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**Via Electronic Mail Only**

City of Stockton City Council  
425 N. El Dorado Street  
Stockton, CA 95202

E-Mail: [City.Clerk@stockonca.gov](mailto:City.Clerk@stockonca.gov)

Re: Mariposa Industrial Park Project

Dear Mayor Lincoln and Honorable Councilmembers:

On behalf of the Sierra Club Mother Lode Chapter, Delta-Sierra Group, we have reviewed the Final Environmental Impact Report (“FEIR”) prepared in connection with the proposed Mariposa Industrial Park Project (“Project”). Sierra Club has serious concerns about the environmental impacts of the Project as currently proposed. Sierra Club’s comments on the Draft EIR discussed numerous deficiencies regarding the analysis of and mitigation for the Project’s impacts related to air quality, cultural and tribal resources, agricultural resources, transportation, greenhouse gases, climate change and energy. The City’s response to these detailed comments fails to satisfy these concerns. We write today to emphasize that the FEIR substantially understates, and fails to fully analyze, the severity and extent of significant project-related effects on air quality, greenhouse gas (“GHG”) emissions, and public health. Moreover, the City fails to adequately mitigate for these impacts and other impacts in numerous respects.

The environmental documentation for the Project is thus inadequate as an informational document and violates state law requirements under the California Environmental Quality Act (“CEQA”), Public Resources Code § 21000 et seq., and the CEQA “Guidelines,” California Code of Regulations, title 14, § 15000 et seq.

The FEIR’s failings will impact all residents in the City, but will most directly and significantly impact low-income, disadvantaged residents and communities,

especially in the vicinity of the Project. These communities are the most vulnerable to the impacts the FEIR fails to adequately analyze or effectively mitigate.

To ensure that the public and the City Council have adequate information to consider the effects of the proposed Project and to comply with the law, the City must prepare and recirculate a revised EIR that properly analyzes the Project's impacts, and considers and adopts meaningful alternatives and mitigation measures that would help ameliorate those impacts. Absent these corrections, the Sierra Club urges the City Council to deny the Project and objects to any approval based on the City's inadequate EIR.

**I. The FIER Fails to Adequately Analyze the Project's Air Quality, GHG, and Health Impacts**

The proposed Project would implement construction and operation of 3,616,870 square feet of warehouse and office uses, approximately 1,831 auto parking spaces and 1,107 truck and trailer parking spaces, and construction of related infrastructure on a 203 acre site. The impacts related to such warehouse projects are of such a concern state-wide, particularly for their effect on disadvantaged communities, that the California Attorney General's Office has issued guidelines for how to properly analyze and mitigate these impacts under CEQA. The FEIR, however, disregards this guidance and fails to comply with CEQA in numerous respects as detailed below.

**A. The FEIR Relies on Unrealistic Assumptions When Estimating Project Emissions.**

The FEIR continues to minimize the Project's emissions by relying on unrealistic assumptions about Project operations and faulty analyses. For example, both the Attorney General's Office and the San Joaquin Valley Air Pollution Control District ("SJVAPCD") commented that the Project used a lower estimate of daily vehicle trips in the Health Risk Assessment than the traffic impact study had predicted. In response, the FEIR states that it did not use the higher weekday average in the traffic study, but instead a lower average of the whole week "since many of the health impacts are associated with annual emissions." FEIR at 3-12. But this ignores those health impacts that are *not* associated with annual emissions and fails to provide the public and the City Council with information on the full extent of daily emissions that could be experienced by residents.

The FIER similarly brushes aside concerns by the California Air Resources Board ("CARB") and the AG's Office that the fleet mix used in the air emissions model

of the Project underestimates the use of medium- and heavy-duty trucks emitting the highest levels of pollution. Rather than investigate this issue further, the FEIR sticks with its lower number.

Of even greater concern is the FEIR's failure to analyze potential cold storage warehouse uses and the higher level of emissions from associated trucks with transport refrigeration units (TRUs). Cold-storage warehouses also typically have "higher energy use" and "higher daily truck trip generation rates" than non-refrigerated warehouses, which inevitably means more severe air quality impacts. South Coast Air Quality Management District, Preliminary Draft Staff Report on Proposed Rule 2305 – Warehouse Indirect Source Rule, at 24, 29. (January 6, 2021) (attached as Exhibit A).

In response to concerns regarding the failure to analyze and mitigate for cold storage uses expressed by CARB and the AG, the FEIR baldly states that the Project does not include a cold storage component—while in the same breath acknowledging the possibility that it will by stating that "if a future tenant proposes cold storage, additional air quality impact analysis will be required, together with any additional mitigation measures that might be needed." FEIR at 3-63. But the City cannot cure the faulty analysis in the EIR with further opportunities for environmental review. *Stanislaus Natural Heritage Project v. County of Stanislaus* (1996) 48 Cal.App.4th 182.

Moreover, there may not be an opportunity for further environmental review at all. The City asserts that future approvals for tenant applications are ministerial. As a result, CEQA would not apply to their review and approval. Pub. Res. Code § 21080(a); CEQA Guidelines §15162(c); *San Diego Navy Broadway Complex Coalition v. City of San Diego* (2010) 185 Cal.App.4th 924, 935. As stated in a leading CEQA treatise: "Once the project has received all necessary discretionary approvals, the CEQA process ends. No further environmental review can be required even though circumstances change significantly or important new information becomes available." Kostka & Zischke, Continuing Education of the Bar, "Practice Under the California Environmental Quality Act" (2022), § 19.22. Even if the project analyzed in an EIR changes significantly, CEQA review will not be reopened by applying for ministerial permits. *Id.* at § 19.32. In short, approval of the Project could give a green light to all future industrial activities, even if cold storage is used. *See Health First v. March Joint Powers Authority* (2009) 174 Cal.App.4th 1135, 1143.

Recognizing this concern, CARB recommended two specific mitigations measures that would prohibit operation of TRUs at the Project through lease agreement requirements or restrictive covenants. Although the FEIR states that the measures are acceptable to the City, the FEIR did not in fact adopt them. FEIR at 3-17. Instead, the

FEIR simply modified the Project description to state that the applicant “indicates” that the proposed project is not “intended or designed for cold storage uses” and if any are proposed further CEQA review would occur. FEIR at 4-1. This falls far short of CARB’s recommendation for specific mitigation measures. It also violates CEQA’s requirements for responding to proposed mitigation, adopting enforceable mitigation measures, and not deferring mitigation, as discussed below.

The potential for cold storage uses is reasonably foreseeable and nothing in the applicant’s submission of “conceptual plans” or the City’s approval of the Project would prohibit those uses. The DEIR itself recognizes that cold storage is a potential use for high-cube warehouses as do other studies of warehouses in California. DEIR at 3-5; South Coast Air Quality Management District, Preliminary Draft Staff Report on Proposed Rule 2305 – Warehouse Indirect Source Rule, at 44, 117 (attached as Exhibit A). The associated air quality, GHG, and health impacts must be analyzed and mitigated now, in this EIR.

## **II. The FEIR Impermissibly Analyzes Project Impacts Assuming Mitigation Measures are Incorporated into the Project.**

The DEIR included in Appendix B “Additional Air Quality Improvement Measures,” which the EIR claims have been incorporated into the Project. (The Measures in DEIR Appendix B were revised in Appendix C of the FEIR). These Measures, however, are clearly mitigation measures, as the FEIR repeatedly refers to them, not features of the proposed project. The EIR, however, impermissibly analyzes the significance of the Project’s air quality impacts assuming that these mitigation measures have already been incorporated into the Project. FEIR at 3-69 (noting measures in Appendix B [FEIR Appendix C] have been integrated into the air quality impact analysis).

For example, the EIR concludes that GHG operational emissions would be less than significant “before mitigation” because emissions would be reduced by the measures in Appendix B. As a result, the EIR concludes that no mitigation measures are required for GHG operational emissions. DEIR at 2-12. Similarly, in analyzing cumulative air quality impacts, the EIR concludes that the Project would make a less-than-considerable contribution on Toxic Air Contaminates [TACs] because it is “expected” that the project would incorporate the measures in Appendix B, “thereby further reducing the cumulative effects of the proposed project on TACs.”

This scheme has been rejected by the courts because it minimizes public disclosure of project impacts and avoids full consideration and proper adoption of mitigation measures.

In evaluating the significance of a project's impacts, an EIR may not "compress[] the analysis of impacts and mitigation measures into a single issue." *Lotus v. Department of Transportation* (2014) 223 Cal.App.4th 645, 656. By assuming the implementation of measures identified in Appendix B as part of the Project, the EIR here did just that. And in so doing, it failed to recognize the Project's potential to result in significant air quality impacts. Yet without a significance finding, the EIR cannot adequately identify mitigation for the impact. As was the case in *Lotus*, the EIR's failure to evaluate the significance of the Project's impacts separately from what is effectively its proposed mitigation (Air Quality Improvement Measures in Appendix B and C), does not withstand scrutiny.

More specifically, by conflating impacts and mitigation, the EIR fails to consider whether there may be other more effective mitigation options, thereby omitting information that is necessary for the informed decision-making and public participation that CEQA requires. *See id.* at 658; *see also San Franciscans for Reasonable Growth v. City & County of San Francisco* (1984) 151 Cal.App.3d 61, 79 (EIR is inadequate if it fails to identify feasible mitigation measures). Further, a finding of significance triggers the requirement that the Project include enforceable mitigation, as well as a monitoring program, which is lacking with the EIR's reliance on Appendix B and C as de facto mitigation for several impacts. *See Lotus*, 223 Cal.App.4th at 656-57.

### **III. The FEIR's Analysis of Operational Project-Related Greenhouse Gas Emissions is Flawed.**

Reducing GHG emissions to minimize the harms from climate change is one of the most urgent challenges of our time. Scientific evidence continues to mount that we are not only facing a true climate crisis, but also rapidly running out of time to confront it. The City of Stockton and the surrounding region face mounting risks from climate change, including wildfire, higher temperatures, precipitation extremes, flooding, drought, decreased water supply, and worsening air quality. *See* Forth Climate Change Assessment for San Joaquin Valley. The residents of Stockton therefore have a direct and immediate interest in swift and decisive climate action at all levels of government. Further, the law is clear that lead agencies must thoroughly evaluate a project's impacts on climate change under CEQA, and identify and adopt feasible mitigation measures to address project-specific or cumulative impacts. *See Communities for a Better Env't v. City of Richmond* (2010) 184 Cal.App.4th 70, 89-91; CEQA Guidelines § 15064.4.

Here, the FEIR's analysis of GHG emissions is fatally flawed and the FEIR fails to identify and adopt feasible mitigation measures for the Project's significant contributions to global warming as a result of ongoing Project operations.

The EIR employs a GHG threshold of significance of GHG reductions greater than 5 percent or 6 percent from the business-as-usual (unmitigated) level for consistency with the 2014 Stockton Climate Action Plan (CAP) and the State's 2016 goals in SB 32. The EIR then concludes that no project-specific mitigation is required for the Project's operational GHG emissions because existing features and regulations would reduce GHG emissions by approximately 13.4 percent. Those features are (1) proximity to downtown, (2) installation of sidewalks, (3) implementation of required employee trip reduction programs, (4) water conservation reduction, and (3) recycling and composting services. DEIR at 10-10.

To begin with, most of these exiting features and regulations should be considered part of the business as usual scenario, not part of the local reductions beyond business and usual.

Further, it is not reasonable to assume that these thresholds adopted in 2014 and 2016 are still relevant or supported by substantial evidence in view of new information about the severity of climate change and the need to reduce GHG emissions immediately and as much as possible. For example, the BAAQMD has noted that "since 2010 the urgent risks to public health and air quality posed by global climate change continues to come into focus and prominence." <https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines>.

Moreover, as the Supreme Court found in *Center for Biological Diversity v. California Dept. of Fish & Wildlife* (2015) 62 Cal.4th 204 ("Newhall Ranch"), it may not make sense to translate a general standard (in that case AB 32's requirement to reduce emissions to 1990 levels by 2020) to a specific project. In fact, Newhall Ranch noted that new projects—such as this Project—may require a greater level of reduction because "[d]esigning new buildings and infrastructure for maximum energy efficiency and renewable energy use is likely to be easier, and is more likely to occur, than achieving the same savings by retrofitting of older structures and systems." 62 Cal.4th at 226.

Since 2010, it has become clear from a scientific perspective that any additional GHG emissions will contribute to a serious and growing climate crisis. See e.g. [https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC\\_AR6\\_WGI\\_SPM.pdf](https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf). Recognizing this reality, in 2018 Governor Brown signed Executive Order 55-18 calling for the state to achieve carbon neutrality as soon as possible and no later than 2045.

<https://www.ca.gov/archive/gov39/wp-content/uploads/2018/09/9.10.18-Executive-Order.pdf> . Given these facts on the ground, the DEIR should establish a net zero threshold for new emissions. See e.g., CARB 2017 Scoping Plan at 101 (“Achieving no net additional increase in GHG emissions, resulting in no contribution to GHG impacts, is an appropriate overall objective for new development.”)  
[https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping\\_plan\\_2017.pdf?utm\\_medium=email&utm\\_source=govdelivery](https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping_plan_2017.pdf?utm_medium=email&utm_source=govdelivery)

The DEIR includes a brief discussion of EO 55-18 but fails to explain why this new project should not be judged by a significance threshold requiring no net increase in GHG emissions. While lead agencies are granted some discretion in selecting thresholds of significance, they are not permitted to choose thresholds that foreclose consideration of other evidence tending to show the environmental effect may be significant. *Protect The Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th 1099, 1109 (“[T]hreshold[s] of significance cannot be applied in a way that [] foreclose the consideration of other substantial evidence tending to show the environmental effect to which the threshold relates might be significant.”). By the EIR’s own analysis, the Project increases the City’s GHG emissions by 27,461 metric tons of CO<sub>2</sub>e annually. The City cannot craft its thresholds of significance in a way that glosses over this massive increase.

The City’s threshold of significance is also unsupportable because the City’s 2014 Climate Action Plan was not intended to apply to projects beyond 2020. CAP at ES-16. The CAP itself recognizes that reduction goals will be much lower for projects beyond 2020 and the City’s 2018 General Plan aimed to adopt new 2030 GHG emissions reduction targets. DEIR at 10-7. Those have not yet been adopted, however, or at least are not applied to this Project. The CAP was also not intended to apply to Projects outside of the City’s jurisdictional boundaries. CAP at ES-2. The City may not rely on the CAP to find that the Project’s GHG impacts are less than significant. CEQA Guidelines section 15183.5. The FEIR’s response to comment acknowledges this, but the text and conclusions in the DEIR and elsewhere was not amended. FEIR at 3-99.

Even if the 2014 CAP created a rational threshold of significance, the EIR does not apply it correctly to this Project. Under the CAP, Projects were expected to impose emissions reduction measures *beyond* existing requirements and calculate total reductions from business as usual to achieve a 29 percent reduction. CAP at 3-18 (“It is expected that project proponents would often include energy efficiency and alternative energy strategies to help reduce their project’s GHG emissions because these are often the most cost-effective approach to reducing GHG emissions but are free to propose any valid measures that would achieve the overall reduction goal. . . . project proponents

[must] adequately document their GHG emissions and that their proposed reduction measures, combined with state measures, would result in project reductions of 29% or more compared to an unmitigated condition”). The EIR, however, did not apply this analysis and instead looked at whether the project achieved a 5 percent reduction below “unmitigated conditions,” by which it meant before application of the above existing standards. EIR at 10-10. This is not consistent with the City’s CAP.

The FEIR’s response to Sierra Club’s comments regarding the significance of the Project’s operational GHG impacts and the need for mitigation states that with mitigation and the measures in Appendix C “the City still concludes that greenhouse gas emission impacts are significant and unavoidable.” FEIR at 3-99. This, of course, is the correct conclusion (as the EIR preparers knew), but it is not reflected elsewhere in the FEIR or findings.

The FEIR’s analysis of cumulative GHG impacts is equally troubling. FEIR at 18-8. The FEIR’s conclusion that the Project would have a less-than-considerable contribution to any cumulative GHG impacts is unsupported. To begin with, it relies on the faulty conclusion that the Project is consistent with GHG reduction objections in the CAP and SB 32. It then suggests that cumulative impacts would be less than significant because the City adopted a Statement of Overriding Considerations in approving the Stockton General Plan 2040 EIR. That Statement, however, does not obviate the need to adopt feasible, project-specific mitigation that would reduce the significant cumulative GHG impacts that this Project contributes to. This EIR must identify the Project’s contribution to cumulative GHG impacts as considerable, as the City’s General Plan EIR found.

In sum, the FEIR’s GHG operational emissions threshold of significance and its finding that such emissions are less than significant and less-than-considerable contribution to cumulative GHG impacts violates CEQA. These impacts are significant/considerable and project-specific mitigation to reduce operational GHG emissions must be adopted. If nothing else, such mitigation must be adopted to offset the Project’s significant and unavoidable construction GHG impacts.

#### **IV. The EIR Fails to Adequately Identify or Adopt Mitigation Measures for the Project’s Significant Air Quality, Health, GHG, Noise, and Farmland Impacts.**

One of the central purposes of an EIR is to identify ways to avoid or minimize a project’s significant effects. Pub. Res. Code §§ 21002.1(a), 21061. The document must therefore identify any mitigation proposal that is not “facially infeasible”



and then demonstrate that the measure either: (1) will be effective in reducing a significant environmental impact; or (2) is ineffective or infeasible due to specific legal or “economic, environmental, social and technological factors.” *Los Angeles Unified School Dist. v. City of Los Angeles* (1997) 58 Cal.App.4th 1019, 1029-31 (“*LA Unified*”); §§ 21002, 21061.1; Guidelines §§ 15021(b), 15364. A public agency must adopt any feasible mitigation that can substantially lessen a project’s significant environmental impacts. §§ 21002, 21002.1(b); Guidelines § 15002(a)(3); *City of Marina v. Bd. of Trustees* (2006) 39 Cal.4th 341, 368-69.

When the agency adopts mitigation, it must assure that the measures will be “effective” and will “present a viable solution” to mitigating the Project’s impacts. *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099, 1116. For this reason, an agency cannot defer the development of specific measures unless: (1) an EIR contains performance standards to govern future actions implementing the mitigation, and (2) the agency has assurances that the future mitigation will be both “feasible and efficacious.” *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 94-95 (“CBE”). Finally, inadequate mitigation cannot support a finding that the measures will reduce project impacts to an insignificant level. *Preserve Wild Santee v. City of Santee* (2012) 210 Cal.App.4th 260, 280-82.

**A. The FEIR Fails to Adequately Respond to Mitigation Measures Proposed to Reduce the Project’s Significant Impacts.**

In an FEIR, a lead agency must respond to all comments made on the DEIR. Pub. Res. Code § 21091(d); Guidelines §§ 15088(a), 15132. When a comment raises significant environmental issues, the FEIR’s response must give a reasoned, good-faith analysis and “describe the disposition of significant environmental issues raised,” such as how the project will mitigate anticipated impacts. Guidelines § 15088(c). Comments must be “addressed in detail giving reasons why specific comments and suggestions were not accepted.” *Id.* Courts have especially emphasized the necessity of reasoned, detailed comments where qualified experts have raised concerns about the DEIR. *See, e.g., Berkeley Keep Jets Over the Bay Committee v. Bd. of Port Comm’rs* (2001) 91 Cal.App.4th 1344, 1371. Regardless, “[c]onclusory statements unsupported by factual information” are never an adequate response. Guidelines § 15088(c); *City of Maywood v. Los Angeles Unified Sch. Dist.* (2012) 208 Cal.App.4th 362, 391.

The FEIR fails to meet these standards. In particular, the Attorney General’s Office, the SJVAPCD, CARB, and the Sierra Club submitted comments on the DEIR that proposed additional mitigation measures to reduce the Project’s significant air quality, health, and GHG impacts. The FEIR, however, does not analyze these measures.

Instead, it brushes them aside, or claims they were adopted, when in fact they were not. This oversight flatly violates CEQA, which requires that the lead agency either: (1) provide a “good faith and a reasoned analysis” of mitigation proposed by the public, or (2) explain why the mitigation is infeasible on its face. *See LA Unified*, 58 Cal.App.4th at 1029-31 (invalidating EIR for failing to consider and respond to mitigation proposed by the public); Guidelines § 15126.4(a)(1) (EIR must identify and discuss “each” measure available to reduce a project’s impacts); *Flanders Foundation v. City of Carmel-by-the-Sea* (2012) 202 Cal.App.4th 603, 615-17 (inadequate response to comment).

To begin with, none of these recommended measure were actually adopted as mitigation measures in the FEIR. Table 2-1 in the FEIR lists the Project’s mitigation measures. After receiving extensive comments and proposed mitigation measures to reduce emissions, the FEIR made only one change to the DEIR’s list of mitigation measures. That change simply “recommended” a mitigation measure to the applicant, and did not actually require that it be adopted.<sup>1</sup> *See* FEIR at 2-6 through 2-19. None of the other mitigation measures proposed by the AG, CARB, or SJVAPD were included in the list of mitigation measures, or in the Mitigation, Monitoring and Reporting Program prepared for the project.

The FEIR’s response to comments does not explain “in detail” why the suggested measures were not accepted as CEQA requires. Instead, it claims that “none of the feasible mitigation measures recommended by the agencies include the means to quantify their effectiveness in reducing NOx emissions or in avoiding the significant and unavoidable air quality effect of the project.” FEIR at 3-17. This response admits the measures are feasible, and yet they were not accepted. And while agencies are required to evaluate the effectiveness of mitigation measures, an inability to do so quantitatively (which is questionable at best) is not a reason to reject a feasible mitigation measure.

The FEIR further suggest that the City did not adopt the proposed measures as mitigation because the location of this Project somehow introduced “uncertainty into the feasibility” of the measures. FEIR, Appendix C. But the City may only avoid providing an analysis of a proposed mitigation measure when the agency explains that the measure is infeasible “on its face.” The City has not done so here.

The FEIR’s response goes on to claim that the City “has nonetheless accepted these recommendations into its updated list of Air Quality Improvement

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<sup>1</sup> See FEIR page 2-7 (concluding that no mitigation is required for construction emissions under air quality plans and standards, but noting the SJVAPD “recommends” using the cleanest available off-road construction equipment).

Measures shown in FEIR Appendix C.” FEIR at 3-17. Even if the measures in Appendix C were required mitigation measures for the project, which they are not, Appendix C does not in fact accept all of the measures proposed by these agencies. The below chart identifies numerous recommended measures that in fact are *not* included in Appendix C. Others were significantly modified and weakened, without any analysis or explanation. All the response to comments states is that the proposed measures were “distilled” into “the City’s own discrete set of air quality measures” representing the “best” recommended measures. This sweeping and obtuse response to specifically proposed mitigation measures fails to comply with CEQA’s requirements.

**Comparison of Proposed Mitigation Measures and FEIR Exhibit C**

(AG) = Attorney General’s Office

(CARB) = California Air Resources Board

(APCD) = San Joaquin Valley Air Pollution Control District

| Proposed Mitigation Measure   | FEIR Exhibit C  | Comparison   |
|---|---|--|
| Measures related to building and site design  |   |  |
| (AG) Installing solar photovoltaic systems on the project site of a specified electrical generation capacity, such as equal to the building’s projected energy needs.<br><br>(CARB) Include rooftop solar panels for each proposed warehouse to the extent feasible, with a capacity that matches the maximum allowed for distributed solar connections to the grid.<br><br>(APCD) Incorporate solar power systems as emission reduction strategy | Industrial structure shall be “solar ready,” designed to accommodate solar panel installation an[d] conduit from electrical panel to panel locations per Cal. Energy Code (11j) | Instead of requiring installation of solar power systems, Exhibit C only required buildings to be ready to have solar installed, if a tenant so desired. |
| (AG) Meeting CalGreen Tier 2 green building standards, including all provisions related to designated parking for clean   |   | Not addressed.   |

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| air vehicles, electric vehicle charging, and bicycle parking.<br><br>(CARB) Same as AG  |  |  |
| <b>Measures related to construction</b>   |  |  |
| (APCD) Recommend that “one Air Impact Assessment (AIA) application should be submitted for the entire Project “to comply with District Rule 9510 (Indirect Source Review) to reduce growth in both NOx and PM10 emissions, and that demonstration of “compliance with Rule 9510, before issuance of the first building permit, be made a condition of Project approval” |  | Not addressed.                                     |
| (AG) Using paints, architectural coatings, and industrial maintenance coatings that have volatile organic compound levels of less than 10 g/L.  | VOC content of architectural coatings shall be limited in accordance with SJVAPCD Reg 4601 (25i)                             | Weakened to simply comply with existing standards. |
| (AG) Forbidding idling of heavy equipment for more than two minutes.<br><br>(CARB) Same as AG.  | The construction are shall be posted to restrict idling of construction equipment to 5 minutes or less (CARB recommendation) | Weakened to simply require posting of information. |
| (AG) Providing meal options onsite or shuttles between the facility and nearby meal destinations for construction employees.  |  | Rejected.  |
| (AG) Providing information on transit and ridesharing programs and services to construction employees.  |  | Rejected.  |

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| Measures related to low impact, zero emissions trucks and equipment for project operations/tenants   |  |   |
| (AG) Requiring tenants to use zero-emission light- and medium-duty vehicles as part of business operations.<br><br>(CARB) Include contractual language in tenant lease agreements that require future tenants to exclusively use zero-emission light and medium-duty delivery trucks and vans. | Tenant light and medium-duty vehicle fleets shall be composed of zero-emission to the degree feasible. | Rejected and replaced with vague and deferred mitigation. |
| (AG) Forbidding trucks from idling for more than two minutes and requiring operators to turn off engines when not in use.  |  | Rejected.   |
| (AG) Requiring all heavy-duty vehicles entering or operated on the project site to be zero-emission beginning in 2030.   |  | Rejected.   |
| (CARB) Include contractual language in tenant lease agreements that requires all heavy-duty trucks entering or on the project site to be model year 2014 or later, expedite a transition to zero-emission vehicles, and be fully zero-emission beginning in 2023.                              |  | Rejected.   |
| (APCD) Require fleets associated with Project operational activities to utilize the cleanest available Heavy-Heavy Duty truck technologies,  |  | Rejected/ Not addressed.                                  |

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| including zero and near-zero (0.02 g/bhp-hr NOx) technologies as feasible   |  |   |
| Other measures related to tenants   |  |   |
| (CARB) Include contractual language in tenant lease agreements that requires the tenant to be in, and monitor compliance with, all current air quality regulations for on-road trucks including CARB’s Heavy-Duty (Tractor-Trailer) Greenhouse Gas Regulation, Advanced Clean Trucks Regulation, Periodic Smoke Inspection Program (PSIP), and the Statewide Truck and Bus Regulation | The developer shall provide information to each prospective tenant regarding applicable air quality regulations, standards and enforcement authority, mitigation requirements included in the City’s certified EIR and any other applicable air quality rules and regulations pertaining to warehousing and distribution as identified and discussed in the EIR, including: CARB’s Heavy-Duty (Tractor-Trailer) Greenhouse Gas Regulations, Periodic Smoke Inspection Program, Statewide Truck and Bus Regulation (PSIP), Advanced Clean Trucks Regulation | Weakened by removing contractual requirement. |
| (CARB) Include contractual language in tenant lease agreements that require tenants to use the cleanest technologies available.   |  | Not addressed.                                |
| (AG) Constructing electric truck charging stations  | Tenants shall provide electric truck charging circuits and related   | Modified without explanation.                 |

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| <p>proportional to the number of dock doors at the project.</p>  | <p>equipment at dock doors in proportion to the predicted percentage of EV trucks using the site.</p>  |  |
| <p>AG) Constructing electric plugs for electric transport refrigeration units at every dock door, if the warehouse use could include refrigeration.</p> <p>(CARB) Include contractual language in tenant lease agreements that require all loading/unloading docks and trailer spaces be equipped with electrical hookups for trucks with transport refrigeration units (TRU) or auxiliary power units. Require all TRUs entering the project-site be plug-in capable.</p> | <p>TRU charging stations are <u>not required</u> at this time but may be required in conjunction with future tenants with cold storage.</p>                            | <p>Rejected and deferred.</p>                        |
| <p>(AG) Constructing electric light-duty vehicle charging stations proportional to the number of parking spaces at the project.</p>  | <p>Tenants shall install light EV charging stations in parking areas at ratio required by CalGreen Code section 5.106.5.3 (11h). (conduit installed by developer.)</p> | <p>Weakened to existing standards.</p>               |
| <p>(AG) Providing meal options onsite or shuttles between the facility and nearby meal destinations.</p>   | <p>Tenants with 100 or more employees shall provide onsite meal options such as break rooms, food trucks.</p>  | <p>Weakened to apply only to very large tenants.</p> |
| <p>(AG) Requiring operators to establish and promote a rideshare program that discourages single-occupancy vehicle trips and provides financial incentives for alternate</p>   | <p>Tenants with 100 or more employees shall prepare and implement a Trip reduction Plan regarding employee transit and rideshare per</p>                               | <p>Weakened to apply only to very large tenants.</p> |

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| <p>modes of transportation, including carpooling, public transit, and biking.</p>  | <p>SJVAPCD Rule 9410 (11a)</p> |   |
| <p>(AG) Requiring tenants to enroll in the United States Environmental Protection Agency’s SmartWay program, and requiring tenants to use carriers that are SmartWay carriers.</p>   |                                | <p>Rejected</p>   |
| <p>Other Measures to reduce air quality impacts on residents</p>   |                                |   |
| <p>(AG) Improving and maintaining vegetation and tree canopy for residents in and around the project area.</p> <p>(CARB) Include contractual language in tenant lease agreements, requiring the installing of vegetative walls or other effective barriers that separate loading docks and people living or working nearby.</p> <p>(APCD) District suggest City consider incorporating vegetative barriers and urban greening as a mitigation measure to further reduce air pollution exposure on sensitive receptors.</p> |                                | <p>Rejected, even while FEIR acknowledges that measures could reduce air quality impacts.</p> |
| <p>(AG) Installing and maintaining, at the manufacturer’s recommended maintenance intervals, air filtration systems at sensitive receptors within a certain radius</p>   |                                | <p>Rejected.</p>  |



|  |  |   |
|--|--|---|
| <p>of facility for the life of the project</p>   |  |   |
| <p>(AG) Installing and maintaining, at the manufacturer’s recommended maintenance intervals, an air monitoring station proximate to sensitive receptors and the facility for the life of the project, and making the resulting data publicly available in real time. While air monitoring does not mitigate the air quality or greenhouse gas impacts of a facility, it nonetheless benefits the affected community by providing information that can be used to improve air quality or avoid exposure to unhealthy air.</p> |  | <p>Rejected.</p>                                      |
| <p>(APCD) Implementing a Voluntary emissions reduction Agreement (VERA) by which the project proponent provides pound for pound mitigation of emission increases through a process that develops, funds, and implements emission reduction projects, with the District serving a role of administrator of the emission reduction projects and verifier of the successful mitigation effort.</p>  |  | <p>Rejected, while FEIR admits would be feasible.</p> |

**B. The FEIR Improperly Rejects Feasible Mitigation Measures, Such as Requiring the Installation of Solar Panels and Requiring all Heavy-Duty Trucks to Be Zero-Emission in the Future.**

In the FEIR, the City claims that it is not required to identify or incorporate all feasible mitigation measures for the Project's significant and unavoidable impacts and suggests that it may avoid imposing mitigation by adopting a statement of overriding considerations. This is not the law.

One of the central purposes of an EIR is to identify ways to avoid or minimize a project's significant effects. Pub. Res. Code §§ 21002.1(a), 21061. The document must therefore identify any mitigation proposal that is not "facially infeasible" and then demonstrate that the measure either: (1) will be effective in reducing a significant environmental impact; or (2) is ineffective or infeasible due to specific legal or "economic, environmental, social and technological factors." *Los Angeles Unified School Dist. v. City of Los Angeles* (1997) 58 Cal.App.4th 1019, 1029-31 ("*LA Unified*"); §§ 21002, 21061.1; Guidelines §§ 15021(b), 15364. A public agency must adopt any feasible mitigation that can substantially lessen a project's significant environmental impacts. §§ 21002, 21002.1(b); Guidelines § 15002(a)(3); *City of Marina v. Bd. of Trustees* (2006) 39 Cal.4th 341, 368-69. The City, therefore, is not excused from considering and adopting feasible mitigation measures to reduce the Project's significant and unavoidable impacts.

The FEIR further attempts to excuse its refusal to adopt the additional air quality mitigation measures in Appendix C by suggesting that they may not be feasible. The FEIR states that specific tenants are not yet known and "there is little to no experience with these measures in the general project vicinity. These and other [unspecified] factors introduce uncertainty into the feasibility of future implementation of the measures." FEIR Appendix C. The City therefore, has not even attempted to determine whether these measures would be feasible, but claims that simply calling feasibility into doubt is enough to avoid adopting the measures. This is not sufficient to satisfy CEQA's requirements. *LA Unified* at 1029-31.

In fact, the evidence in the record shows that these measures are feasible, as the FEIR recognizes in several instances. FEIR 3-17); Appendix C ("all feasible air quality mitigation measures."). The state agencies proposing these measures noted that they have been applied to similar projects. The Project here is for light industrial uses conceptually defined as high-cube warehouses and the feasibility of the measures proposed should not depend on the specific tenant.

Appendix C does not even include all of the proposed mitigation measures, as indicated on the above table. These measures are also feasible. For example, in a settlement agreement with various stake holders, the developer of the World Logistics Center, a warehouse project in Moreno Valley, agreed to installing solar panels on project buildings to the extent allowed by law and to several other mitigation measures that were excluded from the FEIR here. For example, significant and unavoidable impacts due to NOx emissions and other Project impacts could be reduced by an electric truck and car grant program funded by the developer. A copy of the mitigation measures incorporated into the World Logistics Center Settlement is attached as Exhibit B.

In addition to impacts to air quality, the FEIR finds that noise from trucks along Mariposa road would create significant and unavoidable impacts. FEIR at 2-15. While the FEIR claims that no mitigation is available for this impact, feasible mitigation measures recommended by the AG and Sierra Club to mitigate these significant noise impacts exist. These include (1) constructing physical, structural, or vegetative noise barriers off the project site, (2) limiting operation hours to daytime hours on weekdays, paving roads where truck traffic is anticipated with low noise asphalt, (3) replacing neighborhood windows to improve sound proofing, (4) creating a fund to mitigate impacts on affected residents, and other community institutions by retrofitting their property. *See Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act*, at 9-10 (attached as Exhibit C); Sierra Club letter to Planning Commission at 5.

The FEIR also finds that the Project's conversion of farmland will be a significant and unavoidable impact. It notes that participation in the City's Agricultural Lands Mitigation Program and the SJMSCP would compensate for impacts. FEIR at 2-6. Sierra Club requested that compliance with the City's Agricultural Lands Mitigation Program at 1:1 agricultural land mitigation be required as mitigation for the project. In response the FEIR suggests that it was sufficient to note that the project would comply with this program in the DEIR. But as discussed above, the EIR must separately identify and adopt this requirement *as mitigation* and track implementation in the Mitigation Monitoring and Reporting Program.

The FEIR must identify and adopt all feasible mitigation to reduce the Project's significant and unavoidable impacts.

**C. The FEIR Is Legally Inadequate Because It Still Relies on Measures that May Not be Implemented and Does Not Otherwise Assure That Effective Mitigation Will Occur.**

CEQA requires an agency to ensure that measures adopted to lessen a project's significant impacts be "fully enforceable" through permit conditions, agreements, or other legally binding instruments. Pub. Res. Code §§ 21002, 21081.6(b); CEQA Guidelines §§ 15002(a)(3), 15126.4(a)(2); *City of Marina v. Bd. of Trustees of the Cal. State Univ.* (2006) 39 Cal.4th 341, 359, 368-69. The requirement for enforceability ensures "that feasible mitigation measures will actually be implemented as a condition of development, and not merely adopted and then neglected or disregarded." *Federation of Hillside & Canyon Ass'ns v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1261; CEQA Guidelines § 15126.4(a)(2).

The FEIR concludes that GHG operational impacts would be reduced to a less than significant level, and that impacts to sensitive receptors would be reduced through the measures in Appendix C. However, these finding cannot be supported because the EIR cannot rely on mitigation measures that are not enforceable or uncertain. *Preserve Wild Santee v. City of Santee* (2012) 210 Cal.App.4th 260, 280-82 (inadequate mitigation cannot support a finding that the measures will reduce project impacts to an insignificant level).

Although several commenters raised concerns about the enforceability of the measures in Appendix C, the City failed to ensure that any of those measures will be implemented. The City has not included the measures in its Mitigation, Monitoring, and Reporting Program. The FEIR claims that these measures will be "applied to the project and subsequent projects as conditions of approval." FEIR Appendix C, *See also id.* at 3-70 (assuming the measures are conditions of approval). We have reviewed the proposed resolution to approve the Project's rezoning and development agreement and that document does not include these measures as conditions of approval. Nor have we seen any other approvals conditioned on implementing these measures.

Having failed to make these measures conditions of the Project's approvals, the City would not be able to require that subsequent applications for development are consistent with the measures, as the FEIR claims. FEIR at 3-70. The City also suggests that additional CEQA analysis and documentation could be required for subsequent applications for development. Yet CEQA only applies to discretionary approvals, and the City claims that all subsequent approvals to develop the project will be ministerial. To be clear, this means that now is the last chance for the City to adopt any mitigation measures for the proposed project.

Compounding the problem, the City's revised Appendix C provides even more options for the measures to be evaded during development. Appendix C states that it is the City's "intent" that the measures will be "faithfully applied, *to the degree feasible*" to subsequent developments on the site as city staff reviews those applicants. The applicant need only claim that a measure is infeasible, and city staff may waive or relax the standard if it believes there is substantial evidence to do so. These gaping loopholes are the antithesis of enforceable mitigation.

Moreover, the City must determine whether measures are enforceable now. It may not delay that analysis. The timing of developing mitigation is crucial. As a general rule, CEQA requires that the EIR fully describe a project's proposed mitigation measures. CEQA prohibits deferral of mitigation, except in the following narrow circumstances: (1) there must be practical considerations that preclude development of the measures at the time of project approval, (2) the EIR must contain specific criteria to govern the future actions implementing the mitigation, and (3) the agency must have assurances that the future mitigation will be both "feasible and efficacious." *Californians for Alternatives to Toxics v. Dept. of Food & Agric.* (2005) 136 Cal.App.4th 1, 17.

The City has not explained why these measures cannot be detailed now, and it certainly has not adopted performance criteria. This violates CEQA. Deferral is not permitted "when an EIR puts off analysis or orders a report without either setting standards or demonstrating how the impact can be mitigated in the manner described in the EIR." *Preserve Wild Santee v. City of Santee* (2012) 210 Cal.App.4th 260, 280-81.

Measures that are only required "to the degree feasible" are impermissibly vague. Without more detail, there is no way for decision-makers and the public to weigh whether the proposed measures will sufficiently mitigate a project's impacts, causing the EIR to fail in its core, informational purpose. *San Franciscans for Reasonable Growth v. City & County of San Francisco* (1984) 151 Cal.App.3d 61, 79.

## **V. Conclusion**

To ensure that the public and the City Council have adequate information to consider the effects of the proposed Project and to comply with the law, the City must prepare and recirculate a revised EIR that properly analyzes the Project's impacts, and considers and adopts meaningful alternatives and mitigation measures that would help ameliorate those impacts.

City of Stockton City Council  
April 19, 2022  
Page 22

Very truly yours,

SHUTE, MIHALY & WEINBERGER LLP



Heather M. Minner

cc: Margo Praus Chair, Sierra Club Delta-Sierra Group

1496748.1

# **Exhibit A**

# SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

## **Preliminary Draft Staff Report**

### **Proposed Rule 2305 – Warehouse Indirect Source Rule - Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program and Proposed Rule 316 – Fees for Rule 2305**

**January 2021**

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT  
GOVERNING BOARD**

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Speaker of the Assembly Appointee

**VICE CHAIRMAN:** BEN BENOIT  
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WAYNE NASTRI

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## **CHAPTER 1: BACKGROUND**

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**INTRODUCTION**

**AIR QUALITY MANAGEMENT PLAN**

**RULEMAKING BACKGROUND**

**EMISSIONS INVENTORY OF PR 2305 WAREHOUSES**

**AIR QUALITY NEED**

**LEGAL AUTHORITY**

## INTRODUCTION

Proposed Rule (PR) 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program and PR 316 – Fees for Rule 2305 would apply to operators and owners of existing and new warehouses with floor space greater than or equal to 100,000 square feet within a single building. These warehouses are used to receive, store, and serve as a distribution point for goods. The majority of emissions associated with warehouses are from on-road vehicles such as trucks that deliver goods, and off-road vehicles such as cargo handling equipment. PR 2305 would require warehouses subject to the rule to annually take actions that either reduce emissions regionally and locally or that facilitate emission reductions.

More specifically, PR 2305 requires warehouse operators of warehouses subject to PR 2305 to earn a certain number of points each year from emission-reducing activities or payment of a mitigation fee. This program would work similarly to the LEED system by the United States Green Building Council in that actions are assigned a specified level of points based on a menu.<sup>1</sup> For PR 2305, the amount of points every warehouse operator must earn annually depends upon the number of truck trips to their warehouse.<sup>2</sup> Second, an operator may choose to apply to implement a site-specific custom plan that incorporates actions that are not on the menu, plan approval is required prior to being able to earn points. Custom plans could include onsite and offsite measures within the control of the operator that can be demonstrated to reduce emissions of NO<sub>x</sub> and/or diesel PM. Third, an operator may choose to pay a mitigation fee to South Coast AQMD. The funds generated from the mitigation fee will be used to provide financial incentives for truck owners to purchase NZE or ZE trucks, or for the installation of fueling and charging infrastructure, with priority given for projects in the communities near warehouses that paid the fee. In addition, warehouse operators and owners would also have reporting and recordkeeping requirements. Finally, warehouse operators would pay fees as established by PR 316 to reimburse South Coast AQMD for administrative costs associated with ensuring compliance with PR 2305.

There are many factors that go into determining the stringency of proposed rules. For PR 2305, the draft stringency recommended here considered the following points: the need for emission reductions, the significance of emissions associated with the warehousing industry, the potential emissions reductions from PR 2305 when considering other measures, and the impact to industry. The analysis included in this Preliminary Draft Staff Report and in the accompanying Draft Environmental Assessment (CEQA analysis) and Draft Socioeconomic Impact Assessment that are forthcoming describe the information used to develop the proposed rule approach.

## AIR QUALITY MANAGEMENT PLAN

The South Coast Air Quality Management District (South Coast AQMD) is the regional air quality regulatory agency for all of Orange County, and large portions of Los Angeles, Riverside, and San Bernardino counties. It is responsible for developing and enforcing air pollution control rules and regulations and implementing strategies to meet attainment standards for the South Coast Air Basin (SCAB) and the Riverside County portions of both the Salton Sea Air Basin (SSAB) and the

---

<sup>1</sup> There are two important distinctions between LEED and PR 2305. First, the point values between the two systems are completely separate and do not relate to each other. Second, PR 2305 requires annual compliance whereas LEED typically is accomplished on a one-time basis during building construction/design or during renovation.

<sup>2</sup> Point values consider regional and local emission reductions and cost, but warehouse operators do not need to calculate these values. See Chapter 2 for additional detail.

Mojave Desert Air Basin (MDAB). The federal Clean Air Act (CAA) requires the submission of State Implementation Plans (SIP) for nonattainment areas that do not meet the federal National Ambient Air Quality Standards (NAAQS). Additionally, the California Clean Air Act (CCAA) imposes further requirements on meeting state ambient air quality standards for criteria pollutants. South Coast AQMD's jurisdiction is currently classified as being in extreme nonattainment status for the federal NAAQS ozone standards, and serious nonattainment for the federal fine Particulate Matter (PM 2.5) standards.

Per the California Health and Safety Code, the South Coast AQMD is required to adopt an Air Quality Management Plan (AQMP) to demonstrate compliance with both federal and state ambient air quality standards for South Coast AQMD's jurisdiction.<sup>3</sup> The AQMP is a blueprint for meeting federal and state air quality standards, which include the NAAQS for the South Coast AQMD jurisdiction. On March 3, 2017, South Coast AQMD's Governing Board adopted the 2016 AQMP.<sup>4</sup> Based on analysis in the 2016 AQMP, in order to attain the 8-hour ozone standards by the NAAQS deadlines, the total SCAB emissions of NOx must be reduced to approximately 141 tons per day in 2023 and 96 tons per day in 2031. This represents an additional 45% reduction in NOx beyond baseline 2023 levels, and an additional 55% NOx reduction beyond baseline 2031 levels. As seen in Figure 1, approximately 80% of NOx emissions in 2023 and 2031 will be from mobile sources. The control strategy in the 2016 AQMP includes many stationary and mobile source measures that will be carried out by the South Coast AQMD and the California Air Resources Board (CARB) (Figure 2). To attain the federal ozone and PM 2.5 NAAQS, the 2016 AQMP relies on reducing regional NOx emissions as a primary strategy (NOx is a precursor to the formation of both ozone and PM 2.5), but also includes measures to reduce directly emitted PM 2.5.

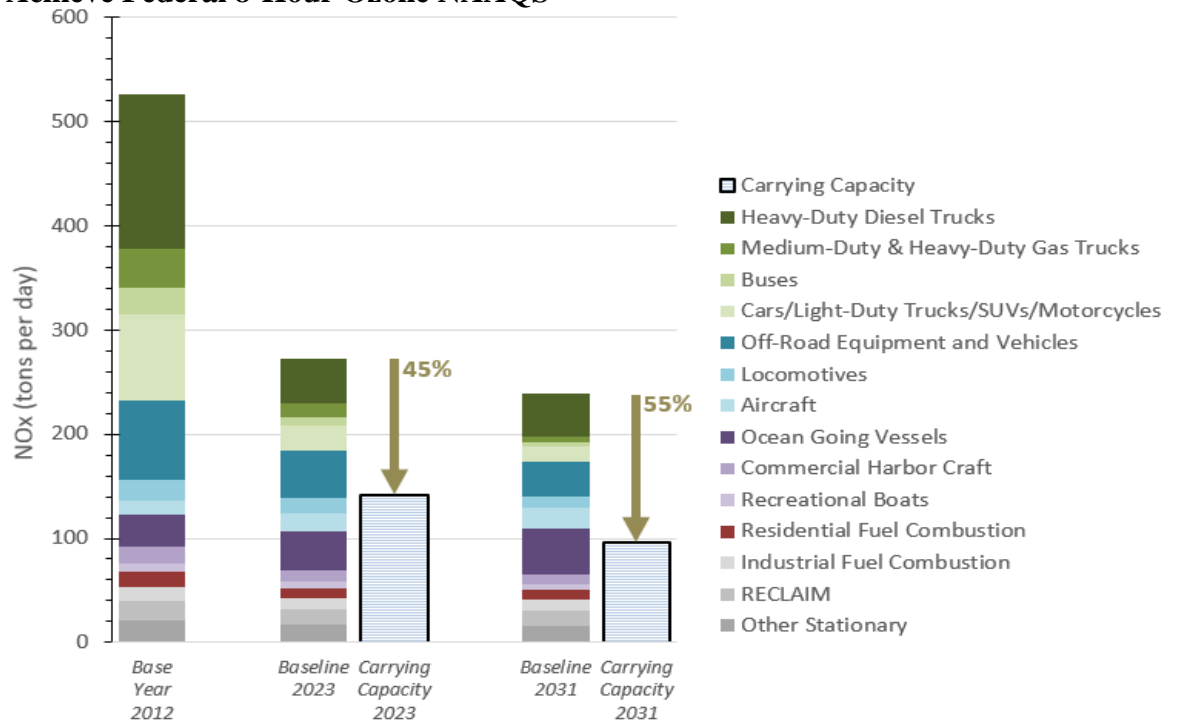
CARB is committed to achieving emission reductions with its state Mobile Source Strategy (MSS) in the State Implementation Plan (SIP). However, the majority of these emission reductions come from measures titled as "Further Deployment of Cleaner Technologies" (Further Deployment Measures), which were not fully defined. The Further Deployment Measures are expected to reduce 108 tons per day of NOx emissions beyond baseline by 2023 and 88 tons per day beyond baseline by 2031.

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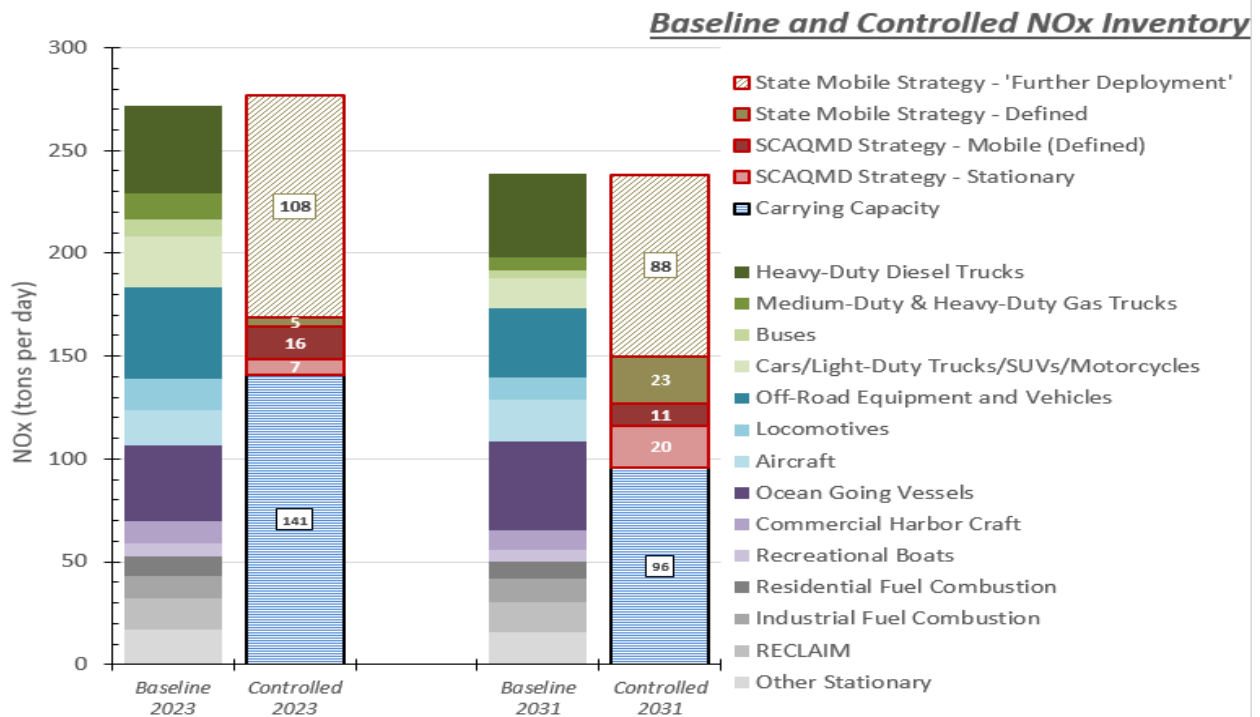
<sup>3</sup> Health and Safety Code Section 40460(a)

<sup>4</sup> South Coast AQMD, Final 2016 Air Quality Management Plan, March 2017. <https://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/final-2016-aqmp>

**Figure 1: South Coast Air Basin Baseline NOx Emissions and Reductions Needed to Achieve Federal 8-Hour Ozone NAAQS**



**Figure 2: NOx Control Strategy in the 2016 AQMP**



## RULEMAKING BACKGROUND

Implementation of the Further Deployment Measures described above is based on a combination of incentive funding and development of new regulations. In the 2016 AQMP, the South Coast AQMD committed to assist CARB and U.S. EPA in developing the Further Deployment Measures, including through the development of local Facility Based Mobile Source Measures (FBMSMs). One of the FBMSMs includes MOB-03 – Emissions Reductions at Warehouse Distribution Centers.

The 2016 AQMP described a year-long process for staff to evaluate potential emissions reduction strategies for the FBMSMs and report back to the Governing Board on the most promising approach. South Coast AQMD staff convened a working group to explore potential voluntary and regulatory approaches for warehouses,<sup>5</sup> consistent with what was outlined in the 2016 AQMP for control measure MOB-03. After considering the results of that year-long process, in May 2018, the Governing Board directed staff to initiate rulemaking for a warehouse Indirect Source Rule (ISR),<sup>6</sup> namely Proposed Rule (PR) 2305 and PR 316.

### *Other South Coast AQMD Air Quality Plans*

The South Coast AQMD Governing Board has approved several other plans since adoption of the AQMP that would also benefit from adoption of PR 2305 and PR 316. These include the Contingency Measure Plan for the 1997 8-hour Ozone Standard<sup>7</sup>, and multiple Community Emission Reduction Plans (CERPs) prepared pursuant to Assembly Bill (AB) 617.

The Contingency Measure Plan describes the measures that must be implemented to meet the 2023 attainment deadline for the federal ozone standard. This plan lays out in greater detail many of the strategies included in the 2016 AQMP, in particular for the Further Deployment Measures. With the approval of this plan, the South Coast AQMD Governing Board committed to achieving between 14.4 and 16.4 tons per day of NO<sub>x</sub> reductions by 2023.<sup>8</sup>

Assembly Bill (AB) 617 is a program established to address the disproportionate burden of air pollution on environmental justice communities, by providing funding and enabling selected communities to shape the actions to reduce emissions. In December 2018, CARB approved the South Coast AQMD Year 1 admission of the communities of San Bernardino/Muscoy, East Los Angeles/Boyle Heights/West Commerce, and Wilmington/Carson/West Long Beach into the AB 617 Program. These AB 617 Year 1 communities established Community Steering Committees (CSCs) to work on the development of CERPs to serve as a road map on how to address each respective community's air quality concerns, and in September 2019, the South Coast AQMD Governing Board adopted the AB 617 CERPs. All three of the South Coast AQMD Year 1 AB 617 communities requested that a warehouse ISR be developed due to their concerns regarding air

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<sup>5</sup> Presentation materials from this process are available here: <http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/facility-based-mobile-source-measures/fbmsm-mtngs>

<sup>6</sup> <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2018/2018-may4-032.pdf>  
<http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2018/2018-jun1-001.pdf>

<sup>7</sup> <http://www.aqmd.gov/docs/default-source/planning/1997-ozone-contingency-measure-plan/1997-8-hour-ozone-draft-contingency-measure-plan---120619.pdf>

<sup>8</sup> <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2019/2019-dec6-028.pdf>



pollution impacts from trucks and diesel PM.<sup>9</sup> Similar to the Year 1 AB 617 communities, the Year 2 AB 617 community of South East Los Angeles also included in their CERP a request for continued development of the warehouse ISR to reduce emissions in their community.<sup>10</sup>

### ***State Goals***

Several state goals have focused on the need to accelerate the adoption of lower emission technologies, in particular Zero Emissions (ZE) vehicles. Two notable examples include CARB's Draft Mobile Source Strategy (MSS)<sup>11</sup> and a recent executive order from the governor.<sup>12</sup>

CARB's Draft MSS is an integrated planning effort designed to meet state goals for criteria pollutants, greenhouse gases, and toxics. One of the key conclusions from this analysis is that a significant portion of the existing mobile source fleet (trucks, cars, off-road equipment, etc.) will need to convert to ZE technologies quickly to meet multiple state goals, including attainment of federal air quality standards. While some strategies like the recently adopted Advanced Clean Trucks (ACT) regulation<sup>13</sup> have been more clearly defined in the Draft MSS and through CARB rulemaking efforts, other strategies are still undefined and rely on unspecified "accelerated turnover" to ZE technologies, including for emissions sources associated with warehouses, such as trucks and cargo handling equipment. Further, in September 2020, the governor of California signed an executive order directing state agencies to pursue ZE goals for mobile sources. This includes a goal of a 100% ZE truck fleet by 2045, a 100% ZE drayage truck fleet (trucks that visit ports and railyards) by 2035, and 100% ZE off-road equipment operations by 2035. Although this goal sets out potential targets, it does not include any enforceable mechanism and funding programs and regulations (such as PR 2305) that are needed to achieve the targets.

### ***Public Process***

Since the South Coast AQMD Governing Board voted to initiate rulemaking in May 2018, staff has held 12 working group meetings, presented four updates to the Mobile Source Committee and two updates to the full South Coast AQMD Governing Board. Written materials include this Preliminary Draft Staff Report, two drafts of PR 2305 and one draft of PR 316, and one draft technical report on the WAIRE Menu. Dates for each of these activities is listed in Table 1.

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<sup>9</sup> <http://www.aqmd.gov/docs/default-source/ab-617-ab-134/steering-committees/san-bernardino/cerp/carb-submittal/final-cerp.pdf>

<http://www.aqmd.gov/docs/default-source/ab-617-ab-134/steering-committees/east-la/cerp/carb-submittal/final-cerp.pdf>

<http://www.aqmd.gov/docs/default-source/ab-617-ab-134/steering-committees/wilmington/cerp/final-cerp-wcwl.pdf>

<sup>10</sup> <http://www.aqmd.gov/docs/default-source/ab-617-ab-134/steering-committees/southeast-los-angeles/draft-cerp-5b-trucks.pdf>

<sup>11</sup> <https://ww2.arb.ca.gov/resources/documents/2020-mobile-source-strategy>

<sup>12</sup> <https://www.gov.ca.gov/wp-content/uploads/2020/09/9.23.20-EO-N-79-20-text.pdf>

<sup>13</sup> <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-trucks>

**Table 1: Dates of Key Public Process Activities Prior to Release of Preliminary Draft Staff Report**

| Activity   | Dates  |
|--|--|
| Working Group Meetings                             | Aug. 1, 2018; Aug. 23, 2018; Oct. 24, 2018; Mar. 22, 2019; Aug. 23, 2019; Sept. 19, 2019; Nov. 13, 2019; Dec. 10, 2019; Mar. 3, 2020; Oct. 9, 2020; Oct. 30, 2020; Dec. 17, 2020 |
| Mobile Source Committee Updates                    | Nov. 16, 2018; Feb. 15, 2019; Sept. 20, 2019; Jan. 24, 2020  |
| Governing Board Updates                            | Sept. 7, 2018; Mar. 1, 2019  |
| Draft WAIRE Menu Technical Document and Calculator | Mar. 3, 2020   |
| Draft Rule Language                                | Nov. 10, 2019; Oct. 9 2020   |
| CEQA Notice of Preparation                         | Nov. 13, 2020  |

The following potential options for reducing emissions from warehouses were discussed in the Warehouse ISR Working Group:

- Facility Caps: Allow emissions at each warehouse distribution center to be capped so each warehouse distribution center would have the flexibility to individually determine how to reduce emissions.
- Local Government Measures: Local governments may decide to tailor emission reduction strategies to address local needs (e.g., through their land use authority).
- Clean Fleets Crediting/Banking Program: Allow clean fleets to generate credits that would be managed through a bank while requiring ISR facilities to regularly purchase and apply the credits to offset emissions from individual warehouse distribution centers.
- Voluntary Fleet Certification Program: Allow fleet owners to certify their fleets are cleaner than what would otherwise be required by CARB regulations while requiring facilities to use a prescribed amount of certified fleets.
- Best Management Practices (BMPs):- Allow facilities to choose from an assortment of BMPs such as utilizing ZE or NZE equipment on site, and/or installing ZE/NZE fueling and charging infrastructure, or solar energy storage.
- Mitigation Fees:- Allow facilities to pay mitigation fees if other options are not chosen and apply collected funds to subsidize the purchase and use of ZE/NZE equipment or the installation of fueling/charging infrastructure.

Of these options, only the Best Management Practices (now the WAIRE Menu and Custom WAIRE Plan option) and the Mitigation Fee options have been carried forward to PR 2305. These options were found to be the least administratively burdensome for facilities and South Coast AQMD compliance staff and ensured that emission reductions would be focused in the communities near warehouses. The menu-based approach is similar to other rules that allow multiple options of compliance, such as South Coast AQMD Rule 2202 - On-Road Motor Vehicle Mitigation Options<sup>14</sup> that focuses on reducing emissions from employee commutes, Rule 403 – Fugitive Dust<sup>15</sup> that focuses on reducing particulate matter emissions from activities like earth moving. Both rules allow multiple options to comply with overall requirements in each rule.

<sup>14</sup> <http://www.aqmd.gov/docs/default-source/rule-book/reg-xxii/rule-2202.pdf>

<sup>15</sup> <http://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-403.pdf>

PR 2305 will also include a points-based system that is similar to programs widely used in South Coast AQMD's jurisdiction for development projects including LEED for green building design,<sup>16</sup> and San Bernardino's Greenhouse Gas Reduction Plan<sup>17</sup>. Both programs assign points based on actions taken from a menu, and assign a rating based on the total number of points earned. PR 2305 will take a similar approach to these successful programs (and additionally includes many menu items that can be used in LEED and San Bernardino's GHG Reduction Plan). PR 2305 and PR 316 are described in greater detail in Chapter 2.

## **EMISSIONS INVENTORY OF PR 2305 WAREHOUSES**

The sources of emissions associated with warehouses include the trucks that deliver goods to and from the facilities, yard trucks located at warehouses that move trailers, transport refrigeration units (TRUs) located on trucks and trailers that keep cargo, like food, cold, and the passenger vehicles for warehouse employees. Additional emissions sources can include onsite stationary equipment (e.g., diesel backup generators or manufacturing equipment), and emissions from power plants that provide electricity for the warehouse – though these sources have not been included in the baseline emissions inventory. Most of these vehicles are diesel powered, except for passenger vehicles which are typically gasoline powered.

The emissions inventory established in the 2016 AQMP provides a platform from which to develop a baseline inventory for the universe of warehouses that would be subject to PR 2305 and PR 316. However, there are several developments that have occurred since the approval of the 2016 AQMP. First, the on-road mobile emissions inventory developed by CARB that was used in the 2016 AQMP is EMFAC 2014. However, a newer version of that model has since been approved by U.S. EPA (EMFAC 2017) with updated emission rates. Second, the CARB Board has approved two key regulations that will affect trucks that travel to warehouses called the Advanced Clean Trucks regulation<sup>18</sup> and the Low NOx Omnibus regulation.<sup>19</sup> Finally, CARB and U.S. EPA are continuing to develop additional regulations, but many are too speculative to consider at their current level of development. One future regulation, the Heavy-Duty Inspection and Maintenance (I/M) regulation,<sup>20</sup> is considered here as there is statutory direction for CARB to develop and adopt it<sup>21</sup> and the regulation has been developed sufficiently to provide a preliminary quantification of the impact. The emissions data from these more recent regulations are included either in the META tool that CARB developed to support their Draft Mobile Source Strategy, and/or within the documentation that CARB has prepared for each regulation. The key data parameters and the associated data sources are listed in Table 2 below.

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<sup>16</sup> <https://www.usgbc.org/leed>

<sup>17</sup> <http://www.sbcounty.gov/Uploads/lus/GreenhouseGas/FinalGHGUpdate.pdf>

<sup>18</sup> Ibid.

<sup>19</sup> <https://ww2.arb.ca.gov/our-work/programs/heavy-duty-low-nox>

<sup>20</sup> <https://ww2.arb.ca.gov/our-work/programs/heavy-duty-inspection-and-maintenance-program>

<sup>21</sup> Senate Bill 210, [http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=201920200SB210](http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200SB210)

**Table 2: Key Data Sources Used for PR 2305 Emissions Inventory**

| Parameter  | Data Sources   | Data Availability  |
|--|--|--|
| Warehouse Populations and Square Footage <sup>22</sup> | CoStar, Dun & Bradstreet, InfoUSA, Leonard's Guide, Google Earth   | <a href="http://www.costar.com">www.costar.com</a> , <a href="http://www.dnb.com">www.dnb.com</a> , <a href="http://www.dataaxleusa.com">www.dataaxleusa.com</a> , <a href="http://www.leonardsguide.com">www.leonardsguide.com</a> , <a href="http://www.google.com/earth">www.google.com/earth</a> |
| Truck Emission Rates                                   | EMFAC 2017, CARB META Tool   | <a href="https://arb.ca.gov/emfac/2017/">https://arb.ca.gov/emfac/2017/</a> , <a href="http://ww2.arb.ca.gov/resources/documents/2020-mobile-source-strategy">ww2.arb.ca.gov/resources/documents/2020-mobile-source-strategy</a>   |
| Truck and Car Trip Rates                               | Institute of Transportation Engineers, 2016. <i>High-Cube Warehouse Vehicle Trip Generation Analysis</i> | <a href="http://www.ite.org/pub/?id=a3e6679a%2De3a8%2Dbf38%2D7f29%2D2961becdd498">www.ite.org/pub/?id=a3e6679a%2De3a8%2Dbf38%2D7f29%2D2961becdd498</a>   |
| Truck and Car Trip Lengths                             | SCAG 2016 Regional Transportation Plan   | <a href="https://scag.ca.gov/resources-prior-plans">https://scag.ca.gov/resources-prior-plans</a>  |
| TRU Populations and Emissions Rates                    | CARB TRU rulemaking analysis   | <a href="https://ww2.arb.ca.gov/our-work/programs/transport-refrigeration-unit/tru-meetings-workshops">https://ww2.arb.ca.gov/our-work/programs/transport-refrigeration-unit/tru-meetings-workshops</a>  |
| Yard Truck Populations                                 | Power Systems Research   | <a href="http://www.powersys.com">www.powersys.com</a>   |
| Yard Truck Emission Rates                              | CARB Carl Moyer Guidelines, CARB Low NO <sub>x</sub> Omnibus rulemaking analysis                         | <a href="https://ww2.arb.ca.gov/guidelines-carl-moyer">https://ww2.arb.ca.gov/guidelines-carl-moyer</a> , <a href="https://ww2.arb.ca.gov/rulemaking/2020/hdomnibuslownox">https://ww2.arb.ca.gov/rulemaking/2020/hdomnibuslownox</a>  |

The NO<sub>x</sub> and diesel PM baseline emissions in the South Coast AQMD associated with warehouses in key milestone years is shown in Table 3 below. As seen in this table, heavy duty trucks are the largest source of emissions, comprising more than 90% of the total PR 2305 inventory.

**Table 3: PR 2305 Warehouse NO<sub>x</sub> and Diesel PM Emissions (tons per day)**

| Emission Source    | 2019            |              | 2023            |              | 2031            |              |
|--------------------|-----------------|--------------|-----------------|--------------|-----------------|--------------|
|                    | NO <sub>x</sub> | DPM          | NO <sub>x</sub> | DPM          | NO <sub>x</sub> | DPM          |
| Heavy Duty Trucks  | 39.79           | 0.68         | 24.43           | 0.18         | 24.78           | 0.17         |
| Passenger Vehicles | 0.96            | 0.02         | 0.70            | 0.02         | 0.39            | 0.01         |
| TRUs               | 0.09            | 0.003        | 0.09            | 0.003        | 0.08            | 0.003        |
| Yard Trucks        | 1.88            | 0.08         | 1.67            | 0.07         | 1.61            | 0.06         |
| <i>Total</i>       | <i>42.72</i>    | <i>0.783</i> | <i>26.92</i>    | <i>0.273</i> | <i>26.86</i>    | <i>0.243</i> |

## AIR QUALITY NEED

There are six key reasons why PR 2305 and PR 316 are needed. First and foremost, the SCAB region continues to experience ozone and fine particulate matter levels that exceed federal air quality standards. This poor air quality is among the worst, if not the worst in the nation.<sup>23</sup> Attaining the air quality standards yields monetized health benefits that are estimated to be about

<sup>22</sup> Additional details regarding the universe of PR 2305 warehouses is described in Chapter 3 and Appendix A.

<sup>23</sup> <https://www.stateoftheair.org/assets/SOTA-2020.pdf>

\$173 billion.<sup>24</sup> NO<sub>x</sub> is the primary pollutant that needs to be reduced to meet federal air quality standards, and mobile sources associated with goods movement make up about 52% of all NO<sub>x</sub> emissions in the SCAB.<sup>25</sup> Trucks are the largest source of NO<sub>x</sub> emissions in the air basin and also for the emissions associated with warehouses. Any diesel PM reductions brought about by PR 2305 and PR 316 will also help meet federal air quality standards for fine PM. PR 2305 and PR 316 would reduce emissions from the goods movement sector by requiring warehouse operators to take actions to reduce emissions directly or through facilitating emissions reductions.

Second, existing regulations are not sufficient to meet either the 2023 or 2031 attainment dates. Even newly proposed regulations from CARB and U.S. EPA (as shown in CARB's Draft MSS) will not be able to meet these air quality standards on their own, and additional actions are needed. No single regulation could achieve federal air quality standards on its own, including PR 2305 and PR 316. However, these proposed rules are designed to contribute their own additional emissions reductions and enhance emission reductions from other programs, and are part of the collection of actions needed to meet air quality standards.

Third, the 2016 AQMP estimated that at least \$1 billion per year in incentive funding to clean up vehicle and engine fleets would be needed – absent any further regulations – to meet the 2023 and 2031 attainment dates. Although incentive funding has increased, reaching between about \$100 to \$200 million per year over the past few years,<sup>26</sup> it has not reached a level sufficient to turn over enough vehicles to meet air quality standards. Many incentive programs are oversubscribed,<sup>27</sup> with demand far exceeding funding availability. However, some programs are undersubscribed.<sup>28</sup> PR 2305 and PR 316 are designed to work with existing and future incentive programs, and can help encourage greater levels of incentive funding and encourage applicants to apply for funding. The regulatory requirements in PR 2305 and PR 316 are expected to increase industry's interest in incentive programs in order to reduce the cost of compliance. This can help ensure that all incentive funds are spent and can potentially spread incentives to a broader segment of industry if more recipients sign up for funding. Finally, much of the incentive funding that South Coast AQMD distributes is allocated annually as part of the state legislature's budgetary process. A regulatory requirement may increase the request for funding from the legislature by many stakeholders, which has the potential to further increase the amount of funding available and reducing the cost of compliance to industry.

A fourth air quality need for PR 2305 and PR 316 is to support statewide efforts to increase the number of ZE vehicles. There are many actions occurring across state government to increase the use of ZE vehicles to satisfy many goals, including meeting federal and state air quality standards, reducing toxics and greenhouse gas emissions, encouraging manufacturing of ZE vehicles in the state, reducing the dependence on fossil fuels and the related impacts from extracting and

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<sup>24</sup> [http://www.aqmd.gov/docs/default-source/clean-air-plans/socioeconomic-analysis/final/sociofinal\\_030817.pdf](http://www.aqmd.gov/docs/default-source/clean-air-plans/socioeconomic-analysis/final/sociofinal_030817.pdf)

<sup>25</sup> [https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial\\_goods-movement.pdf?1606001690](https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial_goods-movement.pdf?1606001690)

<sup>26</sup> <http://www.aqmd.gov/docs/default-source/planning/1997-ozone-contingency-measure-plan/1997-8-hour-ozone-draft-contingency-measure-plan---120619.pdf>

<sup>27</sup> <http://www.aqmd.gov/docs/default-source/Agendas/Technology/technology-committee-agenda-12-18-20.pdf#page=6>

<sup>28</sup> <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2020/2020-dec4-005.pdf>

producing these fuels, etc.<sup>29</sup> The South Coast AQMD is uniquely positioned to contribute to this effort with its authority to regulate indirect sources. PR 2305 and PR 316 provide a mechanism to require warehouse operators to encourage ZE vehicle use at their facilities as one of many options of compliance.

A fifth air quality need is to ensure that state actions to require cleaner vehicles actually occur in the South Coast AQMD region. The recent ACT and Low NOx Omnibus regulations assume a certain amount of new truck sales every year, and also assume that the activity of those newer, cleaner trucks will occur consistent with past behavior as demonstrated in EMFAC. However, the nature of those two regulations ensures that lower emissions occur only *if* trucks are sold. It does not require any certain number of trucks to be sold, or to operate within the South Coast AQMD.<sup>30</sup> Similarly, the upcoming TRU regulation is expected to have requirements for newly manufactured trailer TRUs to meet lower PM standards, yet will not mandate that fleets purchase them, nor will it direct sales in certain parts of the state.<sup>31</sup>

For comparison, CARB mandates a certain percentage of light duty vehicle sales to be zero emission vehicles (ZEVs) or plug-in hybrid electric vehicles (PHEVs)<sup>32</sup> as part of its Advanced Clean Cars (ACC) regulation.<sup>33</sup> CARB has reported that all vehicle manufacturers subject to ACC are in compliance as of 2019.<sup>34</sup> However, the distribution of ZEVs and PHEVs throughout the state does not coincide with the areas with highest air pollution. Figure 3 shows county-level median Air Quality Index (AQI)<sup>35</sup> compared with the percent of the light duty vehicle population that is ZEV or PHEV<sup>36</sup>. This figure shows that three of the four counties in the South Coast AQMD jurisdiction have the highest AQI in the state, and that ZEVs and PHEVs are not preferentially located in areas with higher AQI.<sup>37</sup> PR 2305 and PR 316 would place requirements on warehouse operators in South Coast AQMD that will encourage them to ensure that the potential benefits from statewide regulations occur here.

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<sup>29</sup> <https://static.business.ca.gov/wp-content/uploads/2019/12/2018-ZEV-Action-Plan-Priorities-Update.pdf>, <https://www.gov.ca.gov/wp-content/uploads/2020/09/9.23.20-EO-N-79-20-text.pdf>, <https://www.ca.gov/archive/gov39/2012/03/23/news17472/index.html>, <https://www.ca.gov/archive/gov39/2018/01/26/governor-brown-takes-action-to-increase-zero-emission-vehicles-fund-new-climate-investments/index.html>, <https://www.ca.gov/archive/gov39/wp-content/uploads/2018/09/9.10.18-Executive-Order.pdf>

<sup>30</sup> Neither of these regulations impose any requirements on trucks registered out of state. Warehouse operators would have the choice to use ZE or NZE technologies for out of state trucks too.

<sup>31</sup> <https://ww2.arb.ca.gov/our-work/programs/transport-refrigeration-unit/new-transport-refrigeration-unit-regulation>

<sup>32</sup> ZEVs and PHEVs have lower tailpipe emissions than their conventional gasoline or diesel counterparts as they can run wholly or at least partially without using an internal combustion engine.

<sup>33</sup> <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program>

<sup>34</sup> [https://ww2.arb.ca.gov/sites/default/files/2020-10/2019\\_zev\\_credit\\_annual\\_disclosure.pdf](https://ww2.arb.ca.gov/sites/default/files/2020-10/2019_zev_credit_annual_disclosure.pdf)

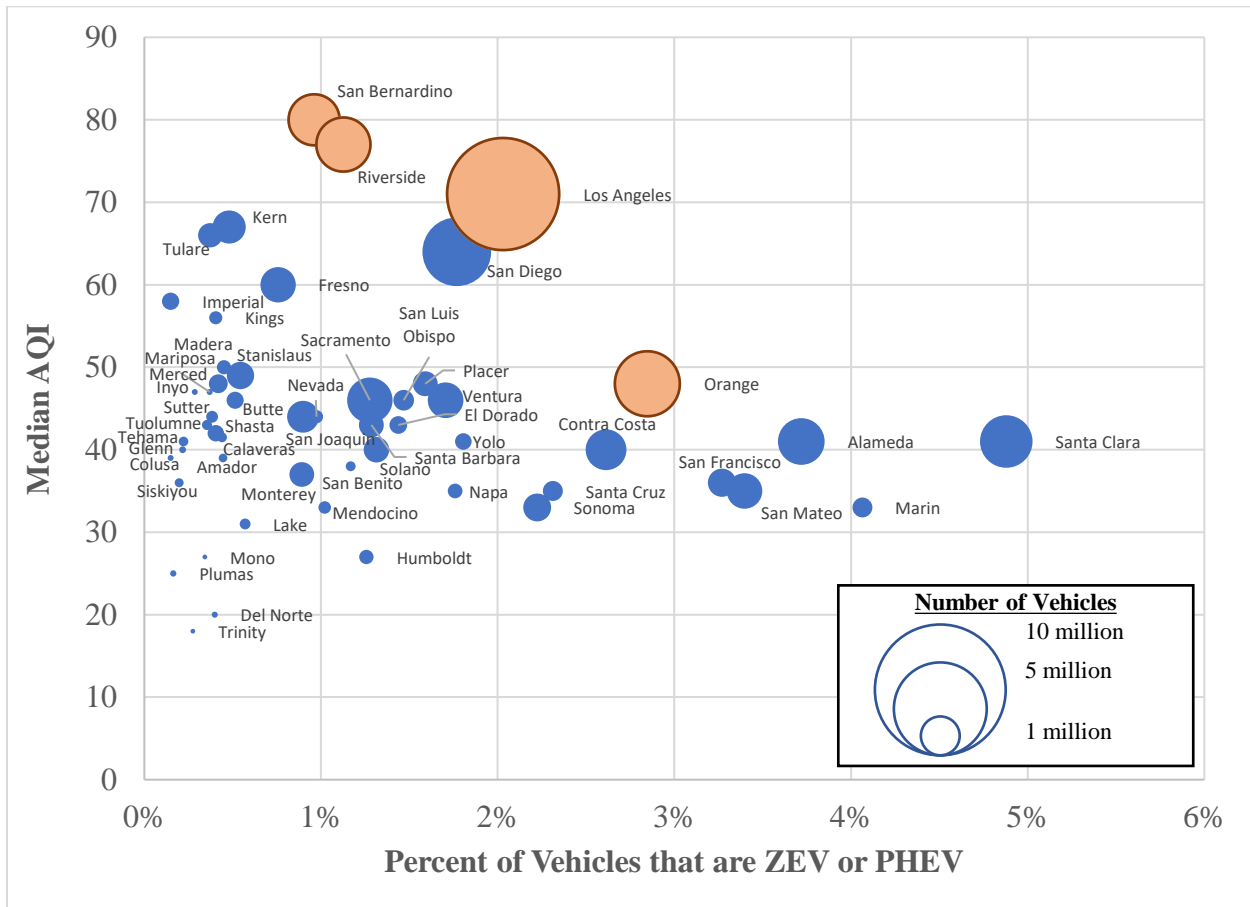
<sup>35</sup> Air Quality Index is an indicator of overall air quality and considers all criteria air pollutants measured within a geographic area. Higher values indicate worse air quality.

<https://www.epa.gov/outdoor-air-quality-data/air-quality-index-report>

<sup>36</sup> <https://www.energy.ca.gov/files/zev-and-infrastructure-stats-data>

<sup>37</sup> Of the 59 counties in California, Orange County ranks 6<sup>th</sup> in ZEV and PHEV share, Los Angeles County ranks 10<sup>th</sup>, Riverside County ranks 23<sup>rd</sup>, and San Bernardino County ranks 26<sup>th</sup>.

**Figure 3: County-Level Median Air Quality Index vs. ZEV & PHEV Percent of Light-Duty Vehicle Population in 2019**



Finally, in addition to contributing to regional pollution that exceeds federal and state air quality standards, warehouses are also associated with there are important localized health effects from air pollution. Communities have repeatedly expressed concern about these impacts, including through the AB 617 process. In particular, diesel fueled vehicles and equipment like on-road trucks, off-road yard trucks, and TRUs emit diesel PM, a pollutant designated as a carcinogen by the state of California.<sup>38</sup> Diesel PM contains many pollutants (e.g., benzene, acetaldehyde, etc.) which are also recognized federally as hazardous air pollutants.<sup>39</sup> As seen in Figure 4 below, an analysis of communities in South Coast AQMD shows that those living within 0.5 miles of a PR 2305 warehouse rank in the 80<sup>th</sup> percentile according to CalEnviroScreen<sup>40</sup>, whereas the average community in South Coast AQMD has much less burden ranking in the 61<sup>st</sup> percentile. PR 2305

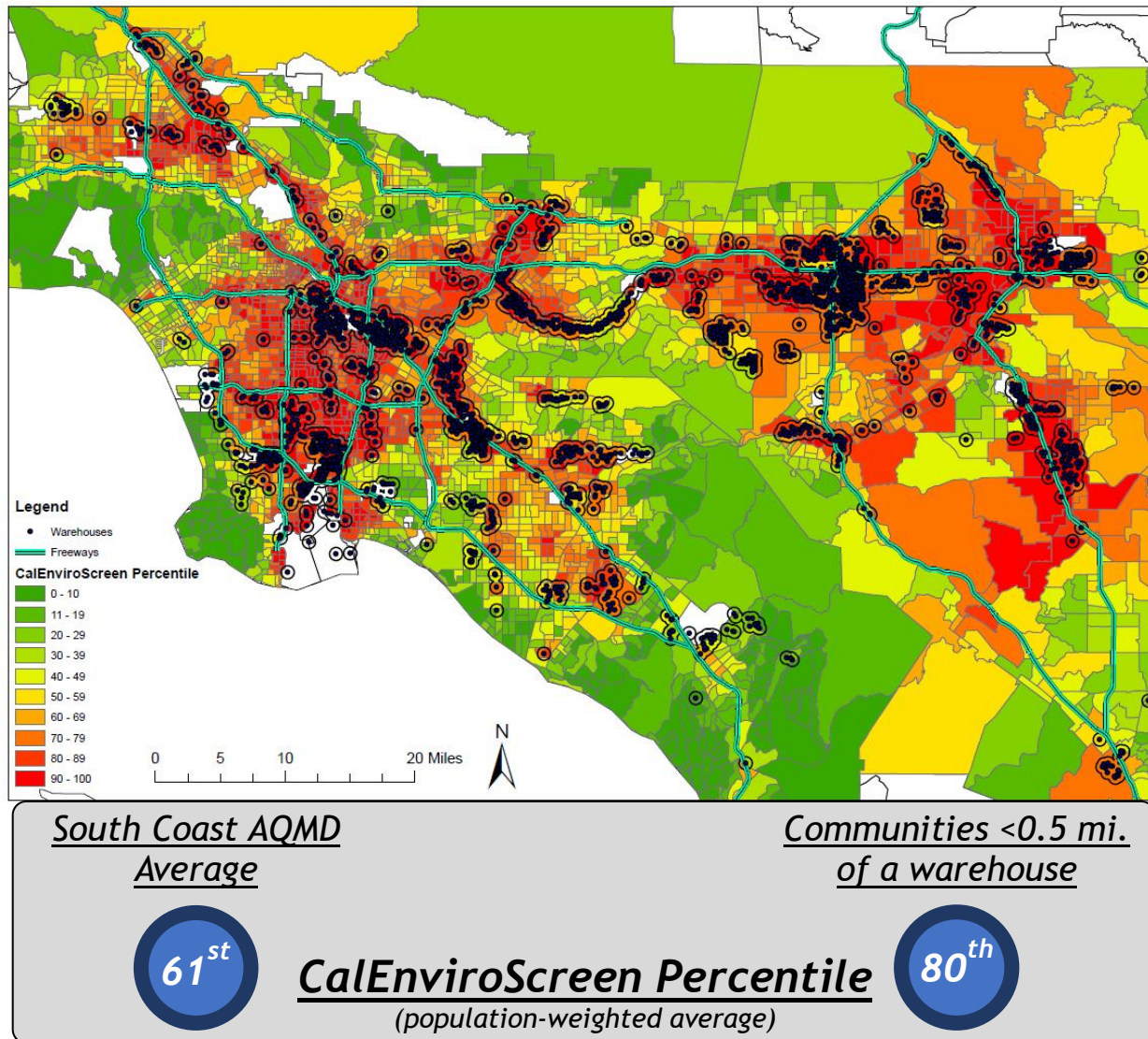
<sup>38</sup> <https://ww2.arb.ca.gov/sites/default/files/classic/toxics/dieseltac/finexsum.pdf>

<sup>39</sup> <https://www.epa.gov/haps/initial-list-hazardous-air-pollutants-modifications>

<sup>40</sup> The state Office of Environmental Health Hazard Assessment (OEHHA) has developed a tool to evaluate the environmental burden on communities throughout the state called CalEnviroScreen (<https://oehha.ca.gov/calenviroscreen>). This tool ranks communities based on their pollution burden (e.g., air pollution levels), as well as community characteristics that can make them more susceptible to impacts from pollution (e.g., socioeconomic status). Communities are given a percentile score (out of 100%) to show how they compare with the rest of the state – higher scores mean they experience higher burden.

and PR 316 would reduce this local pollution burden by requiring warehouse operators to take actions to reduce emissions and exposures from trucks and other emission sources associated with their facility (e.g., through NZE/ZE truck use, filters, etc.), as well as take actions to facilitate (e.g., ZE infrastructure) and enhance emission reductions from other programs (e.g., incentive programs, CARB regulations, etc.).

**Figure 4: Environmental Burden on Communities Near PR 2305 Warehouses as Demonstrated by CalEnviroScreen**



**LEGAL AUTHORITY**

The South Coast AQMD may adopt PR 2305 and PR 316 through the authority to “adopt and enforce rules and regulations to achieve the state and federal ambient air quality standards in all areas affected by emission sources under their jurisdiction...” (Health and Safety Code section



40001; *see also* section 40702.) Generally, CARB has primary authority over emissions from motor vehicles and the South Coast AQMD has primary authority over all sources in the basin, except motor vehicles. (Health and Safety Code section 40000.) However, Health and Safety Code section 40716 recognizes air districts may adopt and implement regulations that control emissions from indirect and areawide sources in order to meet state ambient air quality standards.

The key pollutants of interest for PR 2305 include nitrogen oxides (NO<sub>x</sub>, a key precursor pollutant for ozone and fine PM) and diesel PM (a component of fine PM, and a toxic air contaminant). The South Coast AQMD is in nonattainment of the California Ambient Air Quality Standards (CAAQS) for both ozone and fine PM, referred to as PM 2.5. Notably, for ozone, the current 8-Hour CAAQS and the 2015 8-hour NAAQS are at an equivalent level and for PM 2.5, the current annual CAAQS and the 2012 annual NAAQS are also at an equivalent level. As a result, the South Coast AQMD relies on the same measures to meet both federal and state ozone and PM 2.5 standards.

In addition, the Clean Air Act allows a state to include "...as part of an applicable [state] implementation plan, an indirect source review program which the State chooses to adopt and submit as part of its plan." (Clean Air Act section 110(a)(5)(A)(i).) An indirect source is defined as "...a facility, building, structure, installation, real property, road, or highway which attracts, or may attract, mobile sources of pollution." (Clean Air Act section 110(a)(5)(C).)

The South Coast AQMD Governing Board approved the 2016 Air Quality Management Plan (2016 AQMP) in March of 2017. The 2016 AQMP was subsequently approved by CARB, included into the State Implementation Plan (SIP), and approved by U.S. EPA in 2019. The 2016 AQMP included MOB-03, a facility-based mobile source control measure to reduce mobile source emissions associated with warehouse distribution centers, which has resulted in PR 2305 and PR 316.

By approving MOB-03 into the 2016 AQMP, the South Coast AQMD and CARB have committed to, and the U.S. EPA has authorized, the development of an indirect source rule to achieve emission reductions from mobile sources attributed to warehouse activities, in order to assist attaining the federal ozone NAAQS in 2023 and 2031. While MOB-03 was adopted as part of the NO<sub>x</sub> emissions reduction strategy for ozone, the 2016 AQMP also recognized that the "NO<sub>x</sub> strategy will assist in meeting the annual PM 2.5 as "expeditiously as practicable" earlier than the attainment year of 2025." (2016 AQMP, pg. 4-52.)

Initially, the South Coast AQMD Governing Board authorized a one-year public process to identify if MOB-03 could be achieved through voluntary or regulatory measures, and then ultimately determined, in May of 2018, that staff should pursue a regulatory approach.

A California Attorney General Opinion from 1993 determined that a district could adopt a regulation to,

"...require the developer of an indirect source to submit the plans to the district for review and comment prior to the issuance of a permit for construction by a city or county. A district may also require the owner of an indirect source to adopt

reasonable post-construction measures to mitigate particular indirect effects of the facility's operation.”

The opinion acknowledged a district may adopt a regulation requiring new and existing indirect sources to submit plans to the district to mitigate mobile indirect source emissions from both construction and operations that are attributed to the source. The Clean Air Act does not contain any prohibition on the scope of an Indirect Source Rule adopted by a state, as confirmed by the opinion and Health and Safety Code section 40716, and a state indirect source rule may include reasonable post-construction measures. The opinion further acknowledged that under Health and Safety Code section 42311, the district could adopt a regulation to collect fees to recover the costs associated with the indirect source review program. A similarly worded section, Health and Safety Code section 40522.5, specifically authorizes the South Coast AQMD to collect fees to recover costs associated with regulatory programs for areawide or indirect sources. These are the types of fees contemplated by PR 316.

Implementation of PR 2305 and PR 316 will also meet the requirement for districts in extreme nonattainment to consider all feasible measures that have been implemented in other areas in order to meet state standards. (Health and Safety Code section 40920.5(c).) While the term “feasible” is not defined in the Health and Safety Code, it is defined in another state regulation as “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.” (14 California Code of Regulations section 15364.)

There are several examples of indirect source rules that have already been adopted in California. For example, the San Joaquin Valley Unified Air Pollution Control District adopted Rule 9510, which requires new development projects that meet certain specifications to reduce emissions of PM 10 and NOx. In addition, indirect source programs have been implemented by Mendocino County AQMD, Great Basin Unified APCD, Colusa County APCD, Placer Court APCD, Imperial County APCD, and Shasta County AQMD. As several California air districts have already adopted and implemented indirect source rules, policies, and/or the collection of reduction fees, this type of measure has been shown in a variety of areas to be “feasible.” Furthermore, the authority for air districts to set emission reduction targets from indirect sources was confirmed by the court in *NAHB v. San Joaquin Valley UAPCD* (9th Cir. 2010) 627 F.3d 730.

Health and Safety Code section 40717 further requires districts to “adopt, implement, and enforce transportation control measures for the attainment of state or federal ambient air quality standards...” The section defines transportation control measures as “any strategy to reduce vehicle trips, vehicle use, vehicle miles traveled, vehicle idling, or traffic congestion for the purpose of reducing motor vehicle emissions.” (Health and Safety Code section 40717 (g).) PR 2305 will encourage facilities to reduce motor vehicle emissions by requiring fewer points from facilities that are able to employ certain transportation control measures, such as fewer truck trips (with additional subsequent reduced vehicle idling).

In addition to the above provisions, the South Coast AQMD may adopt rules or regulations that require “the owner or the operator of any air pollution emission source to take such action as the state board or the district may determine to be reasonable for the determination of the amount of

such emission from such source.” (Health and Safety Code section 41511.) Even more specifically, under Health and Safety Code section 40701(g), the South Coast AQMD is authorized to collect information regarding a source, “...except a noncommercial vehicular source, to provide (1) a description of the source, and (2) disclosure of the data necessary to estimate the emissions of pollutants for which ambient air quality standards have been adopted, or their precursor pollutants....” These sections of the Health and Safety Code therefore authorize the South Coast AQMD to require owners and operators of warehouses to provide information that may be used to quantify emissions based on warehouse activity.

Programs reducing emissions of precursors to ozone and PM 2.5 for purposes of achieving and maintaining the NAAQS or CAAQS may also have concurrent benefits in reducing emissions of air toxics. The district may adopt rules to reduce emissions from sources that may affect public health. One of the duties imposed upon the district is the duty to enforce Health and Safety Code section 41700. That section provides:

“Except as otherwise provided in section 41705, no person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.”

Accordingly, the South Coast AQMD may adopt regulations to prevent the potential health impacts from toxic air contaminants, including diesel PM, as well as to reduce the emissions of criteria air pollutants. The California Supreme Court has upheld the districts’ authority to regulate air toxic emissions from sources within their jurisdiction. (*Western Oil & Gas Assoc. v. Monterey Bay Unified Air Pollution Control Dist.* (1989) 49 Cal.3d 408.)

## **CHAPTER 2: SUMMARY OF PROPOSAL**

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**INTRODUCTION**

**PROPOSED RULE 2305**

**PROPOSED RULE 316**

**WAIRE MITIGATION PROGRAM**

## INTRODUCTION

Proposed Rule (PR) 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program includes the requirements that regulated warehouse owners and operators must follow. These requirements include an obligation for applicable warehouse operators to earn a specified number of WAIRE Points every year using either a menu of options, developing and implementing a custom plan, or paying a mitigation fee. Warehouse operators that over-comply may transfer excess WAIRE Points earned in one year to a subsequent year or may transfer WAIRE Points to another site within their control. If they so choose, warehouse owners may also opt in and earn WAIRE Points and transfer them to an operator at that site. PR 2305 also requires reporting information about facility operations and recordkeeping. PR 316 is the companion rule to PR 2305 and establishes the administrative fees that PR 2305 warehouse owners and operators must pay to support South Coast AQMD compliance activities.

