

October 3, 2024

By electronic mail only

Ms. Colleen Liang, Environmental Programs and Planning Division Port of Oakland 530 Water Street Oakland, CA 94607 TermDev@portoakland.com

Dear Ms. Liang, Port Commissioners and Port Staff,

The Stop OAK Expansion Coalition, representing its 78 member organizations and hundreds of individuals, submits this comment (with attachments) to you regarding the "San Francisco Bay Area Oakland International Airport (OAK) Terminal Modernization and Development Project" (Project). This document provides new information for your consideration that was not reasonably known during the public comment period.

New data, regulations and standards published after the close of comments on the Port of Oakland's Draft Environmental Impact Report (DEIR) for its OAKLAND INTERNATIONAL AIRPORT TERMINAL MODERNIZATION AND DEVELOPMENT PROJECT in October 2023 renders the DEIR significantly outdated and insufficient under the California Environmental Quality Act (CEQA).

These new developments, cited and explained below, impose new realities on the Port that fundamentally change the validity of the DEIR's findings. They show a substantial increase in the proposed project's environmental impacts, which must be factored into updated analyses and findings in a Revised Environmental Impact Report (REIR).

Overall, the new information falls into two categories:

- 1) Data demonstrating the Port's baseline analysis, including assumptions about "marketbased demand" and expected growth in the number of airline passengers, is inaccurate and unsupported.
- 2) New information, including rules published by the EPA, that changes what must be factored into balancing the project's costs and benefits, as required by CEQA.

These new developments substantially increase the significance of the project's environmental impacts. As the Port notes in the DEIR:

"As described in CEQA and the CEQA Guidelines, public agencies are charged with the duty to avoid or substantially lessen significant environmental impacts where feasible. Where impacts cannot be mitigated to less-than-significant levels, public agencies have an obligation to balance a project's impacts on the environment against other factors, including economic, social, technological, legal, and other benefits."¹

Neither the Port nor the public can make informed and intelligent decisions on the environmental consequences of the proposed project or the feasibility of alternatives without updating the analysis in an REIR that accounts for the new information.

Part 1 Data demonstrating that the Port's analysis and assumptions about "market-based demand" and expected growth in the number of airline passengers is unsupported.

Two of the four Project objectives as stated in the DEIR expressly relate to accommodating projected increases in market-based passenger demand.² The DEIR makes the unsupported assumption that "market-based" passenger demand will nearly double by 2038.³ The DEIR, however, does not provide data to define or explain "market-based" passenger demand. Nor does the DEIR nor Appendix C ever account for the significant increase in video-conferencing in lieu of business and personal air travel. Instead, the DEIR uses the airport's highest passenger traffic year, 2019, as a baseline, entirely failing to account for changed circumstances over the last 5 years. These flawed assumptions do not accurately describe current and future conditions and render the Project Objectives useless for CEQA's purpose of considering Project Alternatives that may reduce or avoid significant environmental impacts while still achieving most project objectives. (See 14 CCR §§ 15124(b), 15126.6(a).)

• Port Data Published in 2024 Show Passenger Traffic Lower Than Projected in the DEIR

New data from the Port website and a Port staff presentation at the July 2024 Port Board of Commissioners meeting show that the DEIR's baseline projections for market demand for FY 2023 and FY 2024⁴ are flawed.

DEIR Chapter 2 Project Description 2.4 Forecasts states that "passenger numbers are forecast to recover to pre-pandemic levels at OAK in the 2023-2024 timeframe." Using Appendix C Table 1-1 PAL Forecast summary as a basis, the predicted annual passenger traffic would reach 17.65 million by 2028 and rise to 24.7 million by 2038. (Because this summary only lists enplanements, and the Port projections generally list both enplanements and deplanements, the numbers in Table 1-1 have been multiplied by 2.)

¹ DEIR Introduction 1.1 Purpose

² DEIR, Executive Summary ES.2 Project Objectives

³ DEIR Appendix CTable1-1

⁴ The Port uses fiscal years for its analysis.

The projected increase in demand for both 2028 and 2038 are based on a baseline assuming prepandemic (e.g. 2019) demand levels.⁵ The DEIR, furthermore, assumes that demand will have returned to 2019 levels by 2024.

More up-to-date data from the Port presented by its staff in July 2024, however, shows that passenger numbers have not recovered to 2019 levels as predicted.⁶ (See Appendix Table A1)

A report previously presented by the staff, the Annual Comprehensive Financial Report for the Years ended June 20, 2023, and 2022,⁷ provides this explanation:

"The surge in business air travel demand between major destinations cities in Northern and Southern California did not materialize in the same way leisure travel demand increased post pandemic. Historically a primary driver of passenger traffic at the Airport, business travel demand within the State continues to lag behind pre-pandemic levels. This decline is attributed in part to the widespread adoption of web-based virtual meeting arrangements aimed at enhancing work-life balance, thereby reducing the need and frequency of travel. *The trajectory of this trend, whether it will revert or persist in the foreseeable future, remains uncertain.*" (emphasis added)

This strongly suggests a long-term change in business travel between northern and southern California that will result in passenger numbers below those projected. Here, therefore, the projected increase in passenger demand (which is a primary impetus for the Project) is based on an inaccurate baseline assuming a return to 2019 demand levels. In fact, the DEIR projection is off by -23.3% for FY 2028, according to data in the staff's July report. (See Appendix Table A1).

