health impacts from ambient PM2.5 pollution attributable to direct PM and NOx emissions from freight sources in each region of California. These estimates do not include the health impacts of ozone pollution from freight emissions, or the component of PM2.5 due to secondary sulfate from freight emissions.

Freight emissions also contribute to ozone formation in California. Because ozone formation is a complex, non-linear process, photochemical modeling of freight-related emissions is needed in order to estimate the health impacts associated with ozone exposure. This modeling is planned for the summer of 2015, and the health impacts of freight-related ozone exposure will be estimated at that time. Ozone-related premature deaths are likely to be relatively small compared to those associated with freight-related PM2.5 exposures because of the approximately order of magnitude lower concentration-response function for ozone, while hospitalizations are expected to be higher.

Emissions for SOx from freight sources are another contributor to secondary PM2.5 (particle sulfates). However, freight-related sulfate formation is expected to be relatively low because of the successful implementation of low-sulfur fuels throughout the California freight transport system. It was not possible to establish a relationship between SOx emissions and sulfate formation because of the relatively high contribution of poorly quantified non-local sources such as intercontinental transport and biogenic formation.

The health endpoints selected are the same as those used by the U.S. EPA Quantitative Risk Assessment for Particulate Matter as part of the National Ambient Air Quality Standard setting process.[5] U.S. EPA chose premature deaths, hospitalizations, and asthma and respiratory emergency room visits as endpoints. These endpoints were chosen because the U.S. EPA has determined that a variety of studies have

[4] ARB, "Initial Statement of Reasons, Appendix J, Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants from In-Use Heavy-Duty Diesel-Fueled Vehicles," 2010.
[5] U.S. EPA, "Quantitative Health Risk Assessment for Particulate Matter - Final Report Publication No. EPA-452/R-10-005," 2010.

shown evidence that there is a causal relationship between these end points and PM2.5. Additionally, such studies, along with baseline incidence rates allow the calculation of quantitative health risk estimates.

ARB staff used a methodology that relates the observed association between emissions and pollutant concentrations to quantify health benefits. This method is similar in concept to the methodology developed by the U.S. EPA for health benefit estimation with the addition of California-specific population and health incidence rates.[6] Details of ARB's methodology can be found in *Appendix J of the Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and other Criteria Pollutants from In-Use Heavy-Duty Diesel-Fueled Vehicles.*[7]

a. Economic Valuation of Health Impacts

The economic valuation associated with health impacts discussed here is high. Over 99 percent of the economic impact is from premature death. U.S. EPA established the value of mortality risk reduction as $7.4 million in 2006 dollars. Adjusted for real income and inflation, the value of mortality risk reduction is equivalent to $8.9 million in 2013 dollars. Table 3 lists the economic value of avoiding the adverse health impacts associated with freight emissions in 2013 dollars. The value of mortality risk reduction is based on contingent valuation and wage-risk studies, which examine the willingness to pay for a minor decrease in the risk of premature death. As real income increases, people are willing to pay more to reduce their risk of premature death.

The economic values of respiratory and cardiovascular hospitalizations were drawn from Chestnut, et al. (2006).[8] The authors of this study estimated the value of reducing hospitalizations based on cost of illness and willingness to pay. The economic value of emergency room visits for asthma was drawn from the U.S. EPA's 2011 Regulatory Impact Assessment for Ozone and PM2.5.[9] The values were adjusted for inflation to 2013 dollars using the U.S. Bureau of Labor Statistics Consumer Price Index for medical care.

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[6] Neal Fann, Charles M. Fulcher, and Bryan J. Hubbell. "The influence of location, source, and emission type in estimates of the human health benefits of reducing a ton of air pollution," *Air Quality, Atmosphere and Health,* Vol 2, 2009, pp. 169–176.
[7] ARB, "Initial Statement of Reasons, Appendix J, Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants from In-Use Heavy-Duty Diesel-Fueled Vehicles," 2010.
[8] Lauraine G. Chestnut, Mark A. Thayer, Jeffery K. Lazo, ad Stephen K. Van Den Eeden, "The Economic Value of Preventing Respiratory and Cardiovascular Hospitalizations," *Contemporary Economic Policy*, Vol. 24, 2006, pp. 127–143.
[9] U.S. EPA, "Regulatory Impact Analysis for the Federal Implementation Plans to Reduce Interstate Transport of Fine Particulate Matter and Ozone in 27 States; Correction of SIP Approvals for 22 States Publication No. EPA-HQ-OAR-2009-0491," 2011.