## PROPOSED RULE 2305

### *Purpose – Subdivision (a)*

The purpose of the proposed rule is to reduce local and regional emissions of NO<sub>x</sub> and PM associated with warehouses in order to assist in meeting state and federal air quality standards. Actions required by PR 2305 can also work together with other regulations, incentive programs, and state policies to enhance their effect (e.g., clean air goals and zero emission vehicle goals). PR 2305 therefore also acts as a facilitating measure to achieve emission reductions from these other efforts. Reductions in NO<sub>x</sub> and PM regionally will assist in meeting federal and state air quality standards, and concurrent reductions in diesel PM will also reduce air quality impacts to communities living near warehouses.

The proposed purpose is as follows:

*The purpose of this rule is to reduce local and regional emissions of nitrogen oxides and particulate matter, and to facilitate local and regional emission reductions associated with warehouses, in order to assist in meeting state and federal air quality standards for ozone and fine particulate matter.*

### *Applicability- Subdivision (b)*

In 2014, there were approximately 32,000 industrial warehouse buildings of any size in the counties of Los Angeles, Orange, Riverside, and San Bernardino counties. PR 2305 will apply only to the largest facilities in South Coast AQMD that have more than 100,000 square feet of indoor space in a single building. Warehouse owners often do not conduct day-to-day operations, and thus PR 2305 applies to both operators and owners of these facilities, however most requirements do not apply to owners unless they opt in (see Requirements discussion below). Some large industrial properties may also have buildings that exceed the 100,000 square foot threshold, but do not conduct any warehousing activities (e.g., they may conduct manufacturing instead). Finally, some facilities may have tenants that change through time. One year may include a tenant operating a facility as a church, and the next year a new tenant may change to a warehouse operator. The applicability of the rule is therefore tied to buildings that *may* be used for warehousing activities, however only limited reporting is required by PR 2305 if warehousing activities are not actually occurring.

The proposed applicability is as follows:

*This rule applies to owners and operators of warehouses located in the South Coast Air Quality Management District (South Coast AQMD) jurisdiction with greater than or equal to 100,000 square feet of indoor floor space in a single building.*

***Definitions – Subdivision (c)***

PR 2305 includes definitions of specific terms related to the warehousing industry and mobile source technology. Some definitions are based on existing South Coast AQMD rules and regulations. There are technology terms such as electric charger levels or technology type that have range differences in the industry, but at time of inclusion were based on an existing source. Please refer to PR 2305 subdivision (c) for each specific definition.

Proposed Definitions:

|   |                          |
|---|--------------------------|
| Alternative Energy Generation Equipment | Warehouse Facility Owner |
| Alternative-Fueled Vehicle              | Warehouse Land Owner     |
| Alternative Fueling Station             | Warehouse Size           |
| Class 2B Truck                          | Warehouse Activities     |
| Class 3 Truck                           | Yard Truck               |
| Class 4 Truck                           | Zero-Emission (ZE) Truck |
| Class 5 Truck                           |                          |
| Class 6 Truck                           |                          |
| Class 7 Truck                           |                          |
| Class 8 Truck                           |                          |
| Cold Storage Warehouse                  |                          |
| Compliance Period                       |                          |
| Diesel Particulate Matter (DPM)         |                          |
| Dwell Time                              |                          |
| Electric Charger                        |                          |
| Fuel Type                               |                          |
| Level 2 Charger                         |                          |
| Level 3 Charger                         |                          |
| Level 4 Charger                         |                          |
| Level 5 Charger                         |                          |
| MERV 16                                 |                          |
| Near-Zero Emission (NZE) Trucks         |                          |
| Nitrogen Oxides (NOx)                   |                          |
| Parent Company                          |                          |
| Straight Truck                          |                          |
| Tractor                                 |                          |
| Transport Refrigeration Unit            |                          |
| Truck Class                             |                          |
| Truck Trip                              |                          |
| Vehicle Miles Traveled (VMT)            |                          |
| Warehouse                               |                          |
| Warehouse Facility                      |                          |
| Warehouse Operator                      |                          |

*Alternative Energy Generation Equipment:* Some warehouses already operate solar panels that generate electricity. This is expected to be the dominant technology for alternative energy generation equipment at a PR 2305 warehouses. However, other onsite forms of energy generation may be possible (e.g., windmills). This definition only applies to reporting requirements, and warehouse operators will be required to specify which type of technology they operate onsite.

*Alternative fueled-vehicles and fueling stations:* Alternative fuels means fuels for vehicles besides diesel and gasoline. This is expected to be dominantly natural gas, electricity, and potentially other fuels like hydrogen or propane. Traditionally alternative-fueled vehicles have lower emissions than their gasoline and diesel counterparts. However, any requirements in the rule related to vehicle emissions refer to near-zero emissions or zero-emissions vehicles. These alternative-fuel definitions only apply to reporting requirements for alternative-fueling stations.

*Class 2b to 8 trucks:* These definitions use common classifications for trucks based on their gross vehicle weight rating.<sup>41</sup> *Truck class* refers to these classes.

*Cold storage warehouse:* These warehouses store perishable goods (e.g., food) and typically have higher energy use due to onsite refrigeration, higher daily truck trip generation rates due to the need to move perishable goods quickly, including from trucks that have a transport refrigeration unit.

*Compliance period:* This is the 12-month period during which warehouse operators (and warehouse facility or land owners who opt in) need to earn WAIRE Points. These WAIRE Points are documented in the Annual WAIRE Report filed within 30 days after the compliance period ends.

*Diesel Particulate Matter (DPM):* DPM is the particulate matter that is emitted from diesel fueled engines that power trucks and equipment. It a component of fine PM, and also a toxic air contaminant and carcinogen.

*Dwell time:* This is the period of time that trucks stay parked at a warehouse.

*Electric charger:* This definition varies in different applications outside PR 2305. For the purposes of PR 2305, an electric charger is a plug that can be used to charge a vehicle independent of whether other plugs are operating. Some electric charging stations are designed with more than one plug, which can be concurrently attached to vehicles, however they cannot charge vehicles simultaneously. For example, high powered charging stations may not be able to deliver multiple high charges at the same time, but a station operator may not want to dedicate personnel to wait for one plug to finish before plugging in the next vehicle to charge, so multiple plugs may be plugged into vehicles, and sit idle. The station would then automatically cycle to the next plug when the first vehicle finishes charging. For purposes of PR 2305, this station would count as a single electric charger. Alternatively, if multiple plugs were able to operate simultaneously, then each plug would count as an individual electric charger.

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<sup>41</sup> <https://afdc.energy.gov/data/10380>

*Fuel type:* This refers to the different types of fuels used in vehicles and equipment.

*Level 2 through 5 chargers:* This definition varies in different applications outside PR 2305. For the purposes of PR 2305, the different levels have been established at set charger output levels [measured in kilowatts (kW)]. The level 5 charger output is capped at 350 kW, as there are still very few chargers available at this high charging capacity. It is expected that new chargers may be able to exceed this level soon, especially for Class 8 trucks. If an operator chooses to install this kind of equipment, they are expected to apply through a Custom WAIRE Plan to earn WAIRE Points.

*MERV 16:* This is equal to a 95% particulate matter efficiency rating for filters used in building heating, ventilation, and air conditioning systems as defined in Standard 52.2 from the American Society of Heating, Refrigerating and Air-Conditioning Engineers. WAIRE Points earned from the WAIRE Menu for filter system installations or filter replacements in residences, schools, daycares, hospitals, or community centers must meet this minimum efficiency level. Filters can reduce indoor exposure to particulate matter.

*Near-zero emissions (NZE) trucks:* This definition refers to the lowest optional low NO<sub>x</sub> standard for truck engines in Title 13, Section 1956.8 of the California Code of Regulations. This level is currently set at 0.02 gram/brake horsepower-hour. CARB is proposing to change this standard to include new test cycles starting in 2024, and additionally lowering the level to as low as 0.01 g/bhp-hr in 2027 as part of its recent Low NO<sub>x</sub> Omnibus rulemaking. The PR 2305 definition uses the Section 1956.8 definition, but slightly refines it by pointing to the “lowest non-zero optional NO<sub>x</sub> standard applicable at the time of manufacture. This refinement is made to ensure that future lower standards are not applied to existing trucks who qualified for the near-zero definition at the time of manufacture.

*Nitrogen oxides (NO<sub>x</sub>):* The definition in PR 2305 is the same definition that is used in South Coast AQMD Rule 2000.

*Parent company:* This term refers to the company or entity that owns another company either directly, or through a subsidiary.

*Straight truck:* This refers to smaller trucks that carry goods on the same chassis as the cab and engine. Typical examples include a box truck or a package delivery truck.

*Tractor:* This refers to larger Class 7 and 8 trucks that pull a trailer, often called “semis.”

*Transport Refrigeration Unit (TRU):* TRUs are typically diesel-powered refrigeration units commonly mounted on the front of a trailer near the tractor cab, or on the front of a straight truck just above the cab. The diesel engine providing power for the TRU is smaller than a truck engine, but TRUs commonly idle for long periods at a warehouse in order to keep the goods inside the straight truck or trailer at appropriate temperatures.

*Truck trip:* A one-way trip from a truck or tractor either from or to a warehouse. A truck entering a warehouse site, and then later leaving would count as two truck trips, and one truck visit.



*Vehicle Miles Travelled (VMT):* For PR 2305, this term refers to the total annual miles of travel made by trucks or tractors. VMT does not need to be tracked to earn any WAIRE Points from the WAIRE Menu. VMT only needs to be reported by warehouse operators in an Initial Site Information Report if they own a fleet that serves that warehouse.

*Warehouse and Warehouse Facility:* A warehouse refers to the building used to store goods, while a warehouse facility refers to the entire property that includes a warehouse, as well as the accessory uses such as the truck yard, parking, maintenance facilities, etc.

*Warehouse Facility Owner and Warehouse Land Owner:* These terms are separately defined because there are rare instances where the owner of the land beneath a warehouse facility is not the same as the owner of the warehouse building. Most parts of PR 2305 do not require anything of warehouse facility or land owners. However, they can opt in to certain parts of the proposed rule (e.g., they can opt in to earn WAIRE Points, and then transfer those to a warehouse operator at that site). In one instance, the Warehouse Operations Notification [see paragraph (d)(7)], there is a requirement of the warehouse facility owner that is not applicable to the warehouse land owner.

*Warehouse Operator:* Most of PR 2305 is applicable to the warehouse operator. The operator is the entity that has control of day-to-day operations at the site. Some operators will hire companies to take care of day-to-day operations for portions of the site, such as yard operations, or temporary laborers to load or unload trucks and trailers. In this instance, the warehouse operator is the entity that hires these companies or temporary laborers.

*Warehouse Size:* This term refers to the indoor floor space of a warehouse. A warehouse may have multiple floors, as well as mezzanine areas, used for warehousing activities. For example, a warehouse building may take up 100,000 square feet of ground area, and have 100,000 square feet of floor space on the first floor used for warehousing activity, and 50,000 square feet of floor space on a mezzanine, with 20,000 square feet of the mezzanine used for office space and the remainder used for warehousing activity. The warehouse size in this case would be 130,000 square feet.

*Warehousing Activity:* Warehousing activity refers to the activities related to the storage and distribution of goods. This can include many activities including sorting, labeling, repackaging, palletizing, applying SKUs, racking, various levels of automation, and other similar activities. There are also many different activities that can occur within the same building that would not be considered warehousing activities, including supporting office administration, manufacturing, vehicle maintenance, or ‘factory’ retail stores that are open to the general public. Standalone retail stores that are open to the general public are also not covered by PR 2305. These non-warehousing activities are not considered warehousing activity.

*Yard truck:* These trucks can be off-road or on-road vehicles and are used to transport trailers short distances around a warehouse facility, for example from a dock door to parking area. Some yard trucks also shuttle trailers short distances on roads to nearby warehouses.

*Zero Emissions (ZE) truck:* This term refers to the definition developed by CARB in its recent Advanced Clean Trucks regulation.

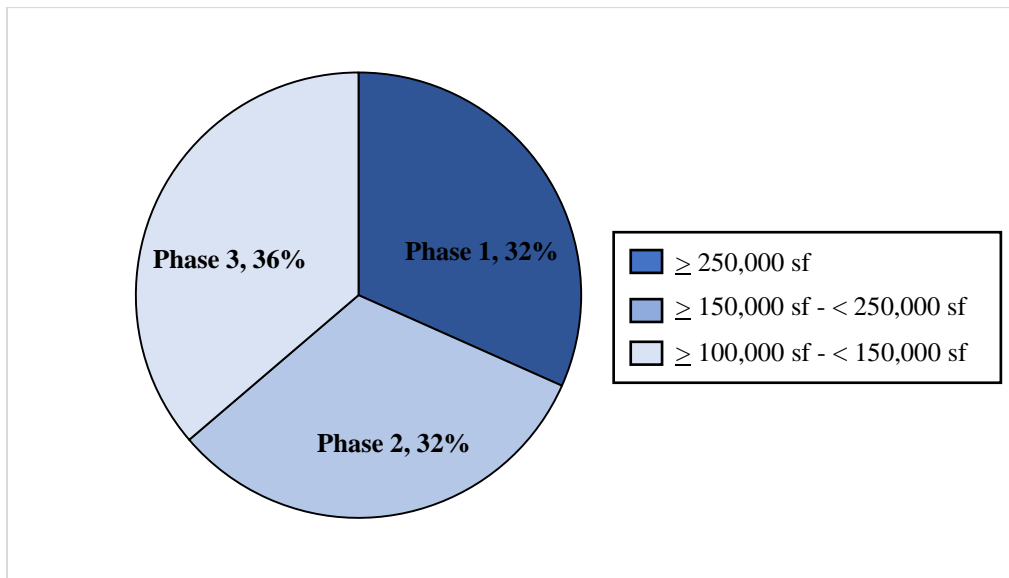
**Requirements – Subdivision (d)**

Subdivision (d) establishes the key requirements of the Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program. This includes establishing the WAIRE Points system, describing how Points can be earned or transferred, and laying out when specific reports are due.

**Paragraph (d)(1)**

This paragraph establishes a WAIRE Points Compliance Obligation (WPCO) for warehouse operators. Warehouse operators must earn WAIRE Points to comply with their WPCO by the initial reporting date in Table 1 of PR 2305. Table 1 splits the universe of PR 2305 warehouses that are anticipated to earn Points into three phases, approximately one third each as shown in Figure 5 below.

**Figure 5: Number of PR 2305 Warehouses Anticipated to Earn Points by Phase**



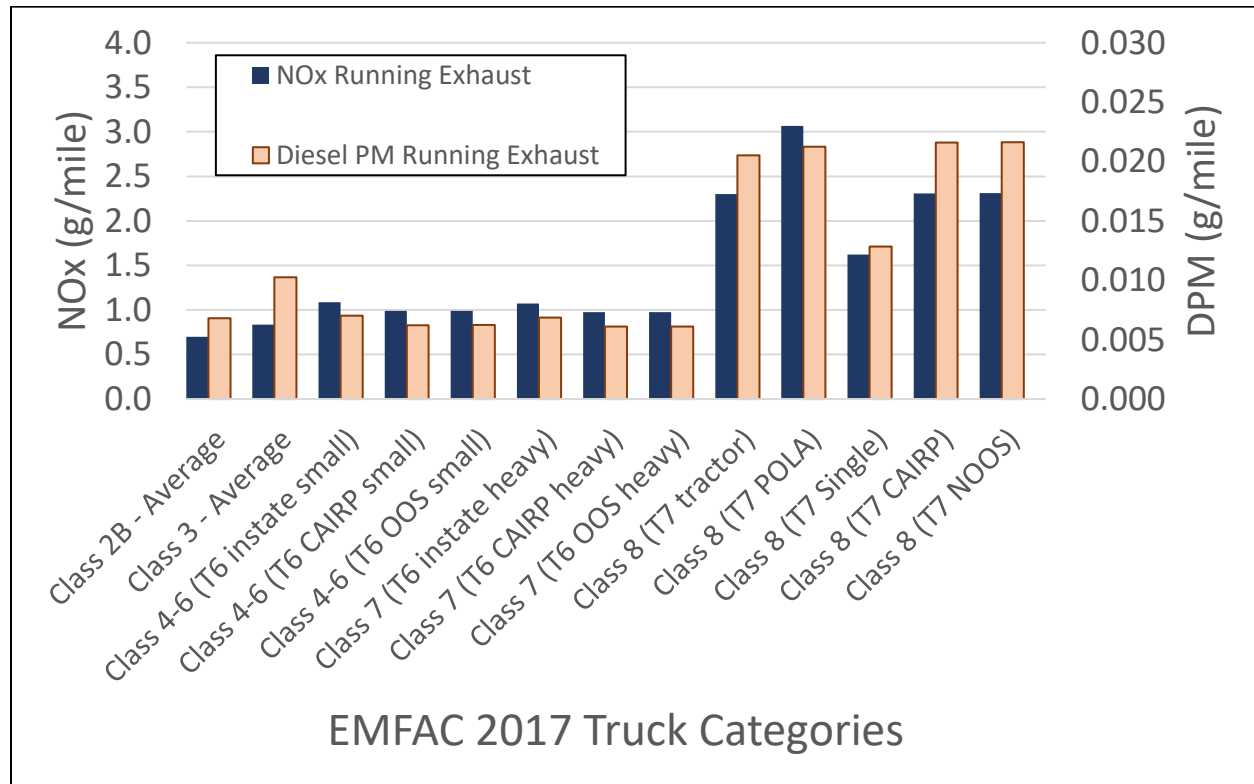
Paragraph (d)(1) also describes a two-step test to determine if an operator needs to earn Points. First, operators in warehouses with greater than or equal to 100,000 sq. ft. of space that may be used for warehousing activities and who use all of that space are required to earn Points. Second, if an operator only uses a part of the warehousing activity space, they are only required to earn Points if they operate at least 50,000 sq. ft. of that space.

Paragraph (d)(1) also provides the fundamental calculations to determining the WPCO for each warehouse operator, including Equation 1 below.

$$\text{Equation 1: } WPCO = WATTs \times \text{Stringency} \times \left( \frac{\text{Annual}}{\text{Variable}} \right)$$

The WATTs parameter (Weighted Annual Truck Trips)<sup>42</sup> in Equation 1 presents the number of truck trips by truck class associated with a warehouse, and serves as a proxy for overall warehouse activity and emissions. Larger Class 8 trucks carry more goods and have higher emissions and are thus weighted more heavily than smaller Class 2B to 7 trucks. The value of 2.5 was calculated by comparing the running exhaust emission rates of different truck classes in EMFAC that typically visit warehouses (Figure 6 below) for calendar year 2023 (after CARB’s Truck and Bus rule is fully phased in). The ratio between individual truck classes varies but is approximately 2.5 overall when comparing Class 8 to Class 2B to 7.

**Figure 6: NOx and Diesel PM Emission Rates in 2023 for Different Truck Classes**



Warehouse operators are required to submit actual truck trip data to account for the amount of warehouse activity during the compliance period. Truck trip counts can be determined and accounted for by various methods such as interaction with warehouse personnel logging truck trips, automated camera systems with recognition software, truck driver surveys, contractual records that provide sufficient details for truck activity, etc. Absent specific information about truck class, operators may simplify the analysis by just tracking straight trucks (as a proxy for Class 2b to 7) and tractors (as a proxy for Class 8). Truck trip data must be recorded contemporaneously with the truck trips themselves (e.g., recorded at least daily), and the methods used to collect the truck trip data must be verifiable by South Coast AQMD compliance staff.

<sup>42</sup> A parameter like emissions or vehicle miles travelled is not used to determine the WPCO in order to reduce the administrative burden on warehouse operators and South Coast AQMD compliance staff. Motor carriers have also expressed concern that they do not want to reveal where or how far they travel to warehouse operators or South Coast AQMD in order to keep their clients private.

In the very rare case where an operator has lost their truck trip activity records due to a force majeure event (such as a fire), default truck trip rates based on truck trip generation rates from the Institute of Transportation Engineers and the Fontana Truck Trip study are also available.<sup>43</sup> These default Weighted Truck Trip Rates (WTTR) are shown in Table 4 below. Only those trucks that use a warehouse's truck driveway must be included. Trucks that utilize the employee parking driveway for building servicing activities like mail delivery or trash pickup do not need to be included. Additional discussion of methods to record actual truck trips are provided in the WAIRE Program Implementation Guidelines (Appendix A).

**Table 4: Truck Trip Generation Rates Used for Default WTTR in Case of Loss of Records due to Force Majeure**

| Warehouse Type  | Class 8 /<br>Tractor-Trailer /<br>4+ Axle<br><br>(Average daily trips per<br>1,000 sq. ft. of warehouse<br>building area)^ | Class 2B-7 /<br>'Straight' Trucks /<br>2- and 3-Axle<br><br>(Average daily trips per<br>1,000 sq. ft. of warehouse<br>building area)^ | Weighted<br>Truck Trip<br>Rate (WTTR)<br><br>(2.5 × Class 8 +<br>Class 4-7) |
|---|--|---|---|
| High Cube Transload &<br>Short Term Storage<br>(≥200k sf) | 0.33   | 0.12  | 0.95  |
| Warehouse<br>(100k – 200k sf)                             | 0.21   | 0.14  | 0.67  |
| Cold Storage<br>(>100k sf)                                | 0.75   | 0.29  | 2.17  |

The proposed stringency of PR 2305 in Equation 1 is 0.0025 WAIRE Points per WATT. The proposed stringency was developed by evaluating 18 different scenarios of potential PR 2305 compliance, described further in Chapter 3. The potential emissions benefits from this scenario analysis were evaluated alongside the potential costs and impact to industry.

The annual variable in Equation 1 is the ramp up schedule for the PR 2305 stringency. As proposed, the full stringency of 0.0025 would not be achieved until the third compliance period for each warehouse. The annual variable in Table 2 of PR 2305 is layered in with the warehouse Phases. All three Phases will be at full stringency in the fifth compliance period. New warehouses that are built after PR 2305 would be placed into the appropriate Phase based on warehouse size. The annual variable is established relative to when PR 2305 is adopted, and does not 'reset' for a new warehouse that is built after rule adoption. For example, a new warehouse built in September 2025 that is 125,000 sf with at least 100,000 sf usable for warehousing activities would need to submit its first Annual WAIRE Report 30 days after July 1, 2026. Their annual variable for their first compliance period would be 1.0.

<sup>43</sup> <http://library.ite.org/pub/a3e6679a-e3a8-bf38-7f29-2961becdd498>  
<https://tampabayfreight.com/pdfs/Freight%20Library/Fontana%20Truck%20Generation%20Study.pdf>

*Paragraph (d)(2)*

Paragraph (d)(2) provides the three primary options available to earn WAIRE Points. This includes completing actions from the WAIRE Menu in paragraph (d)(3), completing actions from an approved Custom WAIRE Plan in paragraph (d)(4), or paying a mitigation fee from paragraph (d)(5). Points can be earned from any combination of these three options in any compliance period.

*Paragraph (d)(3)*

Paragraph (d)(3) and Table 3 include the WAIRE Menu option. The WAIRE Menu itself has 32 different actions or investments that can be completed. Points can be earned from any combination of Menu actions, at any level of implementation. Points can be earned only if they go beyond requirements in other U.S. EPA, CARB, or South Coast AQMD regulations. in effect during that compliance period.<sup>44</sup> When determining if an action goes beyond requirements from another regulation, a comparison is made between the regulatory requirement on the entity itself earning Points (typically the warehouse operator), rather than requirements on a non-PR 2305 entity. For example, CARB's ACT regulation requires truck manufacturers to sell a certain fraction of ZE trucks beginning in 2024. ACT does not apply to any regulated entity covered by PR 2305. Therefore, a warehouse operator (or warehouse facility or land owner if they opt in) may earn Points for purchasing a ZE truck, regardless of any requirements in ACT. At this time, there are no regulations in place that limit what a warehouse operator or owner could implement from the WAIRE Menu. There is the potential that CARB's upcoming TRU regulation, its Advanced Clean Fleets (ACF) regulation, or potentially other regulations could impose requirements on warehouse operators or owners. Even if a new regulation comes into place that imposes requirements directly on a warehouse operator or owner, if the action is completed prior to the other regulation's mandated timeline, then Points could still be earned under PR 2305. For example, hypothetically if ACF requires a warehouse operator who owns a fleet to purchase ZE trucks by 2030, but the operator purchases ZE trucks early in 2029, then they would be able to earn WAIRE Points for that action in 2029.

Table 3 in PR 2305 includes specific WAIRE Points for each action. Warehouse operators (or owners who opt in) would earn Points relative to their level of implementation of an action with the Points associated with each annualized metric in Table 3. The basic equation that needs to be followed to earn Points from the Menu is shown in Equation 2 below. As an example, if a warehouse operator demonstrates that they had 520 ZE Class 8 truck visits<sup>45</sup> to their warehouse during a compliance period, they would earn 72.7 WAIRE Points for that action following the method below.

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<sup>44</sup> Points can be earned even if local ordinances (e.g., from a city or county) or building codes include requirements for some of the actions covered by PR 2305. Local land use authorities also have the option to require higher compliance obligations under CEQA using the framework set up by PR 2305. For example, as a condition of approving a new warehouse project, a land use agency could require a warehouse operator to earn additional WAIRE Points beyond their WPCO in order to reduce air quality impacts. However there is no obligation on land use agencies under PR 2305 or PR 316 unless they are a warehouse owner or operator subject to PR 2305.

<sup>45</sup> 520 visits is the same as 1,040 one-way truck trips.

Equation 2:

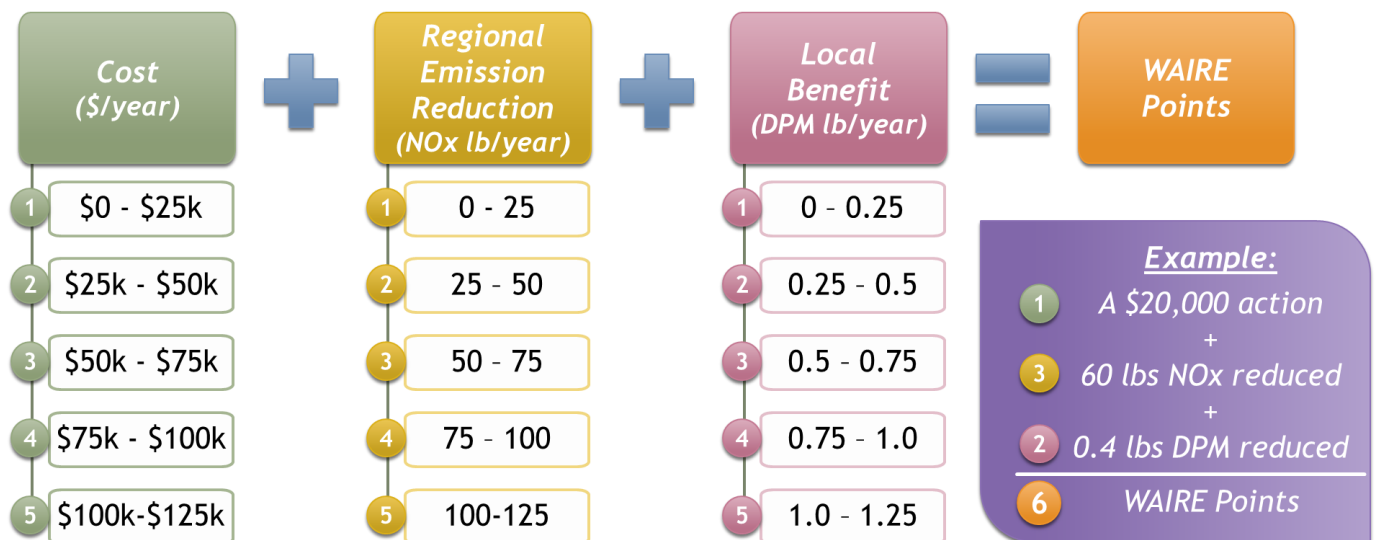
$$\text{WAIRE Points per Annualized Metric} \times \text{Level of implementation} \div \text{Annualized metric} = \text{Points earned}$$

For ZE Class 8 visits example above: 51 Points  $\times$  520 visits  $\div$  365 visits = 72.7 Points

Figure 7 below shows the underlying calculation used to develop the number of WAIRE Points associated with each WAIRE Menu action. The details for these calculations are provided in Appendix B to this staff report. An earlier draft of this appendix was provided to the Working Group as the WAIRE Menu Draft Technical Report on March 3, 2020. This more detailed calculation approach is not used by warehouse operators or owners to earn WAIRE Points from the Menu. This approach is just the original analysis used to establish the balancing between different menu actions in PR 2305. In this approach, each WAIRE Point consists of three elements: the incremental cost to complete the action, the regional emission reduction of NOx in lbs/year, and the local DPM emission reductions in lbs/year. Each of these elements is calculated for individual actions at a set level of implementation (i.e., the annualized metric), binned and then summed to simplify comparisons.

Actions are split primarily into two groups, one-time investments in technologies that can reduce emissions or facilitate the implementation of emission reductions, and ongoing use of these technologies. Points are earned separately for the investment and the ongoing use. Points can be earned from both a one-time investment in emission reduction technologies and use of that technology in the same compliance period. For example, a warehouse operator could install a charging station and earn Points from that action, and begin using that charging station to earn more Points in the same compliance period.

**Figure 7: Approach to Develop WAIRE Points for Each WAIRE Menu Action\***



\*This approach is not used by warehouse operators or owners to earn Points. This is only the underlying methodology to the WAIRE Menu.

Finally, PR 2305 does not prohibit operators from using incentive funding from South Coast AQMD, CARB, or other sources to earn WAIRE Points. However, many of these programs have express limitations in using their funds to comply with a regulation. Because these limitations are written into each specific program's requirements, they are not included in PR 2305 as those programs' requirements could change through time. Staff is unaware of any requirements in programs like Carl Moyer, AB 617 funding, or similar programs that limit the use of funds with WAIRE Menu items associated with ongoing use (e.g., truck visits). However, there are commonly limitations in these funding programs associated with the purchase of vehicles or equipment.

*Paragraph (d)(4)*

Paragraph (d)(4) describes the Custom WAIRE Plan option, including the requirements for what needs to be included in a Plan and Plan application, and the process and criteria for approval or disapproval of the Plan application, or rescission of an approved Plan by South Coast AQMD. Custom WAIRE Plans are only potentially approvable if they include actions that are not already included in the WAIRE Menu in Table 3 of PR 2305. Points may only be earned from an approved Custom WAIRE Plan. The Custom WAIRE Plan only needs to describe how Points would be earned under the plan, not how all Points would be earned to meet the WPCO if the Plan only addresses part of the points compliance obligation. The methodology to calculate WAIRE Points in Custom WAIRE Plan applications will be described more fully in the WAIRE Program Implementation Guidelines, and will be consistent with the WAIRE Menu Technical Report methods in Appendix B. The general approach requires comparison of baseline conditions without the Custom WAIRE Plan to the NOx and DPM emission reductions and the incremental costs when the Plan is implemented. Emission reductions must be quantifiable, verifiable, real, and achieved as quickly as feasible, and no later than three years after Plan approval.

Key milestones need to be described in the Custom WAIRE Plan application and must be adhered to if approved. Approved plans that do not make adequate progress on these approved milestones may have their Plan approval rescinded 30 days after notification by the Executive Officer (EO) of identified deficiencies. If the deficiencies are not corrected in that period, the EO may then rescind the Plan approval. If a warehouse facility or land owner opts into the program and has a Custom WAIRE Plan approved by South Coast AQMD, then they are required to implement it. If the Plan is not implemented, then the entity who filed the Plan application shall be the entity who will be held in violation of the rule for any compliance period covered by the approved Plan for which a sufficient number of WAIRE Points was not earned as demonstrated in the Plan. If a warehouse operator (or owner who opts in) does not earn a sufficient number of WAIRE Points to satisfy their WPCO as demonstrated in a previously approved Plan, they may still satisfy their WPCO for that compliance period through the completion of actions from the WAIRE Menu, or by paying a mitigation fee pursuant to paragraph (d)(5), and document these actions in their Annual WAIRE Report.

Examples of potential Custom WAIRE Plans that some industry stakeholders have expressed potential interest in include: installing offsite charging/fueling infrastructure for ZE vehicles, installing and operating energy efficiency systems for cold storage warehouses, installing onsite ZE charging stations with higher power (i.e., above 350 kW) than is described in the WAIRE Menu, or overcompliance with upcoming CARB regulations should they be approved (such as the

TRU regulation or ACF). Other custom approaches are also potentially approvable provided they meet the criteria described in paragraph (d)(4).

Custom WAIRE Plans that rely on VMT reductions will be limited to those projects that can show that these VMT reductions go beyond what is modeled in the latest Regional Transportation Plan (RTP) from the Southern California Association of Governments (SCAG). The Plan application itself would need to include the analysis showing how VMT reductions would be lower than RTP modeled VMT. An example custom approach that may be disqualified from this includes an operator who moves operations from multiple smaller operations into a larger facility, thus reducing truck trips and VMT between the previous smaller warehouses. However, this reduction in VMT for that operator likely does not reduce VMT overall because the smaller warehouses are not expected to stay vacant given the low vacancy rates experienced by warehouses in the South Coast AQMD region.<sup>46</sup> Hence, while the operator's VMT declines, the region's VMT may actually increase. Similarly, a warehouse operator that demonstrates that they have a lower trip generation rate and VMT than would be calculated using default values has not demonstrated that overall VMT in the region is reduced. The RTP models average trip generation rates, and outputs average miles per trip. Some warehouses are therefore expected to be higher, and some lower than the average.

Although earning Points through VMT reduction programs may not be likely in most situations, PR 2305 is still expected to provide an additional motivation for warehouse operators to improve efficiency beyond normal market forces. Because the WPCO is tied to a warehouse's annual truck trips, if a facility can find ways to improve efficiency and reduce its number of truck trips, then its compliance obligation under PR 2305 will be lower.

#### *Paragraph (d)(5)*

If a warehouse operator does not earn a sufficient number of WAIRE Points to satisfy their WPCO from the WAIRE Menu or from an approved Custom WAIRE Plan, a warehouse operator may choose to pay a mitigation fee to the South Coast AQMD at a cost of \$1,000 per WAIRE Point. This value was determined by comparing the potential costs of implementing a variety of WAIRE Menu actions at an individual warehouse under different stringencies using methods described in the WAIRE Menu Technical Report (see Appendix B), and evaluating how many WAIRE Points were earned for each action. Although the costs vary across actions, many actions are approximately equal to \$1,000 per WAIRE Point.<sup>47</sup> Additional discussion about the WAIRE Mitigation Program that would spend the collected fees is included at the end of this chapter.

#### *Paragraph (d)(6)*

This paragraph describes the limited transfer of WAIRE Points under PR 2305. PR 2305 is not a credit trading system. Transferring WAIRE Points may only be allowed in three limited instances of overcompliance with rule requirements. First, if an operator conducts warehousing activities at multiple warehouses, it may be more feasible for them to make investments at a larger scale at one

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<sup>46</sup> Vacancy rates in 2019 in South Coast AQMD warehouses are about 4%, about 50% lower than the vacancy rates of surrounding markets. Source: IEc Task 2 "Technical Memorandum on Real Estate Markets Neighboring the South Coast AQMD Region"

<sup>47</sup> Examples are shown in slides 16-19 from the March 3, 2020 Working Group.  
[http://www.aqmd.gov/docs/default-source/planning/fbmsm-docs/whse\\_isr\\_slides\\_3-3-2020.pdf](http://www.aqmd.gov/docs/default-source/planning/fbmsm-docs/whse_isr_slides_3-3-2020.pdf)



facility, compared to repeated smaller investments at several facilities. Under PR 2305, this operator could over-comply and earn extra Points at one warehouse, and then transfer the excess to another warehouse in their control. Because one of the purposes of PR 2305 is to reduce local emissions, the full value of any Points transferred from one warehouse to another is discounted by the amount of the WAIRE Points that were earned from local emission reductions of diesel PM. Table 3 in PR 2305 already provides the discounted Point value, and operators (or owners who opt in) do not need to determine the amount to discount other than looking up values in that table.

The second transfer method involves a warehouse operator earning excess WAIRE Points in one year and banking those Points to transfer into a subsequent year. These Points are not discounted and can be banked for up to three years. For example, excess Points earned in the compliance period from July 1, 2021 to June 30, 2022 would be usable until the end of the compliance period ending June 30, 2025, and reported in the Annual Report no later than 30 days after July 1, 2025 (pursuant to subparagraph (d)(7)(C)). This three-year period could be shorter if the action that earned Points would have already been required by another regulation in the year in which the Points would otherwise be used. WAIRE Points may also be earned prior to a warehouse operator's first compliance period. For example, an operator of a 125,000 sq. ft. warehouse could earn Points in the 2021-2022 compliance period, even though PR 2305 does not impose a WPCO on a warehouse of this size until the 2023-2024 compliance period. The three-year banking clock in this instance would not commence until after their first compliance period in 2023-2024. The extra time is meant to encourage early compliance and achieve emissions reductions sooner.

The final transfer method involves transfers between a warehouse facility or land owner and a warehouse operator, and vice versa. Warehouse facility or land owners may find it advantageous to improve their properties using options within PR 2305 on their own. Any Points earned from this activity may be transferred to an operator at that site over the subsequent three-year period. Operators may also transfer Points earned in excess of their WPCO back to a warehouse facility or land owner, who may then transfer those Points to a subsequent operator at that site.

*Paragraph (d)(7)*

This paragraph outlines the required reports and notifications that operators and owners must submit. Warehouse facility owners (not warehouse land owners) must submit a notification 60 days after rule adoption, within 14 days after a new operator has the ability to use at least 50,000 sq. ft. of a warehouse with  $\geq$  100,000 sq. ft. of floor space that may be used for warehousing activity. A typical date for this would be the start date of a lease. Notification is also required after a warehouse building has been modified such that it has new square footage. A report must also be submitted within three days of the EO's request.

Warehouse operators must submit a more detailed one-time Initial Site Information Report approximately six months before their first Annual WAIRE Report must be submitted for that site. As an example, if Operator A has recently moved to a new warehouse and has not been required to submit an Annual WAIRE Report before for that site, they are then required to submit the Initial Site Information Report. This is the only Initial Site Information Report that Operator A will need to submit for that site. If Operator A moves to another warehouse and has never submitted and Annual WAIRE Report for that second warehouse, they will need to submit an Initial Site

Information Report for that warehouse. Initial Site Information Reports must also be submitted within 30 days of the request from the EO.

Warehouse operators, and warehouse facility or land owners as applicable, are required to submit an Annual WAIRE Report within 30 days after July 1 of every year for which they must satisfy a WPCO. The Annual WAIRE Report is the primary mechanism by which operators demonstrate how they have earned a sufficient number of WAIRE Points for the preceding compliance period. If an operator with a WPCO departs a warehouse before the end of that compliance period (e.g., if their lease ends), they are required to submit their Annual WAIRE Report no later than the date that they vacate the warehouse. No Annual WAIRE Reports are due before the applicable Initial Reporting Date in Table 1. Because the WPCO is tied to the number of truck trips at a warehouse while the operator was responsible for warehousing activities, the operator's Annual WAIRE report in this instance only needs to demonstrate how Points were earned for the portion of the compliance period when the operator was at that warehouse.

***Reporting, Notification, and Recordkeeping Requirements – Subdivision (e)***

This subdivision describes the information that must be included in the various reports and notifications required by PR 2305, as well as recordkeeping requirements. An online reporting portal is anticipated to be created if PR 2305 is approved by the Governing Board that will be used for all report and notification submissions. Reporting procedures will be further documented in the WAIRE Implementation Guidelines (Appendix A).

***Paragraph (e)(1)***

The Warehouse Operations Notification described in this paragraph includes basic information about the warehouse facility itself, whether the warehouse facility owner is also an operator, as well as information about any entities leasing the site, and how much of the site they have leased.

***Paragraph (e)(2)***

The Initial Site Information Report provided by a warehouse operator must include information about how many square feet they can use for warehousing activities. There are two cases when this is the only information that needs to be provided for this report. First, if the warehouse operator is in a building where the total square footage that can be used for warehousing activities is less than 100,000 sq. ft., then no more information is required. Second, some warehouse operators may lease only a portion of a warehouse with more than 100,000 sq. ft. that can be used for warehousing activities. In this situation, if the operator only can use <50,000 sq. ft. (e.g., due to lease conditions), then they do not need to report any further information. This second case does not apply where there are multiple operators under the ownership or control of a single parent company who each operate <50,000 sq. ft., but who collectively operate more than 50,000 sq. ft.

Apart from the two cases described above, Initial Site Information Reports must include information about actual truck trip data from the previous 12-month period, and the anticipated truck trips in the following 12-month period, by truck class or truck type (e.g., tractors or straight trucks). Trucks delivering or picking up goods from a warehouse are a proxy for total activity and emissions related to a warehouse and will use a truck entrance that is different than the employee vehicle entrance (that may also have minor use for mail trucks, or refuse pickup for administrative activities at the warehouse). In order to streamline reporting, only those trucks or tractors that use a warehouse's truck driveway must be included, with the intention of focusing on truck activity

most closely aligned with total warehouse activity and emissions. Occasional truck traffic that utilizes the employee parking driveway for building services activities like mail delivery or trash pickup do not need to be included.

Additional data that must be reported includes information about any trucks owned by the operator that serve that warehouse, information about any onsite alternative fueling stations, information about any yard trucks operated at the site (owned or non-owned), and information about any onsite energy generation equipment. Finally, the report must include the anticipated options that the operator plans to use to earn Points for the current compliance period. These anticipated options might not end up being the actual options used to meet the WPCO, but they do provide an early planning step for operators to consider how they will comply with their WPCO in six months.

*Paragraph (e)(3)*

The Annual WAIRE Report shall include actual truck trip data used to determine the WPCO pursuant to paragraph (d)(1). The report shall also include how many WAIRE Points were earned from the WAIRE Menu and details about the reporting metric from the WAIRE Menu, the Points from a Custom Plan, and the Points from mitigation fees. Finally, the report shall include current contact information for the warehouse operator.

*Paragraph (e)(4)*

Records which demonstrate the accuracy and validity of any information reported to South Coast AQMD must be kept for a period of seven years after the reporting deadline and made available upon request during normal business hours.

*Paragraph (e)(5)*

Some warehouse facility or land owners, or operators may choose to hire consultants to complete some of the reporting requirements in PR 2305. This paragraph ensures that any reports are submitted by an official authorized by an officer of the warehouse owner or operator, as applicable. This authorized official may or may not be an employee of the warehouse owner or operator. The authorized official must certify that the information reported is accurate based on their best available knowledge.

***WAIRE Implementation Guidelines – Subdivision (f)***

This subdivision identifies that the EO will periodically publish the WAIRE Implementation Guidelines referred to throughout PR 2305 (Appendix A of this staff report). This Appendix will be provided at a future date.

***Exemptions – Subdivision (g)***

Two limited exemptions are described in this subdivision. First, similar to paragraph (e)(2), warehouse operators who cannot use more than 50,000 sq. ft. of a warehouse that is larger than 100,000 square feet, for warehousing activities due to lease conditions (e.g., they have leased <50,000 sq. ft.), are not required to earn any WAIRE Points. This exemption does not apply if the warehouse operator is under the control of a parent company of one or more lessees in the same building, and collectively the entities under the parent company's control operate more than 50,000 sq. ft. of a building that is 100,000 square feet or greater.

The second exemption relates to rare, unforeseen circumstances, beyond the reasonable control of the warehouse operator, or owner, who made the investment or took the action to earn the WAIRE Points. For example, if a warehouse operator purchases a zero emission truck and anticipates using this same truck to earn Points, but a malfunction in the powertrain due to an equipment manufacturer defect (e.g., malfunctioning electric motor, fuel cell stack, etc.) results in an inability to use the equipment, then the operator may apply for relief for the Points that would have been earned.

***Severability – Subdivision (h)***

In the event a court holds that a portion or portions of PR 2305 are invalid or unenforceable, subdivision (h) allows the other portions of the rule to remain fully applicable and enforceable. Similarly, if the exemptions in PR 2305 are held by judicial order to be invalid, then the warehouse operators that had been covered by the exemption shall have to comply with the requirements of PR 2305.

## **PROPOSED RULE 316 – FEES FOR REGULATION XXIII**

***Purpose – Subdivision (a)***

The purpose of the Proposed Rule 316 (PR 316) is to act as a companion rule to Proposed Rule 2305 (PR 2305) – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program. PR 2305 requires reporting information about facility operations and recordkeeping. PR 316 establishes the administrative fees that PR 2305 warehouse operators and owners must pay in order to recover South Coast AQMD administrative costs associated with ensuring compliance with PR 2305.

The proposed purpose is as follows:

*California Health and Safety Code Section 40522.5 provides authority for the South Coast Air Quality Management District to adopt a fee schedule for areawide or indirect sources of emissions which are regulated, but for which permits are not issued, to recover the costs of programs related to these sources. The purpose of this rule is to recover the South Coast AQMD's cost of implementing Rule 2305.*

***Applicability- Subdivision (b)***

Warehouse owners and operators routinely move into or out of warehouses. As the applicability is tied to reports that must be submitted pursuant to PR 2305, any individual company may be required to pay multiple fees under PR 316 in any one year, then potentially not be subject to fees in the following year if they are not required to submit any of the applicable reports.

The proposed applicability is as follows:

*This rule applies to owners and operators of facilities subject to Rule 2305 that submit an Annual WAIRE Report, a Custom WAIRE Plan application, an Initial Site Information Report, a Warehouse Operations Notification, or that pay a Mitigation Fee.*

***Definitions – Subdivision (c)***

PR 316 includes definitions of specific terms related to the warehousing industry and aspects of implementing PR 2305. Most definitions refer back to definitions within PR 2305. Please refer to PR 316 subdivision (c) for each specific definition.

Proposed Definitions:

Annual WAIRE Report

Custom WAIRE Plan Application

Initial Site Information Report

Mitigation Fee

Warehouse

Warehouse Operations Notification

Warehouse Operator

Warehouse Facility Owner

Warehouse Land Owner

Warehousing Activities

***Annual WAIRE Fees – Subdivision (d)***

Fees that will be established in this subdivision will be set at a flat level that is equal to the level of effort required by South Coast AQMD staff to conduct compliance activities related to the reports for which the fees are being paid. Fees must be paid at the time that the report must be submitted pursuant to PR 2305.

***Custom WAIRE Plan Application Evaluation Fee – Subdivision (e)***

Custom WAIRE Plans applications are expected to be unique, and require varying levels of effort by staff to review depending on the complexity of the application. Similar to other plan review fees in South Coast AQMD Rule 306, the fees in this subdivision are set consistent with the amount of staff time needed to complete an application review. An initial fee must be paid upfront as a deposit to cover a minimal amount of staff time, and subsequent fees may be assessed if more time is required. Staff will track time spent reviewing a Custom WAIRE Plan application, and if less cost is incurred than was paid in the initial fee, a refund will be issued.

***Mitigation Program Administration Fee – Subdivision (f)***

PR 2305 includes an option for warehouse operators (or owners who opt in) to pay a mitigation fee to South Coast AQMD to earn WAIRE Points. These collected fees will be used for a mitigation program to incentivize near-zero and zero emissions trucks and zero emissions charging infrastructure. Funds will be directed to projects in the communities near the warehouses that paid the fees. South Coast AQMD administers many incentive programs currently, including Carl Moyer, SOON, AB 617, etc. Prolonged experience with these programs has shown that some funds are needed to ensure efficient and accurate program administration. The amount set in PR 316 is 6.25 percent of the mitigation fee a warehouse operator or owner pays, and is consistent with recent program administration requirements for similar incentive programs.<sup>48</sup>

<sup>48</sup> AB 134 (2017): [http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=201720180AB134](http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB134)

AB 617 Incentives Guidelines:

[https://ww2.arb.ca.gov/sites/default/files/2020-10/cap\\_incentives\\_2019\\_guidelines\\_final\\_rev\\_10\\_14\\_2020\\_0.pdf](https://ww2.arb.ca.gov/sites/default/files/2020-10/cap_incentives_2019_guidelines_final_rev_10_14_2020_0.pdf)

***Payment Due Dates – Subdivision (g)***

Payment of fees for Custom WAIRE Plans are due no later than 60 days after an invoice has been provided. Fees for Annual WAIRE Reports, Initial Site Information Reports, and Warehouse Operations Notifications are due when the applicable report must be submitted. Requirements for payments in this subdivision are consistent with other South Coast AQMD fee programs in Rule 301.

***Exemptions – Subdivision (h)***

Two exemptions are provided in this subdivision. First, warehouse facility owners who submit a Warehouse Operations Notification for a warehouse that has less than 100,000 sq. ft. that can be used for warehousing activities are exempt from PR 316 fees. Second, warehouse operators who use <50,000 sq. ft. of a warehouse for warehousing activities are also exempt from PR 316 fees. The collection of this information will occur online, and no additional compliance with these components of the WAIRE Program is expected for these entities, hence staff costs are expected to be de minimis for this activity. This reported information is needed however to verify that the owner or operator does not have any further obligations under PR 2305.

**WAIRE Mitigation Program**

The main intent of the WAIRE Mitigation Program is to provide NO<sub>x</sub> and DPM emission reductions for communities around warehouses that paid the mitigation fees. Any in-lieu mitigation fees paid to South Coast AQMD by a warehouse operator (or owner who opts in) would be targeted to projects in the surrounding area for NZE or ZE trucks, or ZE charging/fueling infrastructure. Any solicitations for requests for funding, or funding allocations that would be spent from the WAIRE Mitigation Program must be approved by the South Coast AQMD Governing Board in a public meeting. The proposed incentives would be used toward the purchase of NZE and ZE trucks or the purchase and installation of ZE charging or hydrogen fueling infrastructure. The WAIRE Mitigation Program would be available to any applicant that has trucks domiciled and/or used in the same geographic area of the warehouses that paid the WAIRE Program mitigation fee or applicants who intend to purchase and install ZE charging or hydrogen fueling infrastructure to serve that same geographic area. Funds would be prioritized first to areas in the same Source Receptor Area (SRA)<sup>49</sup> as the warehouse. Should there be insufficient project applicants in any area for the amount of funding available, the funding may be redirected to an adjacent SRA. Project funding solicitations would be issued within one year of receiving mitigation fees, and could potentially be coordinated with solicitations from other incentive programs. Incentive projects would be evaluated for cost effectiveness to maximize the potential for NO<sub>x</sub> and DPM reductions of each incentive project. Because this funding program is wholly within the control of South Coast AQMD, funds may be combined with other incentive programs as allowable on a case-by-case basis.

The WAIRE Mitigation Program incentives would be offered as a solicitation to receive enough applications similar to the existing incentive programs of Carl Moyer, Prop 1B, or VW Mitigation Trust. Similar to the existing incentive programs, there would be an application evaluation following the end of the solicitation. This would include evaluation of application documents,

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<sup>49</sup> <http://www.aqmd.gov/docs/default-source/default-document-library/map-of-monitoring-areas.pdf>

subsequent inspection of the NZE or ZE truck purchased or the ZE charging or hydrogen fueling infrastructure installed, and annual reports to follow the emission reductions of the incentive projects for the life of the incentive project contracts.

Additional details to this mitigation program will be developed in the future.

## **CHAPTER 3: IMPACT ASSESSMENT**

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**INTRODUCTION**

**AFFECTED INDUSTRIES**

**BASELINE EMISSIONS INVENTORY**

**RULE STRINGENCY**

**SCENARIO ANALYSIS**

**FEASIBILITY**

**SOCIOECONOMIC ASSESSMENT**

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SAFETY CODE SECTION 40727**

**COMPARATIVE ANALYSIS**



## INTRODUCTION

PR 2305 and PR 316 will apply to warehouses with greater than or equal to 100,000 square feet of indoor floor space. These warehouses are part of a larger goods-movement network of facilities located throughout the South Coast AQMD region that also includes marine ports, airports, rail yards, and smaller warehouses.

Warehouses serve as an intermediate storage facility for goods coming from manufacturing facilities, other warehouses, or food production sites that are ultimately destined for another location, including retail stores, other warehouses, customers (e.g., through e-commerce), or other manufacturing operations. Goods are transported to and from warehouses in trucks of a variety of sizes, including smaller Class 2b-7 trucks used for local delivery or larger Class 8 tractor trailers (typically diesel-powered) that can transport goods either locally or nationally. These trucks will back up to a warehouse's loading dock to load/unload their cargo in or out of the warehouse. Some warehouses also allow trailers to be parked within their truck yard for short periods of time. These trailers are moved around the yard or to/from a loading dock with a yard truck (typically diesel-powered).

Inside the warehouse, goods are stored on storage racks that may be more than 20 feet high. The level of automation varies inside each warehouse, but, if automation is present, can include conveyor systems, robotics, and scanners. Goods are commonly moved around inside a warehouse by employees operating pallet jacks or small industrial forklifts. Additional activities include sorting, labeling, repackaging, palletizing, applying scannable bar codes (SKUs), racking, and packing/unpacking trucks. Many additional activities can be present at a facility with a warehouse including supporting office administration, manufacturing, vehicle maintenance, or retail stores that are open to the general public. Some warehouses also support cold storage, typically for food products, and will have large refrigeration systems. Trucks distributing goods to/from these cold storage warehouses typically keep goods at their appropriate temperature with a small diesel-powered transport refrigeration unit (TRU) mounted on the truck or trailer.

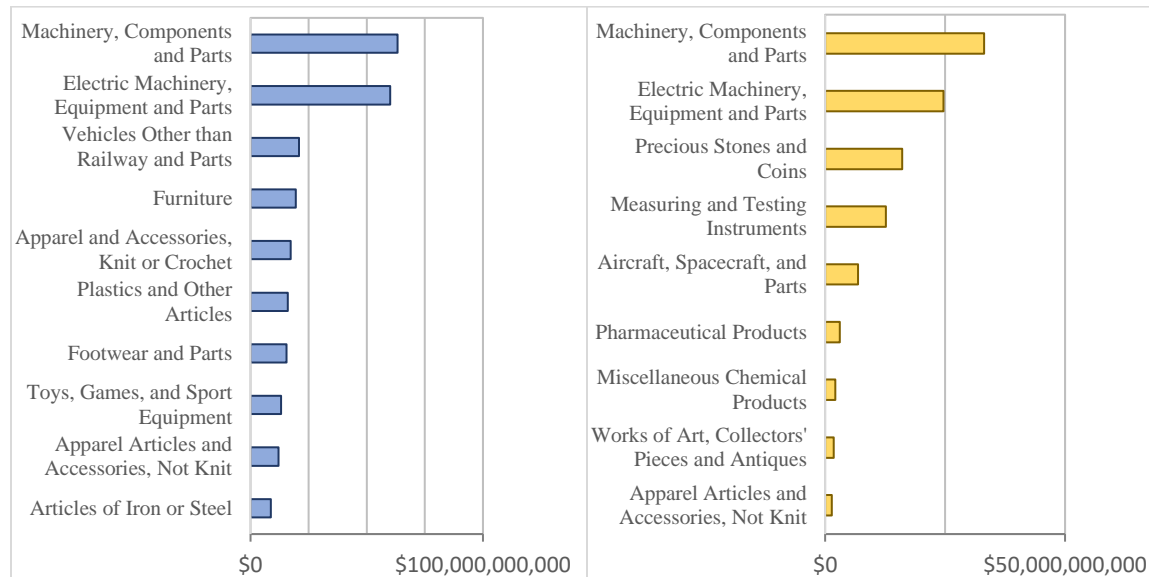
## AFFECTED INDUSTRY

Southern California is a major gateway for goods coming from Asia. A wide variety of industries have supply chains which relies on goods moving through Southern California. Approximately \$500 billion in goods were moved through the larger Southern California Association of Governments (SCAG) region in 2016, with imports accounting for about 75%. It is unclear how much of this total flow of goods move through warehouses subject to PR 2305 and PR 316. However about 69% of imports from the ports of Los Angeles and Long Beach (LA/LB) do not go directly onto rail, and therefore are expected to utilize warehouses within the South Coast AQMD region. Figure 8 shows the top commodities traded through the ports of LA/LB and through the Los Angeles and Ontario airports in 2018.<sup>50</sup>

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<sup>50</sup> [https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial\\_goods-movement.pdf](https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial_goods-movement.pdf)

**Figure 8: Top Commodities Traded Through Long Beach and Los Angeles Ports (left) and Los Angeles and Ontario Airports (right)**



Warehouses are operated by cargo owners or by third party logistics (3PLs) firms who manage warehouses on behalf of cargo owners.<sup>51</sup> Warehouses are typically owned by a landlord<sup>52</sup> who leases the facility for a short period (e.g., three years) either to a cargo owner or 3PL. All three groups of industries (i.e., cargo owners, 3PLs, and warehouse owners) will be affected by PR 2305 and PR 316. Some motor carriers may choose to update some of their business practices (e.g., using more NZE or ZE trucks) in response to shifting market conditions brought about by PR 2305 (or other CARB regulations or incentive programs), however they are not regulated by PR 2305.

As shown in the baseline emissions inventory below, most NOx and diesel PM emissions associated with warehouses come from trucks. Trucks are owned and/or operated by motor carriers, and their services are provided on behalf of the owner of the goods they are carrying. Warehouse operators often do not own the goods in their warehouse, and in these cases they may not be directly involved in hiring all or any motor carriers that visit the warehouse.

Industry stakeholders have indicated that the business relationships between warehouse operators, cargo owners, and motor carriers can vary widely, even in a single warehouse. Some warehouses are more vertically integrated where the operator owns the goods in the warehouse, and directly contracts with motor carriers, or uses their own fleet, to transport the goods to retail establishments. In this situation, the warehouse operator has a relatively high level of control of the trucks and cargo flowing through the warehouse.<sup>53</sup> Other warehouse operators may not own any goods within the warehouse, or have a direct relationship with any motor carriers visiting the warehouse, or own

<sup>51</sup> [https://scag.ca.gov/sites/main/files/file-attachments/task4\\_understandingfacilityoperations.pdf](https://scag.ca.gov/sites/main/files/file-attachments/task4_understandingfacilityoperations.pdf)

<sup>52</sup> In rare instances, the land beneath a warehouse building is owned by a different entity than the warehouse building itself.

<sup>53</sup> Note that even in this instance, the supplier of some of the goods to the warehouse may arrange to transport inbound shipments without involving the warehouse operator.

a fleet themselves. The warehouse operator may have very little control over the trucks calling at the warehouse in this configuration.

One common relationship between all warehouse operators is they either own the goods in the warehouse themselves, or have a direct contractual relationship with the goods owner to manage the warehousing of those goods. The specific conditions in these contracts can vary widely depending on the needs of the two parties. For example, some warehouse operators have indicated their contracts with motor carriers have included air quality goals, such as providing incentives to fleets that met EPA SmartWay standards,<sup>54</sup> or requiring use of zero emission (ZE) trucks. Under PR 2305, some warehouse operators may choose to include contract provisions either with motor carriers or with goods owners who contract with motor carriers, that take into account the requirements of the rule. This could include requiring or incentivizing near zero emission (NZE) or ZE truck visits, or increasing the price charged for warehousing operations so that the operator can comply with PR 2305 in other ways.

### *Affected Facilities*

There are approximately 45,000 industrial buildings of any size located in the South Coast AQMD region, totaling about 1.6 billion square feet. Warehousing makes up a significant fraction of this industrial space, with approximately 90% of these buildings classified as distribution, light distribution, cold storage, truck terminal, or warehouse.<sup>55</sup> Some industrial properties also include a combination of warehousing and manufacturing uses.

**Most industrial properties are smaller in size, typically less than 100,000 square feet. However, the majority of the industrial building square footage occurs in larger buildings (Figure 9). The amount of industrial building space within South Coast AQMD's region has been growing substantially over the past several decades, with most of the growth occurring in the counties of San Bernardino and Riverside since the year 2000 (**

**Figure 10).**<sup>56</sup> Warehousing is anticipated to continue to grow in the SCAG region at a rate of ~1.8% annually.<sup>57</sup>

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<sup>54</sup> EPA SmartWay is a voluntary program that promotes fuel efficiency for freight carriers.

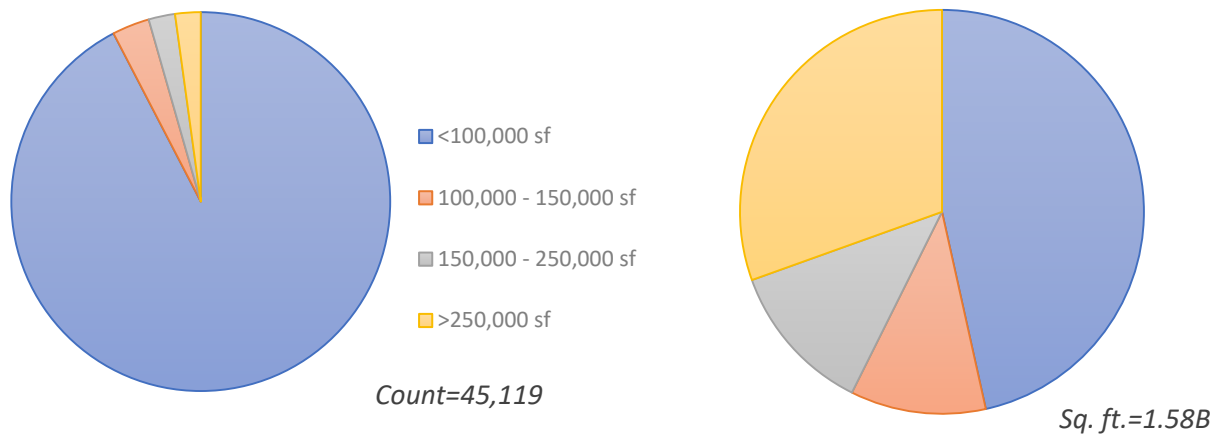
<https://www.epa.gov/smartway>

<sup>55</sup> [www.costar.com](http://www.costar.com)

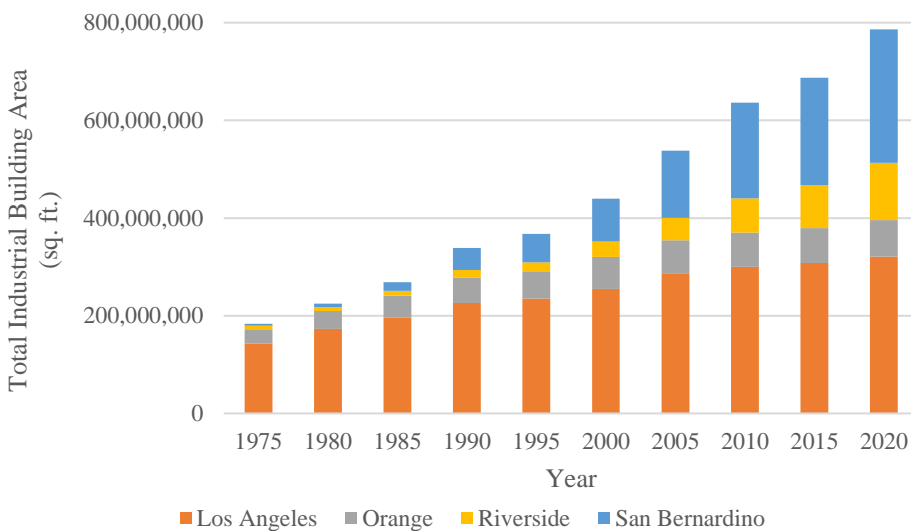
<sup>56</sup> Ibid.

<sup>57</sup> [https://scag.ca.gov/sites/main/files/file-attachments/final\\_report\\_03\\_30\\_18.pdf](https://scag.ca.gov/sites/main/files/file-attachments/final_report_03_30_18.pdf)

**Figure 9: Industrial Building Count (left) and Square Footage (right) by Building Size in South Coast AQMD Jurisdiction**



**Figure 10: Industrial Building Growth by County**



There are currently about 3,320 facilities with 100,000 square feet or more of building area that may be subject to PR 2305 and PR 316 (see Appendix C for a list of addresses and a discussion of how the number and type of facilities was determined). Of these facilities, an estimated 2,902 are expected to be required to earn WAIRE Points under PR 2305, with the remainder only subject to limited reporting (e.g., facilities with  $\leq 100,000$  sq. ft. of warehousing activity in a building with  $>100,000$  sq. ft.). Of the warehouses expected to be required to earn WAIRE Points, about 38% may have more than one operator in a single building (yielding a total of about 4,000 operators), about 45% may own a truck fleet,<sup>58</sup> and about 17% may be owner occupied (with any combination thereof).

<sup>58</sup> Data is not available for how many trucks from operator-owned fleets serve a warehouse.

## BASELINE EMISSIONS INVENTORY

The discussion below provides the method for estimating baseline emissions of NO<sub>x</sub> and diesel PM in 2019, 2023, and 2031 for the 2,902 warehouses expected to be required to earn WAIRE Points under PR 2305.<sup>59</sup> The estimate presented here relies on the substantial work previously conducted to estimate vehicular-related emissions, including work performed by:

- California Air Resources Board (CARB) both for the 2016 AQMP emissions inventory<sup>60</sup> and for the Draft Mobile Source Strategy<sup>61</sup>,
- SCAG for the 2016 Regional Transportation Plan, and
- South Coast AQMD for the 2016 AQMP

South Coast AQMD also sponsored a study to evaluate warehouse activities that affect air quality, co-sponsored with the National Association for Industrial and Office Parks (NAIOP).<sup>62</sup> The study was conducted by the Institute of Transportation Engineers (ITE) to update warehouse trip generation estimates for warehouses.<sup>63</sup>

### *Methodology for Estimating NO<sub>x</sub> Emissions from Warehouses*

#### Trip Generation Rates

Data was obtained for three categories of warehouses from CoStar<sup>64</sup> including warehouses  $\geq 100,000$  and  $< 200,000$  sq. ft.,  $\geq 200,000$  sq. ft., and all cold storage warehouses  $\geq 100,000$  sq. ft. Current warehouse data was projected to 2023 and 2031, using growth factors derived from SCAG's Industrial Warehousing report<sup>65</sup>.

Trip generation rates for on-road vehicles were obtained from the High-Cube Warehouse Vehicle Trip Generation Analysis<sup>66</sup> by ITE and supplemented with data from the City of Fontana's Truck Trip Generation Study<sup>67</sup>.

**Table 5: Trip Generation Rates in Trips/Thousand Sq. Ft.**

| Warehouse Category                     | Class 8 | Class 4-7 | Passenger Vehicles |
|--|---------|-----------|--------------------|
| $\geq 200,000$ sq. ft.                 | 0.33    | 0.12      | 1.000              |
| $\geq 100,000 - < 200,000$ sq. ft.     | 0.21    | 0.14      | 1.385              |
| Cold Storage ( $\geq 100,000$ sq. ft.) | 0.75    | 0.29      | 1.282              |

<sup>59</sup> The spreadsheet that includes all calculations described here is available at: [www.aqmd.gov/fbmsm](http://www.aqmd.gov/fbmsm)

<sup>60</sup> <https://www.arb.ca.gov/app/emsinv/fcemssumcat/fcemssumcat2016.php>

<sup>61</sup> <https://ww2.arb.ca.gov/resources/documents/2020-mobile-source-strategy>

<sup>62</sup> <http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/high-cube-warehouse>

<sup>63</sup> <https://www.ite.org/pub/?id=a3e6679a%2De3a8%2Dbf38%2D7f29%2D2961becdd498>

<sup>64</sup> <https://www.costar.com/>

<sup>65</sup> [https://www.scag.ca.gov/Documents/Task4\\_UnderstandingFacilityOperations.pdf](https://www.scag.ca.gov/Documents/Task4_UnderstandingFacilityOperations.pdf)

<sup>66</sup> <https://www.ite.org/pub/?id=a3e6679a%2De3a8%2Dbf38%2D7f29%2D2961becdd498>

<sup>67</sup> <https://www.tampabayfreight.com/pdfs/Freight%20Library/Fontana%20Truck%20Generation%20Study.pdf>

**Table 6: Warehouse Square Footage for Each Warehouse Category**

| Warehouse Category              | 2019        | 2023        | 2031        |
|---------------------------------|-------------|-------------|-------------|
| ≥200,000 sq. ft.                | 521,727,570 | 562,574,867 | 644,269,462 |
| ≥100,000 – <200,000 sq. ft.     | 214,795,154 | 231,611,979 | 265,245,630 |
| Cold Storage (≥100,000 sq. ft.) | 8,188,346   | 8,829,431   | 10,111,601  |

### Trucks

Baseline composite truck emission rates<sup>68</sup> (ER) were calculated from EMFAC2017 for heavy duty trucks of Class 4-7 and Class 8 for calendar years 2019, 2023, and 2031. EMFAC2017 provides activity and emission rates for all on-road vehicles that operate within California, however, the analysis presented here is limited to those categories most likely to deliver goods to and from warehouses. EMFAC categories<sup>69</sup> in this analysis and their relationship to truck class are shown in Table 7 below.

**Table 7: EMFAC Truck Categories**

| EMFAC Category   | Description  | Truck Class |
|------------------|--|-------------|
| T6 CAIRP Small   | Medium-Heavy Duty Diesel CA International Registration Plan Truck with GVWR≤26,000 lbs | Class 4-6   |
| T6 Instate Small | Medium-Heavy Duty Diesel Instate Truck with GVWR≤26,000 lbs                            |             |
| T6 OOS Small     | Medium-Heavy Duty Diesel Out-of-State Truck with GVWR≤26,000 lbs                       |             |
| T6 CAIRP Heavy   | Medium-Heavy Duty Diesel CA International Registration Plan Truck with GVWR>26,000 lbs | Class 7     |
| T6 Instate Heavy | Medium-Heavy Duty Diesel Instate Truck with GVWR>26,000 lbs                            |             |
| T6 OOS Heavy     | Medium-Heavy Duty Diesel Out-of-State Truck with GVWR>26,000 lbs                       |             |
| T7 CAIRP         | Heavy-Heavy Duty Diesel CA International Registration Plan Truck with GVWR>33,000 lbs  | Class 8     |
| T7 NNOOS         | Heavy-Heavy Duty Diesel Non-Neighboring Out-of-State Truck with GVWR>33,000 lbs        |             |
| T7 NOOS          | Heavy-Heavy Duty Diesel Neighboring Out-of-State Truck with GVWR>33,000 lbs            |             |
| T7 POLA          | Heavy-Heavy Duty Diesel Drayage Truck in South Coast with GVWR>33,000 lbs              |             |
| T7 Tractor       | Heavy-Heavy Duty Diesel Tractor Truck with GVWR>33,000 lbs                             |             |

Vehicle miles traveled (VMT) per trip of 14.2 mi/trip and 39.9 mi/trip for medium-heavy (Class 4-7) and heavy-heavy duty trucks (Class 8) respectively, were derived from SCAG's 2016 Regional Transportation Plan modeling analysis (Table 8).

<sup>68</sup> This is the sum of each truck category's emissions rate multiplied by its corresponding VMT, and then divided by the total sum of VMTs.

<sup>69</sup> <https://ww3.arb.ca.gov/msei/downloads/emfac2017-volume-iii-technical-documentation.pdf>

**Table 8. Truck activity data from SCAG's Heavy-Duty Truck Regional Travel Demand Model**

| Truck Class | VMT (mi/day) | Trips (trip/day) | Mile/trip |
|-------------|--------------|------------------|-----------|
| Class 4-7   | 7,744,000    | 544,000          | 14.2      |
| Class 8     | 12,060,000   | 302,000          | 39.9      |

Class 8 truck emissions were discounted by 22.2% to account for the trips made in between warehouses by trucks.<sup>70</sup> Total idling emissions in the South Coast Air Basin (SCAB) for these truck classes were proportioned by the VMT estimate associated with warehouse trucking to calculate potential idling emissions associated with warehouses. The equations below show how preliminary emissions estimates were calculated.

Equation [1]:

$$VMT \text{ Associated with Warehouses} = \text{Warehouse size (ksf)} \times \text{trip rates} \left( \frac{\text{trips}}{\text{ksf}} \right) \times \frac{\text{miles}}{\text{trip}}$$

Equation [2]:

$$\begin{aligned} \text{Running Exhaust Emissions Associated with Warehouses} \\ = ER_{\text{Class 8}} \times \text{Warehouse VMT}_{\text{Class 8}} \times (1 - 0.222) \\ + ER_{\text{Class 4-7}} \times \text{Warehouse VMT}_{\text{Class 4-7}} \end{aligned}$$

Equation [3]:

$$\begin{aligned} \text{Idling Exhaust Emissions associated with Warehouses} \\ = \left( \frac{\text{Warehouse VMT}_{\text{Class 8}}}{\text{Total VMT}_{\text{Class 8}}} \right) \times \text{Idling } ER_{\text{Class 8}} (1 - 0.222) \\ + \left( \frac{\text{Warehouse VMT}_{\text{Class 4-7}}}{\text{Total VMT}_{\text{Class 4-7}}} \right) \times \text{Idling } ER_{\text{Class 4-7}} \end{aligned}$$

CARB recently approved two regulations that are expected to lower the emissions from trucks beginning with model year 2024 trucks, including the Advanced Clean Trucks Regulation and the Low NOx Omnibus Regulation. Additional emission reductions are anticipated from the upcoming Heavy Duty Inspection and Maintenance (I/M) regulation<sup>71</sup>. CARB modified EMFAC 2017 to account for these regulations in the META tool that supports its Draft 2020 Mobile Source Strategy. These modifications were applied to the truck categories and VMT associated with warehouses under PR 2305. The anticipated emission reductions from these regulations associated with the 2,902 warehouses expected to earn WAIRE Points under PR 2305 is shown in

<sup>70</sup> [https://scag.ca.gov/sites/main/files/file-attachments/task4\\_understandingfacilityoperations.pdf](https://scag.ca.gov/sites/main/files/file-attachments/task4_understandingfacilityoperations.pdf) (pg 3-24)

<sup>71</sup> <https://ww2.arb.ca.gov/our-work/programs/heavy-duty-inspection-and-maintenance-program>

Table 9.



**Table 9: Estimated Baseline Truck Emission (tpd) Associated with PR 2305 Warehouses Required to Earn WAIRE Points**

|  | 2019            |             | 2023            |             | 2031            |             |
|--|-----------------|-------------|-----------------|-------------|-----------------|-------------|
|  | NO <sub>x</sub> | Diesel PM   | NO <sub>x</sub> | Diesel PM   | NO <sub>x</sub> | Diesel PM   |
| EMFAC 2017 Baseline  | 39.79           | 0.68        | 24.48           | 0.18        | 28.38           | 0.20        |
| Reductions from CARB ACT, Low NO <sub>x</sub> Omnibus and Heavy Duty I/M Regulations | 0               | 0           | -0.005          | < -0.01     | -3.60           | -0.03       |
| <b>Total</b>   | <b>39.79</b>    | <b>0.68</b> | <b>24.43</b>    | <b>0.18</b> | <b>24.78</b>    | <b>0.17</b> |

#### Passenger Vehicles

Similar to the methodology described for trucks, composite emission rates for running exhaust and start exhaust emissions for light duty cars and trucks from EMFAC2017, default car trip lengths from SCAG (10.6 mi./trip), and ITE trip generation rates for each warehouse category were used to estimate emissions from passenger car travel attributed to each warehouse category. No corrections outside of default values discussed above were made for passenger cars. Baseline emissions for this category are shown in Table 10 below.

**Table 10: Estimated Baseline Passenger Car Emission (tpd) Associated with PR 2305 Warehouses Required to Earn WAIRE Points**

|              | 2019            |             | 2023            |             | 2031            |             |
|--------------|-----------------|-------------|-----------------|-------------|-----------------|-------------|
|              | NO <sub>x</sub> | Diesel PM   | NO <sub>x</sub> | Diesel PM   | NO <sub>x</sub> | Diesel PM   |
| <b>Total</b> | <b>0.96</b>     | <b>0.02</b> | <b>0.70</b>     | <b>0.02</b> | <b>0.39</b>     | <b>0.01</b> |

#### Cargo Handling Equipment

Two main types of cargo handling equipment are typically operated at warehouses. These include yard trucks and industrial trucks (including pallet jacks and forklifts). Emissions from industrial trucks are not estimated for PR 2305 warehouses.<sup>72</sup> Yard trucks operated at warehouses are typically powered by diesel engines, and can be certified as off-road (which restricts the yard truck to one warehouse's yard) or on-road (which allows for short trips to nearby warehouses). Some warehouses may have more than one yard truck operating onsite, while others may have none. Several data sources<sup>73</sup> were used to estimate the potential yard truck emissions associated with warehouses subject to PR 2305 including:

<sup>72</sup> Warehouses subject to PR 2305 have indoor areas that are nearly always above grade compared to the nearby truck and trailer yard to accommodate trucks backing up to a dock. Industrial trucks therefore operate almost exclusively in an indoor environment in these warehouses. During site visits, staff did not observe any industrial trucks powered by internal combustion engines (ICEs) at warehouses subject to PR 2305, and operators cited the desire to avoid operating ICEs in indoor environments.

<sup>73</sup> Population data for yard trucks operated at warehouses is not available from CARB.

- A business survey of warehouses commissioned by South Coast AQMD.<sup>74</sup> Respondents to this survey indicated that larger warehouses (>200,000 sq. ft.) operate an average of 3.6 yard trucks per million square feet of warehouse space, while smaller warehouses (100,000 to 200,000 sq. ft.) operate an average of 1.2 yard trucks per million square feet.
- Yard truck manufacturing data by calendar year was purchased from Powersys.<sup>75</sup> This data product includes an attrition model that estimates the retirement of older yard trucks through time. Both on-road and off-road data is available from this product.
- Activity data was provided by a yard truck manufacturer. On-road yard trucks are estimated to travel 2,145 mi/yr and off-road yard trucks are estimated to operate for 1,430 hrs/yr.
- Calendar year-specific emission rates for on-road and off-road yard trucks was obtained from the Carl Moyer Guidelines.<sup>76</sup>

The estimated baseline NOx and diesel PM emissions from yard trucks are presented in Table 11 below.

**Table 11: Estimated Baseline Yard Truck Emissions (tpd) Associated with PR 2305 Warehouses Required to Earn WAIRE Points**

|              | 2019        |              | 2023        |              | 2031        |              |
|--------------|-------------|--------------|-------------|--------------|-------------|--------------|
|              | NOx         | Diesel PM    | NOx         | Diesel PM    | NOx         | Diesel PM    |
| <b>Total</b> | <b>0.09</b> | <b>0.003</b> | <b>0.09</b> | <b>0.003</b> | <b>0.08</b> | <b>0.003</b> |

Transport Refrigeration Units (TRUs)

Updated emission estimates were based on CARB’s current rulemaking effort affecting TRUs.<sup>77</sup> Half of all truck, trailer, and genset TRU emissions in the South Coast Air Basin were assumed to be associated with cold storage warehousing as refrigerated goods must travel to or from a warehouse for local delivery. This emission total was further reduced by the amount of cold storage warehousing square footage subject to PR 2305 WAIRE Point requirements relative to total cold storage warehousing in the South Coast AQMD jurisdiction (which is about 62%). Results of this analysis are presented below in Table 12.

**Table 12: Estimated Baseline TRU Emissions (tpd) Associated with PR 2305 Warehouses Required to Earn WAIRE Points**

|              | 2019        |             | 2023        |             | 2031        |             |
|--------------|-------------|-------------|-------------|-------------|-------------|-------------|
|              | NOx         | Diesel PM   | NOx         | Diesel PM   | NOx         | Diesel PM   |
| <b>Total</b> | <b>1.88</b> | <b>0.08</b> | <b>1.67</b> | <b>0.07</b> | <b>1.61</b> | <b>0.06</b> |

<sup>74</sup> <http://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-quality-analysis/business-survey-summary.pdf>

<sup>75</sup> <https://www.powersys.com/>

<sup>76</sup> [https://ww2.arb.ca.gov/sites/default/files/classic/msprog/moyer/guidelines/2017/2017\\_cmpgl.pdf](https://ww2.arb.ca.gov/sites/default/files/classic/msprog/moyer/guidelines/2017/2017_cmpgl.pdf)

<sup>77</sup> <https://www.arb.ca.gov/orion/>

### ***Summary of Baseline Emissions***

Table 13 presents a summary of total baseline emissions associated with the 2,902 warehouses expected to earn WAIRE Points under PR 2305. This emissions total represents about 19% and 28% of the South Coast AQMD carrying capacity<sup>78</sup> in 2023 and 2031, respectively.

**Table 13: Summary of Baseline Emissions Associated With PR 2305 Warehouses Expected to Earn WAIRE Points**

| Emission Source    | 2019            |              | 2023            |              | 2031            |              |
|--------------------|-----------------|--------------|-----------------|--------------|-----------------|--------------|
|                    | NO <sub>x</sub> | Diesel PM    | NO <sub>x</sub> | Diesel PM    | NO <sub>x</sub> | Diesel PM    |
| Trucks             | 39.79           | 0.68         | 24.43           | 0.18         | 24.78           | 0.17         |
| Passenger Vehicles | 0.96            | 0.02         | 0.70            | 0.02         | 0.39            | 0.01         |
| Yard Trucks        | 0.09            | 0.003        | 0.09            | 0.003        | 0.08            | 0.003        |
| TRUs               | 1.88            | 0.08         | 1.67            | 0.07         | 1.61            | 0.06         |
| <b>Total</b>       | <b>42.72</b>    | <b>0.783</b> | <b>26.92</b>    | <b>0.273</b> | <b>26.86</b>    | <b>0.243</b> |

## **RULE STRINGENCY**

Many factors go into considering the stringency of proposed rules. For PR 2305, the draft stringency recommended here considered the following points: the need for emission reductions (discussed in Chapter 1), the significance of emissions associated with the warehousing industry (discussed above in the Summary of Baseline Emissions), the potential emissions reductions from PR 2305 when considering other measures, and the impact to industry.

### ***Potential Emission Reductions from PR 2305 and PR 316 When Considering Other Measures***

As described in the baseline emissions inventory analysis above, recent CARB regulations have been quantified to the extent possible. In addition, CARB's Draft Mobile Source Strategy (Draft MSS) is designed to consider all the other measures that may be needed across every mobile source sector to meet various state goals, including attainment of federal air quality standards. This strategy includes very aggressive targets across all sectors, and any shortfall in one sector (e.g., ocean going vessels) would need to be made up by another sector (e.g., trucks).

South Coast AQMD staff submitted comments to CARB stating the Draft MSS needs to go even further, since emission reductions modeled in CARB's Draft MSS are not sufficient to meet either of the upcoming 2023 or 2031 federal deadlines for ozone reduction. Even in the most aggressive modeling in the Draft MSS,<sup>79</sup> in 2023 more than 95% of heavy-duty trucks will be no cleaner than 2010 engine standards assumed for all trucks in the baseline emissions inventory from the 2016 AQMP. This scenario projects these trucks will still make up about 57% of the truck fleet in 2031.

<sup>78</sup> The carrying capacity is the maximum amount of NO<sub>x</sub> emissions that are allowable in the air basin while still meeting 2023 and 2031 federal ozone standards.

<sup>79</sup> The Draft MSS did not explicitly consider any emission reductions from PR 2305 and PR 316.

Since the 2016 AQMP requires a 45% and 55% reduction in NO<sub>x</sub> by 2023 and 2031 respectively, the continued presence of large fractions of 2010 MY trucks in the fleet will hamper efforts to meet these deadlines. Any additional emission reductions provided by PR 2305 and PR 316 would assist in meeting the region's federal air quality attainment needs.

### *Impact to Industry*

Some potential impacts to industry from PR 2305 include increased costs of warehouse operations and potential imposition of competitive disadvantages relative to warehousing in other regions. The potential cost impacts are described in the 'Compliance Costs' section below, and will be analyzed further in the socioeconomic analysis that will be released for public review at least 30 days prior to the public hearing to consider adoption of PR 2305 and PR 316.

The potential imposition of competitive disadvantages from air quality regulatory costs on the goods movement industry has been analyzed in two studies. First, one study was conducted by Industrial Economics Inc. (IEc)<sup>80</sup> and funded by South Coast AQMD to analyze the potential for PR 2305 and PR 316 to cause warehouses to relocate to nearby areas in order to avoid compliance with the rules. The second study by Davies Transportation Consulting Inc. was funded by the ports of LA/LB to analyze how the logistics industry might respond to a new truck rate for imported goods at marine terminals. These studies will be discussed in greater depth in the socioeconomic analysis, but a brief synopsis of the results is included below.

#### IEc Warehouse Relocation Study

**The IEc study found the warehousing industry in the South Coast AQMD is robust, and has grown at faster rates than surrounding areas (see**

Figure 10 and Figure 11), all while experiencing consistent increases in rent that have outpaced neighboring markets (see Figure 12). Since 2010, the rent increases in South Coast AQMD have average about \$0.47 per sq. ft. annually, all while growing in capacity by about 17 million sq. ft. per year. Nearby areas outside the South Coast AQMD jurisdiction have only increased their rents about \$0.06 per sq. ft. annually over the same period.<sup>81</sup>

Industry stakeholders interviewed as part of the IEc study pointed to several benefits that warehouses rely on that are unique to this area, including the highly developed transportation network of multiple ports, railways, and interstate highways, along with a large labor pool that is difficult to access in more remote regions, and proximity to the large metropolitan customer base.

IEc modeled the potential costs that warehouses face with and without PR 2305 and PR 316 using two different methods. These analyses took into account different costs in neighboring markets such as rent, labor, utilities, transportation, etc., as well as costs associated with different potential stringencies of PR 2305 and PR 316. If costs are cheaper in a neighboring region compared to South Coast AQMD, then a warehouse would be motivated to relocate its operations. The analyses considered costs for existing building stock in neighboring areas, as well as hypothetical building

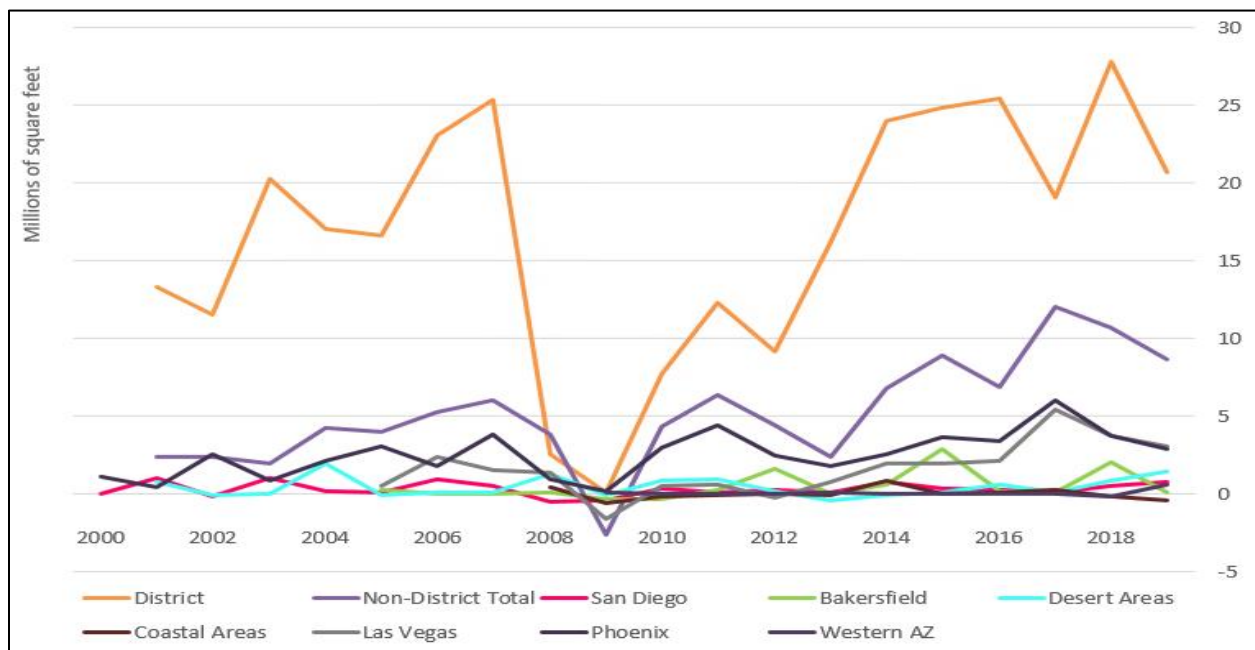
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<sup>80</sup> Study will be included as an appendix to the socioeconomic analysis and is also located here: [www.aqmd.gov/fbmsm](http://www.aqmd.gov/fbmsm).

<sup>81</sup> These annual \$0.47/sf increased rents result in an additional cost to industry in the South Coast AQMD jurisdiction of about \$11.4 billion from 2010-2019 compared to non-District \$0.06/sf increases in rents.

stock assuming that existing vacant land that is industrially zoned could accommodate warehouses. One method that assumed all warehouses serve all markets equally found that no warehouses would relocate even with compliance costs of up to \$2/sq. ft. of warehousing space. A more conservative modeling method found that up to 10 warehouses would have cheaper costs today (without PR 2305) in neighboring regions if the warehouses were solely dedicated to a single market (e.g., serving the national market only via inbound drayage trucks from the port and outbound trucking to intermodal railyards).<sup>82</sup> This same conservative model found that no additional warehouses would experience cheaper costs in neighboring areas (and hence potentially relocate) if compliance costs from PR 2305 were at or below \$1.50/sq. ft.

**Figure 11: Annual Net Absorption<sup>83</sup> in Warehousing Space in South Coast AQMD Jurisdiction and Neighboring Areas**

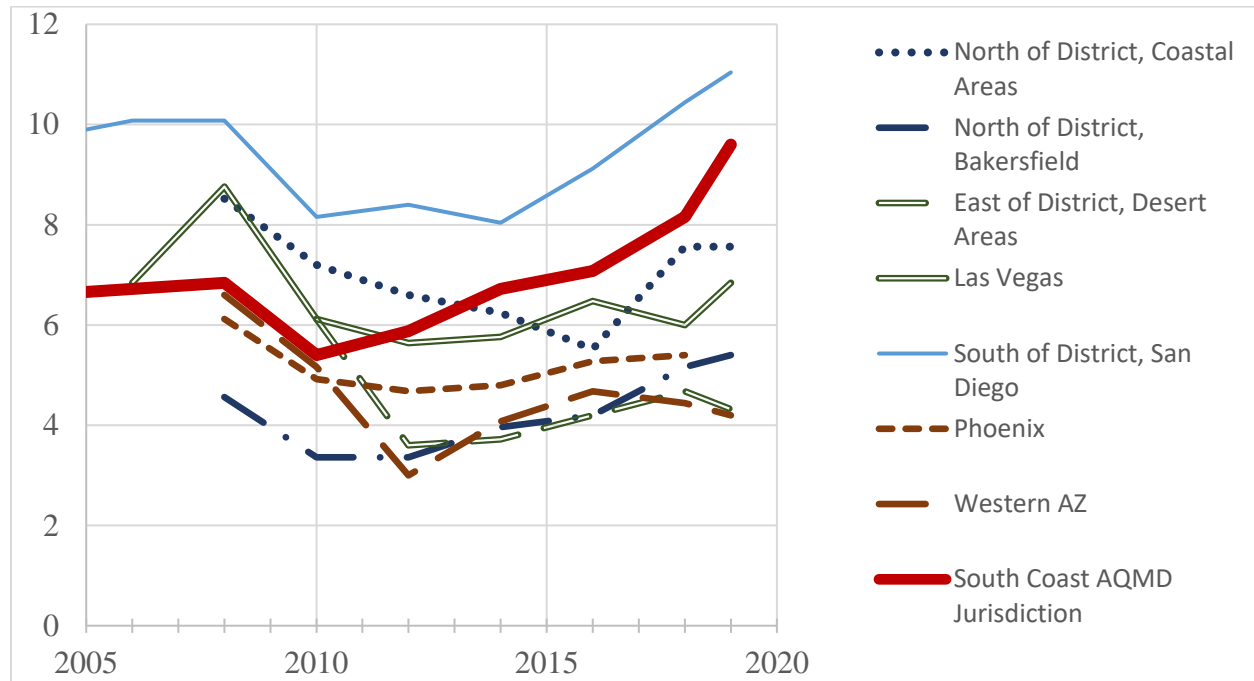


**82 As seen in**

Figure 10 and Figure 11, warehousing is preferentially growing in the South Coast AQMD jurisdiction compared to neighboring markets. One indication of the conservative nature of this modeling approach is that it finds that the opposite should be occurring in the baseline, and a small number of warehouses should relocate outside of the South Coast AQMD jurisdiction.

<sup>83</sup> Net absorption is a common metric used to track warehouse industry growth and is defined as the amount of warehouse space that tenants moved into minus the amount of warehouse space vacated in a given time period. Continually rising net absorption in South Coast AQMD indicates that more warehouses are being built and occupied than are being vacated. Negative net absorption indicates that more tenants are vacating warehouses than moving into warehouses during a given time period.