Further research by the Stop Oak Expansion Coalition shows that the staff's projections in the July 2024 financial report were higher than data posted on the Port's website at https://www.oaklandairport.com/business/facts-figures.

Passenger numbers from this source were -3.6% lower than the staff report for FY 2023 and -6.7% lower for FY 2024. Note that passenger numbers actually decreased between FY 2023 and FY 2024. (See Appendix Table 1) These differences are outside the margin of error.

The bar graph below provides a visual comparison of three forecasts from the Port, based on the DEIR, the July 2024 staff financial report and the Port's actual data on the facts and figures section of its website.

⁵ DEIR at 2-6 to 2-7.

⁶ Eleven Months Ending May 31, 2024 Financial Highlights Unaudited Results Board of Port Commissioners Meeting July 25, 2024 Available at <u>file:///C:/Users/Owner/Downloads/Attachment.pdf</u>

⁷ Published December 2023 at https://www.portofoakland.com/financial-informatio/file-annualcomprehensive-financial-report-acfr-for-years-ended-june-30-2023-2022-pdf/



Figure 1 Comparison of Port Projections Show Lower Actual Passenger Traffic Than Projected

To the extent that new information reveals that the baseline used by the DEIR to project future demand is manifestly incorrect, the baseline is not supported by substantial evidence in violation of CEQA; "an EIR must describe the existing environment. It is only against this baseline that any significant environmental effects can be determined." (*Save Our Peninsula Committee v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 119-120 [citing *County of Amador v. El Dorado County Water Agency, supra,* 76 Cal. App. 4th at p. 952; Guidelines, §§ 15125, subd. (a), 15126.2, subd. (a).].) Reference to either historic and/or projected conditions to formulate a baseline is permitted only when "supported by reliable projections based on substantial evidence" and "where necessary to provide the most accurate picture practically possible...." (Cal. Code Regs., tit. 14, § 15125.) In all instances, moreover:

"[t]he public and decision makers are entitled to the most accurate information on project impacts practically possible..., and the choice of a baseline must reflect that goal....[A]n agency must not create unwarranted barriers to public understanding...by unnecessarily substituting a baseline of projected future conditions for one based on actual existing conditions"

(*Neighbors for Smart Rail v. Exposition Metro Line Construction Authority* (2013) 57 Cal.4th 439, 455-56.) An EIR's description of the environmental setting should be sufficiently comprehensive to allow the project's effects "to be considered in the full environmental context." (CEQA Guidelines § 15125(c).) The description of the environmental setting should be sufficiently clear to allow informed comparison of pre-project and post-project conditions. (*County of Amador v. El Dorado County Water Agency* (1999) 76 Cal.App.4th 931, 955.)

The flawed baseline for passenger demand alone is sufficient to warrant recirculation of the DEIR. (14 CCR § 15088.5(a)(2), (4).) More specifically, the projected increase in demand and traffic were

based in part on "[c]urrent and future activity from commercial airlines"⁸ which necessarily includes the flawed assumption that current demand is commensurate with pre-pandemic levels. As a result, all environmental impact analysis related to and/or implicating current and future demand at the airport is tainted by the inaccurate baseline analysis.

Moreover, one of the express objectives against which the Project and potential alternatives were evaluated was the need to "size" new terminal facilities to "to accommodate the market-based passenger demand at industry standard levels of service...."⁹ Project alternatives were also evaluated in light of "Factor 2 Screening" criteria including "Level of Service" whereby "[t]hose alternatives that would accommodate market-based passenger demand at industry standard levels of service are considered to be more viable."¹⁰ To the extent that projected demand is inaccurate for the reasons described above, and where the Project and alternatives were evaluated based on their respective ability to accommodate that artificially high demand, the alternatives analysis is deficient and unsupported by substantial evidence. (See 14 CCR §§ 15124(b), 15126.6(a).)

This new data shows that there is currently no evidence to back up the claim, articulated in the DEIR, that "market-based demand" will almost double passenger traffic by 2038 or otherwise reach passenger traffic projections stated in the DEIR. As a result, it is incumbent on the Port to reassess its forecasts and amend the project accordingly, through a Revised Environmental Impact Report. (See, 14 CCR § 15088.5(a)(2), (4).)

