South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SENT VIA E-MAIL:
ceqacomments@portla.org
CCannon@portla.org
Christopher Cannon, Director
City of Los Angeles Harbor Department
Environmental Management Division
425 South Palos Verdes Street
San Pedro, California 90731

August 25, 2021

Revised Draft Environmental Impact Report for the Proposed Southern California International Gateway (SCIG) Project (State Clearinghouse No.: 2005091116)

South Coast Air Quality Management District (South Coast AQMD) staff appreciates the opportunity to comment on the Revised Draft Environmental Impact Report (EIR) for the Southern California International Gateway (SCIG) Project (referred to alternatively as "SCIG project," "SCIG intermodal railyard," "SCIG facility," or "project"). We further appreciate the additional time that the City of Los Angeles Harbor Department (LAHD) has provided to comment on the Revised Draft EIR, which allowed the South Coast AQMD staff to review the air quality and emissions calculation files.[1] The SCIG intermodal railyard is a planned $500-plus million investment by Burlington Northern Santa Fe Railway (BNSF) and is located approximately four miles from the nation's busiest marine ports. At full buildout there will be, on an annual basis, 2,880 train round trips and one million truck round trips moving cargo in and out of the SCIG site. These activities are substantial and represent significant sources of regional and local emissions as well as toxic air contaminants.

As a result of concerns regarding the emissions potential and location of the SCIG project near sensitive populations, South Coast AQMD staff has a long history of commenting on the SCIG project and was a critical party in the prior litigation involving the 2013 Final EIR, where the California Court of Appeal ordered that the EIR be set aside for failing to adequately analyze ambient air quality concentrations. (*See Fast Lane Transportation, Inc. v. City of Los Angeles et al.* (2018) 19 Cal.App.5th 465).) In May 2021, LAHD released its Revised Draft EIR, purporting to respond to the Court's concerns. Unfortunately, South Coast AQMD staff is concerned that this Revised Draft EIR still fails to comport with the requirements of the California Environmental Quality Act ("CEQA") and also fails to comply with the Court's decision.

First, LAHD appears to have conducted only a superficial analysis of the SCIG project's impacts on ambient air quality concentrations, identified in the Revised Draft EIR as impact area AQ-4, in spite of the court's order to prepare a revised analysis. Based on our review of the Revised Draft

---

[1] Accessed by South Coast AQMD staff (July 7, 2021) http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2021/july/south-coast-aqmd-staff-request-for-extension-of-comment-period_scig_final-signed.pdf.

EIR and the air quality and emission calculation files, LAHD did not perform new runs using AERMOD, the air dispersion modeling program required for this analysis, and did not update modeling parameters or offsite receptor information. Instead, LAHD relied on outdated values from the 2013 Final EIR to determine the concentration impacts. The Revised Draft EIR acknowledges once again that the SCIG project will generate significant localized air quality impacts during operation and will exceed the applicable significance thresholds for NO_2, PM10, and PM2.5 by 325%, 518%, and 47%, respectively. However, the South Coast AQMD is concerned that the analysis, once again, does not evaluate and disclose the true significant localized air quality impacts associated with the SCIG project, including who might be most affected by those impacts and when they will experience those impacts. A proper understanding of these issues is critical for this massive railyard, whose emissions will be difficult to control once the project is approved because of limited state and local regulatory authority over the project's emissions sources. Furthermore, the emissions are not inconsequential. Even the Revised Draft EIR's improper analysis discloses that exceedances are projected to continue for the life of the SCIG project, which is analyzed as five decades though likely to exist much longer. Our specific concerns, and the implications of this inadequate analysis, are described more thoroughly in Attachment A.

Second, the Revised Draft EIR does not consider the significantly changed circumstances and new information that have surfaced since the prior analysis, which was certified almost a decade ago. LAHD recognized a need to update the 2013 Final EIR analysis to include a discussion of potential health effects resulting from an increase in criteria air pollutants, as required by a recent court decision. (*See Sierra Club v. County of Fresno* (2018) 6 Cal. 5th 502.) But, incomprehensibly, LAHD did not similarly revise the EIR's air quality analysis to reflect the numerous other updates that have also occurred during this timeframe. For instance, since the certification of the 2013 Final EIR, port tenant California Cartage is no longer operating on the SCIG site and Tier 4 locomotives currently in use and projected to be in use are much lower than analyzed by LAHD. Additionally, the Port of Los Angeles is experiencing unprecedented growth and BNSF is now proposing to build an intermodal railyard in Colton, which is to be operational as early as 2026. Both of these factors have the potential to greatly increase emissions projections anticipated in the existing analysis. Further, there have been substantial changes in numerous modeling programs and emissions assumptions used to analyze air quality impacts – all of which have been ignored by LAHD. These changes include updates to EMFAC which used to model regional emissions, the OEHHA risk factors which are used to estimate toxics emissions, and of course, AERMOD which is used in air dispersion modeling to determine air pollutant concentrations. Significantly, the South Coast AQMD's adoption of a new Air Quality Management Plan (AQMP) in 2017 in addition to the passage of Assembly Bill 617 in the same year have fundamentally changed the landscape of air pollution control in environmental justice communities – including those specifically in and around the proposed project area.

Changed circumstances and new information require an updated air quality analysis for the project because they implicate the adequacy of the regional, localized, and toxics emissions analysis as well as the impact to air quality planning. Indeed, CEQA mandates recirculation of an EIR when significant new information becomes available after public notice is given of the availability of the draft EIR for public review, but before certification. (*See* Pub. Res. Code Section 21092.1; CEQA

Guidelines Section 15088.5.) New information can include, though is not limited to, changes in the project or environmental setting, and the information is considered significant if changes to the EIR deprive the public of a meaningful opportunity to comment (*See* CEQA Guidelines Section 15088.5(a); *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal. 4th 412, 447.) The South Coast AQMD staff believes these updates may result in a finding of additional significant impacts to air quality, including to the impact areas identified in the 2013 Final EIR as AQ-3, which analyzes regional emissions from operational impacts, AQ-7, which analyzes impacts from toxic air contaminants, and AQ-8, which analyzes the SCIG project's conflict with, or obstruction of, implementation of applicable air quality plans.

Finally, the Revised Draft EIR does not evaluate whether any additional mitigation measures are available to reduce or eliminate significant impacts to AQ-4. This is in direct contravention of the trial court's expectations, in the prior litigation, insofar as it acknowledged that the state of technology to reduce or eliminate emissions from combustion engines is rapidly progressing and that additional mitigation may be available when LAHD conducts further analysis to comply with the court's judgment. (*See Fast Lane Transportation,* Opinion and Order on Petitions for Writ of Mandate at pg. 100.) In fact, significant progress *has* been made since the 2013 Final EIR was certified. Clean technologies have advanced rapidly in the last decade and are transforming the goods movement sector. Feasible mitigation measures exist and must be incorporated into the SCIG Project to reduce emissions from drayage trucks, cargo handling equipment, line haul locomotives, and switch locomotives. Also, a proper evaluation of air quality impacts that considers the change in circumstances may reveal that additional mitigation is needed to reduce impacts from regional emissions, impacts from toxic air contaminants, and inconsistency with air quality plans. These same technologies, described in detail in Attachment A, would also mitigate these other impact areas.

As background, the SCIG project's 2013 Final EIR was the very first time the South Coast AQMD challenged a project's compliance with the requirements of CEQA. Our concern was based on the extent of the SCIG project's emissions impacts from difficult to regulate emissions sources on the nearby environmental justice community, which is already burdened with high levels of air pollution. This local perspective is important to understand who might be affected by the real-world health impacts from the SCIG project. There are 50,200 residents, seven schools, and a veteran housing facility within one mile from the SCIG intermodal railyard, and 12,000 residents are located in census tracts within 1,000 feet of the SCIG.[2] The SCIG intermodal railyard is located in environmental justice communities that encompass census tracts with populations that have much higher proportions (average 61 percent) of Hispanic and/or African American residents than the South Coast AQMD as a whole and have a much higher poverty rate (average 71 percent of population are reported to be below the poverty level). According to the data obtained from the CalEnviroScreen 3.0 tool, which was available before the publication of the Revised Draft EIR in June 2018, multiple communities within a one-mile radius of the SCIG intermodal railyard score in the top 95th percentile for disadvantaged communities that experience the greatest pollution

---

[2] Recommended distance of at least 1,000 feet for siting new sensitive land uses next to a major service and maintenance rail yard. (California Air Resources Board, Air Quality and Land Use Handbook: A Community Health Perspective (April 2005), pg. 4, Table 1-1. Accessed at: https://ww3.arb.ca.gov/ch/handbook.pdf.)

burden compared to other areas in the state.[3] These communities are already greatly burdened with air quality impacts from industrial facilities, refineries, existing railyards, ports, and freeways. Constructing another railyard as a major source of emissions and air toxics, the SCIG facility will further exacerbate the burden on these communities.

The potential real-world health impacts on the community from living in close proximity to railyards is a serious concern. Exposures to NO_2 are associated with chronic respiratory diseases such as asthma as well as declines in pulmonary function, especially in children. The U.S. Environmental Protection Agency's (U.S. EPA's) 2016 health study found that when adults with asthma are exposed to NO_2 at a range of concentrations between 100 parts per billion (ppb) to 300 ppb, they experienced an increase in airway responsiveness which, in asthmatics, can worsen symptoms and reduce lung function.[4] Diesel particulate matter has long been recognized as a highly carcinogenic air toxic because of adverse effects on vascular function,[5] and is strongly linked with ischemic heart disease mortality and cardiorespiratory disease.[6,7,8] There is substantial evidence that diesel particulate emissions are significantly higher in and around railyards.[9] South Coast AQMD's most recent Multiple Air Toxics Study V (MATES V) found that people living nearby highly trafficked roadways and other sources of combustion-related pollutants (e.g., airports, refineries, and railyards) may be exposed to high levels of ultrafine particles and other air toxics.[10] The SCIG project is located within the AB 617 Wilmington, Carson, West Long Beach (WCWLB) community,[11] which was designated by the California Air Resources Board (CARB) in September 2019. There are 78 facilities in the U.S. EPA Title V program, 54 facilities in the AB 2588 Air Toxics Hot Spots program, 43 miles of freeways, nine (existing) railyards, and two major marine ports in this community.[12] Researchers have also found that children are at the highest risk of permanent damage from diesel particulate matter exposure with a strong link between asthma-

[3] South Coast AQMD, Proposed Rule 2306 Working Group Meeting #1 (July 30, 2021), Slide 23.

[4] South Coast AQMD, AQMP (2016) Appendix I: *Health Effects*, pg. I-54. Accessed at: https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/appendix-i.pdf.

[5] Mills, N. L., M. R. Miller, A. J. Lucking, J. Beveridge, L. Flint, A. J. Boere, P. H. Fokkens, N. A. Boon, T. Sandstrom, A. Blomberg, R. Duffin, K. Donaldson, P. W. Hadoke, F. R. Cassee and D. E. Newby (2011). "Diesel exhaust inhalation causes vascular dysfunction and impaired endogenous fibrinolysis." Accessed at: https://www.scopus.com/record/display.uri?eid=2-s2.0-33644875170&origin=inward&txGid=001f2f63fd397dd93a83613a70a69eb5.

[6] Ostro, B., M. Lipsett, P. Reynolds, D. Goldberg, A. Hertz, C. Garcia, K. D. Henderson and L. Bernstein (2010). "Long-term exposure to constituents of fine particulate air pollution and mortality: results from the California Teachers Study." Environ Health Perspect 118(3): 363-369.

[7] Lipsett, M. J., B. D. Ostro, P. Reynolds, D. Goldberg, A. Hertz, M. Jerrett, D. F. Smith, C. Garcia, E. T. Chang and L. Bernstein (2011). "Long-term exposure to air pollution and cardiorespiratory disease in the California teachers study cohort." Am J Respir Crit Care Med 184(7): 828-835.

[8] Ostro, B., J. Hu, D. Goldberg, P. Reynolds, A. Hertz, L. Bernstein and M. J. Kleeman (2015). "Associations of mortality with long-term exposures to fine and ultrafine particles, species and sources: results from the California Teachers Study Cohort." Environmental Health Perspectives (ehp) 123(6): 549-556.

[9] U.S. EPA, Cicero Rail Yard Study: Final Report (2014). Accessed at: https://nepis.epa.gov/Exe/ZyPDF.cgi/P100IVT3.PDF?Dockey=P100IVT3.PDF.

[10] South Coast AQMD, *MATES V: Multiple Air Toxics Exposure Study in the South Coast Air Basin* (2021). Accessed at: http://www.aqmd.gov/docs/default-source/planning/mates-v/mates-v-final-report.pdf.

[11] The Wilmington, Carson, West Long Beach Community Emissions Reduction Plan is available at: http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2019/2019-sep6-025c.pdf.

[12] *Ibid*.

related emergency room visits for children within five miles of railyards, especially children living in low-income minority communities.[13]

The SCIG facility is expected to play an important role in BNSF's ability to meet surging intermodal demand for imports and cargo shipping and potentially in BNSF's long-term repositioning or repurposing strategies to handle a large volume of domestic containers and offer frequent domestic stack train service to major points throughout the country. The SCIG intermodal railyard has the potential to influence freight movement and BNSF's freight network in Southern California. Proper analysis and disclosure of what that regional impact might be on rail movement, rail activities, and freight service capacity are especially important given the Colton intermodal railyard that BNSF is also proposing to build in the region, and their existing rail network, including the Hobart railyard. BNSF has reported $3.6 billion in investments during 2019 in core network and related asset maintenance and replacement; locomotive, freight car and other equipment acquisitions; and expansion and efficiency projects. BNSF has planned to continue to expand their existing hubs and construct new intermodal facilities.[14] BNSF has further identified a need to handle a surge in domestic intermodal volume in Southern California of 30% between June and August 2020.[15] Furthermore, BNSF has one major competitor, the Union Pacific Railroad, who has also recently increased, or has planned increases, to their own rail network, including a Colton pop-up yard and expansion of the LATC intermodal terminal.[16] The combined effect of these activities will have major regional and cumulative impacts on the South Coast Air Basin (Basin) and must be considered.

The South Coast AQMD's concerns regarding these potential air quality impacts are not trivial. The region is home to more than 17 million people – just under half the population of the entire state of California – and suffers from the highest ozone levels in the country. In fact, the Basin is designated as an extreme non-attainment area for ozone. In 2035, NOx emissions for the SCIG project are expected to be 245 tons per year.[17] The SCIG project's significant air quality impacts from NOx and NO_2 have the potential to hinder the South Coast AQMD's ability to meet the federal ozone standard in addition to the PM2.5 standards, as NOx is a precursor to both NOx and PM. Therefore, air quality impacts of the SCIG project must be carefully re-evaluated from both a local and regional perspective, and cumulatively with other BNSF and Union Pacific Railroad projects in the Basin, and proper mitigation must be required in a recirculated Revised Draft EIR.