**Figure 12: Warehousing Historical Rents in South Coast AQMD Jurisdiction and Neighboring Areas**



Davies Transportation Consulting Port Study

The Davies study evaluated the potential for cargo diversion away from the ports of LA/LB if the ports implemented an update to its Clean Truck Program that would impose a new truck rate on loaded cargo containers that move through the port complex, with exemptions provided for NZE (through 2031) and ZE trucks. This study evaluated the different types and ultimate destinations throughout the country of cargo imported to the ports. A model was developed that evaluated the potential costs of using different ports, including the cost of increased time to travel from east Asia to ports in the eastern half of the United States.<sup>84</sup> This analysis found only a portion of goods are potentially subject to diversion to different ports, even at the maximum truck rate evaluated.<sup>85</sup> If the truck rate were set at \$70/TEU<sup>86</sup>, the study found that the potential diversion of total containerized imports would only be up to 1.4%. The ports ultimately approved a truck rate of \$10/TEU,<sup>87</sup> though they have yet to implement the rate. Based on the Davies study, this rate level would result in 0.2% diversion of total containerized imports.

<sup>84</sup> As an example, the Davies study found that goods traveling from Shanghai to the New York/New Jersey port took more than 10 days longer than goods travelling from Shanghai to the ports of LA/LB.

<sup>85</sup> The Davies study found that 35% of imported goods would not relocate at all to a different port within the study parameters (i.e., up to \$70/TEU). These are goods that are goods destined for the local market or for markets within about an 800-mile trucking distance from the ports.

<sup>86</sup> Twenty-foot Equivalent Unit. Most marine containers that are trucked out of the ports are forty-foot equivalent units, equal to two TEUs.

<sup>87</sup> [https://polb.granicus.com/MinutesViewer.php?view\\_id=77&clip\\_id=7245](https://polb.granicus.com/MinutesViewer.php?view_id=77&clip_id=7245).

Potential Impact of PR 2305 and PR 316 on Industry Competitiveness

The two studies analyze the effect of diversion of the logistics sector away from the South Coast AQMD jurisdiction, but with important differences. The Davies study found cargo owners had limited choices if the ports implemented the Clean Truck Program. They could either pay for the cost of NZE or ZE trucks, pay the \$10/TEU rate, or relocate to a different port.<sup>88</sup> The study concluded that at \$70/TEU it would be more cost effective for the vast majority of goods (98.6%) to continue using the ports of LA/LB.

Because PR 2305 and PR 316 apply at warehouses, not at ports, a cargo owner has more options than simply paying the maximum cost of complying with these rules (through increased warehousing costs in the South Coast AQMD jurisdiction) or diverting their cargo to another port. Under PR 2305, cargo owners will have many options and they can implement the cheapest option for their business operation that may be significantly lower cost than the maximum cost option (see

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<sup>88</sup> The Davies study analyzed a variety of costs for goods travelling from Shanghai, China to Chicago, including from ocean shipping, rail shipping, trucking, port and rail fees, the value of time differences in shipping routes, etc.

Table 22). In addition, cargo owners could utilize warehouses just outside of the South Coast AQMD jurisdiction in neighboring areas, rather than shifting to a different port. The IEc study found the stringency of the rule would have to be more than \$1.50/sq. ft. for it to be more efficient to divert a small amount of cargo outside of the Basin to warehouses that are not subject to PR 2305 and PR 316. The cost of diverting cargo to other ports would be even higher than diverting it to warehouses outside the basin, due in large part to the increased travel times: moving cargo to a nearby region increases travel time by only a few hours,<sup>89</sup> rather than 10+ days from moving goods to a port on the east coast.

Finally, the Davies study and others<sup>90</sup> have documented the ports of LA/LB have lost market share of containerized imports continuously since at least 2003. The reasons for this loss have been attributed to many macroeconomic causes that outweigh any increased regulatory costs in California, including labor stoppages in 2002 and 2014/2015, the widening of the Panama Canal in 2016, the recent shifting of some manufacturing from east China to southeast Asia in response to trade tensions,<sup>91</sup> increased investments in infrastructure at competing ports, the lack of increased trade with areas outside of east Asia, etc. Despite this longer term shift in global trade flows, containerized traffic at the ports of LA/LB has steadily increased<sup>92</sup> (Figure 13) and is still expected to reach 34 million TEUs by 2040.<sup>93</sup> Warehousing in the South Coast AQMD jurisdiction has grown rapidly (

Figure 10 and Figure 11) to accommodate this increased goods movement activity and is expected to continue.<sup>94</sup> Thus, even with a loss of market share, given the significant and continued growth in the logistics industry in South Coast AQMD's jurisdiction, it is not clear that any logistics activity has relocated as opposed to experiencing faster growth in other areas. Similarly, the warehousing industry has experienced significant increased costs (Figure 12), and yet has continued to grow faster than neighboring regions (Figure 11). PR 2305 and PR 316 would also impose additional costs on the industry, however relocation of warehousing due to these rules is not expected if costs are below \$1.75 per sq. ft. Similar to the port analysis, it is possible that the growth of warehousing may change in the future in response to many factors (regulatory costs from CARB and/or South Coast AQMD, land costs, labor availability, changing market conditions, etc.)<sup>95</sup>

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<sup>89</sup> For example, travel time without traffic from the ports to Bakersfield is about 2.5 hours, while travel time from the ports to Ontario (located in the Inland Empire) is about 1 hour.

<sup>90</sup> <https://www.pmsaship.com/wp-content/uploads/2019/12/Briefing-Paper-Loss-of-Market-Share-at-U.S.-West-Coast-Ports.pdf>

<sup>91</sup> <https://www.freightwaves.com/news/freight-volumes-shift-east-as-supply-chains-move-out-of-china>

<sup>92</sup> <https://www.polb.com/business/port-statistics#latest-statistics>,

<https://www.portoflosangeles.org/business/statistics/container-statistics>

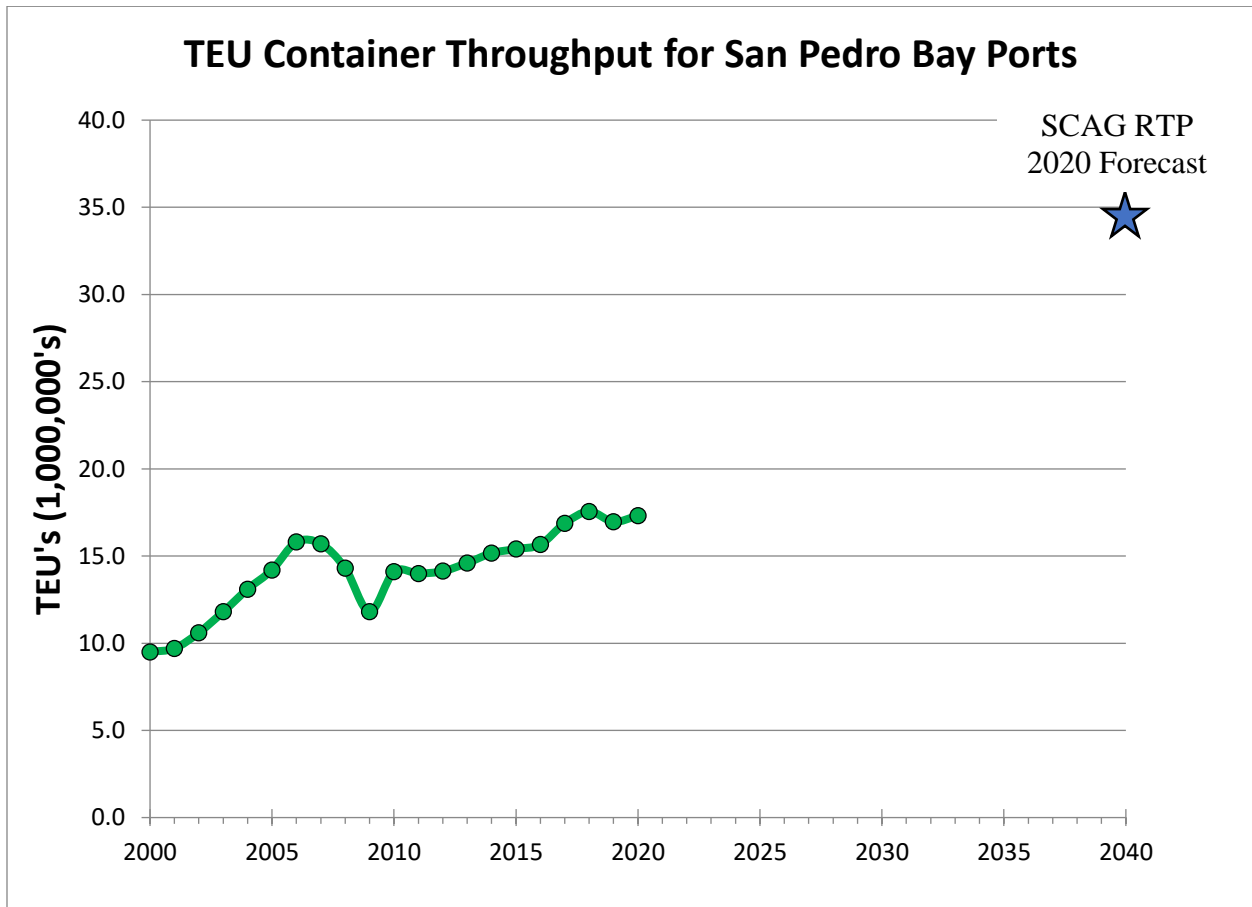
<sup>93</sup> [https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial\\_goods-movement.pdf](https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial_goods-movement.pdf)

<sup>94</sup> [https://scag.ca.gov/sites/main/files/file-attachments/final\\_report\\_03\\_30\\_18.pdf](https://scag.ca.gov/sites/main/files/file-attachments/final_report_03_30_18.pdf)

<sup>95</sup> Although PR 2305 is not expected to result in relocation of logistics activity at the proposed level of stringency, CEQA analysis requires a different legal standard of review. To be conservative in that analysis, some relocation is therefore considered to be possible in order to evaluate any potential environmental impacts.



**Figure 13: Containerized Trade Flows at the Ports of Long Beach and Los Angeles**



***Summary of Considerations For Determining PR 2305 Stringency***

Because of the pressing need to meet federal air quality standards in 2023 and 2031, both from a public health perspective and from a public policy perspective (e.g., avoiding federal sanctions), the stringency of the rule should be set at a level that achieves emission reductions beyond what other regulations will require, and that is within South Coast AQMD’s legal authority. The immediacy of the 2023 deadline also drives a need for a phase-in schedule that can achieve emission reductions early.

The logistics industry and warehousing in particular are robust in our region and have continued to grow rapidly despite experiencing headwinds such as continuously increasing rents and loss of market share to other ports. However, as demonstrated in the ‘Compliance Costs’ section below, there will be financial impacts to industry to implement PR 2305, and it will also require many warehouse operators and cargo owners to change their business practices to implement actions required by PR 2305. After balancing all of these factors, staff is proposing to set the stringency

of PR 2305 at 0.0025 WAIRE Points per Weighted Annual Truck Trip (WATT),<sup>96</sup> phased in over a three-year period after a warehouse operator's initial requirement date. The discussion below presents the potential impacts of PR 2305 and PR 316 based on this stringency and phase-in schedule.

## SCENARIO ANALYSIS

In response to stakeholder feedback, PR 2305 provides a flexible suite of options for warehouse operators to comply. This proposed rule will require subject warehouse operators to annually earn WAIRE Points<sup>97</sup> by completing any combination of 1) implementing actions from the WAIRE Menu, 2) developing and implementing an approved Custom WAIRE Plan, or 3) paying a mitigation fee.

The WAIRE Menu includes 32 options to earn WAIRE Points, and any approved Custom WAIRE Plan would include additional options as it is limited to actions not on the WAIRE Menu. With about 4,000 warehouse operators and dozens of options available for compliance, it is not possible to determine the precise cost or emissions impact of PR 2305 and PR 316. In addition, due to annual compliance obligations, the potential compliance approach from one year may differ from the approach in a following year as technologies and markets evolve, and as early investments are utilized. Because of the variety of outcomes possible, annual updates on the implementation of PR 2305 and PR 316 will be provided to the South Coast AQMD Mobile Source Committee, and additional information will be made available on the South Coast AQMD website. This regular tracking, with opportunity for public input, will allow for timely adjustments to be made to the WAIRE Program should they be necessary.

There are other similar existing programs that also include multiple compliance options including South Coast AQMD Rule 2202 – On-Road Motor Vehicle Mitigation Options<sup>98</sup> and San Joaquin Valley Air Pollution Control District (SJVAPCD) Rule 9510 – Indirect Source Review<sup>99</sup>. Both of these rules allow facilities to comply through prescriptive measures in the respective rule, or through paying a mitigation fee<sup>100</sup>. In the case of Rule 2202, approximately 8% of facilities pay the mitigation fee, and the remainder choose a different compliance option.<sup>101</sup> In addition, Rule 9510 has shown as technologies advance, the compliance approaches change. As an example, when SJVAPCD Rule 9510's started in 2006, about 14% of projects reduced emissions using clean construction equipment, whereas the most recent report from 2020 shows 42% of projects chose this option.<sup>102</sup>

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<sup>96</sup> As described in Chapter 2, warehouse operators must track their WATTs every year to determine their WAIRE points compliance obligation.

<sup>97</sup> As described in Chapter 2 and in PR 2305 (d)(1), a facility's WAIRE Points Compliance Obligation (WPCO) is determined based on four parameters: 1) the number of truck trips to a facility in any given year, 2) the stringency of the rule, 3) an annual variable that determines how quickly the rule phases in, 4) a warehouse operator's Initial Reporting Date based on the size of the facility.

<sup>98</sup> <http://www.aqmd.gov/docs/default-source/rule-book/reg-xxii/rule-2202.pdf>

<sup>99</sup> <http://www.valleyair.org/rules/currnrules/r9510-a.pdf>

<sup>100</sup> Called an Air Quality Investment Program fee for Rule 2202 and an Off-Site Emissions Reduction Fee for Rule 9510. Rule 9510 also allows compliance through a Voluntary Emissions Reduction Agreement that is similar to a mitigation fee.

<sup>101</sup> <http://www.aqmd.gov/home/research/documents-reports/activity-report>

<sup>102</sup> <https://www.valleyair.org/ISR/Documents/2020-ISR-Final-Annual-Report.pdf>

Notwithstanding the potential uncertain outcomes, a robust analytical approach has been conducted to estimate the potential impacts of PR 2305 and PR 316, including through the development of 18 different scenarios designed to show the range of potential outcomes. A description of these 18 scenarios analyzed is included in Table 14 below. The scenarios were developed to show potential end-member impacts from all 32 WAIRE Menu actions,<sup>103</sup> as well as using mitigation fees.<sup>104</sup> Staff will continue to evaluate if further scenario analysis would provide meaningful insight, and updates may be presented in the Draft Staff Report.

Each scenario is structured to follow a series of choices a warehouse operator may make based on compliance choices from a previous year. For example, if a warehouse operator purchased an NZE Class 8 truck in their first year complying with PR 2305 to earn WAIRE Points, they were assumed to use that same truck in subsequent years to earn additional WAIRE Points.

As a bounding analysis approach, all 2,902 warehouses were assumed to only comply with a single scenario approach from 2021 through 2031. No single scenario in this bounding analysis is expected to occur. Rather, they present possible extreme compliance outcomes. In reality, a hybrid of all scenarios (or other compliance approaches encompassed within the range of scenarios analyzed) is expected to occur.

For these scenario analyses,<sup>105</sup> all 2,902 warehouses potentially required to earn WAIRE Points were modeled for every year from 2022-2031 using their square footage and the applicable average trip generation rates<sup>106</sup> to determine the amount of WAIRE Points they are required to earn in each year, referred to as their WAIRE Points compliance obligation (WPCO). The amount of warehousing space required to earn WAIRE Points was grown 1.8% per year, consistent with analysis from SCAG.<sup>107</sup> The prioritization steps below were used to determine how WAIRE Points would be earned for each scenario. If sufficient WAIRE Points were not earned for any of the previous steps to satisfy a warehouse operator's WPCO in a given year, WAIRE Points were assumed to have been earned from the next step.

- 1) Banked WAIRE Points earned in any of the previous three years<sup>108</sup>
- 2) WAIRE Points earned from using vehicles or equipment<sup>109</sup> acquired or installed in any previous year<sup>110</sup>

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<sup>103</sup> See Appendix B – WAIRE Menu Technical Report for supplemental details for each action.

<sup>104</sup> Custom WAIRE Plans were not modeled as they are not expected to be used by most facilities. The potential costs and emissions impacts from Custom WAIRE Plan implementation is expected to be within the range of analysis shown for the 18 scenarios.

<sup>105</sup> The spreadsheet that includes all calculations described here is available at: [www.aqmd.gov/fbmsm](http://www.aqmd.gov/fbmsm)

<sup>106</sup> See PR 2305 (d)(1)(C)

<sup>107</sup> [https://scag.ca.gov/sites/main/files/file-attachments/final\\_report\\_03\\_30\\_18.pdf](https://scag.ca.gov/sites/main/files/file-attachments/final_report_03_30_18.pdf)

<sup>108</sup> PR 2305 (d)(6)(B) allows extra WAIRE Points earned in any one compliance year to be transferred for use in any of the next three compliance years.

<sup>109</sup> Trucks earning WAIRE Points were assumed to make 520 visits per year (10 per week), and travelled default distances of 39.9 miles per trip for class 8, and 14.2 miles per trip for all smaller trucks. Yard trucks were operated for 1,000 hrs/yr.

<sup>110</sup> As a simplifying assumption, the scenarios analyzed here do not include any usage of equipment or vehicles in the year it was installed or acquired. However, it is expected that the usage of equipment or vehicles will earn WAIRE Points in the same year they are acquired.

- 3) WAIRE Points earned from acquiring or installing vehicles or equipment
- 4) Mitigation fees were assumed paid to provide supplementary WAIRE Points if other prescribed actions within a scenario were not available or sufficient to satisfy the WPCO.

**Table 14: Scenario Descriptions**

| #  | Scenario Description  | Notes   |
|----|---|---|
| 1  | NZE Class 8 truck acquisitions and subsequent visits from those trucks  |   |
| 2  | NZE Class 8 truck acquisitions and subsequent visits from those trucks (early purchase)   | One additional truck is acquired earlier than required, thus increasing WAIRE Points earned from truck visits in subsequent years.  |
| 3  | NZE Class 8 truck acquisitions (funded by Carl Moyer program) and subsequent visits from those trucks   | No WAIRE Points earned for truck acquisitions. Mitigation fees paid to earn WAIRE Points in first year of compliance.   |
| 4  | NZE Class 8 truck visits from non-owned fleets  | No WAIRE Points earned for truck acquisitions.  |
| 5  | ZE Class 8 truck visits from non-owned fleets   | No WAIRE Points earned for truck acquisitions. ZE Class 8 trucks are assumed to not be commercially available until late 2022. Mitigation fees paid to earn WAIRE Points until then.          |
| 6  | Level 3 charger installations followed by ZE Class 6 & Class 8 truck acquisitions and subsequent visits from those trucks, using installed chargers | Chargers provide ~30,000 kWh/year per Class 6 truck, and ~90,000 kWh/yr per Class 8 truck. Class 8 trucks only acquired if 25 Class 6 trucks had been previously purchased for one warehouse. |
| 7  | Pay Mitigation Fee  |   |
| 8  | NZE Class 6 truck acquisitions and subsequent visits from those trucks  |   |
| 9  | NZE Class 6 truck visits from non-owned fleets  | No WAIRE Points earned for truck acquisitions.  |
| 10 | ZE Class 6 truck visits from non-owned fleets   | No WAIRE Points earned for truck acquisitions.  |
| 11 | Rooftop solar panel installations and usage   | Solar panel coverage limited to 50% of building square footage. Mitigation fees used to make up any shortfall in WAIRE Points.  |
| 12 | Hydrogen station installations followed by ZE Class 8 truck acquisitions and subsequent visits from those trucks, using the hydrogen station        | System installation in first year is followed by a truck acquisition. In subsequent years trucks are only acquired if needed to earn WAIRE Points.  |
| 13 | ZE Class 2b-3 truck acquisitions and subsequent visits from those trucks  |   |
| 14 | ZE Class 2b-3 truck visits from non-owned fleets  |   |
| 15 | Filter System Installations   |   |
| 16 | Filter Purchases  |   |
| 17 | TRU plug installations and usage in cold storage facilities   | Scenario is only applied to cold storage warehouses. Plugs limited to 1:10,000 sq. ft. of building space.   |
| 18 | ZE Hostler Acquisitions and Usage   |   |

### ***Emission Reductions***

The total potential emission reductions associated with PR 2305 and PR 316 from each scenario above are presented in Table 15 and Table 16 below.<sup>111</sup> The methods used to calculate the emission reductions are consistent with the baseline emissions inventory methodology described above, or

<sup>111</sup> Appendix D includes a discussion of how ‘SIP creditable’ emission reductions can potentially be determined.

with the WAIRE Menu Technical Report in Appendix B, as applicable.<sup>112</sup> Emission reductions from mitigation fees paid to earn WAIRE Points are assumed to achieve NO<sub>x</sub> emission reductions at \$100,000/ton in the year after the fee was paid (consistent with current criteria used for funding Class 8 NZE trucks). Although individual funded projects would vary in the amount of reductions and the duration over which the reductions occur, this simplified approach is sufficient to evaluate programmatic impacts of an ongoing WAIRE Mitigation Program. Emission reductions from the Mitigation Program would be lower than shown in these tables if a portion of the funding goes towards projects that facilitate emission reductions from other programs (such as ZE charging/fueling infrastructure).

**Table 15: Total NO<sub>x</sub> Emission Reductions (tpd) for 18 Bounding Analysis Scenarios**

| Scenario          | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
|-------------------|------|------|------|------|------|------|------|------|------|------|
| 1                 | 0.0  | 1.0  | 2.2  | 3.5  | 4.1  | 4.4  | 4.6  | 4.9  | 5.2  | 5.3  |
| 2                 | 0.0  | 1.3  | 2.4  | 4.1  | 4.3  | 4.6  | 4.8  | 5.0  | 5.1  | 5.2  |
| 3                 | 0.0  | 4.7  | 7.4  | 5.4  | 5.1  | 5.2  | 5.3  | 5.4  | 5.6  | 5.7  |
| 4                 | 1.0  | 1.9  | 3.2  | 3.8  | 4.1  | 4.2  | 4.4  | 4.5  | 4.6  | 4.7  |
| 5                 | 0.0  | 5.4  | 2.9  | 3.4  | 3.7  | 3.8  | 3.9  | 4.0  | 4.1  | 4.2  |
| 6                 | 0.0  | 0.0  | 0.5  | 1.1  | 1.6  | 2.0  | 2.2  | 2.3  | 2.5  | 2.7  |
| 7                 | 0.0  | 3.7  | 8.9  | 15.3 | 18.2 | 19.8 | 20.3 | 20.8 | 21.3 | 21.8 |
| 8                 | 0.0  | 0.5  | 1.4  | 2.5  | 3.1  | 3.4  | 3.5  | 3.6  | 3.8  | 3.9  |
| 9                 | 1.0  | 1.7  | 3.0  | 3.5  | 3.7  | 3.7  | 3.8  | 3.8  | 3.9  | 3.9  |
| 10                | 1.1  | 1.9  | 3.3  | 3.9  | 4.1  | 4.2  | 4.2  | 4.3  | 4.3  | 4.4  |
| 11 <sup>113</sup> | 0.0  | 0.1  | 1.6  | 1.1  | 1.6  | 12.8 | 15.4 | 19.3 | 19.8 | 20.3 |
| 12                | 0.0  | 0.0  | 0.4  | 0.7  | 1.2  | 2.4  | 2.8  | 3.2  | 3.3  | 3.5  |
| 13                | 0.0  | 0.4  | 0.8  | 3.5  | 4.1  | 1.3  | 1.2  | 1.1  | 1.0  | 0.9  |
| 14                | 0.5  | 1.0  | 1.5  | 1.6  | 1.5  | 1.4  | 1.3  | 1.2  | 1.1  | 1.0  |
| 15                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| 16                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| 17                | 0.0  | 0.0  | 0.1  | 0.3  | 0.4  | 0.4  | 0.3  | 0.2  | 0.1  | 0.1  |
| 18                | 0.0  | 0.0  | 0.1  | 0.1  | 0.1  | 0.1  | 0.1  | 0.1  | 0.1  | 0.1  |

**Table 16: Total Diesel PM Emission Reductions (tpd) for 18 Bounding Analysis Scenarios**

| Scenario | 2022  | 2023  | 2024  | 2025  | 2026  | 2027  | 2028  | 2029  | 2030  | 2031  |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1        | 0     | 0.008 | 0.018 | 0.028 | 0.033 | 0.035 | 0.036 | 0.039 | 0.041 | 0.041 |
| 2        | 0     | 0.011 | 0.019 | 0.033 | 0.034 | 0.037 | 0.038 | 0.039 | 0.040 | 0.040 |
| 3        | 0     | 0.010 | 0.028 | 0.033 | 0.036 | 0.037 | 0.038 | 0.039 | 0.040 | 0.040 |
| 4        | 0.009 | 0.015 | 0.026 | 0.030 | 0.033 | 0.034 | 0.035 | 0.035 | 0.036 | 0.036 |
| 5        | 0     | 0.014 | 0.021 | 0.024 | 0.026 | 0.027 | 0.028 | 0.028 | 0.029 | 0.029 |
| 6        | 0     | 0     | 0.002 | 0.006 | 0.009 | 0.011 | 0.012 | 0.013 | 0.014 | 0.015 |
| 7        | 0     | 0.002 | 0.004 | 0.006 | 0.007 | 0.008 | 0.008 | 0.008 | 0.009 | 0.009 |

<sup>112</sup> Earlier analyses presented to the Working Group showed different emission reduction outcomes. The primary difference is that Table 15 includes all emission reductions from trucks that are turned over due to PR 2305. Previous analyses only evaluated emission reductions tied specifically to WAIRE Points. For example, a NZE Class 8 truck could typically travel ~55,000 miles per year, but is only assumed to earn WAIRE Points for 40,000 of those miles in the scenario analysis. Table 15 includes emission reductions from the 55,000 miles of travel instead of only looking at the 40,000 miles that earn WAIRE Points.

<sup>113</sup> Emission Reductions from power plants are capped by the total amount of fossil fuel power plant emissions that occur in South Coast AQMD while solar panels generate power, and additional reductions are added from the WAIRE Mitigation Program.

|    |       |       |       |       |       |       |       |       |       |       |
|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 8  | 0     | 0.003 | 0.008 | 0.015 | 0.019 | 0.021 | 0.022 | 0.022 | 0.023 | 0.023 |
| 9  | 0.023 | 0.011 | 0.018 | 0.021 | 0.023 | 0.023 | 0.023 | 0.024 | 0.024 | 0.024 |
| 10 | 0.023 | 0.011 | 0.018 | 0.021 | 0.023 | 0.023 | 0.023 | 0.024 | 0.024 | 0.024 |
| 11 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| 12 | 0     | 0     | 0.003 | 0.005 | 0.008 | 0.017 | 0.020 | 0.023 | 0.023 | 0.025 |
| 13 | 0     | 0.004 | 0.009 | 0.015 | 0.018 | 0.019 | 0.020 | 0.020 | 0.020 | 0.020 |
| 14 | 0.004 | 0.010 | 0.017 | 0.019 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 |
| 15 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| 16 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| 17 | 0     | 0.002 | 0.007 | 0.014 | 0.017 | 0.016 | 0.013 | 0.009 | 0.004 | 0.000 |
| 18 | 0     | 0.001 | 0.002 | 0.003 | 0.003 | 0.003 | 0.003 | 0.003 | 0.004 | 0.004 |

As discussed in the Baseline Emissions Inventory section above, CARB regulations are expected to also reduce emissions from trucks going to PR 2305 warehouses. Tables 17 and 18 below show the ‘surplus’ emission reductions that would be expected for each scenario after taking into account emission reductions from CARB’s ACT, Low NOx Omnibus, and Heavy Duty I/M rules. As stated in the Air Quality Need section of Chapter 1, there is no requirement that the emission reductions from statewide rules will apply in the South Coast AQMD jurisdiction, and PR 2305 and PR 316 would ensure that higher emission reductions are actually achieved here, as demonstrated in Table 15 and Table 16. Table 15: Total NOx Emission Reductions (tpd) for 18 Bounding Analysis Scenarios

**Table 17: NOx Emission Reductions (tpd) for 18 Bounding Analysis Scenarios After Discounting Reductions from CARB Regulations**

| Scenario          | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
|-------------------|------|------|------|------|------|------|------|------|------|------|
| 1                 | 0.0  | 1.0  | 2.2  | 3.3  | 3.6  | 3.4  | 3.2  | 3.1  | 3.1  | 3.0  |
| 2                 | 0.0  | 1.3  | 2.4  | 3.9  | 3.8  | 3.6  | 3.5  | 3.2  | 3.0  | 2.9  |
| 3                 | 0.0  | 4.7  | 7.4  | 5.2  | 4.6  | 4.3  | 3.9  | 3.7  | 3.5  | 3.4  |
| 4                 | 1.0  | 1.9  | 3.2  | 3.6  | 3.7  | 3.3  | 3.0  | 2.7  | 2.5  | 2.4  |
| 5                 | 0.0  | 5.4  | 2.9  | 3.4  | 3.6  | 3.6  | 3.7  | 3.6  | 3.6  | 3.5  |
| 6                 | 0.0  | 0.0  | 0.4  | 1.1  | 1.5  | 1.8  | 1.9  | 1.9  | 1.8  | 1.8  |
| 7                 | 0.0  | 3.7  | 8.9  | 15.3 | 18.2 | 19.8 | 20.3 | 20.8 | 21.3 | 21.8 |
| 8                 | 0.0  | 0.5  | 1.4  | 2.5  | 3.0  | 3.1  | 3.2  | 3.3  | 3.4  | 3.5  |
| 9                 | 1.0  | 1.7  | 3.0  | 3.4  | 3.6  | 3.5  | 3.5  | 3.5  | 3.5  | 3.5  |
| 10                | 1.1  | 1.9  | 3.3  | 3.8  | 4.1  | 4.1  | 4.1  | 4.2  | 4.2  | 4.2  |
| 11 <sup>114</sup> | 0.0  | 0.1  | 1.6  | 1.1  | 1.6  | 12.8 | 15.4 | 19.3 | 19.8 | 20.3 |
| 12                | 0.0  | 0.0  | 0.4  | 0.7  | 1.1  | 2.2  | 2.6  | 2.9  | 2.8  | 2.8  |
| 13                | 0.0  | 0.4  | 0.8  | 3.5  | 4.0  | 1.3  | 1.2  | 1.1  | 1.0  | 0.9  |
| 14                | 0.5  | 1.0  | 1.5  | 1.6  | 1.5  | 1.4  | 1.2  | 1.1  | 1.0  | 0.9  |
| 15                | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 16                | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 17                | 0.0  | 0.0  | 0.1  | 0.3  | 0.4  | 0.4  | 0.3  | 0.2  | 0.1  | 0.1  |
| 18                | 0.0  | 0.0  | 0.1  | 0.1  | 0.1  | 0.1  | 0.1  | 0.1  | 0.1  | 0.1  |

<sup>114</sup> Emission Reductions from power plants are capped by the total amount of fossil fuel power plant emissions that occur in South Coast AQMD while solar panels generate power, and additional reductions are added from the WAIRE Mitigation Program.

**Table 18: Diesel PM Emission Reductions (tpd) for 18 Bounding Analysis Scenarios After Discounting Reductions from CARB Regulations**

| Scenario | 2022  | 2023  | 2024  | 2025  | 2026  | 2027  | 2028  | 2029  | 2030  | 2031  |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1        | 0.000 | 0.008 | 0.018 | 0.027 | 0.029 | 0.028 | 0.026 | 0.026 | 0.025 | 0.024 |
| 2        | 0.000 | 0.011 | 0.019 | 0.031 | 0.030 | 0.029 | 0.028 | 0.026 | 0.025 | 0.023 |
| 3        | 0.000 | 0.010 | 0.028 | 0.031 | 0.032 | 0.030 | 0.028 | 0.026 | 0.025 | 0.023 |
| 4        | 0.009 | 0.015 | 0.025 | 0.029 | 0.029 | 0.026 | 0.024 | 0.022 | 0.021 | 0.019 |
| 5        | 0.000 | 0.014 | 0.021 | 0.024 | 0.026 | 0.026 | 0.026 | 0.026 | 0.026 | 0.025 |
| 6        | 0.000 | 0.000 | 0.002 | 0.006 | 0.008 | 0.010 | 0.010 | 0.010 | 0.010 | 0.009 |
| 7        | 0.000 | 0.002 | 0.004 | 0.006 | 0.007 | 0.008 | 0.008 | 0.008 | 0.009 | 0.009 |
| 8        | 0.000 | 0.003 | 0.008 | 0.015 | 0.018 | 0.019 | 0.020 | 0.020 | 0.021 | 0.021 |
| 9        | 0.023 | 0.011 | 0.018 | 0.021 | 0.022 | 0.022 | 0.021 | 0.021 | 0.022 | 0.021 |
| 10       | 0.023 | 0.011 | 0.018 | 0.021 | 0.023 | 0.023 | 0.023 | 0.023 | 0.023 | 0.023 |
| 11       | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 12       | 0.000 | 0.000 | 0.003 | 0.005 | 0.008 | 0.016 | 0.018 | 0.020 | 0.020 | 0.020 |
| 13       | 0.000 | 0.004 | 0.009 | 0.015 | 0.018 | 0.019 | 0.019 | 0.019 | 0.019 | 0.019 |
| 14       | 0.004 | 0.010 | 0.017 | 0.019 | 0.020 | 0.020 | 0.020 | 0.019 | 0.019 | 0.019 |
| 15       | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 16       | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 17       | 0.000 | 0.002 | 0.007 | 0.014 | 0.017 | 0.016 | 0.013 | 0.009 | 0.004 | 0.000 |
| 18       | 0.000 | 0.001 | 0.002 | 0.003 | 0.003 | 0.003 | 0.003 | 0.003 | 0.004 | 0.004 |

***WAIRE Program Compliance Costs***

There are five types of compliance costs warehouse operators may experience with PR 2305 and PR 316 including: 1) costs to implement actions from the WAIRE Menu, 2) costs to develop and implement a Custom WAIRE Plan, 3) optional mitigation fees, 4) administrative fees pursuant to PR 316, and 5) costs associated with reporting and recordkeeping. The analysis presented here is a preliminary draft, and staff anticipates continuing to work on these estimates. Costs can be analyzed in a number of ways with a rule that includes as many options as PR 2305. One approach is to calculate costs using the scenario analysis presented above. A discussion of cost estimates with this approach is below. Because of the variability in emissions estimates and cost estimates in the extreme bounding analyses presented in the scenarios, cost effectiveness calculations may not be appropriately considered using only these approaches. Another approach is to calculate costs for individual actions on the WAIRE Menu. Any updates will be presented in the upcoming Draft Staff Report and Socioeconomic Impact Assessment.

**Scenario Cost Analysis**

Preliminary expected costs resulting from each of the 18 bounding compliance scenarios are discussed below. The majority of expected costs result from the capital cost associated with the estimated number of equipment acquisitions (ZE and NZE trucks, solar panels, charger installations, etc.) and the operating and maintenance (O&M) costs associated with usage of the equipment (fuel and electricity consumption, truck maintenance, etc.) in each scenario. This analysis attempts to isolate and attribute capital and O&M costs for only the equipment incremental to current CARB regulations such as CARB's ACT and Low NOx Omnibus regulations.

Table 22 at the end of this preliminary analysis shows discounted total costs over a ten-year compliance time horizon (2022 – 2031). The costs shown in this analysis are in 2018 dollars and have not been discounted to account for the time value of money. Unless specified otherwise in the discussion here, incremental capital and O&M cost estimates are based on the analysis in the WAIRE Menu Technical Report in Appendix B, and the references contained therein.

To facilitate the discussion of the cost calculations, scenarios are grouped based on their compliance strategy. The groupings are comprised of (1) mitigation fees only; (2) truck acquisition and associated visits; (3) truck visits from non-owned fleets; (4) equipment acquisition and associated usage, and; (5) equipment/truck acquisition and associated usage/visits.

#### Mitigation Fees Only - Scenario 7

The cost calculation for the mitigation fee scenario is straightforward. In lieu of earning WAIRE Points from equipment acquisitions and usage, all facilities choose to pay a fee of \$1,000 for each WAIRE Point in their WPCO attributed to their facility in every year of compliance. The total cost associated with the mitigation fee presented here does not reflect earning any Points from any other actions, such as truck acquisitions and visits resulting from CARB regulations, and should be considered a conservative high-end estimate. It is likely trucks purchased and used due to CARB regulations will be used to earn WAIRE Points to reduce the total amount of mitigation fees collected.<sup>115</sup> This scenario also conservatively does not include any Points that might be earned from any trucks that are incentivized through the WAIRE Mitigation Program. Including these assumptions would significantly lower the cost, and the potential emission reductions from this scenario. This scenario is presented in all of the summary charts below as a point of comparison.

#### Truck Acquisition and Associated Visits - Scenarios 1, 2, 3, 8, 13, and 18

Each scenario in this compliance strategy grouping relies on earning Points through purchase of clean trucks (NZE Class 8, NZE Class 6, ZE Class 2b-3, and ZE hostlers) and their subsequent usage (i.e. visits to the warehouse facility). Only those vehicle purchases and visits incremental to existing CARB regulations are considered. Figure 14 below presents total costs (truck acquisition and usage) in each compliance year (2022 – 2031) for each scenario in \$/sq. ft.



**Figure 14: Potential Bounding Analysis Costs from Truck Acquisition and Subsequent Usage Scenarios**

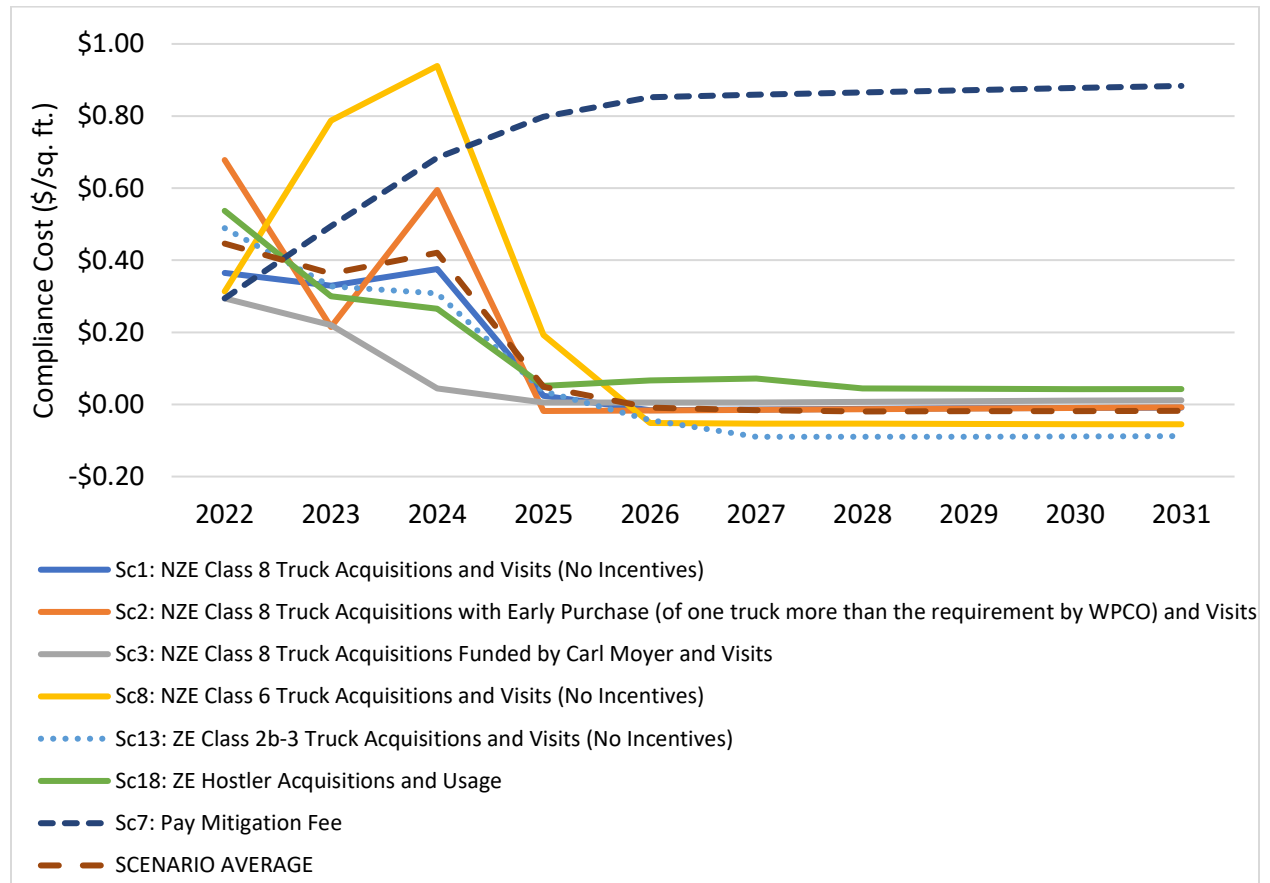


Table 19 below presents capital costs of Diesel and NZE trucks. These costs are assumed to remain constant across the entire compliance period.<sup>115,116</sup> Capital costs of ZE trucks are expected to decrease over time as a result of decreased battery costs. Projected capital costs over time for each ZE vehicle class can be found in Table 20 below.<sup>117,118,119</sup> When the number of truck purchases in any compliance year for a given scenario falls below the expected number of truck purchases in CARB’s EMFAC 2017 projections for that year, the incremental acquisition cost for each truck class and fuel type is used. However, if the number of truck purchases in a scenario exceeds

<sup>115</sup> Capital costs for diesel trucks can be found in Table C-6 of the CARB ACT Appendix C-1 – SRIA submitted to DoF: <https://ww3.arb.ca.gov/regact/2019/act2019/appc.pdf>

<sup>116</sup> Capital costs for NZE Class 8 trucks can be found in Table 31 of the 2018 Feasibility Assessment for Drayage Trucks: <https://cleanairactionplan.org/documents/final-drayage-truck-feasibility-assessment.pdf/>. Class 6 capital costs were calculated by taking the ratio of capital costs for NZE Class 6 and 8 trucks found in the WAIRE Menu.

<sup>117</sup> Capital costs for each ZE truck class (2b-3, 6, 8) for model years 2024-2030 are taken from CARB’s ACT Appendix C-1 – SRIA as submitted to DoF (Table C-7): <https://ww3.arb.ca.gov/regact/2019/act2019/appc.pdf>.

<sup>118</sup> To fill in missing years (2022, 2023), ZE capital costs were linearized between 2018 and 2024. 2031 costs assumed to be equal to 2030.

<sup>119</sup> ZE Hostler capital cost projections are not available for future years. Staff applied a yearly cost multiplier based on ZE Class 2b-3 capital costs to the incremental cost of ZE Hostlers included in the WAIRE Menu. A cost multiplier is generated by taking ratio of difference in capital cost in each year (2022 -2031) to the difference in capital costs in year 1 (2022).

EMFAC 2017 projections, the full capital cost associated with each truck type is used for those trucks above projections. An 8% sales tax is applied to each truck acquisition and no financing costs have been included in this preliminary analysis.

Scenario 3 assumes all trucks purchased are subsidized by Carl Moyer incentive funds and no WAIRE Points (or costs) are attributed to warehouse operators for these vehicle purchases. Because no Points are earned for NZE Class 8 truck acquisitions in Scenario 3, it is necessary for facilities to pay a mitigation fee for the additional WAIRE Points needed for compliance in each calendar year (2022 – 2031) in which visits from Moyer-funded trucks are not sufficient to meet the WPCO.

**Table 19: Capital Costs for Diesel and NZE Truck Acquisitions**

| Vehicle Class | Diesel    | NZE       |
|---------------|-----------|-----------|
| Class 2b-3    | \$50,000  | N/A       |
| Class 6       | \$85,000  | \$98,525  |
| Class 8       | \$130,000 | \$160,599 |

**Table 20: Capital Cost by ZE Truck Class and Year**

| Year | ZE Class 8 | ZE Class 6 | ZE Class 2b-3 |
|------|------------|------------|---------------|
| 2022 | \$265,556  | \$134,877  | \$71,920      |
| 2023 | \$231,236  | \$125,177  | \$68,318      |
| 2024 | \$201,351  | \$116,174  | \$64,896      |
| 2025 | \$194,134  | \$112,591  | \$63,635      |
| 2026 | \$188,312  | \$109,702  | \$62,599      |
| 2027 | \$183,371  | \$107,253  | \$61,684      |
| 2028 | \$178,870  | \$105,025  | \$60,829      |
| 2029 | \$174,809  | \$103,016  | \$60,035      |
| 2030 | \$170,748  | \$101,008  | \$59,241      |
| 2031 | \$170,748  | \$101,008  | \$59,241      |

Costs associated with the use/visits of facility-owned NZE and ZE trucks is done on a per-mile basis. Per-mile usage costs resulting from fuel consumption and other costs (including maintenance, fees, insurance, and mid-life costs) were calculated for all truck classes and fuel types and then multiplied by the expected VMT in each compliance year for each scenario.<sup>120,121,122</sup>

<sup>120</sup> Data on maintenance costs, mid-life costs, fuel cost and fuel economy for diesel, ZE and NZE trucks is taken from the WAIRE Menu Technical Report in Appendix B.

<sup>121</sup> Vehicle fees for all ZE and diesel truck classes are taken from CARB's ACT Total Cost of Ownership document: <https://ww3.arb.ca.gov/regact/2019/act2019/apph.pdf>. Fees for NZE trucks are assumed to be the same as diesel trucks.

<sup>122</sup> Annual insurance costs assumed to be equal to 3% of vehicle value. Vehicle value assumed to decrease by 10% in years 2-8 and an additional 5% in years 9-11. The average annual cost is included in the per mile cost analysis.

A breakdown of total usage costs for each truck class and fuel type can be found in Table 21 below. Per-mile usage costs (not considering capital costs) of Class 6 and 8 NZE trucks is slightly lower than diesel, and results in a modest net savings to facilities. Per-mile usage costs of Class 2b-3, 6, and 8 ZE trucks is significantly lower than diesel and results in a net savings to facilities. Additionally, for Scenario 18, the incremental cost associated with ZE hostler/yard truck usage is taken from the WAIRE Menu Technical Report in Appendix B (\$6,250/1000 hours), and the references therein.

**Table 21: Annual Operating and Maintenance Costs by Vehicle Class and Fuel Type (in 2018 Dollars)**

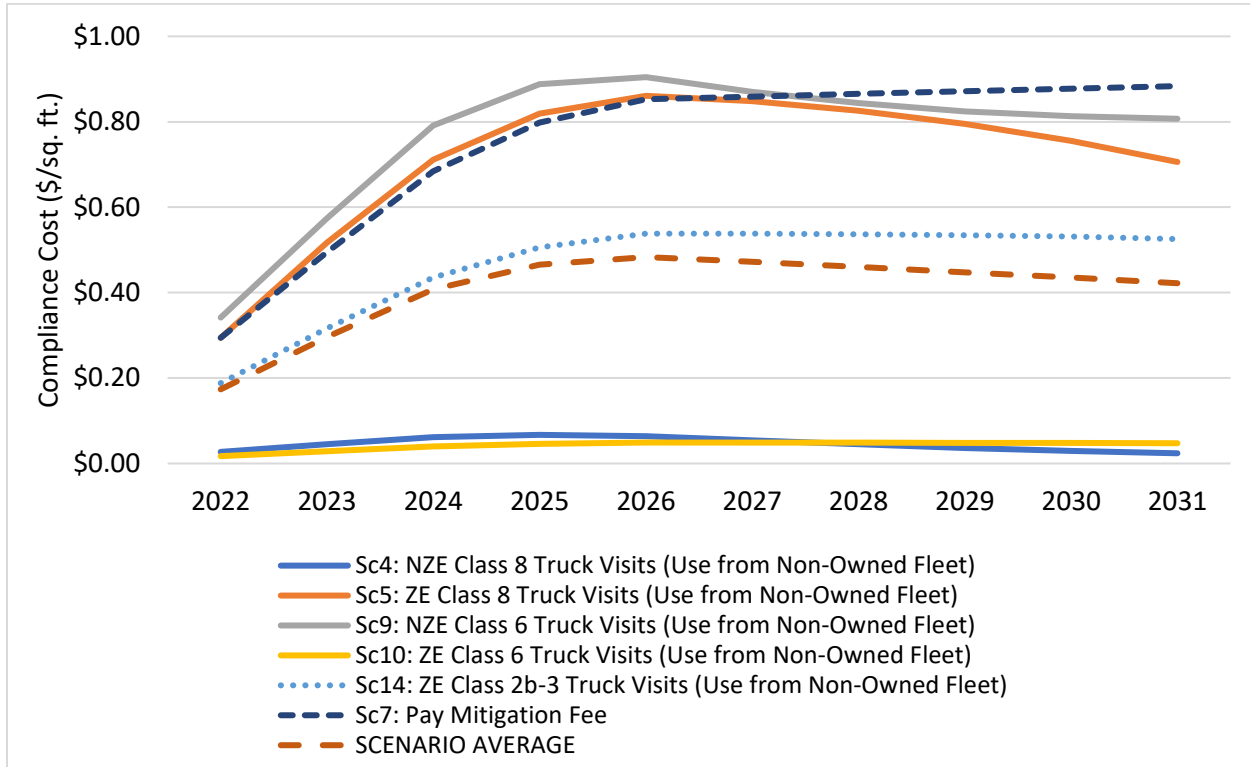
| Vehicle Class | Fuel Type | Total Annual Fuel Cost | Total Annual Other Cost | Total Annual Miles | \$/mile |
|---------------|-----------|------------------------|-------------------------|--------------------|---------|
| Class 8       | Diesel    | \$34,231               | \$15,306                | 54000              | \$0.92  |
|               | ZE        | \$16,875               | \$18,071                | 54000              | \$0.65  |
|               | NZE       | \$30,918               | \$16,841                | 54000              | \$0.88  |
| Class 6       | Diesel    | \$12,130               | \$7,844                 | 24000              | \$0.83  |
|               | ZE        | \$3,923                | \$7,238                 | 24000              | \$0.47  |
|               | NZE       | \$9,219                | \$8,525                 | 24000              | \$0.74  |
| Class 2b-3    | Diesel    | \$2,418                | \$4,221                 | 15000              | \$0.44  |
|               | ZE        | \$1,508                | \$3,843                 | 15000              | \$0.36  |

#### Truck Visits from Non-owned Fleets - Scenarios 4, 5, 9, 10, and 14

Scenarios associated with this compliance strategy grouping earn WAIRE Points solely from visits to their facilities from non-owned NZE or ZE trucks. Costs for these scenarios only include visits above and beyond those resulting from existing CARB regulations. To calculate expected costs due to PR 2305, the incremental cost associated with each visit by truck class and fuel type was taken from the WAIRE menu and multiplied by the number of visits by non-owned trucks necessary to comply in all compliance years.

The analysis for scenarios 9 and 10 indicates that if all warehouse operators only complied using ZE or NZE Class 6 trucks as a bounding analysis, that the total VMT associated with WAIRE Points could exceed the VMT from these Class 6 trucks in EMFAC. To account for the shortfall in this bounding analysis, the analysis does not include WAIRE Points beyond existing VMT in EMFAC, and assumes that warehouse operators earn the remaining WAIRE Points necessary for compliance by paying the mitigation fee. Figure 15 below presents total costs, including non-owned truck visits and the mitigation fee (Scenario 5 only), in each compliance year (2022 – 2031) for each scenario in \$/sq. ft.

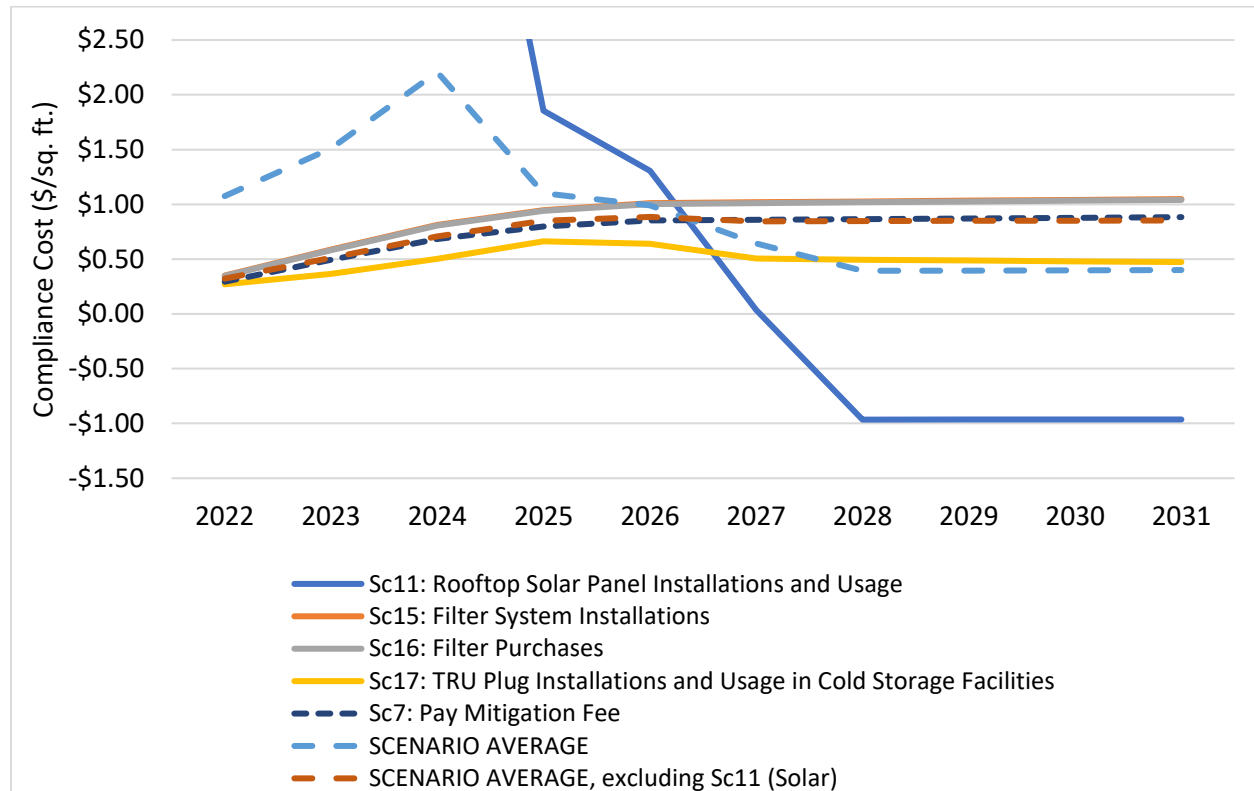
**Figure 15: Potential Bounding Analysis Costs from Truck Visits from a Non-owned Fleet**



Equipment Acquisition and Associated Usage - Scenarios 11, 15, 16, and 17

Facilities in these scenarios meet their WAIRE Point obligation by acquiring and using clean technologies, such as solar panels (Scenario 11), filter systems (Scenario 15), filters only (Scenario 16), and TRU plugs (Scenario 17). Costs associated with the acquisition and usage of these technologies, as well as construction and permitting costs for TRU plug installs are listed in the WAIRE Menu Technical Report in Appendix B. Usage of installed solar panels results in a cost savings equal to the assumed electricity price of \$0.17 per kWh. TRU costs were only applied to cold storage warehouses. Construction and permitting costs associated with TRU plug installations have been included. For Scenario 17 only, it is necessary for facilities to pay a mitigation fee for the additional WAIRE Points needed for compliance in each calendar years 2024 – 2031. Figure 16 presents total costs in each compliance year (2022 – 2031) for Scenarios 11, 15, 16, and 17 in \$/sq. ft.

**Figure 16: Potential Bounding Analysis Costs from Non-truck Equipment and Associated Usage**



Equipment/Truck Acquisition and Associated Usage/Visits - Scenarios 6 and 12

Scenarios 6 and 12 assume facilities use both ZE truck and charging/fueling infrastructure acquisitions and their associated usage to earn WAIRE Points. Scenario 6 combines Level 3 charger installations with Class 6 and 8 ZE truck purchases. Scenario 12 combines hydrogen station installations and Class 8 ZE truck purchases. Incremental acquisition costs for Class 6 and 8 ZE trucks can be found in Table 18. Level 3 charger and hydrogen station installation and usage costs are also listed in the WAIRE Menu Technical Report in Appendix B, along with construction and permitting costs for charger installation projects. To avoid double-counting, no costs are accumulated for charger usage as electricity costs are already accounted for in the per-mile usage costs for Class 6 and 8 ZE trucks. This analysis also assumes hydrogen costs decline over time from roughly \$9.75/kg per in 2020 to \$6.20/kg in 2031.<sup>123</sup> Figure 17 below presents total costs for both scenarios in each compliance year (2022 – 2031) in \$/sq. ft.

<sup>123</sup> Hydrogen cost projections can be found in CARB ACT Appendix C-1 – SRIA submitted to DoF (Figure C-5): <https://ww3.arb.ca.gov/regact/2019/act2019/appc.pdf>

**Figure 17: Potential Bounding Analysis Costs from Equipment Acquisition (Truck and Non-Truck) and Associated Visits/Usage**

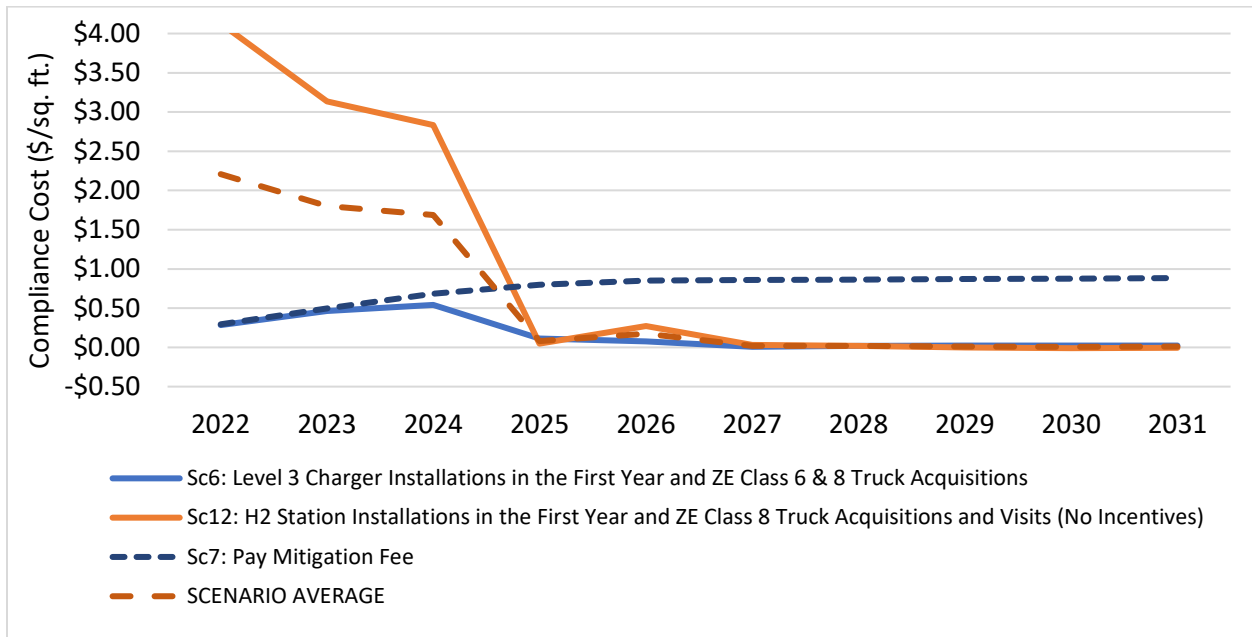


Table 22 below shows a cost summary for each compliance scenario including net present value (assuming 1% discount rate), average annual cost, and a weighted average annual cost per square foot of warehouse space after taking into account equipment acquisition from CARB's ACT, Low NOx Omnibus. For reference,

Table 23 below shows a cost summary for each compliance scenario for total ISR only costs (ignoring projected equipment acquisition from CARB regulations). Average annual costs range from \$29.1M/yr. (or \$0.04/sq. ft./yr.) for the lowest cost scenario (Scenario 13: ZE Class 2b-3 Acquisitions and Associated Usage) up to \$921M/yr. (or \$1.14/sq. ft./yr.) for the highest cost scenario (Scenario 11: Solar Panel Installations).

The costs presented here are default calculations broadly applicable to the industry, however individual warehouse operators may identify different specific costs for their operations. Warehouse operators are assumed to gravitate towards the lowest cost options for their specific situations. As such, the maximum cost that warehouse operators would be expected to incur is \$0.78/sq. ft./yr. resulting from the mitigation fee scenario. However, based on the cost analysis, it is likely that in most situations warehouse operators will identify substantially cheaper options that work within their operations.



**Table 22: Total Cost Summary of Each Compliance Scenario (2022-2031) After Accounting for CARB's ACT and Low NOx Omnibus Regulations**

| <b>Equipment</b>            | <b>Scenario</b> | <b>NPV Total Cost<br/>(1% Discount<br/>Rate)</b> | <b>Average<br/>Annual Cost<br/>(\$/yr.)</b> | <b>Average<br/>Annual Cost<br/>(\$/sq. ft./yr.)</b> |
|-----------------------------|-----------------|--|---|---|
| NZE Class 8                 | Sc1             | \$638,262,698                                    | \$64,966,618                                | \$0.08  |
| NZE Class 8                 | Sc2             | \$845,818,325                                    | \$86,095,585                                | \$0.11  |
| NZE Class 8                 | Sc3             | \$357,847,750                                    | \$36,670,741                                | \$0.05  |
| NZE Class 8                 | Sc4             | \$350,167,074                                    | \$36,936,260                                | \$0.05  |
| ZE Class 8                  | Sc5             | \$5,611,542,259                                  | \$596,396,110                               | \$0.74  |
| ZE Class 6 & 8              | Sc6             | \$1,093,965,155                                  | \$112,821,896                               | \$0.14  |
| Mitigation Fee              | Sc7             | \$5,905,149,994                                  | \$628,861,500                               | \$0.78  |
| NZE Class 6                 | Sc8             | \$1,287,932,729                                  | \$130,785,343                               | \$0.16  |
| NZE Class 6                 | Sc9             | \$6,012,154,522                                  | \$638,887,541                               | \$0.79  |
| ZE Class 6                  | Sc10            | \$332,922,140                                    | \$35,428,479                                | \$0.04  |
| Solar                       | Sc11            | \$9,142,248,478                                  | \$921,184,141                               | \$1.14  |
| H <sub>2</sub> , ZE Class 8 | Sc12            | \$6,453,366,591                                  | \$659,553,443                               | \$0.82  |
| ZE Class 2b-3               | Sc13            | \$307,696,114                                    | \$29,063,641                                | \$0.04  |
| ZE Class 2b-3               | Sc14            | \$3,666,396,796                                  | \$390,227,364                               | \$0.48  |
| Filter System               | Sc15            | \$7,008,472,865                                  | \$746,347,940                               | \$0.92  |
| Filter                      | Sc16            | \$6,950,906,239                                  | \$740,226,510                               | \$0.92  |
| TRU                         | Sc17            | \$41,121,112                                     | \$4,365,913                                 | \$0.50  |
| Yard Trucks                 | Sc18            | \$946,519,313                                    | \$97,986,547                                | \$0.12  |

**Table 23: Total Cost Summary of Each Compliance Scenario (Without Accounting for Existing CARB Regulations)**

| Equipment                   | Scenario | NPV Total Cost (1%) | Average Annual Cost (\$/yr.) | Average Annual Cost (\$/sq. ft./yr.) |
|-----------------------------|----------|---------------------|------------------------------|--------------------------------------|
| NZE Class 8                 | Sc1      | \$731,128,440       | \$74,775,068                 | \$0.09                               |
| NZE Class 8                 | Sc2      | \$914,298,893       | \$93,280,837                 | \$0.12                               |
| NZE Class 8                 | Sc3      | \$310,776,651       | \$31,569,153                 | \$0.04                               |
| NZE Class 8                 | Sc4      | \$537,946,366       | \$57,287,868                 | \$0.07                               |
| ZE Class 8                  | Sc5      | \$6,150,343,948     | \$654,993,662                | \$0.81                               |
| ZE Class 6 & 8              | Sc6      | \$1,304,812,881     | \$135,255,282                | \$0.17                               |
| Mitigation Fee              | Sc7      | \$5,905,149,994     | \$628,861,500                | \$0.78                               |
| NZE Class 6                 | Sc8      | \$1,460,766,320     | \$149,050,597                | \$0.18                               |
| NZE Class 6                 | Sc9      | \$6,854,548,309     | \$729,966,319                | \$0.90                               |
| ZE Class 6                  | Sc10     | \$344,882,934       | \$36,727,865                 | \$0.05                               |
| Solar                       | Sc11     | \$9,142,248,478     | \$921,184,141                | \$1.14                               |
| H <sub>2</sub> , ZE Class 8 | Sc12     | \$7,734,552,862     | \$796,246,855                | \$0.99                               |
| ZE Class 2b-3               | Sc13     | \$531,199,138       | \$52,547,309                 | \$0.07                               |
| ZE Class 2b-3               | Sc14     | \$3,774,484,237     | \$401,958,874                | \$0.50                               |
| Filter System               | Sc15     | \$7,008,472,865     | \$746,347,940                | \$0.92                               |
| Filter                      | Sc16     | \$6,950,906,239     | \$740,226,510                | \$0.92                               |
| TRU                         | Sc17     | \$41,121,112        | \$4,365,913                  | \$0.50                               |
| Yard Trucks                 | Sc18     | \$946,519,313       | \$97,986,547                 | \$0.12                               |

***WAIRE Program Administrative Costs*****PR 316 Estimated Costs**

PR 316 details the administrative fees that PR 2305 regulated entities must pay to fund South Coast AQMD compliance activities for PR 2305. The total annual cost for South Coast AQMD to administer and enforce the WAIRE Program was determined as a function of the fully burdened hourly rates for staff multiplied by the total staff time required to process the three types of reports required by PR 2305, including the Warehouse Operations Notification, Initial Site Information Report, and the Annual WAIRE Report. In addition, reporting would be conducted through a new web portal, which includes an estimated \$25,000 annually to maintain. Warehouse Operations Notifications require significantly less information than the other two reports

There are 3,320 warehouse owners expected to initially submit a Warehouse Operations Notification, and about 4,000 warehouse operators across 2,902 warehouses that are expected to submit an Initial Site Information Report and Annual WAIRE Report during their first year that they would need to earn WAIRE Points. As described in Appendix C, an estimated 515 warehouse owners are operators who would need to submit a one-time Initial Site Information Report and

Annual WAIRE Reports thereafter. The remaining warehouses are assumed to get a new operator every five years. Table 24 below shows how many reports are expected every year through 2031.

**Table 24: Number of Reports Submitted by PR 2305 Warehouses Each Year**

| Year | Warehouse Operations Notification | Initial Site Information Report | Annual WAIRE Report |
|------|-----------------------------------|---------------------------------|---------------------|
| 2021 | 3,320                             | 0                               | 0                   |
| 2022 | 561                               | 1,333                           | 1,333               |
| 2023 | 561                               | 1,894                           | 2,667               |
| 2024 | 561                               | 1,894                           | 4,000               |
| 2025 | 561                               | 561                             | 4,000               |
| 2026 | 561                               | 561                             | 4,000               |
| 2027 | 561                               | 561                             | 4,000               |
| 2028 | 561                               | 561                             | 4,000               |
| 2029 | 561                               | 561                             | 4,000               |
| 2030 | 561                               | 561                             | 4,000               |
| 2031 | 561                               | 561                             | 4,000               |

Table 25 below shows the estimated average level of effort, burdened rates for staff, and costs for each report.

**Table 25: PR 316 Fee Evaluation**

| Staff   | Burdened Hourly Rate | Warehouse Operations Notification | Initial Site Information Report | Annual WAIRE Report    |
|---|----------------------|-----------------------------------|---------------------------------|------------------------|
| Planning & Rules Manager                          | \$141.29             | 0.05 hrs                          | 0.1 hrs                         | 0.2 hrs                |
| Program Supervisor                                | \$126.57             | 0.05 hrs                          | 0.2 hrs                         | 0.6 hrs                |
| Air Quality Specialist                            | \$110.28             | 0.1 hrs                           | 1.0 hrs                         | 1.75 hrs               |
| Air Quality Inspector II                          | \$94.78              | 0 hrs                             | 0.5 hrs                         | 1.25 hrs               |
| <i>Staff Cost per Report</i>                      |                      | <i>\$24.42</i>                    | <i>\$135.59</i>                 | <i>\$387.41</i>        |
| <i>Web Portal Cost per Report</i>                 |                      | <i>\$5.09</i>                     | <i>\$5.09</i>                   | <i>\$5.09</i>          |
| <b><i>Total Cost per Report<sup>124</sup></i></b> |                      | <b><i>\$29.51</i></b>             | <b><i>\$140.68</i></b>          | <b><i>\$392.50</i></b> |

Finally, Custom WAIRE Plan Application Evaluations will be assessed on a level of effort basis. A fee of \$161.25 will be assessed for every hour of review, consistent with plan review fees for other South Coast AQMD programs.<sup>125</sup> Reviews are expected to require multiple hours of staff time, and an initial fee will be assessed when the application is submitted equal to five hours of review (\$806.25). If review requires less than five hours, then a refund will be provided to the applicant.

<sup>124</sup> Similar to other South Coast AQMD fees in Regulation III, costs are expected to increase through time, consistent with the Consumer Price Index including for increased staff costs and overhead costs from inflation. All fees in PR 316 will therefore be adjusted periodically consistent with all other Regulation III fees pursuant to Rule 320.

<sup>125</sup> Rule 306(d)

### ***Warehouse Operator Administrative Costs***

Warehouse operators are expected to experience administrative costs associated with recordkeeping and reporting for PR 2305.<sup>126</sup> For example, truck trip data collection could include a variety of different methods, such as security cameras that include a log of vehicles that pass the camera, an in-road sensor which can count truck trips and identify the number of axles per truck, the use of an onsite personnel to check in all vehicles that enter, etc. Warehouse operators may already have measures in place for security and tracking purposes and would not experience additional costs from PR 2305 for installing new systems. Other options such as telematics, GPS, or truck driver surveys could be used as well and those costs would fall within the three estimates described below. The low cost compliance option consists of a third party security camera subscription that would generate a 30 day log of vehicles captured by the camera at an annual cost of \$2,000 with no set up costs,<sup>127</sup> the medium cost compliance option consists of the installation of an in-road sensor which uses pneumatic tubes to count axles and identify truck types which has a total initial installation cost of \$19,500 with no monthly costs,<sup>128</sup> and the high cost compliance option consists of dedicating personnel (e.g., to staff a guard shack for all hours of the day) at a total cost of \$141,649.20.<sup>129</sup> The first two example options for obtaining truck trip counts would potentially require some additional administrative effort to compile all the data and submit the information as required by PR 2305. This type of reporting is expected to be similar to the kind of reporting required in CARB's ACT regulation, specifically for large entity reporting, and is estimated to be no more than 25 hours of work totaling \$1,250 per year.<sup>130</sup>

These preliminary estimates of administrative costs will continue to be evaluated and will be updated in the Draft Staff Report.

## **FEASIBILITY**

The potential feasibility of PR 2305 and PR 316 have been evaluated using a variety of approaches. Staff considered the technical, economic, and market feasibility as described below. Many technical assessment studies have been conducted on NZE and ZE technologies that may be used to comply with PR 2305. These studies are referenced in the WAIRE Menu Technical Report in Appendix B. Additional information on technical feasibility was also obtained from industry sources who have used technologies in commercial service at warehouses, and results from South Coast AQMD funded projects.<sup>131</sup> The technical feasibility of some WAIRE Menu actions are not considered technically feasible today (e.g., ZE Class 8 trucks), however they are expected to become commercialized in the next two years and are therefore included as a compliance option. Economic feasibility will be considered in more detail in the socioeconomic impact analysis report, however some preliminary analysis is included here. First, the proposed rule may impose annual

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<sup>126</sup> Engineering costs to implement specific WAIRE Menu actions (such as for charging infrastructure) have already been included in the compliance cost estimates above.

<sup>127</sup> <https://www.cnet.com/news/this-company-could-turn-every-homes-camera-into-a-license-plate-reader/>

<sup>128</sup> [https://www.westernite.org/annualmeetings/16\\_Albuquerque/Papers/7B\\_Sobie.pdf](https://www.westernite.org/annualmeetings/16_Albuquerque/Papers/7B_Sobie.pdf)

<sup>129</sup> <https://www.bls.gov/oes/current/oes339032.htm#st>

<sup>130</sup> <https://ww3.arb.ca.gov/regact/2019/act2019/isor.pdf>

<sup>131</sup> Examples: <http://www.aqmd.gov/docs/default-source/technology-research/clean-fuels-program/clean-fuels-advisory-agenda---september-17-2020.pdf>, <http://www.aqmd.gov/docs/default-source/technology-research/annual-reports-and-plan-updates/2019-annual-report-2020-plan-update.pdf>

average costs between about \$0 per year and \$750 million per year,<sup>132</sup> which translates to a range of about \$0 per sq. ft. to \$0.89 per sq. ft., with the mitigation fee-only scenario averaging about \$0.75 per sq. ft.

There are two points of comparison that illustrate the impact PR 2305 may have on industry. First, there are about \$500 billion worth of goods that flow through the SCAG region every year, with the vast majority flowing through the import and export points in the South Coast AQMD region.<sup>133</sup> If only 31% of imported containerized goods at the ports of LA/LB go directly to rail, the majority of the remainder likely flows through the largest warehouses. The warehouses subject to PR 2305 include about 750 million sq. ft. of space, out of a total of about 1.2 billion sq. ft. of warehousing space in the entire SCAG region (all building sizes), or about 63%.<sup>134</sup> Because PR 2305 warehouses include the largest facilities, an even greater fraction of goods is expected to flow through these warehouses with smaller warehouses sending or receiving goods from the larger facilities. At the low end, it is possible to estimate that the total value of goods flowing through PR 2305 warehouses is at least \$217 billion.<sup>135</sup> Using the ~\$630 million annual cost from the mitigation fee scenario as a proxy for the highest costs that could be imposed by PR 2305 at the proposed stringency, at the high end PR 2305 could therefore add <0.3% to the total cost of goods handled by warehouses.

The potential cost effectiveness of PR 2305 is difficult to determine with the wide variety of options available for compliance. PR 2305 aims to reduce regional NOx emissions, as well as local emissions of diesel PM (to reduce regional PM and local toxics emissions), and local exposures to air pollution. Traditional cost effectiveness approaches are therefore not comparable to other programs focused solely on regional pollutant emission reductions that simply divide total cost by NOx emission reductions, or toxics rules that do not calculate cost effectiveness. Nevertheless,

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<sup>132</sup> Excluding the solar panel scenario with anomalously high costs relative to other scenarios.

<sup>133</sup> [https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial\\_goods-movement.pdf](https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial_goods-movement.pdf)

<sup>134</sup> Ibid.

<sup>135</sup> \$500 billion \* 69% (non-rail) \* 63% (PR 2305 whse sq. ft./SCAG whse sq. ft.) = \$217 billion

Table 26 below shows the preliminary cost effectiveness in dollars per ton of NO<sub>x</sub> reduced using values from Table 23 and Table 15 above before accounting for any actions by CARB in the ACT or Low NO<sub>x</sub> Omnibus regulations. Table 27 shows similar values after accounting for these two regulations (using Table 22 and Table 17).

**Table 26: Preliminary Estimates of Cost Effectiveness<sup>136</sup> for Regional NO<sub>x</sub> Reductions Without Considering CARB's ACT and Low NO<sub>x</sub> Omnibus Regulations**

| Scenario | Description                 | Cumulative NO <sub>x</sub> (tons) (2022-2031) | Cumulative Cost (2022-2031) | Cost-Effectiveness (\$/ton) |
|----------|-----------------------------|---|-----------------------------|-----------------------------|
| 1        | NZE Class 8                 | 12,848  | \$731,128,440               | \$56,906                    |
| 2        | NZE Class 8                 | 13,432  | \$914,298,893               | \$68,069                    |
| 3        | NZE Class 8                 | 18,177  | \$310,776,651               | \$17,097                    |
| 4        | NZE Class 8                 | 13,286  | \$537,946,366               | \$40,490                    |
| 5        | ZE Class 8                  | 12,921  | \$6,150,343,948             | \$475,996                   |
| 6        | ZE Class 6 & 8              | 5,439   | \$1,304,812,881             | \$239,921                   |
| 7        | Mitigation Fee              | 54,787  | \$5,905,149,994             | \$107,785                   |
| 8        | NZE Class 6                 | 9,381   | \$1,460,766,320             | \$155,724                   |
| 9        | NZE Class 6                 | 11,680  | \$6,854,548,309             | \$586,862                   |
| 10       | ZE Class 6                  | 13,031  | \$344,882,934               | \$26,467                    |
| 11       | Solar                       | 33,580  | \$9,142,248,478             | \$272,253                   |
| 12       | H <sub>2</sub> , ZE Class 8 | 6,388   | \$7,734,552,862             | \$1,210,889                 |
| 13       | ZE Class 2b-3               | 5,220   | \$531,199,138               | \$101,772                   |
| 14       | ZE Class 2b-3               | 4,417   | \$3,774,484,237             | \$854,632                   |
| 15       | Filter System               | 0   | \$7,008,472,865             | N/A                         |
| 16       | Filter                      | 0   | \$6,950,906,239             | N/A                         |
| 17       | TRU                         | 694   | \$41,121,112                | \$59,295                    |
| 18       | Yard Trucks                 | 292   | \$946,519,313               | \$3,241,504                 |

**Table 27: Preliminary Estimates of Cost Effectiveness for Regional NO<sub>x</sub> Reductions After Considering CARB ACT and Low NO<sub>x</sub> Omnibus Regulations**

| Scenario | Description                 | Cumulative NO <sub>x</sub> (tons) (2022-2031) | Cumulative Cost (2022-2031) | Cost-Effectiveness (\$/ton) |
|----------|-----------------------------|---|-----------------------------|-----------------------------|
| 1        | NZE Class 8                 | 9,502   | \$638,262,698               | \$67,172                    |
| 2        | NZE Class 8                 | 10,082  | \$845,818,325               | \$83,897                    |
| 3        | NZE Class 8                 | 14,862  | \$357,847,750               | \$24,079                    |
| 4        | NZE Class 8                 | 9,943   | \$350,167,074               | \$35,218                    |
| 5        | ZE Class 8                  | 12,154  | \$5,611,542,259             | \$461,688                   |
| 6        | ZE Class 6 & 8              | 4,417   | \$1,093,965,155             | \$247,670                   |
| 7        | Mitigation Fee              | 54,761  | \$5,905,149,994             | \$107,835                   |
| 8        | NZE Class 6                 | 8,692   | \$1,287,932,729             | \$148,169                   |
| 9        | NZE Class 6                 | 11,015  | \$6,012,154,522             | \$545,810                   |
| 10       | ZE Class 6                  | 12,792  | \$332,922,140               | \$26,026                    |
| 11       | Solar                       | 33,581  | \$9,142,248,478             | \$272,246                   |
| 12       | H <sub>2</sub> , ZE Class 8 | 5,648   | \$6,453,366,591             | \$1,142,675                 |
| 13       | ZE Class 2b-3               | 5,164   | \$307,696,114               | \$59,586                    |

<sup>136</sup> Some scenarios include NO<sub>x</sub> reductions from the WAIRE Mitigation Program, which assumes a cost-effectiveness of \$100,000 per ton of NO<sub>x</sub> (with reductions assumed to occur the year after the fee is paid), consistent with existing mobile source funding programs like Carl Moyer.

|    |               |       |                 |             |
|----|---------------|-------|-----------------|-------------|
| 14 | ZE Class 2b-3 | 4,201 | \$3,666,396,796 | \$872,816   |
| 15 | Filter System | 0     | \$7,008,472,865 | N/A         |
| 16 | Filter        | 0     | \$6,950,906,239 | N/A         |
| 17 | TRU           | 728   | \$41,121,112    | \$56,457    |
| 18 | Yard Trucks   | 271   | \$946,519,313   | \$3,499,053 |

The market feasibility was evaluated by considering whether the proposed stringency of PR 2305 would result in a level of implementation that exceeds the potential ability of the market to respond. In an extreme hypothetical example, if the stringency of PR 2305 required ten billion miles of Class 8 ZE truck travel per year, but there is only a total of three billion miles of truck travel from all Class 8 trucks (fueled by diesel, electric, natural gas, etc.), then this would indicate that the stringency is infeasible.

The scenario analysis described above includes calculations to determine whether any bounding analysis scenario exceeded expected market conditions. The parameters that were evaluated include the number of new trucks purchased in a year, the amount miles travelled by trucks in a year, the amount of power required to charge trucks, and the amount of fossil fueled power generation in South Coast AQMD. In nearly all cases, PR 2305 would not exceed existing market capacity. In rare instances, some bounding analysis scenarios show that some new truck sales in early years of the program could be higher than is expected in EMFAC for those respective truck categories, assuming that every warehouse operator bought the same class of truck and technology (e.g., NZE or ZE) to comply with PR 2305. This is unlikely as no more than about 40% of warehouse operators are estimated to own truck fleets (and not every truck fleet owns all truck classes), and truck acquisitions to earn Points would necessarily be less than shown. Even in these extreme cases (which are not reasonably expected to occur), the amount of sales is typically no more than about double what is projected from EMFAC for our region. Similarly, some scenarios show that if all warehouse operators only obtain WAIRE Points from NZE or ZE truck visits from Class 6 trucks, then the total miles travelled from those visits to warehouses would exceed the total miles travelled from those truck types for all of South Coast AQMD (regardless of whether a trip is to a warehouse) by about 15% or less. As above, this extreme example is not expected to occur as all warehouses are not expected to only choose a single compliance pathway with nearly three dozen options available for compliance – as well as many different operational practices and markets served by warehouses. Finally, the highest electricity demand for charging electric trucks (Scenario 6) is about 844 GWh per year. This level of charging is less than what CEC has preliminarily calculated for the total need for electric trucks in the South Coast AQMD region.<sup>137</sup>

<sup>137</sup> As part of the development of the 2020 Integrated Energy Policy Report, CEC staff included a scenario that explicitly evaluates the electric power needed if >100,000 ZE trucks are deployed to assist in meeting 2031 ozone standards. This analysis showed the projected electricity demand from charging these trucks would be about 1,684 GWh in 2031, with a peak summer hourly load of about 164 MW for Southern California Edison, the region's largest utility. This results in about a 1-2% increase in electricity demand overall from SCE compared to the 'mid' case analysis in the 2019 IEPR, but is still within the range of expected demand as the additional load does not exceed CEC's modeled 'high' case.

<https://efiling.energy.ca.gov/getdocument.aspx?tn=235836>,  
<https://efiling.energy.ca.gov/GetDocument.aspx?tn=230923>,  
<https://efiling.energy.ca.gov/GetDocument.aspx?tn=230924>



Considering the many different compliance options and business models of warehouse operators, it is unlikely that any of the extreme scenarios discussed above would be expected to occur. With roughly three dozen options for earning WAIRE Points (32 Menu actions, a mitigation fee option, and additional options from Custom WAIRE Plans), it is unlikely any particular scenario modeled would be chosen by more than a small fraction of all warehouse operators in any given year. If these more realistic lower levels of implementation are assumed for each scenario, then none of the market capping conditions would be exceeded. It is also foreseeable that if some of the extreme examples discussed above began to materialize during a compliance period, with all operators choosing the same exact truck type and technology to implement, that warehouse operators would respond to these market conditions and pivot to implement other alternatives.

## **SOCIOECONOMIC ASSESSMENT**

A socioeconomic analysis will be conducted and released for public comment and review at least 30 days prior to the South Coast AQMD Governing Board Public Hearing on PR 2305 and PR 316, which is anticipated to be heard on April 2, 2021.

## **CALIFORNIA ENVIRONMENTAL QUALITY ACT**

PR 2305 and PR 316 are considered a “project” as defined by the California Environmental Quality Act (CEQA). Pursuant to CEQA, the South Coast AQMD, as Lead Agency, prepared a Notice of Preparation (NOP) of the Draft Environmental Assessment (EA) and Initial Study (IS) to analyze environmental impacts from the project identified above pursuant to its certified regulatory program (Public Resources Code Section 21080.5, CEQA Guidelines Section 15251(l), and South Coast AQMD Rule 110). The NOP/IS was released for a 32-day public review and comment period that began Friday, November 13, 2020 and ended on Tuesday, December 15, 2020. In addition, because the proposed project could have statewide, regional or areawide significance, a CEQA Scoping Meeting was held on December 2, 2020 pursuant to Public Resources Code Section 21083.9(a)(2). The South Coast AQMD is also preparing a Draft EA (equivalent to a Draft EIR) that will be circulated for public review and comment. Comments received at the CEQA Scoping Meeting and on the NOP/IS will be considered when preparing the Draft EA.

## **DRAFT FINDINGS UNDER CALIFORNIA HEALTH AND SAFETY CODE SECTION 40727**

California Health and Safety Code Section 40727 requires that prior to adopting, amending or repealing a rule or regulation, the South Coast AQMD Governing Board shall make findings of necessity, authority, clarity, consistency, non-duplication, and reference based on relevant information presented at the public hearing and in the staff report.

Necessity

PR 2305 and PR 316 are needed to protect public health by reducing local and regional emissions of NO<sub>x</sub> and diesel PM associated with warehouses and the mobile sources attracted to warehouses. By reducing these emissions, PR 2305 and PR 316 will also assist in meeting state and federal air quality standards for ozone and fine PM. NO<sub>x</sub> is a precursor to the formation of ozone and PM<sub>2.5</sub>, and diesel PM is a toxic air contaminant and component of fine PM.

Authority

Authority for the South Coast AQMD Governing Board to adopt PR 2305 and PR 316 may be found in sections 39002, 39650 through 39669, 40000, 40001, 40440, 40441, 40522.5, 40701, 40702, 40716, 40717, 40725 through 40728, 40910, 40920.5, 41508, 41511, and 41700 of the Health and Safety Code.

Clarity

PR 2305 and PR 316 are written or displayed so that its meaning can be easily understood by the persons directly affected by it.

Consistency

PR 2305 and PR 316 are in harmony with and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations.

Non-Duplication

PR 2305 and PR 316 will not impose the same requirements as any existing state or federal regulations. The proposed rule is necessary and proper to execute the powers and duties granted to, and imposed upon, the South Coast AQMD.

Reference

In adopting these rules, the following statutes which the South Coast AQMD hereby implements, interprets or makes specific are referenced: Clean Air Act Section 110(a)(5)(A)(i); Health & Safety Code Sections 40440, 40716, 40717, and 40522.5.

## COMPARATIVE ANALYSIS

Health and Safety Code Section 40727.2 requires a comparative analysis of proposed rules with any Federal or South Coast AQMD rules and regulations applicable to the same source. This analysis will be included in the Draft Staff Report and released for public comment and review at least 30 days prior to the South Coast AQMD Governing Board Public Hearing on PR 2305 and PR 316, which is anticipated to be heard on April 2, 2021.

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**Appendix A: WAIRE PROGRAM IMPLEMENTATION GUIDELINES**

The Draft WAIRE Program Implementation Guidelines will be provided at a future date and opportunity will be provided for public comment.

**Appendix B: WAIRE MENU TECHNICAL REPORT****DRAFT WAIRE Menu Technical Report****OVERVIEW**

This technical report describes the methodology used to determine how WAIRE Points are attributed to each of the actions on the WAIRE Menu provided in PR 2305. Section 1 of this report presents an overview of how the Points are determined within the Menu, while all subsequent sections presents detailed methodologies for each Menu item.

**SECTION 1) WAIRE Points Calculation Methodology**

This section describes the general methodology used to determine how WAIRE Points are attributed to each of the actions on the WAIRE Menu. While this methodology is used to determine the value of each WAIRE Menu action during the rulemaking process, warehouse operators and/or owners will not need to use this calculation methodology document to determine how to comply with the rule. For compliance, warehouse operators (and in some cases owners if they choose to comply on behalf of their operator) will only need to consult the WAIRE Menu itself to determine how many actions, or how much of each action to complete for compliance.

WAIRE Points may be earned in two ways, through the purchase of near-zero (NZE) and zero emission (ZE) equipment or equipment that facilitates its use, and through the usage of NZE and ZE equipment. WAIRE Points are assigned based on three key parameters, cost, regional emissions reductions, and local emissions reduction. The cost parameter is based on the incrementally higher cost a warehouse operator faces when choosing to purchase NZE/ZE equipment (compared to conventional diesel technology). The regional emissions reduction parameter is based on the reduction in nitrogen oxides (NOx) emissions from using ZE/NZE equipment. The local emissions reduction parameter is based on the reduction in Diesel Particulate Matter (DPM)<sup>1</sup> from using ZE/NZE equipment.

In practice, the actual costs and emission reductions of each implemented action will likely vary for each warehouse operator. Calculating these unique values on a case-by-case basis would impose a considerable administrative burden to both the regulated community and to South Coast AQMD. In order to simplify compliance and administration of PR 2305, WAIRE Points for each Menu action are determined using representative default values described in the calculation methodology summaries that follow.

**Section 1a) WAIRE MENU ANNUALIZED UNITARY METRICS AND BINS**  
WAIRE Points values in the WAIRE Menu are determined for each action based on a single Annualized Unitary Metric (AUM). The AUM is the default level of implementation used for

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<sup>1</sup> DPM is both a component of the criteria pollutants PM10 and PM2.5, and a toxic air contaminant. Emissions of DPM from warehouse indirect sources can contribute to high-level, localized pollutant concentrations that can significantly affect air quality and public health for populations near warehouses.

calculating each WAIRE Menu action's Points. For example, the AUM for the truck acquisition WAIRE Menu action is one truck acquired during the compliance year. The cost and regional and local emissions reductions are calculated for acquiring one truck and used to determine the default WAIRE Point value for that Menu action. Warehouse operators use these default Point values in the WAIRE Menu to determine how many Points they earned in total depending on their level of implementation. For example, the default Point value in the Menu for acquiring one ZE class 8 truck is 126 Points. If a warehouse operator acquired five ZE trucks, they would earn a total of 630 Points (126 Points for each truck acquisition). Similarly, for ZE class 8 truck visits, the AUM of 365 visits per year (one per day on average) yields 27 Points in the WAIRE Menu. If a warehouse operator only has 100 ZE class 8 truck visits during a compliance year, they would earn a total of 7.4 Points<sup>2</sup>  $[(100 \div 365) \times 27 = 7.4]$ . The AUM's for each WAIRE Menu action are described in the individual calculation methodology summaries that follow.

WAIRE Points are also calculated using a point binning system to simplify the merging of the cost, regional emission reduction, and local emissions reduction parameters. For the AUM, Points are earned for each \$25,000 incremental cost, 25-pound NO<sub>x</sub> regional emission reduction, and 0.25-pound DPM local emission reduction. Once these three parameters are calculated, their binned points are summed to yield the total default WAIRE Points earned for that action.

### **Section 1b) COSTS:**

The costs for each WAIRE Menu action are based on the annualized incremental costs difference between the new ZE/NZE technology and the costs of the conventional diesel equivalent. Due to existing statutory or regulatory prohibitions, most state incentive funding programs used to offset the higher purchase price of ZE/NZE vehicles and equipment cannot be used to aid in complying with state or federal law or South Coast AQMD rules or regulations<sup>3</sup>, and incentive funds are not considered in these costs. However, WAIRE Points may be earned from the usage of incentivized vehicles/equipment. For example, if a warehouse operator owns a fleet of trucks, and they want to purchase a ZE or NZE truck, they will need to decide among two options. First, they could purchase the truck at full price and receive WAIRE Points for that action. Second, they could instead choose to receive incentive funding for that purchase but not earn any WAIRE Points for the truck purchase. In both instances, they would be allowed to receive WAIRE Points for the visits that this truck makes to their warehouse.

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<sup>2</sup> WAIRE Points are calculated to no more than one decimal place.