• Final Approval of the Last Segment of CA High Speed Rail Between Northern and Southern California Will Likely Divert Intra-State Air Travelers to High-Speed Rail (HSR)

On June 27, 2024, the California High-Speed Rail Authority (CHSRA) announced final approval of environmental documents for the final segment of the high-speed rail (HSR) line between the San Fernando Valley and the Antelope Valley. The CHSRA's press release noted that, "This major milestone is the final environmental clearance needed for the route from downtown San Francisco to downtown Los Angeles."¹¹

A February 2024 *Ridership and Revenue Forecasting Report to the 2024 Business Plan*¹² was conducted for the California High-Speed Rail Authority by DB E.C.O. North America, Inc. It used a state-of-the-art model that considered statewide data for California as well as travel links to and

⁸ DEIR at 2-7.

⁹ DEIR at 2-9, 4-2 & 4-6.

¹⁰ DEIR at 4-2 & 4-6.

¹¹ California High Speed Rail Authority, News Release: California High-Speed Rail Authority Board Clears Final Environmental Milestone to Connect Downtown San Francisco to Downtown Los Angeles, 463 miles now environmentally cleared, June 27, 2024 Available at <u>https://hsr.ca.gov/2024/06/27/news-release-california-high-speed-rail-authority-board-clears-final-environmental-milestone-to-connect-downtown-san-franciscoto-downtown-los-angeles/</u>

¹² Available at <u>chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://hsr.ca.gov/wp-</u> <u>content/uploads/2024/05/Ridership-and-Revenue-Forecasting-Report.pdf</u>

from neighboring states. It found that HSR can be considered a viable competitor to air travel for connecting trips to the Los Angeles Basin.

The study projected Phase 1 (San Francisco – Anaheim) ridership to be 27.56 million in 2030, 28.39 million in 2040 and 29.01 million in 2050.

The study further examines how HSR is likely to compete with air travel, finding that it will divert 4.35% of air trips in Phase 1, with the majority of diverted trips coming from automobiles. (see p. 58)

Applying this data, air passengers diverted from OAK and other San Francisco Bay Area airports to HSR, as follows:

Year	HSR Passengers	Number diverted based on		
		4.35%		
2030	27.57 million	1.12 million		
2040	28.39 million	1.23 million		
2050	20.01 million	1.26 million		

Table 1 Projected Diversion of Air Passengers from San Francisco Bay Area Airports to HSR

While it is not conclusive what proportion of air travelers will be diverted to rail from which San Francisco Bay Area airport, OAK's share of the diversion will be significant. As the DEIR notes, travel between northern and southern California is a significant portion of its overall business. The reduction in business travel has already made the DEIR's passenger forecast outdated. Non-business travelers will also be among those diverted to HSR, which will further decrease OAK's passenger numbers.

This new development is also likely to make it more difficult for the Port to raise funds for building a new terminal and other aspects of the project intended to serve a level of projected increased passenger traffic that is not supported by new data (see above). The Biden-Harris administration has announced funding for \$66 billion from the Bipartisan Infrastructure Act that will be used for investment in passenger rail, including California HSR. This is the largest investment since creation of Amtrak 50 years ago.¹³ In addition, the Federal Railroad Administration (FRA)'s Northwest Regional Working Group met in June 24 to prepare an Amtrak Long-Distance Service study that will include upgrades for passenger rail service between San Francisco and Vancouver.¹⁴

HSR will be competitive for funding with air travel, as it costs less to build the infrastructure to support it. A chart on the California High Speed Rail Authority's website compares the dollar cost (in billions) for building the infrastructure capacity to move 7,500 people per direction per hour,

¹³ FACT SHEET: President Biden Announces Billions to Deliver World-Class High-Speed Rail and Launch New Passenger Rail Corridors Across the Country December 2023 <u>https://www.whitehouse.gov/briefing-room/statements-releases/2023/12/08/fact-sheet-president-biden-announces-billions-to-deliver-world-class-high-speed-rail-and-launch-new-passenger-rail-corridors-across-the-country/</u>

¹⁴ Federal Railroad Administration (FRA) Amtrak Daily Long-Distance Service Study Northwest Regional Working Group Meeting June 6, 2024 <u>https://fralongdistancerailstudy.org/wp-</u> content/uploads/2024/07/240606_FRA-LDSS-Northwest-Meeting-Summary-4.pdf

which requires a range of \$77 to \$113 billion for high-speed rail, compared to \$122 to \$199 billion for highways and airports.¹⁵

The recent developments relating to the approval and future construction of the HSR line connecting northern and southern California constitutes new information that will affect future demand at the Airport, and will, therefore, change reasonably foreseeable environmental impacts and the evaluation of Project objectives, needs, and alternatives. Thie new information requires recirculation of the DEIR. (14 CCR §§ 15088.5(a)(2) & (a)(4).) Omitting any analysis of what air travel trips will be diverted to High Speed Rail trips fails to satisfy CEQA's baseline standards. (14 CCR § 15125(c); *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal.App.4th 931, 955.)

Part 2 New information, including rules published by the EPA, changes what must be factored into the project's cost/benefit analysis, as required by CEQA.