---

[13] Preventative Medicine Reports. Volume 13, March 2019. *Association of Major California Freight Railyards with Asthma-Related pediatric Emergency Department Hospital Visits*. Accessed at: https://www.sciencedirect.com/science/article/pii/S2211335518302626?via%3Dihub.

[14] BNSF, 2018/2019 Corporate Sustainability Report, pgs.16 and 19. Accessed at: http://www.bnsf.com/bnsf-resources/pdf/in-the-community/environment/sustainability-report-2018-2019.pdf#page=14.

[15] Trains Magazine, BNSF Forges Ahead with Capacity Expansion Projects Despite Downturn (2020). Accessed at: https://www.trains.com/trn/news-reviews/news-wire/bnsf-forges-ahead-with-capacity-expansion-projects-despite-downturn/

[16] Union Pacific, 2019 Building America Report, pg. 20. Accessed at: https://www.up.com/cs/groups/public/@uprr/@corprel/documents/up_pdf_nativedocs/pdf_up_2019_building_america_r.pdf.

[17] South Coast AQMD, Proposed Rule 2306 – Indirect Source Rule for New Intermodal Facilities Working Group Meeting #1 (July 30, 2021), Slide 28. Accessed at: http://www4.aqmd.gov/enewsletterpro/uploadedimages/000001/Laura/PR%202306/PR2306_WGM_1_FINAL.pdf. See also the 2012 Recirculated Draft EIR.

Furthermore, although the Basin is currently in attainment of the 1-hour NO2 federal standard, the SCIG project on its own, with an identified concentration level above the NO2 standard, could potentially put the Basin into nonattainment.

In conclusion, the Revised Draft EIR does not comply with the court's order in *City of Long Beach* because it is deficient in disclosing adequate information regarding the SCIG project's true maximum NO_2 concentration impacts in addition to an analysis of which environmental justice communities might be affected and when they might be affected. (*See generally* Impact AQ-4 and Cumulative Impact AQ-4.) It fails to include a meaningful and informative analysis of air quality and public health impacts based on conditions, and disregards methodologies and technologies existing at the time of the publication of the Revised Draft EIR. It also fails to identify feasible and enforceable mitigation measures as required by CEQA. We believe that when these failures are properly corrected, they will disclose greater localized air quality impacts, identify different maximum impacted receptors and impacts to even more air quality-based significance thresholds, including regional impacts and emissions from toxic air contaminants, and expose inconsistencies with applicable air quality plans, all of which would require further feasible mitigation measures. Therefore, the Revised Draft EIR is inadequate and fails to allow the public an opportunity to provide informed comment and, thus, must be revised and recirculated to address these concerns. (CEQA Guidelines Section 15088.5(a).)

Attachments A and B provide detailed comments, including proximity concerns associated with siting the SCIG project next to residential and sensitive land uses in environmental justice communities, an air dispersion modeling sensitivity analysis that shows the Revised Draft EIR may have underestimated the project's NO_2 impacts, a discussion of the changes in circumstances and new information that must be considered by LAHD prior to project approval, and cleaner technologies that must be included as project conditions or mitigation measures to reduce or eliminate significant air quality impacts. Attachments C-1 through C-5 include technical modeling output files and data sheets for the air dispersion modeling sensitivity analysis.

The Revised Draft EIR is a deficient and inadequate public disclosure document. Recirculation of the Revised Draft EIR is warranted to provide necessary information about the SCIG project' true air quality impacts, both regionally and on the surrounding environmental justice community. A Recirculated Revised Draft EIR should further include discussion of required mitigation measures to reduce those impacts. The air quality and emissions calculation files for the Recirculated Revised Draft EIR are expected to be substantial in size and complex. Given the magnitude of the air quality impacts and the communities that will be impacted, LAHD should ensure that the public has a meaningful opportunity to review the Recirculated Revised Draft EIR and consider extending the public review and comment period for the Recirculated Revised Draft EIR by at least 45 days for a total of 90 days to provide sufficient time for public review.

We appreciate your consideration of these comments and look forward to continuing to work together with LAHD to reduce air pollution from this project and future projects. Please call me at (909) 396-3308 if you have questions.

Sincerely,

Lijin Sun

Lijin Sun
Program Supervisor, CEQA-IGR
Planning, Rule Development & Area Sources

Attachments
LAC200526-01
Control Number

ATTACHMENT A

I.   South Coast AQMD Staff's Understanding of Project Background and Project Description

Containers are picked up from the ports and may be placed on trains inside the port terminal (on-dock railyard). Containers may be loaded onto truck chassis and transported by drayage trucks to a railyard that is outside the port terminal (near-dock or off-dock railyard), where the containers will be placed onto railcars for transport to destinations throughout the United States.

The SCIG project will allow BNSF to build a near-dock intermodal railyard approximately four miles from the ports. The LAHD is the CEQA Lead Agency for the SCIG project and will lease most of the 185-acre property to BNSF for the construction, operation, and maintenance of the SCIG intermodal railyard for the next 50 years.[18]

Capacity can be quantified in terms of projected lifts, referring to the movement of a container from a truck to a train or vice versa. At full operation, the SCIG intermodal railyard will add an annual average of 2,880 train round trips and an annual average of one million truck round trips, not including employee and vendor trips. This would allow BNSF to handle approximately 1.5 million lifts or 2.8 million TEUs (twenty-foot equivalent units) annually.

The SCIG intermodal railyard will be one of the largest intermodal facilities in the nation, and will be located near numerous sensitive receptors, including residences, schools, a pre-school, and a veteran's center (*See* Figure A-1).[19] The surrounding environmental justice communities are already heavily impacted by air pollution from neighboring refineries, diesel truck traffic on the Terminal Island Freeway, and an existing Union Pacific's near-dock intermodal railyard adjacent to SCIG's northern boundary, namely the Intermodal Container Transfer Facility (ICTF), which has plans to expand and double its capacity.

History[20]

On September 19, 2005, LAHD, as CEQA Lead Agency, released a Notice of Preparation and Initial Study for the SCIG project. The 2011 Draft EIR was released ahead of public hearings and a public comment period. A recirculated Draft EIR was released on September 27, 2012, and the Final EIR was issued on February 22, 2013. After a public hearing, the Board of Harbor

---

[18] A Site Preparation and Access Agreement and Permit No. 901 with BNSF.

[19] South Coast AQMD, Proposed Rule 2306 – Indirect Source Rule for New Intermodal Facilities Working Group Meeting #1 (July 30, 2021) Slide 12. Accessed at:
http://www4.aqmd.gov/enewsletterpro/uploadedimages/000001/Laura/PR%202306/PR2306_WGM_1_FINAL.pdf.

[20] The South Coast AQMD incorporates herein by reference its comments submitted on the SCIG Project in all prior phases of public comment, including written comments provided on December 15, 2005, November 30, 2011, January 19, 2012, February 1, 2012, February 14, 2012, November 14, 2012, March 6, 2013, March 20, 2013, April 5, 2013, and May 8, 2013 and oral comments provided on October 6, 2005, October 13, 2005, November 10, 2011, November 16, 2011, October 18, 2012, March 7, 2013, March 21, 2013, and May 8, 2013.

Commissioners adopted Resolution 13-7451, certifying the Final EIR and approving the SCIG project.

Seven petitioner groups (collectively, the Petitioners), including the South Coast AQMD and the California Attorney General's Office, appealed the certification of the Final EIR and approval of the SCIG project to the Los Angeles City Council. This administrative appeal was rejected and, between June 5th and 7th, 2013, Petitioners filed a CEQA petition in Los Angeles Superior Court, challenging the approval of the SCIG project. The cases were consolidated and transferred to Contra Costa County. The trial court determined the 2013 Final EIR failed to comply with the requirements of CEQA on a number of grounds, including its air quality analysis, and issued a writ of mandate setting aside the 2013 Final EIR and all project approvals until compliance was achieved. (*City of Long Beach v. City of Los Angeles* (2018) 19 Cal.App.5th 465, 473-74.) The City and BNSF filed appeals. *Id*. at 474. The California Court of Appeal ultimately determined the 2013 Final EIR did not adequately analyze the project-specific and cumulative offsite ambient air pollution concentrations from the project and further determined that a proper understanding was necessary for the public and decisionmakers to "fairly consider alternatives or mitigation measures or intelligently balance competing considerations before adopting a statement of overriding considerations." *Id.* at 487. LAHD was ordered to rescind the March 7, 2013 certification of the EIR, as well as the adoption of the Findings of Fact and Statement of Overriding Considerations and Mitigation Monitoring and Reporting Program. All project approvals were also ordered to be voided.

**Figure A-1 – Surrounding Residential and Sensitive Land Uses
Near the SCIG Intermodal Railyard**

II.   South Coast AQMD Staff's Concerns Regarding Air Quality and Health Risk Impacts from Siting the SCIG Intermodal Railyard in Close Proximity to Residential and Sensitive Land Uses in Environmental Justice Communities

The SCIG intermodal railyard will result in an annual average of 2,880 train trips and an annual average of one million round truck trips, not including employee and vendor trips. While LAHD and BNSF have committed to using yard tractors with Tier 4 non-road engine emission standards, using liquified natural gas (LNG)-powered models or an equivalent low-emission technology and electric wide-span rail-mounted gantry,[21] a significant portion of air pollution sources will be diesel-fueled drayage trucks and locomotives. Based on the emission inventories from railyards, locomotives and on-road trucks are responsible for 75 percent of diesel particulate matter emissions.[22] Furthermore, zero emission yard tractors and zero emission and near-zero emission drayage trucks are commercially available to further reduce PM emissions but to also reduce NOx emissions.

Diesel particulate matter is a carcinogen and is linked to respiratory health effects such as asthma. Based on health risk assessments prepared by CARB regarding railyards in the state, locomotives and on-road trucks are responsible for nearly 70% of the cancer risk for intermodal railyards.

---

[21] LAHD, SCIG Recirculated Draft EIR (September 2012), pg. 3.2-62.
[22] South Coast AQMD, Governing Board Meeting (October 4, 2019), Update on Facility Based Mobile Source Measures. Accessed at: http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2019/2019-oct4-030.pdf.

CARB's *Air Quality and Land Use Handbook: A Community Health Perspective*[23] recommends a one-mile buffer in distance between sensitive receptors and a railyard. There are 50,200 residents, seven schools, and a veteran housing facility within one mile of the SCIG intermodal railyard, and 12,000 residents are located in census tracts within 1,000 feet of the SCIG.[24] The surrounding environmental justice community also encompasses census tracts with populations that have much higher proportions (average 61 percent) of Hispanic and/or African American residents than the South Coast AQMD as a whole, and a much higher poverty rate (average 71 percent of population are reported to be below the poverty level). (Table A-1.)[25]

Table A-1 – Demographic and Poverty Rate of Community Surrounding the SCIG Intermodal Railyard

Census Tract	Hispanic Population (%)	African American Population (%)	White Population (%)	Poverty Percentile	CalEnviroScreen 3.0 Score
6037573003	46.6	14.8	18.7	64	90-95%
6037294701	87.1	6.1	4.2	89	95-100% (highest scores)
6037980002	0.0	0.0	0.0	0	N/A
6037572500	39.5	26.9	11.1	89	95-100% (highest scores)
6037294620	95.5	1.7	1.5	81	95-100% (highest scores)
6037572202	34.3	15.4	17.3	25	70-75%
6037572301	58.8	8.0	4.1	69	95-100% (highest scores)
6037572302	53.9	12.2	3.7	57	80-85%
6037980033	13.1	4.9	57.4	0	N/A
6037575500	50.0	5.3	30.3	100	N/A
6037572600	45.2	10.9	4.4	58	85-90%
6037572900	70.2	8.6	2.7	84	90-95%
6037573100	48.1	22.6	10.5	60	85-90%
6037572700	37.8	9.4	3.7	71	85-90%
6037572800	19.0	38.6	25.3	100	95-100% (highest scores)
6037294120	91.7	5.3	1.4	82	90-95%
6037980014	13.4	5.0	76.6	0	N/A

SOURCE: Prepared by South Coast AQMD staff on July 1, 2021 using ArcGIS and CalEnviroScreen 3.0 tool.

CalEnviroScreen is a science-based mapping tool developed by the California Environmental Protection Agency EPA and the California Office of Environmental and Human Health Assessment (OEHHA) that helps identify California communities most affected by multiple sources of pollution and vulnerable to its effects, and analyzes indicators of pollution burden and

---

[23] *Air Quality and Land Use Handbook*. Accessed at: http://www.arb.ca.gov/ch/handbook.pdf.
[24] Recommended distance of at least 1,000 feet for siting new sensitive land uses next to a major service and maintenance rail yard. CARB's Air Quality and Land Use Handbook: A Community Health Perspective. April 2005. Accessed at: https://ww3.arb.ca.gov/ch/handbook.pdf
[25] South Coast AQMD. Proposed Rule 2306 Working Group Meeting #1. July 30, 2021. Slide 23.

population characteristics in each census tract in the state. Pursuant to the CalEnviroScreen 3.0 tool, multiple communities within a one-mile radius of the SCIG intermodal railyard score in the top 95th percentile in the state for disadvantaged communities.[26] Communities in the top 95th percentile already experience the greatest pollution burden compared to other areas in the state.

The SCIG intermodal railyard is located in the AB 617 designated Wilmington, Carson, West Long Beach (WCWLB) community. Through the AB 617 program, the community and South Coast AQMD staff have worked together to develop a Community Emissions Reduction Plan (CERP). Emissions from railyards have been identified as an area of concern and community air quality priority in the CERP.[27] Siting another railyard adjacent to an existing ICTF in an already environmentally burdened community will generate greater emissions from railyards and further exacerbate this burden. It has the potential to hinder implementation of the CERP.

The SCIG intermodal railyard is comparable in acreage to the BNSF San Bernardino railyard (168 acres), an existing railyard which has and continues to be a significant source of diesel particulate matter and a concern for the residents in the surrounding designated AB 617 San Bernardino, Muscoy community. Based on the public health assessment prepared by Loma Linda University's School of Public Health and Center for Community Action and Environmental Justice on the health outcomes of residents near the BNSF San Bernardino railyard,[28] there is a significant association with increasing proximity to the railyard and adverse respiratory health outcomes, particularly amongst children. In a subsequent health study, researchers found that children are at the highest risk of permanent damage to their respiratory systems, because their lungs are still under development, and that a strong link exists between asthma emergency room visits for children within five miles of railyards, especially in low-income minority communities.[29] The SCIG intermodal facility is located as close as 20 feet from the playing field of Stephens Middle School and homes in the West Long Beach Communities. Additional schools, parks, and a veteran's center are within 600 feet of the project. The residents and children in the surrounding community will face even greater exposure to air pollution and bear a disproportionate burden of increasing health risks and respiratory ailments.