<sup>3</sup> California Health and Safety Codes 44281(b), 44391.4(a), 44271(c), CCR Title 13, Ch. 8.2 Sec. 2353 (c)(4), Moyer Guidelines Ch. 2, CA Beneficiary Mitigation Plan

**Section 1c) REGIONAL EMISSION REDUCTIONS:**

Regional emission reductions are calculated in two ways. First, NOx reductions are calculated from using ZE/NZE vehicles and equipment for activities associated with the warehouse. Second, regional NOx emission reduction Points are calculated for WAIRE Menu items affiliated with the acquisition of ZE/NZE vehicles/equipment at a rate of \$100,000 per ton of NOx. This is the cost effectiveness threshold that South Coast AQMD utilizes in its Carl Moyer incentive funding program. These regional emission reduction Points are assigned to these acquisition Menu items because if a facility chose to pay that level of funding as a mitigation fee, South Coast AQMD would likely spend the funds using the same cost effectiveness threshold.

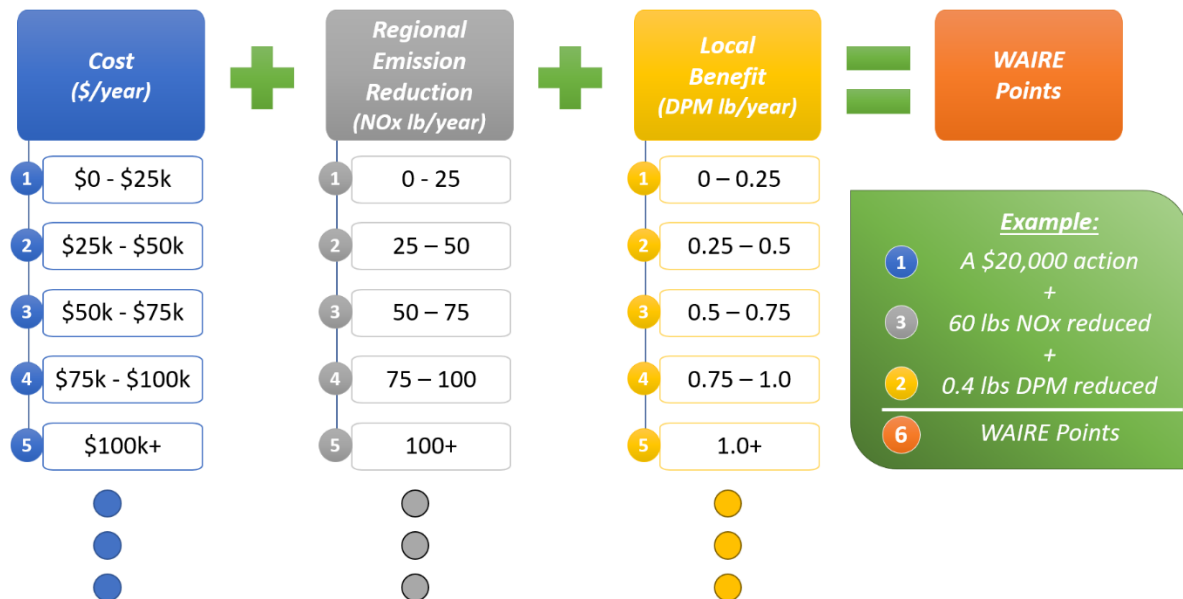
**Section 1d) LOCAL EMISSION REDUCTIONS:**

Local emission reductions are calculated in a similar manner as regional emission reductions, except that Diesel Particulate Matter (DPM) is used instead of NOx.

**Section 1e) EXAMPLE:**

Figure 1, below, presents one example of how the calculation methods discussed above would yield the total WAIRE Points earned. In this example, an AUM would cost \$20,000 and result in a 60 lbs/year NOx reduction, and a 0.4 lbs/year DPM reduction. Combining the three together would result in a total of 6 WAIRE Points. Specific calculations for each WAIRE Menu action are included in the following sections.

**Figure 1: WAIRE Points Calculation**



## SECTION 2) Zero and Near-Zero Emission Truck Visits and Truck Acquisitions

**Description:** Two key factors affect the analysis of ZE and NZE trucks – the definitions of ZE and NZE, and the truck class. In the context of PR 2305, the definition of a ZE truck is the same as CARB’s Advanced Clean Trucks Regulation definition. At the time of this writing, CARB’s draft definition for ZE truck is one “with a drivetrain that produces zero exhaust emission of any criteria pollutant (or precursor pollutant) or greenhouse gas under any possible operational modes or conditions.” For PR 2305 a NZE truck is one in which the engine meets CARB’s lowest Optional Low NOx standard at the time of manufacture, which is currently 0.02 g/hp-hr NOx.

In addition to drivetrain technology, trucks are commonly classified based on their Gross Vehicle Weight Rating (GVWR). Throughout this document Class 2b-7 refers to heavy duty trucks with GVWR of 8,501 – 33,000 lbs and Class 8 trucks with GVWR of greater than 33,000 lbs. Table 1 below presents truck classifications.

**Table 1. Truck Classes**

| Truck Class | GVWR (lbs)      |
|-------------|-----------------|
| Class 2b    | 8,501 – 10,000  |
| Class 3     | 10,001 – 14,000 |
| Class 4     | 14,001 – 16,000 |
| Class 5     | 16,001 – 19,500 |
| Class 6     | 19,501 – 26,000 |
| Class 7     | 26,001 – 33,000 |
| Class 8     | 33,001 & over   |

**Commercial Availability:** The ZE truck market is beginning to grow rapidly with many models entering the commercial market today and many major manufacturers announcing plans for future commercialization of battery-electric and hydrogen fuel cell electric trucks.<sup>4</sup> Some notable manufacturer announcements include: Daimler Class 8 eCascadia, Navistar battery-electric Class 8, Volvo battery-electric VNR Class 8, Tesla’s long range battery-electric tractor, BYD’s battery-electric Class 6 and 8, Nikola’s and Kenworth (in conjunction with Toyota) hydrogen fuel cell tractors, Sea Electric Class 4-8 battery-electric trucks, Lion Electric’s Class 6-8 battery-electric trucks, Amazon’s order of 100,000 Rivian’s battery electric trucks, etc. NZE engines are currently available in two sizes – 11.9 liter and 8.9 liter. Major truck manufacturers offer these engines in different truck classes, including for class 8 regional haul and/or drayage truck operations.

**Operation:** Trucks that visit warehouses may be owned by the warehouse operator, or by a motor carrier not affiliated with that warehouse. Arrangements for truck visits to the site to deliver or pick up goods is typically made by the owner of the goods, or someone acting on their behalf. As such, each individual truck visiting a warehouse can have a unique operating profile that may not be shared by any other truck visiting that site. One truck may travel 30 miles on the inbound trip, and only two miles on the outbound trip. Another truck may be loaded with goods from multiple warehouses or stores, and determining what portion of a trip to attribute to each warehouse would be impractical. Finally, trucks may idle their engines for short periods while at the

<sup>4</sup> A useful reference is the online ZETI tool. <https://globaldrivetozero.org/tools/zero-emission-technology-inventory/>

warehouse before or after the trailer is dropped off/picked up. For the emissions and cost analyses presented below, input parameters are meant to be broadly applicable and may not reflect any one individual truck trip or truck acquisition.

### SECTION 2a) ZE/NZE Truck Acquisitions<sup>5</sup>

**ZE/NZE Truck Purchase Prices:** Several key references were consulted to estimate incremental purchase prices for NZE and ZE trucks relative to conventional diesel trucks including: CARB’s Advanced Clean Truck Regulation (ACT), Standardized Regulatory Impact Assessment (SRIA)<sup>6</sup> and Total Cost of Ownership Discussion Documents<sup>7</sup>, California Energy Commission’s Revised Transportation Demand Forecast<sup>8</sup>, the Ports’ Feasibility Study<sup>9</sup>, ICF’s Intensive Literature Review for Medium and Heavy-Duty Electrification in California<sup>10</sup>, NACFE’s TCO Calculator<sup>11</sup>, as well as data from South Coast AQMD’s Carl Moyer Grant Program and CARB’s HVIP program. While cost estimates vary somewhat among these references, the single point estimates shown in Table 2 below are consistent with these previous analyses.

**Table 2. Incremental Costs for NZE and ZE Truck Purchases**

| WAIRE Menu Item  |     | Annualized Unitary Metric | Incremental Cost (\$/metric) |
|------------------|-----|---------------------------|------------------------------|
| Class 8 Truck    | NZE | 1 truck purchased         | \$65,000                     |
| Class 4-7 Truck  |     |                           | \$30,000                     |
| Class 8 Truck    | ZE  |                           | \$150,000                    |
| Class 4-7 Truck  |     |                           | \$80,000                     |
| Class 2b-3 Truck |     |                           | \$16,000                     |

**WAIRE Points for ZE/NZE Truck Acquisitions:** Acquisition of NZE Class 8 and Class 4-7 trucks earns 3 and 2 WAIRE Points, respectively. Similarly, the acquisition of ZE Class 8, Class 4-7, and Class 2b-3 trucks earns 6, 4, and 1 WAIRE Points, respectively. In addition, using a cost-effectiveness of \$100,000 per ton of NO<sub>x</sub>, WAIRE Points for regional emission reductions for Class 8 and 4-7 NZE truck acquisitions are 52 and 24 WAIRE Points, respectively. For ZE truck acquisitions, Class 8, 4-7, and 2b-3 earns 120, 64, and 13 WAIRE Points, respectively.

<sup>5</sup> WAIRE Points can be earned from either truck purchases or truck leases. Points are calculated assuming trucks are purchased.

<sup>6</sup> <https://ww3.arb.ca.gov/regact/2019/act2019/appc.pdf>

<sup>7</sup> <https://ww3.arb.ca.gov/regact/2019/act2019/apph.pdf>

<sup>8</sup> <https://efiling.energy.ca.gov/GetDocument.aspx?tn=230885&DocumentContentId=62525>

<sup>9</sup> <https://cleanairactionplan.org/documents/final-drayage-truck-feasibility-assessment.pdf/>

<sup>10</sup> [https://caletc.com/wp-content/uploads/2019/01/Literature-Review\\_Final\\_December\\_2018.pdf](https://caletc.com/wp-content/uploads/2019/01/Literature-Review_Final_December_2018.pdf)

<sup>11</sup> <https://nacfe.org/future-technology/medium-duty-electric-trucks-cost-of-ownership/>



## SECTION 2b) Truck Visits

**Regional and Local Emission Reductions from ZE/NZE Truck Visits:** Key parameters that can affect the emissions estimate from any one individual trip include: trip length, truck class, vehicle powertrain, and vehicle speed. Collecting all the necessary information to calculate precise emissions estimates for each trip is not feasible as it would require 1) instrumenting all trucks with telematics systems that report uniform data, 2) requiring detailed information reporting about truck loads (e.g., how much of the goods in each truck trailer is being transported to each location), and 3) conducting substantial data analysis to determine the emissions associated with each truck trip. Because of these challenges, various models are used to estimate emissions from trucking activity. In particular, CARB’s EMFAC model and SCAG’s Heavy-Duty Truck Regional Travel Demand model provide emissions estimates in the South Coast AQMD.

EMFAC2017 provides activity and emission rates for on-road vehicles that operate within California. EMFAC categories<sup>12</sup> and their relationship to truck class are shown in Table 3 below. EMFAC categorizes all truck types that are on the road, however the analysis presented here is limited to those categories that are most likely to deliver goods to and from warehouses.

**Table 3. EMFAC Truck Categories**

| EMFAC Category   | Description  | Truck Class |
|------------------|--|-------------|
| LHD1 - DSL       | Light-Heavy-Duty Trucks (GVWR 8,501-10,000 lbs)  | Class 2b-3  |
| LHD1 - GAS       |  |             |
| LHD2 - DSL       | Light-Heavy-Duty Trucks (GVWR 8,501-10,000 lbs)  |             |
| LHD2 - GAS       |  |             |
| T6 CAIRP Small   | Light-Heavy-Duty Trucks (GVWR 10,001-14,000 lbs)                                       | Class 4-6   |
| T6 Instate Small | Medium-Heavy Duty Diesel Instate Truck with GVWR≤26,000 lbs                            |             |
| T6 OOS Small     | Medium-Heavy Duty Diesel Out-of-State Truck with GVWR≤26,000 lbs                       |             |
| T6 CAIRP Heavy   | Medium-Heavy Duty Diesel CA International Registration Plan Truck with GVWR>26,000 lbs | Class 7     |
| T6 Instate Heavy | Medium-Heavy Duty Diesel Instate Truck with GVWR>26,000 lbs                            |             |
| T6 OOS Heavy     | Medium-Heavy Duty Diesel Out-of-State Truck with GVWR>26,000 lbs                       |             |
| T7 CAIRP         | Heavy-Heavy Duty Diesel CA International Registration Plan Truck with GVWR>33,000 lbs  | Class 8     |
| T7 NNOOS         | Heavy-Heavy Duty Diesel Non-Neighboring Out-of-State Truck with GVWR>33,000 lbs        |             |
| T7 NOOS          | Heavy-Heavy Duty Diesel Neighboring Out-of-State Truck with GVWR>33,000 lbs            |             |
| T7 POLA          | Heavy-Heavy Duty Diesel Drayage Truck in South Coast with GVWR>33,000 lbs              |             |
| T7 Tractor       | Heavy-Heavy Duty Diesel Tractor Truck with GVWR>33,000 lbs                             |             |

<sup>12</sup> <https://ww3.arb.ca.gov/msei/downloads/emfac2017-volume-iii-technical-documentation.pdf> (Table 6.1-1)

Baseline weighted averages of NOx and PM10 emission rates<sup>13</sup> for calendar year 2023 for running exhaust (RUNEX), exhaust from engine startups (STREX), and idling exhaust (IDLEX) of the above-mentioned truck categories are presented below.

**Table 4. Weighted average emission rates (g/mi for RUNEX, g/trip for STREX, g/vehicle/day for IDLEX)**

| Truck Class | NOx   |        |       | DPM   |       |       | Mile/trip <sup>14</sup> | Trip/day/truck <sup>15</sup> |
|-------------|-------|--------|-------|-------|-------|-------|-------------------------|------------------------------|
|             | RUNEX | IDLEX  | STREX | RUNEX | IDLEX | STREX |                         |                              |
| Class 2b-3  | 0.727 | 0.888  | 0.290 | 0.008 | 0.013 | 0     | 15.3                    | 1.3                          |
| Class 4-7   | 1.079 | 2.855  | 2.117 | 0.007 | 0.001 | 0     | 14.2                    | 5.9                          |
| Class 8     | 2.372 | 76.203 | 2.028 | 0.020 | 0.027 | 0     | 39.9                    | 5.2                          |

The regional and local emission reductions achieved by switching to ZE trucks relative to baseline emissions are calculated using Equation 1 below. While regional emission reductions from switching to NZE trucks is assumed to equal 90% of the reduction compared to ZE trucks, local emission reductions are assumed to be the same between ZE and NZE as NZE trucks are fueled by natural gas and do not emit DPM.

Equation [1]:

$$\begin{aligned}
 & \text{Emission Reduction } \left( \frac{\text{lb}}{\text{trip}} \right) \\
 & = \left[ \left( \text{RUNEX } \left( \frac{\text{g}}{\text{mi}} \right) \times \frac{\text{mi}}{\text{trip}} \right) + \left( \text{STREX } \left( \frac{\text{g}}{\text{trip}} \right) \right) + \left( \frac{\text{IDLEX } \left( \frac{\text{g}}{\text{day.truck}} \right)}{\frac{\text{trip}}{\text{day.truck}}} \right) \right] \times \frac{1 \text{ lb}}{453.592 \text{ g}}
 \end{aligned}$$

Results of the calculation for the two truck class categories are presented in Table 5 below.

**Table 5. NOx and DPM emission reductions for a single truck trip**

| Truck Class | ZE Truck    |             | NZE Truck   |             |
|-------------|-------------|-------------|-------------|-------------|
|             | NOx lb/trip | DPM lb/trip | NOx lb/trip | DPM lb/trip |
| Class 2b-3  | 0.027       | 0.0003      | N/A         | N/A         |
| Class 4-7   | 0.040       | 0.0002      | 0.036       | 0.0002      |
| Class 8     | 0.247       | 0.002       | 0.222       | 0.002       |

<sup>13</sup> VMT-weighted, population-weighted and number of starts-weighted averages were computed to equalize the frequency of the values for RUNEX, IDLEX and STREX emission rates, respectively, in the data set by multiplication of each truck category emission rates to its corresponding VMT, population or number of starts and then dividing by the sum of total VMT, population or number of starts.

<sup>14</sup> SCAG 2016 RTP mileage rates for medium-heavy (Class 4-7) and heavy-heavy trucks (Class 8)

<sup>15</sup> Truck populations from EMFAC and trips/day from SCAG 2016 RTP. A trip is a one-way trip, while a ‘visit’ to a warehouse includes the incoming trip and the outgoing trip.

Table 6 below illustrates the method used in determining point values based on regional and local emissions reductions using results in Table 5.

**Table 6. NO<sub>x</sub> and DPM emission reductions for the Annualized Unitary Metric**

| WAIRE Menu Item |     | Annualized Unitary Metric (AUM) | Annualized Regional Emission Reductions (lb NO <sub>x</sub> /AUM) | Annualized Local Emission Reductions (lb DPM/AUM) |
|-----------------|-----|---------------------------------|---|---|
| Class 8 Truck   | NZE | 365 truck visits                | $0.9 \times 180.3 = 162.3$  | 1.3   |
| Class 4-7 Truck |     |                                 | $0.9 \times 29.2 = 26.3$  | 0.1   |
| Class 8 Truck   | ZE  |                                 | $0.247 \times 2 \times 365 = 180.3$                               | $0.002 \times 2 \times 365 = 1.3$                 |
| Class 4-7 Truck |     |                                 | $0.040 \times 2 \times 365 = 29.2$                                | $0.0002 \times 2 \times 365 = 0.1$                |
| Class 2b-3      | ZE  |                                 | $0.027 \times 2 \times 365 = 19.7$                                | $0.0003 \times 2 \times 365 = 0.2$                |

**WAIRE Points from ZE/NZE Truck Visit Emission Reductions:** For the annualized regional NO<sub>x</sub> emission reductions, 365 truck visits from Class 8 ZE and NZE trucks will earn 8 and 7 WAIRE Points. Similarly, Class 4-7 ZE and NZE will earn 2 WAIRE Points, and Class 2b-3 ZE will earn 1 WAIRE Point. The associated local DPM emission reductions will earn 6 WAIRE Points for both ZE and NZE Class 8 truck visits, 1 WAIRE Point for both ZE and NZE Class 4-7 truck visits, and 1 WAIRE Point for ZE Class 2b-3.

**Costs from ZE/NZE Truck Visits:** The incremental cost of a truck visit used in the WAIRE Menu is based on the total cost of ownership of a ZE or NZE truck compared to an equivalent conventional diesel truck, taking into account the estimated total number of trips that truck will take in its useful life. The total cost of ownership (TCO), assuming a 12-year life, for Class 3, 4, 6 and 8 conventional diesel, battery electric, and hydrogen fuel cell trucks were obtained from CARB’s Advanced Clean Truck Total Cost of Ownership Discussion Documents. The key components of the TCO include:

- (1) Capital cost: vehicle capital cost, taxes associated with the vehicle purchase, financing costs for the vehicle
- (2) Fuel cost<sup>16</sup>: The cost of the fuel
- (3) Other cost: maintenance costs, midlife costs<sup>17</sup>, vehicle registration, and residual values at the end of the truck’s operating life

Tables 7, 8, 9, and 10 below present the base TCO data used in this analysis for Class 3, 4, 6, and 8 diesel, battery-electric, and hydrogen fuel cell trucks. The total cost of ownership for Class 6

<sup>16</sup> Low Carbon Fuel Standard credits were not included in the analysis presented here.

<sup>17</sup> Midlife costs are the cost of rebuilding or replacing major propulsion components due to wear or deterioration. For diesel vehicles, this would be a midlife engine rebuild, for battery-electric vehicles this would be a battery replacement, and for a hydrogen fuel-cell vehicle this would be a fuel cell stack refurbishment.

CNG shown in Table 8 was estimated using a similar approach as Table 9, with modifications made to the incremental purchase cost, fuel cost<sup>18</sup> and fuel economy<sup>19,20</sup>. Maintenance cost of natural gas vehicles were assumed to be about one to two cents per mile greater than for diesel vehicles due to more frequent oil changes and inspections, and higher replacement costs for spark plugs and injectors<sup>21</sup>. A summary of the analyses in Tables 7, 8, 9, and 10 is shown in Table 11.

**Table 7. Base TCO data for Class 3 trucks<sup>22</sup>**

|                           | <b>Diesel</b>   | <b>Battery Electric</b> | <b>Hydrogen Fuel Cell</b> | <b>Natural Gas NZE</b>  |
|---------------------------|-----------------|-------------------------|---------------------------|---|
| Annual Miles              | 15,000          | 15,000                  | 15,000                    | TCO information was not found in the literature (Most NZE trucks in this Class are conversions) |
| Operating Years           | 12              | 12                      | 12                        |   |
| Energy Storage            | -               | 38 kWh                  | 10 kWh/10 kg              |   |
| <b>Total Capital Cost</b> | <b>\$53,110</b> | <b>\$86,568</b>         | <b>\$306,673</b>          |   |
| Average Fuel Cost         | \$3.74/gal      | \$0.18/kWh              | \$8.00/kg                 |   |
| Average Fuel Economy      | 23.2 mpg        | 1.79 mi/kWh             | 58 mi/kg                  |   |
| <b>Total Fuel Cost</b>    | <b>\$20,817</b> | <b>\$13,142</b>         | <b>\$25,986</b>           |   |
| Lifetime Maintenance Cost | \$23,731        | \$17,779                | \$23,731                  |   |
| Midlife Cost              | \$0             | \$0                     | \$42,982                  |   |
| Registration Fees         | \$8,331         | \$7,509                 | \$13,919                  |   |
| Residual Values           | (\$8,207)       | (\$4,104)               | (\$2,052)                 |   |
| <b>Total Other Cost</b>   | <b>\$23,855</b> | <b>\$21,204</b>         | <b>\$78,580</b>           |   |
| <b>Total</b>              | <b>\$97,782</b> | <b>\$113,657</b>        | <b>\$410,258</b>          |   |

<sup>18</sup> <https://nacfe.org/future-technology/medium-duty-electric-trucks-cost-of-ownership/>

<sup>19</sup> [https://afdc.energy.gov/files/u/publication/ng\\_regional\\_transport\\_trucks.pdf](https://afdc.energy.gov/files/u/publication/ng_regional_transport_trucks.pdf) (Figure 5)

<sup>20</sup> [https://www.energy.gov/sites/prod/files/2014/03/f8/deer12\\_kargul.pdf](https://www.energy.gov/sites/prod/files/2014/03/f8/deer12_kargul.pdf)

<sup>21</sup> [https://ww3.arb.ca.gov/msprog/tech/techreport/ng\\_tech\\_report.pdf](https://ww3.arb.ca.gov/msprog/tech/techreport/ng_tech_report.pdf)

<sup>22</sup> <https://nacfe.org/future-technology/medium-duty-electric-trucks-cost-of-ownership/>

**Table 8. Base TCO data for Class 4 trucks<sup>23</sup>**

|                           | <b>Diesel</b>    | <b>Battery Electric</b> | <b>Hydrogen Fuel Cell</b>                             | <b>Natural Gas NZE</b>                          |
|---------------------------|------------------|-------------------------|---|---|
| Annual Miles              | 15,000           | 15,000                  | Class 4 H2 trucks are not expected in the near future | TCO information was not found in the literature |
| Operating Years           | 12               | 12                      |   |   |
| Energy Storage            | -                | 120 kWh                 |   |   |
| <b>Total Capital Cost</b> | <b>50,000</b>    | <b>100,000</b>          |   |   |
| Average Fuel Cost         | \$3.74/gal       | \$0.17/kWh              |   |   |
| Average Fuel Economy      | 10 mpg           |                         |   |   |
| <b>Total Fuel Cost</b>    |                  |                         |   |   |
| Lifetime Maintenance Cost |                  |                         |   |   |
| Midlife Cost              |                  |                         |   |   |
| Registration Fees         |                  |                         |   |   |
| Residual Values           | \$500            | \$5,000                 |   |   |
| <b>Total Other Cost</b>   |                  |                         |   |   |
| <b>Total</b>              | <b>\$124,229</b> | <b>\$177,345</b>        |   |   |

**Table 9. Base TCO data for Class 6 trucks<sup>24</sup>**

|                           | <b>Diesel</b>    | <b>Battery Electric</b> | <b>Hydrogen Fuel Cell</b> | <b>Natural Gas NZE</b> |
|---------------------------|------------------|-------------------------|---------------------------|------------------------|
| Annual Miles              | 24,000           | 24,000                  | 24,000                    | 24,000                 |
| Operating Years           | 12               | 12                      | 12                        | 12                     |
| Energy Storage            | -                | 104 kWh                 | 50 kWh/20 kg              | -                      |
| <b>Total Capital Cost</b> | <b>\$88,705</b>  | <b>\$172,225</b>        | <b>\$330,967</b>          | <b>\$118,705</b>       |
| Interest Rate             | 5%               |                         |                           |                        |
| Financed Period           | 5 years          |                         |                           |                        |
| Average Fuel Cost         | \$3.74/gal       | \$0.17/kWh              | \$8.00/kg                 | \$2.42/GGE             |
| Average Fuel Economy      | 7.4 mpg          | 1.04 mi/kWh             | 14.1 mi/kg                | 6.3 mpg                |
| <b>Total Fuel Cost</b>    | <b>\$104,349</b> | <b>\$33,472</b>         | <b>\$171,398</b>          | <b>\$110,629</b>       |
| Lifetime Maintenance Cost | \$49,138         | \$36,853                | \$49,138                  | \$54,898               |
| Midlife Cost              | \$0              | \$0                     | \$32,237                  | \$0                    |
| Registration Fees         | \$11,592         | \$10,860                | \$15,482                  | \$11,000               |
| Residual Values           | (\$10,477)       | (\$5,239)               | (\$2,619)                 | (\$10,477)             |
| <b>Total Other Cost</b>   | <b>\$50,252</b>  | <b>\$42,474</b>         | <b>\$94,237</b>           | <b>\$55,421</b>        |
| <b>Total</b>              | <b>\$243,306</b> | <b>\$248,171</b>        | <b>\$596,603</b>          | <b>\$340,176</b>       |

<sup>23</sup> <https://nacfe.org/future-technology/medium-duty-electric-trucks-cost-of-ownership/>

<sup>24</sup> <https://nacfe.org/future-technology/medium-duty-electric-trucks-cost-of-ownership/>

**Table 10. Base TCO data for Class 8 trucks<sup>25</sup>**

|                           | <b>Diesel</b>    | <b>Battery Electric</b> | <b>Hydrogen Fuel Cell</b> | <b>Natural Gas NZE</b> |
|---------------------------|------------------|-------------------------|---------------------------|------------------------|
| Annual Miles              | 54,000           | 54,000                  | 54,000                    | 68,383                 |
| Operating Years           | 12               | 12                      | 12                        | 12                     |
| Energy Storage            | -                | 510 kWh                 | 10 kWh/10 kg              | -                      |
| <b>Total Capital Cost</b> | <b>\$167,500</b> | <b>\$593,662</b>        | <b>\$786,486</b>          | <b>\$192,710</b>       |
| Interest Rate             | 5%               |                         |                           | 12.5%                  |
| Financed Period           | 5 years          |                         |                           |                        |
| Average Fuel Cost         | \$3.74/gal       | \$0.15/kWh              | \$8.00/kg                 | \$2.92/DGE             |
| Average Fuel Economy      | 5.9 mpg          | 0.48                    | 11.2 mi/kg                | 5.1 mi/DGE             |
| <b>Total Fuel Cost</b>    | <b>\$296,381</b> | <b>\$152,074</b>        | <b>\$486,820</b>          | <b>\$469,831</b>       |
| Lifetime Maintenance Cost | \$95,484         | \$71,613                | \$95,484                  |                        |
| Midlife Cost              | \$0              | \$42,949                | \$94,023                  |                        |
| Registration Fees         | \$27,545         | \$21,472                | \$26,548                  |                        |
| Residual Values           | (\$15,453)       | (\$7,727)               | (\$3,863)                 |                        |
| <b>Total Other Cost</b>   | <b>\$107,576</b> | <b>\$128,308</b>        | <b>\$212,192</b>          |                        |
| <b>Total</b>              | <b>\$571,456</b> | <b>\$874,044</b>        | <b>\$1,485,498</b>        | <b>\$624,925</b>       |

**Table 11. Summary of TCO Analyses from Literature Review**

| <b>Truck Class</b>    | <b>Ownership period</b> | <b>Annual Mileage</b> | <b>Diesel</b>          | <b>Low-NOx CNG</b>     | <b>Battery-Electric</b>  | <b>Hydrogen Fuel Cell</b> |
|-----------------------|-------------------------|-----------------------|------------------------|------------------------|--------------------------|---------------------------|
| Class 3               | 12                      | 15,000                | \$97,782               |                        | \$113,657                | \$410,258                 |
| Class 4               | 12                      | 15,000                | \$124,229 <sup>1</sup> |                        | \$177,345 <sup>1</sup>   |                           |
| Class 6               | 12                      | 24,000                | \$243,306 <sup>2</sup> | \$340,176              | \$248,171 <sup>2</sup>   | \$596,603 <sup>2</sup>    |
| Class 8 (Ports Study) | 12                      | 68,383                | \$598,122 <sup>3</sup> | \$624,925 <sup>3</sup> | \$1,063,000 <sup>3</sup> |                           |
| Class 8 (CARB TCO)    | 12                      | 54,000                | \$571,456 <sup>2</sup> |                        | \$874,044 <sup>2</sup>   | \$1,485,498 <sup>2</sup>  |

1. <https://nacfe.org/future-technology/medium-duty-electric-trucks-cost-of-ownership/>
2. <https://ww3.arb.ca.gov/regact/2019/act2019/apph.pdf>
3. <https://cleanairactionplan.org/documents/final-dravage-truck-feasibility-assessment.pdf/>

Using the reported annual mileages shown in Table 11, costs were calculated on a dollar per mile basis, as shown in Equation 2.

<sup>25</sup> <https://nacfe.org/future-technology/medium-duty-electric-trucks-cost-of-ownership/>

Equation [2]:

$$TCO \left( \frac{\$}{mi} \right) = \frac{TCO (\$)}{12 (yr) * Annual Mileage \left( \frac{mi}{yr} \right)}$$

**Table 12. Total Cost of Ownership calculated as \$/mi**

| Truck Class           | Diesel | Low-NOx CNG | Battery-Electric | Hydrogen Fuel Cell |
|-----------------------|--------|-------------|------------------|--------------------|
| Class 3               | 0.54   |             | 0.67             | 2.28               |
| Class 4               | 0.69   |             | 0.99             |                    |
| Class 6               | 0.84   | 1.18        | 0.86             | 2.07               |
| Class 8 (Ports Study) | 0.73   | 0.76        | 1.30             |                    |
| Class 8 (CARB TCO)    | 0.88   |             | 1.35             | 2.29               |

SCAG’s Heavy-Duty Truck Regional Travel Demand model provides an estimate of heavy-duty truck activities within South Coast Air Basin. TCO values on a dollar per trip basis are estimated using SCAG’s VMT and trip rates in Table 13.

**Table 13. Truck activity data from SCAG’s Heavy-Duty Truck Regional Travel Demand Model**

| Truck Class | VMT (mi/day) | Trips (trip/day) | Mile/trip |
|-------------|--------------|------------------|-----------|
| Class 2b-3  | 7,456,000    | 488,000          | 15.3      |
| Class 4-7   | 7,744,000    | 544,000          | 14.2      |
| Class 8     | 12,060,000   | 302,000          | 39.9      |

Equation 3 below illustrates the method used to determine TCOs on a dollar per trip basis using the TCOs (\$/mi) in Table 12 and SCAG’s mileage rates in Table 13, with results shown in Table 13. Equation [3]:

$$TCO \left( \frac{\$}{trip} \right) = TCO \left( \frac{\$}{mi} \right) \times \frac{mi}{trip}$$

**Table 14. Total Cost of Ownership (\$/trip)**

| Truck Class           | Diesel | Low-NOx CNG | Battery-Electric | Hydrogen Fuel Cell |
|-----------------------|--------|-------------|------------------|--------------------|
| Class 3               | 8.31   |             | 10.28            | 34.96              |
| Class 4               | 9.80   |             | 13.99            |                    |
| Class 6               | 12.00  | 16.77       | 12.24            | 29.42              |
| Class 8 (Ports Study) | 29.08  | 30.39       | 51.69            |                    |
| Class 8 (CARB TCO)    | 35.19  |             | 53.82            | 91.47              |

Although the TCO analyses above assume a 12-year useful life for a truck, motor carriers may require shorter periods over which they absorb the incrementally higher costs of ZE or NZE trucks compared to diesel. The analysis here therefore assumes that this incremental cost is absorbed over a 3-year period, instead of the full 12-year useful life. The incremental cost is therefore multiplied by four ( $12 \div 3 = 4$ ) to determine the default cost for truck visits.

**Table 15. Annualized Incremental Costs**

| Truck Class |     | Annualized Unitary Metric | Annualized Incremental Cost (\$/metric)                       |
|-------------|-----|---------------------------|---|
| Class 8     | NZE | 365 truck visits**        | $(\$30.39 - \$29.08) \times 4 \times 2 \times 365 = \$3,825$  |
| Class 4-7*  |     |                           | $(\$16.77 - \$12.00) \times 4 \times 2 \times 365 = \$13,928$ |
| Class 8     | ZE  |                           | $(\$53.82 - \$35.19) \times 4 \times 2 \times 365 = \$54,400$ |
| Class 4-7*  |     |                           | $(\$12.24 - \$12.00) \times 4 \times 2 \times 365 = \$701$    |
| Class 2b-3  |     |                           | $(\$10.28 - \$8.31) \times 4 \times 2 \times 365 = \$5,752$   |

\*In this analysis, Class 6 TCOs were used for the Class 4-7 category in the WAIRE Menu

\*\* One visit equals two one-way trips

**WAIRE Points for ZE/NZE Truck Visit Costs:** Based on the costs presented in Table 15, the number of WAIRE Points earned for ZE Class 8, Class 4-7, and Class 2b-3 truck visits are 3, 1, and 1, respectively. One WAIRE Point is earned for both NZE Class 8 and Class 4-7 truck visits.

**Total WAIRE Points for ZE/NZE Truck Visits:** The total WAIRE Points for truck visits includes Points from the cost, regional emission reductions, and local emission reductions. In addition, because most of the emissions associated with warehouses comes from trucks visits, a multiplier of three is applied to the summed Points to encourage operators to choose this option, and to promote a more rapid return on investment for the purchase of ZE/NZE trucks. For example, for 365 class 8 ZE truck visits, a warehouse would earn: 8 Points for regional, 6 Points for Local, and 3 Points for cost, with a sub-total of 17 Points. The final total for this Menu item would be 51 Points ( $17 \times 3$ ).



**SECTION 3) Electric Charger Usage and Installation**

**Description:** ZE battery electric trucks require specialized charging infrastructure. Installing this infrastructure can require facility electrical upgrades, dedication of space for electrical equipment and vehicle parking, permitting with local authorities, and plans to optimize charger usage. The charging stations themselves range in size and are typically rated based on the amount of kW that can be dispensed. Higher powered charging stations ( $\geq 350$  kW) are just now entering the market, and may require significant construction. On the usage side, the cost of the electricity can vary depending on the time of day when trucks are charged, the kW charging level, and the level of demand charges. Utilities are introducing new rate structures for the use of these stations to address this new market need. Trucks that would use charging infrastructure at a warehouse are likely to travel to destinations unrelated to the warehouse itself, and providing this infrastructure can facilitate greater usage of ZE trucks.

**Commercial Availability:** Several different manufacturers sell EVSE at a variety of power levels (e.g., Level 2, Level 3, etc.), including with optional power management software that govern how trucks are charged. At the current early stage of commercialization and demonstration of electric trucks, the higher power chargers used for heavy duty vehicle charging have not yet followed a common standard, and proprietary charging systems are commonly tailored to each vehicle. This is expected to change in the near future with the development of a common High Power Charging for Commercial Vehicles standard by the CharIN<sup>26</sup> organization. In addition, local utilities and land use agencies are developing programs specifically focused on charging infrastructure upgrades. Notable examples include the Charge Ready Transport program from Southern California Edison (SCE)<sup>27</sup>, the Commercial EV Charging Station Rebate Program from the Los Angeles Department of Water and Power (LADWP)<sup>28</sup>, and permit streamlining efforts from many local permitting agencies<sup>29</sup>. SCE and LADWP collectively provide power to >80% of warehouses that may be included in PR 2305 (see chart).

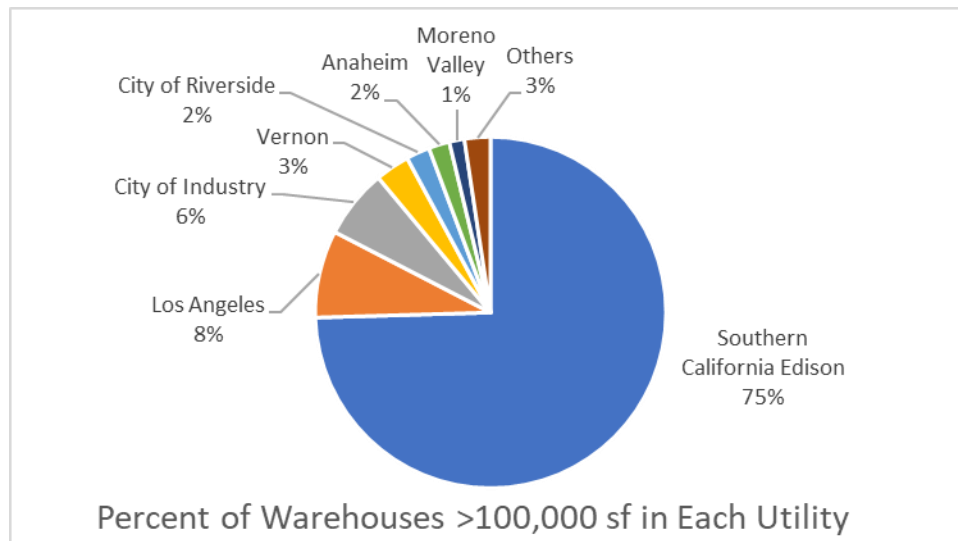
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<sup>26</sup> <http://www.charinev.org/hpccv> - CharIN members include most major vehicle manufacturers as well as many major energy and charging infrastructure companies.

<sup>27</sup> <https://www.sce.com/business/electric-cars/charge-ready-transport>

<sup>28</sup> [www.ladwp.com/ladwp/faces/ladwp/commercial/c-savemoney/c-sm-rebatesandprograms/c-sm-rp-commevstation](http://www.ladwp.com/ladwp/faces/ladwp/commercial/c-savemoney/c-sm-rebatesandprograms/c-sm-rp-commevstation)

<sup>29</sup> <http://www.business.ca.gov/ZEVRoadiness>



**SECTION 3a) Charger Usage**

**Emissions:** While charging infrastructure on its own does not reduce emissions, this equipment does facilitate emissions reductions by providing additional locations for electric vehicles to obtain power and making it possible for their increased use. However, similar to the calculations for truck acquisitions, regional emission WAIRE Points are earned at a \$100,000 per ton of NO<sub>x</sub> cost effectiveness level. Both regional and local emission reductions Points are earned when charging stations are used. The amount of regional NO<sub>x</sub> emissions reductions is tied to the total amount of dispensed electricity, using default electric vehicle efficiencies and emission rates. The amount of local DPM emissions reductions is set equal to six miles of travel for every charging event<sup>30</sup>. The Annualized Unitary Metric (AUM) is set at 165,000 kWh, equal to about 450 kWh per day, or enough for five separate two hour-long charging events per day on a 50 kW charger, or to recharge one truck with a 500 kWh battery.

The tables and equations below illustrate the methods used to determine Point values based on regional and local emissions reductions.

**Table 16. Electric Vehicle Efficiencies<sup>31</sup>, Emission Rates<sup>32</sup>, and Emissions Reductions**

| Truck Category | Efficiency | Emission Rate          |            | Emissions Reductions    |            |
|----------------|------------|------------------------|------------|-------------------------|------------|
|                | mile/kWh   | NO <sub>x</sub> g/mile | DPM g/mile | lb NO <sub>x</sub> /kWh | lb DPM/kWh |
| Class 4-5      | 1.26       | 1.08                   | 0.007      | 0.003                   | 0.00002    |
| Class 6-7      | 0.8        | 1.08                   | 0.007      | 0.002                   | 0.00001    |
| Class 8        | 0.62       | 2.37                   | 0.02       | 0.003                   | 0.00003    |

<sup>31</sup> CARB Advanced Clean Truck – Draft Standardized Regulatory Impact Assessment (SRIA), 8/8/2019 <https://ww3.arb.ca.gov/regact/2019/act2019/appc.pdf>

<sup>32</sup> <https://www.arb.ca.gov/emfac/2017/>, emission rates are from calendar year 2023

*Equation [4]: NOx reductions = (mile/kWh) × (g/mile) × 165,000 kWh/yr ÷ 453.59 (g/lb)*

- Equation 1 (Class 4-5):  $1.26 \times 1.08 \times 165,000 \div 453.59 = 495 \text{ lb NOx}$
- Equation 1 (Class 6-7):  $0.8 \times 1.08 \times 165,000 \div 453.59 = 314 \text{ lb NOx}$
- Equation 1 (Class 8):  $0.62 \times 2.37 \times 165,000 \div 453.59 = 535 \text{ lb NOx}$

*Equation [5]: DPM reductions = (mile/kWh) × (g/mile) × 165,000 kWh/yr ÷ 453.59 (g/lb)*

- Equation 2 (Class 4-5):  $1.26 \times 0.007 \times 165,000 \div 453.59 = 3.2 \text{ lb DPM}$
- Equation 2 (Class 6-7):  $0.8 \times 0.007 \times 165,000 \div 453.59 = 2.0 \text{ lb DPM}$
- Equation 2 (Class 8):  $0.62 \times 0.02 \times 165,000 \div 453.59 = 4.5 \text{ lb DPM}$

**WAIRE Points from Charging Station Usage Emission Reductions:** Emission reductions vary for each class of truck. For the WAIRE Menu, the regional and local emission reductions from class 8 trucks are used. Regional emission reductions therefore result in 22 WAIRE Points, while local emission reductions result in 18 WAIRE Points.

**Costs of Using Charging Stations:** Over the past year staff worked closely with multiple utilities to understand their new commercial EV charging rate structures and developed estimates of the average cost of electricity per kWh. As noted above, about three quarters of all warehouses potentially subject to the rule are located within SCE’s jurisdiction. For this analysis, multiple scenarios were evaluated for a five concurrent two hour long charging events per day on a 50 kW chargers. Table 17 reflects the expected charging rate and the average electricity rate for two most appropriate SCE rate schedule for heavy-duty EV charging. The average cost assumes an equal amount of charging in each time window.

**Table 17. Annual Average Cost of Electricity\* – Two Key SCE Rate Schedules for Charging Stations South Coast AQMD Staff Analysis**

| Charging Window | SCE TOU-EV-9 | SCE TOU-8-RTP |
|-----------------|--------------|---------------|
|                 | \$/kWh *     | \$/kWh **     |
| <b>On-Peak</b>  | <b>0.34</b>  | <b>0.28</b>   |
| <b>Mid-peak</b> | <b>0.16</b>  | <b>0.25</b>   |
| <b>Off-peak</b> | <b>0.14</b>  | <b>0.23</b>   |

\* Demand charges and voltage discount are zero for TOU-EV-9  
 \*\*Demand charges contributes to 40% of total annual electricity cost – Voltage discount included  
 \*\*\*These costs do not account for any LCFS revenue that a facility may receive. The LCFS value may vary depending on market conditions but can be more than \$0.10/kWh.<sup>33</sup>

In LADWP jurisdiction the electricity rate can range between \$0.11-0.3 \$/kWh for charging heavy-duty vehicles depending on load factor, daily charging hours, and charging capacity. The provided range by LADWP staff is consistent with the rates provided in Table 5. Using the \$0.21 \$/kWh rate above, and AUM of 165,000 kWh per year for a charging station, the total annual cost of electricity for the warehouse is \$34,650, equal to two WAIRE Points.

<sup>33</sup> <https://ww3.arb.ca.gov/regact/2019/act2019/appc.pdf>

### SECTION 3b) Charger Installation

**Costs to Install Charging Stations:** Charging infrastructure costs can vary greatly from site to site. The analysis presented here was informed by staff discussions with charger providers, utilities, other industry stakeholders, data from current South Coast AQMD funded projects, and multiple studies (referenced below). Table 18 presents a summary of the range of costs for purchasing and installing different EVSEs.

Electrification projects require site-specific planning and sometimes can take more than one year to implement. Because of this potentially extended period, the charging infrastructure installation WAIRE Menu item includes project milestones to allow warehouses to earn Points for partial completion of charger installation during a compliance year. Three milestones that are common to all charging station projects include purchasing the Electric Vehicle Supply Equipment (EVSE), construction mobilization, and final permit sign off & charger energization. In order to account for splitting charger installations into two separate milestones, it is assumed that the construction mobilization milestone will require up to \$10,000 of the total installation cost, and the remaining cost is incurred during construction and prior to final permit sign-off.

**Table 18. Charging Infrastructure Installation Cost Ranges, and Key Incentives/Rebates Programs**

| Charging Installation Activity    | Charger Level    | Cost Range <sup>A-D</sup> |
|-----------------------------------|------------------|---------------------------|
|                                   |                  | \$ per charger            |
| EVSE Purchase                     | Level 5          | 60,000 – 140,000          |
|                                   | Level 4          | 30,000 – 60,000           |
|                                   | Level 3          | 10,000 – 30,000           |
|                                   | Level 2          | 3,000 – 5,000             |
| Charger Installation <sup>1</sup> | Level 3, 4, or 5 | 10,000 – 80,000           |
|                                   | Level 2          | 5,000 – 10,000            |

*Notes:*

1. Installation cost for one charger includes electrical service extension, permitting, labor costs, and trenching to lay cables

*References:*

- A. Charging the Future: Challenges and Opportunities for Electric Vehicle Adoption, Henry Lee and Alex Clark, August 2018
- B. Estimating Electric Vehicle Charging Infrastructure Costs across Major U.S. Metropolitan Areas. Michael Nicolas, August 2019
- C. Rocky Mountain Institute Report, <https://www.greenbiz.com/blog/2014/05/07/rmi-whats-true-cost-ev-charging-stations>, 2019
- D. CARB Advanced Clean Truck - Standardized Regulatory Impact Assessment (SRIA), August 2019

**WAIRE Points from Charging Station Installations:** Table 19 below summarizes the Points that a warehouse would earn for purchasing an EVSE and installing it. Similar to truck acquisitions, regional emission Points are assigned at a \$100,000 per ton of NOx cost effectiveness.

**Table 19. Summary of WAIRE Points Earned for Installing Charging Infrastructure**

| Charger Installation Activity | Cost Points | Regional Emissions Points | Total WAIRE Points |
|-------------------------------|-------------|---------------------------|--------------------|
| 1 EVSE Purchased              | 6           | 112                       | 118                |
|                               | 3           | 48                        | 51                 |
|                               | 2           | 24                        | 26                 |
|                               | 1           | 4                         | 5                  |
| 1 construction project        | 1           | 8                         | 9                  |
|                               | 1           | 8                         | 9                  |
| 1 construction project        | 3           | 56                        | 59                 |
|                               | 1           | 8                         | 9                  |

**SECTION 4) Hydrogen Fueling Station Installation and Usage**

**Description:** Hydrogen refueling stations (HRS) are used to supply fuel to vehicles with hydrogen fuel cell drivetrains. An HRS is composed of storage and dispensing units and can sometimes include a production unit if the hydrogen is produced on site. If the hydrogen is produced on site or delivered to the station at an intermediary pressure or in liquid state, intermediary storage is also needed along with a compression system.

**Commercial Availability:** While construction of hydrogen fueling stations has been increasing, with 43 now operating in the state<sup>34</sup>, they are primarily focused on the light duty vehicle market, or in some cases for transit buses. However, some Class 8 truck manufacturers are actively pursuing the development and commercialization of hydrogen fuel cell trucks over the next few years, including Toyota, Kenworth, Hyundai, and Nikola. Fueling infrastructure will be a critical component to facilitate these new ZE trucks.

**Hydrogen Station Installation Costs:** Hydrogen prices are influenced by the cost of production, distribution, and sales, among other factors. In addition to AB 8 and CARB's Scoping Plan, the recently-updated Low Carbon Fuel Standard, Executive Orders B-16-2012 and B-48-18 provide strong policy drivers for accelerating commercialization of fuel cell vehicles and their associated hydrogen fuel station network.

Table 20 below presents a summary of costs associated with developing a hydrogen fueling station from literature review and discussion with stakeholders. In this context, total capital cost includes site design and engineering, permitting, equipment, project management, and labor costs.

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<sup>34</sup> [www.veloz.org](http://www.veloz.org)

**Table 20. Hydrogen Fueling Station Costs**

|   | Capacity<br>(kg/day) | Cost (\$)  | \$/Capacity<br>(\$/kg/day) | Source   |
|---|----------------------|------------|----------------------------|--|
|   |                      |            | 5000-10,000                | CARB Total Cost of ownership Discussion Documents <sup>35</sup>                      |
| Gaseous H2 LDV fueling system at 700 bar                | 250                  | 1,725,000  | 6,900                      | Moyer Granted Project for Sunline Transit- EPC Design                                |
| Gaseous H2 Station- 700 bar Cascade dispensing          | 700                  | 3,065,724  | 4,380                      | Argonne National Lab Heavy Duty Refueling Model, (2016 Dollar) <sup>36</sup>         |
| Gaseous H2 Station- 700 bar Booster compressor          | 700                  | 3,140,211  | 4,486                      |  |
| Gaseous H2 Station- 350 bar Cascade dispensing          | 700                  | 2,029,488  | 2,899                      |  |
| Liquid H2 Station- 700 bar via vaporization/compression | 700                  | 2,421,134  | 3,459                      | Argonne National Lab Heavy Duty Refueling Station Model, (2016 Dollars) <sup>2</sup> |
| Liquid H2 Station- 350 bar via vaporization/compression | 700                  | 1,430,748  | 2,044                      |  |
| Liquid H2 Station- 700 bar via LH2 pump/vaporization    | 700                  | 1,541,243  | 2,202                      |  |
| Liquid H2 Station- 350 bar via LH2 pump/vaporization    | 700                  | 1,145,634  | 1,637                      |  |
| Onsite H2 Production                                    | 7257.5               | 16,500,000 | 2,274                      | Industry stakeholder input   |
| Onsite H2 Production                                    | 600                  | 5,000,000  | 8,333                      | Industry stakeholder input   |

**WAIRE Points for Hydrogen Station Installation:** For the WAIRE Menu an onsite hydrogen fueling station with a capacity of 700kg/day with delivered hydrogen was assumed to cost \$2 million. This would yield 80 WAIRE Points. At a cost effectiveness of \$100,000 per ton of NOx, an additional 1600 Points are earned for regional emissions.

**Emission Reductions from Hydrogen Usage:** Annualized regional NOx emission reductions and local DPM emission reductions were set to be same as the reductions achieved by usage of onsite electric charger stations at 535 lb NOx/yr and 4.5 lb DPM/yr. Details of the calculation can be found in Section 3 of this report.

**Hydrogen Fuel Costs:** To determine the annualized unitary metric (AUM) for dispensed hydrogen, a back calculation was conducted based on the amount of regional NOx emissions: Equation [6]:

$$\begin{aligned}
 \text{Total kg of Dispensed } H_2 &= 535 \left( \frac{lb}{yr} \right) \times 453.59 \left( \frac{gr}{lb} \right) \times \frac{1}{2.372 \left( \frac{g}{mi} \right) \times 16.63 \left( \frac{mi}{kg H_2} \right)} \\
 &= 6,152 \frac{kg}{yr}
 \end{aligned}$$

Where, 2.372 (g/mi) is the VMT weighted average of NOx running exhaust emission rate of Class 8 trucks considered in this analysis including T7 CAIRP, T7 NNOOS, T7 NOOS, T7 POLA and

<sup>35</sup> <https://ww3.arb.ca.gov/regact/2019/act2019/apph.pdf>

<sup>36</sup> <https://hdsam.es.anl.gov/index.php?content=hdrsam>

T7 Tractor. 16.63 (mi/kg) is the reported fuel economy for a class 8 fuel cell truck<sup>37</sup>. Given the total kg of dispensed hydrogen calculated above and a retail price of \$10/kg, the annual cost will be \$61,520.

**WAIRE Points for Dispensed Hydrogen:** Based on the emission reductions stated above, 22 and 18 Points are earned respectively for regional NOx and local DPM. Cost Points would contribute another 3 Points, for a total of 43 Points for 6,152 kg of H<sub>2</sub> dispensed.

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<sup>37</sup> <https://ww3.arb.ca.gov/regact/2019/act2019/appc.pdf>



### **SECTION 5) Zero Emissions Yard Truck Acquisition and Usage**

**Description:** Yard trucks (also called yard tractors, terminal trucks, hostlers, yard jockeys, or yard goats) move trailers and containers around warehouse facilities. Most yard trucks at warehouse facilities are diesel fueled and emit NO<sub>x</sub>, DPM, and other pollutants. Duty cycles for yard trucks vary depending on use, with heavier use at railyards and port facilities and lighter use typically at warehouses and manufacturing plants, as defined by hours of use and diesel consumption rates. CARB has limited population data for about 1,100 yard tractors operating statewide through its DOORS reporting program for off-road vehicles, but it is unclear how many of these operate at warehouses in South Coast AQMD. In addition, many yard tractors can be on-road vehicles, which are not required to be reported through the DOORS system. For example, about two thirds of the roughly 1,600 yard tractors at the ports of Los Angeles and Long Beach are on-road vehicles.

**Commercial Availability:** Many battery-electric yard tractor demonstration projects have taken place in the past several years, including in the South Coast AQMD. Following these efforts, multiple manufacturers have begun offering battery-electric ZE yard trucks for sale commercially including OrangeEV, Kalmar Ottawa, and BYD.

**Operation:** Operation of yard trucks can be tracked by hours of use, with hourly usage varying from <1,000 hours/year up to 6,000 hours/year. The diesel reductions were calculated by using the horse power, hours of use, the load factor, and the pollutant emission factor.

#### **SECTION 5a) ZE Yard Truck Acquisition**

**WAIRE Points from ZE Yard Truck Acquisition:** ZE yard trucks currently cost about \$310,000 while their diesel equivalent costs about \$100,000<sup>38</sup>. This incremental cost of \$210,000 would earn nine WAIRE Points per ZE yard truck purchased. Similar to the methods used for on-road truck acquisitions, at \$100,000 per ton cost effectiveness, a ZE yard truck acquisition would earn 168 Points for regional emission reductions.

#### **SECTION 5b) ZE Yard Truck Usage**

**Emissions:** From the DOORS data, the most common yard trucks operate a 175 hp, Tier 3 engine. Table 21 below shows the emission factors from the Carl Moyer Guidelines<sup>39</sup> for this type of yard truck. Assuming that this type of yard truck operates 1,000 hours per year, and has operated for ten years, the emission reductions from switching to a ZE yard truck are shown in Equation 7 below.

**Table 21. Emission Factors for a Tier 3 Yard Truck**

| <b>Pollutant</b> | <b>Emission Factor (EF)<br/>g/hp-hr</b> | <b>Deterioration Rate (DR)<br/>g/hp-hr-hr</b> | <b>Load Factor (LF)</b> |
|------------------|---|---|-------------------------|
| NO <sub>x</sub>  | 2.32                                    | 0.00003                                       | 0.39                    |
| DPM              | 0.088                                   | 0.000044                                      |                         |

<sup>38</sup> <https://cleanairactionplan.org/documents/final-cargo-handling-equipment-che-feasibility-assessment.pdf/>

<sup>39</sup> <https://ww3.arb.ca.gov/msprog/moyer/guidelines/current.htm>

*Equation [7]*

$$\text{Emissions} = (hp) \times (LF) \times [((\text{total hrs of use}) \times (DR)) + (EF)] \times (\text{hrs of use}) \div 453.59 \left(\frac{g}{lb}\right)$$

$$\text{Equation 7 NOx: } 175 \times 0.39 \times [((10 \times 1,000) \times 0.00003) + 2.32] \times 1,000 \div 453.59 = 394 \text{ lbs}$$

$$\text{Equation 7 DPM: } 175 \times 0.39 \times [((10 \times 1,000) \times 0.0000044) + 0.088] \times 1,000 \div 453.59 = 19.9 \text{ lbs}$$

**Costs:** Although purchase prices for ZE yard trucks are higher than their diesel equivalent, once purchased the operational costs are expected to be lower. An analysis by the ports of Long Beach and Los Angeles evaluated the Total Cost of Ownership (TCO) for battery-electric ZE yard trucks in comparison to diesel<sup>40</sup>. This analysis found a TCO for ZE yard trucks to be about \$450,000 (not including infrastructure costs) while equivalent diesel had a TCO of about \$375,000. Assuming a ~12,000 useful life of a yard truck, the annual incremental cost of operating a ZE yard truck for 1,000 hours is shown in Equation 8.

$$\text{Equation [8]: } (\$450,000 - \$375,000) \times 1,000 \text{ hrs} \div 12,000 \text{ hrs} = \$6,250$$

**WAIRE Points from Using ZE Yard Trucks:** Following the results from Equation 6, using a ZE yard truck would earn 16 Points for regional emission reductions and 80 Points for local emission reductions. One cost Point would be earned following the results of Equation 7. Similar to the approach for on-road truck visits, a multiplier of three is applied to the sum of cost, regional, and local Points. Therefore the total Points for 1,000 hours of ZE yard truck usage is:  $(16 + 80 + 1) \times 3 = 291$  Points.

<sup>40</sup><https://cleanairactionplan.org/documents/final-cargo-handling-equipment-che-feasibility-assessment.pdf/>

**SECTION 6) Transport Refrigeration Unit Plug (TRU) Acquisition and Usage****Description:**

TRUs are truck or trailer installed refrigeration systems used at cold storage and distribution center warehouses to transport and temporarily store perishable goods and products. Most of the 7,400 truck and 166,000 trailer TRUs that operate in California are powered by diesel-fueled internal combustion engines (ICEs)<sup>41</sup> which emit about 5.5 tons of NO<sub>x</sub> and 0.2 tons of diesel particulate matter (DPM) daily<sup>42</sup>. Newer TRU technology allow zero emission operations by plugging hybrid and battery electric models into TRU charging infrastructure at warehouses and other destinations. CARB is currently developing a new truck TRU regulation as well as a separate trailer TRU regulation which, among other requirements, could mandate:

- installation of charging infrastructure, and
- truck TRU fleets to annually turn over a portion of their fleet to full ZE technology.

WAIRE Points may only be earned for actions beyond any adopted rules and regulations from U.S. EPA, CARB, or South Coast AQMD. If CARB's previously proposed truck TRU regulation is adopted in the coming years,<sup>43</sup> WAIRE Points could only be earned for the installation of TRU plug infrastructure and TRU plug usage beyond CARB requirements, or potentially through a Custom WAIRE Plan thereafter that would demonstrate how actions taken go beyond CARB rules.

**Commercial Availability:**

Current zero emission operation capable TRUs are: plug-in and hybrid (eTRU); battery-electric; cryogenic; and hydrogen fuel cell. All except the hydrogen fuel cell technologies are commercially available, and are offered for sale commercially by such manufacturers as Advanced Energy Machines, Air Liquide, Boreas, Carrier, Electric Reefer Solutions, and Thermo King. Additionally, there are manufacturers and firms that focus solely on the electric plug-in infrastructure such CleanFutures and Shorepower Technologies<sup>44</sup>.

**Operation:** Electric zero emission trailer TRUs and truck TRUs operate using an onboard battery, or via power from the electrical grid if they are plugged into a charger. Hybrid trailer TRUs may operate via a diesel engine when in transit, and in zero emissions mode while plugged into a charger. Charger operators may claim LCFS credits for the electricity dispensed for TRUs, potentially at a level that fully offsets the cost of electricity.<sup>45</sup> Charger operators are therefore expected to track the total amount of kWh of charger usage for TRUs when they obtain LCFS credits. Plug usage can be tracked by hours of use, 1,460 hours of annual usage or approximately 4 hours per day of TRU plug usage was determined from the 2023 baseline of the TRU ATCM. The 4 hour average use is attributed to truck dwell time at warehouses or delivery destinations.

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<sup>41</sup> <https://ww2.arb.ca.gov/sites/default/files/classic/cc/cold-storage/documents/slidesworkshop82019.pdf>

<sup>42</sup> <https://ww2.arb.ca.gov/resources/documents/2020-mobile-source-strategy>

<sup>43</sup> CARB has proposed bifurcating the TRU regulation, with rulemaking in 2021 focusing on TRU trucks, and new emission standards, and later rulemaking focusing on ZE trailers.

<sup>44</sup> [https://ww2.arb.ca.gov/sites/default/files/classic/cc/cold-storage/documents/clean\\_tru\\_technology\\_webinar\\_slides\\_handout.pdf](https://ww2.arb.ca.gov/sites/default/files/classic/cc/cold-storage/documents/clean_tru_technology_webinar_slides_handout.pdf)

<sup>45</sup> <https://ww2.arb.ca.gov/sites/default/files/2020-08/Preliminary%20TRU%20Cost%20Doc%20082020.pdf>

Diesel emission reductions were be calculated by using the horse power, annual hours of use, the load factor, and the pollutant emission factor<sup>46</sup>.

### SECTION 6a) TRU Plug Acquisition and Installation

**WAIRE Points from TRU Plug Acquisition and Installation:** A TRU plug installation costs approximately \$13,600 which includes a Level 2 charger, equipment, design, construction, and installation costs<sup>47</sup>. Using a similar methodology as is described for installing chargers for vehicles in this document, acquisition and installation of a single TRU plug could earn a total of 15 WAIRE Points, with 1 Point for each TRU plug purchased, beginning construction, and receiving final permit sign-off/charger energization. Similar to truck acquisitions, regional emission Points are assigned at a \$100,000 per ton of NOx cost effectiveness, resulting in an additional 12 Points.

### SECTION 6b) TRU Plug Usage

**Emissions:** The 2023 calendar year weighted average emission factors for the South Coast AQMD was used in Equation 1, to calculate the default annual NOx and DPM emission reductions from trailer and truck eTRUs plugging in. The AUM is set at 10,658 kWh, equal to an eTRU plugged in 4 hours per day for 365 days and drawing 7.3 kW of power.<sup>48</sup>

*Equation [1]*

$$\text{Emissions} = (\text{annual hours of use}) \times (\text{Pollutant Emission factor}) \div 453.59 \left(\frac{g}{lb}\right)$$

Equation 1 NOx:  $1,460 \times 12.60 \div 453.59 = 40.6 \text{ lbs}$

Equation 1 DPM:  $1,460 \times 0.53 \div 453.59 = 1.7 \text{ lbs}$

**Costs:** Using the AUM of 10,658 kWh, and the \$0.18/kWh rate for electricity calculated for charging station usage in this document (and not considering any potential offset from LCFS credits), the average annual cost to operate a TRU plug is shown in Equation 2.

*Equation [2]:*  $(\$0.18 / \text{kWh}) \times 10,658 \text{ kWh} = \$1,918$

**WAIRE Points from Using ZE TRUs:** Following the results from Equation 1, using a TRU plug would earn 2 Points for regional emission reductions and 7 Points for local emission reductions. One cost Point would be earned following the results of Equation 2. Similar to the approach for other WAIRE action usage or visits, for replacing diesel-fueled equipment/vehicles, a multiplier of three is applied to the sum of cost, regional, and local Points. Therefore, the total Points for 10,658 kWh from TRU charging is:  $(2 + 7 + 1) \times 3 = 30 \text{ Points}$ .

<sup>46</sup> [https://ww2.arb.ca.gov/sites/default/files/classic/cc/cold-storage/documents/tru\\_healthanalysisslidesworkshop10312019.pdf](https://ww2.arb.ca.gov/sites/default/files/classic/cc/cold-storage/documents/tru_healthanalysisslidesworkshop10312019.pdf)

<sup>47</sup> <https://ww2.arb.ca.gov/sites/default/files/2020-08/Preliminary%20TRU%20Cost%20Doc%2008202020.pdf>

<sup>48</sup> <https://ww2.arb.ca.gov/sites/default/files/2020-08/Preliminary%20TRU%20Cost%20Doc%2008202020.pdf>

## **SECTION 7) Solar Panel System Acquisition and Usage**

### **Description:**

Solar panel systems are electric energy generation systems that are composed of the solar panels which collect and convert solar radiation to direct current (DC) power, the racking system which mount the panels and equipment to a rooftop or carport, and the inverter which convert the DC power to alternating current (AC) power. The installations of solar panel systems on warehouse rooftops and carports is an increasing trend which provide renewable power for both warehouse usage and for sale back to the grid. Many commercial buildings with significant rooftop or parking area spaces are incorporating solar panel systems into their operations for financial savings. California is leading the nation with over 600,000 commercial buildings being equipped with solar panel systems, with a solar market penetration of about 2.5%<sup>49</sup>. In the last several years, there have been many technology advancements in solar panels that have made them lighter, more efficient, and more flexible which allows for them to be installed in more applications that have led to a decrease in overall installation costs.

### **Commercial Availability:**

Solar panel systems have wide commercially available throughout California with hundreds of manufacturers and installers who offer a range options for system sizes and component configurations.

### **Operation:**

To analyze the installation and use of solar panel systems, the median solar panel system size was set at 100 kW based on a literature review of Lawrence Berkeley National Laboratory's (LBNL) annual Tracking the Sun Report<sup>50</sup>. The 100 kW solar system parameter was inputted into the National Renewable Energy Laboratory's (NREL) PVWatts<sup>51</sup> calculator specifying a region in the South Coast AQMD jurisdiction which resulted in an annual estimated electrical generation of 165,000 kWh. The 100 kW solar panel system and the 165,000 kWh estimated electrical generation serve as the annual unitary metric (AUM) for solar panel system installation and usage, respectively.

## **SECTION 7a) Solar Panel System Acquisition and Installation**

**WAIRE Points from Solar Panel System Acquisition and Installation:** Based on LBNL's Tracking the Sun study<sup>52</sup> the price per kW for a rooftop solar panel system was \$2.80 per kW and a carport solar panel system was estimated to cost \$3.74<sup>53</sup>. Carport solar panel systems have higher costs due to structural costs to elevate the solar panels to provide the carport or truck shade structure. WAIRE Points are calculated based on the total cost of the installation of the 100 kW solar panel system. Applying the \$2.80 per Watt costs for rooftop installation for the 100 kW solar panel system results in a total acquisition and installation cost of \$280,000. For carport solar panel system installation, the \$3.74 per Watt for carport solar panel system installation for the 100 kW

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<sup>49</sup> <https://emp.lbl.gov/webinar/commercial-rooftop-solar-energy-market>

<sup>50</sup> <https://emp.lbl.gov/tracking-the-sun>

<sup>51</sup> <https://pvwatts.nrel.gov/>

<sup>52</sup> [https://eta-publications.lbl.gov/sites/default/files/tracking\\_the\\_sun\\_2018\\_briefing.pdf](https://eta-publications.lbl.gov/sites/default/files/tracking_the_sun_2018_briefing.pdf)

<sup>53</sup> Based on a confidential data obtained from industry source that requested non-attribution.

solar panel system which results in a total acquisition and installation cost of \$374,000. Using a similar methodology as is described for installing chargers for vehicles in this document, acquisition and installation of a rooftop solar panel system could earn 23 WAIRE Points for a 100 kW rooftop solar panel system, and 27 WAIRE Points for a 100 kW carport solar panel systems. Similar to truck acquisitions, regional emission Points are assigned at a \$100,000 per ton of NOx cost effectiveness, resulting in an additional 12 Points.

### **SECTION 7b) Solar Panel System Usage**

**Emissions:** Using emissions data from local power plants which potentially provide power to warehouses within the South Coast AQMD jurisdiction, a peak rate NOx emission factor of 0.07 lbs/MWh was calculated<sup>54</sup>. The combustion of natural gas at the local power plants do not generate DPM so only NOx is considered in this analysis. The calculated NOx emission factor is used with the AUM of the estimated generation of 165,000 kWh for a 100 kW solar panel system installed on a structure in the South Coast AQMD jurisdiction. Equation 1 shows the calculated the default annual NOx emission reductions from solar panel system usage.

*Equation [1]*

*Emissions = (Power Plant NOx Emission Factor lbs/MWh) ×  
(Total Estimated KWh generated)/1,000*

Equation 1 NOx:  $0.07 \times 165,000 \div 1,000 = 9.7$  lbs

**Costs:** No cost is considered for the operation of the solar panel system. After the initial installation costs, the minimal maintenance costs are negligible considering the cost saving from solar electric power generation in comparison to purchasing grid power.

**WAIRE Points from Solar Panel System Usage:** Following the results from Equation 1, using a solar panel system would earn 1 Point for regional emission reductions. There are no cost or local benefit WAIRE Points contributions.

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<sup>54</sup> Power plant emission calculations were derived from CEMS, eGRID, and EIA data to calculate for the South Coast AQMD jurisdiction

**SECTION 8) Installation of Air Filter Systems or Air Filters in Community Facilities****Description:**

The installation of air filter systems or the installation/replacement of air filters is provided on the WAIRE Menu to provide a community benefit in reducing exposure for the communities near warehouses. Air filters have been shown to successfully remove black carbon (BC) and particulate matter (PM) which include ultrafine particles (UFP) (particles with a diameter < 0.1µm), diesel particulate matter (DPM), PM<sub>2.5</sub> (particles with a diameter < 2.5µm), and PM<sub>10</sub> (particles with a diameter < 10µm) of outdoor particles formed from the combustion of fossil fuels that permeate into the indoors.<sup>55</sup> Exposure to PM contaminants may lead to potential health hazards such as asthma, lung inflammation allergies, and other respiratory or cardiovascular problems<sup>56</sup>. DPM is an air toxin and classified human carcinogen which account for more than 80% of the total cancer risk from air toxics in the south coast air basin (SCAB)<sup>57</sup>. Air filters can be integrated to a heating, ventilation, and air conditioning (HVAC) system or standalone, where the use of high-performance panel filters (HP-PF) resulted in up to 90% removal of UFP, DPM, PM<sub>2.5</sub>, and PM<sub>10</sub>, where HP-PF used were minimum efficiency reporting value 16 (MERV 16) filters<sup>58</sup>. The American Society of Heating, Refrigerating, and Air-Conditioning Engineers defines MERV 16 as filters used for HVAC units that remove at least 95% of particles 0.3 microns or larger.

**Commercial Availability:**

Air filter systems and air filters have wide commercially available throughout California with numerous manufacturers and installers who offer a range options for system sizes and air filter types.

**Operation:**

Air filters can be installed on existing HVAC units or as standalone units at residences, schools, daycares, hospitals, community centers, and other community locations. The integration of air filters with HVAC units does lead to a decrease in the HVAC pressure as caused by the increased resistance of the filters that captures particles. In time the air filter media becomes saturated with particles leading to further HVAC pressure decreases and decreased particle capture efficiency. For standalone systems that uses its own fan the energy demand to operate at top speed is 100 watts/hr or about 5 kWh for 10 hours of operation for a 5 day week<sup>59</sup>. General service maintenance on the air filters involves replacement, on a set interval period or depending on the activity at the location the filters are installed.

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<sup>55</sup> Polidori A, Fine PM, White V, Kwon PS. Pilot study of high-performance air filtration for classroom applications. *Indoor Air*. 2013

<sup>56</sup> Liu, L., Poon, R., Chen, L., Frescura, A.M., Montuschi, P., Ciabattini, G., Wheeler, A. and Dales, R. (2009) Acute Effects of Air Pollution on Pulmonary Function, Airway Inflammation, and Oxidative Stress in Asthmatic Children, *Environ. Health Perspect.*, 117, 668–674.

<sup>57</sup> MATES III Study; South Coast Air Quality Management District, 2008

<sup>58</sup> Polidori A, Fine PM, White V, Kwon PS. Pilot study of high-performance air filtration for classroom applications. *Indoor Air*. 2013

<sup>59</sup> Energy draw is based on a vendor estimate for a school installation (Email dated October 11, 2019 to Victor Juan)

**WAIRE Points from Air Filter or Air Filter System Installation:**

With the emission reductions from the installation of air filter systems or the replacement of air filters being much less than the emission reductions associated with truck purchase, the regional WAIRE Points are related the cost effort considering the same cost effectiveness. The annual metric for the number of air filter systems with MERV 16 air filters installed is 25 systems, and the annual metric for the replacement of air filters is 200 MERV 16 air filters. With the annual metrics and the estimated emission reduction, the installation of 25 air filter systems with MERV 16 air filters equates to 55 WAIRE Points, and the installation/replacement of 200 MERV 16 air filters equates to 51 WAIRE Points.

**Costs:** The costs for air filter systems with MERV 16 air filters were obtained from vendors and contractors that South Coast AQMD has worked with to install air filter systems and air filters at schools and other facilities as part of mitigation and settlement projects. The estimated costs analyzed for the installation of 25 air filter systems with MERV 16 air filters is \$65,000 and cost for the replacement/installation of 200 MERV 16 air filters is \$60,000. Using the \$0.21 \$/kWh electricity rate that is used in other WAIRE Menu actions and assuming 10 hours of use each day for 365 days, the estimated electricity costs for a standalone air filter system for 365 kWh would be \$76.65.



## **Appendix C: WAREHOUSE POPULATION METHODOLOGY**

The analysis of the population of warehouses subject to PR 2305 was compiled between February 2020 – October 2020. Sources for this population of PR 2305 warehouses include the datasets of: CoStar; Dun & Bradstreet (DNB); Fleetseek; InfoUSA; and Leonard’s List, as well as a visual review with Google Maps. CoStar was the primary dataset used to compile the population of PR 2305 warehouses; this CoStar dataset was cross-referenced against the other datasets listed above, which offered additional warehouse information.

The population of PR 2305 warehouses described in this methodology is a snapshot in time, and is expected to update over time to adjust to changes such as warehouse operators moving in and out of warehouse facilities, operational changes, new warehouses construction, etc. Reporting requirements from PR 2305 will provide more detailed information about warehouse properties, operations, and their characteristics upon the adoption of PR 2305. Although there may be some differences between the statistics determined here and actual warehouse operations at every site, the analysis presented below is believed to provide a representative portrayal of the operators subject to PR 2305 and PR 316. The reporting requirements within PR 2305 will ensure that information used to ensure compliance is up to date and more accurate than can be provided from solely relying on third party commercial data products. The list of warehouses potentially subject to PR 2305 and PR 316 are included in the table following this methodology write-up.

### Total Population (3,320 warehouses are anticipated to submit a Warehouse Operations Notification Report)

CoStar is a subscription online database for commercial real estate information. CoStar allows the user to utilize a search function to find properties, either through their “Property” search database or their “Tenant” search database. The dataset was exported from CoStar using the “Property” search. CoStar’s search function utilizes filters to help find properties or tenants with specific characteristics. The CoStar filters used to define the characteristics of warehouse facilities applicable to PR 2305’s warehouse inventory are: “Property Type” (industrial and flex), “Building Status” (existing and under renovation), Rentable Building Area, or “RBA” (greater than or equal to 100,000 square feet), “Secondary Type” (distribution, light distribution, light manufacturing, manufacturing, refrigeration/cold storage, truck terminal, and warehouse), and “Market Name” (Inland Empire (California), Orange County (California), and Los Angeles). The submarkets of Mojave River Valley, San Bernardino Outlying, Antelope Valley Industrial, East Los Angeles County Outlying Industrial, and North East Los Angeles County Outlying Industrial were excluded from the property search as they fall outside of South Coast AQMD’s jurisdiction.

### Tenants

The CoStar Tenant dataset was exported from CoStar using the “Tenant” search. This dataset was exported to assist in identifying operators at the 3,320 warehouses applicable to PR 2305. Filters used from CoStar to define the characteristics are the same as those selected for the “Property” search, as described above, for consistency. To the extent possible, the Tenant and Property datasets were cross-referenced with each other via the property address. Due to discrepancies and missing information (data provided in CoStar is based on reporting from brokers and researchers), not all the data from these two datasets were able to be matched.

### Warehouse Operator Names

The warehouse operators for the 3,320 warehouses were derived from several data sources as each dataset provides different information on tenants, owners, businesses, and companies that differ in definition:

- “Owner Name”, “Property ID”, “Property Address”, “Property Name”, “Company Name”, “City”, and “Zip” from CoStar.
- “Company” from InfoUSA. This dataset is cross-referenced using property addresses.
- “Business Name” from DNB. This dataset is cross-referenced using property addresses.
- “Company” from Leonard’s List. This dataset is cross-referenced using property addresses.

Datasets were refined using the criteria below:

1. If CoStar had data for a property tenant, this was considered to be the correct operator name.
2. If CoStar did not have data for a property, multiple matches between InfoUSA, DNB, and Leonard’s List would be considered the correct operator name.
3. Absent CoStar property tenant data, and no matching data as described in step 2., InfoUSA, DNB, and Leonard’s List were considered the correct operator name in that order of priority.
4. CoStar “Owner Name” was considered the correct operator name if the above steps did not result in an operator.
5. If steps 1-4 did not yield an operator name, or yielded an operator name that appeared to not be a name for a company that would engage in warehousing activities (such as the name of a church), Staff used Google Maps to do a visual verification using Google Maps’ street view to determine an operator name by searching for signage with the operator name on the addressed property or building. If the Google Maps visual verification showed that the property was not for warehouse use (through the name of the property operator or the nature of the property itself, or was a vacant lot), this was considered a potentially inapplicable property for earning WAIRE Points and likely only subject to PR 2305 reporting.

Note that because this dataset was created in order to identify the single most correct operator for each warehouse, this process results in one warehouse operator identified per warehouse. Some warehouses may have multiple operators; identifying warehouses with multiple operators is discussed below.

### Facilities Potentially Only Subject to Reporting Under PR 2305 (418 facilities from the total population of 3,320 warehouses)

247 facilities are expected to only need to satisfy PR 2305 reporting requirements because these facilities have less than 100,000 square feet of warehouse space in a single building after excluding CoStar-reported office space. An additional 171 facilities potentially may only be subject to reporting requirements in PR 2305 as visual review with Google Maps indicated that they may not conduct warehousing activities. For example, some facilities were considered inapplicable if they appeared to be mostly used for manufacturing, and unlikely to have 100,000 square feet dedicated to warehouse use.

To aid in this evaluation, only facilities with the “Secondary Type” column designation of “Manufacturing” and “Light Manufacturing” from CoStar were analyzed in this step. Buildings

with less than one dock door per 10,000 square feet of building area were further screened out. These facilities with less than one loading docks per 10,000 square feet were visually reviewed with Google Maps to look for visual cues of warehousing use (such as dock doors) or lack thereof (such as manufacturing equipment taking up the majority of the site) to determine if on site warehousing use would be potentially applicable to PR 2305.

From the additional analysis described below, all applicable warehouse statistics considerations are out of the 2,902 applicable warehouses, unless stated otherwise.

#### Warehouses That Potentially Have Multiple Operators (1,093 warehouses)

CoStar identified the tenancy of warehouses as single, multiple, or unknown number of operators, and also in many cases identifies the last known tenant. However, the accuracy of the businesses identified as tenants within CoStar was not always considered reliable, as historical tenant data could not always be distinguished from multiple current tenants. Based on a review of all available information within CoStar, out of 2,902 warehouses potentially required to earn WAIRE Points, staff identified 1,093 warehouses that potentially have multiple operators, 1,777 potentially have single operators, and 32 are unknown.

#### Warehouses Whose Operators Potentially Own a Fleet (1,316 warehouses)

Staff identified 1,316 warehouses with operators that potentially own their own truck fleets. To determine this information, staff cross-referenced the warehouse operator names determined above with “Fleet Name” data from the Fleetseek dataset. Because the names of operators and fleets did not exactly match across the two datasets, a fuzzy lookup tool<sup>1</sup> was used that showed the similarity between operator name and fleet seek name. Operators’ potential fleet ownership was further verified by using data from the Federal Motor Carrier Safety Administration Company Snapshot tool<sup>2</sup> and information from company websites. Examples of potential fleet matches that were excluded from the final tally include small fleets (e.g., <3 trucks) that are registered on the east coast who may only share a name with an operator of a warehouse, or fleets who carry cargo not considered likely for warehousing activities under PR 2305 (e.g., refuse).

Although this analysis shows that perhaps ~40% of warehouse operators own a fleet, it is not possible to determine the extent to which any operator’s fleet services a particular warehouse. The reporting requirements under PR 2305 will provide additional information about warehouse operators who own or lease trucks that serve that warehouse.

#### Warehouses within Phases of Rule Implementation

PR 2305 would be implemented in three phases: warehouses larger than or equal to 250,000 square feet will be required to comply with PR 2305 in Phase 1; warehouses larger than or equal to 150,000 square feet and less than 250,000 square feet will be added in Phase 2; and warehouses larger than or equal to 100,000 square feet and less than 150,000 square feet will be added in Phase 3. Using the Rentable Building Area data from CoStar, of the 2,902 warehouse potentially required to earn WAIRE Points, 919 warehouses are in Phase 1, 901 warehouses are in Phase 2, and 1,082 warehouses are in Phase 3. For the 418 facilities that are potentially only subject to PR 2305

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<sup>1</sup> Source: <https://www.microsoft.com/en-us/download/details.aspx?id=15011>

<sup>2</sup> <https://safer.fmcsa.dot.gov/CompanySnapshot.aspx>

reporting requirements there are 37 warehouses in Phase 1, 57 warehouses in Phase 2, and 324 warehouses in Phase 3.

#### Owner-Operators (515 warehouses)

There are 515 warehouses potentially operated by the owners of the warehouse. The applicable warehouse operated by the owners was determined by cross-referencing CoStar warehouse “Owner Name” data with DNB’s “Business Name” data for that same address.

#### Warehouses Near Ports (202 warehouses)

Staff identified 202 warehouses that are located near the Ports of Los Angeles and Long Beach. Warehouses determined to be Warehouses Near Ports were designated on “Submarket Name” column of the CoStar property dataset as: Carson Industrial; Long Beach South East Industrial; Long Beach South West Industrial; Rancho Dominguez Industrial; San Pedro Industrial; and Wilmington Industrial.

#### Warehouses with Existing Solar Panels (214 warehouses)

Staff identified 214 applicable warehouses with solar panel systems installed. Google Maps satellite view was used to identify which applicable warehouses that had solar panels systems installed. “Property Address” data from the CoStar property search were searched in Google Maps to complete a visual review of each property to determine the presence of solar panel systems.

#### Facilities by Secondary Type

The CoStar property search data set provided a secondary industry type designation. These designations are provided under the “Secondary Type” column in the property search dataset. The following breakdown shows the “Secondary Type” designations for the 2,902 warehouses potentially required to earn WAIRE Points under PR 2305: Distribution: 824 facilities; Light Distribution: 5 facilities; Light Manufacturing: 13 facilities; Manufacturing: 419 facilities; Refrigeration/Cold Storage: 42 facilities; Truck Terminal: 33 facilities; and Warehouse: 1,566 facilities.<sup>3</sup>

#### Low Floor Area Ratio (FAR) (870 warehouses)

Staff identified 870 warehouses with FARs less than 0.45. The FAR describes the ratio of indoor floor area relative to the total square footage of a property. For single story buildings, lower FARs indicate a large outdoor area, which in the case of warehouses typically indicates a large yard for truck and trailer parking. The lower the FAR, the more likely it is that space could be identified onsite for larger scale ZE charging/fueling infrastructure installations. Warehouses with FARs <0.45 were identified as this is a common value used by local land use agencies for new warehouse developments. The FAR alone is not the sole determinant if a facility can install ZE charging/fueling infrastructure. Facilities with FARs higher than 0.45 may also have the ability to install ZE charging/fueling infrastructure, and conversely some facilities with FARs <0.45 may not have sufficient access to electrical utility infrastructure connections onsite or nearby.

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<sup>3</sup> These ‘Secondary Types’ were one of the parameters used by IEC in their study of warehouses that may relocate with PR 2305 (“Assessment of Warehouse Relocations Associated with the South Coast Air Quality Management District Warehouse Indirect Source Rule”). That study analyzed 2,638 warehouses that were considered most likely to relocate. The Technical Memorandum on Real Estate Markets Neighboring the South Coast AQMD Region from that study describes the methodology it used relative to these datasets.