TABLE 1: Statewide Health Effects and Valuation (2013 $) Associated with Freight Emissions Contributing to PM2.5—Midpoint Projections

	2012	2030	2050
Mortality	2,200	980	1,100
Hospitalizations*	330	150	160
ER Visits†	950	420	450
Valuation (billions)	$20	$9	$10

* Include respiratory and cardiovascular hospitalizations
† Includes asthma and cardiovascular emergency room visits

TABLE 2: Statewide Health Effects and Valuation (2013 $) Associated with Freight Emissions Contributing to PM2.5—Uncertainty Ranges**

PM2.5 and NOx	2012	2030	2050
Mortality	1,700-2,700	770-1,200	830-1,300
Hospitalizations*	43-770	19-340	20-370
ER Visits†	600-1,300	260-570	280-620
Valuation (billions)	$16-$24	$7-$11	$7-$12

* Include respiratory and cardiovascular hospitalizations
**Uncertainty ranges only reflect uncertainty in the concentration-response function, and do not reflect uncertainty in emission projections, spatial interpolation, and aggregation.
† Includes asthma and cardiovascular emergency room visits

2. Localized Cancer Risks near Freight Hubs

The diesel equipment operating in and around freight hubs, such as seaports, railyards, and warehouse and distribution centers, is a significant source of diesel PM, a toxic air contaminant that can cause cancer and other health problems, including respiratory illnesses, increased risk of heart disease, and premature death. Exposure to diesel PM is a health hazard, particularly to children whose lungs are still developing and the elderly, who may have other serious health problems.

The diesel PM emissions from freight operations impact communities located adjacent to those operations, as well as residents living miles away. Between 2004 and 2008, ARB staff conducted health risk assessments of 18 major railyards throughout the State,[10] the Ports of Los Angeles and Long Beach,[11] and West Oakland.[12] The railyard health risk assessments examined the increased cancer risk zones due to diesel PM emissions from locomotives, cranes, and yard equipment within facility boundaries as

[10] ARB, Railyard Health Risk Assessments and Mitigation Measures, 2004-2009, <http://www.arb.ca.gov/railyard/hra/hra.htm>.
[11] ARB, "Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach," 2006, <http://www.arb.ca.gov/ports/marinevess/documents/portstudy0406.pdf>.
[12] ARB, "Diesel Particulate Matter Health Risk Assessment for the West Oakland Community," 2008, <http://www.arb.ca.gov/ch/communities/ra/westoakland/documents/westoaklandreport.pdf>.

well as on/off site emissions from heavy-duty diesel trucks. The port assessments analyzed at berth and in transit emissions from marine vessels and harbor craft, on-site equipment, and trucks and locomotives serving the ports. The ports and railroads provided extensive data on their activities, and the Bay Area Air Quality Management District partnered with ARB on the West Oakland assessment.

These risk assessments were based on emissions that existed as of 2000 (for the Roseville Railyard), 2002 (for the Ports of Los Angeles and Long Beach), or 2005 (for all other facilities) using the 2003 State guidance on health risk assessments developed by the Office of Environmental Health Hazard Assessment. The results summarized below do not represent the much lower emission levels present today after implementation of extensive regulatory and incentive programs, as well as port and railroad initiatives.

a. Port of Los Angeles and Port of Long Beach

In 2002, diesel PM emissions from activities associated with the Ports of Los Angeles and Long Beach resulted in elevated cancer risk levels over the entire 20-mile by 20-mile study area. In neighborhoods near the Ports' boundaries, potential cancer risk levels exceeded 500 in a million in 2002. Further away, the potential cancer risk levels decreased but continued to exceed 50 in a million for more than 15 miles. Ships and drayage trucks operating in communities near the Ports were the largest contributors to cancer risk.

Based on implementation of ARB and Port requirements for drayage trucks, ships, cargo equipment, harbor craft, and locomotives, we expect that the emission reductions achieved since the original ARB risk assessment for 2002 would result in a 50-75 percent reduction in cancer risk by 2020. The Ports publish updates of their emission inventories on an annual basis which show an 80 percent reduction in diesel PM from 2005 levels.[13,14]

b. 18 Major Railyards

For the 18 major railyards, the potential maximum individual cancer risk a decade ago was estimated to range between 40-2,500 chances per million for residents living nearby. The greatest risks were associated with the BNSF San Bernardino Railyard because of its high levels of locomotive and truck activity and the many densely populated neighborhoods that surround the Railyard. The cluster of four railyards (Union Pacific Commerce, BNSF Hobart, BNSF Mechanical Sheila, and BNSF Commerce Eastern) operating in the densely populated Commerce area also resulted in high combined cancer risks.