III. South Coast AQMD Staff's Summary of the CEQA Impact AQ-4 (Offsite Ambient Air Pollutant Concentrations) and Cumulative Impact AQ-4 Analyses in the Revised Draft EIR

Based on a review of the Revised Draft EIR and the air quality and emission calculation files available to South Coast AQMD, the Revised Draft EIR uses the same air dispersion model,

---

[26] *Ibid.*

[27] The WCWLB Community Emissions Reduction Plan is available at: http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2019/2019-sep6-025c.pdf.

[28] Dr. Sam Soret and Dr. Susanne Montgomery. Loma Linda University School of Public Health and School of Behavioral Health. *Project ENRRICH: A Public Health Assessment of Residential Proximity to a Goods Movement Railyard.* Accessed at: http://www.aqmd.gov/docs/default-source/clean-air-plans/clean-communities-plan/enrrich_final_report_29may2014.pdf.

[29] Preventative Medicine Reports. Volume 13, March 2019. *Association of Major California Freight Railyards with Asthma-Related pediatric Emergency Department Hospital Visits.* Accessed at: https://www.sciencedirect.com/science/article/pii/S2211335518302626?via%3Dihub.

modeling parameters, and offsite receptors that existed at the time of the 2013 Final EIR to estimate the SCIG project's ambient NO_2, PM10, and PM2.5 concentrations for Impact AQ-4. The Revised Draft EIR merely adjusts and scales from the air pollutant concentrations in the 2013 Final EIR to account for maximum concentration values from six benchmark analysis years: 2016, 2020, 2030, 2035, and 2046/2066.[30]

Specifically, the Revised Draft EIR uses the concentration value found for each pollutant averaging period for each of the 10,283 sensitive receptors from the 2013 Final EIR and multiplies it by an emission rate that is specific to pollutant and source type in one of the six benchmark analysis years. The emission rate was also scaled prior to being multiplied by the concentration value with an adjustment factor, which acts to unitize the emission rate so that the emissions could be scaled. The result of this multiplication process was a pollutant-specific concentration at each sensitive receptor for each source type in each benchmark analysis year.

The total concentration value from all emission source types at each receptor was summed together to identify the maximum offsite ambient NO_2 concentration or the maximum incremental PM10 and PM2.5 concentrations amongst all sensitive receptors and were compared to the applicable federal and state air quality standards to determine the level of significance for Impact AQ-4 in the Revised Draft EIR. When modeling to show compliance with the applicable air quality standards, receptors inside a facility's ambient air boundary should be removed. South Coast AQMD staff found that 296 onsite receptors from the SCIG project and alternate business sites were excluded from the air dispersion modeling and concentrations of onsite receptors were not identified. Based on the revised analysis, LAHD concluded that the unmitigated SCIG project would exceed ambient air quality standards for 1-hour NO_2 and 24-hour PM10 in all benchmark analysis years.[31] Exceedances in ambient air quality standards for annual NO_2 and PM10, and 24-hour PM2.5 were also found to occur in specific benchmark analysis years: annual NO_2 would exceed in 2016, 2035 and 2046/2066; annual PM10 would exceed in all years but 2016; and 24-hour PM2.5 would exceed in 2016, 2020 and 2023.[32]

Additionally, the Revised Draft EIR only considered the potential cumulative AQ-4 impact of the SCIG project with the ICTF Expansion Project and identified overlapping geographic areas of combined impacts from NO_2, PM10, and PM2.5 concentrations in each benchmark analysis year. Concentrations for the ICTF Expansion Project were estimated by air dispersion modeling performed in 2015.[33] The extent of geographic areas is influenced by locations of major contributing emission sources for each project, combined with meteorological effects on dispersion. Contrary to the individual project's exceedances of NO_2, PM10, and PM2.5 concentrations above the applicable standards as shown in Table 4-2 of the Revised Draft EIR, LAHD used the size of overlapping areas to conclude that the combined AQ-4 impact from both

---

[30] Revised Draft EIR, Section 3.4.3 Revised Draft EIR AQ-4 Methodology, pgs. 20-24.
[31] *Id.*, Section 3.5 Impacts and Mitigation, pgs. 24-27.
[32] *Id.*
[33] *Id.*, Section 4.4.1, pg. 119.

projects is unlikely because areas of overlap of NO2 impacts is limited to industrial uses and only affecting a small residential area, and PM impacts would not overlap.[34]

IV.   The Revised Draft EIR Does not Comply with the Writ and California Court of Appeal Decision

As described above, the air dispersion modeling used in the Revised Draft EIR has not been updated from that used in the 2013 Final EIR. This means that LAHD did not model the SCIG project's NO_2, PM10, and PM2.5 concentrations to comply with the writ and the court decision. Concentrations from the initial EIR were simply adjusted and scaled. Changes and new information for air dispersion modeling methodology and input parameters since the 2013 Final EIR, and that existed at the time of the Revised Draft EIR was prepared, were not included. The modeling results were obtained from the 2013 Final EIR dispersion model with an outdated meteorological data set representative of only one year (September 2006 to August 2007). The NO_2 modeling results were added to ambient air quality background data representative of years 2008 to 2010 and incremental PM10 and PM2.5 results were found by comparing to the SCIG project's 2010 baseline concentrations for PM2.5 and PM10. The use of older AERMOD input parameters and methodology, outdated meteorological data, and outdated ambient air quality background or baseline conditions results a high potential to underestimate the SCIG project's ambient air pollutant concentrations, particularly in relation to NO_2. To show the potential effects on concentrations from updating the air dispersion modeling, South Coast AQMD staff performed a sensitivity analysis and modeled the SCIG project's NO_2 concentrations applying the updated meteorological data and the recent version of AERMOD. Attachment B includes a detailed discussion of the air dispersion modeling and results from the sensitivity analysis.

The representativeness and adequacy of the meteorological data for analyzing Impact AQ-4 were unsubstantiated in the Revised Draft EIR. The U.S. EPA states that site-specific meteorological data are frequently made on-property (i.e., on the source's premises) but does not preclude collection of data from a location off-property. According to the U.S. EPA, "site-specific measurements should always be reviewed for representativeness and adequacy by an experienced meteorologist, atmospheric scientist, or other qualified scientists in consulting with the appropriate reviewing authority."[35] The Revised Draft EIR used the same metrological data that was used in the 2013 Final EIR. According to the 2012 Recirculated Draft EIR,[36] 2006-2007 meteorological data from the Wilmington Station located at the Saint Peter and Paul School and the Source-Dominated Station located at the Terminal Island Treatment Plant were used in the air quality analysis and modeling. Based on a review of aerial photographs, the Wilmington Station is located within 0.8 miles northwest of the San Pedro Bay ports, and the Source-Dominated Station is located within the port complex by the open water. Since the SCIG site is located further inland,

---

[34] *Id.* Section 4.4.2 Combined SCIG and ICTF Expansion Project Impacts above SCAQMD Thresholds. Pages 122 through 124.

[35] United States Environmental Protection Agency. February 2000. *Meteorological Monitoring Guidance for Regulatory Modeling Applications.* Page 6-30. Accessed at: https://www3.epa.gov/scram001/guidance/met/mmgrma.pdf. See also 40 CFR Ch. I (7-1-11 Edition). *Appendix W to Part 51 – Guideline on Air Quality Models.* Available at: https://www.gpo.gov/fdsys/pkg/CFR-2011-title40-vol2/pdf/CFR-2011-title40-vol2-part51-appW.pdf.

[36] SCIG Recirculated Draft EIR. September 2012. Page 3.2-7.

approximately five miles northeast of the ports, the representativeness and adequacy of site-specific meteorological data must be substantiated in the recirculated Revised Draft EIR; Alternatively, South Coast AQMD staff has prepared AERMOD-ready meteorological data,[37] which should be used.

South Coast AQMD staff has information indicating that changes to onsite businesses have occurred after the 2013 Final EIR. Displacement of at least one of three existing tenant operations (e.g., California Cartage) may not be needed since it is no longer operating at the SCIG site. This is important because it affects the designation of onsite and offsite receptors in the air dispersion modeling. Impact AQ-4 and Cumulative Impact AQ-4 should be based on concentrations at offsite receptors. California Cartage was operating at the time of the 2013 Final EIR and was an onsite receptor excluded for the purpose of air dispersion modeling. Since California Cartage is no longer operating on the SCIG property, the relocation site designated for this business is outside the SCIG's ambient air boundary and is an offsite receptor that should be included in the modeling for estimating offsite ambient concentrations. However, because the Revised Draft EIR did not perform new air dispersion modeling based on new information available after the Court of Appeal's decision, offsite receptors may have been improperly excluded from the air dispersion modeling, and the maximum offsite ambient concentrations might not have been identified to properly disclose who might be affected by the SCIG project.

Lastly, the Court of Appeals opinion expected that a revised analysis of ambient air quality concentrations would also include a reconsideration of feasible alternatives and mitigation measures to reduce those impacts. (*City of Long Beach*, 19 Cal.App.5th at 487.) No such analysis was conducted here in spite of significant advances in technology that could substantially reduce, or even eliminate, the SCIG project's significant air quality impacts.

A. The Revised Draft EIR Does Not Provide Adequate Information or Properly Disclose SCIG's True NO_2 Impacts

LAHD's methodology for Impact AQ-4 in the Revised Draft EIR relied on the same modeled concentrations from the 2013 Final EIR and used "… the same [AERMOD] modeling codes, the same meteorological data, the same monitored background data, and the same source inputs."[38] However, changes in AERMOD have occurred since the 2013 Final EIR and were available at the time of the preparation of the Revised Draft EIR. These changes could substantially influence air dispersion results and disregarding them could result in an underestimation of NO_2 concentrations in the Revised Draft EIR.

Changes in the Air Dispersion Modeling

Table A-2 highlights four examples of key changes in AERMOD, air dispersion modeling input parameters, and ambient air quality analysis data that have occurred since the 2013 Final EIR, that were available at the time of the preparation of the Revised Draft EIR, and discusses how each of

---

[37]South Coast Air Quality Management District. Meteorological Data for AERMOD. Accessed at: http://www.aqmd.gov/home/library/air-quality-data-studies/meteorological-data/data-for-aermod.
[38] Revised Draft EIR, pg. 3.

these changes could influence air dispersion and modeling concentration results. It also compares the air dispersion modeling parameter in the 2013 Final EIR to what was available and should be used in the Revised Draft EIR.

As illustrated in Table A-2, AERMOD, modeling methodology, meteorological and ambient air quality analysis background data have changed since the 2013 Final EIR. Due to the multi-variable complexity of air dispersion modeling, it is likely that any of these changes have the potential to affect the modeled concentrations, particularly NO_2 concentrations, for Impact AQ-4 and Cumulative AQ-4, and the public and decision-makers are still in the dark about what the SCIG project's impacts on offsite ambient air pollutant concentrations might be. Therefore, the Revised Draft EIR does not comply with the holding of the California Court of Appeal. Given the size and location of the SCIG intermodal railyard and the magnitude of short-term and long-term air quality and public health impacts, it is important that LAHD incorporates modeling changes and performs a new air dispersion modeling in the Recirculated Revised Draft EIR to provide adequate information and a good-faith effort at full disclosure about the SCIG's true localized air quality impacts (CEQA Guidelines Section 15003(i).)

Table A-2 – Key Changes in AERMOD, Air Dispersion Modeling Input Parameters, and Ambient Air Quality Analysis Data*

Areas of Key Changes	Effects of Key Changes on Air Dispersion	AERMOD and Modeling Input Parameters Available for the Revised Draft EIR	AERMOD and Modeling Input Parameters Used in the Revised Draft EIR
AERMOD Version	U.S. EPA regularly provides updates to AERMOD. These updates can include bug fixes and methodology updates and/or model enhancements.	19191 (August 2019)	09292 (October 2009), which was used in the 2013 Final EIR**
Meteorological Data	U.S. EPA recommends that meteorological data used for air dispersion modeling should ensure that the worst-case meteorological conditions are adequately represented in the model results. As such, the use of a 5-year data set is recommended. Additional preference is given for consecutive years of national weather service. While 1-year site-specific data can be used, the completeness and quality assurance of the data needs to be considered.	South Coast AQMD staff processes and provides AERMOD-ready meteorological data. The most recent 5-year meteorological data available is for the years 2012 through 2016.	The 2013 Final EIR used a one-year site-specific meteorological data set representative of September 2006 to August 2007 that was processed by LAHD and was not verified by South Coast AQMD staff. Meteorological data from the Wilmington Station located at the Saint Peter and Paul School and Source-Dominated Station located at the Terminal Island Treatment Plan were used in the air quality analysis and modeling. The Revised Draft EIR used the same meteorological data as used in the 2013 Final EIR.
Tier 2 Methods for modeling nitrogen dioxide (NO2)	The impact of a source on ambient NO2 concentrations is complex. Sources that emit NO2 co-emit NO which, when emitted, can react with ambient ozone and convert to additional NO2. Thus, the Tier 2 methods seek to mimic NO2 atmospheric chemistry through the conversion of NOx to NO2 based on an appropriate ratio. The Tier 2 Ambient Ratio Method (ARM) method applied a national default ambient NO2/NOx ratio of 0.80 for the hourly standard and 0.75 for annual standard. The appropriate default ratio was multiplied to the highest modeled NOx concentration to determine the modeled NO2 concentration. This ARM method was replaced with ARM2, which U.S. EPA introduced with AERMOD version 13350 in December 2013. The ARM2 method refined the fixed default ratio in AERMOD to a variable ambient NO2 to NOx ratio based on a polynomial conversion factor equitation constrained to a maximum NO2/NOx ratio of 0.9 and a minimum NO2/NOx ratio of 0.5. The variable ratio used in ARM2 predicts a more realistic ambient NO2 concentration.	The previous Tier 2 ARM method was replaced with ARM2 method in 2017 (Federal Register, Vol. 81, No. 10, January 17, 2017, Appendix W).	The 2013 Final EIR used the Tier 2 ARM method for the conversion of NOx to NO2. The Revised Draft EIR used the same air dispersion modeling method as used in the 2013 Final EIR. Since the Tier 2 ARM2 ratio is based on a polynomial equation, it cannot be multiplied to the highest modeled NO2 concentration as the previous ARM method. Instead, the ARM2 ratio is applied within AERMOD.

Areas of Key Changes	Effects of Key Changes on Air Dispersion	AERMOD and Modeling Input Parameters Available for the Revised Draft EIR	AERMOD and Modeling Input Parameters Used in the Revised Draft EIR
Background Ambient Air Quality Data	Background ambient air quality data is the monitored levels of pollutants in the surrounding outdoor air, which can change yearly. In theory, ambient air quality improves each year as federal, state, and regional air quality rules and regulations come into effect. When modeling to find if a project would cause or significantly contribute to a violation in national or state ambient air quality standards, the ambient air quality background data needs to be considered for pollutants that are in nonattainment. Modeled concentrations found from the air dispersion model are added to the background concentrations for the respective pollutant. The total concentration can then be compared to the ambient air quality standard to find if the project would cause or contribute to a violation.	South Coast AQMD collects, records, and provides historical ambient air quality data by year. The most recent background data set available are for years 2017 through 2019.	The 2013 Final EIR used background ambient air quality data from 2008 to 2010. The Revised Draft EIR used the same background ambient air quality data as those in the 2013 Final EIR.