## List of Warehouse Addresses Potentially Subject to PR 2305

| Property Address       | City            | State | Zip   | Property Address         | City             | State | Zip   |
|------------------------|-----------------|-------|-------|--------------------------|------------------|-------|-------|
| 6100 S Wilmington Ave  | Huntington Park | CA    | 90001 | 140 N Orange             | City of Industry | CA    | 91744 |
| 914 E 59th St          | Los Angeles     | CA    | 90001 | 155 N Orange Ave         | City Of Industry | CA    | 91744 |
| 1853 E 65th St         | Los Angeles     | CA    | 90001 | 15350 E Stafford St      | City Of Industry | CA    | 91744 |
| 1016 E 59th St         | Los Angeles     | CA    | 90001 | 14736 Nelson Ave         | City Of Industry | CA    | 91744 |
| 1711 E 58th Pl         | Los Angeles     | CA    | 90001 | 16195 E Stephens St      | City Of Industry | CA    | 91745 |
| 8122 Maie Ave          | Los Angeles     | CA    | 90001 | 14625 E Clark Ave        | City of Industry | CA    | 91745 |
| 7314 Maie Ave          | Los Angeles     | CA    | 90001 | 16639 E Gale Ave         | City Of Industry | CA    | 91745 |
| 5901 Central Ave       | Los Angeles     | CA    | 90001 | 15541 E Gale Ave         | City Of Industry | CA    | 91745 |
| 8801 S Alameda St      | Los Angeles     | CA    | 90002 | 16555 Gale Ave           | City of Industry | CA    | 91745 |
| 5867 S Los Angeles St  | Los Angeles     | CA    | 90003 | 14425 E Clark Ave        | City of Industry | CA    | 91745 |
| 5930 S Wall St         | Los Angeles     | CA    | 90003 | 16900 Chestnut St        | Hacienda Heights | CA    | 91745 |
| 3401 S Grand Ave       | Los Angeles     | CA    | 90007 | 360 Parriott Pl W        | City Of Industry | CA    | 91745 |
| 3751 S Hill St         | Los Angeles     | CA    | 90007 | 16040 Stephens St        | City of Industry | CA    | 91745 |
| 3333 S Grand Ave       | Los Angeles     | CA    | 90007 | 918 S Stimson Ave        | City of Industry | CA    | 91745 |
| 2250 Maple Ave         | Los Angeles     | CA    | 90011 | 16049 E Stephens St      | City of Industry | CA    | 91745 |
| 900 E 29th St          | Los Angeles     | CA    | 90011 | 16150 E Stephens St      | City of Industry | CA    | 91745 |
| 1100 N Main St         | Los Angeles     | CA    | 90012 | 333 S Turnbull Canyon Rd | City of Industry | CA    | 91745 |
| 900 E 3rd St           | Los Angeles     | CA    | 90013 | 15530 E Salt Lake Ave    | City of Industry | CA    | 91745 |
| 500 S Central Ave      | Los Angeles     | CA    | 90013 | 15650 Salt Lake Ave      | City of Industry | CA    | 91745 |
| 754 Wall St            | Los Angeles     | CA    | 90014 | 768 Turnbull Canyon Rd   | City of Industry | CA    | 91745 |
| 808 Wall St            | Los Angeles     | CA    | 90014 | 15615 E Gale Ave         | City of Industry | CA    | 91745 |
| 421 E 6th St           | Los Angeles     | CA    | 90014 | 17009 Green Dr           | Hacienda Heights | CA    | 91745 |
| 1057 S San Pedro St    | Los Angeles     | CA    | 90015 | 15241 Don Julian Rd      | City Of Industry | CA    | 91745 |
| 1816 Oak St            | Los Angeles     | CA    | 90015 | 620 S Hacienda Blvd      | City of Industry | CA    | 91745 |
| 401 E Pico Blvd        | Los Angeles     | CA    | 90015 | 16950 Chestnut St        | Hacienda Heights | CA    | 91745 |
| 940 W Washington Blvd  | Los Angeles     | CA    | 90015 | 218 S Turnbull Canyon Rd | City of Industry | CA    | 91745 |
| 1525 S Broadway        | Los Angeles     | CA    | 90015 | 17009 E Green Dr         | City Of Industry | CA    | 91745 |
| 2340 S Fairfax Ave     | Los Angeles     | CA    | 90016 | 15343 E Proctor Ave      | City of Industry | CA    | 91745 |
| 5716 W Jefferson Blvd  | Los Angeles     | CA    | 90016 | 14455 E Clark Ave        | City Of Industry | CA    | 91745 |
| 799 Towne Ave          | Los Angeles     | CA    | 90021 | 16425 E Gale Ave         | City of Industry | CA    | 91745 |
| 2415 E 15th St         | Los Angeles     | CA    | 90021 | 15450 E Salt Lake Ave    | City of Industry | CA    | 91745 |
| 1340 E 6th St          | Los Angeles     | CA    | 90021 | 800 Turnbull Canyon Rd   | City of Industry | CA    | 91745 |
| 2000 E 8th St          | Los Angeles     | CA    | 90021 | 15381 E Proctor Ave      | City of Industry | CA    | 91745 |
| 1900 Sacramento St     | Los Angeles     | CA    | 90021 | 16253 Gale Ave           | City of Industry | CA    | 91745 |
| 921 E Pico Blvd        | Los Angeles     | CA    | 90021 | 500 S Hacienda Blvd      | City of Industry | CA    | 91745 |
| 1205 Wholesale St      | Los Angeles     | CA    | 90021 | 16175 E Stephens St      | City Of Industry | CA    | 91745 |
| 1334 S Central Ave     | Los Angeles     | CA    | 90021 | 425 Turnbull Canyon Rd   | Hacienda Heights | CA    | 91745 |
| 1226 Stanford Ave      | Los Angeles     | CA    | 90021 | 13285 E Temple Ave       | City Of Industry | CA    | 91746 |
| 1050 S Stanford Ave    | Los Angeles     | CA    | 90021 | 14300 E Bonelli St       | City Of Industry | CA    | 91746 |
| 2415 E 15th St         | Los Angeles     | CA    | 90021 | 14730 Don Julian Rd      | City of Industry | CA    | 91746 |
| 1206 E 6th St          | Los Angeles     | CA    | 90021 | 220 S 6th Ave            | City Of Industry | CA    | 91746 |
| 1800 Essex St          | Los Angeles     | CA    | 90021 | 14955 E Salt Lake Ave    | City Of Industry | CA    | 91746 |
| 1208 Stanford Ave      | Los Angeles     | CA    | 90021 | 15110 E Don Julian Rd    | La Puente        | CA    | 91746 |
| 801 E 7th St           | Los Angeles     | CA    | 90021 | 13400 E Nelson Ave       | City of Industry | CA    | 91746 |
| 1515 E 15th St         | Los Angeles     | CA    | 90021 | 320 S 6th Ave            | City of Industry | CA    | 91746 |
| 1701 Bay St            | Los Angeles     | CA    | 90021 | 13170 E Temple Ave       | City of Industry | CA    | 91746 |
| 2260 E 15th St         | Los Angeles     | CA    | 90021 | 14923 E Proctor Ave      | City of Industry | CA    | 91746 |
| 1396 E 7th St          | Los Angeles     | CA    | 90021 | 14551 Bonelli St         | City Of Industry | CA    | 91746 |
| 2045 E Washington Blvd | Los Angeles     | CA    | 90021 | 13000 Temple Ave         | City Of Industry | CA    | 91746 |
| 750 S Alameda St       | Los Angeles     | CA    | 90021 | 440 N Baldwin Park Blvd  | City of Industry | CA    | 91746 |
| 1735 S Santa Fe Ave    | Los Angeles     | CA    | 90021 | 13890 E Nelson Ave       | City of Industry | CA    | 91746 |
| 1601 E Olympic Blvd    | Los Angeles     | CA    | 90021 | 665 N Baldwin Park Blvd  | City of Industry | CA    | 91746 |
| 670 Mesquit St         | Los Angeles     | CA    | 90021 | 13060 E Temple Ave       | City of Industry | CA    | 91746 |
| 1444 S Alameda St      | Los Angeles     | CA    | 90021 | 14350 Lomitas Ave        | City Of Industry | CA    | 91746 |
| 1807 E Olympic Blvd    | Los Angeles     | CA    | 90021 | 15125 Proctor Ave        | City of Industry | CA    | 91746 |
| 800 McGarry St         | Los Angeles     | CA    | 90021 | 14829 Salt Lake Ave      | City of Industry | CA    | 91746 |
| 5550 Ferguson Dr       | Commerce        | CA    | 90022 | 13085 E Temple Ave       | City of Industry | CA    | 91746 |
| 5500 E Olympic Blvd    | Commerce        | CA    | 90022 | 415 S 7th Ave            | City of Industry | CA    | 91746 |
| 5500 Ferguson Dr       | Commerce        | CA    | 90022 | 730 Baldwin Park Blvd    | City of Industry | CA    | 91746 |
| 5605 Union Pacific Ave | Commerce        | CA    | 90022 | 13111 E Temple Ave       | City of Industry | CA    | 91746 |
| 5610 Union Pacific Ave | Commerce        | CA    | 90022 | 15025 Proctor Ave        | City of Industry | CA    | 91746 |

| Property Address       | City        | State | Zip   | Property Address               | City             | State | Zip   |
|------------------------|-------------|-------|-------|--------------------------------|------------------|-------|-------|
| 5000 Triggs St         | Commerce    | CA    | 90022 | 505 S 7th Ave                  | City Of Industry | CA    | 91746 |
| 5750 Grace Pl          | Commerce    | CA    | 90022 | 14438 E Don Julian Rd          | City Of Industry | CA    | 91746 |
| 5631 Ferguson Dr       | Commerce    | CA    | 90022 | 14841 Don Julian Rd            | City of Industry | CA    | 91746 |
| 5555 E Olympic Blvd    | Commerce    | CA    | 90022 | 200 N Willow Ave               | City of Industry | CA    | 91746 |
| 5500 Union Pacific Ave | Commerce    | CA    | 90022 | 14317 Don Julian Rd            | City Of Industry | CA    | 91746 |
| 5600 E Olympic Blvd    | Commerce    | CA    | 90022 | 355 N Vineland Ave             | City of Industry | CA    | 91746 |
| 4944 Triggs St         | Commerce    | CA    | 90022 | 705 N Baldwin Park Blvd        | City of Industry | CA    | 91746 |
| 5510 Grace Pl          | Commerce    | CA    | 90022 | 14528 Bonelli Ave              | City of Industry | CA    | 91746 |
| 5471 Ferguson Dr       | Commerce    | CA    | 90022 | 550 S 7th Ave                  | City Of Industry | CA    | 91746 |
| 2233 Jesse St          | Los Angeles | CA    | 90023 | 245 N Baldwin Park Blvd        | City of Industry | CA    | 91746 |
| 1400 Los Palos St      | Los Angeles | CA    | 90023 | 315 S 7th Ave                  | City of Industry | CA    | 91746 |
| 1401 S Hicks Ave       | Los Angeles | CA    | 90023 | 14850 E Don Julian Rd          | City of Industry | CA    | 91746 |
| 1439 S Herbert Ave     | Commerce    | CA    | 90023 | 166 N Baldwin Park Blvd        | City of Industry | CA    | 91746 |
| 1815 S Soto St         | Los Angeles | CA    | 90023 | 14777 Don Julian Rd            | City of Industry | CA    | 91746 |
| 2155 E 7th St          | Los Angeles | CA    | 90023 | 15010 Don Julian Rd            | City Of Industry | CA    | 91746 |
| 3600 E Olympic Blvd    | Los Angeles | CA    | 90023 | 420 S 6th Ave                  | La Puente        | CA    | 91746 |
| 2555 E Olympic Blvd    | Los Angeles | CA    | 90023 | 14237 E Don Julian Rd          | City Of Industry | CA    | 91746 |
| 1363 S Bonnie Beach Pl | Commerce    | CA    | 90023 | 245 N Vineland Ave             | City of Industry | CA    | 91746 |
| 3040 E 12th St         | Los Angeles | CA    | 90023 | 14641 E Don Julian Rd          | City of Industry | CA    | 91746 |
| 4209 E Noakes St       | Commerce    | CA    | 90023 | 14840 E Proctor Ave            | City of Industry | CA    | 91746 |
| 4000 Union Pacific Ave | Commerce    | CA    | 90023 | 300 N Baldwin Park Blvd        | City Of Industry | CA    | 91746 |
| 4422 Dunham St         | Los Angeles | CA    | 90023 | 14255 Lomitas Ave              | City of Industry | CA    | 91746 |
| 3170 E Washington Blvd | Los Angeles | CA    | 90023 | 13155 E Railroad Ave           | City of Industry | CA    | 91746 |
| 2901 E 12th St         | Los Angeles | CA    | 90023 | 13255 E Amar Rd                | City of Industry | CA    | 91746 |
| 3686 E Olympic Blvd    | Los Angeles | CA    | 90023 | 13500 E Nelson Ave             | City of Industry | CA    | 91746 |
| 1151 S Boyle Ave       | Los Angeles | CA    | 90023 | 120 Puente Ave                 | City Of Industry | CA    | 91746 |
| 3700 E Olympic Blvd    | Los Angeles | CA    | 90023 | 14505 E Proctor Ave            | City of Industry | CA    | 91746 |
| 3900 Union Pacific Ave | Los Angeles | CA    | 90023 | 14840 Don Julian Rd            | City Of Industry | CA    | 91746 |
| 1430 S Eastman Ave     | Los Angeles | CA    | 90023 | 325 N Baldwin Park Blvd        | City of Industry | CA    | 91746 |
| 3100 E Washington Blvd | Los Angeles | CA    | 90023 | 321 Vineland Ave               | City Of Industry | CA    | 91746 |
| 3888 E Washington Blvd | Vernon      | CA    | 90023 | 13007 Crossroads Parkway South | City Of Industry | CA    | 91746 |
| 4130 Noakes St         | Commerce    | CA    | 90023 | 14421 E Bonelli St             | City Of Industry | CA    | 91746 |
| 2824 E 12th St         | Los Angeles | CA    | 90023 | 14724 Proctor Ave              | City of Industry | CA    | 91746 |
| 342 N San Fernando Rd  | Los Angeles | CA    | 90031 | 111 N Baldwin Park Blvd        | City of Industry | CA    | 91746 |
| 3880 N Mission Rd      | Los Angeles | CA    | 90031 | 13110 Loudon Ln                | City of Industry | CA    | 91746 |
| 210 N Ave. 21          | Los Angeles | CA    | 90031 | 18111 E Railroad St            | City of Industry | CA    | 91748 |
| 300 W Avenue 33        | Los Angeles | CA    | 90031 | 19395 E Walnut Dr N            | City of Industry | CA    | 91748 |
| 1731 Workman St        | Los Angeles | CA    | 90031 | 717 S Nogales St               | City Of Industry | CA    | 91748 |
| 1919 Vineburn Ave      | Los Angeles | CA    | 90032 | 18669 San Jose Ave             | City Of Industry | CA    | 91748 |
| 4121 Valley Blvd       | Los Angeles | CA    | 90032 | 18401 E Arenth Ave             | City Of Industry | CA    | 91748 |
| 2011 N Soto St         | Los Angeles | CA    | 90032 | 18501 E San Jose Ave           | City Of Industry | CA    | 91748 |
| 4335 Valley Blvd       | Los Angeles | CA    | 90032 | 18215 E Rowland St             | City of Industry | CA    | 91748 |
| 210 S Anderson St      | Los Angeles | CA    | 90033 | 18400 E Gale Ave               | City of Industry | CA    | 91748 |
| 5831 Santa Monica Blvd | Los Angeles | CA    | 90038 | 17531 Railroad St              | City of Industry | CA    | 91748 |
| 4563 Colorado Blvd     | Los Angeles | CA    | 90039 | 18901 E Railroad St            | City of Industry | CA    | 91748 |
| 5067 W San Fernando Rd | Los Angeles | CA    | 90039 | 1110 S Fullerton Rd            | City of Industry | CA    | 91748 |
| 4841 W San Fernando Rd | Los Angeles | CA    | 90039 | 18895 Arenth Ave               | City Of Industry | CA    | 91748 |
| 2800 Casitas Ave       | Los Angeles | CA    | 90039 | 1177 S Jellick Ave             | City Of Industry | CA    | 91748 |
| 5431 W San Fernando Rd | Los Angeles | CA    | 90039 | 1070 Samuelson St              | City Of Industry | CA    | 91748 |
| 5375 W San Fernando Rd | Los Angeles | CA    | 90039 | 888 S Azusa Ave                | City Of Industry | CA    | 91748 |
| 4561 Colorado Blvd     | Los Angeles | CA    | 90039 | 18505 E Gale Ave               | City of Industry | CA    | 91748 |
| 4690 Colorado Blvd     | Los Angeles | CA    | 90039 | 18383 E Railroad St            | City of Industry | CA    | 91748 |
| 4841 W San Fernando Rd | Los Angeles | CA    | 90039 | 18175 E Rowland St             | City Of Industry | CA    | 91748 |
| 1801 Blake Ave         | Los Angeles | CA    | 90039 | 19101 E Walnut Dr N            | City Of Industry | CA    | 91748 |
| 7261 E Slauson Ave     | Commerce    | CA    | 90040 | 18945 San Jose Ave             | City of Industry | CA    | 91748 |
| 6100 S Malt Ave        | Commerce    | CA    | 90040 | 19545 San Jose Ave             | La Puente        | CA    | 91748 |
| 6100 Bandini Blvd      | Commerce    | CA    | 90040 | 17528 E Rowland St             | City of Industry | CA    | 91748 |
| 5991 Bandini Blvd      | Bell        | CA    | 90040 | 19555 E Arenth Ave             | City of Industry | CA    | 91748 |
| 2340 S Eastern Ave     | Commerce    | CA    | 90040 | 888 Kearn Creek Ct             | City of Industry | CA    | 91748 |
| 5900 E Slauson Ave     | Commerce    | CA    | 90040 | 18051 E Arenth Ave             | City of Industry | CA    | 91748 |
| 5300 Harbor St         | Commerce    | CA    | 90040 | 19317 E Arenth Ave             | City of Industry | CA    | 91748 |
| 6605 Flotilla St       | Commerce    | CA    | 90040 | 17355 E Railroad St            | City of Industry | CA    | 91748 |
| 6315 Bandini Blvd      | Commerce    | CA    | 90040 | 18501 E Arenth Ave             | City of Industry | CA    | 91748 |

| Property Address       | City        | State | Zip   | Property Address              | City             | State | Zip   |
|------------------------|-------------|-------|-------|-------------------------------|------------------|-------|-------|
| 6000 Rickenbacker Rd   | Commerce    | CA    | 90040 | 16610 E Chestnut St           | City of Industry | CA    | 91748 |
| 2131 Garfield Ave      | Commerce    | CA    | 90040 | 780 Nogales St                | City of Industry | CA    | 91748 |
| 6000 Bandini Blvd      | Commerce    | CA    | 90040 | 19161 E Walnut Dr N           | City Of Industry | CA    | 91748 |
| 2600 Commerce Way      | Commerce    | CA    | 90040 | 17708 Rowland St              | City Of Industry | CA    | 91748 |
| 5835 S Eastern Ave     | Commerce    | CA    | 90040 | 17400 E Chestnut St           | City of Industry | CA    | 91748 |
| 6393 E Washington Blvd | Commerce    | CA    | 90040 | 18537 E Gale Ave              | City Of Industry | CA    | 91748 |
| 6000 E Slauson Ave     | Commerce    | CA    | 90040 | 18689 Arenth Ave              | Rowland Heights  | CA    | 91748 |
| 6108 Peachtree St      | Commerce    | CA    | 90040 | 18551 E Arenth Ave            | City of Industry | CA    | 91748 |
| 6453 Bandini Blvd      | Commerce    | CA    | 90040 | 18275 E Arenth Ave            | City of Industry | CA    | 91748 |
| 2400 Yates Ave         | Commerce    | CA    | 90040 | 17560 Rowland St              | City Of Industry | CA    | 91748 |
| 5500 Sheila St         | Commerce    | CA    | 90040 | 875 S Azusa Ave               | City Of Industry | CA    | 91748 |
| 6027 Eastern Ave       | Commerce    | CA    | 90040 | 18045 E Rowland St            | City of Industry | CA    | 91748 |
| 2930 Vail Ave          | Commerce    | CA    | 90040 | 17300 Chestnut St             | City Of Industry | CA    | 91748 |
| 5424 E Slauson Ave     | Commerce    | CA    | 90040 | 825 Ajax Ave                  | City Of Industry | CA    | 91748 |
| 5811 E 61st St         | Commerce    | CA    | 90040 | 18835 E San Jose Ave          | City of Industry | CA    | 91748 |
| 6505 Gayhart St        | Commerce    | CA    | 90040 | 801 Sentous St                | City of Industry | CA    | 91748 |
| 6289 E Slauson Ave     | Commerce    | CA    | 90040 | 19430 E Arenth Ave            | City of Industry | CA    | 91748 |
| 6443 E Slauson Ave     | Commerce    | CA    | 90040 | 18825 E San Jose Ave          | City of Industry | CA    | 91748 |
| 6121 Randolph St       | Commerce    | CA    | 90040 | 918 Radecki Ct                | Los Angeles      | CA    | 91748 |
| 6001 Slauson Ave       | Commerce    | CA    | 90040 | 18639 Railroad St             | City of Industry | CA    | 91748 |
| 6051 Telegraph Rd      | Commerce    | CA    | 90040 | 19545 San Jose Ave            | City Of Industry | CA    | 91748 |
| 6541 E Washington Blvd | Commerce    | CA    | 90040 | 18910 E San Jose Ave          | City Of Industry | CA    | 91748 |
| 2501 Malt Ave          | Commerce    | CA    | 90040 | 880 S Azusa Ave               | City Of Industry | CA    | 91748 |
| 3217 S Garfield Ave    | Commerce    | CA    | 90040 | 19301 E Walnut Dr             | City of Industry | CA    | 91748 |
| 7400 Bandini Blvd      | Commerce    | CA    | 90040 | 18305 San Jose Ave            | City of Industry | CA    | 91748 |
| 2500 S Atlantic Blvd   | Commerce    | CA    | 90040 | 2321 Arrow Hwy                | La Verne         | CA    | 91750 |
| 6213 Randolph St       | Commerce    | CA    | 90040 | 3401 Etiwanda Ave             | Jurupa Valley    | CA    | 91752 |
| 4901 Zambrano St       | Commerce    | CA    | 90040 | 3355 Dulles Dr                | Jurupa Valley    | CA    | 91752 |
| 5890 Sheila St         | Commerce    | CA    | 90040 | 11180 Cantu Galleano Ranch St | Jurupa Valley    | CA    | 91752 |
| 6608 E 26th St         | Commerce    | CA    | 90040 | 11296 Harrell St              | Jurupa Valley    | CA    | 91752 |
| 2638 Yates Ave         | Commerce    | CA    | 90040 | 11600 Philadelphia St         | Jurupa Valley    | CA    | 91752 |
| 5560 E Slauson Ave     | Commerce    | CA    | 90040 | 12471 Riverside Dr            | Eastvale         | CA    | 91752 |
| 5945 S Malt Ave        | Commerce    | CA    | 90040 | 11041 Inland Ave              | Jurupa Valley    | CA    | 91752 |
| 6000 E Sheila St       | Commerce    | CA    | 90040 | 10900 San Sevaine Way         | Jurupa Valley    | CA    | 91752 |
| 2187 S Garfield Ave    | Commerce    | CA    | 90040 | 10980 Inland Ave              | Jurupa Valley    | CA    | 91752 |
| 6550 Washington Blvd   | Commerce    | CA    | 90040 | 4420 Serrano Dr               | Jurupa Valley    | CA    | 91752 |
| 6111 Bandini Blvd      | Los Angeles | CA    | 90040 | 4560 Hammer Ave               | Eastvale         | CA    | 91752 |
| 5815 Smithway St       | Commerce    | CA    | 90040 | 4325 Etiwanda Ave             | Jurupa Valley    | CA    | 91752 |
| 2727 Malt Ave          | Commerce    | CA    | 90040 | 3401 Etiwanda Ave             | Jurupa Valley    | CA    | 91752 |
| 6687 Flotilla St       | Commerce    | CA    | 90040 | 4000 Hammer Ave               | Eastvale         | CA    | 91752 |
| 5353 Jillson St        | Commerce    | CA    | 90040 | 12087 Landon Dr               | Jurupa Valley    | CA    | 91752 |
| 4501 E Washington Blvd | Commerce    | CA    | 90040 | 3650 Dulles Dr                | Jurupa Valley    | CA    | 91752 |
| 4901 Alexander Rd      | Commerce    | CA    | 90040 | 4250 Hammer Ave               | Eastvale         | CA    | 91752 |
| 2601 S Malt Ave        | Commerce    | CA    | 90040 | 3155 Universe Dr              | Jurupa Valley    | CA    | 91752 |
| 2425 S Malt Ave        | Commerce    | CA    | 90040 | 11600 Iberia St               | Jurupa Valley    | CA    | 91752 |
| 6015 Randolph St       | Commerce    | CA    | 90040 | 3790 De Forest Cir            | Jurupa Valley    | CA    | 91752 |
| 2600 Garfield Ave      | Commerce    | CA    | 90040 | 3810 Wabash Dr                | Jurupa Valley    | CA    | 91752 |
| 6130 E Sheila St       | Commerce    | CA    | 90040 | 12300 Riverside Dr            | Eastvale         | CA    | 91752 |
| 5959 Randolph St       | Commerce    | CA    | 90040 | 4345 Parkhurst St             | Jurupa Valley    | CA    | 91752 |
| 5500 E Slauson Ave     | Commerce    | CA    | 90040 | 5250 Goodman Way              | Eastvale         | CA    | 91752 |
| 3364 Garfield Ave      | Commerce    | CA    | 90040 | 11600 Riverside Dr            | Jurupa Valley    | CA    | 91752 |
| 6021 S Malt Ave        | Commerce    | CA    | 90040 | 11500 Philadelphia St         | Jurupa Valley    | CA    | 91752 |
| 3412 Garfield Ave      | Commerce    | CA    | 90040 | 3251 De Forest St             | Jurupa Valley    | CA    | 91752 |
| 5777 Smithway St       | Commerce    | CA    | 90040 | 11905 Landon Dr               | Jurupa Valley    | CA    | 91752 |
| 6100 Garfield Ave      | Commerce    | CA    | 90040 | 3401 Etiwanda Ave             | Jurupa Valley    | CA    | 91752 |
| 6150 Sheila St         | Commerce    | CA    | 90040 | 11888 Mission Blvd            | Jurupa Valley    | CA    | 91752 |
| 6100 E Slauson Ave     | Commerce    | CA    | 90040 | 4450 Wineville Ave            | Jurupa Valley    | CA    | 91752 |
| 6250 Bandini Blvd      | Commerce    | CA    | 90040 | 10800 San Sevaine Way         | Jurupa Valley    | CA    | 91752 |
| 5999 Bandini Blvd      | Los Angeles | CA    | 90040 | 14909 Summit Dr               | Eastvale         | CA    | 91752 |
| 6300 Slauson Ave       | Commerce    | CA    | 90040 | 4550 Wineville Ave            | Jurupa Valley    | CA    | 91752 |
| 6141 Randolph St       | Commerce    | CA    | 90040 | 12510 Micro                   | Eastvale         | CA    | 91752 |
| 7208 E Gage            | Commerce    | CA    | 90040 | 4100 Hammer Ave               | Eastvale         | CA    | 91752 |
| 6201 Randolph St       | Commerce    | CA    | 90040 | 3950 Hammer Ave               | Eastvale         | CA    | 91752 |
| 2100 Yates Ave         | Commerce    | CA    | 90040 | 12100 Riverside Dr            | Jurupa Valley    | CA    | 91752 |

| Property Address       | City        | State | Zip   | Property Address              | City          | State | Zip   |
|------------------------|-------------|-------|-------|-------------------------------|---------------|-------|-------|
| 2300 Yates Ave         | Commerce    | CA    | 90040 | 3100 Milliken Ave             | Mira Loma     | CA    | 91752 |
| 4542 Dunham St         | Commerce    | CA    | 90040 | 4950 Goodman Way              | Eastvale      | CA    | 91752 |
| 6430 E Slauson Ave     | Commerce    | CA    | 90040 | 12450 Philadelphia St         | Eastvale      | CA    | 91752 |
| 5770 Peachtree St      | Commerce    | CA    | 90040 | 11850 Riverside Dr            | Jurupa Valley | CA    | 91752 |
| 7400 E Slauson Ave     | Commerce    | CA    | 90040 | 10888 San Sevaine Way         | Jurupa Valley | CA    | 91752 |
| 4900 Alexander St      | Commerce    | CA    | 90040 | 5055 Goodman Way              | Eastvale      | CA    | 91752 |
| 5300 Sheila St         | Commerce    | CA    | 90040 | 11310 Harrell St              | Jurupa Valley | CA    | 91752 |
| 2855 Vail Ave          | Commerce    | CA    | 90040 | 10220 San Sevaine Way         | Jurupa Valley | CA    | 91752 |
| 4940 Sheila St         | Commerce    | CA    | 90040 | 3401 Etiwanda Ave             | Jurupa Valley | CA    | 91752 |
| 7101 E Slauson Ave     | Commerce    | CA    | 90040 | 3401 Etiwanda Ave             | Jurupa Valley | CA    | 91752 |
| 6446 E Washington Blvd | Commerce    | CA    | 90040 | 12455 Harvest Dr              | Eastvale      | CA    | 91752 |
| 2222 Davie Ave         | Commerce    | CA    | 90040 | 4740 Hammer Ave               | Eastvale      | CA    | 91752 |
| 3525 S Garfield Ave    | Commerce    | CA    | 90040 | 11350 Riverside Dr            | Mira Loma     | CA    | 91752 |
| 6817 E Acco St         | Commerce    | CA    | 90040 | 3401 Etiwanda Ave             | Jurupa Valley | CA    | 91752 |
| 1935 Tubeway Ave       | Commerce    | CA    | 90040 | 12400 Riverside Dr            | Eastvale      | CA    | 91752 |
| 7026 E Slauson Ave     | Commerce    | CA    | 90040 | 11640 Harrell St              | Jurupa Valley | CA    | 91752 |
| 2200 Saybrook Ave      | Commerce    | CA    | 90040 | 3401 Etiwanda Ave             | Jurupa Valley | CA    | 91752 |
| 2220 S Gaspar Ave      | Commerce    | CA    | 90040 | 11010 Hopkins St              | Jurupa Valley | CA    | 91752 |
| 2211 S Tubeway Ave     | Commerce    | CA    | 90040 | 3590 De Forest Cir            | Jurupa Valley | CA    | 91752 |
| 6000 Bandini Blvd      | Commerce    | CA    | 90040 | 11811 Landon Dr               | Jurupa Valley | CA    | 91752 |
| 5804 E Slauson Ave     | Commerce    | CA    | 90040 | 11040 Inland Ave              | Jurupa Valley | CA    | 91752 |
| 2650 Commerce Way      | Commerce    | CA    | 90040 | 4388 Serrano Dr               | Jurupa Valley | CA    | 91752 |
| 3423 S Garfield Ave    | Commerce    | CA    | 90040 | 11280 Riverside Dr            | Jurupa Valley | CA    | 91752 |
| 6400 E Washington Blvd | Commerce    | CA    | 90040 | 11310 Cantu Galleano Ranch Rd | Jurupa Valley | CA    | 91752 |
| 6321 Chalet Dr         | Commerce    | CA    | 90040 | 12100 Riverside Dr            | Jurupa Valley | CA    | 91752 |
| 6241 Telegraph Rd      | Commerce    | CA    | 90040 | 3450 Dulles Dr                | Jurupa Valley | CA    | 91752 |
| 6101 Peachtree St      | Commerce    | CA    | 90040 | 11015 Hopkins St              | Jurupa Valley | CA    | 91752 |
| 6501 Flotilla St       | Commerce    | CA    | 90040 | 3900 Hammer Ave               | Eastvale      | CA    | 91752 |
| 6023 Garfield Ave      | Commerce    | CA    | 90040 | 10225 San Sevaine Way         | Jurupa Valley | CA    | 91752 |
| 6666 E Washington Blvd | Commerce    | CA    | 90040 | 3198 Dulles Dr                | Jurupa Valley | CA    | 91752 |
| 6349 E Slauson Ave     | Commerce    | CA    | 90040 | 3325 Space Center Ct          | Jurupa Valley | CA    | 91752 |
| 6281 E Slauson Ave     | Commerce    | CA    | 90040 | 10395 Nobel Ct                | Jurupa Valley | CA    | 91752 |
| 6033 Bandini Blvd      | Los Angeles | CA    | 90040 | 4225 Etiwanda Ave             | Jurupa Valley | CA    | 91752 |
| 4900 Zambrano St       | Commerce    | CA    | 90040 | 11145 Inland Ave              | Jurupa Valley | CA    | 91752 |
| 4500 York Blvd         | Los Angeles | CA    | 90041 | 11650 Venture Dr              | Jurupa Valley | CA    | 91752 |
| 5758 W Century Blvd    | Los Angeles | CA    | 90045 | 3401 Etiwanda Ave             | Jurupa Valley | CA    | 91752 |
| 11101 Aviation Blvd    | Los Angeles | CA    | 90045 | 11625 Venture Dr              | Jurupa Valley | CA    | 91752 |
| 5600 W Century Blvd    | Los Angeles | CA    | 90045 | 3401 Etiwanda Ave             | Jurupa Valley | CA    | 91752 |
| 5353 W Imperial Hwy    | Los Angeles | CA    | 90045 | 11900 Riverside Dr            | Jurupa Valley | CA    | 91752 |
| 11201 Aviation Blvd    | Los Angeles | CA    | 90045 | 10995 Inland Ave              | Jurupa Valley | CA    | 91752 |
| 5720 Avion Dr          | Los Angeles | CA    | 90045 | 11991 Landon Dr               | Jurupa Valley | CA    | 91752 |
| 5343 W Imperial Hwy    | Los Angeles | CA    | 90045 | 15640 Cantu-Galleano Ranch Rd | Eastvale      | CA    | 91752 |
| 6041 W Imperial Hwy    | Los Angeles | CA    | 90045 | 11450 Philadelphia St         | Jurupa Valley | CA    | 91752 |
| 6040 Avion Dr          | Los Angeles | CA    | 90045 | 12350 Philadelphia St         | Eastvale      | CA    | 91752 |
| 6007 S St Andrews Pl   | Los Angeles | CA    | 90047 | 11455 Cantu Galleano Ranch Rd | Jurupa Valley | CA    | 91752 |
| 6100 S Gramercy Pl     | Los Angeles | CA    | 90047 | 11865 Cantu-Galleano Ranch Rd | Jurupa Valley | CA    | 91752 |
| 4455 Fruitland Ave     | Vernon      | CA    | 90058 | 11290 Cantu Galleano Ranch Rd | Jurupa Valley | CA    | 91752 |
| 2957 46th St           | Vernon      | CA    | 90058 | 12400 Philadelphia St         | Mira Loma     | CA    | 91752 |
| 2700 Fruitland Ave     | Vernon      | CA    | 90058 | 3401 Etiwanda Ave             | Jurupa Valley | CA    | 91752 |
| 3900 E 26th St         | Los Angeles | CA    | 90058 | 11201 Iberia St               | Jurupa Valley | CA    | 91752 |
| 3840 E 26th St         | Vernon      | CA    | 90058 | 11555 Iberia St               | Jurupa Valley | CA    | 91752 |
| 1925 E Vernon Ave      | Vernon      | CA    | 90058 | 10810 Inland Ave              | Jurupa Valley | CA    | 91752 |
| 2761 Fruitland Ave     | Vernon      | CA    | 90058 | 1700 S Baker Ave              | Ontario       | CA    | 91761 |
| 3333 Downey Rd         | Los Angeles | CA    | 90058 | 2151 S Turner Ave             | Ontario       | CA    | 91761 |
| 2800 Sierra Pine Ave   | Vernon      | CA    | 90058 | 2151 Proforma Ave             | Ontario       | CA    | 91761 |
| 3280 E 26th St         | Vernon      | CA    | 90058 | 3655 E Philadelphia St        | Ontario       | CA    | 91761 |
| 2503 E Vernon Ave      | Vernon      | CA    | 90058 | 2551 E Philadelphia St        | Ontario       | CA    | 91761 |
| 2263 E Vernon Ave      | Vernon      | CA    | 90058 | 1801 S Archibald Ave          | Ontario       | CA    | 91761 |
| 3359 E 50th St         | Vernon      | CA    | 90058 | 1651 S Archibald Ave          | Ontario       | CA    | 91761 |
| 4100 Bandini Blvd      | Vernon      | CA    | 90058 | 3351 E Philadelphia St        | Ontario       | CA    | 91761 |
| 2200 E 55th St         | Los Angeles | CA    | 90058 | 1510 Auto Center Dr           | Ontario       | CA    | 91761 |
| 4890 S Alameda St      | Vernon      | CA    | 90058 | 4651 E Francis St             | Ontario       | CA    | 91761 |
| 5215 S Boyle Ave       | Vernon      | CA    | 90058 | 5101 Airport Dr               | Ontario       | CA    | 91761 |
| 2050 E 49th St         | Vernon      | CA    | 90058 | 5815 Clark St                 | Ontario       | CA    | 91761 |



| Property Address                  | City        | State | Zip   | Property Address       | City    | State | Zip   |
|-----------------------------------|-------------|-------|-------|------------------------|---------|-------|-------|
| 2230 E 38th St                    | Los Angeles | CA    | 90058 | 3371 E Francis St      | Ontario | CA    | 91761 |
| 4375 Bandini Blvd                 | Los Angeles | CA    | 90058 | 1000 S Cucamonga Ave   | Ontario | CA    | 91761 |
| 3368 E Vernon Ave                 | Vernon      | CA    | 90058 | 4250 Greystone Ave     | Ontario | CA    | 91761 |
| 4380 Ayers Ave                    | Los Angeles | CA    | 90058 | 1550 S Archibald Ave   | Ontario | CA    | 91761 |
| 2665 Leonis Blvd                  | Vernon      | CA    | 90058 | 1175 E Francis St      | Ontario | CA    | 91761 |
| 4700 S Boyle Ave                  | Vernon      | CA    | 90058 | 5300 E Jurupa St       | Ontario | CA    | 91761 |
| 4415 Bandini Blvd                 | Vernon      | CA    | 90058 | 3790 E Jurupa St       | Ontario | CA    | 91761 |
| 2025 E 55th St                    | Vernon      | CA    | 90058 | 1150 S Milliken Ave    | Ontario | CA    | 91761 |
| 4633 Downey Rd                    | Vernon      | CA    | 90058 | 5351 Jurupa St         | Ontario | CA    | 91761 |
| 5370 S Boyle Ave                  | Vernon      | CA    | 90058 | 1670 Champagne Ave     | Ontario | CA    | 91761 |
| 1901 E 55th St                    | Vernon      | CA    | 90058 | 5590 E Francis St      | Ontario | CA    | 91761 |
| 2900 Fruitland Ave                | Los Angeles | CA    | 90058 | 2950 E Jurupa Ave      | Ontario | CA    | 91761 |
| 6023 Alcoa Ave                    | Vernon      | CA    | 90058 | 821 S Rockefeller Ave  | Ontario | CA    | 91761 |
| 1791 E Martin Luther King Jr Blvd | Los Angeles | CA    | 90058 | 1500 S Dupont St       | Ontario | CA    | 91761 |
| 3751 Seville Ave                  | Vernon      | CA    | 90058 | 1990 S Vintage Ave     | Ontario | CA    | 91761 |
| 4900 S Santa Fe Ave               | Vernon      | CA    | 90058 | 1391 S Vintage Ave     | Ontario | CA    | 91761 |
| 3049 E Vernon Ave                 | Vernon      | CA    | 90058 | 1750 S Archibald Ave   | Ontario | CA    | 91761 |
| 5000 E District Blvd              | Vernon      | CA    | 90058 | 3855 E Jurupa St       | Ontario | CA    | 91761 |
| 3155 Bandini Blvd                 | Los Angeles | CA    | 90058 | 1991 S Cucamonga Ave   | Ontario | CA    | 91761 |
| 2522 S Soto St                    | Vernon      | CA    | 90058 | 500 S Dupont Ave       | Ontario | CA    | 91761 |
| 4170 Bandini Blvd                 | Los Angeles | CA    | 90058 | 5400 Shea Center Dr    | Ontario | CA    | 91761 |
| 3200 E Slauson Ave                | Vernon      | CA    | 90058 | 5401 E Jurupa St       | Ontario | CA    | 91761 |
| 4955 Maywood Ave                  | Vernon      | CA    | 90058 | 5141 Santa Ana St      | Ontario | CA    | 91761 |
| 6174 Boyle Ave                    | Vernon      | CA    | 90058 | 1405 E Locust St       | Ontario | CA    | 91761 |
| 3001 Sierra Pine Ave              | Los Angeles | CA    | 90058 | 5600 E Francis St      | Ontario | CA    | 91761 |
| 2221 E 49th St                    | Vernon      | CA    | 90058 | 5772 Jurupa St         | Ontario | CA    | 91761 |
| 2610 E 37th St                    | Vernon      | CA    | 90058 | 4652 E Brickell St     | Ontario | CA    | 91761 |
| 2045 E Vernon Ave                 | Vernon      | CA    | 90058 | 5120 Santa Ana Ave     | Ontario | CA    | 91761 |
| 4510 S Alameda St                 | Vernon      | CA    | 90058 | 1600 S Baker Ave       | Ontario | CA    | 91761 |
| 2380 E 57th St                    | Vernon      | CA    | 90058 | 1801 S Carlos Ave      | Ontario | CA    | 91761 |
| 4701 S Santa Fe Ave               | Vernon      | CA    | 90058 | 3800 E Philadelphia St | Ontario | CA    | 91761 |
| 2901 Fruitland Ave                | Vernon      | CA    | 90058 | 1643 S Parco Ave       | Ontario | CA    | 91761 |
| 2640 E 45th St                    | Vernon      | CA    | 90058 | 3550 E Francis Ave     | Ontario | CA    | 91761 |
| 5008 S Boyle Ave                  | Vernon      | CA    | 90058 | 3690 Jurupa St         | Ontario | CA    | 91761 |
| 5685 Alcoa Ave                    | Los Angeles | CA    | 90058 | 5555 Jurupa St         | Ontario | CA    | 91761 |
| 2600 S Soto St                    | Los Angeles | CA    | 90058 | 2090 S Etiwanda Ave    | Ontario | CA    | 91761 |
| 2931 S Alameda St                 | Los Angeles | CA    | 90058 | 5750 Francis St        | Ontario | CA    | 91761 |
| 4460 Pacific Blvd                 | Los Angeles | CA    | 90058 | 2110 S Parco Ave       | Ontario | CA    | 91761 |
| 4270 S Maywood Ave                | Vernon      | CA    | 90058 | 3000 E Philadelphia St | Ontario | CA    | 91761 |
| 2801 S Santa Fe Ave               | Vernon      | CA    | 90058 | 1751 S Pointe St       | Ontario | CA    | 91761 |
| 2001 S Alameda St                 | Los Angeles | CA    | 90058 | 5801 E Airport Dr      | Ontario | CA    | 91761 |
| 1861 E 55th St                    | Los Angeles | CA    | 90058 | 5153 E Philadelphia St | Ontario | CA    | 91761 |
| 3305 Bandini Blvd                 | Vernon      | CA    | 90058 | 1651 S Carlos Ave      | Ontario | CA    | 91761 |
| 5175 S Soto St                    | Vernon      | CA    | 90058 | 2041 S Turner Ave      | Ontario | CA    | 91761 |
| 2050 E 55th St                    | Vernon      | CA    | 90058 | 2151 S Vintage Ave     | Ontario | CA    | 91761 |
| 2537 E 27th St                    | Vernon      | CA    | 90058 | 989 S Cucamonga Ave    | Ontario | CA    | 91761 |
| 2838 S Alameda St                 | Vernon      | CA    | 90058 | 4641 E Guasti Rd       | Ontario | CA    | 91761 |
| 4605 S Alameda St                 | Los Angeles | CA    | 90058 | 1310 S Cucamonga Ave   | Ontario | CA    | 91761 |
| 6152 Boyle Ave                    | Vernon      | CA    | 90058 | 2530 E Lindsay Privado | Ontario | CA    | 91761 |
| 2283 E 49th St                    | Vernon      | CA    | 90058 | 102 S Wanamaker Ave    | Ontario | CA    | 91761 |
| 5990 Malburg Way                  | Vernon      | CA    | 90058 | 930 S Rockefeller Ave  | Ontario | CA    | 91761 |
| 5119 District Blvd                | Vernon      | CA    | 90058 | 1041 S Mildred St      | Ontario | CA    | 91761 |
| 4505 Bandini Blvd                 | Vernon      | CA    | 90058 | 1150 Etiwanda Ave      | Ontario | CA    | 91761 |
| 6250 S Boyle Ave                  | Los Angeles | CA    | 90058 | 2900 E Jurupa St       | Ontario | CA    | 91761 |
| 5233 Alcoa Ave                    | Vernon      | CA    | 90058 | 4455 E Philadelphia St | Ontario | CA    | 91761 |
| 4215 Exchange Ave                 | Vernon      | CA    | 90058 | 2950 E Philadelphia St | Ontario | CA    | 91761 |
| 2707 S Alameda St                 | Los Angeles | CA    | 90058 | 1755 E Acacia St       | Ontario | CA    | 91761 |
| 2801 E Vernon Ave                 | Vernon      | CA    | 90058 | 3355 E Cedar St        | Ontario | CA    | 91761 |
| 2034 E 27th St                    | Vernon      | CA    | 90058 | 3625 Jurupa St         | Ontario | CA    | 91761 |
| 4160 Bandini Blvd                 | Los Angeles | CA    | 90058 | 2191 S Burgundy Pl     | Ontario | CA    | 91761 |
| 2890 E 54th St                    | Vernon      | CA    | 90058 | 5100 Shea Center Dr    | Ontario | CA    | 91761 |
| 4050 E 26th St                    | Los Angeles | CA    | 90058 | 1251 S Rockefeller Ave | Ontario | CA    | 91761 |
| 1820 E 27th St                    | Vernon      | CA    | 90058 | 1455 E Francis St      | Ontario | CA    | 91761 |

| Property Address       | City        | State | Zip   | Property Address       | City    | State | Zip   |
|------------------------|-------------|-------|-------|------------------------|---------|-------|-------|
| 4177 Bandini Blvd      | Los Angeles | CA    | 90058 | 5300 Shea Center Dr    | Ontario | CA    | 91761 |
| 3033 Bandini Blvd      | Los Angeles | CA    | 90058 | 2060 S Wineville Ave   | Ontario | CA    | 91761 |
| 2300 E Vernon Ave      | Vernon      | CA    | 90058 | 1900 Lynx Pl           | Ontario | CA    | 91761 |
| 2254 E 49th St         | Vernon      | CA    | 90058 | 3550 E Jurupa St       | Ontario | CA    | 91761 |
| 5001 S Soto St         | Vernon      | CA    | 90058 | 4070 E Greystone Dr    | Ontario | CA    | 91761 |
| 4400 Pacific Blvd      | Vernon      | CA    | 90058 | 1545 E Locust St       | Ontario | CA    | 91761 |
| 2825 S Santa Fe Ave    | Vernon      | CA    | 90058 | 2650 E Lindsay Privado | Ontario | CA    | 91761 |
| 5401 S Soto St         | Vernon      | CA    | 90058 | 602 S Rockefeller Ave  | Ontario | CA    | 91761 |
| 3260 E 26th St         | Vernon      | CA    | 90058 | 1950 S Vintage Ave     | Ontario | CA    | 91761 |
| 5000 Long Beach Ave    | Los Angeles | CA    | 90058 | 1950 Sterling Ave      | Ontario | CA    | 91761 |
| 1938 E 46th St         | Los Angeles | CA    | 90058 | 5110 E Jurupa St       | Ontario | CA    | 91761 |
| 1937 E Vernon Ave      | Vernon      | CA    | 90058 | 200 E Main St          | Ontario | CA    | 91761 |
| 4310 Bandini Blvd      | Los Angeles | CA    | 90058 | 2600 E Francis St      | Ontario | CA    | 91761 |
| 2726 Fruitland Ave     | Vernon      | CA    | 90058 | 701 Malaga Pl          | Ontario | CA    | 91761 |
| 2825 E 44th St         | Vernon      | CA    | 90058 | 1290 E Elm St          | Ontario | CA    | 91761 |
| 4440 E 26th St         | Los Angeles | CA    | 90058 | 100 E Main St          | Ontario | CA    | 91761 |
| 4651 Bandini Blvd      | Los Angeles | CA    | 90058 | 1650 S Vintage Ave     | Ontario | CA    | 91761 |
| 3663 Bandini Blvd      | Vernon      | CA    | 90058 | 2021 S Archibald Ave   | Ontario | CA    | 91761 |
| 3163 E Vernon Ave      | Vernon      | CA    | 90058 | 1015 S Vintage Ave     | Ontario | CA    | 91761 |
| 4900 Boyle Ave         | Vernon      | CA    | 90058 | 4000 E Mission Blvd    | Ontario | CA    | 91761 |
| 2801 E 46th St         | Vernon      | CA    | 90058 | 820 S Vintage Ave      | Ontario | CA    | 91761 |
| 5801 S 2nd St          | Los Angeles | CA    | 90058 | 1460 S Hofer Ranch Rd  | Ontario | CA    | 91761 |
| 4240 Bandini Blvd      | Los Angeles | CA    | 90058 | 5650 E Santa Ana St    | Ontario | CA    | 91761 |
| 4444 Ayers Ave         | Los Angeles | CA    | 90058 | 1560 S Baker Ave       | Ontario | CA    | 91761 |
| 2311 E 48th St         | Vernon      | CA    | 90058 | 5400 Shea Center Dr    | Ontario | CA    | 91761 |
| 5525 S Soto St         | Vernon      | CA    | 90058 | 2095 S Archibald Ave   | Ontario | CA    | 91761 |
| 2834 46th St           | Vernon      | CA    | 90058 | 3980 E Earlstone Dr    | Ontario | CA    | 91761 |
| 3100 E 44th St         | Vernon      | CA    | 90058 | 1505 S Dupont Ave      | Ontario | CA    | 91761 |
| 5215 S Boyle Ave       | Vernon      | CA    | 90058 | 1671 S Champagne Ave   | Ontario | CA    | 91761 |
| 3001 Bandini Blvd      | Los Angeles | CA    | 90058 | 4060 E Jurupa St       | Ontario | CA    | 91761 |
| 2100 E 38th St         | Vernon      | CA    | 90058 | 3601 Jurupa St         | Ontario | CA    | 91761 |
| 3425 E Vernon Ave      | Vernon      | CA    | 90058 | 3950 Airport Dr        | Ontario | CA    | 91761 |
| 5700 Bickett St        | Los Angeles | CA    | 90058 | 4450 E Lowell St       | Ontario | CA    | 91761 |
| 3250 E 26th St         | Vernon      | CA    | 90058 | 601 Rockefeller Ave    | Ontario | CA    | 91761 |
| 3851 S Santa Fe Ave    | Vernon      | CA    | 90058 | 5140 Santa Ana St      | Ontario | CA    | 91761 |
| 4851 S Alameda St      | Los Angeles | CA    | 90058 | 1900 S Rochester Ave   | Ontario | CA    | 91761 |
| 2652 Long Beach Ave    | Los Angeles | CA    | 90058 | 1851 S Cucamonga Ave   | Ontario | CA    | 91761 |
| 2900 Fruitland Ave     | Los Angeles | CA    | 90058 | 3940 Earlstone St      | Ontario | CA    | 91761 |
| 3215 E Slauson Ave     | Vernon      | CA    | 90058 | 5490 E Francis St      | Ontario | CA    | 91761 |
| 2131 E 52nd St         | Vernon      | CA    | 90058 | 2800 E Philadelphia St | Ontario | CA    | 91761 |
| 3030 S Atlantic Blvd   | Vernon      | CA    | 90058 | 4755 Zinfandel Ct      | Ontario | CA    | 91761 |
| 1995 E 20th St         | Los Angeles | CA    | 90058 | 3510 E Francis Ave     | Ontario | CA    | 91761 |
| 5300 S Boyle Ave       | Vernon      | CA    | 90058 | 1923 E Avion St        | Ontario | CA    | 91761 |
| 2825 E 54th St         | Los Angeles | CA    | 90058 | 4001 Santa Ana St      | Ontario | CA    | 91761 |
| 6062 Alcoa Ave         | Vernon      | CA    | 90058 | 2500 E Francis St      | Ontario | CA    | 91761 |
| 2615 S Bonnie Beach Pl | Los Angeles | CA    | 90058 | 2539 E Philadelphia St | Ontario | CA    | 91761 |
| 5500 S Boyle Ave       | Vernon      | CA    | 90058 | 1400 S Campus Ave      | Ontario | CA    | 91761 |
| 4715 S Alameda St      | Vernon      | CA    | 90058 | 5725 E Jurupa St       | Ontario | CA    | 91761 |
| 5383 Alcoa Ave         | Vernon      | CA    | 90058 | 1040 S Vintage Ave     | Ontario | CA    | 91761 |
| 5000 Pacific Blvd      | Vernon      | CA    | 90058 | 1521 E Francis St      | Ontario | CA    | 91761 |
| 4507 Maywood Ave       | Vernon      | CA    | 90058 | 2155 S Excise Ave      | Ontario | CA    | 91761 |
| 1801 E 50th St         | Los Angeles | CA    | 90058 | 1392 Sarah Pl          | Ontario | CA    | 91761 |
| 4900 E 50th St         | Vernon      | CA    | 90058 | 1600 Proforma Ave      | Ontario | CA    | 91761 |
| 2501 W Rosecrans Ave   | Los Angeles | CA    | 90059 | 1930 S Rochester Ave   | Ontario | CA    | 91761 |
| 1430 N McKinley Ave    | Los Angeles | CA    | 90059 | 2001 Burgundy Pl       | Ontario | CA    | 91761 |
| 740 E 111th Pl         | Los Angeles | CA    | 90059 | 1450 E Mission Blvd    | Ontario | CA    | 91761 |
| 13344 S Main St        | Los Angeles | CA    | 90061 | 1260 S Vintage Ave     | Ontario | CA    | 91761 |
| 13900 S Broadway       | Los Angeles | CA    | 90061 | 1425 Toyota Way        | Ontario | CA    | 91761 |
| 13809 S Figueroa St    | Gardena     | CA    | 90061 | 2001 S Hellman Ave     | Ontario | CA    | 91761 |
| 13217 S Figueroa St    | Los Angeles | CA    | 90061 | 717 E State St         | Ontario | CA    | 91761 |
| 13500 S Figueroa St    | Los Angeles | CA    | 90061 | 225 S Wineville Ave    | Ontario | CA    | 91761 |
| 13255 S Broadway       | Los Angeles | CA    | 90061 | 3781 E Airport Dr      | Ontario | CA    | 91761 |
| 12822 S Main St        | Los Angeles | CA    | 90061 | 3095 E Cedar St        | Ontario | CA    | 91761 |
| 13301 S Main St        | Los Angeles | CA    | 90061 | 2019 S Business Pky    | Ontario | CA    | 91761 |

| Property Address         | City             | State | Zip   | Property Address       | City    | State | Zip   |
|--------------------------|------------------|-------|-------|------------------------|---------|-------|-------|
| 4540 Worth St            | Los Angeles      | CA    | 90063 | 1051 S Rockefeller Ave | Ontario | CA    | 91761 |
| 1506 N Knowles Ave       | Los Angeles      | CA    | 90063 | 1000 S Etiwanda Ave    | Ontario | CA    | 91761 |
| 3424 N San Fernando Rd   | Los Angeles      | CA    | 90065 | 5440 E Francis St      | Ontario | CA    | 91761 |
| 2000 N San Fernando Rd   | Los Angeles      | CA    | 90065 | 5491 E Francis St      | Ontario | CA    | 91761 |
| 12800 Culver Blvd        | Los Angeles      | CA    | 90066 | 1600 Milliken Ave      | Ontario | CA    | 91761 |
| 12655 Beatrice St        | Los Angeles      | CA    | 90066 | 1500 S Hellman Ave     | Ontario | CA    | 91761 |
| 5553 Bandini Blvd        | Bell             | CA    | 90201 | 2925 Jurupa St         | Ontario | CA    | 91761 |
| 6511 Salt Lake Ave       | Bell             | CA    | 90201 | 1595 S Dupont Ave      | Ontario | CA    | 91761 |
| 5350 Lindbergh Ln        | Bell             | CA    | 90201 | 1151 S Mildred St      | Ontario | CA    | 91761 |
| 5391 Rickenbacker Rd     | Bell             | CA    | 90201 | 2501 E Guasti Rd       | Ontario | CA    | 91761 |
| 5630 Bandini Blvd        | Bell             | CA    | 90201 | 2690 E Cedar St        | Ontario | CA    | 91761 |
| 5555 Bandini Blvd        | Bell Gardens     | CA    | 90201 | 3140 Jurupa St         | Ontario | CA    | 91761 |
| 8457 S Eastern Ave       | Bell Gardens     | CA    | 90201 | 2880 Jurupa St         | Ontario | CA    | 91761 |
| 5400 Lindbergh Ln        | Bell             | CA    | 90201 | 4100 E Mission Blvd    | Ontario | CA    | 91761 |
| 5300 Lindbergh Ln        | Bell             | CA    | 90201 | 2600 S Stanford Ave    | Ontario | CA    | 91761 |
| 4700 Eastern Ave         | Bell             | CA    | 90201 | 4000 E Airport Dr      | Ontario | CA    | 91761 |
| 5600 Lindbergh Ln        | Bell             | CA    | 90201 | 4750 Zinfandel Ct      | Ontario | CA    | 91761 |
| 5500 Lindbergh Ln        | Bell             | CA    | 90201 | 1800 S Wineville Ave   | Ontario | CA    | 91761 |
| 5651 Rickenbacker Rd     | Bell             | CA    | 90201 | 5005 E Philadelphia St | Ontario | CA    | 91761 |
| 4901 Bandini Blvd        | Bell             | CA    | 90201 | 2830 E Philadelphia St | Ontario | CA    | 91761 |
| 5630 Rickenbacker Rd     | Bell             | CA    | 90201 | 1930 S Parco Ave       | Ontario | CA    | 91761 |
| 4900 Cecelia St          | Cudahy           | CA    | 90201 | 4850 E Airport Dr      | Ontario | CA    | 91761 |
| 250 W Apra St            | Compton          | CA    | 90220 | 5151 E Philadelphia St | Ontario | CA    | 91761 |
| 1620 S Wilmington Ave    | Compton          | CA    | 90220 | 290 S Milliken Ave     | Ontario | CA    | 91761 |
| 2101 E Via Arado         | Rancho Dominguez | CA    | 90220 | 2055 S Haven Ave       | Ontario | CA    | 91761 |
| 350 W Manville St        | Compton          | CA    | 90220 | 700 Malaga Pl          | Ontario | CA    | 91761 |
| 500 W Victoria St        | Compton          | CA    | 90220 | 1100 S Etiwanda Ave    | Ontario | CA    | 91761 |
| 18511 S Broadwick St     | Rancho Dominguez | CA    | 90220 | 1495 E Francis St      | Ontario | CA    | 91761 |
| 255 W Manville St        | Compton          | CA    | 90220 | 1790 Champagne Ave     | Ontario | CA    | 91761 |
| 300 W Artesia Blvd       | Compton          | CA    | 90220 | 2030 S Lynx Pl         | Ontario | CA    | 91761 |
| 355 W Carob St           | Compton          | CA    | 90220 | 1110 S Mildred Ave     | Ontario | CA    | 91761 |
| 1200 W Artesia Blvd      | Compton          | CA    | 90220 | 1521 S Hellman Ave     | Ontario | CA    | 91761 |
| 20212 S Rancho Way       | Rancho Dominguez | CA    | 90220 | 5721 Santa Ana St      | Ontario | CA    | 91761 |
| 2917 W Rosecrans Ave     | Compton          | CA    | 90220 | 4774 E Airport Dr      | Ontario | CA    | 91761 |
| 18924 Laurel Park Rd     | Rancho Dominguez | CA    | 90220 | 3971 Airport Dr        | Ontario | CA    | 91761 |
| 1965 E Vista Bella Way   | Rancho Dominguez | CA    | 90220 | 5700 E Airport Dr      | Ontario | CA    | 91761 |
| 2301 E Pacifica Pl       | Rancho Dominguez | CA    | 90220 | 5491 E Philadelphia St | Ontario | CA    | 91761 |
| 1931 E Vista Bella Way   | Rancho Dominguez | CA    | 90220 | 715 E California St    | Ontario | CA    | 91761 |
| 18553 Dominguez Hills Dr | Rancho Dominguez | CA    | 90220 | 5450 E Francis St      | Ontario | CA    | 91761 |
| 2060 Via Arado           | Rancho Dominguez | CA    | 90220 | 1710 E Cedar St        | Ontario | CA    | 91761 |
| 601 W Walnut St          | Compton          | CA    | 90220 | 1375 E Locust St       | Ontario | CA    | 91761 |
| 220 W Manville St        | Compton          | CA    | 90220 | 752 Campus Ave         | Ontario | CA    | 91761 |
| 201 W Carob St           | Compton          | CA    | 90220 | 1670 Etiwanda Ave      | Ontario | CA    | 91761 |
| 700 W Artesia Blvd       | Compton          | CA    | 90220 | 3120 E Mission Blvd    | Ontario | CA    | 91761 |
| 20001 S Rancho Way       | Rancho Dominguez | CA    | 90220 | 620 Wanamaker Ave      | Ontario | CA    | 91761 |
| 1420 N Mckinley Ave      | Compton          | CA    | 90220 | 4083 E Airport Dr      | Ontario | CA    | 91761 |
| 1825 Acacia Ave          | Compton          | CA    | 90220 | 5601 Santa Ana St      | Ontario | CA    | 91761 |
| 2500 Edison Way          | Compton          | CA    | 90220 | 5431 E Philadelphia St | Ontario | CA    | 91761 |
| 2141 E Paulhan St        | Rancho Dominguez | CA    | 90220 | 3100 E Cedar St        | Ontario | CA    | 91761 |
| 220 W Victoria St        | Compton          | CA    | 90220 | 3070 E Cedar St        | Ontario | CA    | 91761 |
| 201 W Manville St        | Compton          | CA    | 90220 | 5200 Shea Center Dr    | Ontario | CA    | 91761 |
| 741 W Artesia Blvd       | Compton          | CA    | 90220 | 1555 S Dupont Ave      | Ontario | CA    | 91761 |
| 775 W Manville St        | Compton          | CA    | 90220 | 1777 S Vintage Ave     | Ontario | CA    | 91761 |
| 2140 E University Dr     | Rancho Dominguez | CA    | 90220 | 4710 E Guasti Rd       | Ontario | CA    | 91761 |
| 921 W Artesia Blvd       | Compton          | CA    | 90220 | 601 Kettering Dr       | Ontario | CA    | 91761 |
| 1650 S Central Ave       | Compton          | CA    | 90220 | 2285 S Ponderosa Ave   | Ontario | CA    | 91761 |
| 1860 Acacia Ave          | Compton          | CA    | 90220 | 1520 E Mission Blvd    | Ontario | CA    | 91761 |
| 200 E Stanley St         | Compton          | CA    | 90220 | 4305 E Jurupa St       | Ontario | CA    | 91761 |
| 350 W Apra St            | Compton          | CA    | 90220 | 1700 S Hellman Ave     | Ontario | CA    | 91761 |
| 1707 W Compton Blvd      | Compton          | CA    | 90220 | 1900 S Proforma Ave    | Ontario | CA    | 91761 |
| 18450 S Wilmington Ave   | Rancho Dominguez | CA    | 90220 | 5500 E Francis St      | Ontario | CA    | 91761 |
| 400 W Artesia Blvd       | Compton          | CA    | 90220 | 1990 S Cucamonga Ave   | Ontario | CA    | 91761 |
| 1701 S Central Ave       | Compton          | CA    | 90220 | 1050 S Dupont Ave      | Ontario | CA    | 91761 |

| Property Address         | City             | State | Zip   | Property Address         | City      | State | Zip   |
|--------------------------|------------------|-------|-------|--------------------------|-----------|-------|-------|
| 18615 S Ferris Pl        | Rancho Dominguez | CA    | 90220 | 1001 Doubleday Ave       | Ontario   | CA    | 91761 |
| 19640 S Rancho Way       | Compton          | CA    | 90220 | 3655 E Airport Dr        | Ontario   | CA    | 91761 |
| 250 W Manville St        | Compton          | CA    | 90220 | 1650 S Archibald Ave     | Ontario   | CA    | 91761 |
| 711 W Walnut St          | Compton          | CA    | 90220 | 2560 E Philadelphia St   | Ontario   | CA    | 91761 |
| 15650 S Avalon Blvd      | Compton          | CA    | 90220 | 3551 E Francis St        | Ontario   | CA    | 91761 |
| 415 W Walnut St          | Compton          | CA    | 90220 | 1425 S Campus Ave        | Ontario   | CA    | 91761 |
| 18301 Broadwick St       | Rancho Dominguez | CA    | 90220 | 3645 E Philadelphia St   | Ontario   | CA    | 91761 |
| 18410 S Broadwick St     | Compton          | CA    | 90220 | 3350 E Cedar St          | Ontario   | CA    | 91761 |
| 2576 E Victoria St       | Compton          | CA    | 90220 | 1090 E Belmont St        | Ontario   | CA    | 91761 |
| 18735 Ferris Pl          | Rancho Dominguez | CA    | 90220 | 1900 Burgundy Pl         | Ontario   | CA    | 91761 |
| 660 W Artesia Blvd       | Compton          | CA    | 90220 | 4501 E Wall St           | Ontario   | CA    | 91761 |
| 2456 E Del Amo Blvd      | Compton          | CA    | 90220 | 900 S Dupont Ave         | Ontario   | CA    | 91761 |
| 1714 S Anderson Ave      | Compton          | CA    | 90220 | 5600 E Airport Dr        | Ontario   | CA    | 91761 |
| 675 W Manville St        | Compton          | CA    | 90220 | 4061 E Francis St        | Ontario   | CA    | 91761 |
| 19914 Via Baron          | Rancho Dominguez | CA    | 90220 | 2521 E Francis St        | Ontario   | CA    | 91761 |
| 525 W Manville St        | Compton          | CA    | 90220 | 4060 E Francis St        | Ontario   | CA    | 91761 |
| 301 W Walnut St          | Compton          | CA    | 90220 | 13610 S Archibald Ave    | Ontario   | CA    | 91761 |
| 601 W Carob St           | Compton          | CA    | 90220 | 1291 S Vintage Ave       | Ontario   | CA    | 91761 |
| 303 W Artesia Blvd       | Compton          | CA    | 90220 | 4502 Airport Dr          | Ontario   | CA    | 91761 |
| 2511 S Edison Way        | Compton          | CA    | 90220 | 5400 E Francis St        | Ontario   | CA    | 91761 |
| 1055 W Victoria St       | Compton          | CA    | 90220 | 425 S Rockefeller Ave    | Ontario   | CA    | 91761 |
| 2331 E Pacifica Pl       | Rancho Dominguez | CA    | 90220 | 5461 Santa Ana St        | Ontario   | CA    | 91761 |
| 18600 Broadwick St       | Rancho Dominguez | CA    | 90220 | 1000 Sarah Pl            | Ontario   | CA    | 91761 |
| 2035 E Vista Bella Way   | Rancho Dominguez | CA    | 90220 | 1901 Vineyard Ave        | Ontario   | CA    | 91761 |
| 175 E Manville St        | Compton          | CA    | 90220 | 1625 S Proforma Ave      | Ontario   | CA    | 91761 |
| 1935 Via Arado           | Rancho Dominguez | CA    | 90220 | 2401 E Philadelphia St   | Ontario   | CA    | 91761 |
| 399 W Artesia Blvd       | Compton          | CA    | 90220 | 2825 Jurupa St           | Ontario   | CA    | 91761 |
| 550 W Artesia Blvd       | Compton          | CA    | 90220 | 820 S Wanamaker Ave      | Ontario   | CA    | 91761 |
| 19840 S Rancho Way       | Compton          | CA    | 90220 | 1540 Acacia Ct           | Ontario   | CA    | 91761 |
| 801 W Artesia Blvd       | Compton          | CA    | 90220 | 2590 E Lindsay Privado   | Ontario   | CA    | 91761 |
| 2361 E Pacifica Pl       | Rancho Dominguez | CA    | 90220 | 1505 S Haven Ave         | Ontario   | CA    | 91761 |
| 425 W Carob St           | Compton          | CA    | 90220 | 4551 E Philadelphia St   | Ontario   | CA    | 91761 |
| 1600 S Anderson Ave      | Compton          | CA    | 90220 | 5501 Santa Ana St        | Ontario   | CA    | 91761 |
| 3000 E Via Mondo         | Compton          | CA    | 90221 | 5691 E Philadelphia St   | Ontario   | CA    | 91761 |
| 2960 E Victoria St       | Rancho Dominguez | CA    | 90221 | 3951 E Earlstone St      | Ontario   | CA    | 91761 |
| 2850 E Del Amo Blvd      | Carson           | CA    | 90221 | 4290 E Brickell St       | Ontario   | CA    | 91761 |
| 2626 Vista Industria     | Compton          | CA    | 90221 | 1320 S Baker Ave         | Ontario   | CA    | 91761 |
| 18554 S Susana Rd        | Rancho Dominguez | CA    | 90221 | 2400 E Francis St        | Ontario   | CA    | 91761 |
| 19067 S Reyes Ave        | Rancho Dominguez | CA    | 90221 | 1930 S Vineyard Ave      | Ontario   | CA    | 91761 |
| 18626 S Reyes Ave        | Compton          | CA    | 90221 | 4495 E Wall St           | Ontario   | CA    | 91761 |
| 3104 E Ana St            | Rancho Dominguez | CA    | 90221 | 2150 S Parco Ave         | Ontario   | CA    | 91761 |
| 3015 E Ana St            | Compton          | CA    | 90221 | 1495 E Locust St         | Ontario   | CA    | 91761 |
| 19201 S Reyes Ave        | Compton          | CA    | 90221 | 2260 S Haven Ave         | Ontario   | CA    | 91761 |
| 17707 S Santa Fe Ave     | Compton          | CA    | 90221 | 4651 E Brickell St       | Ontario   | CA    | 91761 |
| 19200 S Reyes Ave        | Compton          | CA    | 90221 | 4652 E Guasti Rd         | Ontario   | CA    | 91761 |
| 3040 E Ana St            | Compton          | CA    | 90221 | 1661 S Vintage Ave       | Ontario   | CA    | 91761 |
| 3136 E Victoria St       | Compton          | CA    | 90221 | 1220 S Baker Ave         | Ontario   | CA    | 91761 |
| 19119 S Reyes Ave        | Compton          | CA    | 90221 | 3900 E Philadelphia St   | Ontario   | CA    | 91761 |
| 19600 S Alameda St       | Rancho Dominguez | CA    | 90221 | 5200 E Airport Dr        | Ontario   | CA    | 91761 |
| 19201 S Susana Rd        | Compton          | CA    | 90221 | 611 S Palmetto Ave       | Ontario   | CA    | 91762 |
| 2966 E Victoria St       | Compton          | CA    | 90221 | 5161 Richton Rd          | Montclair | CA    | 91763 |
| 19007 S Reyes Ave        | Rancho Dominguez | CA    | 90221 | 4545 Brooks St           | Montclair | CA    | 91763 |
| 18111 S Santa Fe Ave     | Rancho Dominguez | CA    | 90221 | 1050 N Vineyard Ave      | Ontario   | CA    | 91764 |
| 17707 S Santa Fe Ave     | Compton          | CA    | 90221 | 950 Barrington Ave       | Ontario   | CA    | 91764 |
| 20250 S Alameda St       | Compton          | CA    | 90221 | 5350 Ontario Mills Pky   | Ontario   | CA    | 91764 |
| 2910 Pacific Commerce Dr | Rancho Dominguez | CA    | 90221 | 853 Qvc Way              | Ontario   | CA    | 91764 |
| 2640 E Del Amo Blvd      | Compton          | CA    | 90221 | 751 Vintage Ave          | Ontario   | CA    | 91764 |
| 3025 Victoria St         | Rancho Dominguez | CA    | 90221 | 5100 Ontario Mills Pkwy  | Ontario   | CA    | 91764 |
| 3020 E Victoria St       | Compton          | CA    | 90221 | 1051 N Wineville Ave     | Ontario   | CA    | 91764 |
| 2661 E Del Amo Blvd      | Rancho Dominguez | CA    | 90221 | 5678 Concours            | Ontario   | CA    | 91764 |
| 18201 S Santa Fe Ave     | Compton          | CA    | 90221 | 990 Barrington Ave       | Ontario   | CA    | 91764 |
| 18221 S Susana Rd        | Compton          | CA    | 90221 | 5505 E Concours          | Ontario   | CA    | 91764 |
| 19615 S Susana Rd        | Compton          | CA    | 90221 | 5798 E Ontario Mills Pky | Ontario   | CA    | 91764 |

| Property Address         | City             | State | Zip   | Property Address        | City    | State | Zip   |
|--------------------------|------------------|-------|-------|-------------------------|---------|-------|-------|
| 2902 Val Verde Ct        | Rancho Dominguez | CA    | 90221 | 5250 Ontario Mills Pky  | Ontario | CA    | 91764 |
| 20100 S Alameda St       | Rancho Dominguez | CA    | 90221 | 5400 Ontario Mills Pky  | Ontario | CA    | 91764 |
| 2883 E Victoria St       | Rancho Dominguez | CA    | 90221 | 2203 Jay St             | Ontario | CA    | 91764 |
| 19801 S Santa Fe Ave     | Rancho Dominguez | CA    | 90221 | 2004 Jay St             | Ontario | CA    | 91764 |
| 2660 E Del Amo Blvd      | Carson           | CA    | 90221 | 4105 Inland Empire Blvd | Ontario | CA    | 91764 |
| 2300 N Alameda St        | Compton          | CA    | 90222 | 5576 Ontario Mills Pky  | Ontario | CA    | 91764 |
| 419 E Euclid Ave         | Compton          | CA    | 90222 | 905 Wineville Ave       | Ontario | CA    | 91764 |
| 1501 N Tamarind Ave      | Compton          | CA    | 90222 | 5300 E Concours St      | Ontario | CA    | 91764 |
| 1700 N Alameda St        | Compton          | CA    | 90222 | 5125 Ontario Mills Pky  | Ontario | CA    | 91764 |
| 12021 Woodruff Ave       | Downey           | CA    | 90241 | 2104 Jay St             | Ontario | CA    | 91764 |
| 9300 Hall Rd             | Downey           | CA    | 90241 | 2053 E Jay St           | Ontario | CA    | 91764 |
| 11634 Patton Rd          | Downey           | CA    | 90241 | 1904 Jay St             | Ontario | CA    | 91764 |
| 9220 Hall Rd             | Downey           | CA    | 90241 | 740 Vintage Ave         | Ontario | CA    | 91764 |
| 9400 Hall Rd             | Downey           | CA    | 90241 | 5200 Ontario Mills Pky  | Ontario | CA    | 91764 |
| 7475 Flores St           | Downey           | CA    | 90242 | 5642 Ontario Mills Pky  | Ontario | CA    | 91764 |
| 9151 Imperial Hwy        | Downey           | CA    | 90242 | 951 Etiwanda Ave        | Ontario | CA    | 91764 |
| 7500 Amigos Ave          | Downey           | CA    | 90242 | 5678 Ontario Mills Pky  | Ontario | CA    | 91764 |
| 7300 Flores Ave          | Downey           | CA    | 90242 | 5540 4th St             | Ontario | CA    | 91764 |
| 200 N Nash St            | El Segundo       | CA    | 90245 | 800 Barrington Ave      | Ontario | CA    | 91764 |
| 901 N Nash St            | El Segundo       | CA    | 90245 | 1060 S Wineville Ave    | Ontario | CA    | 91764 |
| 2000 E Imperial Hwy      | El Segundo       | CA    | 90245 | 5525 E Concours         | Ontario | CA    | 91764 |
| 202 N Nash St            | El Segundo       | CA    | 90245 | 5300 Ontario Mills Pky  | Ontario | CA    | 91764 |
| 815 Lapham St            | El Segundo       | CA    | 90245 | 1315 E 3rd St           | Pomona  | CA    | 91766 |
| 2000 E El Segundo Blvd   | El Segundo       | CA    | 90245 | 1335 Philadelphia St    | Pomona  | CA    | 91766 |
| 268 Gardena Blvd         | Carson           | CA    | 90248 | 1201 E Lexington Ave    | Pomona  | CA    | 91766 |
| 14702 S Maple St         | Gardena          | CA    | 90248 | 1889 W Mission Blvd     | Pomona  | CA    | 91766 |
| 14439 S Avalon Blvd      | Gardena          | CA    | 90248 | 2849 Ficus St           | Pomona  | CA    | 91766 |
| 17110 S Main St          | Gardena          | CA    | 90248 | 1585 W Mission Blvd     | Pomona  | CA    | 91766 |
| 15913 S Main St          | Gardena          | CA    | 90248 | 2200 Reservoir St       | Pomona  | CA    | 91766 |
| 16920 S Main St          | Gardena          | CA    | 90248 | 2750 S Towne Ave        | Pomona  | CA    | 91766 |
| 14800 S Figueroa St      | Gardena          | CA    | 90248 | 1325 E Franklin Ave     | Pomona  | CA    | 91766 |
| 18620 S Broadway St      | Carson           | CA    | 90248 | 2801 S Towne Ave        | Pomona  | CA    | 91766 |
| 14527 S San Pedro St     | Gardena          | CA    | 90248 | 1040 Walnut Ave         | Pomona  | CA    | 91766 |
| 240 E Rosecrans Ave      | Gardena          | CA    | 90248 | 1301 E Lexington Ave    | Pomona  | CA    | 91766 |
| 100 W Alondra Blvd       | Carson           | CA    | 90248 | 1395 E Lexington Ave    | Pomona  | CA    | 91766 |
| 15100 S Figueroa St      | Gardena          | CA    | 90248 | 2800 S Reservoir St     | Pomona  | CA    | 91766 |
| 15100 S San Pedro St     | Gardena          | CA    | 90248 | 1885 W Mission Blvd     | Pomona  | CA    | 91766 |
| 261 E Redondo Beach Blvd | Gardena          | CA    | 90248 | 1601 W Mission Blvd     | Pomona  | CA    | 91766 |
| 200 E Alondra Blvd       | Gardena          | CA    | 90248 | 1768 W 2nd St           | Pomona  | CA    | 91766 |
| 331 W Victoria St        | Gardena          | CA    | 90248 | 1350 E Lexington Ave    | Pomona  | CA    | 91766 |
| 17529 S Main St          | Gardena          | CA    | 90248 | 2855 S Reservoir St     | Pomona  | CA    | 91766 |
| 17226 S Main St          | Gardena          | CA    | 90248 | 1589 E 9th St           | Pomona  | CA    | 91766 |
| 151 W Rosecrans Ave      | Gardena          | CA    | 90248 | 1937 W Mission Blvd     | Pomona  | CA    | 91766 |
| 14725 S Broadway         | Gardena          | CA    | 90248 | 2200 S Reservoir St     | Pomona  | CA    | 91766 |
| 14300 S Main St          | Gardena          | CA    | 90248 | 2540 Fulton Rd          | Pomona  | CA    | 91767 |
| 17006 S Figueroa St      | Gardena          | CA    | 90248 | 159 San Antonio Ave     | Pomona  | CA    | 91767 |
| 15700 S Main St          | Gardena          | CA    | 90248 | 855 Towne Center Dr     | Pomona  | CA    | 91767 |
| 1855 W 139th St          | Gardena          | CA    | 90249 | 280 W Bonita Ave        | Pomona  | CA    | 91767 |
| 1720 W 135th St          | Gardena          | CA    | 90249 | 2655 Pine St            | Pomona  | CA    | 91767 |
| 1700 W 132nd St          | Gardena          | CA    | 90249 | 2743 Thompson Creek Rd  | Pomona  | CA    | 91767 |
| 1930 W 139th St          | Gardena          | CA    | 90249 | 1800 W Holt Ave         | Pomona  | CA    | 91768 |
| 1639 W Rosecrans Ave     | Gardena          | CA    | 90249 | 2205 Mt Vernon Ave      | Pomona  | CA    | 91768 |
| 2001 W Rosecrans Ave     | Gardena          | CA    | 90249 | 2883 Surveyor St        | Pomona  | CA    | 91768 |
| 1600 135th St            | Gardena          | CA    | 90249 | 3200 Pomona Blvd        | Pomona  | CA    | 91768 |
| 2002 W 139th St          | Gardena          | CA    | 90249 | 2875 Pomona Blvd        | Pomona  | CA    | 91768 |
| 13720 S Western Ave      | Gardena          | CA    | 90249 | 2303 Mount Vernon Ave   | Pomona  | CA    | 91768 |
| 12651 Crenshaw Blvd      | Hawthorne        | CA    | 90250 | 2887 Surveyor St        | Pomona  | CA    | 91768 |
| 12200 Wilkie Way         | Hawthorne        | CA    | 90250 | 1338 W Holt Ave         | Pomona  | CA    | 91768 |
| 2815 W El Segundo Blvd   | Hawthorne        | CA    | 90250 | 1320 W Holt Ave         | Pomona  | CA    | 91768 |
| 12525 Daphne Ave         | Hawthorne        | CA    | 90250 | 3255 Pomona Blvd        | Pomona  | CA    | 91768 |
| 5422 W Rosecrans Ave     | Hawthorne        | CA    | 90250 | 300 Enterprise Pl       | Pomona  | CA    | 91768 |
| 12600 Prairie Ave        | Hawthorne        | CA    | 90250 | 462 S Humane Way        | Pomona  | CA    | 91768 |
| 4926 Rosecrans Ave       | Hawthorne        | CA    | 90250 | 2861 Surveyor St        | Pomona  | CA    | 91768 |

| Property Address          | City            | State | Zip   | Property Address         | City             | State | Zip   |
|---------------------------|-----------------|-------|-------|--------------------------|------------------|-------|-------|
| 12250 Crenshaw Blvd       | Hawthorne       | CA    | 90250 | 300 E Arrow Hwy          | San Dimas        | CA    | 91773 |
| 3901 Jack Northrop Ave    | Hawthorne       | CA    | 90250 | 420 E Arrow Hwy          | San Dimas        | CA    | 91773 |
| 1 Rocket Rd               | Hawthorne       | CA    | 90250 | 321 W Covina Blvd        | San Dimas        | CA    | 91773 |
| 2701 W El Segundo Blvd    | Hawthorne       | CA    | 90250 | 430 E 19th St            | Upland           | CA    | 91784 |
| 3901 Jack Northrop Ave    | Hawthorne       | CA    | 90250 | 1225 W 9th St            | Upland           | CA    | 91786 |
| 2805 W El Segundo Blvd    | Hawthorne       | CA    | 90250 | 2022 W 11th St           | Upland           | CA    | 91786 |
| 12524 Cerise Ave          | Hawthorne       | CA    | 90250 | 19705 Business Pky       | City Of Industry | CA    | 91789 |
| 2040 Randolph St          | Huntington Park | CA    | 90255 | 21908 Valley Blvd        | Walnut           | CA    | 91789 |
| 2224 E Slauson Ave        | Huntington Park | CA    | 90255 | 21301 Ferrero Pky        | City Of Industry | CA    | 91789 |
| 6230 S Alameda St         | Huntington Park | CA    | 90255 | 433 Cheryl Ln            | City Of Industry | CA    | 91789 |
| 2700 E Imperial Hwy       | Lynwood         | CA    | 90262 | 3880 Valley Blvd         | Walnut           | CA    | 91789 |
| 11840 Alameda St          | Lynwood         | CA    | 90262 | 21535 Baker Pky          | City Of Industry | CA    | 91789 |
| 11852 Alameda St          | Lynwood         | CA    | 90262 | 408 Brea Canyon Rd       | City of Industry | CA    | 91789 |
| 2588 Industry Way         | Lynwood         | CA    | 90262 | 20701 Currier Rd         | Walnut           | CA    | 91789 |
| 11600 Alameda St          | Lynwood         | CA    | 90262 | 368 Cheryl Ln            | Walnut           | CA    | 91789 |
| 2820 Butler Ave           | Lynwood         | CA    | 90262 | 611 Reyes Dr             | City Of Industry | CA    | 91789 |
| 2520 Industry Way         | Lynwood         | CA    | 90262 | 22067 Ferrero            | City Of Industry | CA    | 91789 |
| 10650 S Alameda St        | Lynwood         | CA    | 90262 | 21700 Baker Pky          | City Of Industry | CA    | 91789 |
| 11711 S Alameda St        | Lynwood         | CA    | 90262 | 168 Brea Canyon Rd       | City Of Industry | CA    | 91789 |
| 12150 S Alameda St        | Lynwood         | CA    | 90262 | 20301 E Walnut Dr N      | Walnut           | CA    | 91789 |
| 4020 Redondo Beach Ave    | Redondo Beach   | CA    | 90278 | 21733 Baker Pky          | City Of Industry | CA    | 91789 |
| 4000 Redondo Beach Ave    | Redondo Beach   | CA    | 90278 | 20300 E Business Pky     | Walnut           | CA    | 91789 |
| 2819 182nd St             | Redondo Beach   | CA    | 90278 | 19465 E Walnut Dr N      | City Of Industry | CA    | 91789 |
| 2425 Manhattan Beach Blvd | Redondo Beach   | CA    | 90278 | 21481 Ferrero Pky        | City of Industry | CA    | 91789 |
| 2411 Santa Fe Ave         | Redondo Beach   | CA    | 90278 | 318 Brea Canyon Rd       | City Of Industry | CA    | 91789 |
| 3650 Redondo Beach Ave    | Redondo Beach   | CA    | 90278 | 20415 E Walnut Dr        | Diamond Bar      | CA    | 91789 |
| 2420 Santa Fe Ave         | Redondo Beach   | CA    | 90278 | 280 Machlin Ct           | City Of Industry | CA    | 91789 |
| 4231 Liberty Blvd         | South Gate      | CA    | 90280 | 425 S Lemon Ave          | City of Industry | CA    | 91789 |
| 4301 E Firestone Blvd     | South Gate      | CA    | 90280 | 21901 Ferrero Pky        | City of Industry | CA    | 91789 |
| 2680 Sequoia Dr           | South Gate      | CA    | 90280 | 21415 Baker Pky          | City Of Industry | CA    | 91789 |
| 2401 Firestone Blvd       | South Gate      | CA    | 90280 | 4200 W Valley Blvd       | Walnut           | CA    | 91789 |
| 8751 Rayo Ave             | South Gate      | CA    | 90280 | 19700 Business Pky       | Walnut           | CA    | 91789 |
| 4570 Ardine St            | South Gate      | CA    | 90280 | 179 S Grand Ave          | City Of Industry | CA    | 91789 |
| 5321 E Firestone Blvd     | South Gate      | CA    | 90280 | 383 S Cheryl Ln          | City Of Industry | CA    | 91789 |
| 9350 Rayo Ave             | South Gate      | CA    | 90280 | 20002 E Business Pky     | City Of Industry | CA    | 91789 |
| 2601 Sequoia Dr           | South Gate      | CA    | 90280 | 19515 E Walnut Dr N      | City Of Industry | CA    | 91789 |
| 4452 Ardine St            | South Gate      | CA    | 90280 | 3900 Valley Blvd         | Walnut           | CA    | 91789 |
| 5037 Patata St            | South Gate      | CA    | 90280 | 218 Machlin Ct           | City of Industry | CA    | 91789 |
| 2323 Firestone Blvd       | South Gate      | CA    | 90280 | 223 Brea Canyon Rd       | City of Industry | CA    | 91789 |
| 5625 E Firestone Blvd     | South Gate      | CA    | 90280 | 501 Cheryl Ln            | City Of Industry | CA    | 91789 |
| 10240 Alameda St          | South Gate      | CA    | 90280 | 19850 E Business Pky     | Walnut           | CA    | 91789 |
| 4500 Ardine St            | South Gate      | CA    | 90280 | 21508 Baker Pky          | City Of Industry | CA    | 91789 |
| 2610 Wisconsin Ave        | South Gate      | CA    | 90280 | 381 Brea Canyon Rd       | City of Industry | CA    | 91789 |
| 8621 S Rayo Ave           | South Gate      | CA    | 90280 | 200 Old Ranch Rd         | Walnut           | CA    | 91789 |
| 5011 Firestone Pl         | South Gate      | CA    | 90280 | 108 S Mayo Ave           | City Of Industry | CA    | 91789 |
| 4100 Ardmore Ave          | South Gate      | CA    | 90280 | 20275 Business Pky       | Walnut           | CA    | 91789 |
| 8616 Otis St              | South Gate      | CA    | 90280 | 20470 E Business Pky     | City of Industry | CA    | 91789 |
| 2741 Seminole Dr          | South Gate      | CA    | 90280 | 21558 Ferrero Pky        | City of Industry | CA    | 91789 |
| 9700 E Frontage Ave       | South Gate      | CA    | 90280 | 20595 Business Pky       | Walnut           | CA    | 91789 |
| 8990 S Atlantic Ave       | South Gate      | CA    | 90280 | 455 Brea Canyon Rd       | City Of Industry | CA    | 91789 |
| 9301 S Garfield Ave       | South Gate      | CA    | 90280 | 19635 E Walnut Dr N      | City Of Industry | CA    | 91789 |
| 4361 E Firestone Blvd     | South Gate      | CA    | 90280 | 535 S Brea Canyon Rd     | Walnut           | CA    | 91789 |
| 2641 Seminole Dr          | South Gate      | CA    | 90280 | 20435 E Business Pky     | Walnut           | CA    | 91789 |
| 8685 Bowers Ave           | South Gate      | CA    | 90280 | 680 S Lemon Ave          | City Of Industry | CA    | 91789 |
| 261 W Beach Ave           | Inglewood       | CA    | 90302 | 515 S Lemon Ave          | City of Industry | CA    | 91789 |
| 540 N Oak St              | Inglewood       | CA    | 90302 | 19901 Harrison Ave       | City Of Industry | CA    | 91789 |
| 687 N Eucalyptus Ave      | Inglewood       | CA    | 90302 | 20405 Business Pky       | Walnut           | CA    | 91789 |
| 490 N Oak St              | Inglewood       | CA    | 90302 | 21003 Commerce Pointe Dr | City Of Industry | CA    | 91789 |
| 1100 Colorado Blvd        | Santa Monica    | CA    | 90401 | 21490 Baker Pky          | City Of Industry | CA    | 91789 |
| 1540 Francisco St         | Torrance        | CA    | 90501 | 21508 Ferrero Pky        | City Of Industry | CA    | 91789 |
| 19600 S Western Ave       | Torrance        | CA    | 90501 | 222 N Vincent Ave        | West Covina      | CA    | 91790 |
| 19321 S Harbortgate Way   | Torrance        | CA    | 90501 | 2801 W Mission Rd        | Alhambra         | CA    | 91803 |
| 2012 Abalone Ave          | Torrance        | CA    | 90501 | 1000 Meridian Ave        | Alhambra         | CA    | 91803 |

| Property Address         | City             | State | Zip   | Property Address           | City               | State | Zip   |
|--------------------------|------------------|-------|-------|----------------------------|--------------------|-------|-------|
| 1331 W Torrance Blvd     | Torrance         | CA    | 90501 | 3201 W Mission Rd          | Alhambra           | CA    | 91803 |
| 19145 Gramercy Pl        | Torrance         | CA    | 90501 | 905 Westminster Ave        | Alhambra           | CA    | 91803 |
| 19400 S Western Ave      | Torrance         | CA    | 90501 | 82851 Avenue 45            | Indio              | CA    | 92201 |
| 1452 W Knox St           | Torrance         | CA    | 90501 | 82585 Showcase Pky         | Indio              | CA    | 92203 |
| 19400 Harborgate Way     | Torrance         | CA    | 90501 | 1777 W Lincoln St          | Banning            | CA    | 92220 |
| 20263 S Western Ave      | Torrance         | CA    | 90501 | 533 E 3rd St               | Beaumont           | CA    | 92223 |
| 1540 W 190th St          | Torrance         | CA    | 90501 | 415 Nicholas Rd            | Beaumont           | CA    | 92223 |
| 19200 S Western Ave      | Torrance         | CA    | 90501 | 862 W 4th St               | Beaumont           | CA    | 92223 |
| 19800 Van Ness Ave       | Torrance         | CA    | 90501 | 630 Nicholas Rd            | Beaumont           | CA    | 92223 |
| 1451 Knox St             | Torrance         | CA    | 90501 | 1010 W 4th St              | Beaumont           | CA    | 92223 |
| 1450 W 228th St          | Torrance         | CA    | 90501 | 920 W 4th St               | Beaumont           | CA    | 92223 |
| 19001 S Western Ave      | Torrance         | CA    | 90501 | 1020 Prosperity Way        | Beaumont           | CA    | 92223 |
| 20100 S Western Ave      | Torrance         | CA    | 90501 | 52200 Industrial Way       | Coachella          | CA    | 92236 |
| 2027 Harpers Way         | Torrance         | CA    | 90501 | 85901 Avenue 53            | Coachella          | CA    | 92236 |
| 19001 Harborgate Way     | Torrance         | CA    | 90501 | 85810 Peter Rabbit Ln      | Coachella          | CA    | 92236 |
| 1580 Francisco St        | Torrance         | CA    | 90501 | Two Bunch Palms Trail      | Desert Hot Springs | CA    | 92240 |
| 19900 Van Ness Ave       | Torrance         | CA    | 90501 | 411 W Garnet Ave           | Palm Springs       | CA    | 92263 |
| 1640 W 190th St          | Torrance         | CA    | 90501 | 54895 Fillmore St          | Thermal            | CA    | 92274 |
| 501 Van Ness Ave         | Torrance         | CA    | 90501 | 87500 Airport Blvd         | Thermal            | CA    | 92274 |
| 19561 Harborgate Way     | Torrance         | CA    | 90501 | 22069 Van Buren St         | Grand Terrace      | CA    | 92313 |
| 19600 Van Ness Ave       | Torrance         | CA    | 90501 | 3255 S Cactus Ave          | Bloomington        | CA    | 92316 |
| 2300 Crenshaw Blvd       | Torrance         | CA    | 90501 | 1551 S Lilac Ave           | Bloomington        | CA    | 92316 |
| 19700 Van Ness Ave       | Torrance         | CA    | 90501 | 11260 Cedar Ave            | Bloomington        | CA    | 92316 |
| 20000 S Western Ave      | Torrance         | CA    | 90501 | 18244 Valley Blvd          | Bloomington        | CA    | 92316 |
| 20100 S Vermont Ave      | Torrance         | CA    | 90502 | 305 W Resource Dr          | Rialto             | CA    | 92316 |
| 19901 Hamilton Ave       | Torrance         | CA    | 90502 | 315 W Resource Dr          | Bloomington        | CA    | 92316 |
| 19900 S Vermont Ave      | Torrance         | CA    | 90502 | 18750 Orange St            | Bloomington        | CA    | 92316 |
| 19310 Pacific Gateway Dr | Torrance         | CA    | 90502 | 3520 S Cactus Ave          | Bloomington        | CA    | 92316 |
| 1000 190th St            | Torrance         | CA    | 90502 | 12050 Agua Mansa Rd        | Bloomington        | CA    | 92316 |
| 20051 S Vermont Ave      | Torrance         | CA    | 90502 | 3370 Enterprise Dr         | Bloomington        | CA    | 92316 |
| 19681 Pacific Gateway Dr | Torrance         | CA    | 90502 | 1409 S Lilac Ave           | Bloomington        | CA    | 92316 |
| 19875 Pacific Gateway Dr | Torrance         | CA    | 90502 | 3375 Enterprise Dr         | Bloomington        | CA    | 92316 |
| 19780 Pacific Gateway Dr | Torrance         | CA    | 90502 | 330 Resource Dr            | Bloomington        | CA    | 92316 |
| 1000 Francisco St        | Torrance         | CA    | 90502 | 18012 Slover Ave           | Bloomington        | CA    | 92316 |
| 19301 Pacific Gateway Dr | Torrance         | CA    | 90502 | 3350 S Enterprise Ave      | Bloomington        | CA    | 92316 |
| 19500 S Vermont Ave      | Torrance         | CA    | 90502 | 17820 Slover Ave           | Bloomington        | CA    | 92316 |
| 970 Francisco St         | Torrance         | CA    | 90502 | 18298 Slover Ave           | Bloomington        | CA    | 92316 |
| 20333 Normandie Ave      | Torrance         | CA    | 90502 | 127 W Jurupa Ave           | Rialto             | CA    | 92316 |
| 2727 Maricopa St         | Torrance         | CA    | 90503 | 3994 S Riverside Ave       | Colton             | CA    | 92324 |
| 301 Crenshaw Blvd        | Torrance         | CA    | 90503 | 2245 W Valley Blvd         | Colton             | CA    | 92324 |
| 2925 California St       | Torrance         | CA    | 90503 | 1801 E Cooley Dr           | Colton             | CA    | 92324 |
| 2700 California St       | Torrance         | CA    | 90503 | 330 W Citrus Ave           | Colton             | CA    | 92324 |
| 538 Crenshaw Blvd        | Torrance         | CA    | 90503 | 280 De Berry St            | Colton             | CA    | 92324 |
| 19200 Hawthorne Blvd     | Torrance         | CA    | 90503 | 12249 Holly St             | Colton             | CA    | 92324 |
| 588 Crenshaw Blvd        | Torrance         | CA    | 90503 | 3996 S Riverside Ave       | Colton             | CA    | 92324 |
| 525 Maple Ave            | Torrance         | CA    | 90503 | 2063 W Bustamante Pky      | Colton             | CA    | 92324 |
| 2610 Columbia St         | Torrance         | CA    | 90503 | 225 W Acacia Ave           | Colton             | CA    | 92324 |
| 4100 W 190th St          | Torrance         | CA    | 90504 | 3700 S Riverside Ave       | Colton             | CA    | 92324 |
| 4240 W 190th St          | Torrance         | CA    | 90504 | 1501 Cooley Dr             | Colton             | CA    | 92324 |
| 4302 W 190th St          | Torrance         | CA    | 90504 | 1601 E Steel Rd            | Colton             | CA    | 92324 |
| 18700 Crenshaw Blvd      | Torrance         | CA    | 90504 | 1601 Fairway Dr            | Colton             | CA    | 92324 |
| 2525 W 190th St          | Torrance         | CA    | 90504 | 2163 S Riverside Ave       | Colton             | CA    | 92324 |
| 3000 W Lomita Blvd       | Torrance         | CA    | 90505 | 1600 W Agua Mansa Rd       | Colton             | CA    | 92324 |
| 23540 Telo Ave           | Torrance         | CA    | 90505 | 1601 E Cooley Dr           | Colton             | CA    | 92324 |
| 2600 Skypark Dr          | Torrance         | CA    | 90505 | 2036 Miguel Bustamante Pky | Colton             | CA    | 92324 |
| 2901 Airport Dr          | Torrance         | CA    | 90505 | 1603 Steel Rd              | Colton             | CA    | 92324 |
| 23215 Early Ave          | Torrance         | CA    | 90505 | 311 W Citrus St            | Colton             | CA    | 92324 |
| 3963 Workman Mill Rd     | City Of Industry | CA    | 90601 | 21700 Barton Rd            | Colton             | CA    | 92324 |
| 3777 Workman Mill Rd     | City Of Industry | CA    | 90601 | 2053 Miguel Bustamante Pky | Colton             | CA    | 92324 |
| 2645 Pacific Park Dr     | Whittier         | CA    | 90601 | 1601 Ashley Way            | Colton             | CA    | 92324 |
| 2680 S Pellissier Pl     | City Of Industry | CA    | 90601 | 10917 Cherry Ave           | Fontana            | CA    | 92331 |
| 3931 Workman Mill Rd     | City Of Industry | CA    | 90601 | 13048 Valley Blvd          | Fontana            | CA    | 92335 |
| 2727 S Workman Mill Rd   | City of Industry | CA    | 90601 | 10288 Calabash Ave         | Fontana            | CA    | 92335 |
| 2300 Pellissier Pl       | City of Industry | CA    | 90601 | 13450 Napa St              | Fontana            | CA    | 92335 |