• New EPA Standard for Particulate Matter (Soot) Pollution

In the Executive Summary of the DEIR, Table ES-2 recognizes significant increases in air pollution from the Proposed Project, with most of it caused by aircraft operations. The Port ends its analysis there, stating that it does not have authority to regulate aircraft operations/emissions. As a result, the DEIR lacks data showing how increased flights from building a new terminal and adding 16 gates to meet "market-based" demand would affect air quality. The Table points to similar significant but "unavoidable" impact from toxic air contaminants on airport workers and from concentrations of pollution on sensitive receptors.

That the Port may lack authority to regulate aircraft operations / emissions does not relieve the Port of the duty to evaluate and describe significant impact to air quality resulting from the Project. Here, the Port simply quantifies construction and operation related emissions and compares those with various emissions and health hazard significance thresholds. The DEIR fails, however, to describe how the known quantity of pollutants created by the project will impact public health. Such an approach violates CEQA; specifically, an EIR cannot simply label an impact "significant" without first providing a discussion and analysis. Such a backward approach "allows the lead agency to travel the legally impermissible easy road to CEQA compliance." (*Berkeley Keep Jets Over the Bay Comm. v. Board of Port Comm'rs* (2001) 91 Cal.App.4th 1344, 1370; see also Sierra Club v. County of Fresno (2018) 6 Cal.5th 502, 519 [a "sufficient discussion of significant impacts requires not merely a determination of whether an impact is significant, <u>but some effort to explain the nature and magnitude of the impact</u>."] [emphasis added]; and *Cleveland Nat'l Forest Found. v. San Diego Ass'n of Gov'ts* (2017) 3 Cal.5th 497, 514.) The Port has authority to impose significant mitigation measures, necessitating a full description and analysis of the impact to be mitigated.

¹⁵ Phase 1 High Speed Rail Cost Compared to Highway/Airport Cost <u>https://hsr.ca.gov/high-speed-rail-in-</u> california/statewide/

Since the DEIR was released, the federal regulatory context described in Chapter 3.3.1.1 has changed substantially. The new standard for particulate matter (PM), described below, lowers the level of permissible PM by 25%. It thus renders the data in DEIR obsolete.

The EPA released the new National Ambient Air Quality Standard (NAAQS) on Feb. 7, 2024, lowering the allowable level of particulate matter (soot), PM from 12 micrograms per cubic meter to 9.¹⁶ The EPA's press release noted that the new standard will prevent 4,500 premature deaths nationally, 290,000 lost workdays and up to \$46 billion in net health benefits. By 2032, every \$1 spent to comply will generate up to \$77 in human health benefits.¹⁷

Although Alameda County, where OAK is located, is under the current cap, it is expected to be out of compliance in 2026 when the EPA determines compliance under the new rule.¹⁸ If that happens the EPA can set tougher rules on the largest sources of emissions, which would include OAK. The decreased allowable level of PM potentially implicates and triggers findings of significance pursuant to the thresholds set forth in the DEIR. Specifically, and given the impending non-attainment of Alameda County for PM, the Project will result in significant impacts, and specifically by resulting in "a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard."¹⁹ These effects are not analyzed in the DEIR. (See, South of Market Community Action Network 33 Cal.App.5th 321.)

Similarly, the DEIR must, but fails to, "discuss any inconsistencies between the proposed project and applicable general plans, specific plans and regional plans," including any applicable state implementation plan in effect pursuant to the Clean Air Act. (See 14 CCR § 15125(d); and John R. Lawson Rock & Oil, Inc. v. State Air Resources Bd. (2018) 20 Cal.App.5th 77, 110.) Here, the impending revisions to the NAAQS for PM described above, combined with the subsequent nonattainment by the County, will necessitate a revised state implementation plan and the DEIR must assess potential inconsistencies with that revised plan.

The Bay Area Air Quality Management District (BAAQMD) announced its full support for the new rule the same day it was released. Executive Officer Dr. Phil Fine said, "The Air District fully supports the adoption of the more stringer National Ambient Air Quality Standards for particulate matter. The

https://www.epa.gov/pm-pollution/final-reconsideration-national-ambient-air-quality-standards-particulatematter-

¹⁶ U.S. Environmental Protection Agency, *Final Reconsideration of the National Ambient Air Quality Standards for Particulate Matter (PM)* Feb. 7, 2024 Rule, Overview and other related documents at

pm#:~:text=On%20February%207%2C%202024%2C%20EPA,heart%20attacks%20and%20premature%20d eath

¹⁷ EPA finalizes stronger standards for harmful soot pollution, significantly increasing health and clean air protections for families, workers and communities, Feb. 7, 2024 <u>https://www.epa.gov/newsreleases/epa-finalizes-stronger-standards-harmful-soot-pollution-significantly-increasing</u>

¹⁸ Jean Chemnick, *4 things to know about EPA's new climate damage metric*, Mercury News, Jan 11, 2024, https://www.mercurynews.com/2024/02/07/new-pollution-rules-could-improve-air-quality-in-bay-areaother-parts-of-california/

¹⁹ DEIR at 3.3-4.

stronger standards will drive additional health protections for Bay Area residents, particularly those living in communities disproportionately impacted by air pollution."²⁰

In 2019 BAAQMD and its Advisory Council convened a symposium on the science of PM that brought together national level experts with local stakeholders. It found that more stringent standards are needed to protect public health, as PM is "the most significant driver of health risks from air pollution in the Bay Area."