*Table A-2 is meant to highlight and summarize key parameters have changed since LAHD prepared the 2013 Final EIR. Therefore, it is not intended to, and does not represent, an exhaustive list of all of the new information available regarding AERMOD.
**AERMOD version 09292 is incapable of running updated AERMET sets and Tier 2 ARM2 method for NO2 impacts. There have been many revisions to AERMOD since then with AERMOD version 19191 being the most current version at the time of the preparation of the Revised Draft EIR. The latest AERMOD version is 21112 which was released by the U.S. EPA in April 2021.

Air Dispersion Modeling Sensitivity Analysis

To provide substantial evidence to support the comment that the Revised Draft EIR may have likely underestimated the SCIG project's offsite ambient air pollutant concentrations and to examine whether and how much the changes as discussed in Table A-2 could influence the SCIG project's modeled ambient concentrations, South Coast AQMD staff conducted a sensitivity analysis. Staff performed actual air dispersion modeling, as opposed to adjusting and scaling from the previous concentrations in the original EIR, when there is no discussion justifying adjusting and scaling are appropriate in the Revised Draft EIR.

The sensitivity analysis focused on the SCIG project's annual NO_2 concentrations in future benchmark analysis years 2023 and 2030 because the Revised Draft EIR showed that the annual NO_2 concentrations in those years would not exceed the federal annual NO_2 standard. The analysis consisted of four AERMOD runs for top contributing emission sources, which consisted of non-SCIG tenant cargo handling equipment (CHE), non-SCIG tenant trucks, and SCIG onsite, and SCIG offsite trucks. All four separate air dispersion modeling runs, one modeling run for each emission source, used a recent AERMOD version, incorporated a five-year meteorological data set from years 2012 to 2016 representative of meteorological conditions in Long Beach, and accounted for the updated Tier 2 ARM2 method for the conversion of NOx to NO2. Additionally, modeled NO2 concentrations were then added to updated background ambient air quality data representative of years 2017 through 2019 (Table A-2).

The results of the air dispersion modeling sensitivity analysis indicate that when changes in methodology and data underlying the air dispersion modeling were applied, there is an increase in the maximum annual NO2 concentration in both future analysis years with upwards of 80 percent of the modeled offsite receptors (approximately 9,000 receptors out of approximately 10,000 receptors) showing an increase in the annual NO2 concentrations. When the maximum concentration found in the sensitivity analysis was added to the most recent ambient NO2 background data, the sensitivity analysis shows that in 2023, for the modeled 15 of 860 emission source groups, the new maximum offsite ground-level annual NO2 concentration would be 56.4 micrograms per cubic meter (ug/m3), which is just slightly below the national ambient air quality standard for annual NO2 at 57 ug/m3. Although the sensitivity analysis modeled a small subset of source groups, it has provided substantial evidence to show that the SCIG project must be fully remodeled with the recirculation to provide adequate disclosure of the project's true NO2 impacts to comply with the writ and the court decision in *City of Long Beach*.

Since the sensitivity analysis was completed using one AERMOD run per one emission source, without a complete re-modeling of all the emission sources from the SCIG project (approximately 860 sources), the Revised Draft EIR could have underestimated the SCIG project's annual NO2 impacts and did not adequately provide information and disclose what that impact might be. Additionally, changes to methodology and data underlying the air dispersion modeling could result in underestimations to modeled PM concentrations. However, without further modeling, the impacts of these updates on modeled PM concentrations are also unknown. Therefore, based on the evidence from South Coast AQMD's sensitivity analysis, a true revised Impact AQ-4 analysis, which incorporates new air dispersion modeling changes discussed in Table A-2 is needed and required to comply with the writ and judgment. Detailed information regarding the air dispersion modeling sensitivity analysis set-up and results are provided in Attachment B.

B. The Revised Draft EIR is Inadequate in Providing the Information and Disclosure on Who in the Surrounding Environmental Justice Communities Might be Affected by SCIG's True NO2 Impacts

Because the Revised Draft EIR used the same modeling assumptions as those used for the 2013 Final EIR, South Coast AQMD staff found 296 sensitive receptors were treated as onsite receptors and ambient air quality concentrations at these receptors were excluded and not used to compare to the applicable federal and state air quality standards. According to U.S. EPA's definition of ambient air, which is defined as "that portion of the atmosphere, external to buildings, to which the general public has access", receptors outside of a facility's property boundary are in ambient air, whereas onsite receptors within a facility's property boundary may be excluded from ambient air quality analysis.[39]

The receptors excluded in the air dispersion modeling for the SCIG project were the receptor locations that are within the SCIG project's defined boundary. Additional receptors were excluded within the alternate business locations primarily located on the southside of the SCIG project site.

---

[39] U.S. EPA. December 2, 2019. "Ambient Air" Guidance. Accessed at: https://www.epa.gov/sites/default/files/2019-12/documents/revised_policy_on_exclusions_from_ambient_air.pdf.

These sites were considered part of the SCIG project at the time of the 2013 Final EIR and were designated as onsite receptors. Below, Figure A-2 Proposed Project Site Location (2013) and Figure A-3 Proposed Project Site Location (2021), taken from the 2013 Final EIR and the 2021 Revised Draft EIR, respectively, illustrate where the alternate sites are located.

After the certification of the 2013 Final EIR, changes to the businesses at the SCIG site have occurred and new information about them is available. South Coast AQMD staff has learned that in August 2019 California Cartage vacated their operational site at 2401 East Pacific Coast Highway.[40] In October 2019, the City of Los Angeles Board of Harbor Commissioners approved and issued a two-year revocable use permit to another logistics business at the same location.[41] Based on the permit limit, it is reasonable to assume, without additional information provided in the Revised Draft EIR to indicate otherwise, that the logistics business will cease operations in October 2021. Without an adequate assessment of any changes to the businesses at the SCIG project site since the 2013 Final EIR, or an explanation in the Revised Draft EIR regarding the changes, the alternate business site that was designated for California Cartage's relocation is not likely required and therefore should not be considered as part of the SCIG project (Figure A-2).

This is an important assessment and disclosure for determining offsite ambient air pollution concentrations under Impact AQ-4 and Cumulative Impact AQ-4 because receptors at these sites were treated as onsite receptors, part of the SCIG project, as opposed to ambient air. Figure A-3 below illustrates the receptors that have been excluded from further analysis. Furthermore, juxtaposing Figures A-2 and A-3, it can be seen that some of the receptors excluded from the impact analysis shown in Figure A-3 overlap with the alternate business site that was designated for California Cartage's relocation in Figure A-2. Therefore, it is likely that receptors might have been improperly excluded from the impact analysis, and the maximum concentrations might not have been identified in the Revised Draft EIR. LAHD should recirculate the Revised Draft EIR to estimate ambient air pollutant concentrations at the California Cartage's location under Impact AQ-4 and Cumulative Impact AQ-4. Alternatively, if California Cartage is not included as an offsite receptor for the purpose of air dispersion modeling for comparison with the applicable federal air quality standards, LAHD should provide reasons for not including it, supported by substantial evidence in the record.

---

[40] Los Angeles City Council. October 23, 2019. Item No. 19-1179. Accessed at: clkrep.lacity.org/granicus/2019/10232019_cal.htm.

[41] Los Angeles Board of Harbor Commissioners. Regular Meeting Minutes. October 3, 2019. Resolution No. 19-9546. Accessed at: Agenda Archive and Videos | Commission | Port of Los Angeles.

Figure A-2 (left) *Proposed SCIG Project and Alternate Business Site Locations from the 2011 Draft EIR* and Figure A-3 (right) *Onsite Receptors Excluded from the Revised Draft EIR*

Figure 2-2. Proposed Project Site Location.
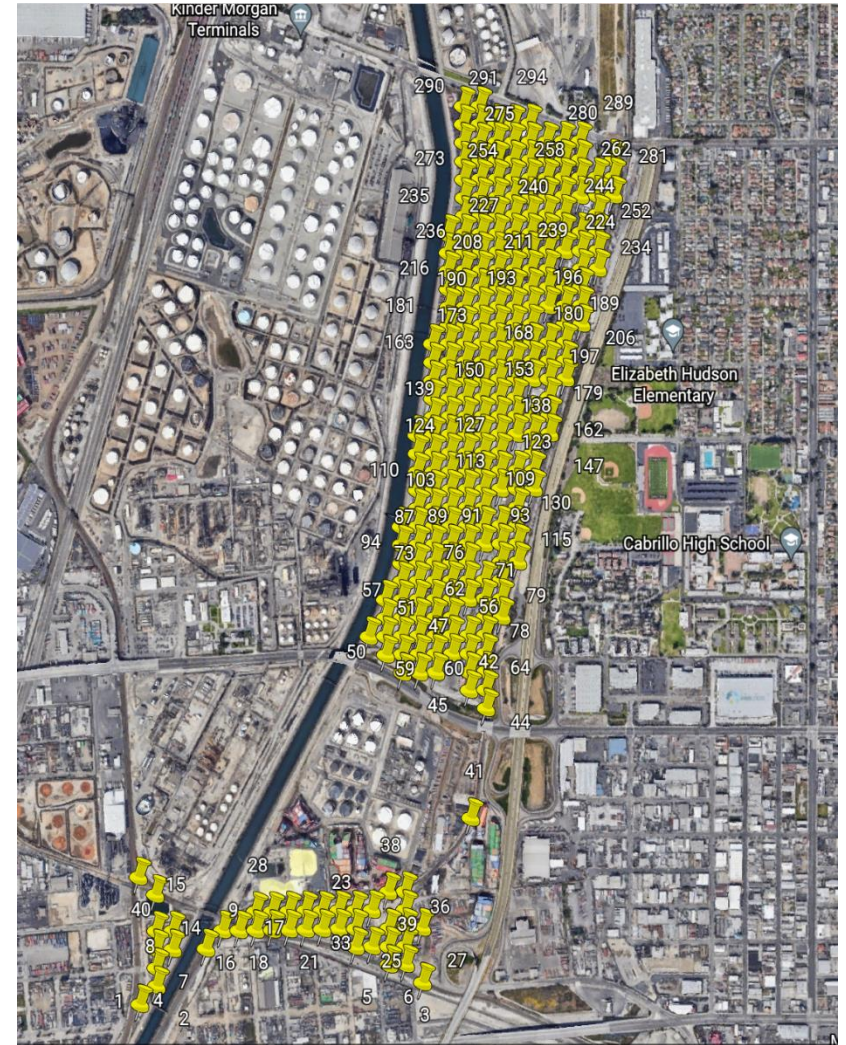
C. The Revised Draft EIR's Cumulative Impacts Analysis Has Flaws and Fails to Provide Adequate Information or Properly Disclose SCIG's Cumulative NO_2 and PM Impacts

As stated by the court, "a good faith and reasonable disclosure of cumulative impacts is required for a project-specific EIR." (*Fastlane Transportation*, Opinion and Order on Petitions for Writ of Mandate at pg. 173.) To that end, an EIR must "reflect a conscientious effort to provide public agencies and the general public with adequate and relevant detailed information about" cumulative impacts. (*Id.*) LAHD has failed in this regard. Specifically, the Revised Draft EIR's cumulative impacts analysis for annual NO_2 impacts is characterized inconsistently and is misleading. In one part of the Revised Draft EIR, *see* pg. 123, LAHD states that Table 4-2 indicates significant combined cumulative impacts for annual NO_2 for benchmark analysis years 2016, 2035 and 2044/2055. However, later in the Revised Draft EIR, *see* pg. 132, LAHD seems to arrive at the opposite conclusion, stating that combined cumulative annual NO_2 impacts would be unlikely because there are no overlapping areas of significant annual NO_2 impacts of the SCIG project and ICTF Expansion Project.

The Revised Draft EIR's cumulative impacts analysis for 1-hour NO_2 impacts is also misleading because it does not make a clear significance finding regarding whether the SCIG project's significant 1-hour NO_2 impacts would be cumulatively considerable with the ICTF Expansion Project's significant 1-hour NO_2 impacts. On page 123 of the Revised Draft EIR, LAHD states that the combined cumulative impacts for 1-hour NO_2 (both state and federal standards) would be significant in all six benchmark analysis years. (*See* also page 9 of the Revised Draft EIR.) However, later in the discussion, LAHD seems to minimize and obscure the magnitude of the significant cumulative 1-hour NO_2 impacts by showing that the size of overlapping areas of significant 1-hour NO_2 impacts from two individually significant projects (SCIG and ICTF Expansion Project) is limited to industrial uses and only affecting a small residential area. Therefore, the Revised Draft EIR's finding of significance for the cumulative 1-hour NO_2 impacts, as required under CEQA Guidelines Section 15065, is unclear.

The Revised Draft EIR's cumulative impacts analysis for PM10 and PM2.5 impacts is flawed. On page 124 of the Revised Draft EIR, Table 4-3 shows that the SCIG project alone would exceed PM10 concentrations (24-hour and annual) for all the benchmark analysis years except in 2016 (annual PM10) and exceed PM2.5 in benchmark analysis years 2016, 2020, and 2023. Since these impacts from one project are already significant, it indicates that the SCIG project's significant PM10 and PM2.5 impacts, after combining the impacts from the ICTF Expansion Project would likely remain significant cumulatively. Therefore, LAHD's use of limited overlapping areas from both projects as the basis to conclude that the combined cumulative PM impacts would be unlikely is improper and unreasonable.

Although the geographic scope of the area affected by the cumulative effect is an important consideration when discussing cumulative impacts, *see* CEQA Guidelines Section 15130(b)(3), the Guidelines further specify that a "reasonable explanation," for that geographic scope must be provided. The Revised DEIR does not include substantial evidence to justify why it is appropriate to use the size of overlapping areas to determine if the combined NO2 and PM impacts from both projects are cumulatively considerable. This justification is important and

germane to providing adequate characterizations of the combined cumulative impacts, especially on annual NO_2, 1-hour NO_2 (state), and PM10 and PM2.5 impacts, since the Revised Draft EIR uses these non-overlapping areas, or the very localized overlapping areas, to suggest a low probability of significant cumulative impacts. LAHD's decision to limit the geographic scope of its analysis is made even more perplexing by the fact that the Revised Draft EIR specifically states that, with respect to the 1-hour NO_2 federal standard, areas of overlap include both industrial and residential areas. If LAHD's "contour diagrams" can potentially include impacts in both residential and industrial areas, then it is seemingly unclear how LAHD has defined the geographic scope of its project.