| Property Address      | City             | State | Zip   | Property Address         | City    | State | Zip   |
|-----------------------|------------------|-------|-------|--------------------------|---------|-------|-------|
| 2225 Workman Mill Rd  | City of Industry | CA    | 90601 | 13373 Napa St            | Fontana | CA    | 92335 |
| 12031 Philadelphia St | Whittier         | CA    | 90601 | 13232 Valley Blvd        | Fontana | CA    | 92335 |
| 3737 Capitol Ave      | City of Industry | CA    | 90601 | 13053 San Bernardino Ave | Fontana | CA    | 92335 |
| 3735 Workman Mill Rd  | City Of Industry | CA    | 90601 | 9950 Calabash Ave        | Fontana | CA    | 92335 |
| 12910 Mulberry Dr     | Whittier         | CA    | 90602 | 8375 Sultana Ave         | Fontana | CA    | 92335 |
| 12352 Whittier Blvd   | Whittier         | CA    | 90602 | 9211 Kaiser Way          | Fontana | CA    | 92335 |
| 12252 Whittier Blvd   | Whittier         | CA    | 90602 | 13600 Napa St            | Fontana | CA    | 92335 |
| 8550 Chetle Ave       | Whittier         | CA    | 90606 | 13265 Valley Blvd        | Fontana | CA    | 92335 |
| 12100 Rivera Rd       | Whittier         | CA    | 90606 | 9988 Redwood Ave         | Fontana | CA    | 92335 |
| 8189 Byron Rd         | Whittier         | CA    | 90606 | 13055 Valley Blvd        | Fontana | CA    | 92335 |
| 6311 Knott Ave        | Buena Park       | CA    | 90620 | 13369 Valley Blvd        | Fontana | CA    | 92335 |
| 6261 Caballero Blvd   | Buena Park       | CA    | 90620 | 13310 Valley Blvd        | Fontana | CA    | 92335 |
| 6600 Valley View St   | Buena Park       | CA    | 90620 | 9774 Calabash Ave        | Fontana | CA    | 92335 |
| 6905 Aragon Cir       | Buena Park       | CA    | 90620 | 9415 Kaiser Way          | Fontana | CA    | 92335 |
| 6388 Artesia Blvd     | Buena Park       | CA    | 90620 | 13649 Valley Blvd        | Fontana | CA    | 92335 |
| 6363 Regio Ave        | Buena Park       | CA    | 90620 | 14000 San Bernardino Ave | Fontana | CA    | 92335 |
| 6900 Orangethorpe Ave | Buena Park       | CA    | 90620 | 13550 Valley Blvd        | Fontana | CA    | 92335 |
| 6800 Valley View St   | Buena Park       | CA    | 90620 | 13277 San Bernardino Ave | Fontana | CA    | 92335 |
| 6400 Valley View St   | Buena Park       | CA    | 90620 | 13230 San Bernardino Ave | Fontana | CA    | 92335 |
| 6101 Knott Ave        | Buena Park       | CA    | 90620 | 13479 Valley Blvd        | Fontana | CA    | 92335 |
| 6300 Regio Ave        | Buena Park       | CA    | 90620 | 9687 Transportation Way  | Fontana | CA    | 92335 |
| 6280 Artesia Blvd     | Buena Park       | CA    | 90620 | 15895 Valley Blvd        | Fontana | CA    | 92335 |
| 6570 Altura Blvd      | Buena Park       | CA    | 90620 | 8432 Almeria Ave         | Fontana | CA    | 92335 |
| 6300 Regio Ave        | Buena Park       | CA    | 90620 | 7801 Cherry Ave          | Fontana | CA    | 92336 |
| 6485 Descanso Ave     | Buena Park       | CA    | 90620 | 7630 Cherry Ave          | Fontana | CA    | 92336 |
| 6545 Caballero Blvd   | Buena Park       | CA    | 90620 | 14750 Miller Ave         | Fontana | CA    | 92336 |
| 6700 Artesia Blvd     | Buena Park       | CA    | 90620 | 5565 Sierra Ave          | Fontana | CA    | 92336 |
| 6230 Descanso Ave     | Buena Park       | CA    | 90620 | 14527 Baseline Ave       | Fontana | CA    | 92336 |
| 6880 Caballero Blvd   | Buena Park       | CA    | 90620 | 14605 Miller Ave         | Fontana | CA    | 92336 |
| 6450 Caballero Blvd   | Buena Park       | CA    | 90620 | 7551 Cherry Ave          | Fontana | CA    | 92336 |
| 6270 Caballero Blvd   | Buena Park       | CA    | 90620 | 14600 Bar Harbor Rd      | Fontana | CA    | 92336 |
| 6800 Artesia Blvd     | Buena Park       | CA    | 90620 | 14650 Miller Ave         | Fontana | CA    | 92336 |
| 6660 Orangethorpe Ave | Buena Park       | CA    | 90620 | 7953 Cherry Ave          | Fontana | CA    | 92336 |
| 6201 Regio Ave        | Buena Park       | CA    | 90620 | 14780 Bar Harbor Rd      | Fontana | CA    | 92336 |
| 6300 Valley View St   | Buena Park       | CA    | 90620 | 5885 Sierra Ave          | Fontana | CA    | 92336 |
| 6250 Caballero Blvd   | Buena Park       | CA    | 90620 | 7351 McGuire Ave         | Fontana | CA    | 92336 |
| 6565 Knott Ave        | Buena Park       | CA    | 90620 | 7875 Hemlock Ave         | Fontana | CA    | 92336 |
| 6525 Caballero Blvd   | Buena Park       | CA    | 90620 | 14650 Meyer Canyon Rd    | Fontana | CA    | 92336 |
| 6251 Regio Ave        | Buena Park       | CA    | 90620 | 14597 Baseline Ave       | Fontana | CA    | 92336 |
| 6201 Knott Ave        | Buena Park       | CA    | 90620 | 6101 Sierra Ave          | Fontana | CA    | 92336 |
| 5650 Dolly Ave        | Buena Park       | CA    | 90621 | 14613 Bar Harbor Rd      | Fontana | CA    | 92336 |
| 7025 Firestone Blvd   | Buena Park       | CA    | 90621 | 14779 Bar Harbor Rd      | Fontana | CA    | 92336 |
| 5600 Beach Blvd       | Buena Park       | CA    | 90621 | 16270 Jurupa Ave         | Fontana | CA    | 92337 |
| 7221 Cate Dr          | Buena Park       | CA    | 90621 | 11127 Catawba Ave        | Fontana | CA    | 92337 |
| 5600 Knott Ave        | Buena Park       | CA    | 90621 | 10730 Production Ave     | Fontana | CA    | 92337 |
| 5609 River Way        | Buena Park       | CA    | 90621 | 11275 Banana Ave         | Fontana | CA    | 92337 |
| 7220 Cate Dr          | Buena Park       | CA    | 90621 | 13397 Marlay Ave         | Fontana | CA    | 92337 |
| 5911 Fresca Dr        | La Palma         | CA    | 90623 | 11880 Pacific Ave        | Fontana | CA    | 92337 |
| 5593 Fresca Dr        | La Palma         | CA    | 90623 | 10681 Production Ave     | Fontana | CA    | 92337 |
| 5692 Fresca Dr        | La Palma         | CA    | 90623 | 11695 Pacific Ave        | Fontana | CA    | 92337 |
| 6565 Valley View St   | La Palma         | CA    | 90623 | 17300 Slover Ave         | Fontana | CA    | 92337 |
| 14000 E 183rd St      | La Palma         | CA    | 90623 | 12060 Cabernet Dr        | Fontana | CA    | 92337 |
| 6901 Marlin Cir       | La Palma         | CA    | 90623 | 15996 Jurupa Ave         | Fontana | CA    | 92337 |
| 11130 Holder St       | Cypress          | CA    | 90630 | 11081 Banana Ave         | Fontana | CA    | 92337 |
| 11411 Valley View St  | Cypress          | CA    | 90630 | 11440 Pacific Ave        | Fontana | CA    | 92337 |
| 5560 Katella Ave      | Cypress          | CA    | 90630 | 11251 Beech Ave          | Fontana | CA    | 92337 |
| 6200 Phyllis Dr       | Cypress          | CA    | 90630 | 13414 Slover Ave         | Fontana | CA    | 92337 |
| 11251 Warland Dr      | Cypress          | CA    | 90630 | 11591 Etiwanda Ave       | Fontana | CA    | 92337 |
| 11150 Hope St         | Cypress          | CA    | 90630 | 13083 Slover Ave         | Fontana | CA    | 92337 |
| 6550 Katella Ave      | Cypress          | CA    | 90630 | 13231 Slover Ave         | Fontana | CA    | 92337 |
| 5665 Corporate Ave    | Cypress          | CA    | 90630 | 10851 Sierra Ave         | Fontana | CA    | 92337 |
| 6600 Katella Ave      | Cypress          | CA    | 90630 | 10613 Jasmine St         | Fontana | CA    | 92337 |
| 6450 Katella Ave      | Cypress          | CA    | 90630 | 13169 Slover Ave         | Fontana | CA    | 92337 |
| 11130 Warland Dr      | Cypress          | CA    | 90630 | 11001 Etiwanda Ave       | Fontana | CA    | 92337 |



| Property Address       | City       | State | Zip   | Property Address             | City    | State | Zip   |
|------------------------|------------|-------|-------|------------------------------|---------|-------|-------|
| 10800 Valley View St   | Cypress    | CA    | 90630 | 11016 Mulberry Ave           | Fontana | CA    | 92337 |
| 10824 Hope St          | Cypress    | CA    | 90630 | 11751 Cabernet Dr            | Fontana | CA    | 92337 |
| 5440 Cerritos Ave      | Cypress    | CA    | 90630 | 13472 Marlay Ave             | Fontana | CA    | 92337 |
| 5757 Plaza Dr          | Cypress    | CA    | 90630 | 13521 S Santa Ana Ave        | Fontana | CA    | 92337 |
| 6032 Katella Ave       | Cypress    | CA    | 90630 | 10727 Commerce Way           | Fontana | CA    | 92337 |
| 600 S Harbor Blvd      | La Habra   | CA    | 90631 | 10700 Business Dr            | Fontana | CA    | 92337 |
| 1111 S Harbor Blvd     | La Habra   | CA    | 90631 | 10746 Commerce Way           | Fontana | CA    | 92337 |
| 777 S Harbor Blvd      | La Habra   | CA    | 90631 | 10837 Commerce Way           | Fontana | CA    | 92337 |
| 15221 Canary Ave       | La Mirada  | CA    | 90638 | 11875 Cabernet Dr            | Fontana | CA    | 92337 |
| 14501 Artesia Blvd     | La Mirada  | CA    | 90638 | 13204 Philadelphia Ave       | Fontana | CA    | 92337 |
| 14405 Artesia Blvd     | La Mirada  | CA    | 90638 | 13201 Dahlia St              | Fontana | CA    | 92337 |
| 14450 Industry Cir     | La Mirada  | CA    | 90638 | 10825 Beech Ave              | Fontana | CA    | 92337 |
| 15500 Phoebe Ave       | La Mirada  | CA    | 90638 | 1200 S Etiwanda Ave          | Fontana | CA    | 92337 |
| 14041 Rosecrans Ave    | La Mirada  | CA    | 90638 | 10825 Production Ave         | Fontana | CA    | 92337 |
| 14950 Valley View Ave  | La Mirada  | CA    | 90638 | 12925 Marlay Ave             | Fontana | CA    | 92337 |
| 14720 E Alondra Blvd   | La Mirada  | CA    | 90638 | 11900 Cabernet Dr            | Fontana | CA    | 92337 |
| 16800 E Trojan Way     | La Mirada  | CA    | 90638 | 13489 Slover Ave             | Fontana | CA    | 92337 |
| 16930 Valley View Ave  | La Mirada  | CA    | 90638 | 13508 Marlay Ave             | Fontana | CA    | 92337 |
| 16222 Phoebe Ave       | La Mirada  | CA    | 90638 | 13512 Marlay Ave             | Fontana | CA    | 92337 |
| 14445 Alondra Blvd     | La Mirada  | CA    | 90638 | 12903 Jurupa Ave             | Fontana | CA    | 92337 |
| 16420 Valley View Ave  | La Mirada  | CA    | 90638 | 11070 Mulberry Ave           | Fontana | CA    | 92337 |
| 14001 Rosecrans Ave    | La Mirada  | CA    | 90638 | 10721 Jasmine St             | Fontana | CA    | 92337 |
| 14659 Alondra Blvd     | La Mirada  | CA    | 90638 | 13032 Slover Ave             | Fontana | CA    | 92337 |
| 16200 Trojan Way       | La Mirada  | CA    | 90638 | 13052 Jurupa Ave             | Fontana | CA    | 92337 |
| 16400 Trojan Way       | La Mirada  | CA    | 90638 | SEC Oleander & Santa Ana Ave | Fontana | CA    | 92337 |
| 16050 Canary Ave       | La Mirada  | CA    | 90638 | 12005 Cabernet Dr            | Fontana | CA    | 92337 |
| 14585 Industry Cir     | La Mirada  | CA    | 90638 | 13050 Marlay Ave             | Fontana | CA    | 92337 |
| 15005 Northam St       | La Mirada  | CA    | 90638 | 11700 Industry Ave           | Fontana | CA    | 92337 |
| 15910 Valley View Ave  | La Mirada  | CA    | 90638 | 15750 Jurupa Ave             | Fontana | CA    | 92337 |
| 14647 Northam St       | La Mirada  | CA    | 90638 | 13204 Jurupa Ave             | Fontana | CA    | 92337 |
| 16501 Trojan Way       | La Mirada  | CA    | 90638 | 10846 Commerce Way           | Fontana | CA    | 92337 |
| 15155 Northam St       | La Mirada  | CA    | 90638 | 11101 Etiwanda Ave           | Fontana | CA    | 92337 |
| 15500 Valley View Ave  | La Mirada  | CA    | 90638 | 10586 Tamarind Ave           | Fontana | CA    | 92337 |
| 14221 Artesia Blvd     | La Mirada  | CA    | 90638 | 13611 Jurupa Ave             | Fontana | CA    | 92337 |
| 14355 Industry Cir     | La Mirada  | CA    | 90638 | 15971 Santa Ana Ave          | Fontana | CA    | 92337 |
| 14701 Industry Cir     | La Mirada  | CA    | 90638 | 11260 Elm Ave                | Fontana | CA    | 92337 |
| 14930 Alondra Blvd     | La Mirada  | CA    | 90638 | 10651 Elm Ave                | Fontana | CA    | 92337 |
| 15300 Desman Rd        | La Mirada  | CA    | 90638 | 13423 Santa Ana Ave          | Fontana | CA    | 92337 |
| 14101 Rosecrans Blvd   | La Mirada  | CA    | 90638 | 15910 Jurupa Ave             | Fontana | CA    | 92337 |
| 14407 Alondra Blvd     | La Mirada  | CA    | 90638 | 11001 Citrus Ave             | Fontana | CA    | 92337 |
| 15090 Northam St       | La Mirada  | CA    | 90638 | 10886 S Citrus Ave           | Fontana | CA    | 92337 |
| 15130 Northam St       | La Mirada  | CA    | 90638 | 11754 Cabernet Dr            | Fontana | CA    | 92337 |
| 16301 Trojan Way       | La Mirada  | CA    | 90638 | 11100 Hemlock Ave            | Fontana | CA    | 92337 |
| 16000 Heron Ave        | La Mirada  | CA    | 90638 | 14874 Jurupa Ave             | Fontana | CA    | 92337 |
| 14380 Industry Cir     | La Mirada  | CA    | 90638 | 11250 Poplar Ave             | Fontana | CA    | 92337 |
| 16400 Knott Ave        | La Mirada  | CA    | 90638 | 13489 Jurupa Ave             | Fontana | CA    | 92337 |
| 14455 Industry Cir     | La Mirada  | CA    | 90638 | 10850 Business Dr            | Fontana | CA    | 92337 |
| 16651 Knott Ave        | La Mirada  | CA    | 90638 | 15801 Santa Ana Ave          | Fontana | CA    | 92337 |
| 6913 Acco St           | Montebello | CA    | 90640 | 15101 Santa Ana Ave          | Fontana | CA    | 92337 |
| 7227 Telegraph Rd      | Montebello | CA    | 90640 | 10760 Tamarind Ave           | Fontana | CA    | 92337 |
| 1221 Frankel Ave       | Montebello | CA    | 90640 | 11618 Mulberry Ave           | Fontana | CA    | 92337 |
| 1150 S Taylor Ave      | Montebello | CA    | 90640 | 11751 Industry Ave           | Fontana | CA    | 92337 |
| 1501 Greenwood Ave     | Montebello | CA    | 90640 | 16171 Santa Ana Ave          | Fontana | CA    | 92337 |
| 7301 Telegraph Rd      | Montebello | CA    | 90640 | 13366 Philadelphia Ave       | Fontana | CA    | 92337 |
| 1 Minson Way           | Montebello | CA    | 90640 | 13367 Marlay Ave             | Fontana | CA    | 92337 |
| 901 Union St           | Montebello | CA    | 90640 | 10725 Sierra Ave             | Fontana | CA    | 92337 |
| 7171 Telegraph Rd      | Montebello | CA    | 90640 | 11895 Cabernet Dr            | Fontana | CA    | 92337 |
| 1540 S Greenwood Ave   | Montebello | CA    | 90640 | 10509 Business Dr            | Fontana | CA    | 92337 |
| 1550 S Maple Ave       | Montebello | CA    | 90640 | 10918 Cherry Ave             | Fontana | CA    | 92337 |
| 1220 W Washington Blvd | Montebello | CA    | 90640 | 10798 Catawba Ave            | Fontana | CA    | 92337 |
| 3579 Minson Ave        | Montebello | CA    | 90640 | 11188 Citrus Ave             | Fontana | CA    | 92337 |
| 1620 S Greenwood Ave   | Montebello | CA    | 90640 | 13003 Slover Ave             | Fontana | CA    | 92337 |
| 1620 S Maple Ave       | Montebello | CA    | 90640 | 15889 Slover Ave             | Fontana | CA    | 92337 |
| 825 S Vail Ave         | Montebello | CA    | 90640 | 11281 Citrus Ave             | Fontana | CA    | 92337 |

| Property Address         | City             | State | Zip   | Property Address          | City     | State | Zip   |
|--------------------------|------------------|-------|-------|---------------------------|----------|-------|-------|
| 1520 Beach St            | Montebello       | CA    | 90640 | 10606 Commerce Way        | Fontana  | CA    | 92337 |
| 6905 Acco St             | Montebello       | CA    | 90640 | 10661 Etiwanda Ave        | Fontana  | CA    | 92337 |
| 1515 Gage Rd             | Montebello       | CA    | 90640 | 13500 Marlay Ave          | Fontana  | CA    | 92337 |
| 1501 Date St             | Montebello       | CA    | 90640 | 10545 Production Ave      | Fontana  | CA    | 92337 |
| 7107 Telegraph Rd        | Montebello       | CA    | 90640 | 13170 Marlay Ave          | Fontana  | CA    | 92337 |
| 666 Union St             | Montebello       | CA    | 90640 | 11800 Industry Ave        | Fontana  | CA    | 92337 |
| 800 Union St             | Montebello       | CA    | 90640 | 13379 Jurupa Ave          | Fontana  | CA    | 92337 |
| 2101 W Flotilla St       | Montebello       | CA    | 90640 | 15816 Santa Ana Ave       | Fontana  | CA    | 92337 |
| 14405 Best Ave           | Norwalk          | CA    | 90650 | 9441 N Opal Ave           | Mentone  | CA    | 92359 |
| 15301 Shoemaker Ave      | Norwalk          | CA    | 90650 | 801 Opal Ave              | Mentone  | CA    | 92359 |
| 15505 Shoemaker Ave      | Norwalk          | CA    | 90650 | 490 Nevada St             | Redlands | CA    | 92373 |
| 12851 Leyva St           | Norwalk          | CA    | 90650 | 2125 San Bernardino Ave   | Redlands | CA    | 92373 |
| 14820 Carmenita Rd       | Norwalk          | CA    | 90650 | 1675 W Park Ave           | Redlands | CA    | 92373 |
| 12840 E Leyva St         | Norwalk          | CA    | 90650 | 301 Tennessee St          | Redlands | CA    | 92373 |
| 11100 Firestone Blvd     | Norwalk          | CA    | 90650 | 27352 River Bluff Ave     | Redlands | CA    | 92374 |
| 4700 Gregg Rd            | Pico Rivera      | CA    | 90660 | 2456 W Lugonia Ave        | Redlands | CA    | 92374 |
| 4741 S Durfee Ave        | Pico Rivera      | CA    | 90660 | 9724 Alabama St           | Redlands | CA    | 92374 |
| 8800 Rex Rd              | Pico Rivera      | CA    | 90660 | 2200 W San Bernardino Ave | Redlands | CA    | 92374 |
| 8500 Rex Rd              | Pico Rivera      | CA    | 90660 | 2255 W Lugonia Ave        | Redlands | CA    | 92374 |
| 9935 Beverly Blvd        | Pico Rivera      | CA    | 90660 | 2459 Almond Ave           | Redlands | CA    | 92374 |
| 8500 Mercury Ln          | Pico Rivera      | CA    | 90660 | 26940 Palmetto Ave        | Redlands | CA    | 92374 |
| 8625 Rex Rd              | Pico Rivera      | CA    | 90660 | 27573 River Bluff Ave     | Redlands | CA    | 92374 |
| 8460 E Whittier Blvd     | Pico Rivera      | CA    | 90660 | 26525 Pioneer Ave         | Redlands | CA    | 92374 |
| 5102 Industry Ave        | Pico Rivera      | CA    | 90660 | 1897 E Colton Ave         | Redlands | CA    | 92374 |
| 4800 Gregg Rd            | Pico Rivera      | CA    | 90660 | 26763 San Bernardino Ave  | Redlands | CA    | 92374 |
| 8820 Mercury Ln          | Pico Rivera      | CA    | 90660 | 26871 San Bernardino Ave  | Redlands | CA    | 92374 |
| 8900 Rex Rd              | Pico Rivera      | CA    | 90660 | 2301 W San Bernardino Ave | Redlands | CA    | 92374 |
| 8320 Rex Rd              | Pico Rivera      | CA    | 90660 | 9425 California St        | Redlands | CA    | 92374 |
| 4901 Gregg Rd            | Pico Rivera      | CA    | 90660 | 2501 W San Bernardino Ave | Redlands | CA    | 92374 |
| 8525 Rex Rd              | Pico Rivera      | CA    | 90660 | 26950 San Bernardino Ave  | Redlands | CA    | 92374 |
| 8321 Canford St          | Pico Rivera      | CA    | 90660 | 1651 California St        | Redlands | CA    | 92374 |
| 8905 Rex Rd              | Pico Rivera      | CA    | 90660 | 2200 Palmetto Ave         | Redlands | CA    | 92374 |
| 8570 Mercury Ln          | Pico Rivera      | CA    | 90660 | 27223 Pioneer Ave         | Redlands | CA    | 92374 |
| 8350 Rex Rd              | Pico Rivera      | CA    | 90660 | 27334 San Bernardino Ave  | Redlands | CA    | 92374 |
| 8001 Telegraph Rd        | Pico Rivera      | CA    | 90660 | 27517 Pioneer Ave         | Redlands | CA    | 92374 |
| 8700 Rex Rd              | Pico Rivera      | CA    | 90660 | 27582 Pioneer Ave         | Redlands | CA    | 92374 |
| 7185 Rosemead Blvd       | Pico Rivera      | CA    | 90660 | 26875 Pioneer Ave         | Redlands | CA    | 92374 |
| 8200 E Slauson Ave       | Pico Rivera      | CA    | 90660 | 9712 Alabama St           | Redlands | CA    | 92374 |
| 7860 Paramount Blvd      | Pico Rivera      | CA    | 90660 | 1251 Research Dr          | Redlands | CA    | 92374 |
| 8700 Mercury Ln          | Pico Rivera      | CA    | 90660 | 1300 California St        | Redlands | CA    | 92374 |
| 7255 Rosemead Blvd       | Pico Rivera      | CA    | 90660 | 26881 Palmetto Ave        | Redlands | CA    | 92374 |
| 7875 Telegraph Rd        | Pico Rivera      | CA    | 90660 | 26682 Almond Ave          | Redlands | CA    | 92374 |
| 11204 Norwalk Blvd       | Santa Fe Springs | CA    | 90670 | 9425 Nevada St            | Redlands | CA    | 92374 |
| 13220 Molette St         | Santa Fe Springs | CA    | 90670 | 1455 Research Dr          | Redlands | CA    | 92374 |
| 13408 Orden Dr           | Santa Fe Springs | CA    | 90670 | 1730 Marigold Ave         | Redlands | CA    | 92374 |
| 13415 Carmenita Rd       | Santa Fe Springs | CA    | 90670 | 2300 W San Bernardino Ave | Redlands | CA    | 92374 |
| 15015 Valley View Ave    | Santa Fe Springs | CA    | 90670 | 26635 Pioneer Ave         | Redlands | CA    | 92374 |
| 8945 Dice Rd             | Santa Fe Springs | CA    | 90670 | 26681 San Bernardino Ave  | Redlands | CA    | 92374 |
| 9211 Norwalk Blvd        | Santa Fe Springs | CA    | 90670 | 1898 Marigold Ave         | Redlands | CA    | 92374 |
| 12801 Excelsior Dr       | Santa Fe Springs | CA    | 90670 | 1480 Mountain View Ave    | Redlands | CA    | 92374 |
| 9206 Santa Fe Springs Rd | Santa Fe Springs | CA    | 90670 | 1950 Palmetto Ave         | Redlands | CA    | 92374 |
| 11688 Greenstone Ave     | Santa Fe Springs | CA    | 90670 | 1901 California St        | Redlands | CA    | 92374 |
| 15120 Marquardt Ave      | Santa Fe Springs | CA    | 90670 | 27040 San Bernardino Ave  | Redlands | CA    | 92374 |
| 9501 Norwalk Blvd        | Santa Fe Springs | CA    | 90670 | 2185 Lugonia Ave          | Redlands | CA    | 92374 |
| 12202 E Slauson Ave      | Santa Fe Springs | CA    | 90670 | 26759 Almond Ave          | Redlands | CA    | 92374 |
| 10035 Geary Ave          | Santa Fe Springs | CA    | 90670 | 9375 Alabama St           | Redlands | CA    | 92374 |
| 12320 Bloomfield Ave     | Santa Fe Springs | CA    | 90670 | 26717 Palmetto Ave        | Redlands | CA    | 92374 |
| 13438 Foster Rd          | Santa Fe Springs | CA    | 90670 | 26597 San Bernardino Ave  | Redlands | CA    | 92374 |
| 13225 Alondra Blvd       | Santa Fe Springs | CA    | 90670 | 9889 Almond Ave           | Redlands | CA    | 92374 |
| 11333 Greenstone Ave     | Santa Fe Springs | CA    | 90670 | 27081 Almond Ave          | Redlands | CA    | 92374 |
| 10900 Painter Ave        | Santa Fe Springs | CA    | 90670 | 2470 W Lugonia Ave        | Redlands | CA    | 92374 |
| 10628 Fulton Wells Ave   | Santa Fe Springs | CA    | 90670 | 2255 W San Bernardino Ave | Redlands | CA    | 92374 |
| 9700 Bell Ranch Dr       | Santa Fe Springs | CA    | 90670 | 1895 Marigold Ave         | Redlands | CA    | 92374 |
| 13607 Orden Dr           | Santa Fe Springs | CA    | 90670 | 1898 E Colton Ave         | Redlands | CA    | 92374 |

| Property Address          | City             | State | Zip   | Property Address       | City           | State | Zip   |
|---------------------------|------------------|-------|-------|------------------------|----------------|-------|-------|
| 15700 Shoemaker Ave       | Santa Fe Springs | CA    | 90670 | 2290 Palmetto Ave      | Redlands       | CA    | 92374 |
| 12935 Leffingwell Ave     | Santa Fe Springs | CA    | 90670 | 2250 W Lugonia Ave     | Redlands       | CA    | 92375 |
| 11925 E Pike St           | Santa Fe Springs | CA    | 90670 | 1450 Alder Ave         | Rialto         | CA    | 92376 |
| 12928 Sandoval St         | Santa Fe Springs | CA    | 90670 | 1552 N Alder Ave       | Rialto         | CA    | 92376 |
| 11600 Los Nietos Rd       | Santa Fe Springs | CA    | 90670 | 1371 N Laurel Ave      | Rialto         | CA    | 92376 |
| 13409 Orden Dr            | Santa Fe Springs | CA    | 90670 | 2625 W Renaissance Pky | Rialto         | CA    | 92376 |
| 13500 Foster Rd           | Santa Fe Springs | CA    | 90670 | 1979 W Renaissance Pky | Rialto         | CA    | 92376 |
| 8834 Millergrrove Dr      | Santa Fe Springs | CA    | 90670 | 360 S Lilac Ave        | Rialto         | CA    | 92376 |
| 13225 Marquardt Ave       | Santa Fe Springs | CA    | 90670 | 1660 N Linden Ave      | Rialto         | CA    | 92376 |
| 15510 Carmenita Rd        | Santa Fe Springs | CA    | 90670 | 1314 W Merrill Ave     | Rialto         | CA    | 92376 |
| 10805 Painter Ave         | Santa Fe Springs | CA    | 90670 | 1568 N Linden Ave      | Rialto         | CA    | 92376 |
| 12235 Bell Ranch Dr       | Santa Fe Springs | CA    | 90670 | 1710 W Base Line Rd    | Rialto         | CA    | 92376 |
| 14141 Alondra Blvd        | Santa Fe Springs | CA    | 90670 | 1364 W Rialto Ave      | Rialto         | CA    | 92376 |
| 9601 John St              | Santa Fe Springs | CA    | 90670 | 1221 Alder Ave         | Rialto         | CA    | 92376 |
| 13227 Orden Dr            | Santa Fe Springs | CA    | 90670 | 1998 W Baseline Rd     | Rialto         | CA    | 92376 |
| 12065 Pike St             | Santa Fe Springs | CA    | 90670 | 1464 W Merrill Ave     | Rialto         | CA    | 92376 |
| 9200 Sorensen Ave         | Santa Fe Springs | CA    | 90670 | 300 S Cedar Ave        | Rialto         | CA    | 92376 |
| 12418 Florence Ave        | Santa Fe Springs | CA    | 90670 | 1401 Alder Ave         | Rialto         | CA    | 92376 |
| 12828 Carmenita Rd        | Santa Fe Springs | CA    | 90670 | 1920 W Baseline Rd     | Rialto         | CA    | 92376 |
| 12318 Florence Ave        | Santa Fe Springs | CA    | 90670 | 450 S Cactus Ave       | Rialto         | CA    | 92376 |
| 12301 Hawkins St          | Santa Fe Springs | CA    | 90670 | 1110 W Merrill Ave     | Rialto         | CA    | 92376 |
| 9830 Norwalk Blvd         | Santa Fe Springs | CA    | 90670 | 2510 W Walnut Ave      | Rialto         | CA    | 92376 |
| 13113 Adler Rd            | Santa Fe Springs | CA    | 90670 | 562 W Santa Ana Ave    | Rialto         | CA    | 92376 |
| 13132 Lakeland Rd         | Santa Fe Springs | CA    | 90670 | 2450 W Walnut Ave      | Rialto         | CA    | 92376 |
| 8808 Pioneer Blvd         | Santa Fe Springs | CA    | 90670 | 1686 W Base Line Rd    | Rialto         | CA    | 92376 |
| 12034 Greenstone Ave      | Santa Fe Springs | CA    | 90670 | 2245 Renaissance Pkwy  | Rialto         | CA    | 92376 |
| 10715 Shoemaker Ave       | Santa Fe Springs | CA    | 90670 | 1543 Alder Ave         | Rialto         | CA    | 92376 |
| 8110 Sorensen Ave         | Santa Fe Springs | CA    | 90670 | 1590 N Tamarind Ave    | Rialto         | CA    | 92376 |
| 12012 Burke St            | Santa Fe Springs | CA    | 90670 | 371 S Cactus Ave       | Rialto         | CA    | 92376 |
| 15160 Spring Ave          | Santa Fe Springs | CA    | 90670 | 1642 W Miro Way        | Rialto         | CA    | 92376 |
| 10506 Shoemaker Ave       | Santa Fe Springs | CA    | 90670 | 1495 Tamarind Ave      | Rialto         | CA    | 92376 |
| 11650 Burke St            | Santa Fe Springs | CA    | 90670 | 1420 N Tamarind Ave    | Rialto         | CA    | 92376 |
| 11529 Greenstone Ave      | Santa Fe Springs | CA    | 90670 | 1750 Miro Way          | Rialto         | CA    | 92376 |
| 12827 E Imperial Hwy      | Santa Fe Springs | CA    | 90670 | 120 S Cedar Ave        | Rialto         | CA    | 92376 |
| 11320 Bloomfield Ave      | Santa Fe Springs | CA    | 90670 | 548 W Merrill Ave      | Rialto         | CA    | 92376 |
| 14027 Borate St           | Santa Fe Springs | CA    | 90670 | 1960 W Miro Way        | Rialto         | CA    | 92376 |
| 12310 E Slauson Ave       | Santa Fe Springs | CA    | 90670 | 181 S Larch Ave        | Rialto         | CA    | 92376 |
| 12330 Lakeland Rd         | Santa Fe Springs | CA    | 90670 | 2225 Alder Ave         | Rialto         | CA    | 92377 |
| 14066 Borate St           | Santa Fe Springs | CA    | 90670 | 2602 N Locust Ave      | Rialto         | CA    | 92377 |
| 13827 Carmenita Rd        | Santa Fe Springs | CA    | 90670 | 2180 N Locust Ave      | Rialto         | CA    | 92377 |
| 13642 Orden Dr            | Santa Fe Springs | CA    | 90670 | 1508 W Casmalia St     | Rialto         | CA    | 92377 |
| 10107 Norwalk Blvd        | Santa Fe Springs | CA    | 90670 | 2415 N Locust Ave      | Rialto         | CA    | 92377 |
| 9306 Sorensen Ave         | Santa Fe Springs | CA    | 90670 | 3196 N Locust Ave      | Rialto         | CA    | 92377 |
| 8724 Millergrrove Dr      | Santa Fe Springs | CA    | 90670 | 3105 N Alder Ave       | Rialto         | CA    | 92377 |
| 12681 Corral Pl           | Santa Fe Springs | CA    | 90670 | 3110 N Alder Ave       | Rialto         | CA    | 92377 |
| 12311 Shoemaker Ave       | Santa Fe Springs | CA    | 90670 | 1850 Vineyard Ave      | Rialto         | CA    | 92377 |
| 13901 Carmenita Rd        | Santa Fe Springs | CA    | 90670 | 4982 Hallmark Pky      | San Bernardino | CA    | 92407 |
| 13012 Molette St          | Santa Fe Springs | CA    | 90670 | 2552 W Shenandoah Way  | San Bernardino | CA    | 92407 |
| 12500 E Slauson Ave       | Santa Fe Springs | CA    | 90670 | 5454 A Industrial Park | San Bernardino | CA    | 92407 |
| 12866 Ann St              | Santa Fe Springs | CA    | 90670 | 7140 N Cajon Blvd      | San Bernardino | CA    | 92407 |
| 13861 Rosecrans Ave       | Santa Fe Springs | CA    | 90670 | 2765 Lexington Way     | San Bernardino | CA    | 92407 |
| 13833 Borate St           | Santa Fe Springs | CA    | 90670 | 6010 N Cajon Blvd      | San Bernardino | CA    | 92407 |
| 11811 E Florence Ave      | Santa Fe Springs | CA    | 90670 | 3454 Mike Daley Dr     | San Bernardino | CA    | 92407 |
| 9101 Sorensen Ave         | Santa Fe Springs | CA    | 90670 | 5685 Industrial Pky    | San Bernardino | CA    | 92407 |
| 15614 Shoemaker Ave       | Santa Fe Springs | CA    | 90670 | 2705 Lexington Way     | San Bernardino | CA    | 92407 |
| 9630 Norwalk Blvd         | Santa Fe Springs | CA    | 90670 | 7010 N Cajon Blvd      | San Bernardino | CA    | 92407 |
| 12816 Adler Dr            | Santa Fe Springs | CA    | 90670 | 3372 N Mike Daley Dr   | San Bernardino | CA    | 92407 |
| 13220 Orden Dr            | Santa Fe Springs | CA    | 90670 | 4472 Georgia Blvd      | San Bernardino | CA    | 92407 |
| 9400 Santa Fe Springs Rd  | Santa Fe Springs | CA    | 90670 | 4162 Georgia Blvd      | San Bernardino | CA    | 92407 |
| 13530 Rosecrans Ave       | Santa Fe Springs | CA    | 90670 | 5080 Hallmark Pky      | San Bernardino | CA    | 92407 |
| 10006 Santa Fe Springs Rd | Santa Fe Springs | CA    | 90670 | 5415 N Industrial Pky  | San Bernardino | CA    | 92407 |
| 12821 Carmenita Rd        | Santa Fe Springs | CA    | 90670 | 5959 Palm Ave          | San Bernardino | CA    | 92407 |
| 12801 Excelsior Dr        | Santa Fe Springs | CA    | 90670 | 5990 N Cajon Blvd      | San Bernardino | CA    | 92407 |

| Property Address      | City             | State | Zip   | Property Address           | City           | State | Zip   |
|-----------------------|------------------|-------|-------|----------------------------|----------------|-------|-------|
| 13325 Molette St      | Santa Fe Springs | CA    | 90670 | 5404 Industrial Pky        | San Bernardino | CA    | 92407 |
| 13833 Freeway Dr      | Santa Fe Springs | CA    | 90670 | 1761 Interchange Dr        | San Bernardino | CA    | 92407 |
| 13146 Firestone Blvd  | Santa Fe Springs | CA    | 90670 | 3525 N Mike Daley Dr       | San Bernardino | CA    | 92407 |
| 11130 Bloomfield Ave  | Santa Fe Springs | CA    | 90670 | 6227 Cajon Blvd            | San Bernardino | CA    | 92407 |
| 14911 Valley View Ave | Santa Fe Springs | CA    | 90670 | 4010 Georgia Blvd          | San Bernardino | CA    | 92407 |
| 12850 E Florence Ave  | Santa Fe Springs | CA    | 90670 | 4382 N Georgia Blvd        | San Bernardino | CA    | 92407 |
| 12935 Imperial Hwy    | Santa Fe Springs | CA    | 90670 | 4382 Georgia Blvd          | San Bernardino | CA    | 92407 |
| 12241 Florence Ave    | Santa Fe Springs | CA    | 90670 | 7250 Cajon Blvd            | San Bernardino | CA    | 92407 |
| 12909 Sandoval St     | Santa Fe Springs | CA    | 90670 | 2612 W Shenandoah Way      | San Bernardino | CA    | 92407 |
| 13545 Larwin Cir      | Santa Fe Springs | CA    | 90670 | 1651 Interchange Dr        | San Bernardino | CA    | 92407 |
| 12623 Cisneros Ln     | Santa Fe Springs | CA    | 90670 | 5690 Industrial Pky        | San Bernardino | CA    | 92407 |
| 12380 Clark St        | Santa Fe Springs | CA    | 90670 | 19949 Kendall Dr           | San Bernardino | CA    | 92407 |
| 12005 Pike St         | Santa Fe Springs | CA    | 90670 | 17335 Glen Helen Pky       | San Bernardino | CA    | 92407 |
| 15050 Shoemaker Ave   | Santa Fe Springs | CA    | 90670 | 6207 Cajon Blvd            | San Bernardino | CA    | 92407 |
| 15225 Bonavista Ave   | Santa Fe Springs | CA    | 90670 | 5405 Industrial Pky        | San Bernardino | CA    | 92407 |
| 12991 Marquardt Ave   | Santa Fe Springs | CA    | 90670 | 1592 E San Bernardino Ave  | San Bernardino | CA    | 92408 |
| 12588 Florence Ave    | Santa Fe Springs | CA    | 90670 | 125 E Club Center Dr       | San Bernardino | CA    | 92408 |
| 12802 Leffingwell Rd  | Santa Fe Springs | CA    | 90670 | 1050 E Orange Show Rd      | San Bernardino | CA    | 92408 |
| 12540 Slauson Ave     | Santa Fe Springs | CA    | 90670 | 945 S Sunnyside Ave        | San Bernardino | CA    | 92408 |
| 11954 Washington Blvd | Santa Fe Springs | CA    | 90670 | 980 E Mill St              | San Bernardino | CA    | 92408 |
| 12801 Excelsior Dr    | Santa Fe Springs | CA    | 90670 | 270 E Central Ave          | San Bernardino | CA    | 92408 |
| 12009 Telegraph Rd    | Santa Fe Springs | CA    | 90670 | 555 E Orange Show Rd       | San Bernardino | CA    | 92408 |
| 13527 Orden Dr        | Santa Fe Springs | CA    | 90670 | 1454 S Sunnyside Ave       | San Bernardino | CA    | 92408 |
| 14044 Freeway Dr      | Santa Fe Springs | CA    | 90670 | 701 S Arrowhead Ave        | San Bernardino | CA    | 92408 |
| 11500 Los Nietos Rd   | Santa Fe Springs | CA    | 90670 | 1295 E Central Ave         | San Bernardino | CA    | 92408 |
| 11211 Greenstone Ave  | Santa Fe Springs | CA    | 90670 | 1400 E Victoria Ave        | San Bernardino | CA    | 92408 |
| 12801 Ann St          | Santa Fe Springs | CA    | 90670 | 1089 E Mill St             | San Bernardino | CA    | 92408 |
| 10810 Painter Ave     | Santa Fe Springs | CA    | 90670 | 1350 N Waterman Ave        | San Bernardino | CA    | 92408 |
| 12825 Leffingwell Rd  | Santa Fe Springs | CA    | 90670 | 1410 E Central Ave         | San Bernardino | CA    | 92408 |
| 14088 Borate St       | Santa Fe Springs | CA    | 90670 | 300 S Tippecanoe Ave       | San Bernardino | CA    | 92408 |
| 13635 E Freeway Dr    | Santa Fe Springs | CA    | 90670 | 1470 S Tippecanoe Ave      | San Bernardino | CA    | 92408 |
| 14404 Best Ave        | Santa Fe Springs | CA    | 90670 | 675 E Central Ave          | San Bernardino | CA    | 92408 |
| 9747 S Norwalk Blvd   | Santa Fe Springs | CA    | 90670 | 1910 E Central Ave         | San Bernardino | CA    | 92408 |
| 13341 Cambridge St    | Santa Fe Springs | CA    | 90670 | 1456 E Harry Sheppard Blvd | San Bernardino | CA    | 92408 |
| 13700 Firestone Blvd  | Santa Fe Springs | CA    | 90670 | 890 E Mill St              | San Bernardino | CA    | 92408 |
| 12601 Shoemaker Ave   | Santa Fe Springs | CA    | 90670 | 990 E Mill St              | San Bernardino | CA    | 92408 |
| 10205 Painter Ave     | Santa Fe Springs | CA    | 90670 | 1905 Riverview Dr          | San Bernardino | CA    | 92408 |
| 12907 Imperial Hwy    | Santa Fe Springs | CA    | 90670 | 570 E Mill St              | San Bernardino | CA    | 92408 |
| 15415 Marquardt Ave   | Santa Fe Springs | CA    | 90670 | 786 E Central Ave          | San Bernardino | CA    | 92408 |
| 10747 Patterson Pl    | Santa Fe Springs | CA    | 90670 | 520 E Orange Show Rd       | San Bernardino | CA    | 92408 |
| 15305 Valley View Ave | Santa Fe Springs | CA    | 90670 | 736 W Inland Center Dr     | San Bernardino | CA    | 92408 |
| 10521 Dale Ave        | Stanton          | CA    | 90680 | 825 E Central Ave          | San Bernardino | CA    | 92408 |
| 14014 Arbor Pl        | Cerritos         | CA    | 90703 | 1445 Riverview Dr          | San Bernardino | CA    | 92408 |
| 16012 Arthur St       | Cerritos         | CA    | 90703 | 1650 E Central Ave         | San Bernardino | CA    | 92408 |
| 13012 Midway Pl       | Cerritos         | CA    | 90703 | 258 E Commercial Dr        | San Bernardino | CA    | 92408 |
| 14101 Park Pl         | Cerritos         | CA    | 90703 | 255 S Waterman Ave         | San Bernardino | CA    | 92408 |
| 14121 Artesia Blvd    | Cerritos         | CA    | 90703 | Tippecanoe Ave             | San Bernardino | CA    | 92408 |
| 16000 Carmenita Rd    | Cerritos         | CA    | 90703 | 750 S Valley View Ave      | San Bernardino | CA    | 92408 |
| 15928 Commerce Way    | Cerritos         | CA    | 90703 | 2505 Steele St             | San Bernardino | CA    | 92408 |
| 12836 Alondra Blvd    | Cerritos         | CA    | 90703 | 343 S Lena Rd              | San Bernardino | CA    | 92408 |
| 12889 Moore St        | Cerritos         | CA    | 90703 | 301 S Tippecanoe Ave       | San Bernardino | CA    | 92408 |
| 16069 Shoemaker Ave   | Cerritos         | CA    | 90703 | 631 S Waterman Ave         | San Bernardino | CA    | 92408 |
| 16110 Carmenita Rd    | Cerritos         | CA    | 90703 | 1445 S Tippecanoe Ave      | San Bernardino | CA    | 92408 |
| 14171 Park Pl         | Cerritos         | CA    | 90703 | 311 S Doolittle Ave        | San Bernardino | CA    | 92408 |
| 17211 Valley View Ave | Cerritos         | CA    | 90703 | 1494 S Waterman Ave        | San Bernardino | CA    | 92408 |
| 16010 Shoemaker Ave   | Cerritos         | CA    | 90703 | 1393 E San Bernardino Ave  | San Bernardino | CA    | 92408 |
| 12850 Midway Pl       | Cerritos         | CA    | 90703 | 1050 W Rialto Ave          | San Bernardino | CA    | 92410 |
| 15905 Commerce Way    | Cerritos         | CA    | 90703 | 1500 W Rialto Ave          | San Bernardino | CA    | 92410 |
| 18021 Valley View Ave | Cerritos         | CA    | 90703 | 7776 Tippecanoe Ave        | San Bernardino | CA    | 92410 |
| 15950 Bloomfield Ave  | Cerritos         | CA    | 90703 | 927 E 9th St               | San Bernardino | CA    | 92410 |
| 12851 Midway Pl       | Cerritos         | CA    | 90703 | 3512 14th St               | Riverside      | CA    | 92501 |
| 17101 Valley View Ave | Cerritos         | CA    | 90703 | 9700 Indiana Ave           | Riverside      | CA    | 92503 |
| 15959 Pioma Ave       | Cerritos         | CA    | 90703 | 8200 Arlington Ave         | Riverside      | CA    | 92503 |
| 13226 Alondra Blvd    | Cerritos         | CA    | 90703 | 12000 Magnolia Ave         | Riverside      | CA    | 92503 |

| Property Address            | City         | State | Zip   | Property Address          | City      | State | Zip   |
|-----------------------------|--------------|-------|-------|---------------------------|-----------|-------|-------|
| 17817 Valley View Ave       | Cerritos     | CA    | 90703 | 7145 Arlington Ave        | Riverside | CA    | 92503 |
| 13950 Cerritos Corporate Dr | Cerritos     | CA    | 90703 | 7337 Central Ave          | Riverside | CA    | 92504 |
| 13233 Moore St              | Cerritos     | CA    | 90703 | 8000 Lincoln Ave          | Riverside | CA    | 92504 |
| 12928 Midway Pl             | Cerritos     | CA    | 90703 | 5825 Jasmine St           | Riverside | CA    | 92504 |
| 14100 Vine Pl               | Cerritos     | CA    | 90703 | 2950 Jefferson St         | Riverside | CA    | 92504 |
| 16028 Marquardt Ave         | Cerritos     | CA    | 90703 | 7809 Lincoln Ave          | Riverside | CA    | 92504 |
| 16200 Carmenita Rd          | Cerritos     | CA    | 90703 | 7227 Central Ave          | Riverside | CA    | 92504 |
| 13140 Midway Pl             | Cerritos     | CA    | 90703 | 16833 Krameria Ave        | Riverside | CA    | 92504 |
| 13131 166th St              | Cerritos     | CA    | 90703 | 3100 Jefferson St         | Riverside | CA    | 92504 |
| 15927 Distribution Way      | Cerritos     | CA    | 90703 | 1080 Mount Vernon Ave     | Riverside | CA    | 92507 |
| 16290 Shoemaker Ave         | Cerritos     | CA    | 90703 | 797 Palmyrita Ct          | Riverside | CA    | 92507 |
| 10811 Bloomfield            | Los Alamitos | CA    | 90720 | 545 Columbia Ave          | Riverside | CA    | 92507 |
| 10681 Calle Lee             | Los Alamitos | CA    | 90720 | 705 Columbia Ave          | Riverside | CA    | 92507 |
| 4411 Katella Ave            | Los Alamitos | CA    | 90720 | 800 E La Cadena Dr        | Riverside | CA    | 92507 |
| 7210 Alondra Blvd           | Paramount    | CA    | 90723 | 3080 12th St              | Riverside | CA    | 92507 |
| 14350 Garfield Ave          | Paramount    | CA    | 90723 | 1001 Columbia Ave         | Riverside | CA    | 92507 |
| 16706 Garfield Ave          | Paramount    | CA    | 90723 | 1495 Columbia Ave         | Riverside | CA    | 92507 |
| 14001 S Garfield Ave        | Paramount    | CA    | 90723 | 6860 Sycamore Canyon Blvd | Riverside | CA    | 92507 |
| 14900 Garfield Ave          | Paramount    | CA    | 90723 | 875 Michigan Ct           | Riverside | CA    | 92507 |
| 7743 Adams St               | Paramount    | CA    | 90723 | 1560 Sierra Ridge Dr      | Riverside | CA    | 92507 |
| 14001 Orange Ave            | Paramount    | CA    | 90723 | 795 Columbia Ave          | Riverside | CA    | 92507 |
| 15701 Minnesota Ave         | Paramount    | CA    | 90723 | 555 Palmyrita Ave         | Riverside | CA    | 92507 |
| 350 Westmont Dr             | San Pedro    | CA    | 90731 | 6681 River Run Dr         | Riverside | CA    | 92507 |
| 401 Westmont Ave            | San Pedro    | CA    | 90731 | 800 Iowa Ave              | Riverside | CA    | 92507 |
| 300 Westmont Dr             | San Pedro    | CA    | 90731 | 6721 Sycamore Canyon Blvd | Riverside | CA    | 92507 |
| 111 E 22nd St               | San Pedro    | CA    | 90731 | 475 Palmyrita Ave         | Riverside | CA    | 92507 |
| 901 New Dock St             | Wilmington   | CA    | 90731 | 6275 Lance Dr             | Riverside | CA    | 92507 |
| 301 Westmont Dr             | San Pedro    | CA    | 90731 | 6150 Sycamore Canyon Blvd | Riverside | CA    | 92507 |
| 1710 Apollo Ct              | Seal Beach   | CA    | 90740 | 1730 Eastridge Ave        | Riverside | CA    | 92507 |
| 1770 Saturn Way             | Seal Beach   | CA    | 90740 | 1651 Eastridge Ave        | Riverside | CA    | 92507 |
| 1700 Saturn Way             | Seal Beach   | CA    | 90740 | 935 Palmyrita Ave         | Riverside | CA    | 92507 |
| 2401 E Pacific Coast Hwy    | Wilmington   | CA    | 90744 | 1111 Citrus St            | Riverside | CA    | 92507 |
| 909 Colon St                | Wilmington   | CA    | 90744 | 6688 Box Springs Blvd     | Riverside | CA    | 92507 |
| 900 E M St                  | Wilmington   | CA    | 90744 | 1580 Eastridge Ave        | Riverside | CA    | 92507 |
| 901 E E St                  | Wilmington   | CA    | 90744 | 780 Columbia Ave          | Riverside | CA    | 92507 |
| 920 E Pacific Coast Hwy     | Wilmington   | CA    | 90744 | 3087 12th St              | Riverside | CA    | 92507 |
| 301 N Figueroa St           | Wilmington   | CA    | 90744 | 6335 Sycamore Canyon Blvd | Riverside | CA    | 92507 |
| 990 E 233rd St              | Carson       | CA    | 90745 | 333 Palmyrita Ave         | Riverside | CA    | 92507 |
| 901 E 233rd St              | Carson       | CA    | 90745 | 1850 Atlanta Ave          | Riverside | CA    | 92507 |
| 900 Watson Center Rd        | Carson       | CA    | 90745 | 500 Palmyrita Ave         | Riverside | CA    | 92507 |
| 1111 E Watson Center Rd     | Carson       | CA    | 90745 | 6250 Sycamore Canyon Blvd | Riverside | CA    | 92507 |
| 1145 E 233rd St             | Carson       | CA    | 90745 | 6075 Lance Dr             | Riverside | CA    | 92507 |
| 1071 E 233rd St             | Carson       | CA    | 90745 | 6255 Sycamore Canyon Blvd | Riverside | CA    | 92507 |
| 1710 E Sepulveda Blvd       | Carson       | CA    | 90745 | 6400 Sycamore Canyon Blvd | Riverside | CA    | 92507 |
| 810 E 233rd St              | Carson       | CA    | 90745 | 6711 Sycamore Canyon Blvd | Riverside | CA    | 92507 |
| 23610 S Banning Blvd        | Carson       | CA    | 90745 | 1155 Mount Vernon Ave     | Riverside | CA    | 92507 |
| 800 E 230th St              | Carson       | CA    | 90745 | 6125 Sycamore Canyon Blvd | Riverside | CA    | 92507 |
| 24760 S Main St             | Carson       | CA    | 90745 | 1200 Columbia Ave         | Riverside | CA    | 92507 |
| 22941 S Wilmington Ave      | Carson       | CA    | 90745 | 6975 Sycamore Canyon Blvd | Riverside | CA    | 92507 |
| 22673 S Wilmington Ave      | Carson       | CA    | 90745 | 6677 Box Spring Blvd      | Riverside | CA    | 92507 |
| 809 E 236th St              | Carson       | CA    | 90745 | 1100 Citrus St            | Riverside | CA    | 92507 |
| 21175 S Main St             | Carson       | CA    | 90745 | 490 Columbia Ave          | Riverside | CA    | 92507 |
| 1113 E 230th St             | Carson       | CA    | 90745 | 1660 Iowa Ave             | Riverside | CA    | 92507 |
| 1015 E 236th St             | Carson       | CA    | 90745 | 2727 Kansas Ave           | Riverside | CA    | 92507 |
| 22707 S Wilmington Ave      | Carson       | CA    | 90745 | 2111 Eastridge Ave        | Riverside | CA    | 92507 |
| 1035 Watson Center Rd       | Carson       | CA    | 90745 | 2321 3rd St               | Riverside | CA    | 92507 |
| 1610 E Sepulveda Blvd       | Carson       | CA    | 90745 | 1680 Eastridge Ave        | Riverside | CA    | 92507 |
| 1241 Watson Center Rd       | Carson       | CA    | 90745 | 1455 Citrus Ave           | Riverside | CA    | 92507 |
| 1040 E Watson Center Rd     | Carson       | CA    | 90745 | 1601 Iowa Ave             | Riverside | CA    | 92507 |
| 909 E 236th St              | Carson       | CA    | 90745 | 1500 Eastridge Ave        | Riverside | CA    | 92507 |
| 22560 Lucerne St            | Carson       | CA    | 90745 | 6980 Sycamore Canyon Blvd | Riverside | CA    | 92507 |
| 1058 E 230th St             | Carson       | CA    | 90745 | 1455 Columbia Ave         | Riverside | CA    | 92507 |
| 851 Watson Center Rd        | Carson       | CA    | 90745 | 6659 Sycamore Canyon Blvd | Riverside | CA    | 92507 |

| Property Address        | City        | State | Zip   | Property Address          | City                   | State | Zip   |
|-------------------------|-------------|-------|-------|---------------------------|------------------------|-------|-------|
| 23011 S Wilmington Ave  | Carson      | CA    | 90745 | 1995 3rd St               | Riverside              | CA    | 92507 |
| 1031 Watson Center Rd   | Carson      | CA    | 90745 | 7295 San Gorgonio Dr      | Riverside              | CA    | 92508 |
| 1165 E 230th St         | Carson      | CA    | 90745 | 7345 Sycamore Canyon Blvd | Riverside              | CA    | 92508 |
| 1041 E 230th St         | Carson      | CA    | 90745 | 7105 Old 215 Frontage Rd  | Riverside              | CA    | 92508 |
| 720 Watson Center Rd    | Carson      | CA    | 90745 | 7350 San Gorgonio Dr      | Riverside              | CA    | 92508 |
| 989 E 233rd St          | Carson      | CA    | 90745 | 2325 Cottonwood Ave       | Riverside              | CA    | 92508 |
| 23000 Avalon Blvd       | Carson      | CA    | 90745 | 2325 Cottonwood Ave       | Riverside              | CA    | 92508 |
| 1130 Watson Center Rd   | Carson      | CA    | 90745 | 12246 Holly St            | Riverside              | CA    | 92509 |
| 1231 E 230th St         | Carson      | CA    | 90745 | 10045 Limonite Ave        | Jurupa Valley          | CA    | 92509 |
| 1021 E 233rd St         | Carson      | CA    | 90745 | 9670 Galena St            | Jurupa Valley          | CA    | 92509 |
| 23601 S Wilmington Ave  | Carson      | CA    | 90745 | 1135 Hall Ave             | Jurupa Valley          | CA    | 92509 |
| 1000 E 223rd St         | Carson      | CA    | 90745 | 4851 Felspar St           | Jurupa Valley          | CA    | 92509 |
| 24700 S Main St         | Carson      | CA    | 90745 | 6510 General Dr           | Jurupa Valley          | CA    | 92509 |
| 1350 E 223rd St         | Carson      | CA    | 90745 | 4510 Rutile St            | Jurupa Valley          | CA    | 92509 |
| 1240 E 230th St         | Carson      | CA    | 90745 | 5300 Via Ricardo          | Jurupa Valley          | CA    | 92509 |
| 22351 Wilmington Ave    | Carson      | CA    | 90745 | 6580 General Rd           | Jurupa Valley          | CA    | 92509 |
| 1118 E 223rd St         | Carson      | CA    | 90745 | 2356 Fleetwood Dr         | Jurupa Valley          | CA    | 92509 |
| 1130 E 230th St         | Carson      | CA    | 90745 | 2345 Fleetwood Dr         | Jurupa Valley          | CA    | 92509 |
| 24600 S Main St         | Carson      | CA    | 90745 | 1755 Brown Ave            | Riverside              | CA    | 92509 |
| 21023 S Main St         | Carson      | CA    | 90745 | 12215 Holly St            | Riverside              | CA    | 92509 |
| 23301 S Wilmington Ave  | Carson      | CA    | 90745 | 2350 Fleetwood Dr         | Jurupa Valley          | CA    | 92509 |
| 22600 S Bonita Ave      | Carson      | CA    | 90745 | 2100 Avalon St            | Jurupa Valley          | CA    | 92509 |
| 771 Watson Center Rd    | Carson      | CA    | 90745 | 14600 Innovation Dr       | Riverside              | CA    | 92518 |
| 1220 Watson Center Rd   | Carson      | CA    | 90745 | 14950 Meridian Pky        | March Air Reserve Base | CA    | 92518 |
| 17145 S Margay Ave      | Carson      | CA    | 90746 | 15750 Meridian Pky        | Riverside              | CA    | 92518 |
| 18420 Harmon Ave        | Carson      | CA    | 90746 | 14605 Innovation Dr       | Riverside              | CA    | 92518 |
| 18655 S Bishop Ave      | Carson      | CA    | 90746 | 14855 Innovation Dr       | Riverside              | CA    | 92518 |
| 18300 Central Ave       | Carson      | CA    | 90746 | 14540 Innovation Dr       | Riverside              | CA    | 92518 |
| 18055 Harmon Ave        | Carson      | CA    | 90746 | 21800 Authority Way       | Riverside              | CA    | 92518 |
| 1535 E Beachey Pl       | Carson      | CA    | 90746 | 22000 Opportunity Way     | Riverside              | CA    | 92518 |
| 1501 E Victoria St      | Carson      | CA    | 90746 | 14751 Meridian Pky        | Riverside              | CA    | 92518 |
| 18431 S Wilmington Ave  | Carson      | CA    | 90746 | 20801 Krameria Ave        | Riverside              | CA    | 92518 |
| 18120 Bishop Ave        | Carson      | CA    | 90746 | 22280 Opportunity Way     | Riverside              | CA    | 92518 |
| 1500 E Glenn Curtiss St | Carson      | CA    | 90746 | 22220 Opportunity Way     | Riverside              | CA    | 92518 |
| 1371 Charles Willard St | Carson      | CA    | 90746 | 14813 Meridian Pky        | Riverside              | CA    | 92518 |
| 1725 Charles Willard St | Carson      | CA    | 90746 | 20901 Krameria Ave        | Riverside              | CA    | 92518 |
| 16525 S Avalon Blvd     | Carson      | CA    | 90746 | 15801 Meridian Pky        | Riverside              | CA    | 92518 |
| 1380 Charles Willard St | Carson      | CA    | 90746 | 15001 Meridian Pky        | Riverside              | CA    | 92518 |
| 1450 Glenn Curtiss St   | Carson      | CA    | 90746 | 14350 Meridian Pky        | Riverside              | CA    | 92518 |
| 1550 Charles Willard St | Carson      | CA    | 90746 | 21822 Opportunity Way     | Riverside              | CA    | 92518 |
| 1650 E Glenn Curtiss St | Carson      | CA    | 90746 | 5733 W Whittier Ave       | Hemet                  | CA    | 92545 |
| 16325 S Avalon Blvd     | Carson      | CA    | 90746 | 17350 Perris Blvd         | Moreno Valley          | CA    | 92551 |
| 1651 E Glenn Curtiss St | Carson      | CA    | 90746 | 24950 Grove View Rd       | Moreno Valley          | CA    | 92551 |
| 966 E Sandhill Ave      | Carson      | CA    | 90746 | 16875 Heacock St          | Moreno Valley          | CA    | 92551 |
| 1460 Beachey Pl         | Carson      | CA    | 90746 | 24960 San Michele Rd      | Moreno Valley          | CA    | 92551 |
| 1065 E Walnut St        | Carson      | CA    | 90746 | 17500 N Perris Blvd       | Moreno Valley          | CA    | 92551 |
| 17000 Kingsview Ave     | Carson      | CA    | 90746 | 24520 San Michele Rd      | Moreno Valley          | CA    | 92551 |
| 3201 Walnut Ave         | Signal Hill | CA    | 90755 | 16901 San Celeste         | Moreno Valley          | CA    | 92551 |
| 3366 E Willow St        | Signal Hill | CA    | 90755 | 17101 Heacock St          | Moreno Valley          | CA    | 92551 |
| 1281 Pier G Way         | Long Beach  | CA    | 90802 | 16110 Cosmos St           | Moreno Valley          | CA    | 92551 |
| Pier F                  | Long Beach  | CA    | 90802 | 24600 Nandina Ave         | Moreno Valley          | CA    | 92551 |
| 2500 E Thompson St      | Long Beach  | CA    | 90805 | 24300 Nandina Ave         | Moreno Valley          | CA    | 92551 |
| 6375 Paramount Blvd     | Long Beach  | CA    | 90805 | 24870 Nandina Ave         | Moreno Valley          | CA    | 92551 |
| 2201 E Market St        | Long Beach  | CA    | 90805 | 25300 Globe St            | Moreno Valley          | CA    | 92551 |
| 105 W Victoria St       | Long Beach  | CA    | 90805 | 17300 Perris Blvd         | Moreno Valley          | CA    | 92551 |
| 105 W Victoria St       | Long Beach  | CA    | 90805 | 17825 Indian St           | Moreno Valley          | CA    | 92551 |
| 6925 N Paramount Blvd   | Long Beach  | CA    | 90805 | 24103 San Michele Rd      | Moreno Valley          | CA    | 92551 |
| 6979 Cherry Ave         | Long Beach  | CA    | 90805 | 24975 Nandina Ave         | Moreno Valley          | CA    | 92551 |
| 100 W Victoria St       | Long Beach  | CA    | 90805 | 16850 Heacock St          | Moreno Valley          | CA    | 92551 |
| 3333 Airport Way        | Long Beach  | CA    | 90806 | 16415 Cosmos St           | Moreno Valley          | CA    | 92551 |
| 3500 E Willow St        | Long Beach  | CA    | 90806 | 24101 Iris Ave            | Moreno Valley          | CA    | 92551 |
| 2600 Temple Ave         | Long Beach  | CA    | 90806 | 17800 Perris Blvd         | Moreno Valley          | CA    | 92551 |
| 2401 E Wardlow Rd       | Long Beach  | CA    | 90807 | 17791 Perris Blvd         | Moreno Valley          | CA    | 92551 |

| Property Address         | City       | State | Zip   | Property Address        | City          | State | Zip   |
|--------------------------|------------|-------|-------|-------------------------|---------------|-------|-------|
| 2400 E Wardlow Rd        | Long Beach | CA    | 90807 | 24901 San Michele Rd    | Moreno Valley | CA    | 92551 |
| 1800 E Wardlow Rd        | Long Beach | CA    | 90807 | 17783 Indian St         | Moreno Valley | CA    | 92551 |
| 4800 Conant St           | Long Beach | CA    | 90808 | 24385 Nandina Ave       | Moreno Valley | CA    | 92551 |
| 4001 Worsham Ave         | Long Beach | CA    | 90808 | 15810 Heacock St        | Moreno Valley | CA    | 92551 |
| 4501 E Conant St         | Long Beach | CA    | 90808 | 17100 Perris Blvd       | Moreno Valley | CA    | 92551 |
| 3701 Conant St           | Long Beach | CA    | 90808 | 24208 San Michele Rd    | Moreno Valley | CA    | 92551 |
| 3700 Cover St            | Long Beach | CA    | 90808 | 25100 Globe St          | Moreno Valley | CA    | 92551 |
| 3205 N Lakewood Blvd     | Long Beach | CA    | 90808 | 23400 Cactus Ave        | Moreno Valley | CA    | 92553 |
| 4175 E Conant St         | Long Beach | CA    | 90808 | 14300 Graham St         | Moreno Valley | CA    | 92553 |
| 3855 N Lakewood Blvd     | Long Beach | CA    | 90808 | 14255 Elsworth St       | Moreno Valley | CA    | 92553 |
| 2300 Redondo Ave         | Long Beach | CA    | 90809 | 23700 Cactus Ave        | Moreno Valley | CA    | 92553 |
| 3600 E Burnett Ave       | Long Beach | CA    | 90809 | 23800 Cactus Ave        | Moreno Valley | CA    | 92553 |
| 2211 E Carson St         | Carson     | CA    | 90810 | 23360 Cactus Ave        | Moreno Valley | CA    | 92553 |
| 2320 E Dominguez St      | Carson     | CA    | 90810 | 22150 Goldencrest Dr    | Moreno Valley | CA    | 92553 |
| 2839 El Presidio St      | Carson     | CA    | 90810 | 23650 Brodiaea Ave      | Moreno Valley | CA    | 92553 |
| 2807 El Presidio St      | Carson     | CA    | 90810 | 22135 Alessandro Blvd   | Moreno Valley | CA    | 92553 |
| 1483 W Via Plata St      | Long Beach | CA    | 90810 | 22750 Cactus Ave        | Moreno Valley | CA    | 92553 |
| 20500 S Alameda St       | Carson     | CA    | 90810 | 23400 Cactus Ave        | Moreno Valley | CA    | 92553 |
| 2161 E Dominguez St      | Long Beach | CA    | 90810 | 22705 Newhope St        | Moreno Valley | CA    | 92553 |
| 2201 E Carson St         | Carson     | CA    | 90810 | 23532 Brodiaea Ave      | Moreno Valley | CA    | 92553 |
| 2630 E El Presidio St    | Carson     | CA    | 90810 | 28020 Eucalyptus Ave    | Moreno Valley | CA    | 92555 |
| 2220 E Carson St         | Carson     | CA    | 90810 | 28010 Eucalyptus Ave    | Moreno Valley | CA    | 92555 |
| 2270 E 220th St          | Carson     | CA    | 90810 | 28025 Eucalyptus Ave    | Moreno Valley | CA    | 92555 |
| 21950 Arnold Center Rd   | Carson     | CA    | 90810 | 28015 Eucalyptus Ave    | Moreno Valley | CA    | 92555 |
| 2155 E 220th St          | Carson     | CA    | 90810 | 12661 Aldi Pl           | Moreno Valley | CA    | 92555 |
| 2132 E Dominguez St      | Carson     | CA    | 90810 | 29800 Eucalyptus Ave    | Moreno Valley | CA    | 92555 |
| 21136 S Wilmington Ave   | Carson     | CA    | 90810 | 25720 Jefferson Ave     | Murrieta      | CA    | 92562 |
| 2000 E Carson St         | Carson     | CA    | 90810 | 38655 Sky Canyon Dr     | Murrieta      | CA    | 92563 |
| 21906 Arnold Center Rd   | Carson     | CA    | 90810 | 30590 Cochise Cir       | Murrieta      | CA    | 92563 |
| 20633 S Fordyce Ave      | Carson     | CA    | 90810 | 19940 Hansen Ave        | Nuevo         | CA    | 92567 |
| 1665 Hughes Way          | Long Beach | CA    | 90810 | 24312 Daytona Cove      | Perris        | CA    | 92570 |
| 20974 S Santa Fe Ave     | Long Beach | CA    | 90810 | 24195 Orange Ave        | Perris        | CA    | 92570 |
| 20488 Reeves Ave         | Carson     | CA    | 90810 | 17618 Harvill Ave       | Perris        | CA    | 92570 |
| 21900 S Wilmington Ave   | Carson     | CA    | 90810 | 18810 Harvill Ave       | Perris        | CA    | 92570 |
| 20355 Reeves Ave         | Carson     | CA    | 90810 | 23129 Cajalco Rd        | Perris        | CA    | 92570 |
| 2649 E Dominguez St      | Long Beach | CA    | 90810 | 17789 Old Oleander Blvd | Perris        | CA    | 92570 |
| 2131 W Willow St         | Long Beach | CA    | 90810 | 707 E 4th St            | Perris        | CA    | 92570 |
| 2711 E Dominguez St      | Long Beach | CA    | 90810 | 23123 Cajalco Rd        | Perris        | CA    | 92570 |
| 1500 W Dominguez St      | Long Beach | CA    | 90810 | 24201 Orange Ave        | Perris        | CA    | 92570 |
| 21750 S Arnold Center Dr | Carson     | CA    | 90810 | 145 Malbert St          | Perris        | CA    | 92570 |
| 3025 E Dominguez St      | Carson     | CA    | 90810 | 18310 Harvill Ave       | Perris        | CA    | 92570 |
| 2011 E Carson St         | Carson     | CA    | 90810 | 22780 Harley Knox Blvd  | Perris        | CA    | 92570 |
| 20600 S Alameda St       | Carson     | CA    | 90810 | 3350 Redlands Ave       | Perris        | CA    | 92571 |
| 20801 S Santa Fe Ave     | Carson     | CA    | 90810 | 4413 Patterson Ave      | Perris        | CA    | 92571 |
| 2116 E 220th St          | Carson     | CA    | 90810 | 375 Markham St          | Perris        | CA    | 92571 |
| 2200 Technology Pl       | Long Beach | CA    | 90810 | 4565 Redlands Ave       | Perris        | CA    | 92571 |
| 2888 E El Presidio St    | Carson     | CA    | 90810 | 3100 N Perris Blvd      | Perris        | CA    | 92571 |
| 2230 E Carson St         | Carson     | CA    | 90810 | 4555 Redlands Ave       | Perris        | CA    | 92571 |
| 20642 S Fordyce Ave      | Carson     | CA    | 90810 | 251 E Rider St          | Perris        | CA    | 92571 |
| 2417 E Carson St         | Carson     | CA    | 90810 | 290 W Markham St        | Perris        | CA    | 92571 |
| 2250 E 220th St          | Carson     | CA    | 90810 | 657 Nance St            | Perris        | CA    | 92571 |
| 20444 Reeves Ave         | Carson     | CA    | 90810 | 100 W Sinclair St       | Perris        | CA    | 92571 |
| 20499 Reeves Ave         | Carson     | CA    | 90810 | 4323 Indian Ave         | Perris        | CA    | 92571 |
| 1925 E Dominguez St      | Carson     | CA    | 90810 | 400 Harley Knox Blvd    | Perris        | CA    | 92571 |
| 2001 E Dominguez St      | Long Beach | CA    | 90810 | 4150 Patterson Ave      | Perris        | CA    | 92571 |
| 3900 Via Oro             | Long Beach | CA    | 90810 | 3411 N Perris Blvd      | Perris        | CA    | 92571 |
| 20943 S Maciel Ave       | Carson     | CA    | 90810 | 3700 Indian Ave         | Perris        | CA    | 92571 |
| 2400 E Dominguez St      | Long Beach | CA    | 90810 | 4378 N Perris Blvd      | Perris        | CA    | 92571 |
| 1431 W Via Plata St      | Long Beach | CA    | 90810 | 353 Perry St            | Perris        | CA    | 92571 |
| 20434 S Santa Fe Ave     | Carson     | CA    | 90810 | 4100 N Webster Ave      | Perris        | CA    | 92571 |
| 1981 E 213th St          | Carson     | CA    | 90810 | 3500 Indian Ave         | Perris        | CA    | 92571 |
| 2255 E 220th St          | Carson     | CA    | 90810 | 3300 Indian Ave         | Perris        | CA    | 92571 |
| 1901 W Pacific Coast Hwy | Long Beach | CA    | 90810 | 501 Harley Knox Blvd    | Perris        | CA    | 92571 |

| Property Address        | City         | State | Zip   | Property Address        | City           | State | Zip   |
|-------------------------|--------------|-------|-------|-------------------------|----------------|-------|-------|
| 20821 S Santa Fe Ave    | Carson       | CA    | 90810 | 2830 Barrett Ave        | Perris         | CA    | 92571 |
| 2575 El Presidio St     | Carson       | CA    | 90810 | 3984 Indian Ave         | Perris         | CA    | 92571 |
| 20639 S Fordyce Ave     | Carson       | CA    | 90810 | 278 W Markham St        | Perris         | CA    | 92571 |
| 2201 E Dominguez St     | Carson       | CA    | 90810 | 22722 Harley Knox Blvd  | Perris         | CA    | 92571 |
| 625 W Anaheim St        | Long Beach   | CA    | 90813 | 4120 Indian St          | Perris         | CA    | 92571 |
| 1710 Pier B St          | Long Beach   | CA    | 90813 | 3691 N Perris Blvd      | Perris         | CA    | 92571 |
| 1711 Harbor Ave         | Long Beach   | CA    | 90813 | 4120 Indian St          | Perris         | CA    | 92571 |
| 3500 E Burnett Ave      | Long Beach   | CA    | 90815 | 3411 N Perris Blvd      | Perris         | CA    | 92571 |
| 4184 Conant St          | Long Beach   | CA    | 90846 | 3900 Indian Ave         | Perris         | CA    | 92571 |
| 3788 Conant St          | Long Beach   | CA    | 90846 | 3404 Indian Ave         | Perris         | CA    | 92571 |
| 4022 Conant St          | Long Beach   | CA    | 90846 | 350 W Markham St        | Perris         | CA    | 92571 |
| 4600 Conant St          | Long Beach   | CA    | 90846 | 1320 S Buena Vista St   | San Jacinto    | CA    | 92583 |
| 4350 Conant St          | Long Beach   | CA    | 90846 | 41573 Dendy Pky         | Temecula       | CA    | 92590 |
| 12321 Lower Azusa Rd    | Arcadia      | CA    | 91006 | 28820 Single Oak Dr     | Temecula       | CA    | 92590 |
| 12389 Lower Azusa Rd    | Arcadia      | CA    | 91006 | 43044 Business Park Dr  | Temecula       | CA    | 92590 |
| 12359 Lower Azusa Rd    | Arcadia      | CA    | 91006 | 42375 Remington Ave     | Temecula       | CA    | 92590 |
| 12339 Lower Azusa Rd    | Arcadia      | CA    | 91006 | 42301 Bostik Ct         | Temecula       | CA    | 92590 |
| 1700 Business Center Dr | Duarte       | CA    | 91010 | 26879 Diaz Rd           | Temecula       | CA    | 92590 |
| 1801 Highland Ave       | Duarte       | CA    | 91010 | 27565 Diaz Rd           | Temecula       | CA    | 92590 |
| 2310 Central Ave        | Duarte       | CA    | 91010 | 43085 Business Park Dr  | Temecula       | CA    | 92590 |
| 801 Royal Oaks Dr       | Monrovia     | CA    | 91016 | 28381 Vincent Moraga Dr | Temecula       | CA    | 92590 |
| 9545 Wentworth St       | Sunland      | CA    | 91040 | 43195 Business Park Dr  | Temecula       | CA    | 92590 |
| 1015 S Arroyo Pky       | Pasadena     | CA    | 91105 | 42301 Zevo Dr           | Temecula       | CA    | 92590 |
| 26801 Agoura Rd         | Calabasas    | CA    | 91301 | 41995 Zevo Dr           | Temecula       | CA    | 92590 |
| 6633 Canoga Ave         | Canoga Park  | CA    | 91303 | 41980 Winchester Rd     | Temecula       | CA    | 92590 |
| 8901 Canoga Ave         | Canoga Park  | CA    | 91304 | 41915 Business Park Dr  | Temecula       | CA    | 92590 |
| 8900 De Soto Ave        | Canoga Park  | CA    | 91304 | 27719 Diaz Rd           | Temecula       | CA    | 92590 |
| 8900 De Soto Ave        | Canoga Park  | CA    | 91304 | 42500 Winchester Rd     | Temecula       | CA    | 92590 |
| 9401 De Soto Ave        | Chatsworth   | CA    | 91311 | 43225 Business Park Dr  | Temecula       | CA    | 92590 |
| 8900 De Soto Ave        | Canoga Park  | CA    | 91311 | 40750 County Center Dr  | Temecula       | CA    | 92591 |
| 9409 Owensmouth Ave     | Chatsworth   | CA    | 91311 | 26040 Ynez Rd           | Temecula       | CA    | 92591 |
| 9109 Mason Ave          | Chatsworth   | CA    | 91311 | 40610 County Center Dr  | Temecula       | CA    | 92591 |
| 20000 Prairie St        | Chatsworth   | CA    | 91311 | 26201 Ynez Rd           | Temecula       | CA    | 92591 |
| 9631 De Soto Ave        | Chatsworth   | CA    | 91311 | 40761 County Center Dr  | Temecula       | CA    | 92591 |
| 20730 Prairie St        | Chatsworth   | CA    | 91311 | 26531 Ynez Rd           | Temecula       | CA    | 92591 |
| 20400 Plummer St        | Chatsworth   | CA    | 91311 | 3660 Brennan Ave        | Perris         | CA    | 92599 |
| 9419 Mason Ave          | Chatsworth   | CA    | 91311 | 14370 Myford Rd         | Irvine         | CA    | 92606 |
| 21701 Prairie St        | Chatsworth   | CA    | 91311 | 14600 Myford Rd         | Irvine         | CA    | 92606 |
| 20525 Nordhoff St       | Chatsworth   | CA    | 91311 | 14350 Myford Rd         | Irvine         | CA    | 92606 |
| 9120 Mason Ave          | Chatsworth   | CA    | 91311 | 1452 Alton Pky          | Irvine         | CA    | 92606 |
| 9140 Lurline Ave        | Chatsworth   | CA    | 91311 | 14524 Myford Rd         | Irvine         | CA    | 92606 |
| 21314 Lassen St         | Chatsworth   | CA    | 91311 | 16700 Red Hill Ave      | Irvine         | CA    | 92606 |
| 21350 Lassen St         | Chatsworth   | CA    | 91311 | 2815 Warner Ave         | Irvine         | CA    | 92606 |
| 9700 Independence Ave   | Chatsworth   | CA    | 91311 | 2152 Alton Pky          | Irvine         | CA    | 92606 |
| 9301 Mason Ave          | Chatsworth   | CA    | 91311 | 1601 Alton Pkwy         | Irvine         | CA    | 92606 |
| 20701 Plummer St        | Chatsworth   | CA    | 91311 | 1600 Barranca Pky       | Irvine         | CA    | 92606 |
| 21605 Plummer St        | Chatsworth   | CA    | 91311 | 1 Icon                  | Foothill Ranch | CA    | 92610 |
| 8900 De Soto Ave        | Canoga Park  | CA    | 91311 | 80 Icon                 | Foothill Ranch | CA    | 92610 |
| 9453 Owensmouth Ave     | Chatsworth   | CA    | 91311 | 50 Icon                 | Foothill Ranch | CA    | 92610 |
| 20650 Prairie St        | Chatsworth   | CA    | 91311 | 20131 Ellipse           | Foothill Ranch | CA    | 92610 |
| 8900 De Soto Ave        | Canoga Park  | CA    | 91311 | 19511 Pauling           | Foothill Ranch | CA    | 92610 |
| 18537 Parthenia St      | Northridge   | CA    | 91324 | 26972 Burbank Ave       | Foothill Ranch | CA    | 92610 |
| 19901 Nordhoff St       | Northridge   | CA    | 91324 | 25892 Towne Centre Dr   | Foothill Ranch | CA    | 92610 |
| 8500 Balboa Blvd        | Northridge   | CA    | 91329 | 19531 Pauling           | Foothill Ranch | CA    | 92610 |
| 12708 Branford St       | Pacoima      | CA    | 91331 | 20 Icon                 | Foothill Ranch | CA    | 92610 |
| 10865 Sutter Ave        | Pacoima      | CA    | 91331 | 25861 Wright St         | Foothill Ranch | CA    | 92610 |
| 12224 Montague St       | Pacoima      | CA    | 91331 | 20081 Ellipse           | Foothill Ranch | CA    | 92610 |
| 10241 Norris Ave        | Pacoima      | CA    | 91331 | 20001 Ellipse Dr        | Foothill Ranch | CA    | 92610 |
| 12878 Pierce St         | Pacoima      | CA    | 91331 | 1062 McGaw Ave          | Irvine         | CA    | 92614 |
| 13592 Desmond St        | Pacoima      | CA    | 91331 | 17482 Pullman St        | Irvine         | CA    | 92614 |
| 12450 Branford St       | Pacoima      | CA    | 91331 | 2323 Main St            | Irvine         | CA    | 92614 |
| 12820 Pierce St         | Pacoima      | CA    | 91331 | 17352 Derian Ave        | Irvine         | CA    | 92614 |
| 12154 Montague St       | Pacoima      | CA    | 91331 | 17352 Armstrong Ave     | Irvine         | CA    | 92614 |
| 675 Glenoaks Blvd       | San Fernando | CA    | 91340 | 1 Edwards Way           | Irvine         | CA    | 92614 |



| Property Address         | City          | State | Zip   | Property Address       | City                | State | Zip   |
|--------------------------|---------------|-------|-------|------------------------|---------------------|-------|-------|
| 1150 Aviation Pl         | San Fernando  | CA    | 91340 | 17421 Von Karman Ave   | Irvine              | CA    | 92614 |
| 13571 Vaughn St          | San Fernando  | CA    | 91340 | 2026 McGaw Ave         | Irvine              | CA    | 92614 |
| 1245 Aviation Pl         | San Fernando  | CA    | 91340 | 121 Waterworks Way     | Irvine              | CA    | 92618 |
| 1145 Arroyo Ave          | San Fernando  | CA    | 91340 | 5 Marconi              | Irvine              | CA    | 92618 |
| 13207 Bradley Ave        | Sylmar        | CA    | 91342 | 20 Goodyear            | Irvine              | CA    | 92618 |
| 13259 Ralston Ave        | Sylmar        | CA    | 91342 | 9750 Irvine Blvd       | Irvine              | CA    | 92618 |
| 15180 Bledsoe St         | Sylmar        | CA    | 91342 | 9401 Toledo Way        | Irvine              | CA    | 92618 |
| 13100 Telfair Ave        | Sylmar        | CA    | 91342 | 1 Holland              | Irvine              | CA    | 92618 |
| 12780 San Fernando Rd    | Sylmar        | CA    | 91342 | 34 Parker              | Irvine              | CA    | 92618 |
| 15624 Roxford St         | Sylmar        | CA    | 91342 | 7000 Barranca Pky      | Irvine              | CA    | 92618 |
| 13291 Ralston Ave        | Sylmar        | CA    | 91342 | 117 Waterworks Way     | Irvine              | CA    | 92618 |
| 13235 Golden State Rd    | Sylmar        | CA    | 91342 | 9500 Jeronimo Rd       | Irvine              | CA    | 92618 |
| 12744 San Fernando Rd    | Sylmar        | CA    | 91342 | 6001 Oak Canyon        | Irvine              | CA    | 92618 |
| 12745 Arroyo St          | Sylmar        | CA    | 91342 | 6489 Oak Canyon        | Irvine              | CA    | 92618 |
| 13287 Ralston Ave        | Sylmar        | CA    | 91342 | 14300 Alton Pky        | Irvine              | CA    | 92618 |
| 15825 Roxford St         | Sylmar        | CA    | 91342 | 15800 Laguna Canyon Rd | Irvine              | CA    | 92618 |
| 15860 Olden St           | Sylmar        | CA    | 91342 | 9400 Jeronimo Rd       | Irvine              | CA    | 92618 |
| 15648 Roxford St         | Sylmar        | CA    | 91342 | 5 Pasteur              | Irvine              | CA    | 92618 |
| 12975 Bradley Ave        | Sylmar        | CA    | 91342 | 9271 Jeronimo Rd       | Irvine              | CA    | 92618 |
| 14093 Balboa Blvd        | Sylmar        | CA    | 91342 | 67 Fairbanks           | Irvine              | CA    | 92618 |
| 12740 Arroyo St          | Sylmar        | CA    | 91342 | 9650 Jeronimo Rd       | Irvine              | CA    | 92618 |
| 15853 Olden St           | Sylmar        | CA    | 91342 | 8014 Marine Way        | Irvine              | CA    | 92618 |
| 13943 Balboa Blvd        | Sylmar        | CA    | 91342 | 15041 Bake Pky         | Irvine              | CA    | 92618 |
| 15148 Bledsoe St         | Sylmar        | CA    | 91342 | 9300 Toledo Way        | Irvine              | CA    | 92618 |
| 15900 Valley View Ct     | Sylmar        | CA    | 91342 | 76 Fairbanks           | Irvine              | CA    | 92618 |
| 16450 Foothill Blvd      | Sylmar        | CA    | 91342 | 9300 Toledo Way        | Irvine              | CA    | 92618 |
| 16633 Schoenborn St      | North Hills   | CA    | 91343 | 6485 Oak Canyon        | Irvine              | CA    | 92618 |
| 16719 Schoenborn St      | North Hills   | CA    | 91343 | 14155 Bake Pky         | Irvine              | CA    | 92618 |
| 16689 Schoenborn St      | North Hills   | CA    | 91343 | 10 Whatney             | Irvine              | CA    | 92618 |
| 25655 Springbrook Ave    | Santa Clarita | CA    | 91350 | 9 Holland St           | Irvine              | CA    | 92618 |
| 25655 Springbrook Ave    | Santa Clarita | CA    | 91350 | 9801 Muirlands Blvd    | Irvine              | CA    | 92618 |
| 20705 Centre Pointe Pky  | Santa Clarita | CA    | 91350 | 1585 MacArthur Blvd    | Costa Mesa          | CA    | 92626 |
| 9545 San Fernando Rd     | Sun Valley    | CA    | 91352 | 1650 Sunflower Ave     | Costa Mesa          | CA    | 92626 |
| 7900 San Fernando Rd     | Sun Valley    | CA    | 91352 | 1660 Scenic Ave        | Costa Mesa          | CA    | 92626 |
| 7608 N Clybourn Ave      | Sun Valley    | CA    | 91352 | 1683 Sunflower Ave     | Costa Mesa          | CA    | 92626 |
| 9800 Glenoaks Blvd       | Sun Valley    | CA    | 91352 | 1701 Placentia Ave     | Costa Mesa          | CA    | 92627 |
| 10635 Stagg St           | Sun Valley    | CA    | 91352 | 20200 Windrow Dr       | Lake Forest         | CA    | 92630 |
| 9171 San Fernando Rd     | Sun Valley    | CA    | 91352 | 25392 Commercentre Dr  | Lake Forest         | CA    | 92630 |
| 12250 Montague St        | Sun Valley    | CA    | 91352 | 25952 Commercentre Dr  | Lake Forest         | CA    | 92630 |
| 10947 Pendleton St       | Sun Valley    | CA    | 91352 | 25862 Commercentre Dr  | Lake Forest         | CA    | 92630 |
| 11308 Penrose St         | Sun Valley    | CA    | 91352 | 14520 Delta Ln         | Huntington Beach    | CA    | 92647 |
| 9210 San Fernando Rd     | Sun Valley    | CA    | 91352 | 17311 Nichols Ln       | Huntington Beach    | CA    | 92647 |
| 10671 Lanark St          | Sun Valley    | CA    | 91352 | 5701 Skylab Rd         | Huntington Beach    | CA    | 92647 |
| 29115 Avenue Valleyview  | Valencia      | CA    | 91355 | 5800 Skylab Rd         | Huntington Beach    | CA    | 92647 |
| 24903 Avenue Kearny      | Valencia      | CA    | 91355 | 5700 Skylab Rd         | Huntington Beach    | CA    | 92647 |
| 29010 Avenue Paine       | Valencia      | CA    | 91355 | 7391 Heil Ave          | Huntington Beach    | CA    | 92647 |
| 28104 Witherspoon Pky    | Valencia      | CA    | 91355 | 14505 Astronautics Dr  | Huntington Beach    | CA    | 92647 |
| 27712 Avenue Mentry      | Valencia      | CA    | 91355 | 5901 Bolsa Ave         | Huntington Beach    | CA    | 92647 |
| 28901 N Avenue Paine     | Valencia      | CA    | 91355 | 5601 Skylab Rd         | Huntington Beach    | CA    | 92647 |
| 27811 Hancock Pky        | Valencia      | CA    | 91355 | 5951 Skylab Rd         | Huntington Beach    | CA    | 92647 |
| 28939 Avenue Williams    | Valencia      | CA    | 91355 | 5801 Skylab Rd         | Huntington Beach    | CA    | 92647 |
| 28355 Witherspoon Pky    | Valencia      | CA    | 91355 | 16350 Gothard St       | Huntington Beach    | CA    | 92647 |
| 25045 Avenue Tibbitts    | Valencia      | CA    | 91355 | 5900 Skylab Rd         | Huntington Beach    | CA    | 92647 |
| 29125 Avenue Paine       | Valencia      | CA    | 91355 | 7601 Clay Ave          | Huntington Beach    | CA    | 92648 |
| 28751 Witherspoon Pky    | Valencia      | CA    | 91355 | 5551 McFadden Ave      | Huntington Beach    | CA    | 92649 |
| 29120 Commerce Center Dr | Valencia      | CA    | 91355 | 15342 Graham St        | Huntington Beach    | CA    | 92649 |
| 28936 Avenue Williams    | Valencia      | CA    | 91355 | 15400 Graham St        | Huntington Beach    | CA    | 92649 |
| 28470 Witherspoon Pky    | Valencia      | CA    | 91355 | 5600 Argosy Cir        | Huntington Beach    | CA    | 92649 |
| 27420 Avenue Scott       | Valencia      | CA    | 91355 | 22 Brookline           | Aliso Viejo         | CA    | 92656 |
| 28305 W Livingston Ave   | Valencia      | CA    | 91355 | 33608 Ortega Hwy       | San Juan Capistrano | CA    | 92675 |
| 26121 Avenue Hall        | Valencia      | CA    | 91355 | 30800 Rancho Viejo Rd  | San Juan Capistrano | CA    | 92675 |
| 25145 Anza Dr            | Valencia      | CA    | 91355 | 7400 Hazard Ave        | Westminster         | CA    | 92683 |
| 27680 Avenue Mentry      | Valencia      | CA    | 91355 | 15172 Goldenwest Cir   | Westminster         | CA    | 92683 |