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[13] Starcrest Consulting Group LLC., "Port of Los Angeles Inventory of Air Emissions – 2013," 2014, <http://www.portoflosangeles.org/pdf/2013_Air_Emissions_Inventory_Full_Report.pdf>.

[14] Starcrest Consulting Group, LLC, "Port of Long Beach Air Emissions Inventory – 2013," 2014, <http://www.polb.com/civica/filebank/blobdload.asp?BlobID=12238>.

In July 2011, ARB published updated cancer risk estimates for the four highest risk railyards in Southern California – BNSF San Bernardino, Union Pacific Intermodal Container Terminal Facility/Dolores, BNSF Hobart, and Union Pacific Commerce.[15] In that report, we used updated emissions and activity data to estimate the change in cancer risk from 2005 to 2010. All four yards showed a substantial drop in risk, from 40 to over 70 percent due to the introduction of much cleaner trucks, locomotives, equipment, and fuel in this period. These changes resulted from the combination of ARB regulations, two enforceable agreements between the Class I railroads (BNSF and Union Pacific) and ARB, and incentives.

International cargo activity was lower in 2010 than in 2005 at the BNSF San Bernardino, BSNF Hobart, and Union Pacific Intermodal Container Terminal Facility/Dolores railyards due to the recession, enhancing the significant risk reductions of 60-70 percent. However, Union Pacific Commerce experienced a steady increase in domestic cargo activity from 2005 through 2010, but still achieved a net 40 percent reduction in cancer risk.

c. Community of West Oakland

The health risk assessment for West Oakland was the most complex and provides information about how a neighborhood experiences pollution from multiple freight facilities and operations. It included the broadest scope of facilities and sources—the Port of Oakland, two railyards and four surrounding freeways. Residents of West Oakland experienced elevated levels of cancer risk estimated at 10-1,200 per million in 2005. High diesel truck traffic from the freeways was the dominant source of risk, followed by the activities at the Port.

Based on changes in emissions attributable to compliance with ARB regulations for drayage trucks, ships, cargo equipment, and harbor craft, we would expect that the contribution from the Port of Oakland has decreased by roughly 70 percent.[16] Diesel PM emissions from trucks on the surrounding freeways are dropping steadily as the statewide Truck and Bus Regulation results in use of diesel particulate filters throughout the fleet.

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[15] ARB, "Supplement to the June 2010 Staff Report on Proposed Actions to Further Reduce Diesel Particulate Matter at High-Priority California Railyards," 2011, <http://www.arb.ca.gov/railyard/commitments/suppcomceqa070511.pdf>.

[16] Environ International, "Port of Oakland 2012 Seaport Air Emissions Inventory," 2013, <http://www.portofoakland.com/pdf/environment/maqip_emissions_inventory.pdf>.

3. Changes in Methodology to Estimate Localized Health Risks

In March 2015, the Office of Environmental Health Hazard Assessment released an update to its recommended methodology for conducting health risk assessments in California.[17] In the last decade, advances in science have shown that early-life exposures to air toxics contribute to an increased lifetime risk of developing cancer, or other adverse health effects, compared to exposures that occur in adulthood. The new risk assessment methodology addresses this greater sensitivity and incorporates the most recent data on childhood and adult exposure to air toxics.

In addition, the new methodology relies on U.S. EPA's current air dispersion model (AERMOD) to estimate the concentration of the modeled pollutant at a specific location. In 2006, AERMOD replaced the Industrial Source Complex Model.

For many facilities, use of the new risk assessment methodology and air dispersion model will result in higher pollutant concentrations, higher exposures, and higher estimated potential cancer risks than would have been calculated with the prior (2003) methodology—for the same level of emissions. The potential inhalation cancer risk using the new methodology may be 1.5 to three times (or more) higher than was estimated using the 2003 methodology.

ARB has not yet conducted health risk assessments for freight facilities using the new methodology, but will use the new methodologies for future health risk assessments.

D. Air Quality and Climate Goals

California's efforts to reduce the air quality and climate impacts from freight transport must help address a number of challenges throughout the State:

Reducing exposure to air toxics:

- Minimizing near-source exposure and health risk from identified toxic air contaminants, including diesel PM and other toxics produced by fuel combustion in freight-related vehicles and equipment pursuant to the Toxic Air Contaminant Identification and Control Act (AB 1807, Tanner, Chapter 1047, Statutes of 1983).
- New information on the sensitivity of children to air toxics exposure early in life further heightens this need to further reduce the exposure and health risk from freight operations.