Furthermore, it is likely that an updated modeling analysis would reveal an even greater overlapping area between the ICTF Expansion Project and the SCIG project. It is not enough for LAHD to summarily and arbitrarily dismiss its own conclusions regarding the significance of cumulative NO2 impacts without additional, *meaningful* justification. By failing to provide the logic behind its defined "contour boundaries," LAHD was required to provide adequate information such that the severity and significance of the cumulative impacts could be adequately portrayed. (*Friends of the Eel River v. Sonoma County Water Agency* (2003) 108 Cal.App.4th 859, 869; *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 723.)

V.   The Revised Draft EIR Does Not Meet the Requirements of CEQA and Environmental Impacts from Changes in Circumstances and Newly Available Information Necessitate Revisions and Recirculation of the Revised Draft EIR

Overview

The Revised Draft EIR relies on the Writ's specific directive to provide additional information related to AQ-4, stating that the balance of the 2013 Final EIR remains intact to the extent that it does not conflict with this new "court-ordered" information. (*See* Revised Draft EIR at ES-2.) Specifically, LAHD improperly states that the Revised Draft EIR is limited to providing additional information and disclosure related to the portions of the 2013 Final EIR "concerning Project-specific and cumulative offsite ambient air pollution concentration impacts … [and] [t]he unchanged portions of the 2013 Final EIR enjoy a presumption of legal validity, and are no longer subject to legal challenge." (*See* Revised Draft EIR at pg. 11.) This is a baseless conclusion and an improper interpretation of the Court's order.

To start, LAHD was ordered to void all project approvals and rescind the March 7, 2013 certification of the *entire EIR*. (*See Fastlane Transportation*, Opinion and Order on Petitions for Writ at pgs. 198-99.) The very specific requirements of the judgment and writ have not absolved LAHD of the duty to analyze and respond to the rather substantial changes in circumstances that have occurred in the years since the 2013 Final EIR was certified. LAHD cites to *Ione Valley Land, Air, and Water Defense Alliance, LLC v. County of Amador* (2019) 33 Cal.App.5th 165, to further support the proposition that a lead agency need only circulate portions of the original EIR that have been modified in response to the court's directive. However, LAHD has misinterpreted the Court's directive. Nothing in the Order limited or refined LAHD's focus solely to AQ-4. It is also disingenuous to compare the facts at hand to those before the court in *Ione*. In *Ione*, res

judicata was a clear bar to claims that could feasibly have been made in the first petition for writ, but were not. Here, eight years have passed since certification of the 2013 Final EIR and, as will be explored in more detail below, the entire landscape of the Project and its surroundings has changed. New information has come to light that could not have reasonably been known or discussed in the first petition. LAHD further cites to *Planning and Conservation League v. Castaic Lake Water Agency* (2009) 180 Cal.App.4th 210, *see* Revised Draft EIR pgs. 11-12 in support of the claim that challenges to the Revised Draft EIR must be limited to aspects of the Revised Draft EIR that are "materially different" from the 2013 Final EIR. This citation is inapposite. In the case at hand, significant new information has been learned in the intervening years which require additional analysis on the part of LAHD. LAHD cannot avoid this analysis by presuming, without any support, that the only "materially different" section of the EIR involves AQ-4.

CEQA requires a lead agency to recirculate an EIR when significant new information becomes available after public notice is given of the availability of the draft EIR for public review but before certification. (*See* Pub. Res. Code Section 21092.1; CEQA Guidelines Section 15088.5.) New information can include changes in the project or environmental setting as well as additional data or other information and is significant if the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (include a feasible project alternative) that the project's proponents have declined to implement (*See* CEQA Guidelines Section 15088.5(a); *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal. 4th 412, 447.)

Similarly, per CEQA Guidelines Section 15162, a subsequent EIR *must* be prepared anytime a lead agency determines, on the basis of substantial evidence, one or more of the following: substantial changes are proposed in the project, or with respect to the circumstances under which the project is undertaken, will require major revisions of the prior EIR due to involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects or new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified shows the project will have one or more significant effects not previously described, that significant effects previously examined will be substantially more severe than shown in the previous EIR, that mitigation measures or alternatives previously found infeasible would in fact be feasible and would substantially reduce one or more significant effects of the project, or mitigation measures or alternatives which are considerably different from those analyzed in the prior EIR would substantially reduce one or more significant effects on the environment. (*See California Coastkeeper Alliance v. State Lands Commission* (2021) 64 Cal.App.5th 36, 57; Cal. Pub. Resources Code Section 21166.)

The significance of requiring a supplemental or subsequent EIR is "to explore environmental impacts not considered in the original environmental document. The event of a change in a project is not an occasion to revisit environmental concerns laid to rest in the original analysis. *Only changed circumstances are at issue.*" (*California Coastkeeper*, 64 Cal.App.5th at 58.). To that end, when there is a change in plans, circumstances, or available information after a project has received initial approval, we must look at the *value* of the new information to the pending decisionmaking process. (*Friends of the College of San Mateo Gardens v. San Mateo Community College District*

(2016) 1 Cal. 5th 937, 957.) Moreover, if this qualified new information develops after project approval, a supplemental or subsequent EIR must be prepared in connection with the next *discretionary* approval, if any. (*Martis Camp Community Assoc. v. County of Placer* (2020) 53 Cal.App.5th 569.) The Writ voided certification and approval of the Final EIR in its entirety. (Opinion and Order on Petitions for Writ of Mandate, pgs. 198-199.) The EIR is still subject to discretionary approval. Thus, the significant changes in circumstances occurring between development of the 2013 Final EIR and now must be taken into consideration.

California Cartage, one of three existing Port tenants, is no longer operating at the SCIG site. The business's relocation site may now be considered an offsite receptor, which will most certainly impact maximum offsite ambient concentrations. Additionally, BNSF is proposing to build an intermodal railyard in Colton, which is to be operational as early as 2026. The Colton Railyard will likely accommodate an average of 10 freight trains per day, in an effort to accommodate increases in intercity travel and population growth over the next two decades. (*See* Revised Notice of Preparation, Los Angeles (Union Station) to Anaheim (Anaheim Regional Transportation Intermodal Center [ARCTIC]) Project Section of the California High Speed Rail (HSR) System, primarily along the Los Angeles – San Diego – San Luis Obispo (LOSSAN) Rail Corridor, as well as freight accommodation project components in Colton and Lenwood to all future cumulative passenger and freight traffic volumes (2020), pgs. 4-5.) As previously discussed, the addition of Colton railyard will change the environmental setting for analyzing the regional and cumulative impacts from rail activity. In addition, BNSF's major competitor, Union Pacific Railway, has also increased rail capacity in the South Coast Air Basin, through a new Colton pop-up yard and the expansion of their LATC intermodal terminal. The regional and cumulative impacts from this increase in rail capacity needs to be evaluated.

Further, there have been changes in the universe of information available for purposes of analyzing the Project. As noted above, there have been substantial changes in AERMOD, air dispersion modeling input parameters, and ambient air quality analysis data since the 2013 Final EIR was originally certified. These changes could affect modeled concentrations for Impact AQ-4 and Cumulative AQ-4. A failure to incorporate these changes results in an analysis based on outdated information that is consequently of little use.

Another significant change to the relevant circumstances surrounding the Project involves the implementation of Assembly Bill 617. Specifically, in 2017 AB 617 was passed with the aim of reducing emissions of toxic air contaminants and criteria pollutants in disproportionately impacted environmental justice communities impacted by a high cumulative exposure burden. AB 617 required, among other things, that CARB select locations throughout the state for preparation of CERPs, and to provide grants to community-based organizations for technical assistance and to support community participation in the programs. Per AB 617, air districts with selected locations within their jurisdictions were required to adopt CERPs within a year of their selection in the program. Put simply, AB 617 is groundbreaking legislation aimed at reducing air pollution in impacted communities, many of which surround or are otherwise impacted by the project.

Emission Factors for Calculating Truck Emissions Are Outdated

The 2013 Final EIR calculated emissions from drayage trucks using emission factors from the CARB's 2011 Emission Factors Model (EMFAC2011). EMFAC is a software that estimates the official emissions inventories of on-road mobile sources in California. Since the approval of EMFAC2011 by U.S. EPA in March 2013, CARB has made many updates to the EMFAC model. These updates are reflected in EMFAC2014 publicly released in May 2015, EMFAC2017 publicly released in May 2018, and EMFAC2021 publicly released in January 2021. Some of the updates to the EMFAC model included updates to the heavy-duty truck activity and emission rates, and implementation of CARB's latest regulations. Using emission factors from EMFAC2011 underestimated diesel particulate matter emissions from diesel-fueled, heavy-duty drayage trucks due to limited in-use test data for engine model year 2010 and newer, thus the SCIG project's regional and localized air quality impacts (Impact AQ-3, Impact AQ-4, and Impact AQ-5 in the 2013 Final EIR) and health risk impacts (Impact AQ-7) from mobile source diesel particulate matter emissions were underestimated and should be re-calculated with the use of EMFAC2017 since that is the latest model approved by the U.S. EPA.

Health Risks are Greater to Infants and Children

In addition to changes to air dispersion modeling, OEHHA revised the previous 2003 methodologies for calculating both noncancer and cancer risk assessment in 2015 to include explicit consideration of infants and children.[42] The 2003 health risk assessment methodologies relied on default assumptions, which had the potential to mask the true risks faced by infants and children.[43] Because children have hematological, nervous, endocrine, and immune systems that are still developing, they are more sensitive to the effects of air toxics such as diesel particulate matter. The 2015 revised OEHHA guidelines acknowledge that infants and children are more susceptible to the exposure to air toxics and changed the way cancer risk are estimated to take this into account. For example, it is no longer appropriate to average out the diesel particulate matter emissions over a 70-year exposure duration because this could underestimate the cancer risk to infants and children who would be exposed to higher concentrations during the early years. Specifically, the 2015 revised OEHHA guidelines include age sensitivity factors which increase cancer risk estimates to residential and sensitive receptors by approximately three times.[44] Since the 2013 Final EIR used the 2003 cancer risk calculation methodologies, and the Revised Draft EIR did not incorporate the changes to the methodologies which were available since 2015, the SCIG project's true health risk impacts on infants and children are unknown and may have been underestimated. Therefore, the Revised Draft EIR must be recirculated to revise the SCIG project's health risk impacts (Impact AQ-7 in the 2013 Final EIR) and properly disclose these impacts. This is especially important given the location of the project next to schools and parks where children play.

---

[42] OEHHA. February 2015. *Air Toxics Hot Spots Program Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments*.
[43] *Ibid*.
[44] South Coast AQMD Risk Assessment Procedures for Rules 1401, 1401.1 & 212 Version 8.1. Introduction. Page 1. Accessed at: Accessed   at: http://www.aqmd.gov/docs/default-source/permitting/rule-1401-risk-assessment/riskassessproc-v8-1.pdf.

Inclusion of California Cartage, which No Longer Exists Onsite, Inflates the CEQA Baseline

In the 2012 Recirculated Draft EIR, several existing businesses were identified within the SCIG site. California Cartage was one of them and had relatively high activity levels and large operating footprints (e.g., 86 acres; trucking, warehousing, and transloading with an estimated 357,000 total truck round trips per year and 260 train round trips per year[45]). However, in August 2019, California Cartage vacated their operations at the SCIG site and is no longer an existing business that would be relocated to an alternative site as a result of the SCIG project. Including California Cartage-related trucks and train operations as on the ground impacts erroneously inflates the CEQA baseline so that the incremental change with the SCIG project appears lower than it would otherwise be if only the emissions from the existing tenants as they exist now are included in the baseline.

The Revised Draft EIR Did Not Conduct the Required Health Impact Assessment

In December 2018, the California Supreme Court ruled in *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502 that projects with significant air quality impacts are required to relate the expected adverse air quality impacts to likely health consequences or explain why it is not feasible at the time of drafting to provide such an analysis, so that the public may make informed decisions regarding the costs and benefits of the project. Although the SCIG project would result significant localized and regional air quality impacts, the Revised Draft EIR fails to conduct the required health impact assessment. Specifically, the Revised Draft EIR claims there are no accepted methodologies for conducting a health impact assessment that could accurately quantify local health effects. This is unsupported. According to the U.S. EPA, BenMAP-CE is a proven computer program that estimates changes in the number of adverse health effects associated with a change in exposure to air pollution, specifically ground-level ozone and fine particles.[46] In other words, BenMAP-CE can be used to estimate the resulting health impacts from change in ambient air pollutant concentrations for related health endpoints such as premature mortality, hospital admissions, and emergency room visits, and it can be used for both local- and regional-scale analyses.[47] Concentrations at a project-level can be estimated by air dispersion model (e.g., AERMOD). The Revised Draft EIR has NO_2, PM2.5, and PM10 concentrations, although underestimated, and these concentrations can be input into BenMAP-CE to estimate health effects. Both BenMap-CE and AERMOD are available for download on the U.S. EPA's website[48,49] and can be used to estimate the SCIG project's likely health consequences. Therefore, the Revised Draft EIR must be revised and recirculated to provide the necessary health impact assessment, or alternatively include a discussion to explain why the use of AERMOD and BenMap-CE models is not appropriate to provide such an analysis.

---

[45] LAHD, SCIG Recirculated Draft EIR (September 2012), pgs. 2-7 and 2-18.
[46] U.S. EPA. Benefits Mapping and Analysis Program (BenMAP). Accessed at: https://www.epa.gov/benmap/how-benmap-ce-estimates-health-and-economic-effects-air-pollution.
[47] U.S. EPA. BenMAP-CE Applications. Accessed at: https://www.epa.gov/benmap/benmap-ce-applications-articles-and-presentations#local.
[48] U.S. EPA. Environmental Benefits Mapping and Analysis Program - Community Edition (BenMAP-CE). Accessed at: http://www.epa.gov/benmap.
[49] U.S. EPA. Air Quality Dispersion Modeling. Accessed at: https://www.epa.gov/scram/air-quality-models.

The BNSF Colton Intermodal Railyard Must be Considered and Analyzed

BNSF is proposing to build a Colton intermodal railyard to be operational as early as year 2026 when the SCIG project would also be operational. This is new information available after the 2013 Final EIR and is significant because it changes the environmental setting for analyzing the SCIG project's regional impacts and cumulative impacts air quality impacts. Adding two new railyards in the BNSF's freight network which already includes the BNSF Hobart railyard and San Bernardino railyard in the South Coast Air Basin will result in capacity increases and growth in freight service in Southern California. South Coast AQMD staff is not aware of a condition limiting future growth increases at the existing and new BNSF railyards. The new information about the BNSF Colton intermodal railyard is germane to understanding what the regional and cumulative impact might be when SCIG is viewed in connection with the effects of existing and probable future railyards. Because the Revised Draft EIR fails to consider, analyze, and disclose changes in the circumstances and new information about the BNSF Colton intermodal railyard, the use of baseline physical conditions as they existed at the time of the 2013 Final EIR is misleading and without informative value to decision-makers and the public.

