



## Legislation Text

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**DATE:** June 14, 2022

**SUBJECT:**

### **PRESENTATION ON THE UPDATED DRAFT HEALTH RISK ASSESSMENT FOCUSING ON DIESEL PARTICULATE MATTER EMISSIONS AT THE DISTRICT'S MARINE CARGO TERMINALS**

#### **EXECUTIVE SUMMARY:**

The Maritime Clean Air Strategy (MCAS) includes a vision of "Health Equity for All" with specific aspirational goals and objectives to reduce pollution from maritime-related activities and industries. In support of this vision, one of the MCAS's objectives is the identification of existing health risk levels based on activity at the Tenth Avenue Marine Terminal (TAMT) and the National City Marine Terminal (NCMT) (*MCAS - Health Objective 1*). Health risk models typically estimate cancer risk as a factor of "per million" people (e.g., 10 per million). The District's Updated Health Risk Assessment (Updated HRA), using the 2019 emissions inventory prepared for the MCAS, identifies the "maximum" risk based on 30-year residential exposure, the point of maximum health impact, or the location where the maximally exposed individual resident is located assuming exposure to emissions for 30 years. District Staff's draft presentation is included as Attachment A.

The MCAS also has an objective of providing the San Diego Air Pollution Control District (SDAPCD) and the California Air Resources Board (CARB) with the District's health risk assessment and to assist them with preparing a cumulative health risk assessment for the larger AB 617 Portside Community (*MCAS - Health Objective 2*).<sup>1</sup> The AB 617 Portside Community's Regional Air Toxics Modeling will include the collective cancer risks at all census tracts in the Portside Community from multiple emissions sources within the San Diego Region and beyond. More specifically, CARB's Regional Air Toxics Modeling will include on-road sources (such as freeways and major arterials), stationary sources (such as power plants and industrial facilities), areawide sources (such as construction and agricultural equipment), and off-road mobile sources (such as cargo handling equipment, oceangoing vessels, and harbor craft). It is important to note, that this is the first time air toxics modeling of this kind has been conducted on a regional level. Although CARB's analysis is not finalized, preliminary results show that regional air emissions have a proportionately large contribution to health risk within the AB 617 communities, with the highest contributions of diesel particulate matter attributed to regional transportation on the interstate highway system, followed by commercial harbor craft, then followed by industrial operations and manufacturing ("other") and then Mexico/border activity. See Attachment B - CARB Regional and Portside Community Modeling Presentation, Slide 14.

The District's Draft Preliminary Health Risk Assessment and Summary Report (HRA Summary Report, December 2021) estimated the maximum residential cancer risk associated with goods

movement from the District's two marine cargo terminals, as well as ferry activity, in National City, Barrio Logan, Downtown San Diego and Coronado. Since December, staff has been updating and refining the modeling parameters to ensure estimates are based on the best available data and science, as well as stakeholder review and comment, including discussions and feedback from CARB and SDAPCD.

To illustrate how some of the key emissions-reducing initiatives identified in the MCAS may help reduce health risk, the Updated HRA Report compares the Updated 2019 Baseline Risk using forecasted cancer risk model inputs for 2026 and 2030. It should be noted that the MCAS measures are not intended to be an exhaustive list and the District may pursue other measures, programs, and projects to reduce health risks in the future.

Completion of the HRA modeling satisfies MCAS Health Objective 1A. The modeling forecast of health risk in 2026 and 2030 shows that several of the near-term and long-term aspirational goals and objectives identified in the MCAS are very likely to reduce diesel particulate matter (DPM) emissions and therefore, reduce health risk. More specifically, the District's aim to advance and invest in new and cleaner technology with tenants and other partners at its two marine cargo terminals will help reduce health risk, particularly with the near-term measures targeted for completion by 2026. Going forward, District staff will use information from the Updated HRA to develop new emission reduction strategies for certain emission sources and to assist with the anticipated 2025 MCAS Update. District staff will also continue to collaborate with SDAPCD staff and the AB 617 Portside Community Steering Committee on ways this assessment can be used to inform emission reduction strategies and help improve the health of AB 617 Portside Community residents.

Staff anticipates posting the Updated HRA on the District's website in July for 30 days, then will finalize the report and transmit it to the Board.

### **RECOMMENDATION:**

Receive a presentation on Updated Health Risk Assessment focusing on diesel particulate emission at the District's marine cargo terminals.

### **FISCAL IMPACT:**

This agenda item has no fiscal impact.

### **COMPASS STRATEGIC GOALS:**

This agenda item supports the following Strategic Goal(s).