[17] Office of Environmental Health Hazard Assessment, "Air Toxics Hot Spot Program: Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments," 2015, <http://www.oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf>.

Federal and California air quality standards:

- Attaining the National Ambient Air Quality Standards for ozone and particulate matter in all regions of California, as required by the Federal Clean Air Act:
    - Current control programs will reduce NOx and PM2.5 emissions over 50 percent by 2030. However, meeting federal ozone and PM2.5 standards in the South Coast and San Joaquin Valley will require significant further reductions over the next fifteen years. This includes meeting the 80 parts per billion (ppb) 8-hour ozone standard by 2023, and the 75 ppb 8-hour ozone standard by 2031, and the 12 micrograms per cubic meter annual PM2.5 standard by 2021 to 2025. Further near-term emission reductions are essential in meeting these air quality standards.
    - Meeting the newly proposed federal ozone standard will be even more challenging to attain than the 2031 standard.

- California's own ambient air quality standards set by ARB are generally more stringent than the current federal standards; many areas of the State do not attain these standards.

Climate goals:

- Meeting the State's greenhouse gas reduction targets and related climate goals:
    - Assembly Bill 32 (Núñez, Chapter 488, Statutes of 2006), which requires California to cut GHG emissions back to 1990 levels by 2020, and continue and maintain reductions post-2020.
    - Governor Brown's Executive Order B-16-2012, which requires transportation GHG emissions to be reduced 80 percent below 1990 levels by 2050.
    - Governor Brown's energy goals outlined in his 2015 inaugural address, which include reducing petroleum use by cars and trucks by up to 50 percent.
    - State statute that requires ARB to develop and implement a plan to reduce emissions of short-lived climate pollutants, including black carbon (Senate Bill 605 (Lara, Chapter 523, Statutes of 2014).

80. TRANS. 12
MM TRAN – 1a
(Interchange at I-10 eastbound and westbound ramp at Cherry Valley Blvd)

(a) Prior to the issuance of any building permit, the project applicant shall pay the project's fair share contribution toward the construction of a future new interchange at the I-10 eastbound and westbound intersections at Cherry Valley Boulevard ("interchange") so long as a fair share contribution program has been established that provides full funding for the interchange, and a construction schedule is established for the interchange.

The project's traffic impact report determined the project's contribution to the impact is 5.8 percent at the I-10 eastbound ramps/Cherry Valley Boulevard and 10.1 percent at the I-10 westbound ramps/Cherry Valley Boulevard.

When the project applicant applies for a building permit, the Director of Transportation shall determine whether a fair share contribution program and construction schedule have been established for the interchange. If a fair share contribution program exists, the project applicant shall pay the amount established in the applicable fee program.

(b) In the event the fair share contribution program and construction schedule for the interchange are not established at the time the applicant applies for a building permit, the project applicant shall construct the interim improvements further described below prior to the issuance of any final occupancy permit so long as all of the following occur:

1. The City of Calimesa and the California Department of Transportation authorize construction of the interim improvements; and,
2. At the project applicant's expense, the project applicant secures sufficient title or interest in land for the right-of-way necessary to permit construction of the interim improvements; and,
3. The improvements set forth in Condition of Approval 80. Trans. 13, MM TRAN 1b(b), are required to be constructed.

The project applicant shall negotiate in good faith with the appropriate property owner to obtain the sufficient title of interest in land.

The interim improvements referenced above shall include all of the following:

1. Install traffic signals at I-10 eastbound and westbound ramp intersections at Cherry Valley Boulevard; and,
2. Restripe to provide eastbound and westbound left turn pockets within the existing width of the Cherry Valley Boulevard bridge; and,
3. Add a southbound right turn lane on the off ramp at the intersection of I-10 eastbound ramps at Cherry Valley Boulevard; and,
4. Add a westbound right turn lane at the intersection of I-10 westbound ramps at Cherry Valley Boulevard.

(c) If the above referenced fair share contribution program and construction schedule are not established and the interim improvements are not able to be constructed for the reasons set forth above, the Director of Transportation may waive condition of approval 80 TRANS. 12.