In July 2024 the California Air Resources Board (CARB) published a fact sheet describing the state's efforts to reduce emissions from airports and aircraft. It noted that mobile sources of emissions at airports, including ground operations and aircraft, "contribute a significant amount of air pollution, with community, regional and global impacts. Attainment of federal air quality standards in California will require significant reductions of oxides of nitrogen (NOX), a precursor to the formation of ground-level ozone and particulate matter PM2.5)."²¹

The new rule and the strong support from BAAQMD and action by CARB means that enforcement in Alameda County will likely require OAK to take steps to reduce emissions. This cannot be done by increasing the number of flights, whether OAK regulates aircraft emissions or not.

It is worth noting that other airports in the San Francisco Bay Area are also subject to the EPA's new rule. This makes the DEIR's assertion that, "The OAK aviation activity projected in these forecasts would occur regardless of whether the Proposed Project is implemented" (DEIR at ES-3) not based on substantial evidence. It appears that, with this statement, the Port is assuming market competition for passengers that may not occur if PM exceeds the cap in counties where other airports are located.

The effect of the new EPA cap on PM must be analyzed in a new, revised Environmental Impact Report. As described above, significant changes to the baseline, alternatives, and project objectives for the Project require recirculation of the DEIR to inform public and agency decisionmaking.

• EPA's December 2023 Update of its Social Costs of Greenhouse Gases Shows Dramatic Increases, Requiring an Updated Analysis of Significant and Unavoidable Impacts

According to DEIR Table ES-2, Summary of Environmental Impact Levels of Significance and Mitigation Measures, and DEIR Section 3.7.3.2, the proposed project will generate GHG emissions,

²⁰ Bay Area Air Quality Management District, Press Release, Feb. 7, 2024 <u>https://www.baaqmd.gov/news-and-events/page-resources/2024-news/020724-pm-naaqs</u>

²¹ California Air Resources Board, California's Actions in Reducing Emissions from Airports and Aircraft, July 2024 Available at <u>chrome-</u>

extension://efaidnbmnnnibpcajpcglclefindmkaj/https://ww2.arb.ca.gov/sites/default/files/2024-08/California%20Aircraft%20and%20Airports%20Fact%20Sheet%20-%20July%202024_0.pdf

either directly or indirectly, that may have a significant impact on the environment comparable to State CEQA Guidelines Section 15064.4(b)(1)-(2). It goes on to state that:

"Similar to Air Quality, the majority of the Proposed Project's GHG emission increases would result from market-based demand and related aircraft emissions and the Port does not have the authority to mitigate air pollutant emissions associated with aircraft operations."

In DEIR Chapter 3 Existing Conditions and Environmental Impacts, the section on Operational Emissions (from p. 3.7-19 to 3.7-22) echoes the Port's mantra that the main sources of environmental impact are unavoidable because it is not responsible for regulating them. However, the Port is responsible for the overall impact the proposed new terminal and expanded number of gates would have. As it notes at DEIR Chapter 3.7.1.2 on Significance Thresholds, CEQA Guidelines Section 15064.4(b) lists factors on GHG that it should consider. Although the Port makes projections, it does not consider them to be its responsibility because it does not regulate the major source of emissions.

This willful ignorance is contrary to the Port's obligation, cited at Chapter 1.1 Introduction to the DEIR, to strike a balance between the harms/costs and potential benefits of a project. In Chapter 5 Impact Overview, the Port admits that "even with implementation of a feasible mitigation measures, the Proposed Project would have a potential cumulatively considerable impact related to criteria air pollutant emissions." (See 5.4.2) As noted, the Port has authority to mitigate GHG impacts, and to pursue project alternatives to that end.

Because the DEIR fails to analyze the most significant sources of GHG, its discussion of economic and growth inducing impacts is woefully incomplete. New values published by the U.S. Environmental Protection Agency (EPA) in December 2023 updated the values of the Social Cost of Greenhouse Gases (SC-GHG).²² The Port should use these values to consider the overall cost of greenhouse gas emissions that would result from all aspects of the Proposed Project, whether they regulate them or not.