The SCIG Project's Incremental Contribution to the Cumulative Effect on the BNSF and UP Railway Freight Network and Activities in Southern California Must be Considered and Analyzed

The SCIG intermodal railyard will be one of the largest intermodal facilities in the nation. By building a new intermodal facility with 2,880 train trips and one million truck trips per year and 1.5 million lifts, SCIG would likely increase the total capacity and activities of the BNSF's freight network. It could also free up capacity at any of BNSF's existing or new railyards, such as the existing Hobart and San Bernardino railyards and the proposed Colton railyard, to allow more growth. In addition, UP Railway also has a considerable network of railyards in the South Coast Air Basin and has their own recent and planned expansions in capacity, including the ICTF facility, a pop-up yard in Colton and the expansion of the LATC intermodal terminal. This is concerning considering that global trading patterns have changed significantly since the Final 2013 EIR, especially because of COVID-19, and South Coast AQMD staff is not aware of conditions to limit the cargo surge currently being experienced at the Ports of Los Angeles and Long Beach. Specifically, the Executive Director for the Port of Los Angeles expects that cargo growth will continue at the increased pace through the beginning of 2022,[50] and the Executive Director for the Port of Long Beach has suggested that the Ports' have "entered a new normal" and will need to get an "Amazon state of mind with regard to their operations" to keep up with increased growth in cargo.[51] With an increased freight network capacity, the SCIG project may indirectly allow BNSF's network to handle the additional cargo containers being received at the Ports. The intention to grow is made evident when BNSF proposed to build the Colton intermodal railyard in 2020. Adding two new railyards that could be operational within a few years of each other in the same region could affect the rail movement, rail activities, and freight service capacity on BNSF's

---

[50]Spectrum News1. "Port of LA setting records for cargo traffic". Accessed August 6, 2021. https://spectrumnews1.com/ca/la-west/inside-the-issues/2021/08/04/port-of-los-angeles-setting-records-for-cargo-traffic.

[51] The Journal of Commerce Online. "Long Beach will need 24-hour shifts for future cargo flow: Cordero". Accessed August 6, 2021. https://www.joc.com/port-news/us-ports/port-long-beach/long-beach-will-need-24-hour-shifts-future-cargo-flow-cordero_20210805.html.

freight network. It could also have local effects on transportation patterns, truck traffic flows, and result in local air impact impacts from NO_2 and diesel particulate matter. Therefore, to provide the public and decision-makers a better understanding of the SCIG project's incremental effects to the BNSF freight network, LAHD must revise Cumulative Impact AQ-4 to include the analysis and recirculated the Revised Draft EIR to provide the needed information.

> *Percentage of Tier 4 Locomotives was Overestimated and Must be Revised to Adequately Disclose Air Quality Impacts from Locomotive Emissions*

The Revised Draft EIR used the same fleet mix of locomotives for each engine tier that was used in the 2013 Final EIR. The 2013 Final EIR quantified locomotive emissions based on a fleet mix that is expected to include 39.5 percent of Tier 4 locomotives in year 2023 (without Project Condition AQ-12: San Pedro Bay Ports CAAP Measure RL-3), and the national fleet average was expected to include 26.5 percent of Tier 4 locomotives in year 2020, which equated to 1,380 Tier 4 locomotives used at the SCIG. However, with Project Condition AQ-12, which requires the SCIG project to meet a minimum performance requirement of an emissions equivalent of at least 50 percent Tier 4 line-haul locomotives and 40 percent Tier 3 line-haul locomotives when operation on port property by 2023[52], the project's regional and localized air quality impacts from locomotive emissions were analyzed assuming 50 percent of locomotives with Tier 4 in 2023, 86 percent in 2035, and 97 percent in 2046.

These percentages for Tier 4 locomotives were significantly overestimated. Based on BNSF's reported 2019 fleet activity data in the South Coast Air Basin, only 5.4 percent of locomotives are with Tier 4 engine, 23.5 percent of locomotives are with Tier 3 engine, 31.7 percent of locomotives are with Tier 2 engine, and nearly 39 percent of locomotives are with Tier 1 or lower engine[53]. A similar fleet mix with engine tier was also observed with Union Pacific (UP) in its reported 2019 fleet activity data in the South Coast Air Basin. Specifically, 3.2 percent of UP locomotives are with Tier 4 engine, 15.1 percent of locomotives are with Tier 3 engine, 25.4 percent of locomotives are with Tier 2 engine, and nearly 56 percent of locomotives are with Tier 1 or lower engine[54]. The pace of Tier 4 locomotives utilization that existed in 2019 (six years after the 2013 Final EIR and two years after the 2017 CAAP Update) is much slower than assumed in the 2013 Final EIR. Using an overestimated locomotive fleet mix with Tier 4 engine likely underestimated the SCIG project's true air quality impacts from locomotive activity. Therefore, the Revised Draft EIR must be revised to re-analyze the project's regional and localized air quality impacts from locomotive emissions based on better information on locomotive fleet mix.

> *Evaluation of Regional Emissions and No Project Alternative Must be Re-Calculated with Recent CARB Data*

CARB recently released a draft Truck vs. Train Emissions Analysis that demonstrates that as California's current truck regulations are implemented through 2023, trucks will produce fewer

---

[52] SCIG Recirculated Draft EIR. 2012. Page 3.2-100.
[53] CARB. 2019 Fleet Activity Data for the South Coast Air Basin. Accessed at: https://ww2.arb.ca.gov/resources/documents/rail-emission-reduction-agreements.
[54] *Ibid*.

diesel particulate matter and NOx emissions[55]. By 2023, trucks will be the cleaner mode to transport freight. Beyond 2023, future state regulations will further reduce truck air pollutant emissions, eventually bringing them to zero. Unless locomotive technology is advanced beyond Tier 4, and there is an established pathway to transition away from combustion engines, transporting freight by trucks is expected to be the cleaner mode of transport in the near future.

This new report and the lower than expected usage of Tier 4 locomotives in the Basin, call into serious question the LAHD's analysis of the No Project alternative, which they claim produces greater emissions than the SCIG project. It further supports the South Coast AQMD's position that LAHD's analysis of regional emissions is inaccurate.

Consistency with Applicable Air Quality Plans (Impact AQ-8)

In its discussion of Air Quality Impact 8 ("Impact AQ-8"), LAHD maintains that the Port "regularly" provides SCAG with Port-wide cargo forecasts for development of the AQMP and, as such, the attainment demonstrations included in the 2007 AQMP[56] "account for the emissions generated by projected future growth at the Port"[57]. LAHD then makes the leap that "[b]ecause one objective of the proposed Project is to accommodate growth in cargo throughput at the Port, the AQMP accounts for the Project and conforms to the SIP." (*Id.*) Finally, LAHD goes on to state that the Project would not conflict with or obstruct implementation of the San Pedro Bay Ports' CAAP because it incorporates multiple "environmental features" consistent with CAAP measures, *see* 2013 Final EIR, Table 3.2-27, and that with the addition of MM AQ-8 the Project would be consistent with the emissions and health risk reduction goals of the CAAP.

Ignoring, at least for the time being, whether or not LAHD's impact determination was correct in 2013, it is important to note that by leaving the non-AQ-4 portions of the Final EIR intact, LAHD appears to maintain that its AQ-8 determination remains the same even now, in 2021. However, given the significant transformation to the project and surrounding landscape, it is inconceivable to claim that the same determination applies today.

While the 2013 Final EIR contains some discussion of the Project's commitment to implementing certain CAAP control measures, there is no similar analysis with respect to the 2016 AQMP[58]. The AQMP is the regional blueprint for achieving federal ambient air quality standards and includes a number of both stationary and mobile source strategies aimed at ensuring that the Basin meets its rapidly approaching deadlines, that the public health is protected to the maximum extent feasible, and that the region is not faced with potentially crippling sanctions if its Plan is not approved or if the NAAQS are not met in a timely manner. LAHD acknowledges that the Project would produce emissions of nonattainment pollutants, primarily in the form of diesel exhaust, and yet provides no analysis of the applicable stationary or mobile source control measures to be implemented. The EIR lists numerous significant and unavoidable air quality impacts and yet fails to provide a sufficient explanation as to how the Project can still be consistent with the Plan. The Plan's

---

[55] CARB. September 23, 2020. Draft Truck vs. Train Emissions Analysis. Accessed at: https://ww2.arb.ca.gov/resources/fact-sheets/draft-truck-vs-train-emissions-analysis.
[56] The relevant AQMP for the 2013 Final EIR was the 2007 AQMP.
[57] 2013 Final EIR, pg. 3.2-97.
[58] The 2016 Plan is the most recent version of the AQMP and is now the applicable Plan for purposes of determining consistency.

attainment goals cannot be achieved without fair share emission reductions and LAHD has simply not provided substantial evidence of the Project's consistency with the Plan.

As noted above, the Plan emphasizes the public health benefits of its emission reduction goals. (*See e.g.* 2013 Final EIR, Appendix 1.) Yet LAHD provides no support for the proposition that the Project is consistent with this policy goal, particularly in light of the fact that mitigation measures for the air quality impacts of the Project are entirely inadequate. It is not enough to state that operation of the project would increase emissions of criteria pollutions and conjecture that inclusion of cargo forecasts in the AQMP indicates that the AQMP "accounts for the project." (*See* 2013 Final EIR at pg. 3.2-96.) There must be some meaningful analysis of the qualitative consistency between the health impacts and policy goals of the Plan and the Project. Without it, "informed decisionmaking and informed public participation" are precluded, "thereby thwarting the statutory goals of the EIR process." (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App. 3d 692, 712.)

Finally, as alluded to above, LAHD had an obligation to analyze whether or not the Revised Draft EIR was consistent with the relevant CERP. South Coast AQMD issued the Wilmington, Carson, West Long Beach CERP in 2019. The WCWLB community identified the ports as one of several air quality priorities to be addressed by its CERP. (South Coast AQMD, Community Emissions Reduction Plan, Wilmington, Carson, West Long Beach (Sept. 2019), ES-1.) Recognizing that the Ports of Los Angeles and Long Beach are the busiest ports in the nation, the CERP set forth a targeted plan to reduce emissions from ocean-going vessels, commercial harbor craft, drayage trucks, and related equipment. (*Id.* at 5c-1.) Specifically, the CERP recommends implementation of zero and near-zero emission technologies through incentive opportunities and regulation, targeted or enhanced enforcement of existing CARB regulations, and detection of leaks from oil tankers at-berth. (*Id.* at 5c-5-5c-9.) In spite of the clear relevance to the Project and its impacts, the Revised Draft EIR includes no evaluation, reference to, or analysis of, the consistency of the EIR with the CERP.

Not only did LAHD have a duty to re-analyze the Project's impacts in light of changed circumstances, but it was also required to adopt all feasible mitigation measures to reduce those impacts. (Pub. Res. Code Section 21081(a); CEQA Guidelines Section 15091(a).) In the 2013 Final EIR, LAHD determined that the Project would not conflict with or obstruct implementation of the AQMP or CAAP and, thus, no mitigation would be required. Notably, the 2013 Final EIR did not require implementation of the CAAP measures and that has not changed in this Revised Final EIR.

As noted above, the WCWLB CERP specifically outlines a plan for reducing emissions at the Ports. Integral to this plan is the implementation of zero and near-zero emission technologies through incentive opportunities, regulation, and other requirements. When siting a new railyard within an environmental justice community identified under AB 617, LAHD and BNSF must be proactive and use or accelerate the use of these cleaner technologies. LAHD and BNSF must implement utilization of cleaner locomotives with the Tier 4 and Tier 5 engines on an expedited schedule and accelerate the turnover and use of zero-emission locomotives. The CERP specifically includes an action item involving reduction of emissions from Cargo Handling Equipment and drayage trucks. *See* CERP at pg. 5c-8. As previously discussed, LAHD could feasibly require

100% zero-emission trucks or some combination with near-zero emission trucks to service the Project.

The CERP also outlines an entire air monitoring strategy. (*See* WCWLB CERP at Chapter 6; WCWLB Community Air Monitoring Plan (CAMP), Appendix B.) The CERP specifically states that *multiple* air monitoring methods are necessary to address the community's air quality objectives. (CERP at pg. 6-1.) Refineries have been required to implement fenceline monitoring and community monitoring programs pursuant to AB 1647 and South Coast AQMD Rule 1180, demonstrating that the measure is feasible. The programs include a community notification element. Since railyards are similarly high-polluting facilities and CERP's from communities with existing railyards have requested monitoring systems, LAHD should consider requiring a fenceline and community monitoring system for the SCIG facility. Mitigation measures involving mobile and fixed air monitoring stations equipped with air quality sensors would comport CERP's air monitoring specifications. Still, as discussed above, the only mitigation proposed for air quality impacts is street sweeping, which is not at all consistent with the CERP.

In short, significant new information necessitated a closer look at the entirety of the 2013 Final EIR.

VI.   The Revised Draft EIR Weakens the Protection of the Environment and Policies Implicit in CEQA

A. No Mitigation is Identified for the Significant Localized Air Quality Impacts Reaffirmed by the Revised Draft EIR

The SCIG project exceeds the significance thresholds for NO2, PM10, and PM2.5. Yet, the only mitigation proposed for air quality impacts is street sweeping, which only addresses PM, and does so inadequately. No mitigation is proposed to address significant NO2 impacts. In addition, an updated and legally adequate analysis of air quality impacts, as discussed above, will likely reveal additional significant air quality impacts that require mitigation. Notably, the same mitigation measures, designed to reduce emissions from combustion equipment (trucks, trains, and cargo-handling equipment) through the requirement to use clean technologies, would reduce air quality impacts regionally and locally, and would also reduce emissions of toxic air contaminants.

CEQA requires that all feasible mitigation measures be adopted to reduce significant impacts to a level of insignificance. Pub. Res. Code Section 21081(a); CEQA Guidelines 15091(a); *King & Gardiner Farms, LLC v. County. of Kern* (2020) 45 Cal.App.5th 814, 854. CEQA Guidelines section 15091(a) specifically states that that an EIR "shall identify mitigation measures for each significant environmental effect identified in the EIR." However, the Revised Draft EIR for the Project fails to identify a single mitigation measure for the significant NO2 impact. Similarly, section 15091(b) requires that "[w]here several measures are available to mitigate an impact, each should be discussed and the basis for selecting a particular measure should be identified." However, only a single mitigation measure for PM was adopted, and no additional mitigation measures were discussed, despite the fact that PM emissions remain significant even after the implementation of MM AQ-7. (Revised Draft EIR p. 107.) Approval of "a project that did not include a feasible mitigation measure . . . would amount to an abuse of discretion." *King & Gardiner Farms*, 45 Cal.App.5th at 854.