80. TRANS. 13
MM TRAN – 1b
(Realignment of Calimesa Boulevard)

(a) Prior to the issuance of any building permit, the project applicant shall pay the project's fair share costs to realign Calimesa Boulevard approximately 550 feet east of the I-10 westbound ramps and construct an eastbound left turn lane at the intersection of Calimesa Boulevard and Cherry Valley Boulevard so long as a fair share contribution program has been established for a future new interchange at the I-10 eastbound and westbound intersections at Cherry Valley Boulevard ("interchange") that provides full funding for the interchange.

The project's traffic impact report determined the project's contribution to the realignment of Calimesa Boulevard is 11.7 percent.

When the project applicant applies for a building permit, the Director of Transportation shall determine whether the fair share contribution program has been established for the interchange. If a fair share contribution program exists, the project applicant shall pay the amount as determined in the applicable fee program.

(b) If the fair share contribution program for the interchange has not been established at the time the applicant applies for a building permit, the project applicant shall construct the improvements further described below prior to the issuance of any final occupancy permit so long as all of the following occur:

1. The City of Calimesa authorizes construction within its jurisdictional control; and,
2. At the project applicant's expense, the project applicant secures sufficient interest in land which will permit construction of the improvements; and,
3. The improvements set forth in Condition of Approval 80. TRANS 12, MM TRAN 1a(b), are required to be constructed.

The project applicant shall negotiate in good faith with the appropriate property owner to obtain the sufficient interest in land.

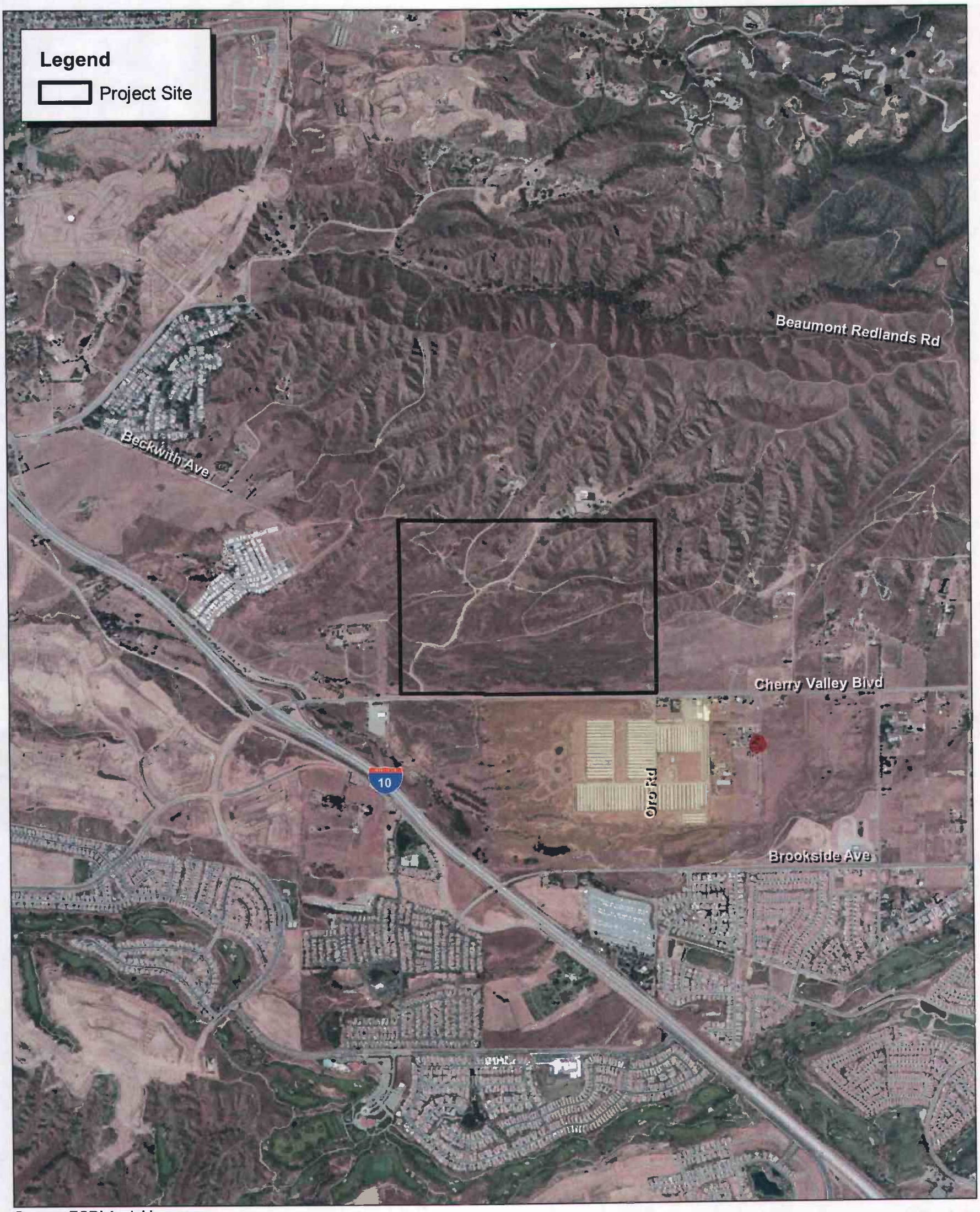
The improvements referenced above shall include all of the following:

1. Realign Calimesa Boulevard approximately 550 feet east of the I-10 westbound ramps; and,
2. Construct an eastbound left turn lane at the intersection of Calimesa Boulevard and Cherry Valley Boulevard.

(c) If the above referenced fair share contribution program is not established and improvements are not able to be constructed for the reasons set forth above, the Director of Transportation may waive condition of approval 80. TRANS. 13.

Finding #13

13. Change of Zone No. 7799 is consistent with the proposed land use designations of Community Development: Light Industrial, Community Development: Public Facilities, Open Space: Recreation and Rural: Rural Mountainous because the General Plan states that the Light Industrial land use designation when development is proposed, allows for a wide variety of industrial and related uses, including assembly and light manufacturing, repair and other service facilities, warehousing, distribution centers and supporting retail uses.



Source: ESRI Aerial Imagery.

NORTH

2,000 1,000 0 2,000

Feet

Michael Brandman Associates

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Exhibit 2
Local Vicinity Map
Aerial Base


Singletree
CV Blvd
Bogart Park
Cherry Valley
Highland Springs
10
Noble Creek Park
Oak Valley Pkwy
Hinda
60
Beaumont
10
10
Banning
79
Google

October 2, 2017

Brett Dawson
Project Manager
County of Riverside
P.O. Box 1409
Riverside, CA92502-1409

Dear Mr. Dawson,

I am writing to you as a concerned resident and business owner in Riverside County, CA. My husband and I relocated our family from Orange County, CA to the Inland Empire over a decade ago. We helped my parents to relocate here from Los Angeles County shortly thereafter. We chose this area because of the wide open spaces, lack of air and noise pollution, proximity to nature, and for the ability to raise our children outside of a big city atmosphere.

I am aware of the proposed plan to build a mega warehouse off of the 10 freeway in Cherry Valley. If you spend some time out here, it will become apparent that this is a special place. On any given day, you see horses, cows, and goats roaming the fields. A healthy population of hawks soar over our skies. You can hear the owls hoot at night. We have bobcat, mountain lion, and coyote. Many of the residents farm chickens and grow their own gardens. At night, the quiet and the dark sky provide a sense of calmness and peace.

These are all things that no longer exist in areas that have been taken over by massive commercial operations. Our relatively calm streets will be inundated with big rig traffic and noise. Our skies will fill with the pollution of thousands of trucks. Our peaceful, beautiful, quaint town will become the gateway for more and more development.

As a business owner, I understand that difficult financial decisions must be made even when they are not popular. So must moral and ethical ones. Riverside is a vast county. Please consider developing in those areas instead. I am humbly asking as a taxpayer and business owner of this county to please consider the detrimental impact this development will have on the citizens and on the future of our town. Leave Cherry Valley wild and rural and beautiful like it has been for generations. Not many children in this county get to grow up in such a special place.

I thank you for your consideration in this very important matter.

Best Regards,

Christine M. McIntyre
9285 Rancho Drive
Cherry Valley, CA 92223

Director of Operations
McIntyre Law Group
166 W. Ramsey Street
Banning, CA 92220

Avery McIntyre, Age 12

Skye McIntyre, Age 11

Dear Mr. Dawson,

My husband and I moved to Cherry Valley 11 years ago when we discovered this hidden little gem. We had never even heard of Cherry Valley before that time. We sold our home in Bellflower, CA to come here and spend the rest of our lives in this quaint, serene, beautiful little country side. We go to bed every night listening to the sound of owls and coyotes howling and look up into the sky at the millions of stars and thank the Lord for giving us this beautiful paradise. We wake up and watch the rabbits graze in our yard, the quail run through, the beautiful birds eating from our feeders and the sound of the wood peckers in our trees. We are in such awe of our home we call Cherry Valley.