- A Port that the public understands and trusts.
- A thriving and modern maritime seaport.
- A Port with a healthy and sustainable bay and its environment.
- A Port with a comprehensive vision for Port land and water uses integrated to regional plans.
- A Port that is a safe place to visit, work and play.

### **DISCUSSION:**

For more than a decade the District has developed and implemented programs, projects, initiatives, and deployed clean air investments and new technologies. The MCAS, adopted by the Board of Port Commissioners (Board) on October 12, 2021, includes several clean air goals and objectives and focuses on reducing emissions associated with marine cargo terminal operations. The MCAS, as well as the Districts' other plans like the Clean Air Plan (2007), Climate Action Plan (2013), and the TAMT Redevelopment Plan (2016), seek to improve overall air quality and alleviate the poor air quality burden on surrounding communities through specific programs, actions, and initiatives. The District's aim to reduce emissions have steadily increased over the years, with continued investments in emerging technologies, establishing aspirational emission reduction goals, like those in the MCAS, developing public-private partnerships and fostering new ideas to address old problems.

Health Objective 1 in the MCAS directs identification of existing health risk levels generated from the District's Tenth Avenue Marine Terminal (TAMT) and the National City Marine Terminal (NCMT) for diesel particulate matter (DPM) and other toxic air contaminant (TAC) emissions. Consistent with Health Objective 1, the Port prepared a quantitative HRA analysis and posted the Preliminary Draft HRA Summary Report (December 2021) on its website on December 1, 2021. Stakeholders and agencies were encouraged to provide comments and the preliminary results were presented to the Board on December 14, 2021. The Preliminary Draft Analysis included an estimate of existing cancer risks from marine cargo terminal operations based on the 2019 MCAS Emissions Inventory and focused on DPM emissions because most of the operations and equipment at TAMT and NCMT is diesel powered. DPM is the most prevalent TAC in San Diego according to the California Air Resources Board (CARB).<sup>2</sup>

Since December, staff has been updating and refining the modeling parameters to ensure estimates are based on the best available science and data. The District's Draft Preliminary Health Risk Assessment Report (December 2021) has been updated based on stakeholder review and comment, including discussions and feedback from the CARB and the San Diego Air Pollution Control District (SDAPCD). This includes using updated emission factors for ocean-going vessels, commercial harbor craft and freight rail, using actual fuel usage for tug-related emissions (which is a more accurate measurement than using default model inputs for emission factors) and modeling truck emissions on select surface streets and highways.

The Updated HRA uses the same 2019 MCAS Emissions Inventory but modified some of the modeling parameters (as discussed above) to more accurately estimate the maximum residential cancer risk<sup>3</sup> and establish a baseline of existing health risks from the District's marine cargo terminals and ferry activity (Updated 2019 Baseline Risk). A comparison between the draft preliminary maximum residential cancer risk baseline presented to the Board in December 2021, and the Updated 2019 Baseline Risk are shown in Table 1 below for West National City, Barrio Logan, Downtown, and Coronado.

**Table 1 – Preliminary and Updated 2019 Baseline Risk<sup>1</sup>**

<b>Community</b>	<b>Preliminary 2019 Baseline Risk (December 2021 Board Presentation)</b>	<b>Updated 2019 Baseline Risk (June 2022 Board Presentation)</b>
West National City	19.48	20.6
Barrio Logan	19.59	19.7
Downtown San Diego <sup>2</sup>	22.91	18.9
Coronado <sup>3</sup>	17.45	16.0

<sup>1</sup> The Preliminary and Updated HRA 2019 Baseline Risk is specific to marine cargo terminals and ferries only. It does not include other sources that may also contribute to risk in these communities

<sup>2</sup> Only the western portions of the Downtown Community Planning Area were modeled, (e.g., Convention Center, Marina, Columbia and Little Italy neighborhoods).

<sup>3</sup> Only the Bayside (or the eastern portion) of Coronado, near the Coronado Ferry Landing was modeled.

The Updated 2019 Baseline Risk resulted in a slightly higher maximum residential cancer risk in West National City and Barrio Logan by including trucks on Interstate 5 and service streets, updated stack height emission calculations for ocean-going vessels, updated 2019 fuel consumption for tugboats, and lowering the emission factors for commercial harbor craft and rail. These changes also explain the reduction seen in Downtown San Diego and Coronado.