The peer-reviewed study's methodology was based on 2017 recommendations from the National Academies of Science, Engineering and Medicine. The New York University's School of Law's Institute for Public Integrity called the new values the "most robust, scientifically-supported, and comprehensive climate change estimates currently available, and *decision-makers applying the SC-GHG should use EPA's values.*" (emphasis added)²³

²² Environmental Protection Agency, Report on the Social Cost of Greenhouse Gases: Estimates Incorporating Recent Scientific Advances November 2023 National Center for Environmental Economics Office of Policy Climate Change Division Office of Air and Radiation U.S. Environmental Protection Agency Washington, DC 20460 Available at <u>https://www.epa.gov/environmental-economics/scghg</u>

²³ Max Sarinsky, Kurt Weatherford, Institute for Policy Integrity, New York University School of Law, The Social Cost of Greenhouse Gases: An Overview. A Primer on EPA's Updated Values for Policymakers and Practitioners, May 2024 Available at <u>https://policyintegrity.org/publications/detail/the-social-cost-of-greenhouse-gases-an-overview</u>

The EPA's December 2023 findings are significantly higher than previous values from a 2021 interim working group's SC-GHG analysis, in part because it implemented the National Academies' recommendations. The EPA says this is consistent with recent research, as estimates "in academic literature have increased over time as the available methods and data have improved." It also notes that "[s]tudies using other types of survey techniques have found similar ranges of SC-GHG estimates."

The study found the average SC-GHG in 2024 to be \$210 per metric ton of emissions.

GHG	Interim report cost	EPA 2023 cost	% change
Carbon	\$51 per ton	\$190 per ton	+280
Methane	\$1500 per ton	\$1600 per ton	+10
NOX	\$18620 per ton	\$54000 per ton	+190

Table 2 New values show a dramatic increase	e for major greenhouse gas emission source	s
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Source: Jean Chemnick, 4 things to know about EPA's new climate damage metric, Mercury News, Jan 11, 2024, <u>https://www.eenews.net/articles/4-things-to-know-about-epas-new-climate-damage-metric/</u>

The report concludes by noting that its findings are likely to underestimate the real social cost of greenhouse gas emissions, saying:

"To conclude, the modeling implemented in this report reflects methodological choices that go in the direction of offering a partial representation of several types of climate change damages, and, given both those choices and the numerous categories of damages that are not currently quantified at all and other model limitations, the *resulting SC-GHG estimates likely underestimate the marginal damages from greenhouse gas pollution.*" (emphasis added)

Absent an evaluation of SC-GHG resulting from the Project, and instead relying only on bare projections of GHG emissions, the DIER fails to consider the nature and magnitude of the Project's impacts. (*See Sierra Club, supra*, 6 Cal.5th at 519 [a "sufficient discussion of significant impacts requires not merely a determination of whether an impact is significant, but some effort to explain the nature and magnitude of the impact."].)

The DEIR, furthermore, simply labels GHG emissions – and specifically emissions associated with aircraft operations – as significant an unavoidable without proposing, describing, or analyzing any measures to mitigate those impacts. Instead, the DEIR argues simply that the Port's hands are tied because it lacks authority to regulate aircraft emissions, and because any increase is the result of market-based demand that will result with or without the Project. As the DEIR notes, however, there are measures that the Port does have the authority to take that will reduce emissions resulting from the Project. Specifically, the DIER notes that most aircraft utilize "auxiliary power units (APUs)" for "cabin climate control and power while aircraft are on the ground."²⁴ These APUs, moreover, use "more than double the amount of energy as ground power units (GPUs) or Pre-Conditioned Air (PCA) facilities, which supply electricity to the aircraft either via off-board generator or a fixed power

²⁴ DEIR at 3.7-13

supply connected to the terminal building."²⁵ The DEIR further notes that "[g]round power solutions and PCA are becoming more common as they minimize the power requirements of aircraft during turnaround, resulting in an almost 50 percent reduction in APU emissions."²⁶ Yet, the DEIR never considers or analyzes the potential GHG reductions from a mitigation measure requiring the instillation and use of APU alternatives as part of the Project. In fact, the DEIR identifies no mitigation measures for GHG emissions whatsoever in violation of CEQA. (Cal. Pub. Res. Code §§ 21061, 21100(b)(3); 14 CCR §§ 15121(a) & 15126.4(a); *See also Environmental Council of Sacramento v. City of Sacramento* (2006) 142 Cal.App.4th 1018, 1039 ["A gloomy forecast of environmental degradation is of little or no value without pragmatic, concrete means to minimize the impacts and restore ecological equilibrium. Thus, CEQA requires project proponents to mitigate all significant environmental impacts of their project."].

• Stanford Research Shows DEIR Conclusions on Noise Impact Ignore Relevant Information, Resulting in Unsupported Conclusions, and a New Study Establishes a Methodology to Measure the Economic Burden of Health Impacts Caused by Aircraft Noise.

The DEIR has a limited analysis of the impact aircraft noise and vibrations that would result from additional flights generated by the new terminal and 16 additional gates, the accommodation of larger aircraft, more cargo aircraft (typically louder) and extended nighttime operations. All are likely to increase noise levels substantially for the communities directly adjacent to the airport and those underneath departure and arrival flight paths.