B. New Information on Technology Advancement is Available, and Feasible Mitigation Measures Exist and Must be Adopted

Technology is transforming the freight and transportation sectors at a rapid speed. New information on clean technology has become available since the 2013 Final EIR. Clean technology is already available, and zero-emission and near-zero-emission technologies must be included as mitigation measures. Performance standards and schedules must be required to ensure earliest implementation of these technologies. Siting a new intermodal railyard within an existing environmental justice community identified under AB 617 must require the use of the cleanest and lowest-emitting cargo handling equipment, trucks, locomotives at the SCIG project to protect public health from the significant NO2 and diesel particulate matter impacts on the surrounding community, and to ensure that regional emissions contributions and emissions of toxic air contaminants are at acceptable levels.

1. Zero-Emission Cargo Transport and Movement between Marine Terminals and SCIG.

Based on data from the Port Drayage Trucks Registry, 38 percent of trucks currently accessing the ports are model year 2010 or older. These older trucks contribute 9.7 tons per day (tpd) of NOx emissions and 0.6 tpd of PM emissions. Another 39 percent of drayage trucks accessing the ports are model years 2011-2015. These newer model year trucks are responsible for slightly less NOx and PM emissions as compared to model year 2010 or older trucks at 4.092 tpd and 0.028 tpd, respectively. The remaining 23 percent of drayage trucks accessing the port are comprised of the newest model years 2016-2021[59] and contribute the least amount of NOx and PM emissions at 1.472 tpd and 0.008 tpd, respectively.

Several state goals have focused on the need to accelerate the adoption of lower emission technologies, in particular zero-emission vehicles. One notable example is CARB's Draft Mobile Source Strategy[60]. 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 percent ZE drayage truck fleet (trucks that visit ports and railyards) by 2035, and 100 percent ZE off-road equipment operations by 2035[61].

Collectively, the San Pedro Bay Ports have also adopted strategies to ensure that trucks accessing the Ports meet the cleanest standards, including zero-emissions. In the 2010 Clean Air Action Plan, the Ports implemented the Clean Truck Program, effectively phasing out older pre-2007 model year trucks. In the 2017 CAAP, the Ports revised the Clean Truck Program to support the state's zero-emissions 2035 truck goals by ensuring all certified zero-emission trucks accessing the Ports are exempt from paying a fee to access the Ports. The Ports assessed that the fee requirement would

---

[59] South Coast AQMD. Memorandum, 12 December 2020. Page 3. Accessed at: WAIRE Program (aqmd.gov) (PDF page 1860).

[60] CARB. 2020 Mobile Source Strategy. Accessed at: https://ww2.arb.ca.gov/resources/documents/2020-mobile-source-strategy.

[61] South Coast AQMD. May 7, 2021. Rules 2305 and 316 Final Staff Report. Accessed at: WAIRE Program (aqmd.gov).

incentivize truck fleet turnover so that near-zero-emission trucks would comprise 70 to 90 percent of the Ports drayage truck fleet[62].

South Coast AQMD staff assessed and provided information on commercial availability for zero-emission truck market when developing the warehouse indirect source rule (Rules 2305 and 316). South Coast AQMD has already funded over 1,200 near-zero-emission trucks that are operating in commercial service today. Near-zero-emission 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 Class 8 long haul and/or drayage truck operations[63]. The zero-emission truck market is starting to grow quickly, 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. There are expected to be 62 models of medium duty (e.g., Class 4-7) zero-emission trucks commercially available during 2021[64], and zero-emission Class 8 trucks are expected to be introduced in late 2021 and 2022[65]. Additionally, zero-emission yard trucks are commercially available today and have been operating at warehouses since 2015[66]. Manufacturers that have begun offering battery-electric ZE yard trucks for sale commercially including OrangeEV, Kalmar Ottawa, and BYD.

Based on the public information presented at the September 9, 2020 scoping meeting for the California High-Speed Rail Project from Los Angeles to Anaheim, BNSF will require the use of all electric cargo handling equipment at its proposed Colton intermodal railyard. LAHD and BNSF should include the same requirement for the SCIG intermodal railyard since both railyard facilities will be operated by BNSF.

Based on CARB's Advanced Clean Fleet Truck Rulemaking[67], ZE drayage trucks, cargo handling equipment (including yard tractors) are technically feasible and commercially available. In order to successfully implement zero-emission container movement during the lifetime (e.g., 50 years) of the SCIG project, it is important that LAHD and BNSF include specifics regarding the schedule, performance standards, and process in the recirculated Revised Draft EIR, as follows.

- 100 percent of drayage trucks must be zero-emission, and 100 percent of cargo handling equipment including yard tractors must be electric by opening day or by 2025, whichever comes first.

---

[62] San Pedro Bay Ports. Clean Air Action Plan 2017. "Clean Vehicles and Equipment Technology and Fuels". Pages 33 through 39.

[63] Near-Zero Emission Natural Gas Trucks Showcased by Fleets in Port of Long Beach Clean Truck Parade (apnews.com).

[64] https://globaldrivetozero.org/tools/zero-emission-technology-inventory/.

[65] Examples: https://www.volvotrucks.us/news-and-stories/press-releases/2020/december/volvo-trucks-introduces-the-volvo-vnr-electric-model-in-the-us-canada/, https://freightliner.com/trucks/ecascadia/.

[66] Example: https://orangeev.com/orange-ev-announces-initial-sales-of-its-t-series-zero-emission-electric-terminal-truck-an-industry-leading-first/.

[67] CARB. Advanced Clean Fleets. Accessed at: https://ww2.arb.ca.gov/our-work/programs/advanced-clean-fleets.

2. **Accelerated Use of Tier 4 or Newer Line-Haul Locomotives Entering SCIG.**

In December 2019, South Coast AQMD's Governing Board approved a program announcement with $30 million from the Volkswagen Environmental Mitigation Fund for the Combustion Freight and Marine Projects, which will provide $1.35 million for repowering and replacement of 64 locomotives to Tier 4 engines. The 2010 CAAP included a measure for new near-dock railyard that included a goal of 95 percent Tier 4 line-haul locomotives serving the ports by 2020. In addition, Tier 4 locomotive engines, demonstration projects for design and development of zero-emission as well as beyond Tier 4 line-haul locomotives are ongoing across the country. Line-haul locomotive technologies beyond Tier 4 include battery-electric hybrid consist applications of battery electric locomotives in conjunction with Tier 4 locomotives. Zero-emission locomotive technologies range from hydrogen fuel cell to battery electric. Therefore, LAHD and BNSF should commit to using Tier 4 locomotives upon project operation and commit to accelerating the turnover to ZE line-haul locomotives as follows.

- By opening day for the Proposed SCIG project, 95 percent of line-haul locomotives used at the proposed SCIG site must be Tier 4 or cleaner;
- The remaining 5 percent of non-Tier 4 locomotives must be Tier 2 or cleaner;
- By 2030 introduce zero-emission line-haul locomotives, until all line-haul locomotives visiting the proposed SCIG site are zero-emission; and
- If by 2030, if all line-haul locomotives cannot feasibly achieve zero-emissions, then LAHD shall:
    - Specify the percentage, each year on and after 2030 that zero-emission line-haul locomotives can be achieved, until all line-haul locomotives visiting the proposed SCIG project will be zero-emissions; and
    - Provide substantial evidence why a schedule other than 100 percent zero-emission line-haul locomotives by 2030 is needed.

3. **Accelerated Use of Tier 4 or Newer Switch Locomotives at SCIG.**

In December 2019, South Coast AQMD's Governing Board approved a program announcement with $30 million from the Volkswagen Environmental Mitigation Fund for the Combustion Freight and Marine Projects, which will provide $1.35 million for repowering and replacement of switch locomotives to Tier 4 engines[68]. Therefore, LAHD and BNSF can and should accelerate the turnover and use of switch locomotives to Tier 4 engines. In addition, there are multiple demonstration projects for the design and development of zero-emission switch locomotives across the country. Zero-emission switcher locomotive technologies range from hydrogen fuel cell to battery electric. Based on discussions with vendors that are developing zero-emission switcher locomotives, commercialization of zero-emission locomotives could occur as early as 2023.

- By opening day for the Proposed SCIG project, all switcher locomotives used at the proposed SCIG site must be Tier 4 or cleaner; and
- By 2030 all switcher locomotives must be zero-emission.

---

[68] South Coast AQMD. December 2019. Available at: http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2019/2019-dec6-007.pdf.

- If by 2030, if all switch locomotives cannot feasibly achieve zero-emissions, then LAHD shall:
    - Specify the percentage, each year on and after 2030 that zero-emission switch locomotives can be achieved, until all switch locomotives visiting the proposed SCIG project will be zero-emissions; and
    - Provide substantial evidence why a schedule other than 100 percent zero-emission switch locomotives by 2030 is needed.

C. Fenceline and Community Monitoring and Public Notification System Must be Implemented

LAHD should adopt a mitigation measure requiring the SCIG facility to implement a fenceline and community air monitoring system to collect and provide the public with real-time data, similar to that required for refineries under AB 1647 and South Coast AQMD Rule 1180. The system would include a community notification system to alert the public of an exceedances detected at the monitors.

D. Project Design Features Capable of Further Reducing Air Quality Impacts and Health Risk Impacts Must be Implemented

Project design features for the SCIG project that LAHD must implement include the followings:

- Require enhanced buffer or setbacks of at least 1,000 feet.
- Require locomotive testing and maintenance activities be located as far away as feasible from sensitive receptors.
- Truck entrances and exits are not facing sensitive receptors and trucks are prohibited from traveling past sensitive land uses.
- Truck traffic must occur inside the SCIG site to ensure no trucks queuing or idling outside.

Conclusion
Pursuant to California Public Resources Code Section 21092.5(a) and CEQA Guidelines Section 15088(b), South Coast AQMD staff requests that the Lead Agency provide South Coast AQMD staff with written responses to all comments contained herein prior to the certification of the Revised Final EIR. In addition, issues raised in the comments should be addressed in detail giving reasons why specific comments and suggestions are not accepted. There should be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice. (CEQA Guidelines Section 15088(c).) Conclusory statements do not facilitate the purpose and goal of CEQA on public disclosure and are not meaningful, informative, or useful to decision makers and to the public who are interested in the SCIG project. Further, when LAHD makes the finding that the recommended mitigation measures and project design features that are identified in the comments are not feasible, LAHD should describe the specific reasons supported by substantial evidence for rejecting them in the Revised Final EIR (CEQA Guidelines Section 15091.)

ATTACHMENT B

The information contained within this attachment describes the steps that South Coast AQMD staff used to prepare the sensitivity analysis. The sensitivity analysis was based on the SCIG project's technical files available to South Coast AQMD staff.

South Coast AQMD staff conducted the following steps and considerations before performing the air dispersion modeling sensitivity analysis.

1. **Selection of the Criteria Pollutant**: The U.S. EPA's guidance for modeling NO2 impacts has changed since the 2013 Final EIR. The air dispersion modeling sensitivity analysis focuses on the criteria pollutant NO2.

2. **Selection of the Benchmark Analysis Year**: According to Table 4-2 of the Revised Draft EIR, annual NO2 concentrations in years 2020, 2023, and 2030 were found to be below the federal annual NO2 standard. South Coast AQMD staff focused the sensitivity analysis on annual NO2 concentration in future years 2023 and 2030.

3. **Selection of Emission Source Categories and Source Group**: The sensitivity analysis focuses on the highest contributing sources of annual NO2 concentration. In order to identify the contributing sources, South Coast AQMD staff reviewed LAHD's concentration results for annual NO2 in years 2023 and 2030, which are found in the following LAHD files: PP.2023.NOx.PERIOD.QA.csv and PP.2030.NOx.PERIOD.QA.csv. These files allowed staff to find the receptor with the maximum annual NO2 concentration and to further analyze which source categories and specific source groups within these categories had the highest percent contribution to the overall maximum annual NO2 concentration. In 2023, the highest contributors to annual NO2 concentrations came from the following source categories: cargo handling equipment (CHE) and non-SCIG tenant trucks. Within these source categories, the highest contributing source groups were Fast Lane CHE, Fast Lane trucks, and California Cartage CHE. In 2030, the highest contributors to annual NO2 concentrations came from the following source categories: SCIG onsite trucks and SCIG offsite trucks. Within these source categories, the highest contributing source groups were: MIO, EGR, INR, INC, EGC, IGO, IGI and 130634, 130639, 143814, 124688. These highest contributing source groups within these source categories were selected for air dispersion modeling sensitivity analysis (Image B-1 and Image B-2).

Image B-1 – Source Categories and Source Groups for South Coast AQMD Staff's Sensitivity Analysis 2023

	A	B	C	D	E
1	Run/Source Group	Conc	% of Total	Input File	Source Grp
2	AVERAGE CONC	15.38822	100	NA	All
3	CHET/FLCHE	8.685125	56%	CHET	FLCHE
4	TRUCKST/FLTRUCK	4.143338	27%	TRUCKST	FLTRUCK
5	CHET/CCCHE10	1.136602	7%	CHET	CCCHE10
6	TRUCKST/CCTRUCKS	0.177854	1%	TRUCKST	CCTRUCKS
7	TRUCKON/MIO	0.133628	1%	TRUCKON	MIO
8	LHMOV/A	0.10325	1%	LHMOV	A
9	LHIDLE/KI	0.092427	1%	LHIDLE	KI
10	ALAMCOR/WB	0.058322	0%	ALAMCOR	WB
11	OFFTRV3D/98205	0.053813	0%	OFFTRV3D	98205
12	LHMOV/K	0.051837	0%	LHMOV	K
13	SWITMOV/SWIT_MOV	0.048549	0%	SWITMOV	SWIT_MOV
14	OFFTRSI/127664	0.035744	0%	OFFTRSI	127664
15	OFFTRSI/17223	0.035676	0%	OFFTRSI	17223
16	TRUCKON/EGR	0.035128	0%	TRUCKON	EGR
17	OFFTRV3D/1643182	0.031272	0%	OFFTRV3D	1643182
18	OFFTRSI/98163	0.029578	0%	OFFTRSI	98163
19	LHMOV/H	0.02757	0%	LHMOV	H
20	OFFTRSI/2663323	0.025681	0%	OFFTRSI	2663323
21	OFFTRSI/89137	0.021084	0%	OFFTRSI	89137
22	OFFTRSI/127658	0.019636	0%	OFFTRSI	127658
23	TRUCKON/INR	0.019568	0%	TRUCKON	INR
24	OFFTRSI/17057	0.017542	0%	OFFTRSI	17057
25	OFFTRSI/124688	0.017521	0%	OFFTRSI	124688
26	LHIDLE/II	0.015778	0%	LHIDLE	II
27	OFFTRSI/96376	0.014305	0%	OFFTRSI	96376
28	ALAMCOR/EB	0.013478	0%	ALAMCOR	EB
29	CCLOCM/CC10ACMV	0.013353	0%	CCLOCM	CC10ACMV
30	TRUCKON/INC	0.012578	0%	TRUCKON	INC
31	TRUCKON/EGC	0.012441	0%	TRUCKON	EGC
32	OFFTRSI/127667	0.011427	0%	OFFTRSI	127667
33	OFFTRSI/130639	0.010663	0%	OFFTRSI	130639

The highlighted are the source groups selected for modeling by South Coast AQMD staff based on identification of Receptor 386150,3739000 as maximum by draft EIR.