| Property Address         | City            | State | Zip   | Property Address              | City                   | State | Zip   |
|--------------------------|-----------------|-------|-------|-------------------------------|------------------------|-------|-------|
| 28624 Witherspoon Pky    | Valencia        | CA    | 91355 | 29947 Avenida De Las Banderas | Rancho Santa Margarita | CA    | 92688 |
| 29010 Commerce Center Dr | Valencia        | CA    | 91355 | 30200 Avenida De Las Banderas | Rancho Santa Margarita | CA    | 92688 |
| 28545 Livingston Ave W   | Valencia        | CA    | 91355 | 22591 Avenida Empresa         | Rancho Santa Margarita | CA    | 92688 |
| 28909 Avenue Williams    | Valencia        | CA    | 91355 | 30322 Esperanza               | Rancho Santa Margarita | CA    | 92688 |
| 28101 Industry Dr        | Valencia        | CA    | 91355 | 625 N Grand Ave               | Santa Ana              | CA    | 92701 |
| 25200 Rye Canyon Rd      | Valencia        | CA    | 91355 | 511 N Fairview St             | Santa Ana              | CA    | 92703 |
| 28150 Industry Dr        | Valencia        | CA    | 91355 | 3100 S Susan St               | Santa Ana              | CA    | 92704 |
| 27772 Avenue Scott       | Santa Clarita   | CA    | 91355 | 3441 W MacArthur Blvd         | Santa Ana              | CA    | 92704 |
| 27727 Avenue Scott       | Valencia        | CA    | 91355 | 3100 W Segerstrom Ave         | Santa Ana              | CA    | 92704 |
| 27801 Avenue Scott       | Valencia        | CA    | 91355 | 2811 S Harbor Blvd            | Santa Ana              | CA    | 92704 |
| 28455 Livingston Ave     | Valencia        | CA    | 91355 | 2701 S Harbor Blvd            | Santa Ana              | CA    | 92704 |
| 29040 Avenue Valleyview  | Valencia        | CA    | 91355 | 2700 S Fairview St            | Santa Ana              | CA    | 92704 |
| 28454 Livingston Ave     | Valencia        | CA    | 91355 | 4041 W Garry Ave              | Santa Ana              | CA    | 92704 |
| 28680 Braxton Ave        | Valencia        | CA    | 91355 | 3300 W Segerstrom Ave         | Santa Ana              | CA    | 92704 |
| 28210 Avenue Stanford    | Valencia        | CA    | 91355 | 3731 Warner Ave               | Santa Ana              | CA    | 92704 |
| 27911 W Franklin Pky     | Valencia        | CA    | 91355 | 4042 W Garry Ave              | Santa Ana              | CA    | 92704 |
| 29125 Avenue Valley View | Valencia        | CA    | 91355 | 3300 S Fairview St            | Santa Ana              | CA    | 92704 |
| 28145 W Harrison Pky     | Valencia        | CA    | 91355 | 3030 S Susan St               | Santa Ana              | CA    | 92704 |
| 28310 W Livingston Ave   | Valencia        | CA    | 91355 | 3330 S Harbor                 | Santa Ana              | CA    | 92704 |
| 28361 Constellation Rd   | Valencia        | CA    | 91355 | 3323 W Warner Ave             | Santa Ana              | CA    | 92704 |
| 29011 Commerce Center Dr | Valencia        | CA    | 91355 | 2801 S Yale St                | Santa Ana              | CA    | 92704 |
| 24800 Avenue Rockefeller | Valencia        | CA    | 91355 | 3201 S Susan St               | Santa Ana              | CA    | 92704 |
| 21200 Victory Blvd       | Woodland Hills  | CA    | 91367 | 3400 W Garry Ave              | Santa Ana              | CA    | 92704 |
| 21240 Burbank Blvd       | Woodland Hills  | CA    | 91367 | 1929 E Saint Andrew Pl        | Santa Ana              | CA    | 92705 |
| 14000 Arminta St         | Panorama City   | CA    | 91402 | 2400 S Grand Ave              | Santa Ana              | CA    | 92705 |
| 14400 Arminta St         | Panorama City   | CA    | 91402 | 2001 E Carnegie Ave           | Santa Ana              | CA    | 92705 |
| 7860 Nelson Rd           | Van Nuys        | CA    | 91402 | 2801 Catherine Way            | Santa Ana              | CA    | 92705 |
| 7900 Nelson Rd           | Panorama City   | CA    | 91402 | 2040 E Dyer Rd                | Santa Ana              | CA    | 92705 |
| 7651 Woodman Ave         | Panorama City   | CA    | 91402 | 2036 E Dyer Rd                | Santa Ana              | CA    | 92705 |
| 14200 Arminta St         | Panorama City   | CA    | 91402 | 1800 E Dyer Rd                | Santa Ana              | CA    | 92705 |
| 7865 Nelson Rd           | Panorama City   | CA    | 91402 | 1800 E Saint Andrew Pl        | Santa Ana              | CA    | 92705 |
| 7519 Woodman Ave         | Van Nuys        | CA    | 91405 | 3030 Red Hill Ave             | Santa Ana              | CA    | 92705 |
| 15800 Roscoe Blvd        | Van Nuys        | CA    | 91406 | 2525 Pullman St               | Santa Ana              | CA    | 92705 |
| 8201 Woodley Ave         | Van Nuys        | CA    | 91406 | 1951 Carnegie Ave             | Santa Ana              | CA    | 92705 |
| 15903 Strathern St       | Van Nuys        | CA    | 91406 | 1395 S Lyon St                | Santa Ana              | CA    | 92705 |
| 15330 Raymer St          | Van Nuys        | CA    | 91406 | 1224 E Warner Ave             | Santa Ana              | CA    | 92705 |
| 15853 Strathern St       | Van Nuys        | CA    | 91406 | 2601 S Garnsey St             | Santa Ana              | CA    | 92707 |
| 7855 Hayvenhurst Ave     | Van Nuys        | CA    | 91406 | 1801 S Standard Ave           | Santa Ana              | CA    | 92707 |
| 7800 Woodley Ave         | Van Nuys        | CA    | 91406 | 2400 S Garnsey St             | Santa Ana              | CA    | 92707 |
| 15955 Strathern St       | Van Nuys        | CA    | 91406 | 2526 S Birch St               | Santa Ana              | CA    | 92707 |
| 7943 Woodley Ave         | Van Nuys        | CA    | 91406 | 302 E Goetz Ave               | Santa Ana              | CA    | 92707 |
| 15500 Erwin St           | Van Nuys        | CA    | 91411 | 515 E Dyer Rd                 | Santa Ana              | CA    | 92707 |
| 820 S Flower St          | Burbank         | CA    | 91502 | 1217 E Saint Gertrude Pl      | Santa Ana              | CA    | 92707 |
| 2980 N San Fernando Blvd | Burbank         | CA    | 91504 | 601 W Dyer Rd                 | Santa Ana              | CA    | 92707 |
| 3000 Winona Ave          | Burbank         | CA    | 91504 | 500 W Warner Ave              | Santa Ana              | CA    | 92707 |
| 4510 W Vanowen St        | Burbank         | CA    | 91505 | 11488 Slater Ave              | Fountain Valley        | CA    | 92708 |
| 960 Chestnut St          | Burbank         | CA    | 91506 | 17595 Mount Herrmann St       | Fountain Valley        | CA    | 92708 |
| 7306 Laurel Canyon Blvd  | North Hollywood | CA    | 91605 | 17235 Newhope St              | Fountain Valley        | CA    | 92708 |
| 6904 Tujunga Ave         | North Hollywood | CA    | 91605 | 17665 Newhope St              | Fountain Valley        | CA    | 92708 |
| 11651 Hart St            | North Hollywood | CA    | 91605 | 1123 Warner Ave               | Tustin                 | CA    | 92780 |
| 11500 Sherman Way        | North Hollywood | CA    | 91605 | 1200 Valencia Ave             | Tustin                 | CA    | 92780 |
| 11330 Sherman Way        | North Hollywood | CA    | 91605 | 1111 Bell Ave                 | Tustin                 | CA    | 92780 |
| 7100 Tujunga Ave         | North Hollywood | CA    | 91605 | 1382 Bell Ave                 | Tustin                 | CA    | 92780 |
| 11211 Vanowen St         | North Hollywood | CA    | 91605 | 1201 Bell Ave                 | Tustin                 | CA    | 92780 |
| 11428 Sherman Way        | North Hollywood | CA    | 91605 | 1231 Warner Ave               | Tustin                 | CA    | 92780 |
| 1100 W Hollyvale St      | Azusa           | CA    | 91702 | 2721 Michelle Dr              | Tustin                 | CA    | 92780 |
| 6230 N Irwindale Ave     | Azusa           | CA    | 91702 | 1101 Bell Ave                 | Tustin                 | CA    | 92780 |

| Property Address        | City         | State | Zip   | Property Address          | City      | State | Zip   |
|-------------------------|--------------|-------|-------|---------------------------|-----------|-------|-------|
| 1017 W 5th St           | Azusa        | CA    | 91702 | 3101 W Sunflower Ave      | Santa Ana | CA    | 92799 |
| 1344 W Foothill Blvd    | Azusa        | CA    | 91702 | 353 N Euclid Way          | Anaheim   | CA    | 92801 |
| 823 W 8th St            | Azusa        | CA    | 91702 | 1256 N Magnolia Ave       | Anaheim   | CA    | 92801 |
| 16100 E Foothill Blvd   | Irwindale    | CA    | 91702 | 1160 N Anaheim Blvd       | Anaheim   | CA    | 92801 |
| 970 W Sierra Madre Ave  | Azusa        | CA    | 91702 | 1201 N Magnolia Ave       | Anaheim   | CA    | 92801 |
| 311 Aerojet Ave         | Azusa        | CA    | 91702 | 1415 N Raymond Ave        | Anaheim   | CA    | 92801 |
| 1223 W 10th Ave         | Azusa        | CA    | 91702 | 400 E Orangethorpe Ave    | Anaheim   | CA    | 92801 |
| 1000 W Sierra Madre Ave | Azusa        | CA    | 91702 | 1212 N Hubbell Way        | Anaheim   | CA    | 92801 |
| 601 S Vincent Ave       | Azusa        | CA    | 91702 | 1226 N Olive St           | Anaheim   | CA    | 92801 |
| 1055 W 8th St           | Azusa        | CA    | 91702 | 500 E Orangethorpe Ave    | Anaheim   | CA    | 92801 |
| 500 W Danlee Dr         | Azusa        | CA    | 91702 | 1111 N Brookhurst St      | Anaheim   | CA    | 92801 |
| 975 W 8th St            | Azusa        | CA    | 91702 | 295 E Orangethorpe Ave    | Anaheim   | CA    | 92801 |
| 1100 Baldwin Park Blvd  | Baldwin Park | CA    | 91706 | 1765 Penhall Way          | Anaheim   | CA    | 92801 |
| 5082 4th St             | Irwindale    | CA    | 91706 | 1515 S Manchester Ave     | Anaheim   | CA    | 92802 |
| 13502 Virginia Ave      | Baldwin Park | CA    | 91706 | 2114 W Ball Rd            | Anaheim   | CA    | 92804 |
| 5793 Martin Rd          | Irwindale    | CA    | 91706 | 1500 S Anaheim Blvd       | Anaheim   | CA    | 92805 |
| 15761 Tapia St          | Irwindale    | CA    | 91706 | 1620 S Lewis St           | Anaheim   | CA    | 92805 |
| 13245 Los Angeles St    | Baldwin Park | CA    | 91706 | 1331 S Vernon St          | Anaheim   | CA    | 92805 |
| 600 Live Oak Ave        | Irwindale    | CA    | 91706 | 901 E Ball Rd             | Anaheim   | CA    | 92805 |
| 5091 4th St             | Irwindale    | CA    | 91706 | 1400 S Allec St           | Anaheim   | CA    | 92805 |
| 16033 Arrow Hwy         | Irwindale    | CA    | 91706 | 1001 E Ball Rd            | Anaheim   | CA    | 92805 |
| 1450 Virginia Ave       | Baldwin Park | CA    | 91706 | 1501 E Cerritos Ave       | Anaheim   | CA    | 92805 |
| 5400 N Irwindale Ave    | Irwindale    | CA    | 91706 | 1201 E Cerritos Ave       | Anaheim   | CA    | 92805 |
| 5300 Irwindale Ave      | Irwindale    | CA    | 91706 | 1000 E Ball Rd            | Anaheim   | CA    | 92805 |
| 16180 Ornelas St        | Irwindale    | CA    | 91706 | 929 E South St            | Anaheim   | CA    | 92805 |
| 5301 Rivergrade Rd      | Irwindale    | CA    | 91706 | 1771 S Lewis St           | Anaheim   | CA    | 92805 |
| 4826 4th St             | Irwindale    | CA    | 91706 | 1730 S Anaheim Way        | Anaheim   | CA    | 92805 |
| 4889 4th St             | Irwindale    | CA    | 91706 | 1051 S East St            | Anaheim   | CA    | 92805 |
| 4414 Azusa Canyon Rd    | Irwindale    | CA    | 91706 | 1515 E Winston Rd         | Anaheim   | CA    | 92805 |
| 5555 N Irwindale Ave    | Irwindale    | CA    | 91706 | 601 E Ball Rd             | Anaheim   | CA    | 92805 |
| 4800 Azusa Canyon Rd    | Irwindale    | CA    | 91706 | 710 E Ball Rd             | Anaheim   | CA    | 92805 |
| 15601 Cypress Ave       | Irwindale    | CA    | 91706 | 500 E Cerritos Ave        | Anaheim   | CA    | 92805 |
| 4401 Foxdale St         | Irwindale    | CA    | 91706 | 1625 S Lewis St           | Anaheim   | CA    | 92805 |
| 4981 4th St             | Irwindale    | CA    | 91706 | 1045 S East St            | Anaheim   | CA    | 92805 |
| 4775 Irwindale Ave      | Irwindale    | CA    | 91706 | 1455 S Allec St           | Anaheim   | CA    | 92805 |
| 16142 Fern Ave          | Chino        | CA    | 91708 | 3356 E La Palma Ave       | Anaheim   | CA    | 92806 |
| 15989 Cypress Ave       | Chino        | CA    | 91708 | 1423 S State College Blvd | Anaheim   | CA    | 92806 |
| 8601 Merrill Ave        | Chino        | CA    | 91708 | 1600 N Kraemer Blvd       | Anaheim   | CA    | 92806 |
| 15820 Euclid Ave        | Chino        | CA    | 91708 | 1206 N Miller St          | Anaheim   | CA    | 92806 |
| 16043 El Prado          | Chino        | CA    | 91708 | 1440 N Kraemer Blvd       | Anaheim   | CA    | 92806 |
| 6720 Kimball Ave        | Chino        | CA    | 91708 | 2121 E Winston Rd         | Anaheim   | CA    | 92806 |
| 6911 Bickmore Ave       | Chino        | CA    | 91708 | 2201 E Cerritos Ave       | Anaheim   | CA    | 92806 |
| 16388 Fern Ave          | Chino        | CA    | 91708 | 3130 Miraloma Ave         | Anaheim   | CA    | 92806 |
| 6509 Kimball Ave        | Chino        | CA    | 91708 | 2891 E Miraloma Ave       | Anaheim   | CA    | 92806 |
| 15710 San Antonio Ave   | Chino        | CA    | 91708 | 1200 N Miller St          | Anaheim   | CA    | 92806 |
| 15785 Mountain Ave      | Chino        | CA    | 91708 | 1919 S State College Blvd | Anaheim   | CA    | 92806 |
| 16300 Fern Ave          | Chino        | CA    | 91708 | 3190 Miraloma Ave         | Anaheim   | CA    | 92806 |
| 6720 Kimball Ave        | Chino        | CA    | 91708 | 3310 E Miraloma Ave       | Anaheim   | CA    | 92806 |
| 8646 Enterprise Way     | Chino Hills  | CA    | 91708 | 1231 N Miller St          | Anaheim   | CA    | 92806 |
| 15835 San Antonio Ave   | Chino        | CA    | 91708 | 1211 N Miller St          | Anaheim   | CA    | 92806 |
| 6750 Kimball Ave        | Chino        | CA    | 91708 | 1151 N Ocean Cir          | Anaheim   | CA    | 92806 |
| 15780 El Prado Rd       | Chino        | CA    | 91708 | 1650 N Kraemer Blvd       | Anaheim   | CA    | 92806 |
| 15970 Mountain Ave      | Chino        | CA    | 91708 | 1540 S Page Ct            | Anaheim   | CA    | 92806 |
| 16380 Euclid Ave        | Chino        | CA    | 91708 | 3125 E Coronado St        | Anaheim   | CA    | 92806 |
| 6377 Kimball Ave        | Chino        | CA    | 91708 | 3335 E La Palma Ave       | Anaheim   | CA    | 92806 |
| 15704 Mountain Ave      | Chino        | CA    | 91708 | 1204 N Miller St          | Anaheim   | CA    | 92806 |
| 15578 Hellman Ave       | Chino        | CA    | 91708 | 1202 N Miller St          | Anaheim   | CA    | 92806 |
| 15730 Mountain Ave      | Chino        | CA    | 91708 | 1150 N Red Gum St         | Anaheim   | CA    | 92806 |
| 16081 S Fern Ave        | Chino        | CA    | 91708 | 1000 N Edward Ct          | Anaheim   | CA    | 92806 |
| 15913 Mountain Ave      | Chino        | CA    | 91708 | 2040 S State College Blvd | Anaheim   | CA    | 92806 |
| 8719 Enterprise Way     | Chino        | CA    | 91708 | 3340 E La Palma Ave       | Anaheim   | CA    | 92806 |
| 16045 Mountain Ave      | Chino        | CA    | 91708 | 1153 N Ocean Cir          | Anaheim   | CA    | 92806 |
| 6716 Bickmore Ave       | Chino        | CA    | 91708 | 3454 E Miraloma Ave       | Anaheim   | CA    | 92806 |
| 16133 Fern Ave          | Chino        | CA    | 91708 | 3845 E Coronado St        | Anaheim   | CA    | 92807 |

| Property Address         | City        | State | Zip   | Property Address          | City      | State | Zip   |
|--------------------------|-------------|-------|-------|---------------------------|-----------|-------|-------|
| 15910 Euclid Ave         | Chino       | CA    | 91708 | 5455 E La Palma Ave       | Anaheim   | CA    | 92807 |
| 6711 Bickmore Ave        | Chino       | CA    | 91708 | 5115 E La Palma Ave       | Anaheim   | CA    | 92807 |
| 15207 Flight Ave         | Chino       | CA    | 91708 | 4875 E Hunter Ave         | Anaheim   | CA    | 92807 |
| 15702 Cypress Ave        | Chino       | CA    | 91708 | 1230 N Tustin Ave         | Anaheim   | CA    | 92807 |
| 6725 Kimball Ave         | Chino       | CA    | 91708 | 5235 E Hunter Ave         | Anaheim   | CA    | 92807 |
| 15221 Fairfield Ranch Rd | Chino Hills | CA    | 91709 | 4633 E La Palma Ave       | Anaheim   | CA    | 92807 |
| 15291 Fairfield Ranch Rd | Chino Hills | CA    | 91709 | 1275 N Manassero St       | Anaheim   | CA    | 92807 |
| 15271 Fairfield Ranch Rd | Chino Hills | CA    | 91709 | 5425 E La Palma Ave       | Anaheim   | CA    | 92807 |
| 13775 Magnolia Ave       | Chino       | CA    | 91710 | 5325 E Hunter Ave         | Anaheim   | CA    | 92807 |
| 13445 12th St            | Chino       | CA    | 91710 | 5001 E La Palma Ave       | Anaheim   | CA    | 92807 |
| 13602 12th St            | Chino       | CA    | 91710 | 1265 N Van Buren St       | Anaheim   | CA    | 92807 |
| 13925 Pipeline Ave       | Chino       | CA    | 91710 | 5200 E La Palma Ave       | Anaheim   | CA    | 92807 |
| 15559 Flight Ave         | Chino       | CA    | 91710 | 105 S Puente St           | Brea      | CA    | 92821 |
| 15097 Van Vliet Ave      | Chino       | CA    | 91710 | 2701 E Imperial Hwy       | Brea      | CA    | 92821 |
| 13799 Monte Vista Ave    | Chino       | CA    | 91710 | 114 S Berry St            | Brea      | CA    | 92821 |
| 13931 Yorba Ave          | Chino       | CA    | 91710 | 408 Saturn St             | Brea      | CA    | 92821 |
| 4450 Edison Ave          | Chino       | CA    | 91710 | 3200 Enterprise St        | Brea      | CA    | 92821 |
| 5400 Alton St            | Chino       | CA    | 91710 | 300 E Cypress St          | Brea      | CA    | 92821 |
| 14101 Pipeline Ave       | Chino       | CA    | 91710 | 205 S Puente St           | Brea      | CA    | 92821 |
| 5085 Schaefer Ave        | Chino       | CA    | 91710 | 113 Viking Ave            | Brea      | CA    | 92821 |
| 13824 Yorba Ave          | Chino       | CA    | 91710 | 3300 E Birch St           | Brea      | CA    | 92821 |
| 13880 Monte Vista Ave    | Chino       | CA    | 91710 | 895 Columbia St           | Brea      | CA    | 92821 |
| 13780 Central Ave        | Chino       | CA    | 91710 | 630 E Lambert Rd          | Brea      | CA    | 92821 |
| 4091 E Francis Ave       | Ontario     | CA    | 91710 | 200 N Berry St            | Brea      | CA    | 92821 |
| 14701 Yorba Ave          | Chino       | CA    | 91710 | 2830 Orbiter St           | Brea      | CA    | 92821 |
| 15065 Flight Ave         | Chino       | CA    | 91710 | 350 Ranger Ave            | Brea      | CA    | 92821 |
| 13950 Norton Ave         | Chino       | CA    | 91710 | 100 S Puente St           | Brea      | CA    | 92821 |
| 4340 Eucalyptus Ave      | Chino       | CA    | 91710 | 200 N Puente St           | Brea      | CA    | 92821 |
| 14680 Monte Vista Ave    | Chino       | CA    | 91710 | 250 S Kraemer Blvd        | Brea      | CA    | 92821 |
| 6910 Bickmore Ave        | Chino       | CA    | 91710 | 3172 Nasa St              | Brea      | CA    | 92821 |
| 4626 Eucalyptus Ave      | Chino       | CA    | 91710 | 2750 Orbiter St           | Brea      | CA    | 92821 |
| 4681 Edison Ave          | Chino       | CA    | 91710 | 1225 W Imperial Hwy       | Brea      | CA    | 92821 |
| 4361 Edison Ave          | Chino       | CA    | 91710 | 2650 Orbiter St           | Brea      | CA    | 92821 |
| 13725 Pipeline Ave       | Chino       | CA    | 91710 | 566 Vanguard Way          | Brea      | CA    | 92821 |
| 4950 Edison Ave          | Chino       | CA    | 91710 | 675 S Placentia Ave       | Fullerton | CA    | 92831 |
| 14430 Monte Vista Ave    | Chino       | CA    | 91710 | 1400 S Manhattan Ave      | Fullerton | CA    | 92831 |
| 5521 Schaefer Ave        | Chino       | CA    | 91710 | 2020 E Orangethorpe Ave   | Fullerton | CA    | 92831 |
| 4271 Edison Ave          | Chino       | CA    | 91710 | 2100 E Valencia Dr        | Fullerton | CA    | 92831 |
| 14425 Yorba Ave          | Chino       | CA    | 91710 | 1030 E Valencia Dr        | Fullerton | CA    | 92831 |
| 13950 Ramona Ave         | Chino       | CA    | 91710 | 1600 E Valencia Dr        | Fullerton | CA    | 92831 |
| 12851 Reservoir St       | Chino       | CA    | 91710 | 700 S Raymond Ave         | Fullerton | CA    | 92831 |
| 8986 Remington Ave       | Chino       | CA    | 91710 | 315 S Hale Ave            | Fullerton | CA    | 92831 |
| 14035 Pipeline Ave       | Chino       | CA    | 91710 | 1335 S Acacia Ave         | Fullerton | CA    | 92831 |
| 5150 Eucalyptus Ave      | Chino       | CA    | 91710 | 601 S Acacia Ave          | Fullerton | CA    | 92831 |
| 13770 Norton Ave         | Chino       | CA    | 91710 | 1820 E Valencia Dr        | Fullerton | CA    | 92831 |
| 15616 Euclid Ave         | Chino       | CA    | 91710 | 1500 E Valencia Dr        | Fullerton | CA    | 92831 |
| 13860 Ramona Ave         | Chino       | CA    | 91710 | 1415 S Acacia St          | Fullerton | CA    | 92831 |
| 5150 Edison Ave          | Chino       | CA    | 91710 | 1610 E Orangethorpe Ave   | Fullerton | CA    | 92831 |
| 14210 Telephone Ave      | Chino       | CA    | 91710 | 800 S State College Blvd  | Fullerton | CA    | 92831 |
| 13851 Ramona Ave         | Chino       | CA    | 91710 | 1500 E Walnut Ave         | Fullerton | CA    | 92831 |
| 13771 Norton Ave         | Chino       | CA    | 91710 | 800 S Raymond Ave         | Fullerton | CA    | 92831 |
| 8985 Merrill Ave         | Chino       | CA    | 91710 | 1551 E Orangethorpe Ave   | Fullerton | CA    | 92831 |
| 5026 Chino Hills Pky     | Chino       | CA    | 91710 | 1424 S Raymond Ave        | Fullerton | CA    | 92831 |
| 4640 Vinita Ct           | Chino       | CA    | 91710 | 667 S State College Blvd  | Fullerton | CA    | 92831 |
| 14275 Telephone Ave      | Chino       | CA    | 91710 | 1401 E Orangethorpe Ave   | Fullerton | CA    | 92831 |
| 5045 Eucalyptus Ave      | Chino       | CA    | 91710 | 350 S Raymond Ave         | Fullerton | CA    | 92831 |
| 13850 Central Ave        | Chino       | CA    | 91710 | 2001 E Orangethorpe Ave   | Fullerton | CA    | 92831 |
| 13875 Ramona Ave         | Chino       | CA    | 91710 | 701 S Sally Pl            | Fullerton | CA    | 92831 |
| 4980 Eucalyptus Ave      | Chino       | CA    | 91710 | 1050 S State College Blvd | Fullerton | CA    | 92831 |
| 4250 Eucalyptus Ave      | Chino       | CA    | 91710 | 1901 E Rossllynn Ave      | Fullerton | CA    | 92831 |
| 13950 Mountain Ave       | Chino       | CA    | 91710 | 2501 E Orangethorpe Ave   | Fullerton | CA    | 92831 |
| 13404 Monte Vista Ave    | Chino       | CA    | 91710 | 2441 Cypress Way          | Fullerton | CA    | 92831 |
| 13941 Norton Ave         | Chino       | CA    | 91710 | 1800 E Orangethorpe Ave   | Fullerton | CA    | 92831 |
| 5116 Chino Hills Pky     | Chino       | CA    | 91710 | 2340 E Walnut Ave         | Fullerton | CA    | 92831 |

| Property Address      | City             | State | Zip   | Property Address           | City         | State | Zip   |
|-----------------------|------------------|-------|-------|----------------------------|--------------|-------|-------|
| 14525 Monte Vista Ave | Chino            | CA    | 91710 | 2325 Moore Ave             | Fullerton    | CA    | 92833 |
| 14207 Monte Vista Ave | Chino            | CA    | 91710 | 2330 Raymer Ave            | Fullerton    | CA    | 92833 |
| 4651 Schaefer Ave     | Chino            | CA    | 91710 | 2009 Raymer Ave            | Fullerton    | CA    | 92833 |
| 14141 Yorba Ave       | Chino            | CA    | 91710 | 560 N Gilbert St           | Fullerton    | CA    | 92833 |
| Monte Vista Ave       | Chino            | CA    | 91710 | 1920 Malvern St            | Fullerton    | CA    | 92833 |
| 8721 Merrill Ave      | Chino            | CA    | 91710 | 2425 W Commonwealth Ave    | Fullerton    | CA    | 92833 |
| 14310 Ramona Ave      | Chino            | CA    | 91710 | 570 N Gilbert St           | Fullerton    | CA    | 92833 |
| 4451 Eucalyptus Ave   | Chino            | CA    | 91710 | 2430 W Artesia Blvd        | Fullerton    | CA    | 92833 |
| 13971 Norton Ave      | Chino            | CA    | 91710 | 2750 W Moore Ave           | Fullerton    | CA    | 92833 |
| 13950 Yorba Ave       | Chino            | CA    | 91710 | 1930 Malvern St            | Fullerton    | CA    | 92833 |
| 14510 Monte Vista Ave | Chino            | CA    | 91710 | 691 Burning Tree Rd        | Fullerton    | CA    | 92833 |
| 14725 Monte Vista Ave | Chino            | CA    | 91710 | 1881 W Malvern Ave         | Fullerton    | CA    | 92833 |
| 5125 Schaefer Ave     | Chino            | CA    | 91710 | 1901 Raymer Ave            | Fullerton    | CA    | 92833 |
| 14120 Ramona Ave      | Chino            | CA    | 91710 | 4225 N Palm St             | Fullerton    | CA    | 92835 |
| 14326 Monte Vista Ave | Chino            | CA    | 91710 | 4260 N Harbor Blvd         | Fullerton    | CA    | 92835 |
| 6185 Kimball Ave      | Chino            | CA    | 91710 | 458 E Lambert Rd           | Fullerton    | CA    | 92835 |
| 14651 Yorba Ave       | Chino            | CA    | 91710 | 4250 N Harbor Blvd         | Fullerton    | CA    | 92835 |
| 13775 Ramona Ave      | Chino            | CA    | 91710 | 210 E Lambert Rd           | Fullerton    | CA    | 92835 |
| 14000 Monte Vista Ave | Chino            | CA    | 91710 | 4201 Bonita Pl             | Fullerton    | CA    | 92835 |
| 5151 Eucalyptus Ave   | Chino            | CA    | 91710 | 4150 N Palm St             | Fullerton    | CA    | 92835 |
| 15245 Van Vliet Ave   | Chino            | CA    | 91710 | 4278 N Harbor Blvd         | Fullerton    | CA    | 92835 |
| 14286 Monte Vista Ave | Chino            | CA    | 91710 | 7421 Chapman Ave           | Garden Grove | CA    | 92841 |
| 13975 Monte Vista Ave | Chino            | CA    | 91710 | 12122 Western Ave          | Garden Grove | CA    | 92841 |
| 4775 Eucalyptus Ave   | Chino            | CA    | 91710 | 7571 Lampson Ave           | Garden Grove | CA    | 92841 |
| 5051 Edison Ave       | Chino            | CA    | 91710 | 12752 Monarch St           | Garden Grove | CA    | 92841 |
| 13428 Benson Ave      | Chino            | CA    | 91710 | 12131 Western Ave          | Garden Grove | CA    | 92841 |
| 13770 Ramona Ave      | Chino            | CA    | 91710 | 12101 Western Ave          | Garden Grove | CA    | 92841 |
| 14720 Monte Vista Ave | Chino            | CA    | 91710 | 11955 Monarch St           | Garden Grove | CA    | 92841 |
| 8599 Rochester Ave    | Rancho Cucamonga | CA    | 91730 | 7301 Orangewood Ave        | Garden Grove | CA    | 92841 |
| 9409 Buffalo Ave      | Rancho Cucamonga | CA    | 91730 | 12571 Western Ave          | Garden Grove | CA    | 92841 |
| 10299 6th St          | Rancho Cucamonga | CA    | 91730 | 12821 Knott St             | Garden Grove | CA    | 92841 |
| 8949 Buffalo Ave      | Rancho Cucamonga | CA    | 91730 | 12570 Knott St             | Garden Grove | CA    | 92841 |
| 10621 6th St          | Rancho Cucamonga | CA    | 91730 | 7361 Doig Dr               | Garden Grove | CA    | 92841 |
| 11711 Arrow Route     | Rancho Cucamonga | CA    | 91730 | 11700 Monarch St           | Garden Grove | CA    | 92841 |
| 11335 Jersey Blvd     | Rancho Cucamonga | CA    | 91730 | 7372 Doig Dr               | Garden Grove | CA    | 92841 |
| 9160 N Buffalo Ave    | Rancho Cucamonga | CA    | 91730 | 7366 Orangewood Ave        | Garden Grove | CA    | 92841 |
| 10865 Jersey Blvd     | Rancho Cucamonga | CA    | 91730 | 7300 Chapman Ave           | Garden Grove | CA    | 92841 |
| 12155 6th St          | Rancho Cucamonga | CA    | 91730 | 1900 2nd St                | Norco        | CA    | 92860 |
| 11081 Tacoma Dr       | Rancho Cucamonga | CA    | 91730 | 3390 Horseless Carriage Dr | Norco        | CA    | 92860 |
| 11701 6th St          | Rancho Cucamonga | CA    | 91730 | 1300 W Taft Ave            | Orange       | CA    | 92865 |
| 10680 Acacia St       | Rancho Cucamonga | CA    | 91730 | 2060 N Batavia St          | Orange       | CA    | 92865 |
| 10660 Acacia St       | Rancho Cucamonga | CA    | 91730 | 2164 N Batavia St          | Orange       | CA    | 92865 |
| 11600 Millenium Ct    | Rancho Cucamonga | CA    | 91730 | 615 N Grove Ave            | Orange       | CA    | 92865 |
| 10670 6th St          | Rancho Cucamonga | CA    | 91730 | 230 W Blueridge Ave        | Orange       | CA    | 92865 |
| 11600 Dayton Dr       | Rancho Cucamonga | CA    | 91730 | 2079 N Glassell St         | Orange       | CA    | 92865 |
| 11167 White Birch Dr  | Rancho Cucamonga | CA    | 91730 | 2095 N Batavia St          | Orange       | CA    | 92865 |
| 8595 Milliken Ave     | Rancho Cucamonga | CA    | 91730 | 1481 N Main St             | Orange       | CA    | 92867 |
| 9150 Hermosa Ave      | Rancho Cucamonga | CA    | 91730 | 833 N Elm St               | Orange       | CA    | 92867 |
| 11555 Arrow Route     | Rancho Cucamonga | CA    | 91730 | 750 N Main St              | Orange       | CA    | 92868 |
| 9292 9th St           | Rancho Cucamonga | CA    | 91730 | 759 N Eckhoff St           | Orange       | CA    | 92868 |
| 9449 8th St           | Rancho Cucamonga | CA    | 91730 | 625 W Palm Ave             | Orange       | CA    | 92868 |
| 10808 6th St          | Rancho Cucamonga | CA    | 91730 | 190 W Crowther Ave         | Placentia    | CA    | 92870 |
| 11530 6th St          | Rancho Cucamonga | CA    | 91730 | 355 S Melrose St           | Placentia    | CA    | 92870 |
| 9345 Santa Anita Ave  | Rancho Cucamonga | CA    | 91730 | 200 Boysenberry Ln         | Placentia    | CA    | 92870 |
| 9560 Buffalo Ave      | Rancho Cucamonga | CA    | 91730 | 1575 Magnolia Ave          | Corona       | CA    | 92878 |
| 8901 Arrow Route      | Rancho Cucamonga | CA    | 91730 | 150 E Radio Rd             | Corona       | CA    | 92879 |
| 9545 Santa Anita Ave  | Rancho Cucamonga | CA    | 91730 | 1375 Sampson Ave           | Corona       | CA    | 92879 |
| 9325 Santa Anita Ave  | Rancho Cucamonga | CA    | 91730 | 1001 El Camino Ave         | Corona       | CA    | 92879 |
| 10667 Jersey Blvd     | Rancho Cucamonga | CA    | 91730 | 300 E Parkridge Ave        | Corona       | CA    | 92879 |
| 9000 9th St           | Rancho Cucamonga | CA    | 91730 | 1283 Sherborn St           | Corona       | CA    | 92879 |
| 8858 Rochester Ave    | Rancho Cucamonga | CA    | 91730 | 515 S Promenade Ave        | Corona       | CA    | 92879 |
| 10650 4th St          | Rancho Cucamonga | CA    | 91730 | 1223 Sherborn St           | Corona       | CA    | 92879 |
| 11246 Jersey Blvd     | Rancho Cucamonga | CA    | 91730 | 2553 Sampson Ave           | Corona       | CA    | 92879 |
| 9101 Hermosa Ave      | Rancho Cucamonga | CA    | 91730 | 1560 E 6th St              | Corona       | CA    | 92879 |

| Property Address     | City             | State | Zip   | Property Address         | City        | State | Zip   |
|----------------------|------------------|-------|-------|--------------------------|-------------|-------|-------|
| 8449 Milliken Ave    | Rancho Cucamonga | CA    | 91730 | 555 S Promenade Ave      | Corona      | CA    | 92879 |
| 10404 6th St         | Rancho Cucamonga | CA    | 91730 | 222 S Promenade Ave      | Corona      | CA    | 92879 |
| 8400 Milliken Ave    | Rancho Cucamonga | CA    | 91730 | 353 Meyer Cir            | Corona      | CA    | 92879 |
| 9471 Buffalo Ave     | Rancho Cucamonga | CA    | 91730 | 1470 E 6th St            | Corona      | CA    | 92879 |
| 11096 Jersey Blvd    | Rancho Cucamonga | CA    | 91730 | 1660 Leeson Ln           | Corona      | CA    | 92879 |
| 10013 8th St         | Rancho Cucamonga | CA    | 91730 | 265 Radio Rd             | Corona      | CA    | 92879 |
| 9333 Hermosa Ave     | Rancho Cucamonga | CA    | 91730 | 264 Mariah Cir           | Corona      | CA    | 92879 |
| 8369 Milliken Ave    | Rancho Cucamonga | CA    | 91730 | 1550 Magnolia Ave        | Corona      | CA    | 92879 |
| 9363 Lucas Ranch Rd  | Rancho Cucamonga | CA    | 91730 | 1235 E Quarry St         | Corona      | CA    | 92879 |
| 12434 4th St         | Rancho Cucamonga | CA    | 91730 | 725 E Harrison St        | Corona      | CA    | 92879 |
| 11599 Arrow Rt       | Rancho Cucamonga | CA    | 91730 | 1493 E Bentley Dr        | Corona      | CA    | 92879 |
| 9678 Utica Ave       | Rancho Cucamonga | CA    | 91730 | 580 E Harrison St        | Corona      | CA    | 92879 |
| 9189 Utica Ave       | Rancho Cucamonga | CA    | 91730 | 395 Smitty Way           | Corona      | CA    | 92879 |
| 9059 Hermosa Ave     | Rancho Cucamonga | CA    | 91730 | 2571 Sampson Ave         | Corona      | CA    | 92879 |
| 8535 Oakwood Pl      | Rancho Cucamonga | CA    | 91730 | 235 Radio Rd             | Corona      | CA    | 92879 |
| 8865 Utica Ave       | Rancho Cucamonga | CA    | 91730 | 1275 Quarry St           | Corona      | CA    | 92879 |
| 9133 Center Ave      | Rancho Cucamonga | CA    | 91730 | 375 TRM Cir              | Corona      | CA    | 92879 |
| 9120 Center Ave      | Rancho Cucamonga | CA    | 91730 | 545 Alcoa Cir            | Corona      | CA    | 92880 |
| 10750 7th St         | Rancho Cucamonga | CA    | 91730 | 550 Monica Cir           | Corona      | CA    | 92880 |
| 11400 Newport Dr     | Rancho Cucamonga | CA    | 91730 | 2380 Railroad St         | Corona      | CA    | 92880 |
| 9168 Hermosa Ave     | Rancho Cucamonga | CA    | 91730 | 1692 Jenks Dr            | Corona      | CA    | 92880 |
| 11655 Jersey Blvd    | Rancho Cucamonga | CA    | 91730 | 1990 Pomona Rd           | Corona      | CA    | 92880 |
| 8825 Boston Pl       | Rancho Cucamonga | CA    | 91730 | 451 N Cota St            | Corona      | CA    | 92880 |
| 9141 Arrow Hwy       | Rancho Cucamonga | CA    | 91730 | 220 Klug Cir             | Corona      | CA    | 92880 |
| 8291 Milliken Ave    | Rancho Cucamonga | CA    | 91730 | 250 Airport Cir          | Corona      | CA    | 92880 |
| 9180 Center Ave      | Rancho Cucamonga | CA    | 91730 | 475 N Sheridan St        | Corona      | CA    | 92880 |
| 8840 Flower Rd       | Rancho Cucamonga | CA    | 91730 | 150 S Maple St           | Corona      | CA    | 92880 |
| 10401 7th St         | Rancho Cucamonga | CA    | 91730 | 299 N Smith Ave          | Corona      | CA    | 92880 |
| 9448 Richmond Pl     | Rancho Cucamonga | CA    | 91730 | 132 Business Center Dr   | Corona      | CA    | 92880 |
| 10825 7th St         | Rancho Cucamonga | CA    | 91730 | 14969 Summit Dr          | Eastvale    | CA    | 92880 |
| 9650 9th St          | Rancho Cucamonga | CA    | 91730 | 250 Klug Cir             | Corona      | CA    | 92880 |
| 9041 Pittsburgh Ave  | Rancho Cucamonga | CA    | 91730 | 150 N Maple St           | Corona      | CA    | 92880 |
| 9050 Hermosa Ave     | Rancho Cucamonga | CA    | 91730 | 1400 W Rincon St         | Corona      | CA    | 92880 |
| 11355 Arrow Route    | Rancho Cucamonga | CA    | 91730 | 1160 W Rincon St         | Corona      | CA    | 92880 |
| 11601 Dayton Dr      | Rancho Cucamonga | CA    | 91730 | 311 Cessna Cir           | Corona      | CA    | 92880 |
| 11200 Arrow Route    | Rancho Cucamonga | CA    | 91730 | 6300 Providence Way      | Eastvale    | CA    | 92880 |
| 9393 Arrow Route     | Rancho Cucamonga | CA    | 91730 | 14940 Summit Dr          | Eastvale    | CA    | 92880 |
| 12320 4th St         | Rancho Cucamonga | CA    | 91730 | 450 N Sheridan St        | Corona      | CA    | 92880 |
| 9060 Rochester Ave   | Rancho Cucamonga | CA    | 91730 | 341 Bonnie Cir           | Corona      | CA    | 92880 |
| 10655 E 7th St       | Rancho Cucamonga | CA    | 91730 | 311 Bonnie Cir           | Corona      | CA    | 92880 |
| 8784 Rochester Ave   | Rancho Cucamonga | CA    | 91730 | 1000 W Rincon St         | Corona      | CA    | 92880 |
| 8950 Toronto Ave     | Rancho Cucamonga | CA    | 91730 | 14939 Summit Dr          | Eastvale    | CA    | 92880 |
| 9408 Richmond Pl     | Rancho Cucamonga | CA    | 91730 | 345 Cessna Cir           | Corona      | CA    | 92880 |
| 12320 4th St         | Rancho Cucamonga | CA    | 91730 | 185 N Smith Ave          | Corona      | CA    | 92880 |
| 10220 4th St         | Rancho Cucamonga | CA    | 91730 | 2455 Wardlow Rd          | Corona      | CA    | 92880 |
| 9955 6th St          | Rancho Cucamonga | CA    | 91730 | 1170 W Rincon St         | Corona      | CA    | 92880 |
| 9000 Rochester Ave   | Rancho Cucamonga | CA    | 91730 | 1150 W Rincon St         | Corona      | CA    | 92880 |
| 8950 Rochester Ave   | Rancho Cucamonga | CA    | 91730 | 1295 E Ontario Ave       | Corona      | CA    | 92881 |
| 10955 Arrow Rt       | Rancho Cucamonga | CA    | 91730 | 1851 California Ave      | Corona      | CA    | 92881 |
| 9089 8th St          | Rancho Cucamonga | CA    | 91730 | 1930 California Ave      | Corona      | CA    | 92881 |
| 11190 White Birch Dr | Rancho Cucamonga | CA    | 91730 | 1241 Old Temescal Rd     | Corona      | CA    | 92881 |
| 9520 Santa Anita Ave | Rancho Cucamonga | CA    | 91730 | 1161 Olympic Dr          | Corona      | CA    | 92881 |
| 9100 9th St          | Rancho Cucamonga | CA    | 91730 | 1346 Railroad St         | Corona      | CA    | 92882 |
| 9275 Buffalo Ave     | Rancho Cucamonga | CA    | 91730 | 909 W Railroad St        | Corona      | CA    | 92882 |
| 8998 Hyssop Ave      | Rancho Cucamonga | CA    | 91730 | 1010 Railroad St         | Corona      | CA    | 92882 |
| 9282 Pittsburgh Ave  | Rancho Cucamonga | CA    | 91730 | 1351 Railroad St         | Corona      | CA    | 92882 |
| 11195 Eucalyptus St  | Rancho Cucamonga | CA    | 91730 | 2621 Research Dr         | Corona      | CA    | 92882 |
| 9121 Pittsburgh Ave  | Rancho Cucamonga | CA    | 91730 | 2616 Research Dr         | Corona      | CA    | 92882 |
| 12250 E 4th St       | Rancho Cucamonga | CA    | 91730 | 22324 Temescal Canyon Rd | Corona      | CA    | 92883 |
| 9199 Cleveland Ave   | Rancho Cucamonga | CA    | 91730 | 22420 Temescal Canyon Rd | Corona      | CA    | 92883 |
| 9595 Utica Ave       | Rancho Cucamonga | CA    | 91730 | 21937 Knabe Rd           | Corona      | CA    | 92883 |
| 8886 White Oak Ave   | Rancho Cucamonga | CA    | 91730 | 22705 Savi Ranch Pky     | Yorba Linda | CA    | 92887 |
| 4501 Arden Dr        | El Monte         | CA    | 91731 |                          |             |       |       |
| 9320 Telstar Ave     | El Monte         | CA    | 91731 |                          |             |       |       |

| Property Address      | City             | State | Zip   | Property Address | City | State | Zip |
|-----------------------|------------------|-------|-------|------------------|------|-------|-----|
| 4187 Temple City Blvd | El Monte         | CA    | 91731 |                  |      |       |     |
| 9860 Gidley St        | El Monte         | CA    | 91731 |                  |      |       |     |
| 4189 Temple City Blvd | El Monte         | CA    | 91731 |                  |      |       |     |
| 3136 Rosemead Blvd    | El Monte         | CA    | 91731 |                  |      |       |     |
| 4250 Shirley Ave      | El Monte         | CA    | 91731 |                  |      |       |     |
| 4350 Temple City Blvd | El Monte         | CA    | 91731 |                  |      |       |     |
| 10511 Valley Blvd     | El Monte         | CA    | 91731 |                  |      |       |     |
| 4300 Baldwin Ave      | El Monte         | CA    | 91731 |                  |      |       |     |
| 4300 Shirley Ave      | El Monte         | CA    | 91731 |                  |      |       |     |
| 9700 Factorial Way    | South El Monte   | CA    | 91733 |                  |      |       |     |
| 11077 Rush St         | South El Monte   | CA    | 91733 |                  |      |       |     |
| 1886 Santa Anita Ave  | South El Monte   | CA    | 91733 |                  |      |       |     |
| 1747 Tyler Ave        | South El Monte   | CA    | 91733 |                  |      |       |     |
| 12465 6th St          | Rancho Cucamonga | CA    | 91739 |                  |      |       |     |
| 12455 Arrow Hwy       | Rancho Cucamonga | CA    | 91739 |                  |      |       |     |
| 12521 Arrow Rte       | Rancho Cucamonga | CA    | 91739 |                  |      |       |     |
| 12400 Arrow Rt        | Rancho Cucamonga | CA    | 91739 |                  |      |       |     |
| 8939 Etiwanda Ave     | Rancho Cucamonga | CA    | 91739 |                  |      |       |     |
| 8570 Hickory Ave      | Rancho Cucamonga | CA    | 91739 |                  |      |       |     |
| 8728 Etiwanda Ave     | Rancho Cucamonga | CA    | 91739 |                  |      |       |     |
| 12200 Arrow Rt        | Rancho Cucamonga | CA    | 91739 |                  |      |       |     |
| 8925 Santa Anita Ave  | Rancho Cucamonga | CA    | 91739 |                  |      |       |     |
| 2001 E Gladstone St   | Glendora         | CA    | 91740 |                  |      |       |     |
| 139 N Sunset Blvd     | City Of Industry | CA    | 91744 |                  |      |       |     |
| 14750 Nelson Ave      | City of Industry | CA    | 91744 |                  |      |       |     |
| 16017 E Valley Blvd   | City of Industry | CA    | 91744 |                  |      |       |     |
| 15000 Nelson Ave      | City of Industry | CA    | 91744 |                  |      |       |     |
| 14500 Nelson Ave      | City of Industry | CA    | 91744 |                  |      |       |     |
| 17637 E Valley Blvd   | City of Industry | CA    | 91744 |                  |      |       |     |
| 15930 Valley Blvd     | City Of Industry | CA    | 91744 |                  |      |       |     |
| 15801 E Valley Blvd   | City of Industry | CA    | 91744 |                  |      |       |     |
| 17411 Valley Blvd     | City of Industry | CA    | 91744 |                  |      |       |     |
| 14380 E Nelson Ave    | City of Industry | CA    | 91744 |                  |      |       |     |
| 15620 E Valley Blvd   | City of Industry | CA    | 91744 |                  |      |       |     |
| 15929 E Valley Blvd   | City of Industry | CA    | 91744 |                  |      |       |     |
| 347 S Stimson Ave     | City of Industry | CA    | 91744 |                  |      |       |     |

## **Appendix D: POTENTIAL SIP CREDIT APPROACH FOR PR 2305**

### **Introduction**

*What is the purpose of PR 2305?*

As stated in PR 2305, its purpose is to reduce local and regional emissions, and to facilitate local and regional emission reductions associated with warehouses and the mobile sources attracted to warehouses in order to help achieve state and federal ambient air quality standards and to reduce exposure to diesel particulate matter.

*What is the State Implementation Plan?*

The federal Clean Air Act requires areas with levels of ozone, particulate matter, and other pollutants that exceed National Ambient Air Quality Standards (NAAQS) to develop State Implementation Plans (SIPs). SIPs are comprehensive plans that describe how an area will attain the NAAQS. SIPs are not single documents. They are a compilation of new and previously submitted plans, programs (such as monitoring, incentives, permitting, emissions inventory, etc.), local air district rules, state regulations, and federal controls. State law makes CARB the lead agency for all purposes related to the SIP. Local air districts prepare SIP elements and submit them to CARB for review and approval. CARB then forwards these SIP revisions to the EPA for approval.

*What is 'SIP credit'?*

SIP credit is the general term given for emission reductions that are creditable towards commitments in the SIP.

*Why is SIP Credit needed?*

The SIP contains a detailed accounting of the expected emissions inventory in future milestone years with Clean Air Act deadlines. This emissions inventory includes a baseline scenario (i.e. business-as-usual) and a control scenario (if the SIP's proposed measures are all adopted). The 2016 AQMP from South Coast AQMD and the companion State SIP Strategy from CARB includes substantial emission reductions tied to 'further deployment of cleaner technologies' control measures that are not yet fully defined. Emission reductions from these control measures are needed to both meet the NAAQS and to ensure that federal sanctions are not imposed under the federal Clean Air Act. If adopted, PR 2305 will provide emission reductions that can help meet these 'further deployment' commitments. This document provides the background for how PR 2305 emission reductions will be SIP creditable.

*What are the requirements for SIP credit?*

There are a variety of guidance documents<sup>1</sup> and regulations that address how emission reductions can be credited towards the SIP. In general, SIP creditable emission reductions must satisfy five

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<sup>1</sup> Voluntary Mobile Source SIP Programs, [www.epa.gov/sites/production/files/2016-05/documents/vmep-gud.pdf](http://www.epa.gov/sites/production/files/2016-05/documents/vmep-gud.pdf)  
Improving Air Quality with Economic Incentive Programs (2001),  
[www.epa.gov/sites/production/files/2015-07/documents/eipfin.pdf](http://www.epa.gov/sites/production/files/2015-07/documents/eipfin.pdf)  
Voluntary and Emerging SIP Measures,  
[www.epa.gov/sites/production/files/2016-05/documents/voluntarycontrolmeasurespolicypepa.pdf](http://www.epa.gov/sites/production/files/2016-05/documents/voluntarycontrolmeasurespolicypepa.pdf)  
Energy Efficiency and Renewable Energy SIP Measures,  
[www.epa.gov/sites/production/files/2016-05/documents/erescerem\\_gd.pdf](http://www.epa.gov/sites/production/files/2016-05/documents/erescerem_gd.pdf)



key ‘integrity elements’. Namely, the emission reductions must be quantifiable, enforceable, verifiable, surplus, and real.

*Which emission source categories can achieve SIP-creditable emission reductions with PR 2305?*

The emission sources that may have SIP-creditable emission reductions from PR 2305 include on-road trucks, hostlers (both on-road and off-road vehicles), Transport Refrigeration Units (TRUs), light duty vehicles, and power plants.

*What is the role of scrapping in SIP-creditable mobile source measures?*

Scrapping is the process by which older vehicles that are replaced by newer, cleaner vehicles are scrapped and taken out of service to ensure that the emission reductions from the newer vehicle are achieved. Scrapping ensures that the new vehicle is not just accommodating growth in the vehicle fleet. SIP-creditable emission reductions can be achieved both with and without a scrapping program. Examples of SIP-creditable programs with scrapping requirements include many voluntary incentive programs like Carl Moyer, or AB 617 funding. These programs are implemented on an individual truck basis (through grant funding contracts), and without a scrapping requirement it would not be possible to discern whether any one individual truck would result in eventual scrapping of a truck somewhere in the entire truck fleet, or if the newer, cleaner truck is actually adding emissions due to growing the truck fleet.

Other SIP-creditable measures do not require scrapping, such as CARB regulations like the Low NO<sub>x</sub> Omnibus Rule or the Advanced Clean Trucks Rule. These rules rely on assumptions about future truck sales and future truck activity (e.g., miles travelled per year). Importantly, these rules broadly affect large sections of the truck fleet instead of individual trucks, and the rulemaking analysis for these rules consider how each rule will affect the entire truck fleet, including growth and rates of vehicle turnover. These assumptions are subsequently verified through the regular updates to the EMFAC model.

*What is EMFAC?*

EMFAC is an emissions model developed and used by CARB to assess emissions from on-road vehicles including cars, trucks, and buses in California, and to support CARB's regulatory and air quality planning efforts to meet the Federal Highway Administration's transportation planning requirements. U.S. EPA approves EMFAC for use in the State Implementation Plan and transportation conformity analyses.

*How does SIP credit work for incentive funding programs?*

Programs like Carl Moyer or AB-617 funding programs provide subsidies to offset the higher purchase price of near-zero and zero emission vehicles. In some cases, these types of voluntary

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Incorporating Bundled Measures in a SIP,

[www3.epa.gov/ttn/naaqs/aqmguide/collection/cp2/20050816\\_page\\_incorporating\\_bundled\\_measure\\_sip.pdf](http://www3.epa.gov/ttn/naaqs/aqmguide/collection/cp2/20050816_page_incorporating_bundled_measure_sip.pdf)

Incorporating Energy Efficiency/Renewable Energy Policies and Programs into SIPs,

[www.epa.gov/sites/production/files/2016-05/documents/eeremanual\\_0.pdf](http://www.epa.gov/sites/production/files/2016-05/documents/eeremanual_0.pdf)

Diesel Retrofit SIP Programs, <http://nepis.epa.gov/Exe/ZyPDF.cgi/P100HP2S.PDF?Dockey=P100HP2S.PD>

incentive programs can result in prospective SIP creditable emission reductions.<sup>2</sup> While incentive funding programs have been included as control measures within the 2016 AQMP, they are not included in the baseline emissions inventory, nor are their effects included within EMFAC. PR 2305 is designed to work together with incentive programs. Although some incentive programs are oversubscribed<sup>3</sup>, others are undersubscribed<sup>4</sup>. PR 2305 can help ensure that incentive funds are fully utilized, and can also potentially spread incentives to additional vehicles by lowering the amount that vehicle purchasers are willing to accept due to the requirements within PR 2305 on warehouse operators.

### **Background on Obtaining SIP Credit for Mobile Source Emission Reduction Measures**

SIP creditable emission reductions are typically obtained through three key processes.

- 1) Regulations adopted at the local, state, or federal level that meet the ‘integrity elements’ described above can achieve prospective SIP credit at the time that the regulation is adopted. Prospective SIP credit is a projection of how emission reductions will occur in the future due to a control measure.
  - a. Example: CARB’s Truck and Bus Regulation<sup>5</sup> requires fleets to only utilize trucks that meet or exceed 2010 truck engine standards (with some limited exceptions) by 2023. Those fleets may include older, higher-emitting trucks today, but the future emission reductions from the existing regulation provides prospective SIP credit. As shown below, not all emission reduction measures can be credited towards the SIP prospectively.
- 2) For some regulations or control measures, actual emission reductions achieved may be higher or lower than originally estimated at the time the regulation was adopted. A later analysis may evaluate how a rule is actually being implemented and adjust the amount of SIP creditable emission reductions. These retrospective emission reductions evaluate how emissions changed in the past, and then project how that will affect the future.
  - a. Example: EPA’s Heavy Duty Engine Standards<sup>6</sup> required all truck engine manufacturers to meet a NO<sub>x</sub> emission standard of 0.2 g/hp-hr by 2010 (with some limited exceptions). SIP creditable prospective emission reductions were assumed in the EMFAC 2007 emission model at the time assuming that engines would meet these standards in real world conditions.<sup>7</sup> However, subsequent testing of these engines has shown that engines that meet the EPA standard (based on a test cycle) do not achieve the previously assumed level of emission reductions in real world conditions.<sup>8</sup> One example includes during periods when the engine exhaust controls

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<sup>2</sup> <https://ww2.arb.ca.gov/resources/documents/implementation-state-sip-strategy>

<sup>3</sup> <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2019/2019-dec6-006.pdf>

<sup>4</sup> <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2020/2020-dec4-005.pdf>

<sup>5</sup> <https://ww2.arb.ca.gov/our-work/programs/truck-bus-regulation/truck-and-bus-regulation-regulation-advisories>  
Accessed 11/5/2020.

<sup>6</sup> <https://www.govinfo.gov/content/pkg/FR-2001-01-18/pdf/01-2.pdf> Accessed 11/5/2020.

<sup>7</sup> EMFAC 2007 Revision of Heavy Heavy-Duty Diesel Truck Emission Factors and Speed Correction Factors. [https://ww3.arb.ca.gov/msei/onroad/techmemo/revised\\_hhddt\\_emission\\_factors\\_and\\_speed\\_corr\\_factors.pdf](https://ww3.arb.ca.gov/msei/onroad/techmemo/revised_hhddt_emission_factors_and_speed_corr_factors.pdf).  
Accessed 11/5/2020.

<sup>8</sup> See Figure ES-3 for an example: <https://ww3.arb.ca.gov/regact/2020/hdomnibuslownox/isor.pdf#page=27>.  
Accessed 11/5/2020.

are operating at lower temperatures than necessary to fully reduce NO<sub>x</sub> emissions.<sup>9</sup> As a result, a more recent EPA-approved emissions inventory for trucks in EMFAC 2017 has subsequently been updated to incorporate this more recent real world data.<sup>10</sup> The table below shows a comparison of NO<sub>x</sub> emission rates for the same model year truck between the EPA-approved EMFAC 2007 and EMFAC 2017 emissions inventory models. The more recent EMFAC 2017 model used more recent real-world data, and the subsequent SIP creditable emission reductions from the EPA Heavy Duty Engine Standard have been revised to incorporate real-world conditions.

**Table 1: Zero-Mile NO<sub>x</sub> Emission Rates for Model Year 2015**

| EMFAC 2007 <sup>11</sup> | EMFAC 2017 <sup>12</sup> |
|--------------------------|--------------------------|
| 1.14                     | 2.68                     |

- 3) Finally, real-world emissions from some sources are often affected by multiple factors. For example, on-road vehicle emissions are affected by multiple regulations, market forces (e.g., the state of the economy, the price of fuel, etc.), financial incentive programs (e.g., the Carl Moyer program), and private sector policies (e.g., corporate sustainability goals). In order to account for all of these competing influences, every few years the baseline mobile source emissions inventory used for the SIP is updated, including through updates to CARB's mobile source inventories (e.g., the EMFAC model, off-road equipment inventories, etc.), updates to the Regional Transportation Plan (RTP) from the Southern California Association of Governments (SCAG), and new South Coast AQMD Air Quality Management Plans (AQMPs). Because SIP creditable emission reductions cannot always be separately assigned to each unique factor, the holistic evaluation of the on-road mobile source sector in EMFAC updates (or equivalent off-road sector updates) conducted by CARB ensures that the SIP inventory is as comprehensive, accurate, and current as possible.
- a. Example: Every four years SCAG updates its forecast for the transportation system in the RTP. This modeling analysis includes a forecast of vehicle miles travelled in the freight sector based on a number of factors including: activity data from the ports of Los Angeles and Long Beach, national commodity flow surveys, land use patterns, developments in the roadway network, etc. These modeled outputs (e.g., vehicle miles travelled, vehicle speeds, location of vehicle activity) are combined with emission factors from EMFAC to establish the SIP creditable emissions inventory in the subsequent AQMP.

<sup>9</sup> Tan et al., On-Board Sensor-Based NO<sub>x</sub> Emissions from Heavy-Duty Diesel Vehicles. *Environ. Sci. Technol.* 2019, 53, 9, 5504–5511. <https://pubs.acs.org/doi/10.1021/acs.est.8b07048> Accessed 11/5/2020.

<sup>10</sup> EMFAC2017 Volume III – Technical Documentation.

<https://ww3.arb.ca.gov/msei/downloads/emfac2017-volume-iii-technical-documentation.pdf>

<sup>11</sup> [https://ww3.arb.ca.gov/msei/onroad/techmemo/revised\\_hhddt\\_emission\\_factors\\_and\\_speed\\_corr\\_factors.pdf](https://ww3.arb.ca.gov/msei/onroad/techmemo/revised_hhddt_emission_factors_and_speed_corr_factors.pdf),

Table 8

<sup>12</sup> <https://ww3.arb.ca.gov/msei/downloads/emfac2017-volume-iii-technical-documentation.pdf>, Table 4.3-46

**Expected Mechanisms to Obtain SIP-Creditable Emission Reductions with PR 2305**

If PR 2305 is adopted, SIP-creditable emission reductions can be achieved prospectively, retrospectively, and through holistic mobile source inventory analysis. Because other existing and forthcoming mobile source measures will reduce emissions from the same sources, not all emission reductions achievable from PR 2305 can be fully quantified at time of rule adoption. As described in CARB's Mobile Source Strategy<sup>13</sup>, additional future measures may be developed that would affect emission sources at facilities covered by PR 2305, but it is too speculative at this stage to determine how they may or may not overlap with PR 2305.

Prospective Emission Reductions from PR 2305

Emissions reductions are expected from all of the emissions sources covered by PR 2305, however not all of the emission reductions can be fully quantified at time of rule adoption. This is primarily because some emission reductions from PR 2305 will at least partially overlap with other SIP-creditable measures. The table at the end of this section lists the key existing and future mobile source measures that also reduce emissions sources addressed by PR 2305, and describes how the overlap is addressed.

Retrospective Emission Reductions from PR 2305

The PR 2305 WAIRE Program will be tracked by South Coast AQMD staff to evaluate how it is implemented every year, reported publicly to the Governing Board Mobile Source Committee, with results also made available on the South Coast AQMD web page. A key component of this analysis will be to evaluate which menu options are being chosen by every facility, and comparing that to the original analysis conducted during the rulemaking process. If trends emerge that show greater or lesser emission reductions than envisioned in the rulemaking analysis, then adjustment may be made in subsequent revisions to the SIP inventory (e.g., as part of a future AQMP).

Holistic Analysis of Emission Reductions from PR 2305

Some emission reductions may be attributable to PR 2305, but will not be captured in either a prospective or retrospective analysis. This could include emissions from trucks purchased to comply with PR 2305, but that make truck trips between facilities that aren't regulated under PR 2305. These truck trips are not accounted for in the rulemaking analysis, or in subsequent annual reviews of the WAIRE Program. In addition, if many warehouse operators decide to install zero emission charging/fueling infrastructure, this is expected to make it easier for truck owners to decide to switch to zero emission technologies as finding a fueling location will become less of a concern. This potential increased zero emission technology penetration into the overall truck fleet is not accounted for in the rulemaking analysis except for zero emissions truck visits to regulated facilities. Further, the assumptions included in the rulemaking analysis about other mobile source measures (e.g., CARB's Low NOx Omnibus Rule or ACT Rule) will likely be revised based on future, unknown conditions. In particular, the level of future truck sales, future activity per truck, future costs to operate trucks, etc. all may require updates as part of a normal EMFAC update. As is currently practiced, this holistic analysis will provide the mechanism to ensure that all overlapping mobile source measures are captured across the entire truck fleet.

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<sup>13</sup> <https://ww2.arb.ca.gov/resources/documents/2020-mobile-source-strategy>

**Table 2: Existing and Future Measures that Have Overlapping SIP-Creditable Emission Reductions with PR 2305**

| Emission Reduction Measure           | Measure Summary   | Existing or Future Measure | Potential Overlap with PR 2305 Requirements  | Calculation Method to Address Potential Overlap for Prospective SIP Credit  |
|--------------------------------------|---|----------------------------|--|---|
| Incentive Funding Programs           | Various state and federal programs (e.g., Carl Moyer, AB 617 funding, DERA, etc.) provide subsidies to offset the higher cost of NZE and ZE vehicles. | Existing and Future        | Potential overlap for existing state and federal funding programs. Uncertain overlap for any new funding programs. | Because incentive programs are not included within EMFAC, no adjustments are made to the PR 2305 calculation.   |
| EPA Heavy Duty Engine Standards      | Requires manufacturers nationwide to only sell trucks meeting specified emission standards by 2010 (e.g., 0.2 g/hp-hr NOx)                            | Existing                   | Partial overlap due to CARB Truck and Bus Rule.  | Overlap calculated as part of CARB Truck and Bus Rule.  |
| CARB Truck and Bus Rule              | Requires truck fleets to only operate trucks meeting EPA’s 2010 engine standard by 2023. Measure is phased in before 2023.                            | Existing                   | Partial overlap before 2023. No overlap after 2023.  | Any emission from NZE or ZE truck activity associated with PR 2305 are compared against baseline truck emission rates that are the average for that truck type in any calendar year from EMFAC 2017 (which includes the Truck and Bus Rule).  |
| CARB Advanced Clean Truck (ACT) Rule | Requires truck manufacturers to ensure that a portion of their new vehicle sales in CA are zero emissions. Measure phases in from 2024-2035.          | Existing                   | No overlap before 2024. Partial overlap after 2024.  | Before 2024, any ZE truck activity attributable to PR 2305 that aren’t funded by Incentive Programs provide prospective SIP creditable emission reductions. As a conservative approach <sup>1</sup> , after 2024 any emission reductions from ZE truck activity associated with PR 2305 will be reduced by the amount of applicable ZE truck activity |

| Emission Reduction Measure   | Measure Summary  | Existing or Future Measure | Potential Overlap with PR 2305 Requirements        | Calculation Method to Address Potential Overlap for Prospective SIP Credit  |
|--|--|----------------------------|--|---|
|  |  |                            |  | associated with ACT <sup>2</sup> in addition to any potentially incentive funded trucks.  |
| CARB Low NOx Omnibus Rule  | Requires manufacturers to only sell trucks in CA meeting specified emission standards. Updates warranty, useful life, certification testing procedures, etc. Measure phases in from 2024-2027. | Existing                   | No overlap before 2024. Partial overlap after 2024 | Before 2024, any NZE truck activity attributable to PR 2305 that aren't funded by Incentive Programs provide prospective SIP creditable emission reductions. As a conservative approach <sup>1</sup> , after 2024 any emission reductions from ZE truck activity associated with PR 2305 is reduced by the amount of applicable NZE truck activity associated with Low NOx Omnibus <sup>2</sup> in addition to any potentially incentive funded trucks. |
| CARB Transport Refrigeration Units (TRU) Air Toxics Control Measure (ATCM) | Requires TRUs to meet in-use particulate matter standards, phased in through 2021.   | Existing                   | No overlap.  | No adjustment necessary as rule is completely phased in.  |
| CARB In-Use Off-Road Diesel Rule   | For PR2305, this measure applies to yard trucks. This rule requires fleets to meet specified in-use emission levels, depending on fleet size. The rule is phased in from 2014-2029.            | Existing                   | Potential overlap.                                 | Average baseline emission rate for yard trucks is based on industry estimate of yard truck age. This age profile results in baseline emissions that are lower than the most stringent standard in the In-Use Offroad Rule. SIP-creditable emission reduction calculations for yard trucks therefore assume less emission reductions than if only considering this measure.  |

| Emission Reduction Measure        | Measure Summary   | Existing or Future Measure | Potential Overlap with PR 2305 Requirements              | Calculation Method to Address Potential Overlap for Prospective SIP Credit   |
|-----------------------------------|---|----------------------------|--|--|
| EPA Cleaner Trucks Initiative     | Proposal would require manufacturers nationwide to only sell trucks meeting specified emission standards. Level of control and timing uncertain, though it may match CARB’s Low NOx Omnibus Rule in 2027. | Future                     | Potential overlap after any new standards go into place. | No analysis currently possible as measure has not yet been sufficiently developed or approved. SIP credit for this measure in relation to PR 2305 will be determined at a later date if PR 2305 is approved.   |
| CARB Advanced Clean Fleets Rule   | Proposal would require fleets to increasingly use ZE trucks. Goal is a 100% ZE truck fleet by 2045, with interim goals before then.   | Future                     | Potential overlap after any new standards go into place. | No analysis currently possible as measure has not yet been sufficiently developed or approved. SIP credit for this measure in relation to PR 2305 will be determined at a later date if both PR 2305 and ACF are approved.   |
| CARB Proposed TRU ATCM Amendments | Proposal will transition straight truck TRUs to ZE from 2024-2031. A second rule amendment will target transitioning trailer TRUs to ZE by 2035.  | Future                     | Potential overlap after any new standards go into place. | No analysis currently possible as measure has not yet been sufficiently developed or approved. SIP credit for this measure in relation to PR 2305 will be determined at a later date if both PR 2305 and the TRU ATCM are approved. PR 2305 (d)(3)(A) also prohibits earning WAIRE Points in any year that a CARB or EPA rule applies. |
| CARB Proposed ZE Forklift Rule    | Proposal would require fleets to phase in ZE forklifts from 2025-2040.  | Future                     | Potential overlap after any new standards go into place. | No analysis currently possible as measure has not yet been sufficiently developed or approved. Emission reductions not calculated for forklifts in PR 2305 as these are not included in the WAIRE Menu.  |

| Emission Reduction Measure                             | Measure Summary  | Existing or Future Measure | Potential Overlap with PR 2305 Requirements  | Calculation Method to Address Potential Overlap for Prospective SIP Credit   |
|--|--|----------------------------|--|--|
| CARB Heavy Duty Inspection & Maintenance (HD I/M) Rule | Proposal would require truck owners to routinely test their trucks to ensure they operate within acceptable standards. | Future                     | Potential overlap as emission reductions from this measure are not yet accounted for in EMFAC. | Expected effect of HD I/M is calculated in CARB META tool. Baseline truck emissions (i.e. trucks that would go to warehouses absent PR 2305) will be reduced to account for HD I/M before calculating the difference due to ZE and NZE trucks visiting PR 2305 warehouses. |

Notes:

- 1) There are no requirements in this measure that ensure that mandated statewide sales targets will result in emission reductions specifically in the South Coast Air Basin.
- 2) Emissions from this measure are derived from CARB’s Mobile Emissions Toolkit and Analysis (META) tool that was developed for CARB’s Mobile Source Strategy as a means of evaluating how all mobile source strategies will interact in the future.



# **Exhibit B**

## **SETTLEMENT AGREEMENT**

This Settlement Agreement (“Agreement”) is entered into as of the date on which the last signatures have been affixed hereto (“Effective Date”), by and between, Center for Community Action and Environmental Justice, Center for Biological Diversity, Coalition for Clean Air, Sierra Club, and San Bernardino Valley Audubon Society (collectively, “Petitioner Parties”), and Highland Fairview Properties, HF Properties, Sunnymead Properties, Theodore Properties Partners, 13451 Theodore, LLC, and HL Property Partners (collectively, “Highland Fairview”), and each of them, which are referred to cumulatively as the “Parties” or singularly as a “Party.”

### **RECITALS**

WHEREAS, Highland Fairview is the applicant for a master-planned development project encompassing the development of up to 40.6 million square feet of building area and all necessary infrastructure to support large-scale logistics operations (“World Logistics Center Project”) located on approximately 2,610 acres of largely vacant land south of State Route 60 and north of the San Jacinto Wildlife Area in the Rancho Belago area of the City of Moreno Valley (“Property”);

WHEREAS, in August 2015, the City of Moreno Valley (“City”), through its City Council, approved the World Logistics Center Project and certified a final environmental impact report (“FEIR”) pursuant to the California Environmental Quality Act (“CEQA”);

WHEREAS, the City’s August 2015 approval of the World Logistics Center Project consisted of (a) a Specific Plan to govern the World Logistics Center Project’s development (“Specific Plan”); (b) an amendment to the City’s General Plan (“General Plan Amendment”); (c) an amendment to the Property’s zoning (“Zone Change”); (d) a tentative parcel map to subdivide a 1,539-acre portion of the Property; (e) an annexation request; (f) off-site improvements; and (g) a development agreement to vest the underlying approved land use entitlements (“Development Agreement”);

WHEREAS, on September 23, 2015, the Petitioner Parties commenced litigation in the Riverside County Superior Court, captioned *Center for Community Action and Environmental Justice, et al. v. City of Moreno Valley, et al.* (Case No. RIC1511327), challenging the City’s approval of the World Logistics Center Project (“FEIR Litigation”);

WHEREAS, in November 2015, the City Council directly adopted three initiatives for the World Logistics Center Project: (a) the Land Use and Zoning Entitlements Initiative to repeal and replace the City’s approval of the Specific Plan, General Plan Amendment, and Zone Change with a substantially similar set of entitlements; (b) the World Logistics Center Land Benefit Initiative to repeal and replace the City’s annexation request; and (c) the Development Agreement Initiative to approve a Development Agreement substantially similar to that previously adopted by the City (collectively, “Initiatives”);

WHEREAS, on February 22, 2016, the Petitioner Parties commenced litigation in the Riverside County Superior Court, captioned *Center for Community Action and Environmental Justice, et al. v. City of Moreno Valley, et al.* (Case No. RIC1602094), challenging the City’s adoption of the Initiatives (“Initiatives Litigation”);

WHEREAS, in February 2018, in the FEIR Litigation, the Riverside County Superior Court ordered the City to set aside its certification of the FEIR and approvals of the World Logistics Center Project to make changes to the FEIR's analysis of energy, biological, noise, agricultural resources, and cumulative impacts;

WHEREAS, in the FEIR Litigation, Petitioner Parties appealed the Riverside County Superior Court's decision upholding the FEIR's GHG analysis and Highland Fairview cross-appealed the Superior Court's finding that the FEIR violated CEQA in five respects;

WHEREAS, in August 2018, in the Initiatives Litigation, the Court of Appeal directed the Riverside County Superior Court to issue a writ of mandate ordering the City to set aside the Development Agreement Initiative and vacate its approval of the Development Agreement;

WHEREAS, in a revised final EIR, the City addressed the matters that the Riverside County Superior Court ordered be changed in its February 2018 ruling in the FEIR Litigation and also analyzed new information pertaining to potential air quality, greenhouse gas emissions, and energy impacts ("Revised Final EIR");

WHEREAS, on June 16, 2020, the City Council (a) approved Resolution No. 2020-47, certifying the Revised Final EIR for the World Logistics Center Project and denying the appeal of the City Planning Commission's certification of the Revised Final EIR; (b) approved Resolution No. 2020-48, approving Tentative Parcel Map No. 36457 for Finance and Conveyance Purposes Only ("Parcel Map") and denying the appeal of the City Planning Commission's approval of the Parcel Map, and (c) introduced Ordinance No. 967, approving a new Development Agreement;

WHEREAS, on July 7, 2020, the City Council conducted a second reading of and adopted Ordinance No. 967, approving the new Development Agreement;

WHEREAS, on July 17, 2020, the Petitioner Parties commenced litigation in the Riverside County Superior Court, captioned *Center for Community Action, et al. v. City of Moreno Valley, et al.* (Case No. RIC2002697), challenging the City's adoption of Resolution Nos. 2020-47 and 2020-48, certification of the Revised Final EIR, and adoption of Ordinance No. 967 ("RFEIR Litigation");

WHEREAS, on July 16, 2020, related litigation was commenced in the Riverside County Superior Court, captioned *Golden State Environmental Justice Alliance, et al. v. City of Moreno Valley, et al.* (Case No. RIC2002675) ("Golden State Litigation"); and on or about March 8, 2021, petitioner Golden State Environmental Justice Alliance filed a request to dismiss with prejudice the Golden State Litigation;

WHEREAS, on or about July 17, 2020, further related litigation was commenced in the Riverside County Superior Court, captioned *Paulek, et al. v. City of Moreno Valley. Et al.* (Case No. RIC2002672) ("Paulek Litigation");

WHEREAS, on or about November 9, 2020, the Riverside County Superior Court consolidated the FEIR Litigation with the RFEIR Litigation, Golden State Litigation, and Paulek Litigation;

WHEREAS, in November 24, 2020, the Court of Appeal dismissed the appeal and cross-appeal in the FEIR Litigation as moot and issued a remittitur on January 26, 2021; and

WHEREAS, the purpose of this Agreement is to settle all disputes between the Petitioner Parties and Highland Fairview arising out of or related to the World Logistics Center Project, including without limitation, the FEIR Litigation and the RFEIR Litigation.

### AGREEMENT

NOW, THEREFORE, in consideration of the mutual covenants, promises and undertakings set forth herein and other consideration, the receipt and adequacy of which the Parties hereby acknowledge, the Parties agree as set forth below.

1. The Parties' Obligations.

a. Highland Fairview's Obligations.

i. Highland Fairview shall take all actions required of it in this Section 1(a) provided that the Petitioner Parties have met the obligations set forth in Section 1(b) below and upon the earlier of:

1. the commencement of grading for the World Logistics Center Project; or

2. (a) the full and final resolution of the Paulek Litigation and the FEIR Litigation in the City's and Highland Fairview's favor or (b) in the event Highland Fairview has not prevailed in the Paulek Litigation and/or FEIR Litigation, the City reapproves the World Logistics Center Project and all applicable statutes of limitation have passed with no litigation filed or, if such future litigation ("Future Litigation") is filed, that such Future Litigation is resolved in the City's and Highland Fairview's favor and is no longer pending in any court.

ii. *Greenhouse Gas Emissions and Air Quality.* Highland Fairview shall ensure that all actions required in Attachment A hereto are carried out.

iii. *Biological Resources.* Highland Fairview shall ensure that all actions required in Attachment B hereto are carried out.

iv. *Community Benefits.* Highland Fairview shall ensure that all actions required in Attachment C hereto are carried out.

v. *Attorneys' Fees.* Within seven (7) days after the conditions set forth in Section 1(b)(i) are satisfied, Highland Fairview shall pay the Petitioner Parties' attorneys' fees and costs from the RFEIR Litigation, including reasonable attorneys' fees accrued in connection with negotiating this Agreement, in the amount of \$595,000 by ACH deposit, wire transfer, or a check. Petitioners will provide deposit information to Highland Fairview.

vi. *Compliance Reporting.* Each year for a period of fifteen (15) years, commencing on the first anniversary of the Effective Date of this Agreement, and every five (5) years thereafter until the World Logistics Center Project is fully constructed or Highland Fairview's obligations under this Agreement are fully satisfied, whichever condition is satisfied first, Highland Fairview shall provide to the Petitioner Parties a detailed report describing how Highland Fairview has complied with Sections 1(a)(ii)-(iv) above ("Annual Compliance Report"). For a period of thirty (30) days from receipt of the Annual Compliance Report, the Petitioner Parties may request clarification or reasonable additional information from Highland Fairview to verify Highland Fairview's compliance. Highland Fairview shall provide such additional requested information that is within its possession, custody, or control within thirty (30) days after receipt of such request. Any disputes over compliance with the Sections 1(a)(ii)-(iv) above shall be resolved pursuant to Section 2 below.

vii. *Technological and Methodological Progress.* The Parties recognize that technologies and methodologies are likely to progress over time and, due to that, it may be that the technological and methodological specificity in this Agreement could become obsolete or outdated in the future. In that event, Highland Fairview may implement such newer technologies or methodologies provided that such technologies or methodologies achieve at least as much environmental protection and do not result in new or greater significant environmental impacts than the technologies or methodologies specified in this Agreement. At least 90 days prior to implementing any alternative technology or methodology, Highland Fairview shall meet and confer with Petitioner Parties concerning the implementation of such alternative technology or methodology. Any dispute regarding whether the proposed alternative technology or methodology meets the standards in this Section 1(a)(vii) shall be resolved by arbitration pursuant to the procedures in Section 2 of this Agreement.

viii. Nothing in this Agreement shall prevent Highland Fairview and/or World Logistics Center Project tenants from using the obligations under this Agreement also to satisfy any obligation imposed by laws or regulations, whether they be enacted before or after the Effective Date.

b. Petitioner Parties' Obligations.

i. *Pending Litigation.* With respect to the RFEIR Litigation and the FEIR Litigation, the Petitioner Parties shall, within seven (7) days after the Effective Date, take all actions necessary to dismiss with prejudice all Petitioner Parties' claims in the RFEIR Litigation and the FEIR Litigation and through their respective counsel shall take all actions required to ensure compliance with this Section 1(b)(i).

ii. *Non-Opposition.* Provided that Highland Fairview is in compliance with this Agreement, as enforced pursuant to Section 2 below, the Petitioner Parties shall not Oppose the World Logistics Center Project, as detailed below.

1. Previously Issued Approvals. Petitioner Parties shall not Oppose any Approvals issued on or before the Effective Date by any Governmental Authority that are or may be necessary, useful, or convenient for the completion of any portion or aspect of the World Logistics Center Project ("Previously Issued Approvals"). "Approval" or

“Approvals” shall mean in this Agreement any permits, approvals, entitlements, voter initiatives, development agreements, legislative actions, and/or allowances of any sort whatsoever, including any and all environmental clearances, together with any mitigation measures or the implementation thereof. “Governmental Authority” shall mean in this Agreement any federal, state, regional, local, or other governmental entity, body, branch, bureau, official, special district, department, court, or other tribunal, or any other governmental or quasi-governmental authority, including the electorate, exercising or entitled to exercise any administrative, executive, judicial, legislative, police, regulatory, or land use authority or power over the World Logistics Center Project.

2. Future Implementation Approvals.

a. Petitioner Parties shall not Oppose any Approvals applied for, sought, or issued after the Effective Date by any Governmental Authority that is or may be necessary, useful, or convenient for the completion of any portion or aspect of the World Logistics Center Project (“Future Implementation Approvals”); provided, however, that such Future Implementation Approvals do not: (a) amend the Specific Plan; (b) amend the Initiatives; or (c) eliminate, reduce, or amend a mitigation measure in the Final Revised EIR in a manner that increases environmental impacts. Notwithstanding the foregoing, Petitioner Parties are free to take any action permitted under Section 1(b)(ii)(4) of this Agreement.

b. The Petitioner Parties also understand and acknowledge that the World Logistics Center Project is being challenged in the Paulek Litigation and the FEIR Litigation. Should the World Logistics Center Project be required to be reconsidered, the Petitioner Parties shall not Oppose approval of the World Logistics Center Project, including without limitation its CEQA document with any provisions or mitigation measures then needed provided they do not contradict, interfere with, or reduce any of Highland Fairview’s commitments in this Agreement.

3. Meaning of “Opposition.” “Opposition,” “Oppose,” or “Opposing” means (a) opposing, challenging, or seeking to hinder, whether by litigation, public opposition at any proceeding before a government agency, public testimony, comments, or petition to government authorities, a Previously Issued Approval or Future Implementation Approval, or (b) providing funding for others to file or maintain litigation opposing, challenging, or seeking to hinder a Previously Issued Approval or Future Implementation Approval. A Petitioner Party shall be deemed to be Opposing a Previously Issued Approval or a Future Implementation Approval if its board of directors, officers, or staff, or as to the Sierra Club, in addition to the above-listed persons, the Sierra Club’s San Gorgonio Chapter’s Board of Directors, officers, staff, group representatives, delegates, and any individual expressly representing or directed to represent the Sierra Club’s interests, Oppose such Previously Issued Approval or Future Implementation Approval. The Sierra Club’s San Gorgonio Chapter shall advise its staff and volunteer leaders that the Sierra Club has resolved its dispute with Highland Fairview and of the Sierra Club’s obligations under this Agreement, particularly non-Opposition set forth above. In the event that a member or members of the Sierra Club Oppose(s) a Previously Issued Approval or Future Implementation Approval, the Sierra Club agrees to disavow publicly said Opposition, via letter or other appropriate means, upon reasonable request by Highland Fairview, in any proceedings involving the Previously Issued Approval or Future

Implementation Approval before the City of Moreno Valley or any other agency or court having jurisdiction over the World Logistics Center Project. Such statement shall provide that the member or members do not represent the Sierra Club's position concerning the World Logistics Center Project. Opposition, Oppose, or Opposing does not include any action permitted under Section 1(b)(ii)(4) of this Agreement.

4. Governmental Actions of General Applicability. Petitioner Parties are not prohibited from commenting on, supporting, and/or Opposing proposed actions by any Governmental Authority that is generally applicable and not directly related to the development of the World Logistics Center Project, the Previously Issued Approvals, or Future Implementation Approvals, even though such proposed agency actions may have an impact on the World Logistics Center Project, the Previously Issued Project Approvals, and/or Future Implementation Approvals due to the general applicability of such proposed actions by any Governmental Authority. Examples of governmental actions of general applicability that Petitioner Parties are free to comment on, support and/or Oppose include, but are not limited to rules promulgated by local air district related to emissions; regulations promulgated by California agencies related to emissions; approvals for regional transportation plans; approvals of urban water management plans; listing decisions for threatened and endangered species; and the regulation of industrial equipment.

c. Mutual Releases of Claims.

i. Except as otherwise provided in this Agreement, the Petitioner Parties each release Highland Fairview, its affiliates, subsidiaries, parent entities, and each of their respective employees, officers, members, staff, agents, attorneys, and/or representatives, and each of them (collectively, the "Highland Fairview Released Parties"), from any and all claims, lawsuits, administrative and judicial proceedings, appeals, demands, challenges, liabilities, damages, fees, costs, and causes of action, at law or in equity, known or unknown, in any jurisdiction and before any court, agency, or tribunal (collectively and severally, "Claims") that the Petitioner Parties ever had, have, or may have against the Highland Fairview Released Parties, or any of them, arising in any way from or related in any way to the World Logistics Center Project, including without limitation, the claims brought by, or that could have been brought by Petitioner Parties in the RFEIR Litigation and the FEIR Litigation.

ii. Highland Fairview releases the Petitioner Parties, their affiliates, subsidiaries, parent entities, and each of their respective employees, officers, members, staff, agents, attorneys, and/or representatives, and each of them (collectively, the "Petitioner Released Parties") from any and all Claims that Highland Fairview ever had, have, or may have against the Petitioner Released Parties, or any of them, arising in any way from or related in any way to the World Logistics Center Project, including without limitation, the RFEIR Litigation and the FEIR Litigation.

iii. Nothing in this Section shall be interpreted as releasing any Party's right to enforce this Agreement in full.

2. Enforcement.

a. *Meet and Confer.* In the event of any dispute between the Parties related to this Agreement or the World Logistics Center Project, the Parties shall, before taking any other action concerning that dispute, provide written notice of the dispute to the other Party and meet and confer in person in a good-faith effort to resolve the dispute within thirty (30) days of the notice, unless otherwise agreed. Any Party that is alleged to be in breach of this Agreement shall have thirty (30) days from that in-person meeting to cure, unless otherwise agreed. Notwithstanding the foregoing, if the dispute is deemed to be a time-urgent matter by Highland Fairview or at least two of the five Petitioner Parties, these time periods may be disregarded and the Parties may seek immediate review by an arbitrator within twenty-four (24) hours' notice to the allegedly breaching Party pursuant to JAMS's Comprehensive Arbitration Rules and Procedures, including Rule 2(c), as those Rules exist on the Effective Date. If the allegedly breaching Party cures or begins a good faith effort to cure the alleged breach, any such proceeding previously commenced pursuant to the alleged time-urgent matter shall be dismissed.

b. *Nonbinding Mediation.* In the event any such dispute is not resolved pursuant to Section 2(a), then at any Party's request the Parties may participate in non-binding mediation of any dispute related to this Agreement or the World Logistics Center Project. This obligation shall take place in a timeframe that is reasonable under the circumstances. Any such mediation is to be completed in one day and not to exceed a total of eight (8) hours, unless extended by mutual consent. If nonbinding mediation is used pursuant to this section, Highland Fairview shall pay for the costs of mediation. The mediator will be selected by mutual agreement.

c. *Binding Arbitration.* In the event any such dispute is not resolved pursuant to Section 2(a) or Section 2(b), then within fifteen (15) days after the conclusion of the meet and confer or non-binding mediation, at Highland Fairview's request or the request of no fewer than two of Petitioner Parties the Parties shall participate in final, binding, and non-reviewable arbitration of any dispute related to this Agreement or the World Logistics Center Project, pursuant to the provisions below.

i. The dispute brought under Section 2(c) shall be determined by arbitration before three arbitrators, each of whom shall be a retired jurist. The arbitration shall be administered by JAMS pursuant to its Comprehensive Arbitration Rules and Procedures and in accordance with the Expedited Procedures in those Rules as those Rules exist on the Effective Date, including Rules 16.1 and 16.2. The determination may be entered in any court having jurisdiction solely for the purposes of enforcing the determination.

ii. Within ten (10) days after notice under Section 2(c) is provided, Highland Fairview shall select one person to act as arbitrator and the Petitioner Parties shall select another. The two so selected shall select a third arbitrator within fifteen (15) days of the commencement of arbitration. If the arbitrators selected by the Parties are unable or fail to agree upon the third arbitrator within the allotted time, the third arbitrator shall be appointed by JAMS in accordance with its rules. All arbitrators shall serve as neutral, independent, and impartial arbitrators. Highland Fairview and the Petitioner Parties shall communicate their choices of a



Party-appointed arbitrator only to the JAMS Case Manager in charge of the filing. Neither is to inform any of the arbitrators as to which of the Parties may have appointed them.

iii. Any relief for an alleged breach of this Agreement shall be limited to any specific performance or injunctive relief necessary to ensure compliance with the provision of this Agreement that the complaining Party alleges another Party has breached. Such relief shall not be broader than necessary to ensure compliance with the provision of this Agreement that has been determined to have been breached.

iv. Highland Fairview shall be responsible for paying any fees and costs JAMS requires for JAMS to perform its arbitration services called for under this Section 2(c) unless the arbitrators determine that Petitioner Parties' commencement of arbitration was frivolous, unreasonable, or without foundation. If and only if the arbitrators determine that Petitioner Parties' commencement of arbitration was frivolous, unreasonable, or without foundation, then the Petitioner Parties who commenced that arbitration shall pay Highland Fairview one-half of JAMS's total fees and costs, such that each side will have paid one-half of JAMS's total fees and costs. Highland Fairview shall also not seek any security in connection with any Interim Measures that may be awarded under Rule 24 of JAMS's Comprehensive Arbitration Rules and Procedures.

v. Unless and only to the extent that an Arbitrator awards an Interim Measure, or other injunctive relief available under Rule 24 of JAMS's Comprehensive Arbitration Rules and Procedures pursuant to Section 2(c)(iii) of this Agreement, under no circumstances shall the pendency of arbitration delay or prevent Highland Fairview from obtaining any Future Implementation Approvals or developing the Property and operating the World Logistics Center Project in accordance with any Previously Issued Approvals and any Future Implementation Approvals.

3. Agreement's Termination. All obligations under this Agreement shall terminate if the Property ceases operations as a logistics facility. In the event that a portion of the Property ceases operations as a logistics facility or is never developed as a logistics facility, then this Agreement shall terminate as to that non-logistics facility portion of the Property but shall remain in full force and effect as to the portion of the Property that is operating as a logistics facility.

4. Attorneys' Fees and Costs. Except as expressly provided elsewhere in this Agreement, the Parties shall bear their own attorneys' fees and costs in connection with the enforcement of this Agreement.

5. Naming and Branding. Highland Fairview shall have the right, in its sole and absolute discretion, to name any of the public benefits or funds created pursuant to Sections 1(a)(ii), (iii), and (iv) of this Agreement. Petitioner Parties shall not be in breach of this Agreement should they choose not to use the names selected by Highland Fairview when referring to the public benefits or funds provided in Sections 1(a)(ii), (iii), and (iv) of this Agreement.

6. No Admission of Liability. This Agreement is a compromise of disputed claims and the fact that the Parties hereto have determined to compromise such disputed claims by entering into this Agreement is not to be construed as an admission of liability or otherwise on the part of the Parties hereto.