We are horrified at the thought of a Mega Warehouse coming in and destroying all that Cherry Valley is, and stands for! How can you even consider this, not to mention Cherry Valley IS TO BE PROTECTED BY LAW FROM BUILDING SUCH!!! WE DO HAVE LAWS AND THIS IS WHY WE HAVE THEM! YOU CAN'T JUST OVERRIDE WHAT THE LAWS STATE AND WHAT THE PEOPLE OF CHERRY VALLEY WANT!!

I could go on and on with many reasons why this should not be here and the impact it would have on all of us. I have brought with me several letters from my neighbors that were not able to come today. They, we, basically all feel the same way. I would like to read some of the letters on their behalf.

Thank you,

Andy & Vicki Zinelis

9174 Bonita Drive, Cherry Valley

951-797-3230

Vicki Zinelis 10/3/17

Letter of Opposition to the Purposed Warehouse Development Project

My name is Jacklin Johnson and I am writing on the behalf of my large family that live in Cherry Valley. My son also bought a house in Cherry Valley because he loved the area he grew up in.

It is hard to believe that anyone would even consider allowing these land speculators and developers to ruin this beautiful area. As a registered voter in Riverside I have to write to tell you that I'm appalled at the idea that our rights would be ignored.

This is a beautiful rural community, there is not a lot left like this in California. The idea is insane, 2 million square-foot warehouses, the pollution alone from the Diesel trucks, the traffic, I could go on and on how this would ruin the environment Air water animal life.

Please do what is right and stand up and help us fight against this plan.

Thank you,
Robert & Jacklin Johnson 9/28/17

9191 Bonita Dr., Cherry Valley,
Ca, 92223

Jacklin Johnson

951-330-1992

October 2, 2017

County of Riverside:

We are residence of Cherry Valley and bought our home here just a year ago because we love how the community is small, quant, rural and basically "country". We were made aware that there was an ordinance done years ago that would prevent large business' (warehouses) from coming into Cherry Valley. Now we here that the "big money" is winning over what our community wants. I am disgusted with the idea of a huge warehouse coming into Cherry Valley.

Please support our community and do not let this monstrosity come into our small and quant community. There are plenty other places along the 10 near the railway system that can accommodate this type of building.

We again have "money" talking and taking over which completely contradicts what our community wants. Please stop this from happening!! I am sure our community can get enough backing from attorneys to put a stay on this project and postpone it to the point that the company wanting to build this will either look elsewhere, or cost them to much money to pursue having this horrible eyesore in our area.

We are concerned citizens and we would like our voice to be heard instead of the "big money" to be heard.

Sincerely,

Brian and Raenel Peterson

9060 Bonita Road

Cherry Valley, CA 92223

Brett Dawson 9/20/2017

Property Manager

County of Riverside

P.O. Box 1409

Riverside, CA 92502

I cannot understand how you could even consider putting a two million square foot warehouse on Cherry Valley Blvd. I have lived in Cherry Valley for over twenty years and Cherry Valley Blvd. is a "main" road for Cherry Valley, as well as Beaumont to access the 10 Freeway for work, many shopping centers, and commuting kids to and from school. An estimated 800 trucks on the road a day will make it absolutely, impossible for the residence to travel the road.

Other objectives include the excessive noise and "high" air pollution that will also affect the Cherry Valley residents, their family and animals, as well as the wild life in this rural area. The EPA and International Agency of Research have both found that diesel trucks are the highest polluters of potential human carcinogens effecting our lungs and irritation to eyes, nose and throat.

To complicate things even worse, evidently the City of Beaumont is attempting annex the old Sunny Cal Egg Ranch on Cherry Valley Blvd. and add another 497 homes. This is right near your proposed project. How do you think this will affect traffic?

SAY NO TO THIS PROJECT!

There must be a better location for this warehouse!!! I am sure you would not want this huge structure, traffic, air pollution, and decreasing property values in your back yard.

Donna Alsop

Donna Alsop

9167 Rancho Dr.

Cherry Valley, CA 92223

(951) 769-5411

Brett Dawson, Project Manager
County of Riverside
P.O. Box 1409
Riverside, CA 92502-1409

September 29, 2017

Sir,

I'm writing this letter in regards to the San Gorgonio Crossing Project, formerly known as the Gateway Warehouse. This project is not suitable for the Cherry Valley area and is in complete opposition with the General Plan for the area. The general plan was developed to control the over development and helter-skelter building by developers from outside the area. I've seen the damage such developments have caused to areas like Mira Loma and the north side of Redlands. Moreno Valley and Hemet will be next. One just needs to follow the money to see the reasoning for such unwanted projects.