2023 2030

**Image B-2 – Source Categories and Source Groups for South Coast AQMD Staff's
Sensitivity Analysis 2030**

	A	B	C	D	E
1	Run/Source Group	Conc	% of Total	Input File	Source Group
2	AVERAGE CONC	16.99587	100	NA	All
3	TRUCKON/MIO	3.625879	21%	TRUCKON	MIO
4	TRUCKON/EGR	2.966251	17%	TRUCKON	EGR
5	OFFTRSI/130634	2.931546	17%	OFFTRSI	130634
6	OFFTRSI/130639	1.771898	10%	OFFTRSI	130639
7	OFFTRSI/143814	1.164286	7%	OFFTRSI	143814
8	OFFTRSI/124688	1.01724	6%	OFFTRSI	124688
9	TRUCKON/INR	1.008012	6%	TRUCKON	INR
10	OFFTRSI/133193	0.699313	4%	OFFTRSI	133193
11	OFFTRSI/127658	0.120354	1%	OFFTRSI	127658
12	REFUELTR/IA	0.119803	1%	REFUELTR	IA
13	TRUCKON/INC	0.11415	1%	TRUCKON	INC
14	LHMOV/A	0.107088	1%	LHMOV	A
15	HOSTLER/HOSTLER	0.101492	1%	HOSTLER	HOSTLER
16	REFUELTR/IV	0.090134	1%	REFUELTR	IV
17	CHET/CCCHESCE	0.076456	0%	CHET	CCCHESCE
18	TRUCKON/EGC	0.071523	0%	TRUCKON	EGC
19	ALAMCOR/WB	0.065902	0%	ALAMCOR	WB
20	SWITMOV/SWIT_MOV	0.053523	0%	SWITMOV	SWIT_MOV
21	OFFTRSI/92931	0.050315	0%	OFFTRSI	92931
22	OFFTRSI/106207	0.045959	0%	OFFTRSI	106207
23	TRUCKON/IGO	0.042837	0%	TRUCKON	IGO
24	CHET/FLCHE	0.037456	0%	CHET	FLCHE
25	OFFTRSI/17028	0.037186	0%	OFFTRSI	17028
26	TRUCKON/IGI	0.035675	0%	TRUCKON	IGI
27	OFFTRSI/98163	0.035593	0%	OFFTRSI	98163
28	TRUCKST/FLTRUCK	0.035302	0%	TRUCKST	FLTRUCK
29	OFFTRSI/1643190	0.032708	0%	OFFTRSI	1643190
30	OFFTRSI/17034	0.025646	0%	OFFTRSI	17034
31	LHMOV/H	0.02528	0%	LHMOV	H
32	OFFTRSI/17223	0.023778	0%	OFFTRSI	17223
33	OFFTRSI/127664	0.023017	0%	OFFTRSI	127664

The highlighted are the source groups selected for modeling by South Coast AQMD staff based on identification of Receptor 386150,3739000 as maximum by draft EIR.

4. **AERMOD Runs Set-Up**: Using the AERMOD input files available to South Coast AQMD staff, South Coast AQMD staff generated four new AERMOD input files for each source group category discussed above. The input files were adjusted to include the following new information (Table B-1; see also Table A-2):
   - AERMOD Version: 19191 (available in August 2019)
   - Meteorological Data: Long Beach Meteorological Station (KLGB) data Version 9, Years 2011 – 2016
   - Ambient Ratio Method – 2 (ARM2): U.S. EPA's approved new air dispersion methodology for modeling NO2
   - Emission Rates: LAHD used unitized emission rates for all sources. Actual emission rates were used in all South Coast AQMD runs and were based on emission rates found in the LAHD file "criteria.emission.csv". Actual emission rates instead of unitized emission rates are required when using ARM2. This is because ARM2 uses a variable ambient NO2 to NOx conversion ratio based on a polynomial conversion factor equitation which cannot be multiplied to the highest modeled NO2 concentration from a source's unitized emission rate, as the previous ARM method allowed. Instead, the ARM2 ratio is applied within the AERMOD.
   - Sensitive Receptors: South Coast AQMD staff did not adjust LAHD's onsite and offsite receptor designation for the sensitivity analysis. Instead, staff relied on LAHD's original receptor grid from the 2013 Final EIR. AERMOD Run numbers 1 and 3 relied on LAHD's receptor grid as of May 2010, which considered 9007 receptors. AERMOD Run numbers 2 and 4 relied on LAHD's receptor grid as of November 2010, which

considered 10,283 receptors. In all four AERMOD runs, 296 receptors were treated as onsite receptors and the remaining receptors were treated as offsite receptors.

Table B-1 – Description of AERMOD Runs Performed by South Coast AQMD Staff for the Air Dispersion Modeling Sensitivity Analysis

AERMOD Run Number	Analysis Year	Title of the AERMOD Sensitivity Input File	Source Group Category	Source Group(s)
1	2023	SCIG_CHET_2023	Non-SCIG Tenant CHE	Fast Lane CHE (FLCHE) and California Cartage CHE (CCCHE10)
2	2023	CEQA Trucks_2023	Non-SCIG Tenant Truck	Fast Lane Trucks (FLTRUCK)
3	2030	SCIG_TRUCKON_2030	SCIG Onsite Truck	SCIG Onsite Trucks (MIO, EGR, INR, INC, EGC, IGO, IGI)
4	2030	CEQA_Trucks_2030	SCIG Offsite Truck	SCIG Offsite Trucks (130634, 130639, 143814, 124688, 133193)

5. Compiling and Analyzing Modeling Results:

Compiling Modeling Results

After set-up, South Coast AQMD staff performed the four AERMOD runs identified in Table B-1 and compiled the resulting concentration data into an excel workbook entitled "South Coast AQMD Comparison". The results from the sensitivity runs included five years of concentration data for each source group. The concentration data was organized individually by source group and benchmark analysis year. South Coast AQMD staff added the modeled concentrations from each source group together, resulting in a set of composite concentrations over a five-year period for each offsite receptor in each benchmark analysis year. The composite concentration at each receptor was then used to compare to concentration data from LAHD's analysis. Before comparing concentrations between LAHD's and South Coast AQMD staff's analyses, South Coast AQMD staff compiled concentration data from LAHD's analysis into the "South Coast AQMD Comparison" workbook. This data was taken from the following LAHD files: "PP.2023.NOX.PERIOD.QA.csv" and "PP.2030.NOX.PERIOD.QA.csv". Information from LAHD's analysis was compiled by analysis year and included receptor coordinates and the total concentration at each receptor for all sources in LAHD's analysis (i.e., the sum concentration from all 860 sources). Additionally, South Coast AQMD staff included concentration data from each individual source group that was being analyzed in the sensitivity analysis (see Table B-1 for reference of source groups analyzed in the sensitivity analysis). The individual concentration from each source group was summed, resulting in a composite concentration of the source groups for each receptor in each benchmark analysis year. This composite concentration could then be compared to South Coast AQMD staff's composite concentration.

The comparison would indicate if the updates South Coast AQMD staff made to the air dispersion modeling in the sensitivity analysis influenced the resulting offsite receptor concentrations. If the results showed that offsite receptor concentrations increased with the sensitivity analysis, then it would indicate that LAHD's methodology in the Revised Draft EIR has potentially underestimated the annual NO2 concentration. However, if the results showed that the offsite receptor

concentrations decreased, then it would indicate that LAHD's methodology has likely not underestimated the annual NO2 concentration. Table B-2 below illustrates the compilation of concentration data and explains how the data was used by South Coast AQMD staff in the sensitivity analysis.

Table B-2 – South Coast AQMD Comparison File

Analyzing the Modeling Results

The first method used to analyze if concentrations increased or decreased required South Coast AQMD staff to find the difference between LAHD's composite concentration and the sensitivity analysis composite concentration described above. A negative result would indicate that South Coast AQMD's composite concentration was higher than LAHD's concentration whereas a positive result would indicate the opposite. South Coast AQMD staff used an Excel IF function to identify the resulting increases or decreases at each receptor analyzed and used an additional IF function to count the number of increases or decreases identified from the previous IF function.

An additional method was used to analyze how the increases or decreases in concentrations could influence the SCIG project's annual NO2 concentrations in years 2023 and 2030. This method required South Coast AQMD staff to first identify the resulting maximum concentration from the sensitivity analysis run in both analysis years. Once the receptor with the maximum concentration was identified, South Coast AQMD staff reviewed LAHD's data to identify what the original total concentration (i.e., sum of all 860 sources) was at that receptor and what the LAHD composite concentration for the specific source groups analyzed (refer to Table B-1) was at that receptor. The difference between the total concentration and the source group composite concentration allowed the identification of the remaining portion of NO2 concentrations coming from other source groups not analyzed in the sensitivity analysis. Using this concentration to represent the remaining source groups not analyzed, South Coast AQMD staff added it to the new maximum concentration identified from the sensitivity analysis, resulting in a new total maximum annual NO2 concentration at that receptor for all 860 sources in the analysis. The new maximum concentration could then be added to the highest ambient air quality NO2 background data between years 2017 and 2019 (Table B-3). The resulting concentration could then be compared to the federal annual NO2 standard to determine exceedance.

Table B-3 – Ambient Air Quality NO2 Background Data 2017 to 2019

Ambient Air Quality NO2 Background Data 2017 - 2019				
Criteria Pollutant: NO2				
SRA Location, Name, Station No.	Year	Max 1-hr (ppb)	98th Percentile 1-hr (ppb)	Annual Average AAM (ppb)
SRA 4 (South Coastal LA County 3) No. 33	2017	89.5	72.9	17.9
	2018	85.3	62.7	17.3
	2019	71.8	56.3	16.2
Address: 2425 Webster Ave, Long Beach CA 90810	Max	89.5	72.9	17.9
	Year	Max 1-hr (ug/m3)	98th Percentile 1-hr (ug/m3)	Annual Average AAM (ug/m3)
	2017	168.405433	137.1704589	33.68108661
	2018	160.502608	117.9778844	32.55211164
	2019	135.100671	105.9354847	30.48232419
	Max	168.405433	137.1704589	33.68108661

6. Discussion of the Air Dispersion Modeling Sensitivity Analysis Results

As seen in Table B-4 below, the results of the sensitivity analysis indicates that upwards of 80 percent of offsite receptors show increases in the annual NO2 concentrations when compared to the concentrations for the Revised Draft EIR.

Table B-4 – Concentration Results from the Air Dispersion Modeling Sensitivity Analysis

	Total Offsite Receptors Analyzed	Receptors with Concentration Increases	Percentage Increase	Receptors with Concentration Decreases	Percentage Decrease
2023	9,987	8,921	89%	1,066	10%
2030	9,987	8,249	82%	1,737	17%

SOURCE: South Coast AQMD staff. August 2021.

Further, as shown in Table B-5, in 2023, the sensitivity analysis, which modeled 15 of 860 emission source groups, generated a new maximum offsite ground-level annual NO2 concentration at 56.4 micrograms per cubic meter (ug/m3), which is just slightly below the national ambient air quality standard for annual NO2 at 57 ug/m3. In 2030, the new maximum offsite ground-level project concentration would also be close to the federal annual NO2 standard (Table B-6). Although the sensitivity analysis evaluated a small subset of emission source groups, the results were responsive and sensitive to the changes in AERMOD as discussed in Table A-2. Without performing an additional air dispersion modeling with the latest U.S. EPA guidance for all 860 source groups, the SCIG project's true NO2 impacts are unknown and might have been underestimated in the Revised Draft EIR.

Table B-5 – Maximum Offsite Ground-Level Project Concentrations from South Coast AQMD staff's Sensitivity Analysis in 2023

South Coast AQMD Staff's Sensitivity Analysis - Annual NO2, Three Source Groups, Year 2023				
A	B	C	D	E
Receptor Coordinate with Maximum Concentration X, Y	Maximum LAHD Concentration for Receptor (860 Source Groups)	Composite LAHD Source Group Concentrations (3 Source Groups: CCCHE10, FLCHE, FLTrucks)	NO2 Concentration from Remaining Source Groups (857 Source Groups) (Subtract B from C)	Composite South Coast AQMD Source Group Concentration (3 Source Groups: CCCHE10, FLCHE, FLTrucks)
386150, 3739000	15.38821655	12.82846285	2.559753699	20.18788

F	G	H	I
Sensitivity Analysis Maximum Concentration for Receptor (860 Source Groups) (Add E and D)	Maximum Concentration Plus Ambient Air Quality NO2 Background Data (ug/m3)	Ambient Air Quality Standard NO2 (ug/m3)	Exceedance?
22.7476337	56.4287203	57	No

Table B-6 – Maximum Offsite Ground-Level Project Concentrations from South Coast AQMD staff's Sensitivity Analysis in 2030

South Coast AQMD Staff's Sensitivity Analysis - Annual NO2, Three Source Groups, Year 2030				
A	B	C	D	E
Receptor Coordinate with Maximum Concentration X, Y	Maximum LAHD Concentration for Receptor (860 Source Groups)	Composite LAHD Source Group Concentrations (12 Source Groups: SICG Onsite Trucks MIO, EGR, INR, INC, EGC, IGO, IGI; SCIG Offsite Trucks 130634, 130639, 143814, 124688, 133193)	NO2 Concentration from Remaining Source Groups (848 Source Groups) (Subtract B from C)	Composite South Coast AQMD Source Group Concentration (12 Source Groups: SICG Onsite Trucks MIO, EGR, INR, INC, EGC, IGO, IGI; SCIG Offsite Trucks 130634, 130639, 143814, 124688, 133193)
386300, 3739650	16.9959	15.4486	1.5473	16.5937

F	G	H	I
Sensitivity Analysis Maximum Concentration for Receptor (860 Source Groups) (Add E and D)	Maximum Concentration Plus Ambient Air Quality NO2 Background Data (ug/m3)	Ambient Air Quality Standard NO2 (ug/m3)	Exceedance?
18.141	51.82208661	57	No

ATTACHMENTS C-1 TO C-5

Attachments C-1 to C-4 include AERMOD output files for the air dispersion modeling sensitivity analysis that South Coast AQMD staff performed. Attachment C-5 includes data sheets that were used as part of the sensitivity analysis. Due to the size (79.6 megabytes), and in order to save space, the AERMOD output files and data sheets are posted and available on the South Coast AQMD's CEQA website at: http://www.aqmd.gov/home/rules-compliance/ceqa/commenting-agency/comment-letters-year-2021/august-2021-igr-comment-letters.