DEIR Table ES-2, Summary of Environmental Impact Levels of Significance and Mitigation Measures, states that noise for aircraft operations would be "less than significant" and lists no mitigation measures.

In Chapter 3 Existing Conditions and Environmental Impacts, the DEIR explains the methodology it used. (p. 3.11-14) It was described as a "generally accepted process" that used computer models to compare existing noise levels to estimated noise levels resulting from the proposed project. This includes the Federal Aviation Administration (FAA) *Guidance on Using the Aviation Environmental Design Tool (AEDT) to Conduct Environmental Modeling for FAA Actions Subject to NEPA*.²⁷ The DEIR concludes that:

"In other words, the Proposed Project itself would have no effect on noise levels associated with aircraft operations, rather, the change in noise levels from 2019 to 2028 and 2038 aircraft operations is entirely attributable to market-based demand that would occur with or without the Proposed Project." (p. 3.11-15)

The DEIR basically concludes that since the increase in passenger traffic would occur with or without expansion, there is no noise impact. What limited assessment of noise there is appears to

²⁵ Id.

²⁶ DEIR at 3.7-13 & 3.7-14.

²⁷ https://aedt.faa.gov/Documents/guidance_aedt_nepa.pdf

be limited to a very narrow area (DEIR Figures 3.11.3, 3.11.5 and 3.11.6, areas where there is no housing.

This insufficient analysis would benefit from additional study using research reports that became available in May 2024, as described below. This updated analysis should be included in a Revised Environmental Impact Report. (14 CCR §§ 15088.5(a)(2) & (a)(4).)

First, in March 2024 the Journal of the Acoustical Society of America, a peer reviewed journal, published results of research conducted in the Bay Area by the Stanford University Department of Aeronautics and Astronautics. It shows that the FAA's AEDT significantly underestimates aviation noise impact.

In its conclusion, the study states:

" The resulting statistical data indicate that this type of modeling is overly simplistic and gives far from accurate comparison with ground SLM measurements. It is highly troubling that for flights passing the SIDBY receptor, the estimated altitudes for 9 out of 13 significant aircraft types are significantly below the ADS-B measured altitudes by 2.6 to 4.2 times the standard deviation of the ADS-B altitude distribution. It is noteworthy that, despite these deficiencies, AEDT-R is the only FAA approved regulatory mode for AEDT use.

Our analyses also point to a systematic underestimation by AEDT-AE in its predictions for LAmax and SEL metrics by significant but highly varied amounts depending on aircraft type and performance model. The results for the three route segments are shown in Table VII.

AEDT-AE modeling must be improved by adjusting the internal representation of the applicable physics, e.g., the NPD curves and modeling of engine and airframe noise at various stages of flight. In at least some instances, AEDT-AE predicts lower sound metrics (LAmax and SEL) for aircraft with higher calibrated airspeeds. This contradicts the physics involved and suggests AEDT-AE does not adequately account for airframe noise sources when auxiliary high-lift equipment is in use or landing gear is deployed."²⁸

Because the DEIR relied on the AEDT to estimate noise impact, its noise analysis almost certainly underestimates the impact of the Proposed Project. This new development requires a reassessment of noise impact in a REIR.

Secondly, a study in the Journal of Exposure Science and Environmental Epidemiology titled, *Projecting the economic burden of health impacts of aircraft noise: a case study of Baltimore Washington International Thurgood Marshall Airport*²⁹ was_published on May 29, 2024. It established a methodology for assessing the long-term health and economic burden for long-term

²⁸ Thomas C. Rindfleish, Juan J. Alonso, Donald C. Jackson, Brian C. Munguia, Nicholas W. Bowman, A largescale validation study of aircraft noise modeling for airport arrivals, J. Accoust. Soc. Am 155 March 11, 2024, https://pubs.aip.org/asa/jasa/article/155/3/1928/3270390/A-large-scale-validation-study-of-aircraft-noise

²⁹ Jeong-eun Park, Peter Alexander Muennig & Zafar Zafari, Projecting the economic burden of health impacts of aircraft noise: a case study of Baltimore Washington International Thurgood Marshall Airport, Journal of Exposure Science and Environmental Epidemiology, May 29, 2024. Available at <u>https://www.nature.com/articles/s41370-024-00685-8</u>

health and economic burden for cardiovascular disease, anxiety disorders, noise annoyance and low birth weight.

The study's authors, from the University of Maryland, Columbia University and the Institute for Health Computing, found that:

"Increased aircraft noise exposure was estimated to produce (discounted) incremental mortality costs of \$362 million, morbidity costs of \$336 million, and losses of 15,362 Quality Adjusted Life Years (QALYs) over the next 30 years."

Noting the Federal Aviation Administration's implementation of the Next Generation Air System (NextGen) has led to unintended consequences, the authors said, "*potential adverse* consequences due to increased noise in affected communities have not been adequately considered in aviation policy discussions." (emphasis added)

The study found that although NextGen can increase operational efficiency at airports, it can also produce a level of noise pollution that is a major public health problem, the costs of which can offset operation efficiencies.