There are numerous factors to consider for such a project, health would be at the top of the list. There are two senior mobile home parks near the site, one being next door and the other a half mile away. The diesel exhaust and particulates will have a detrimental effect. The lighting and vehicle traffic will also have a detrimental effect upon the wildlife of the surrounding mountains.

By allowing such a project you will be industrializing the entrance to Cherry Valley. This cheapens the area for residential living. If you do not live in the area you will not understand the rural atmosphere of Cherry Valley. Redlands is fifteen minutes away to the west. There are numerous warehouses to the north of IS10, several that are unoccupied. If you are so inclined to industrialize areas off IS10, why not go to Cabazon or Palm Springs where the landscape is cluttered with turbines. Beaumont has already started the industrialization of the south side of the city. There are more appropriate areas for warehouses, rather than trying to completely alter the general plan for money and no other reason.

Respectfully,

Kenneth Cunningham

Diane Cunningham

9279 Beaumont Drive
Cherry Valley, Ca 92223
951 845-4384

Terry and Nannette Coates
9597 Rancho Drive
Cherry Valley, Calif. 92223
909-343-9384

Sept. 30, 2017

Sir:

Please listen, Cherry Valley Blvd. is already crowded with vehicles of all types. Adding a warehouse or logistics center with several hundreds of trucks will make travel on Cherry Valley Blvd. impossible. Cars and trucks will be backing up on the road making timely travel impossible for the truckers and other vehicles. With the road clogged drivers will become impatience and accidents will occur. An accident on this two lane road will close it down completely for hours and hours. In addition the city of Beaumont is trying to annex the land next to where the warehouse/logistics center is planned for 500 new homes to be built. Each home will have two or three cars per family and that will make an additional 1000 more cars on Cherry Valley Blvd. Your truckers will never be able to move about freely on this road. The traffic jam will be unbelievable.

Now also the air pollution from all these trucks and additional automobiles will make the area unbreathable , aesthetics of the country will be destroyed, wild life and the water shed will be destroyed and with the above, all home values will be reduced. These all should be taken into consideration when making the decision to build a warehouse/logistics center.

If you are a man on conscience, common sense dictates there should be no warehouse/logistics center in this area. THINK ABOUT IT!!!!!!!

Sincerely, and hopefully you will make the right decision

Terry Coates
Nannette Coates

To Brett Dawson Project Manager & To Whom it should Concern about what you are Trying To do so you can get more property Tax Dollars For Riverside County

(Marion Ashley) Here we are again Trying To stop you & The likes From exploiting The Town & land OF Cherry Valley For your political & Financial & special interest gains at our exspense meanwhile back here in Cherry Valley we are already dealing with Four or more schools put in are area which create Gridlock. morning & Afternoon, cars streaming Fram banning droping children OFF at school. Beaumont Ave & Highland springs Rd and all our side streets crowded with school Traffic. And now you want To approve a warehouse on The only way out OF Cherry Valley with hundreds OF Trucks & Traffic That will come with it at our expense we are Tired OF politicians & public officials That only care about Their careers we want you To stop Trying To change The Rules & Regulations & ordinances That were put into place To protect The Quality of life here in Cherry Valley and other places you have already Destroyed. - over - please

P.S. we are praying For you To not Succeed in your endeavors against our Town & land & Quality OF liFe (Here) in Cherry Valley Ca, and your Future endeavors.

Thank For your consideration

Michael Custer
9187 Bonita Dr. C.V.
Ca, 92223
951.769.5552

To whom it may concern:

My family moved to Cherry Valley fourteen years ago because the "rural" community is where we wanted to establish ourselves and our business.

The "small town" feel was appealing along with the fresh air, we did not want to breathe in dirty air, nor did we want our animals to be exposed to pollution.

The quiet and friendly neighborhoods were of great value as well. America is lacking close knit communities and relationships. We as a nation have fallen apart because of greed and only being concerned for ourself. We as a community need to strive to bring back the values and absolute that the bible talks about. We would then do well and be an example to others. Warehouses don't fit into the picture, what a disaster that would be.

Tammy Custer
9187 Bonita Dr CV
951-769-5592
Cherry Valley resident