7. Successors and Assigns. This Agreement is binding upon and inures to the benefit of each of the Parties and their respective representatives, heirs, devisees, successors and assigns.

a. Highland Fairview may, in its sole discretion, assign any or all of its rights, benefits, and obligations under this Settlement Agreement to any successor(s) in interest or to any purchaser, tenant, or end user of the World Logistics Center Project or any portion thereof. In the event of any such assignment(s), Highland Fairview shall ensure by written instrument that the assignee(s) shall be contractually obligated to comply with all of Highland Fairview's obligations under this Agreement for the Agreement's full term unless Highland Fairview expressly retains one or more such obligations itself. Such written instrument shall detail the specific rights, benefits, and obligations Highland Fairview is assigning and the specific rights, benefits, and obligations Highland Fairview is retaining for itself, if any, and that the assignee has accepted such assignment for the Agreement's full term or unless and until such assignee assigns such rights, benefits, and obligations pursuant to the terms of this Agreement to a subsequent assignee. Highland Fairview and any subsequent assignee upon assignment by it shall provide written notice to Petitioner Parties of any such assignment, reasonable evidence of the assignee's financial ability to fulfill the obligations assigned to it, and the assignee's acceptance by providing a copy of the fully executed written assignment instrument. No assignment, by Highland Fairview or by any subsequent assignee, shall be effective until such notice is provided. Upon delivery of such notice, Highland Fairview or the subsequent assignee shall be deemed released by Petitioner Parties from the obligations so assigned. Petitioner Parties may enforce any assigned obligations against the assignee(s) pursuant to Section 2 of this Agreement. Absent Petitioner Parties' written consent, which consent shall not be unreasonably withheld, no more than ten assignees at any given time shall hold any such assigned rights, benefits, and obligations under this Agreement.

b. Upon the sale of the Property or any portion of the Property, Highland Fairview shall provide a complete copy of this Agreement to the purchaser as an attachment or exhibit to any purchase and sale agreement and shall provide proof of having done so to Petitioner Parties. Any purchase and sale agreement conveying the Property, or any portion of the Property also must include the purchaser's express acknowledgment of this Agreement.

c. Petitioner Parties shall not assign any or all of their rights, benefits, and obligations under this Agreement without prior written consent from Highland Fairview, which as to any assignment of rights and benefits only shall not be unreasonably withheld.

8. Entire Agreement. This Agreement: (a) constitutes the entire agreement between the Parties concerning the subject matter hereof, (b) supersedes any previous oral or written agreements concerning the subject matter hereof, and (c) shall not be modified except by a writing executed by the Party(ies) to be bound thereby.

9. Attachments. All attachments to this Agreement are incorporated herein by this reference.

10. Notices. All notices shall be in writing and shall be addressed to the affected Parties at the addresses set forth below. Notices shall be: (a) hand delivered to the addresses set forth below, in which case they shall be deemed delivered on the date of delivery, as evidenced by the written report of the courier service; (b) sent by certified mail, return receipt requested, in which case they shall be deemed delivered five (5) business days after deposit in the United States mail; or (c) transmitted by email in which case they shall be deemed delivered on the date of transmission if sent before 5:00 pm or on the first business day after transmission if sent at 5:00 pm or later or if sent on a Saturday, Sunday, or California court holiday, provided the Party transmitting notice by email does not receive a delivery status notification indicating that delivery of the email communication failed. Any Party may change its address, its email, or the name and address of its attorneys by giving notice in compliance with this Agreement. Notice of such a change shall be effective only upon receipt. Notice given on behalf of a Party by any attorney purporting to represent a Party shall constitute notice by such Party if the attorney is, in fact, authorized to represent such Party. The addresses and email addresses of the Parties are:

| <u>Parties</u>   | <u>Electronic and Mailing Address</u>   |
|--|---|
| <p><u>For Petitioner Parties:</u><br/>Center for Community Action and Environmental Justice, Center for Biological Diversity, Coalition for Clean Air, Sierra Club, and San Bernardino Valley Audubon Society.</p> | <p>Adriano Martinez<br/>Fernando Gaytan<br/>Earthjustice<br/>707 Wilshire Blvd., Suite 4300<br/>Los Angeles, California 90017<br/><a href="mailto:amartinez@earthjustice.org">amartinez@earthjustice.org</a><br/><a href="mailto:fgaytan@earthjustice.org">fgaytan@earthjustice.org</a></p> <p>Omonigho Oiyemhonlan<br/>Earthjustice<br/>50 California Street, Suite 500<br/>San Francisco, California 94111<br/><a href="mailto:ooiyemhonlan@earthjustice.org">ooiyemhonlan@earthjustice.org</a></p> |
| <p><u>For Petitioner Party:</u><br/>Sierra Club</p>  | <p>Kevin P. Bundy<br/>Shute, Mihaly &amp; Weinberger, LLP<br/>396 Hayes Street<br/>San Francisco, California 94102<br/><a href="mailto:bundy@smwlaw.com">bundy@smwlaw.com</a></p> <p>With a copy to:</p> <p>Aaron Isherwood [Coordinating Attorney]<br/>Sierra Club<br/>2101 Webster Street, Suite 1300<br/>Oakland, California 94612<br/><a href="mailto:aaron.isherwood@sierraclub.org">aaron.isherwood@sierraclub.org</a></p>  |

|   |  |
|---|--|
| <p><u>For Petitioner Party:</u><br/>Center for Biological Diversity</p>   | <p>Aruna Prabhala<br/>Center for Biological Diversity<br/>1212 Broadway, Suite 800<br/>Oakland, California 94612<br/>aprabhala@biologicaldiversity.org</p>   |
| <p><u>For the Highland Fairview:</u><br/>Highland Fairview, HF Properties, Sunnymead Properties, 13451 Theodore LLC, Theodore Properties Partners, HL Property Partners, and ROES 21-40, inclusive.</p> | <p>James L. Arnone<br/>Benjamin J. Hanelin<br/>Latham &amp; Watkins LLP<br/>355 S. Grand Avenue, Suite 100<br/>Los Angeles, California 90071<br/>james.arnone@lw.com<br/>benjamin.hanelin@lw.com</p> <p>With a copy to:</p> <p>Iddo Benzeevi<br/>14225 Corporate Way<br/>Moreno Valley, California 92553<br/>iddo@highlandfairview.com</p> |

11. Force Majeure. No Party shall be responsible or liable for any failure or delay in the performance of its obligations pursuant to this Agreement arising out of or caused by, directly or indirectly, forces beyond the Party’s reasonable control, including, without limitation, fire, explosion, floods, acts of war or terrorism, national emergencies, pandemics, strikes, riots, and changes in laws or regulations.

12. Severability. In the event that any provision of the Agreement shall be held invalid or unenforceable, such holding shall not invalidate or render unenforceable any other provisions hereof unless any of the stated purposes of the Agreement would be defeated.

13. Incorporation of Recitals. The recitals contained herein are hereby incorporated by reference and are material and binding upon the Parties hereto.

14. Construction and Choice of Law. The terms of this Agreement are the product of arms-length negotiations between the Parties, through their respective counsel of choice, and no provision shall be construed against the drafter thereof. This Agreement shall be governed by and construed in accordance with the laws of the State of California. Any Party may enforce the terms of this Agreement pursuant to Section 2.

15. Counterparts. This Agreement may be executed in counterparts, by either an original signature or signature transmitted by facsimile or electronic transmission or other similar process, each of which shall be an original, but all of which taken together shall constitute one and the same instrument; provided, however, that such counterparts shall have been delivered to

the Parties (in person, by messenger, by overnight courier, by registered or certified mail, or by facsimile or electronic transmission).


16. Authority. Each signatory to this Agreement represents and warrants that he or she is authorized to sign this Agreement on behalf of the Party for which he or she is signing, and thereby to bind that Party fully to the terms of this Agreement.

[SIGNATURES ON NEXT PAGE]

**AGREED TO AND ACCEPTED AS OF THE EFFECTIVE DATE:**

**Petitioner Parties:**

**CENTER FOR COMMUNITY ACTION  
AND ENVIRONMENTAL JUSTICE**

By:   
Name: Ana Gonzalez  
Title: Finance and Administration Director  
Date: 4/28/2021

**CENTER FOR BIOLOGICAL DIVERSITY**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**COALITION FOR CLEAN AIR**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**SIERRA CLUB**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**SAN BERNARDINO VALLEY AUDUBON  
SOCIETY**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

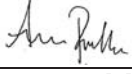
**AGREED TO AND ACCEPTED AS OF THE EFFECTIVE DATE:**

**Petitioner Parties:**

**CENTER FOR COMMUNITY ACTION AND ENVIRONMENTAL JUSTICE**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**CENTER FOR BIOLOGICAL DIVERSITY**

By:  \_\_\_\_\_  
Name: Aruna Prabhala  
Title: Senior Atty & UW Program Dir.  
Date: 4/28/2021

**COALITION FOR CLEAN AIR**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**SIERRA CLUB**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**SAN BERNARDINO VALLEY AUDUBON SOCIETY**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**AGREED TO AND ACCEPTED AS OF THE EFFECTIVE DATE:**

**Petitioner Parties:**


**CENTER FOR COMMUNITY ACTION AND ENVIRONMENT**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**CENTER FOR BIOLOGICAL DIVERSITY**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**COALITION FOR CLEAN AIR**

By:  \_\_\_\_\_  
Name: Joseph K. Lyou, Ph.D.  
Title: President & CEO  
Date: April 28, 2021

**SIERRA CLUB**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**SAN BERNARDINO VALLEY AUDUBON SOCIETY**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_



**AGREED TO AND ACCEPTED AS OF THE EFFECTIVE DATE:**

**Petitioner Parties:**

**CENTER FOR COMMUNITY ACTION AND ENVIRONMENTAL JUSTICE**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

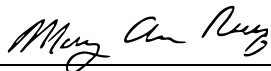
**CENTER FOR BIOLOGICAL DIVERSITY**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**COALITION FOR CLEAN AIR**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**SIERRA CLUB**

By:   
Name: Mary Ann Ruiz  
Title: Sierra Club San Gorgonio Chapter Chair  
Date: April 28, 2021

**SAN BERNARDINO VALLEY AUDUBON SOCIETY**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**AGREED TO AND ACCEPTED AS OF THE EFFECTIVE DATE:**

**Petitioner Parties:**

**CENTER FOR COMMUNITY ACTION AND ENVIRONMENTAL JUSTICE**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**CENTER FOR BIOLOGICAL DIVERSITY**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**COALITION FOR CLEAN AIR**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**SIERRA CLUB**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**SAN BERNARDINO VALLEY AUDUBON SOCIETY**

By: Bradley C Singer  
Name: Bradley C Singer  
Title: President  
Date: 04/28/2021

**Highland Fairview:**

**HIGHLAND FAIRVIEW PROPERTIES**

By: Iddo Benzeevi  
Name: Iddo Benzeevi  
Title: President & CEO  
Date: April 29, 2021

**HF PROPERTIES**

By: Iddo Benzeevi  
Name: Iddo Benzeevi  
Title: President & CEO  
Date: April 29, 2021

**SUNNYMEAD PROPERTIES**

By: Iddo Benzeevi  
Name: Iddo Benzeevi  
Title: President & CEO  
Date: April 29, 2021

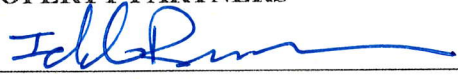
**THEODORE PROPERTIES PARTNERS**

By: Iddo Benzeevi  
Name: Iddo Benzeevi  
Title: President & CEO  
Date: April 29, 2021

**13451 THEODORE, LLC**

By: Iddo Benzeevi  
Name: Iddo Benzeevi  
Title: President & CEO  
Date: April 29, 2021

**HL PROPERTY PARTNERS**

By:   
Name: Iddo Benzeevi  
Title: President & CEO  
Date: April 29, 2021

**Approved as to form and content:**

---

  
Adriano Martinez  
Counsel for Center for Community Action and  
Environmental Justice, Center for Biological  
Diversity, Coalition for Clean Air, Sierra Club, and  
San Bernardino Valley Audubon Society

---

  
James L. Arnone  
Counsel for Highland Fairview

**HL PROPERTY PARTNERS**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**Approved as to form and content:**

*Adriano L. Martinez*

---

Adriano Martinez  
Counsel for Center for Community Action and  
Environmental Justice, Center for Biological  
Diversity, Coalition for Clean Air, Sierra Club, and  
San Bernardino Valley Audubon Society

---

James L. Arnone  
Counsel for Highland Fairview

# **Attachment A**

## Greenhouse Gas Emissions and Air Quality

### 1) *Operational GHG and Criteria Pollutant Emissions Reduction Measures*

#### a) **Electric Truck and Car Grant Programs.**

- i) **Heavy Duty Truck Grants.** WLC will provide funding for 500 grants for the purchase of Class 8 heavy duty electric trucks. The grants shall be provided pursuant to the attached table at Attachment A, Exhibit 1. The program shall prioritize applicants who will use the trucks in Moreno Valley and along the Highway 60 corridor, and will give special priority for drayage trucks that will be used in Moreno Valley and along the Highway 60 corridor. The grants will be phased proportionately with buildout of the first 35 million square feet of the project.

These heavy duty grants will include the following two conditions: (1) a prohibition on the resale of the electric truck to an entity that will operate trucks outside of California; and (2) 85% of the mileage must occur in the SCAQMD region and be enforced using a geo-fencing electronic system on each truck.

- ii) **Medium Duty Truck Grants.** WLC will provide up to 60 grants for the purchase of Class 4 through Class 7 medium duty trucks. The grants shall be provided pursuant to the attached table at Attachment A, Exhibit 2. The program will prioritize (i) applicants who will use the trucks in Moreno Valley and along the Highway 60 corridor and (ii) Class 6 and 7 trucks. Only if there is no demand for the Class 6 and 7 truck classes shall grants be provided to Class 4 and 5 trucks with priority provided to Class 5 trucks over Class 4 trucks. The grants will be phased proportionately with buildout of the first 20 million square feet of the project.

These medium duty grants will include the following two conditions: (1) a prohibition on the resale of the electric truck to an entity that will operate trucks outside of California; and (2) 85% of the mileage must occur in the SCAQMD region and be enforced using a geo-fencing electronic system on each truck.

- iii) **Local Delivery Truck Grants.** WLC will provide up to 120 grants for WLC tenants to purchase light-duty delivery vehicles (generally referred to Class 1, 2, and 3 trucks) for use for deliveries in Moreno Valley and the immediately proximate area. The grants shall be provided pursuant to the attached table at Attachment A, Exhibit 3. The program will prioritize (i) tenant applicants whose buildings are located closest to residential areas and (ii) the highest class of Class 1, 2, and 3 trucks and vehicles for which there is demand. The grants will be phased proportionately with buildout of the first 20 million square feet of the project.

These local delivery grants will include a condition that 50% of the mileage must occur in Moreno Valley and the Highway 60 corridor and be enforced using a geo-fencing electronic system on each truck.

- iv) **Local Community Passenger Vehicle & Zero Emission Transportation Grants.** WLC shall (1) fund a \$1,100,000 community clean vehicle grant program that will

provide up to 1,000 \$1,000 electric vehicle car grants to Moreno Valley residents and/or (2) fund other programs to advance zero emission transportation. Car grants for Moreno Valley residents shall be prioritized to households earning not more than 150% of the Area Median Income, as calculated by the U.S. Department of Housing and Urban Development. The grants will be phased proportionately with buildout of the first 20 million square feet of development of the project.

v) **Grant Programs Administration and Education.**

- (1) The electric truck and electric car grant programs shall be administered by one or more mutually agreeable third party(ies).
- (2) WLC shall fund the electric truck and electric car grant programs' reasonable administration costs separately from and in addition to the costs of the grants.
- (3) The electric truck and electric car grant programs shall be phased proportionately with the project buildout terms identified in section 1(a), and funded upon or before the issuance of building construction permits for each warehouse building. If a building triggers a fraction of a grant, the grant number will be rounded up to the higher number.
- (4) For all of the electric truck and electric car grant programs, the Parties shall meet and confer regarding any mutually agreeable opportunity to seek more deployment of zero emission trucks through the augmentation of these grant funds with other funding sources. The Parties may also meet and confer to address conditions of grants that may inhibit applicants from using the programs, including but not limited to resale requirements and geofencing in sections 1(a)(i), 1(a)(ii), and 1(a)(iii) above.
- (5) At five year intervals, parties will meet and confer to assess whether grants are being used within the particular classes identified in sections 1(a)(i), 1(a)(ii), and 1(a)(iii). The Parties may agree to shift grants to other classes of vehicles that may have demand. In the event that the number of qualified applications are insufficient to exhaust the number of truck grants made available within five years of the project's full buildout, then all remaining grant funds earmarked for a particular truck class may be redistributed to truck classes for which demand remains. In the event grant funds remain after this reallocation, then all unused funds shall be paid to a mutually agreeable third party for zero-emissions heavy-duty truck projects to benefit the residents of Moreno Valley and the communities along the Highway 60 corridor.

- vi) **Electric Vehicle Advocacy Fund.** Upon the commencement of grading within the Specific Plan area, WLC shall pay \$300,000 to a mutually agreeable third party entity selected by Petitioners to provide outreach, education, and training on zero-emissions vehicles and maintenance, with a focus on educating and training Moreno Valley residents about the electric truck and car programs provided for under this agreement.



b) **Maximize Onsite Solar.**

i) At a minimum, WLC shall do the following.

(1) WLC shall install the maximum amount of on-site rooftop solar generation permitted under the existing Moreno Valley Utility ordinance and other applicable law.

(2) If the existing Moreno Valley Utility ordinance is amended to allow additional onsite rooftop solar generation, and if that additional generation is approved by the Moreno Valley Utility and Southern California Edison and is allowed by other applicable law, then WLC shall install additional on-site rooftop solar generation at a cost of at least \$1,650 per 10,000 square feet of warehouse floor area.

c) **Solar Advocacy Fund.** Upon the commencement of grading within the Specific Plan area, WLC shall provide \$300,000 to a third-party, non-profit advocacy group or foundation that Petitioners shall select to advocate for a regional approach to encourage solar power generation and protect desert resources and greenfields.

d) **Lower Carbon Hydrogen Available Onsite.** If available under commercially reasonable terms, WLC will make available to tenants hydrogen fuel with a carbon intensity (CI) score of 50 or less. Hydrogen fuel will be made available upon the issuance of certificates of occupancy for 15 million square feet of logistics warehousing, or earlier, provided there is sufficient demand at that time to allow for a break-even price point or higher after the return of capital costs and ongoing operational expenses for the initial 5 years of operation, with a commercially reasonable income thereafter.

e) **Onsite EV chargers.**

i) WLC will provide 1,000 Level 1 chargers in WLC parking lots, phased proportionately with project buildout, and will ensure that they function properly for at least 15 years from their dates of installation.

ii) WLC will provide 80 Level 2 chargers in WLC parking lots with two ports per charger (for a total of at least 160 ports), phased proportionately with project buildout, and will ensure that they function properly for at least 15 years from their dates of installation.

iii) WLC shall install signage at each EV parking space stating that the parking space is for EVs only and improperly parked vehicles will be towed.

2) ***Operational Air Quality (TACs)***

a) **Electrification/No Diesel/Alternative Fuels**

i) At least 90% of all forklifts must be powered by electricity, hydrogen, or non-fossil zero-emission fuels. No forklift may be powered by diesel fuels.

- ii) 90% of all handheld landscaping equipment (e.g., leaf blowers, hedge trimmers, weed whackers, etc.) shall be electric or meet most current CARB standard within five years of the standard's implementation, to be enforced by including this requirement in all service contracts.
- iii) Hot water heaters for office and bathrooms shall be powered either through solar cells mounted on the roofs of the buildings or solar-generated electricity.
- iv) Only electric appliances shall be used in building office areas (e.g., electric stoves).
- v) Diesel powered generators will be prohibited unless necessary due to emergency situations or constrained supply.
- vi) All "yard goats," yard trucks, and hostlers will be powered by electricity or a non-diesel alternative.

**b) Auxiliary Power Unit (APU).**

- i) All truck idling shall be limited to no more than 5 minutes.
- ii) Each warehouse building shall provide an on-site air-conditioned lounge with a vending machine(s), a seating area, restrooms, workstations, shower facilities, and a television. The lounge shall be regularly maintained, cleaned, and stocked.
- iii) WLC shall provide at least one APU plug-in for every 35 dock doors at multiple locations within the Specific Plan area where trucks park and signage shall be provided in English and Spanish identifying where such APU plug-ins are located.

**c) Warehouse Construction.**

- i) WLC shall construct all warehouse buildings to achieve at least LEED Silver Certification for core and shell. If the WLC seeks to advertise a building as having LEED Silver Certification, it shall apply for certification. If certification is granted, notice shall be provided to Petitioners.
  - ii) Warehouse roof areas not covered by solar panels shall be constructed with materials with an initial installation Solar Reflective Index Value of not less than 39.
- d) **Cold Storage.** All transport refrigeration units (TRUs) shall have electric plug-ins and electrical hookups shall be provided at all TRU loading docks. WLC shall notify petitioners in writing before filing any applications for cold storage in warehouses.

**3) Construction Emissions/Dust**

- a) All construction equipment shall meet or be cleaner than Tier 4 standards, except if the construction contractor certifies that it is not feasible to use exclusively Tier 4 equipment due to limited availability. In all events, at least 80% of construction equipment shall meet or be cleaner than Tier 4 standards for the life of the project's construction.

- b) In the event that diesel-powered construction equipment becomes available (1) with improved emission control devices that reduce particulate matter emissions, including fine particulate matter, and reduces NOx emissions, (2) at commercially reasonable prices, and (3) in sufficient quantities to be reasonably available, then WLC shall use such construction equipment.
  - c) No diesel-powered portable generators shall be used, unless necessary due to emergency situations or constrained supply.
  - d) No idling longer than five minutes shall be permitted.
- 4) ***Worker Education / Enforcement of Requirements***
- a) See section 8(i) in Attachment C to this Agreement.

**Attachment A, Exhibit 1  
Class 8, Heavy Duty Truck Grant Program**

| Truck Model Year | Grant (\$) per Truck |
|------------------|----------------------|
| 2024             | 24,391               |
| 2025             | 23,523               |
| 2026             | 22,823               |
| 2027             | 22,228               |
| 2028             | 21,687               |
| 2029             | 21,198               |
| 2030 and later   | 20,709               |

Notes and Source: All assumptions are based on CARB data developed in the Advanced Clean Trucks rulemaking. Class 8 trucks are defined by Federal Highway Administration as trucks with Gross Vehicle Weight Rating (GVWR) of more than 33,000 lbs. The grants specified in this table equal the down payments projected to be required to purchase a Class 8 heavy duty electric truck for each specified truck model year, using the CARB Total Cost of Ownership Calculator available at: [https://ww2.arb.ca.gov/sites/default/files/2019-05/190508tcocalc\\_2.xlsx](https://ww2.arb.ca.gov/sites/default/files/2019-05/190508tcocalc_2.xlsx). Consistent with industry practice, the down payment represents 10% of the amount due at the truck purchase, which includes the truck purchase price, the taxes and the registration (but not the fuel and maintenance).

# EV Heavy Duty Truck Grant



## Helping Truckers Transition to EV by Eliminating Up-front Cash Needed

### Biggest Barrier to EV Truck Conversion?

- Where does the buyer get the money for the down payment

### Solution: Zero Cash Down for Zero Emissions Grant Program

- WLC will provide Grant to cover the projected down payment on new HD EV truck based on CARB data
- Grant program will continue throughout the construction period

| Class 8 Model Year | Purchase Price <sup>1</sup><br>(capital cost, registration, taxes) |                 | Upfront Costs<br>(capital cost, registration, taxes) |                                     |                                 |                                | Benefits to Purchaser                                 |  |
|--------------------|--|-----------------|--|-------------------------------------|---------------------------------|--------------------------------|---|--|
|                    | Diesel (CARB)  | Electric (CARB) | Diesel Down Payment <sup>2</sup>                     | EV Down Payment (CARB) <sup>2</sup> | WLC EV Truck Grant <sup>3</sup> | EV Down Payment (net of grant) | Day 1 Cash Savings to Switch to Electric <sup>4</sup> | Year 1 Fuel & Maintenance Savings vs Diesel <sup>5</sup> |
| MY 2024            | \$172,220  | \$243,913       | (\$17,222)   | (\$24,391)                          | \$24,391                        | \$0                            | \$17,222  | \$5,850  |

1. Cost data for diesel and electric trucks estimated using the CARB TCO Calculator, available at: [https://ww2.arb.ca.gov/sites/default/files/2019-05/190508tccalc\\_2.xlsx](https://ww2.arb.ca.gov/sites/default/files/2019-05/190508tccalc_2.xlsx). All assumptions are based on CARB data developed in the Advanced Clean Trucks rulemaking. The (lower) Tesla Semi price projections represent a less conservative scenario and accordingly the Tesla data was not used to set Grant levels.
2. Consistent with industry practice, the down payment represents 10% of the purchase price, tax and registration (but not fuel and maintenance).
3. The CARB price projections represent a conservative scenario and accordingly CARB data has been used to set Grant levels.
4. Incremental cost of EV Truck assumes no additional incentives or subsidies, which is highly conservative given the many existing EV subsidy programs. Note that no incentives are available for diesel trucks.
5. Annual maintenance and fuels costs (and savings) based on CARB data. This does not include revenues from the sale of LCFS credits.

Confidential Settlement Communication – Not for Dissemination

**Attachment A, Exhibit 2  
Medium Duty Truck Grant Program**

| <b>Truck Model Year</b> | <b>Grant (\$) per Truck (Class 4-5)</b> | <b>Grant (\$) per Truck (Class 6-7)</b> |
|-------------------------|---|---|
| 2024                    | 8,466                                   | 13,040                                  |
| 2025                    | 8,274                                   | 12,728                                  |
| 2026                    | 8,118                                   | 12,476                                  |
| 2027                    | 7,983                                   | 12,261                                  |
| 2028                    | 7,859                                   | 12,065                                  |
| 2029                    | 7,746                                   | 11,887                                  |
| 2030 and later          | 7,632                                   | 11,710                                  |

Notes and Source: All assumptions are based on CARB data developed in the Advanced Clean Trucks rulemaking. Federal Highway Administration (FHA) defines Class 4, Class 5, Class 6 and Class 7 trucks as trucks with GVWRs as follows: (i) Class 4 between 14,001 lbs and 16,000 lbs; (ii) Class 5 between 16,001 lbs and 19,500 lbs; (iii) Class 6 between 19,501 lbs and 26,000 lbs; (iv) and, Class 7 between 26,001 lbs and 33,000 lbs. FHA classifies Class 4, Class 5 and Class 6 trucks as Medium Duty and classifies Class 7 trucks as Heavy Duty. In terms of emission standards, the U.S. Environmental Protection Agency (EPA) classifies Class 4-5 trucks as Light Heavy Duty and Class 6-7 trucks as Medium Heavy Duty. The grants specified in this table equal the down payments projected to be required to purchase either a Class 4-5 or Class 6-7 electric truck for each specified truck model year, using the CARB Total Cost of Ownership Calculator available at: [https://ww2.arb.ca.gov/sites/default/files/2019-05/190508tcocalc\\_2.xlsx](https://ww2.arb.ca.gov/sites/default/files/2019-05/190508tcocalc_2.xlsx). Consistent with industry practice, the down payment represents 10% of the amount due at the truck purchase, which includes the truck purchase price, the taxes and the registration (but not the fuel and maintenance).

**Attachment A, Exhibit 3  
Local Delivery Truck Grant Program**

| <b>Truck Model Year</b> | <b>Grant (\$) per Truck (Class 2B-3)</b> |
|-------------------------|--|
| 2024                    | 8,949                                    |
| 2025                    | 8,762                                    |
| 2026                    | 8,607                                    |
| 2027                    | 8,467                                    |
| 2028                    | 8,336                                    |
| 2029                    | 8,213                                    |
| 2030 and later          | 8,090                                    |

Notes and Source: All assumptions are based on CARB data developed in the Advanced Clean Trucks rulemaking. The EPA classifies Class 2B trucks as trucks with GVWR between 8,500 lbs and 10,000 lbs and Class 3 trucks as trucks with GVWRs between 10,001 lbs and 14,000 lbs. The grants specified in this table equal the down payments projected to be required to purchase a Class 2B-3 electric truck for each specified truck model year, using the CARB Total Cost of Ownership Calculator available at: [https://ww2.arb.ca.gov/sites/default/files/2019-05/190508tcocalc\\_2.xlsx](https://ww2.arb.ca.gov/sites/default/files/2019-05/190508tcocalc_2.xlsx). Consistent with industry practice, the down payment represents 10% of the amount due at the truck purchase, which includes the truck purchase price, the taxes and the registration (but not the fuel and maintenance).

# **Attachment B**



## Biological Resources

- 1) **Lighting Program.** Reduce light and glare to maximum extent practicable. Implement a campus-wide lighting program in compliance with International Dark Sky Association standards with at least the following measures (except where doing so would violate safety requirements or federal, state, City or county governmental regulations; provided, however, that if doing so would violate such requirements or regulations, then WLC shall consult with Petitioner Parties and, should Petitioner Parties so decide, WLC and Petitioner Parties shall cooperate to attempt to persuade the decision maker to allow the lighting program described below).
  - a) Light color of all exterior lighting, including street lights, shall be 2,700 Kelvin.
  - b) Limit the heights of all freestanding and wall-mounted lights to 20 feet within 1,500 feet of the San Jacinto Wildlife Area (“SJWA”).
  - c) Dimmers to 25% output after sundown when no motion detected for ten minutes, subject to City approval, which approval WLC shall request.
  - d) Motion sensors on all interior lighting shall be installed consistent with applicable Title 24 regulations.
  - e) Require darker colored paint (Pantone 7501C) on all exterior building walls within 1,000 feet of the SJWA property line and visible from the SJWA to reduce glare.



- f) Plant trees within setback area to reduce glare to SJWA.
- g) Install full cut-off luminaries on buildings and poles.
- i) Installation of automatic blinds on office windows visible from the SJWA within 1,500 feet of the SJWA edge that automatically close within 20 minutes after sunset and open within 20 minutes of sunrise.
- h) Truck head lights shall be turned off within five minutes of truck parking.

- i) All construction lighting shall be shielded and directed away from the project's property lines.

## **2) SJWA Setback Area & Additional SJWA Protections**

- a) Truck yards shall be no closer than 350 feet from the southern boundary with SJWA, as depicted by the yellow line in the attached graphic. No buildings, truck courts, loading areas, parking, truck circulation areas, or truck or trailer storage, shall be permitted within the 350-foot setback area. Only landscaping, drainage facilities, and underground utilities shall be permitted. Emergency access and maintenance access shall also be permitted.
- b) Warehouse buildings shall be no closer than 450 feet from the southern boundary with SJWA, as depicted by the red line in the attached graphic. *See Attachment B, Exhibit 1 – Setback.*
- c) The SJWA setback area shall be subject to an open space deed restriction that limits uses within the 350-foot setback area to only landscaping, drainage facilities, underground utilities, emergency access, and maintenance access.
- d) No lighting shall be located in the 350-foot setback.
- e) No wall or fence shall be installed along the project's property line with the SJWA, unless required by California Department of Fish and Wildlife or other governmental authority.
- f) All portions of truck yards visible from the SJWA, including those truck yards adjacent to the SDG&E Moreno Compressor Station, shall be shielded by a wall or walls at least 14 feet high, if the City so permits under the Specific Plan, which permission WLC shall in good faith seek. In no event shall such walls be lower than 12 feet high.
- g) WLC shall plant landscaping and design detention basins in the SJWA special edge treatment area so as to soften the southern appearance of truck yard screen walls by planting at least 50% of all trees at 24" box in size. Detention basins within the SJWA special edge treatment shall be designed and built no larger than necessary to handle the Specific Plan area's estimated storm water flow.
- h) Landscaping within the SJWA special edge treatment area shall be substantially consistent with conceptual design set forth in the Specific Plan at pages 4-25 and 4-26.
- i) Plant only low-biogenic and native vegetation in SJWA special edge treatment area.
- j) At least 50% of trees within the 350-foot setback area shall be evergreen trees.
- k) At least 50% of trees within the 350-foot setback area shall be native to Southern California.

- l) No ornamental grasses shall be installed in the Specific Plan area. Only grasses, shrubs, or sub-shrubs listed in section 5.4.4 of the Specific Plan, which are all native grasses, shall be planted within the Specific Plan area.
  - m) Invasive, non-native grasses, shrubs, and sub-shrubs shall be removed from the Specific Plan area's developed portions as part of the WLC's regular landscaping services.
  - n) All leases shall inform tenants within 1,000 feet of the SJWA edge that the project is adjacent to the SJWA, which permits hunting.
  - o) Permanent signage in English and Spanish shall be installed within 450 feet of the SJWA stating that such area is within 450 feet of an area that permits hunting.
- 3) ***SJWA Conservation Fund***—Upon the issuance of a building permit for a warehouse building south of Alessandro Blvd., WLC shall fund a \$4 million account for (i) land acquisition efforts to augment the SJWA, (ii) SJWA conservation efforts, (iii) wildlife corridor crossings on Gilman Springs Road, (iv) facilitating native plantings, (v) plant management, (vi) other conservation efforts, or (vii) administration of such funds. The funds shall be managed by a third-party, non-profit entity or foundation chosen by Petitioner Parties.
- 4) ***SDG&E Moreno Compressor Station Shielding.***
- a) ***Landscaping.*** Prior to the issuance of a certificate of occupancy for a warehouse building south of Alessandro Blvd. and north of the SDG&E Moreno Compressor Station, landscaping that substantially blocks vehicle lights shall be installed and maintained around the project's western, northern, and eastern property line abutting the SDG&E Moreno Compressor Station.
  - b) ***Fencing.*** Prior to the issuance of a certificate of occupancy for a warehouse building south of Alessandro Blvd., ten foot tall fencing with metal mesh installed below and above ground level to prevent animals from moving between the SDG&E Compressor Station and SJWA shall be installed and maintained around the western, northern, and eastern property line abutting the SDG&E Moreno Compressor Station.
- 5) ***Davis Road***—WLC shall support efforts to keep Davis Road closed north of the SJWA, as shown on the attached map, including the placement of a gate near Alessandro Blvd. No access from the north via Davis Road for the property located at 16200 Davis Road shall be requested. *See Attachment B, Exhibit 2 – Horse Ranch Exhibit.*
- 6) ***WLC Open Space Area (Planning Area 30).***
- a) WLC shall not build any buildings within Planning Area 30. WLC shall provide notice of any property transfer or proposed activity within Planning Area 30 within 30 days of such transfer or formal proposed activity.
  - b) Prior to the issuance of a certificate of occupancy for any warehouse building adjacent to Planning Area 30, a wall at least 14 feet high, if the City so permits, which approval

WLC shall in good faith request, shall be constructed along the warehouse building's southern edge. In no event shall such wall be lower than 12 feet high.

**7) *SJWA Boundary & Setbacks.***

- a) For purposes of this Agreement, SJWA boundary shall mean SJWA's boundaries as they exist as of the Effective Date of the Agreement.
- b) All setback obligations from the SJWA shall be as shown on the following attachment. *See Attachment B, Exhibit 1 – Setback.*

Attachment B, Exhibit 1 – Setback



March 2021  
N.T.S.

Setback to SJWA

Attachment B, Exhibit 2 – Horse Ranch Exhibit



# **Attachment C**

## Community Benefits

### 1) *Berms/Screening Before Warehouse Construction*

- a) The berms to be installed along Redlands Blvd. and Merwin St. shall be completed before the construction of any warehouses within 1,000 feet of Redlands Blvd. or Merwin St.
- b) Either the berm to be installed along Bay St. or a temporary barrier sufficient to substantially screen warehouse construction activities shall be completed before the construction of any warehouses within 1,000 feet of Bay St.

### 2) *Setbacks From residentially zoned property.* Buildings shall be setback at least 290 feet measured from the nearest existing City residential zoning boundary (which is currently the centerline of Redlands Blvd., Bay Ave., and Merwin St.). Notwithstanding the foregoing, buildings of no more than 45 feet in height, as measured pursuant to the Specific Plan, shall be setback at least 250 feet from the nearest existing City residential zoning boundary.

### 3) *Visual Protections/Berms/Landscaping*

#### a) **Landscaping/Screening**

- i) Merwin St. Berm: WLC will install a berm and landscaped area on the east side of Merwin St. similar to that to be installed on Redlands Blvd. to screen future buildings and development as viewed from Merwin St.
- ii) Enhancements to Berm: The property's Western Edge, as defined by the Specific Plan and as shown in Specific Plan Exhibit 4-1, when viewed from the western side of Redlands Boulevard and Merwin Street and the southern side of Bay Avenue, shall be developed to screen future buildings with walls, berms, and/or landscaping as follows.
  - (1) For a minimum of 25% of the linear length of the berms, the entirety of the buildings and roof mounted equipment behind the berms shall be substantially screened by walls, berms, and/or landscaping at maturity at all times of the year. "Substantially screened" means that while there might be some view of the buildings looking through the foliage, the buildings will be mostly obscured from view.
  - (2) For a minimum of 25% of the linear length of the berms, all but the top five feet of the buildings and roof mounted equipment behind the berms shall be substantially screened by walls, berms, and/or landscaping at maturity at all times of the year.
  - (3) For the remaining 50% or less of the linear length of the berms, all but the top fifteen feet of the buildings and roof mounted equipment behind the berms shall be substantially screened by walls, berms, and/or landscaping at maturity at all times of the year.



- (4) In the event the above levels of screening on the Western Edge are not achieved within 15 years of landscaping's installation, WLC shall do supplemental planting to meet the above levels of screening.
- iii) Larger Trees than the Specific Plan Requires: WLC will plant larger trees within the Specific Plan's Western Edge, as follows: 50% of all trees to be 24" box.
- iv) Evergreen Trees:
- (1) Western Edge. Evergreen trees shall constitute 85% of all 24" box trees planted within the Specific Plan's Western Edge.
- (2) Specific Plan Campus. Evergreen trees shall constitute 50% of all trees planted within the WLC. For purposes of defining evergreen trees, deciduous trees that behave like evergreen trees in the Southern California climate shall be considered evergreen trees.
- v) Varied Appearance: Landscaping on the Western Edge shall avoid a linear appearance through implementation of the following measures:
- (1) Trees shall be planted at varied depths from the World Logistic Center's property line so that they do not create a uniform and linear appearance and create a layering effect as viewed from adjacent streets so as to maximize screening of World Logistic Center buildings;
- (2) Consistent with layering effect, larger evergreen trees shall be concentrated towards the top of the berms to maximize screening;
- (3) To the extent practicable, berm contours shall vary and accent elements, such as boulders, shall be placed on berm slopes facing adjacent streets to create visual interest; and
- (4) Trees within the Western Edge shall be maintained in their natural form and shape with minimal pruning.
- vi) Dead trees shall be promptly removed and replaced with similar type trees.
- vii) Use of palm trees shall be limited to accent areas only.
- viii) Plant trees in the parking areas that are capable of achieving 50% shading within ten years.
- ix) Use concrete for parking lots with concrete having a solar reflective index of no less than 30.

#### 4) *Architectural Design*

- a) Screen all rooftop equipment: (i) visible from any existing residential homes within 1,000 feet of the property's Western Edge; or (ii) within 1,000 feet of the San Jacinto Wildlife Area ("SJWA"). Rooftop equipment shall be screened using the building's parapet wall or other architectural element that appears to be or is an integral part of the building.
- b) No portion of any building that is closer than 600 feet to the centerline of Redlands Blvd., Bay Ave., or Merwin St. shall exceed 60 feet in height (portions that are farther away may exceed 60 feet in height).
- c) For warehouse buildings abutting the Western Edge that are not substantially screened, the rooflines shall be designed to avoid long linear flat walls through the incorporation of architectural features like breaks, wall offsets, height variations, and/or accent features.

#### 5) *Homeowner or Resident Reimbursements*

- a) Air Filtration System Reimbursement Program.
  - i) WLC shall pay 90% of the costs of purchasing and installing non-portable air filtration systems ("Air Filtration System Reimbursement Program"), including any necessitated HVAC modification, which cost shall not exceed \$25,000 per home, as follows.
    - (1) The home is an eligible home as shown on the attached map. *See Attachment C, Exhibit 1 – Filter Overview Map.*
    - (2) The homeowner or resident requests payment within five years of the commencement of grading or commencement of construction of a warehouse building within 2,000 feet of such homes.
    - (3) In the event a property owner or resident has a household income less than 80% of the Area Median Income as determined by the Department of Housing and Urban Development, WLC shall pay 100% of the cost of the air filtration system up to \$25,000.
  - ii) The project shall mail notice via registered or certified mail of the Air Filtration System Reimbursement Program to Petitioners and to residents and property owners of record of the qualified homes prior to the issuance of the project's first grading or building permit within 2,000 feet of the homes and annually thereafter for four years. The notice shall identify the exact date when the five year period starts and ends. Proof of mailing shall be provided to Petitioners. The project's website shall also include notice of the Air Filtration System Reimbursement Program during the program's five-year term, including identifying which homes have started the five year window and when it ends.

- iii) The homeowner or resident may select and contract with a contractor or installer of the homeowner's or resident's choice.
- b) Noise Insulation Reimbursement Program.
  - i) WLC shall pay 90% of the costs of purchasing and installing noise insulation measures ("Noise Insulation Reimbursement Program"), which cost shall not exceed \$10,000 per home, as follows.
    - (1) The home is an eligible home as shown on the attached map. *See Attachment C, Exhibit 2 – Sound Proofing Overview Map.*
    - (2) The homeowner or resident requests payment under the Noise Insulation Reimbursement Program within five years of the commencement of grading or commencement of construction of a warehouse building within 2,000 feet of such homes.
  - ii) The project shall mail via registered or certified mail notice of the Noise Insulation Reimbursement Program to Petitioners and to residents and property owners of record of the qualified homes at least 60 days before the issuance of the project's first grading or building permit within 2,000 feet of the homes and annually thereafter for four years. The project's website shall also include notice of the Noise Insulation Reimbursement Program during the program's five-year term, including identifying which homes have started the five year window and when it ends.
  - iii) The homeowner or resident may select and contract with a contractor or installer of the homeowner's or resident's choice.
  - iv) In the event a property owner or resident has a household income less than 80% of the Area Median Income as determined by the Department of Housing and Urban Development, WLC shall pay 100% of the cost of the noise insulation measures up to \$10,000.
- c) Exterior Pressure Washing Reimbursement.
  - i) Due to possible dust during grading, WLC shall reimburse each homeowner for exterior pressure washings of the first two rows of homes on the west side of Redlands Blvd., south side of Bay Ave., and west side of Merwin St. up to \$500 per house.
- d) Additional Homeowner Outreach. Petitioners are free to engage in their own homeowner notification, outreach and efforts to maximize awareness and success of the air filtration, noise insulation, and power washing programs, either directly or through a contractor or third party nonprofit. WLC shall provide funds of up to \$120,000 to a designated nonprofit or foundation selected by Petitioners upon the issuance of the Project's first grading or building permit for work within 2,000 feet of any home identified in sections 5(a)(i)(1) and 5(b)(i)(1). WLC will annually notify Petitioners of how many and which homes have used this program. Petitioners may also request this information, and the

WLC shall provide it within 30 days. WLC shall also notify Petitioners of any rejected requests under the air filtration, noise mitigation, and/or pressure washing program for any home with a rationale for the rejection within 30 days of such rejection. Any unused funds from this \$120,000 may be directed to other philanthropic activities to benefit the City of Moreno Valley if any funds remain after the expiration of the reimbursement programs.

6) **Noise**

a) **Project Operations**

- i) All portions of truck yards that are visible from Redlands Blvd., Merwin St., Bay Avenue and the SJWA shall be shielded by walls at least 14 feet high, if the City so permits. WLC shall apply for an administrative variance pursuant to Specific Plan section 11.3.3.1, if necessary, and make a good-faith effort to seek permission to install these 14-foot high walls. In no event shall such walls be lower than 12 feet high.
- ii) All portions of truck circulation drive aisles that are visible from any existing home within 1,000 feet of the Specific Plan's Western Edge shall be shielded by walls at least 14 feet high, if the City so permits. WLC shall apply for an administrative variance pursuant to Specific Plan section 11.3.3.1, if necessary, and make a good-faith effort to seek permission to install such 14-foot high walls. In no event shall such walls be lower than 12 feet high.
- iii) No exterior mechanical building equipment generating noise levels above 50 dBA CNEL measured at the property line of each of the homes located West of Redlands Blvd., south of Bay Ave., and west of Merwin St. shall be installed, absent the written consent of such affected homeowner.
- iv) Buildings located between E Street and Redlands Blvd. or 500 feet east of Merwin St. shall not have loading docks or parking areas facing residential home frontage on Redlands Blvd. or Merwin St., as shown on attached map in red. *See Attachment C, Exhibit 3 – Map for No Docks Facing Existing Homes.*
- v) Prohibit outdoor loading activities within 1,000 feet of any existing home between 9:00 p.m. to 6:00 a.m. if noise levels exceed 50 dBA CNEL measured at the property line of each such home located West of Redlands Blvd., south of Bay Ave., and west of Merwin St., absent the written consent of such affected homeowner or resident.
- vi) No outdoor speakers that exceed 45 dBA Leq measured at the property line of any existing home between 7:00 p.m. and 7:00 a.m. within 1,500 feet of any residential property fronting Redlands Blvd., Merwin St., and Bay Ave. except in the event of an emergency, absent the written consent of such affected homeowner.

**b) Project Construction**

- i) No nighttime grading or outside construction between 6:00 p.m. and 7:00 a.m. shall be conducted within 1,000 feet of any existing home west of Redlands Blvd., south of Bay Ave., and west of Merwin St., except if necessary for concrete pours.
- ii) Notice shall be provided to residents within 750 feet of the Western Edge at least one week prior to construction between 6:00 p.m. and 7:00 a.m.

**7) Lighting**

- a) The heights of all outdoor freestanding and wall-mounted lights shall not exceed 20 feet within 1,000 feet of the centerline of Redlands Blvd., Bay Ave., and Merwin St., except where doing so would violate safety requirements or federal, state, City or county governmental regulations.
- b) All outdoor freestanding and wall-mounted lights within 1,000 feet of the centerline of Redlands Blvd., Bay Ave., and Merwin St. shall dim to 50% output after sundown when no motion detected for ten minutes.

**8) Operational Trucking/Employee Trips**

**a) Provide On-Site Truck Parking (to discourage parking in neighborhoods)**

- i) Dedicate 7-10 acres east of Theodore St. and north of Alessandro Blvd. for fueling and trucker personal services, such as food service, showers, resting, truck washes, repair facility, etc. (“Truck Service Area”).
- ii) Auxiliary power unit (“APU”) plug-ins shall be provided at each designated Class 8 truck parking spot in the Truck Service Area.
- iii) Provide conduit and prewiring in the Truck Service Area to accommodate potential heavy duty truck charging facilities.
- iv) Ongoing private security shall be provided within the Truck Service Area.
- v) WLC shall in good faith advocate for the City to permit overnight parking within the WLC for trucks servicing WLC tenants.
- vi) Provide sufficient on-site truck parking within parking lots and/or public rights-of-way to enable all trucks reasonably expected to visit WLC to park on-site (as determined by a qualified transportation engineer).
- vii) Install permanent signs in English and Spanish to inform truck drivers of the on-site amenities, including the Truck Service Area.
- viii) Maps of designated City truck routes shall be made available within truck amenity facilities and the Truck Service Area.

- ix) All limitations regarding trucking activities shall be provided to tenants upon lease commencement and leases shall require tenants to inform employees and third-party truckers of these limitations through a WLC-maintained website containing these limitations.

**b) Off-Street Community Truck Parking Planning & Advocacy Fund**

- i) WLC shall, upon the commencement of construction of the first warehouse building, pay \$150,000 to a mutually agreeable non-profit entity or foundation to fund efforts (1) to advocate for and support the development of off-street parking for Class 8 trucks in or adjacent to Moreno Valley and not within the WLC, and (2) to advocate for the City's adoption of a \$1,000 street parking fine for illegal truck parking on residential streets and in residential neighborhoods.

- (1) In the event the City does not adopt a \$1,000 fine for illegal truck parking on residential streets then, when 5 million square feet of warehouse buildings between WLC Parkway and Redlands Blvd. have received their certificates of occupancy, WLC shall provide nighttime private patrol (10:00 p.m. to 6:00 a.m.) for 7 years to patrol residential streets within one-half mile of the project to report any overnight/illegal truck parking to authorities. If 18 or fewer WLC related infractions are identified after any three-year period, the patrol may be discontinued.

**c) Prohibiting Trucks on Cactus Avenue**

- i) Trucks shall not be permitted to use Cactus Ave. as a truck route between WLC and Perris Blvd. If the City approves the installation of physical measures to prevent trucks from using Cactus Avenue (e.g., signage, speed humps, etc.), WLC shall fund up to \$200,000 to implement such measures.

- (1) Unused funds, which are funds not expended within five years of certificates of occupancy having been issued for 5 million square feet of warehouse uses approved under the Specific Plan, shall be provided to a mutually agreeable non-profit entity dedicated to supporting the SJWA and/or the community of Moreno Valley.

- ii) Prohibit WLC trucks from using Cactus Ave. in tenant leases.

**d) Prohibiting Trucks on Redlands Blvd. South of Eucalyptus**

- i) Prohibit WLC truck use of Redlands Blvd. south of the roundabout at Eucalyptus Ave. in tenant leases.

- ii) If the City approves permanent signage prohibiting trucks from using Redlands Blvd., then WLC shall fund up to \$50,000 to install such signage.

- (1) Unused funds, which are funds not expended within five years of certificates of occupancy having been issued for 5 million square feet of warehouse uses

approved under the Specific Plan, shall be provided to a mutually agreeable non-profit entity dedicated to supporting the SJWA and/or the community of Moreno Valley.

**e) Alessandro Blvd. Closure**

- i) Upon the completion of the extension of Cactus Ave., Alessandro Blvd. east of Merwin St. shall be closed to vehicular traffic (other than emergency vehicles).

**f) Truck Turning Prohibitions (to avoid turning in prohibited directions)**

- i) To discourage trucks from turning the wrong direction when entering or leaving the WLC, design and install physical measures the City and Fire Department approves (e.g., curbs that force turns in only one direction, bumps/textures that rattle vehicles traversing them, etc.).
- ii) Install signage clearly stating which directions trucks must turn at all streets exiting the Specific Plan area.

**g) No Truck Parking Signage**

- i) If the City approves a “no truck parking” signage program within one mile of the WLC, fund implementation of that program up to \$200,000.
  - (1) Unused funds, which are funds not expended within five years of certificates of occupancy having been issued for 5 million square feet of warehouse uses approved under the Specific Plan, shall be provided to a mutually agreeable non-profit entity dedicated to supporting the SJWA and/or the community of Moreno Valley.

**h) Prohibit Off-Site Employee Parking**

- i) Provide free on-site employee parking.
- ii) To discourage employee parking within neighborhoods, prohibit employee “walk-ins” onto WLC campus at the start and end of shifts, unless the employee lives within walking distance of WLC.
- iii) Prohibit off-site employee parking in tenant leases.

**i) Worker Education / Enforcement of Trucking and Parking Requirements**

- i) Upon the issuance of the certificate of occupancy for the first warehouse building, WLC shall implement an ongoing program to educate truckers, tenants, and construction workers of all of the rules and requirements expected of them, including the applicable GHG/air quality measures listed in Sections 2 and 3 of Attachment A to the Agreement and the other requirements listed in this Attachment C to the Agreement. The education program shall be in English and Spanish and shall include

- prominently posted signage throughout the project site, including a requirement in tenant leases obligating tenants to inform employees, temporary workers, contractors, and third-party truckers of the rules by posting the rules in lounges provided at their warehouses. WLC shall also maintain a website with a trucker and construction worker information page specifying the rules. The educational information with the rules developed under this program shall be provided to all tenants in paper form (e.g., a pamphlet) on request and at least annually for inclusion in lounges.
- ii) WLC shall install permanent reflective signage in English and Spanish no less than every 25 feet along the interior of truck yard screening walls facing loading docks stating limits on engine idling, vehicle lights, and APUs.

**j) Employee Trip Reduction Measures**

- i) WLC shall implement the following measures to reduce Specific Plan employee trips.
- (1) Provide on-site meal areas.
  - (2) Provide up to 1,000 eBike subsidies in the amount of \$500 to WLC employees who commit to bike to work at least twice per week on average. The subsidies will be phased proportionately with buildout of the first 15 million square feet of the project.
  - (3) Provide on-line transit incentive “virtual kiosk” giving free transit assistance to WLC employees (e.g., ridesharing/carpooling connections, assistance determining best bus routes, sales of bus passes, etc.).
  - (4) Develop and implement program to ensure knowledge of trip reduction measures by project employees.
  - (5) Provide 40% subsidies for bus passes for tenants’ employees who commit to bus to work at least twice per week on average.
  - (6) Require tenants to have trip reduction plans to achieve 1.3 average vehicle ridership as a factor of total number of employees (in tenant leases).
  - (7) Require tenants to have a Transportation Management Association to encourage carpooling (in tenant leases).
  - (8) Provide bike lockers for 5% or more of building users within 50 yards of employee building entrances.
  - (9) Provide short-term bike racks near employee building entrances.
  - (10) Provide preferential parking for carpools and vanpools equal to 5% of total parking spaces.
  - (11) Provide designated parking spaces for motorcycles.



- (12) Fund a zero emission shuttle that circulates within the Specific Plan area and has pickup and drop-offs at the closest off-site bus stop no later than the issuance of a certificate of occupancy for 15 million square feet of warehouse buildings.

9) ***Multi-Use Trail***

- a) Pursuant to Specific Plan section 3.4.2, WLC shall construct a multiuse trail along the Western Edge that connects to the existing trail segment on the west side of Redlands Blvd. via a crosswalk at Cottonwood Avenue and Redlands Boulevard, the trail segment on Eucalyptus Ave., and the existing trail on Cactus Ave. *See Attachment C, Exhibit 4 – WLC Specific Plan Trail Map.*
- b) Completion of the multiuse trail along the northern portion of Eucalyptus Avenue between Theodore Street and Redlands Boulevard shall be completed no later than the completion of the southern half of Eucalyptus Avenue between Theodore Street and Redlands Boulevard.
- c) Pursuant to Specific Plan section 3.4.3, Class II bikeways shall be provided along all roadways within the project.

10) ***Graffiti & Trash Abatement***

- a) Graffiti shall be removed within one week of identification or notification.
- b) Trash removal within and along all WLC edge areas shall occur at least every other week or within three business day of receipt of notification by community ombudsman.

11) ***Construction Vehicles/Trucking***

- a) Prohibit construction trucks from using Redlands Blvd., other than for infrastructure construction or necessary detours
- b) Provide lunch vendor services on-site for construction workers.

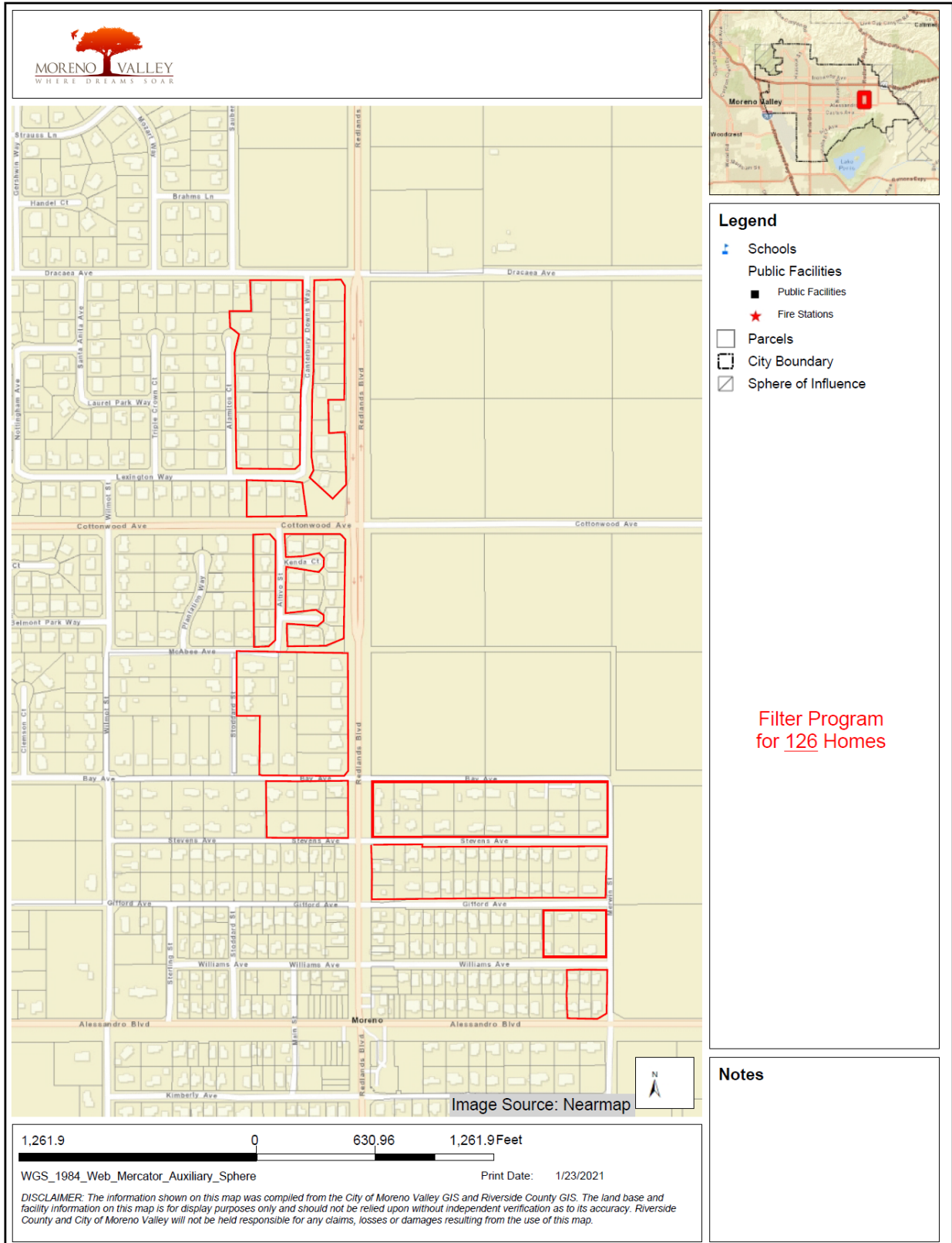
12) ***Community Outreach and Transparency***

- a) WLC shall implement the following community measures.
  - i) Provide a designated ombudsman and 24-hour hotline to address neighbor concerns prior to the commencement of construction and such hotline shall be maintained for 10 years beyond the Specific Plan’s full buildout. A live operator shall staff the hotline 24 hours per day. The hotline number shall be mailed to all properties within 1,500 feet of project site no more than one month prior to the commencement of grading on the property.
  - ii) Permanent signs at the project’s five main entrances, easily read from the street, shall be installed and shall provide the ombudsman hotline number and state that the

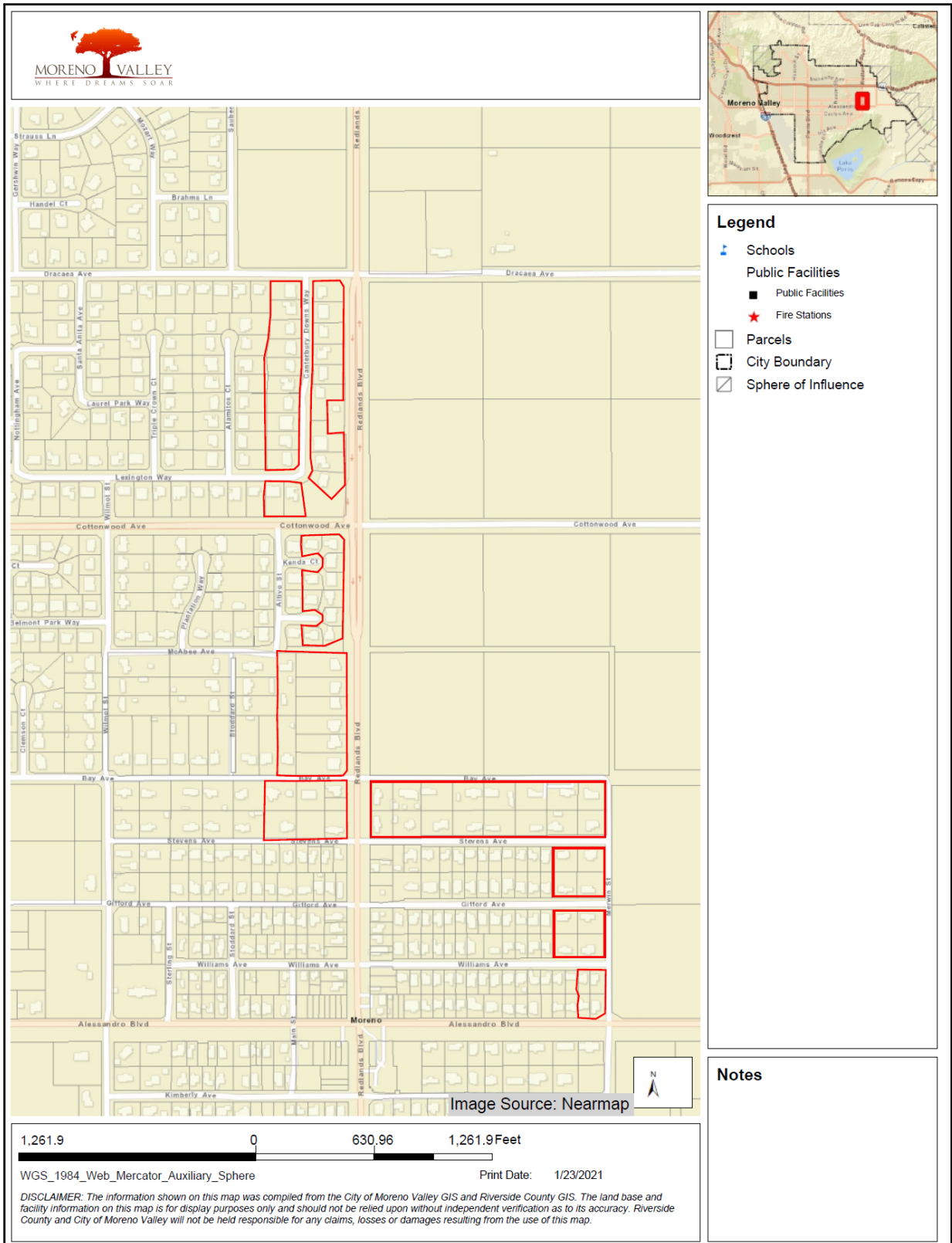
ombudsman may be contacted regarding graffiti, trash, illegal truck parking, or other operational disturbances.

- iii) Give notice of any discretionary permit applications for development to any groups or individuals who so request and to residents and property owners within 1,000 feet of the parcel for which work is proposed. Petitioners shall be notified when any project development application is formally submitted to the City and a copy of the proposal and plans shall be provided digitally.

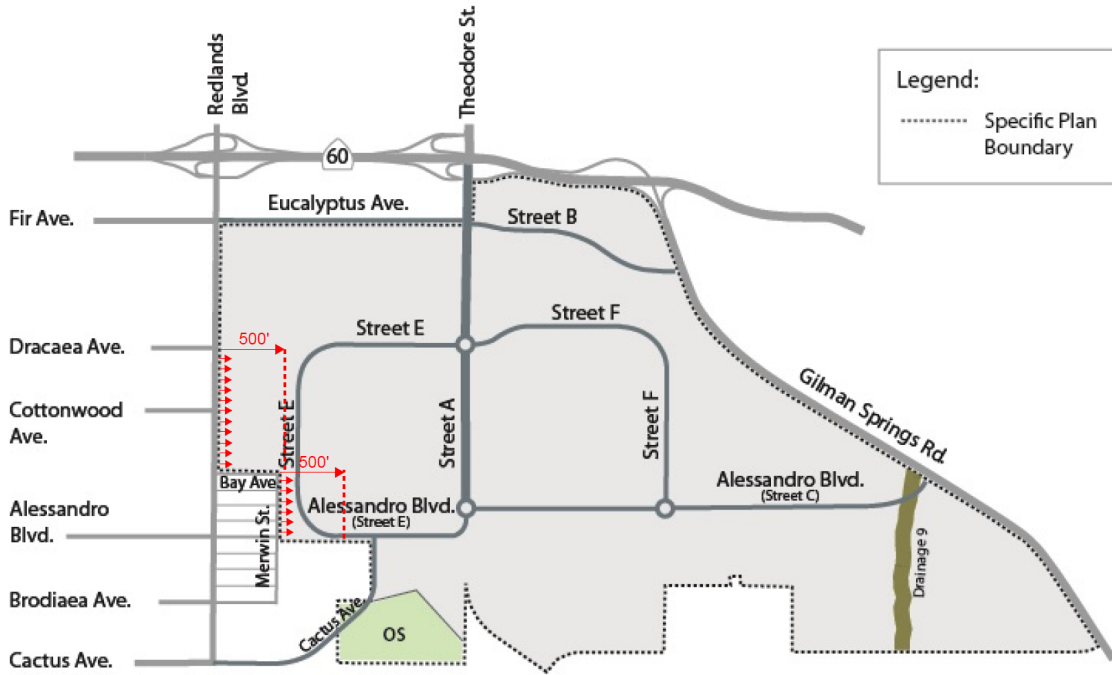
# Attachment C, Exhibit 1 – Filter Overview Map



# Attachment C, Exhibit 2 – Sound Proofing Overview Map

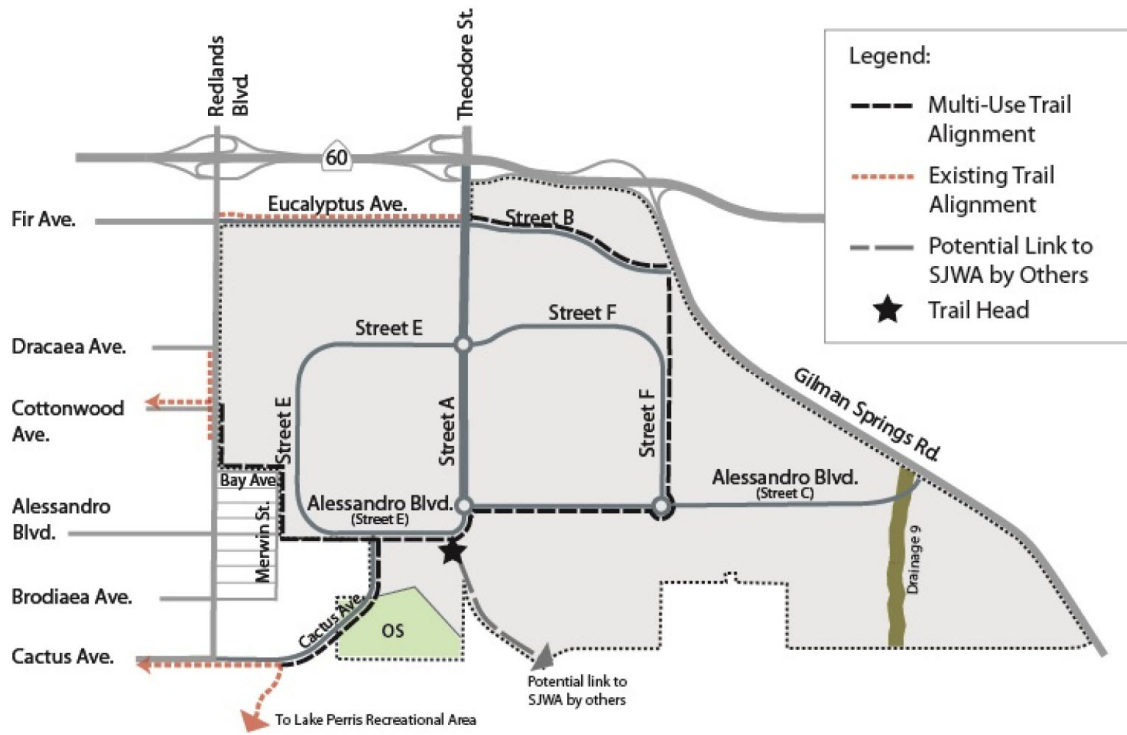


### Attachment C, Exhibit 3 – Map for No Docks Facing Existing Homes



Location of No Dock Doors Facing Existing Homes

# Attachment C, Exhibit 4 – WLC Specific Plan Trail Map



# **Exhibit C**



## Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act

In carrying out its duty to enforce laws across California, the California Attorney General's Bureau of Environmental Justice (Bureau)<sup>1</sup> regularly reviews proposed warehouse projects for compliance with the California Environmental Quality Act (CEQA) and other laws. When necessary, the Bureau submits comment letters to lead agencies, and in rare cases the Bureau has filed litigation to enforce CEQA.<sup>2</sup> This document builds upon the Bureau's comment letters, collecting knowledge gained from the Bureau's review of hundreds of warehouse projects across the state. It is meant to help lead agencies pursue CEQA compliance and promote environmentally-just development as they confront warehouse project proposals.<sup>3</sup> While CEQA analysis is necessarily project-specific, this document provides information on feasible best practices and mitigation measures, the overwhelming majority of which have been adapted from actual warehouse projects in California.

### I. Background

In recent years, the proliferation of e-commerce and rising consumer expectations of rapid shipping have contributed to a boom in warehouse development.<sup>4</sup> California, with its ports, population centers, and transportation network, has found itself at the center of this trend. For example, in 2014, 40 percent of national container cargo flowed through Southern California, which was home to nearly 1.2 billion square feet of warehouse facilities.<sup>5</sup> In the Inland Empire alone, 150 million square feet of new industrial space was built over the last decade,<sup>6</sup> and 21 of the largest 100 logistics leases signed in 2019 nationwide were in the Inland

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<sup>1</sup> <https://oag.ca.gov/environment/justice>.

<sup>2</sup> <https://oag.ca.gov/environment/ceqa/letters>; *South Central Neighbors United et al. v. City of Fresno et al.* (Super. Ct. Fresno County, No. 18CECG00690).

<sup>3</sup> Anyone reviewing this document to determine CEQA compliance responsibilities should consult their own attorney for legal advice.

<sup>4</sup> As used in this document, "warehouse" or "logistics facility" is defined as a facility consisting of one or more buildings that stores cargo, goods, or products on a short or long term basis for later distribution to businesses and/or retail customers.

<sup>5</sup> Industrial Warehousing in the SCAG Region, Task 2. Inventory of Warehousing Facilities (April 2018), [http://www.scag.ca.gov/Documents/Task2\\_FacilityInventory.pdf](http://www.scag.ca.gov/Documents/Task2_FacilityInventory.pdf) at 1-1, 2-11.

<sup>6</sup> Los Angeles Times, *When your house is surrounded by massive warehouses*, October 27, 2019, <https://www.latimes.com/california/story/2019-10-27/fontana-california-warehouses-inland-empire-pollution>.



Empire, comprising 17.5 million square feet.<sup>7</sup> This trend has not slowed, even with the economic downturn caused by COVID-19, as e-commerce has continued to grow.<sup>8</sup> Forecasts predict that the Central Valley is where a new wave of warehouse development will go.<sup>9</sup>

When done properly, these activities can contribute to the economy and consumer welfare. However, imprudent warehouse development can harm local communities and the environment. Among other pollutants, diesel trucks visiting warehouses emit nitrogen oxide (NO<sub>x</sub>)—a primary precursor to smog formation and a significant factor in the development of respiratory problems like asthma, bronchitis, and lung irritation—and diesel particulate matter (a subset of fine particular matter that is smaller than 2.5 micrometers)—a contributor to cancer, heart disease, respiratory illnesses, and premature death.<sup>10</sup> Trucks and on-site loading activities can also be loud, bringing disruptive noise levels during 24/7 operation that can cause hearing damage after prolonged exposure.<sup>11</sup> The hundreds, and sometimes thousands, of daily truck and passenger car trips that warehouses generate contribute to traffic jams, deterioration of road surfaces, and traffic accidents. These environmental impacts also tend to be concentrated in neighborhoods already suffering from disproportionate health impacts.

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<sup>7</sup> CBRE, *Dealmakers: E-Commerce & Logistics Firms Drive Demand for Large Warehouses in 2019* (January 23, 2020), <https://www.cbre.us/research-and-reports/US-MarketFlash-Dealmakers-E-Commerce-Logistics-Firms-Drive-Demand-for-Large-Warehouses-in-2019>; see also CBRE, *E-Commerce and Logistics Companies Expand Share Of Largest US Warehouse Leases, CBRE Analysis Finds* (Feb. 25, 2019), <https://www.cbre.us/about/media-center/inland-empire-largest-us-warehouse-leases> (20 of the largest 100 warehousing leases in 2018 were in the Inland Empire, comprising nearly 20 million square feet).

<sup>8</sup> CBRE, 2021 U.S. Real Estate Market Outlook, Industrial & Logistics, <https://www.cbre.us/research-and-reports/2021-US-Real-Estate-Market-Outlook-Industrial-Logistics>; Kaleigh Moore, *As Online Sales Grow During COVID-19, Retailers Like Montce Swim Adapt And Find Success*, FORBES (June 24, 2020), available at <https://www.forbes.com/sites/kaleighmoore/2020/06/24/as-online-sales-grow-during-covid-19-retailers-like-montce-swim-adapt-and-find-success/>.

<sup>9</sup> New York Times, *Warehouses Are Headed to the Central Valley, Too* (Jul. 22, 2020), available at <https://www.nytimes.com/2020/07/22/us/coronavirus-ca-warehouse-workers.html>.

<sup>10</sup> California Air Resources Board, Nitrogen Dioxide & Health, <https://ww2.arb.ca.gov/resources/nitrogen-dioxide-and-health> (NO<sub>x</sub>); California Air Resources Board, Summary: Diesel Particulate Matter Health Impacts, <https://ww2.arb.ca.gov/resources/summary-diesel-particulate-matter-health-impacts>; Office of Environmental Health Hazard Assessment and American Lung Association of California, Health Effects of Diesel Exhaust, <https://oehha.ca.gov/media/downloads/calenviroscreen/indicators/diesel4-02.pdf> (DPM).

<sup>11</sup> Noise Sources and Their Effects, <https://www.chem.purdue.edu/chemsafety/Training/PPETrain/dblevels.htm> (a diesel truck moving 40 miles per hour, 50 feet away, produces 84 decibels of sound).

## II. Proactive Planning: General Plans, Local Ordinances, and Good Neighbor Policies

To systematically address warehouse development, we encourage governing bodies to proactively plan for logistics projects in their jurisdictions. Proactive planning allows jurisdictions to prevent land use conflicts before they materialize and guide sustainable development. Benefits also include providing a predictable business environment, protecting residents from environmental harm, and setting consistent expectations jurisdiction-wide.

Proactive planning can take any number of forms. Land use designation and zoning decisions should channel development into appropriate areas. For example, establishing industrial districts near major highway and rail corridors but away from sensitive receptors can help avoid conflicts between warehouse facilities and residential communities.

In addition, general plan policies, local ordinances, and good neighbor policies should set minimum standards for logistics projects. General plan policies can be incorporated into existing economic development, land use, circulation, or other related elements. Many jurisdictions alternatively choose to consolidate policies in a separate environmental justice element. Adopting general plan policies to guide warehouse development may also help jurisdictions comply with their obligations under SB 1000, which requires local government general plans to identify objectives and policies to reduce health risks in disadvantaged communities, promote civil engagement in the public decision making process, and prioritize improvements and programs that address the needs of disadvantaged communities.<sup>12</sup>

The Bureau is aware of four good neighbor policies in California: Riverside County, the City of Riverside, the City of Moreno Valley, and the Western Riverside Council of Governments.<sup>13</sup> These policies provide minimum standards that all warehouses in the jurisdiction must meet. For example, the Western Riverside Council of Governments policy sets a minimum buffer zone of 300 meters between warehouses and sensitive receptors, and it requires a number of design features to reduce truck impacts on nearby sensitive receptors. The Riverside County policy requires vehicles entering sites during both construction and operation to meet certain California Air Resources Board (CARB) guidelines, and it requires community benefits agreements and supplemental funding contributions toward additional pollution offsets.

The Bureau encourages jurisdictions to adopt their own local ordinances and/or good neighbor policies that combine the most robust policies from those models with measures discussed in the remainder of this document.

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<sup>12</sup> For more information about SB 1000, see <https://oag.ca.gov/environment/sb1000>.

<sup>13</sup> <https://www.rivcocob.org/wp-content/uploads/2020/01/Good-Neighbor-Policy-F-3-Final-Adopted.pdf> (Riverside County); <https://riversideca.gov/planning/pdf/good-neighbor-guidelines.pdf> (City of Riverside); [http://qcode.us/codes/morenovalley/view.php?topic=9-9\\_05-9\\_05\\_050&frames=on](http://qcode.us/codes/morenovalley/view.php?topic=9-9_05-9_05_050&frames=on) (City of Moreno Valley); <http://www.wrcog.cog.ca.us/DocumentCenter/View/318/Good-Neighbor-Guidelines-for-Siting-Warehouse-Distribution-Facilities-PDF?bidId=> (Western Riverside Council of Governments).

### **III. Community Engagement**

Early and consistent community engagement is central to establishing good relationships between communities, lead agencies, and warehouse developers and tenants. Robust community engagement can give lead agencies access to community residents' on-the-ground knowledge and information about their concerns, build community support for projects, and develop creative solutions to ensure new logistics facilities are mutually beneficial. Examples of best practices for community engagement include:

- Holding a series of community meetings at times and locations convenient to members of the affected community and incorporating suggestions into the project design.
- Posting information in hard copy in public gathering spaces and on a website about the project. The information should include a complete, accurate project description, maps and drawings of the project design, and information about how the public can provide input and be involved in the project approval process. The information should be in a format that is easy to navigate and understand for members of the affected community.
- Providing notice by mail to residents and schools within a certain radius of the project and along transportation corridors to be used by vehicles visiting the project, and by posting a prominent sign on the project site. The notice should include a brief project description and directions for accessing complete information about the project and for providing input on the project.
- Providing translation or interpretation in residents' native language, where appropriate.
- For public meetings broadcast online or otherwise held remotely, providing for access and public comment by telephone and supplying instructions for access and public comment with ample lead time prior to the meeting.
- Partnering with local community-based organizations to solicit feedback, leverage local networks, co-host meetings, and build support.
- Considering adoption of a community benefits agreement, negotiated with input from affected residents and businesses, by which the developer provides benefits to the community.
- Creating a community advisory board made up of local residents to review and provide feedback on project proposals in early planning stages.
- Identifying a person to act as a community liaison concerning on-site construction activity and operations, and providing contact information for the community relations officer to the surrounding community.

### **IV. Warehouse Siting and Design Considerations**

The most important consideration when planning a logistics facility is its location. Warehouses located in residential neighborhoods or near other sensitive receptors expose community residents and those using or visiting sensitive receptor sites to the air pollution, noise, traffic, and other environmental impacts they generate. Therefore, placing facilities away from sensitive receptors significantly reduces their environmental and quality of life harms on local

communities. The suggested best practices for siting and design of warehouse facilities does not relieve lead agencies' responsibility under CEQA to conduct a project-specific analysis of the project's impacts and evaluation of feasible mitigation measures and alternatives; lead agencies' incorporation of the best practices must be part of the impact, mitigation and alternatives analyses to meet the requirements of CEQA. Examples of best practices when siting and designing warehouse facilities include:

- Per CARB guidance, siting warehouse facilities so that their property lines are at least 1,000 feet from the property lines of the nearest sensitive receptors.<sup>14</sup>
- Creating physical, structural, and/or vegetative buffers that adequately prevent or substantially reduce pollutant dispersal between warehouses and any areas where sensitive receptors are likely to be present, such as homes, schools, daycare centers, hospitals, community centers, and parks.
- Providing adequate areas for on-site parking, on-site queuing, and truck check-in that prevent trucks and other vehicles from parking or idling on public streets.
- Placing facility entry and exit points from the public street away from sensitive receptors, e.g., placing these points on the north side of the facility if sensitive receptors are adjacent to the south side of the facility.
- Locating warehouse dock doors and other onsite areas with significant truck traffic and noise away from sensitive receptors, e.g., placing these dock doors on the north side of the facility if sensitive receptors are adjacent to the south side of the facility.
- Screening dock doors and onsite areas with significant truck traffic with physical, structural, and/or vegetative barriers that adequately prevent or substantially reduce pollutant dispersal from the facility towards sensitive receptors.
- Posting signs clearly showing the designated entry and exit points from the public street for trucks and service vehicles.
- Posting signs indicating that all parking and maintenance of trucks must be conducted within designated on-site areas and not within the surrounding community or public streets.

## **V. Air Quality and Greenhouse Gas Emissions Analysis and Mitigation**

Emissions of air pollutants and greenhouse gases are often among the most substantial environmental impacts from new warehouse facilities. CEQA compliance demands a proper accounting of the full air quality and greenhouse gas impacts of logistics facilities and adoption of all feasible mitigation of significant impacts. Although efforts by CARB and other authorities to regulate the heavy-duty truck and off-road diesel fleets have made excellent progress in reducing the air quality impacts of logistics facilities, the opportunity remains for local jurisdictions to further mitigate these impacts at the project level. Lead agencies and developers

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<sup>14</sup> California Air Resources Board (CARB), Air Quality and Land Use Handbook: A Community Health Perspective (April 2005), at ES-1. CARB staff has released draft updates to this siting and design guidance which suggests a greater distance may be warranted under varying scenarios; this document may be found on CARB's website and is entitled: "California Sustainable Freight Initiative: Concept Paper for the Freight Handbook" (December 2019).

should also consider designing projects with their long-term viability in mind. Constructing the necessary infrastructure to prepare for the zero-emission future of goods movement not only reduces a facility's emissions and local impact now, but it can also save money as regulations tighten and demand for zero-emission infrastructure grows. In planning new logistics facilities, the Bureau strongly encourages developers to consider the local, statewide, and global impacts of their projects' emissions.

Examples of best practices when studying air quality and greenhouse gas impacts include:

- Fully analyzing all reasonably foreseeable project impacts, including cumulative impacts. In general, new warehouse developments are not ministerial under CEQA because they involve public officials' personal judgment as to the wisdom or manner of carrying out the project, even when warehouses are permitted by a site's applicable zoning and/or general plan land use designation. CEQA Guidelines § 15369.
- When analyzing cumulative impacts, thoroughly considering the project's incremental impact in combination with past, present, and reasonably foreseeable future projects, even if the project's individual impacts alone do not exceed the applicable significance thresholds.
- Preparing a quantitative air quality study in accordance with local air district guidelines.
- Preparing a quantitative health risk assessment in accordance with California Office of Environmental Health Hazard Assessment and local air district guidelines.
- Refraining from labeling compliance with CARB or air district regulations as a mitigation measure—compliance with applicable regulations is a baseline expectation.
- Fully analyzing impacts from truck trips. CEQA requires full public disclosure of a project's anticipated truck trips, which entails calculating truck trip length based on likely truck trip destinations, rather than the distance from the facility to the edge of the air basin. Emissions beyond the air basin are not speculative, and, because air pollution is not static, may contribute to air basin pollution. Moreover, any contributions to air pollution outside the local air basin should be quantified and their significance should be considered.
- Accounting for all reasonably foreseeable greenhouse gas emissions from the project, without discounting projected emissions based on participation in California's Cap-and-Trade Program.

Examples of measures to mitigate air quality and greenhouse gas impacts from construction are below. To ensure mitigation measures are enforceable and effective, they should be imposed as permit conditions on the project where applicable.

- Requiring off-road construction equipment to be zero-emission, where available, and all diesel-fueled off-road construction equipment, to be equipped with CARB Tier IV-compliant engines or better, and including this requirement in applicable

bid documents, purchase orders, and contracts, with successful contractors demonstrating the ability to supply the compliant construction equipment for use prior to any ground-disturbing and construction activities.

- Prohibiting off-road diesel-powered equipment from being in the “on” position for more than 10 hours per day.
- Requiring on-road heavy-duty haul trucks to be model year 2010 or newer if diesel-fueled.
- Providing electrical hook ups to the power grid, rather than use of diesel-fueled generators, for electric construction tools, such as saws, drills and compressors, and using electric tools whenever feasible.
- Limiting the amount of daily grading disturbance area.
- Prohibiting grading on days with an Air Quality Index forecast of greater than 100 for particulates or ozone for the project area.
- Forbidding idling of heavy equipment for more than two minutes.
- Keeping onsite and furnishing to the lead agency or other regulators upon request, all equipment maintenance records and data sheets, including design specifications and emission control tier classifications.
- Conducting an on-site inspection to verify compliance with construction mitigation and to identify other opportunities to further reduce construction impacts.
- Using paints, architectural coatings, and industrial maintenance coatings that have volatile organic compound levels of less than 10 g/L.
- Providing information on transit and ridesharing programs and services to construction employees.
- Providing meal options onsite or shuttles between the facility and nearby meal destinations for construction employees.

Examples of measures to mitigate air quality and greenhouse gas impacts from operation include:

- Requiring that all facility-owned and operated fleet equipment with a gross vehicle weight rating greater than 14,000 pounds accessing the site meet or exceed 2010 model-year emissions equivalent engine standards as currently defined in California Code of Regulations Title 13, Division 3, Chapter 1, Article 4.5, Section 2025. Facility operators shall maintain records on-site demonstrating compliance with this requirement and shall make records available for inspection by the local jurisdiction, air district, and state upon request.
- Requiring all heavy-duty vehicles entering or operated on the project site to be zero-emission beginning in 2030.
- Requiring on-site equipment, such as forklifts and yard trucks, to be electric with the necessary electrical charging stations provided.
- Requiring tenants to use zero-emission light- and medium-duty vehicles as part of business operations.
- Forbidding trucks from idling for more than two minutes and requiring operators to turn off engines when not in use.
- Posting both interior- and exterior-facing signs, including signs directed at all

dock and delivery areas, identifying idling restrictions and contact information to report violations to CARB, the air district, and the building manager.

- Installing and maintaining, at the manufacturer's recommended maintenance intervals, air filtration systems at sensitive receptors within a certain radius of facility for the life of the project.
- Installing and maintaining, at the manufacturer's recommended maintenance intervals, an air monitoring station proximate to sensitive receptors and the facility for the life of the project, and making the resulting data publicly available in real time. While air monitoring does not mitigate the air quality or greenhouse gas impacts of a facility, it nonetheless benefits the affected community by providing information that can be used to improve air quality or avoid exposure to unhealthy air.
- Constructing electric truck charging stations proportional to the number of dock doors at the project.
- Constructing electric plugs for electric transport refrigeration units at every dock door, if the warehouse use could include refrigeration.
- Constructing electric light-duty vehicle charging stations proportional to the number of parking spaces at the project.
- Installing solar photovoltaic systems on the project site of a specified electrical generation capacity, such as equal to the building's projected energy needs.
- Requiring all stand-by emergency generators to be powered by a non-diesel fuel.
- Requiring facility operators to train managers and employees on efficient scheduling and load management to eliminate unnecessary queuing and idling of trucks.
- Requiring operators to establish and promote a rideshare program that discourages single-occupancy vehicle trips and provides financial incentives for alternate modes of transportation, including carpooling, public transit, and biking.
- Meeting CalGreen Tier 2 green building standards, including all provisions related to designated parking for clean air vehicles, electric vehicle charging, and bicycle parking.
- Achieving certification of compliance with LEED green building standards.
- Providing meal options onsite or shuttles between the facility and nearby meal destinations.
- Posting signs at every truck exit driveway providing directional information to the truck route.
- Improving and maintaining vegetation and tree canopy for residents in and around the project area.
- Requiring that every tenant train its staff in charge of keeping vehicle records in diesel technologies and compliance with CARB regulations, by attending CARB-approved courses. Also require facility operators to maintain records on-site demonstrating compliance and make records available for inspection by the local jurisdiction, air district, and state upon request.
- Requiring tenants to enroll in the United States Environmental Protection Agency's SmartWay program, and requiring tenants to use carriers that are SmartWay carriers.

- Providing tenants with information on incentive programs, such as the Carl Moyer Program and Voucher Incentive Program, to upgrade their fleets.

## **VI. Noise Impacts Analysis and Mitigation**

The noise associated with logistics facilities can be among their most intrusive impacts to nearby sensitive receptors. Various sources, such as unloading activity, diesel truck movement, and rooftop air conditioning units, can contribute substantial noise pollution. These impacts are exacerbated by logistics facilities' typical 24-hour, seven-days-per-week operation. Construction noise is often even greater than operational noise, so if a project site is near sensitive receptors, developers and lead agencies should adopt measures to reduce the noise generated by both construction and operation activities.

Examples of best practices when studying noise impacts include:

- Preparing a noise impact analysis that considers all reasonably foreseeable project noise impacts, including to nearby sensitive receptors. All reasonably foreseeable project noise impacts encompasses noise from both construction and operations, including stationary, on-site, and off-site noise sources.
- Adopting a lower significance threshold for incremental noise increases when baseline noise already exceeds total noise significance thresholds, to account for the cumulative impact of additional noise and the fact that, as noise moves up the decibel scale, each decibel increase is a progressively greater increase in sound pressure than the last. For example, 70 dBA is ten times more sound pressure than 60 dBA.

Examples of measures to mitigate noise impacts include:

- Constructing physical, structural, or vegetative noise barriers on and/or off the project site.
- Locating or parking all stationary construction equipment as far from sensitive receptors as possible, and directing emitted noise away from sensitive receptors.
- Verifying that construction equipment has properly operating and maintained mufflers.
- Requiring all combustion-powered construction equipment to be surrounded by a noise protection barrier
- Limiting operation hours to daytime hours on weekdays.
- Paving roads where truck traffic is anticipated with low noise asphalt.
- Orienting any public address systems onsite away from sensitive receptors and setting system volume at a level not readily audible past the property line.

## **VII. Traffic Impacts Analysis and Mitigation**

Warehouse facilities inevitably bring truck and passenger car traffic. Truck traffic can present substantial safety issues. Collisions with heavy-duty trucks are especially dangerous for passenger cars, motorcycles, bicycles, and pedestrians. These concerns can be even greater if



truck traffic passes through residential areas, school zones, or other places where pedestrians are common and extra caution is warranted.

Examples of measures to mitigate traffic impacts include:

- Designing, clearly marking, and enforcing truck routes that keep trucks out of residential neighborhoods and away from other sensitive receptors.
- Installing signs in residential areas noting that truck and employee parking is prohibited.
- Constructing new or improved transit stops, sidewalks, bicycle lanes, and crosswalks, with special attention to ensuring safe routes to schools.
- Consulting with the local public transit agency and securing increased public transit service to the project area.
- Designating areas for employee pickup and drop-off.
- Implementing traffic control and safety measures, such as speed bumps, speed limits, or new traffic signs or signals.
- Placing facility entry and exit points on major streets that do not have adjacent sensitive receptors.
- Restricting the turns trucks can make entering and exiting the facility to route trucks away from sensitive receptors.
- Constructing roadway improvements to improve traffic flow.
- Preparing a construction traffic control plan prior to grading, detailing the locations of equipment staging areas, material stockpiles, proposed road closures, and hours of construction operations, and designing the plan to minimize impacts to roads frequented by passenger cars, pedestrians, bicyclists, and other non-truck traffic.

## **VIII. Other Significant Environmental Impacts Analysis and Mitigation**

Warehouse projects may result in significant environmental impacts to other resources, such as to aesthetics, cultural resources, energy, geology, or hazardous materials. All significant adverse environmental impacts must be evaluated, disclosed and mitigated to the extent feasible under CEQA. Examples of best practices and mitigation measures to reduce environmental impacts that do not fall under any of the above categories include:

- Appointing a compliance officer who is responsible for implementing all mitigation measures, and providing contact information for the compliance officer to the lead agency, to be updated annually.
- Creating a fund to mitigate impacts on affected residents, schools, places of worship, and other community institutions by retrofitting their property. For example, retaining a contractor to retrofit/install HVAC and/or air filtration systems, doors, dual-paned windows, and sound- and vibration-deadening insulation and curtains.
- Sweeping surrounding streets on a daily basis during construction to remove any construction-related debris and dirt.
- Directing all lighting at the facility into the interior of the site.

- Using full cut-off light shields and/or anti-glare lighting.
- Using cool pavement to reduce heat island effects.
- Installing climate control in the warehouse facility to promote worker well-being.
- Installing air filtration in the warehouse facility to promote worker well-being.

## **IX. Conclusion**

California's world-class economy, ports, and transportation network position it at the center of the e-commerce and logistics industry boom. At the same time, California is a global leader in environmental protection and environmentally just development. The guidance in this document furthers these dual strengths, ensuring that all can access the benefits of economic development. The Bureau will continue to monitor proposed projects for compliance with CEQA and other laws. Lead agencies, developers, community advocates, and other interested parties should feel free to reach out to us as they consider how to guide warehouse development in their area.

Please do not hesitate to contact the Environmental Justice Bureau at [ej@doj.ca.gov](mailto:ej@doj.ca.gov) if you have any questions.