In the describing the health effects of noise, the authors noted that "constant exposure to high noise levels, leading to chronic physiological and emotional stress, can trigger biochemical and neurohormonal responses that accelerate the aging process and contribute to various health conditions." In addition to the conditions studied, they noted that "in the case of school-aged children, noise exposure can have detrimental effects on their learning abilities, cognitive function, communication and school-related performance, which can have negative long-term socioeconomic implications, another major risk factor for poor health outcomes." These impacts reflect the potential of the Project to cause "substantial adverse effects on human beings" including environmental justice communities that may be more located to and proximately impacted by increased noise resulting from the Project; these impacts require a mandatory finding of significance. (14 CCR § 15065(a)(4).)

Conclusion

Responsible aviation planning cannot take place outside the context of climate change and national, state and local goals to address it. The new developments brought to the Port's attention in this document point to the need for modernization and planning for the future that is consistent not only with the California Environmental Quality Act, but with our collective move toward a sustainable transportation future grounded in environmental justice. The Port of Oakland can be a leader in this effort by updating its analysis and plans in a Revised Environmental Impact Report.

Yours truly,

Kay Gunane

Kay Guinane and Lin Griffith, for the Steering Committee - Contact: lin@stopoakexpansion.org

APPENDIX A

Table A1

	FY 2027 Total FY 2028 Total	FY 2026 Total	FY 2025 Total	FY 2023 Total	FY 2022 Total	Comparison b Months
Note: The data from the Port's website, and in the July 2024 staff financial report to the Commission is by fiscal years ending June 30.			ccc1221++	11 220 355	9,976,766	etween actual pass Actual Enplanement + Deplanement Data from the Port's website: https://www.oaklan dairport.com/busine ss/facts-figures/
	13,926,926 14,205,464	13,653,848	12,820,514	11 981 790	9,976,766	enger traffic data for fis for fis Enplanement + Deplanement Reported in July 2024 Port financial report presented by staff to the Commission
	"Projected" "Projected"	"Projected"	"Projected"	"Projected" "Projected"	"Actual"	, projections (cal years 202 Label associated with the number in the July 2024 financial reports
			CC1,201	-414,609	0	From Port staff 2-2024 Discrepancy between Actual Data from the Port's website and Data presented by Port staff in July 2024 financial reports
			0.1 /0	-3.6%		f reports, and Percent Discrepancy between Actual Data and Data shared in July 2024 financial reports
Note: The data from the DEIR is by federal fiscal years ending Sept 30.	17,514,398					projections i Enplanemen t projection in the DEIR (by federal fiscal year), multiplied times two
	-23.3%					In the DEIR, Discrepancy between projections presented by Port staff in July 2024 and the projections in the DEIR

Table 1

Table A2

Airport Passengers: Historical vs. Projected Trends

Pas	sengers	<u>Notes</u>
FY 2014	9,890,271	Actual
FY 2015	10,754,556	Actual
FY 2016	11,614,845	Actual
FY 2017	12,593,371	Actual
FY 2018	13,356,803	Actual
FY 2019	13,615,771	Actual
FY 2020	9,493,637	Actual
FY 2021	5,222,881	Actual
FY 2022	9,976,766	Actual
FY 2023F	11,981,878	Projected
FY 2024B	11,981,790	Projected
FY 2025P	12,820,514	Projected
FY 2026P	13,653,848	Projected
FY 2027P	13,926,926	Projected
FY 2028P	14,205,464	Projected

SOURCE: Port of Oakland Staff Report July 2024

APPENDIX B List of Attachments

Report on the Social Cost of Greenhouse Gases: Estimates Incorporating Recent Scientific Advances U.S. Environmental Protection Agency, November 2023 National Center for Environmental Economics Office of Policy Climate Change Division Office of Air and Radiation U.S. Environmental Protection Agency Washington, DC 20460

The Social Cost of Greenhouse Gases: An Overview. A Primer on EPA's Updated Values for Policymakers and Practitioners, Max Sarinsky, Kurt Weatherford, Institute for Policy Integrity, New York University School of Law, May 2024

Amtrak Daily Long-Distance Service Study Northwest Regional Working Group Meeting Federal Railroad Administration (FRA) June 6, 2024

Final Reconsideration of the National Ambient Air Quality Standards for Particulate Matter (PM) U.S. Environmental Protection Agency, Feb. 7, 2024

A large-scale validation study of aircraft noise modeling for airport arrivals, Thomas C. Rindfleish, Juan J. Alonso, Donald C. Jackson, Brian C. Munguia, Nicholas W. Bowman, J. Accoust. Soc. Am 155 March 11, 2024

Projecting the economic burden of health impacts of aircraft noise: a case study of Baltimore Washington International Thurgood Marshall Airport, Jeong-eun Park, Peter Alexander Muennig & Zafar Zafari, Journal of Exposure Science and Environmental Epidemiology, May 29, 2024