The Updated Draft HRA also used updated modeling parameters to forecast health risk estimates for 2026 and 2030, assuming completion of the key MCAS goals and objectives. With achievement of the currently specified MCAS goals and objectives, the maximum residential cancer risks may be reduced from the 2019 Baseline Risk to the levels shown below in 2026 and 2030 (See Table 2 below):

**Table 2 – Updated 2019 Baseline Cancer Risk and Forecasted Cancer Risk with MCAS Modeling Inputs for 2026 and 2030<sup>1</sup>**

<b>Community</b>	<b>Updated 2019 Baseline Risk</b>	<b>MCAS Modeling Inputs for 2026<sup>4</sup></b>	<b>MCAS Modeling Inputs for 2030<sup>5</sup></b>
West National City	20.6	14.4	11.9
Barrio Logan	19.7	11.7	10.5
Downtown San Diego <sup>2</sup>	18.9	16.6	16.4
Coronado <sup>3</sup>	16.0	9.3	8.2

<sup>1</sup> The Preliminary and Updated HRA 2019 Baseline Risk is specific to marine cargo terminals and ferries only. It does not include other sources that may also contribute to risk in these communities

<sup>2</sup> Only the western portions of the Downtown Community Planning Area were modeled, (e.g., Convention Center, Marina, Columbia and Little Italy neighborhoods).

<sup>3</sup> Only the Bayside (or eastern portion) of Coronado, near the Coronado Ferry Landing was modeled.

<sup>4</sup> Assumes operation of one zero emission tugboat and all short-run ferry trips are zero emission, 20 pieces of cargo handling equipment at TAMT are zero emission, 40% of truck trips at both terminals are zero emission, updated vessel speed reduction program, and shore power capabilities at NCMT.

<sup>5</sup> Assumes 100% of truck trips and 100% of cargo handling equipment are zero emissions at both terminals.

The Updated Draft HRA Report (July 2022) is intended to serve several purposes:

1. Establish a 30-year cancer risk baseline estimate for the neighboring AB 617 Portside Community due to goods movement activities at the Ports Tenth Avenue Marine Terminal and National City Marine Terminal based on 2019 activity. <sup>4</sup>
2. Provide a quantified comparison between the 2019 Baseline Risk (or current) 30-year cancer risk and a forecasted (or future) 30-year cancer risk estimate, assuming specific near-term

(2026) and long-term (2030) MCAS-related emission reduction goals and objectives are accomplished.

3. Augment the SDAPCD and CARB Regional Air Toxics Risk modeling being developed for the AB 617 Portside Community by providing a location- and operational-specific Health Risk Assessment for the Port's two marine cargo terminals based on actual 2019 activity and operations.

## Regulatory Background

The California Air Toxics “Hot Spots” Information and Assessment Act (Hot Spots Act) was enacted in 1987 to address public health risks from TACs emitted by stationary sources. The most prominent TAC is DPM, which is emitted from diesel engines. DPM is attributed to about 70% of total known cancer risks in California<sup>5</sup> and contributes to approximately 84% of the regional cancer risk in the AB 617 Portside Community, based modeling prepared by CARB.

In San Diego County, the SDAPCD is responsible for implementing the Hot Spots Act, which includes categorizing and prioritizing toxic emissions from *stationary sources* to determine which sources should quantify health risk in the form of a Health Risk Assessment.<sup>6</sup> SDAPCD implements the Hot Spots Act through District Rule 1210, which establishes public notification and risk reduction thresholds. Although District Rule 1210 only applies to stationary sources (such as manufacturing operations, power plants, and other industrial/commercial operations), it provides a useful reference point (or proxy) for assessing mobile-source emissions associated with the District's two marine cargo terminals as there are no analogous rules for mobile-source emissions.

In November 2021, the SDAPCD Governing Board amended Rule 1210 by lowering the maximum individual cancer risk significance threshold for stationary sources from 100 in one million to 10 in one million for emissions that occurred in 2018 or later. Rule 1210 also requires facilities subject to risk reduction requirements to reduce health risks below the significance thresholds within five years. Recognizing that some facilities may need additional time since technology is still advancing in some sectors, some facilities might be eligible for a three-year extension if they have implemented Toxic Best Available Retrofit Control Technology (or T-BARCT).<sup>7</sup>

In addition, certain projects may require a health risk assessment as part of their California Environmental Quality Act (CEQA) analysis. In these cases, lead agencies typically rely on SDAPCD's Rule 1210 as the standard for determining significance. If a project exceeds the 10 in one million standard, that project's CEQA analysis usually includes a HRA and may potentially result in a significant impact to air quality and would be required to incorporate any feasible mitigation measures that could reduce cancer risk levels to below 10 in one million. The subject HRA is on a project-level unlike the District's Updated HRA or CARB's and SDAPCD's the cumulative health risk assessment for the larger AB 617 Portside Community.

## Existing HRA Baseline Levels

The Updated HRA (July 2022) focuses on emissions associated with freight and the goods movement at TAMT and NCMT, including mobile emissions associated with ocean-going vessels, trucks, cargo handling equipment, rail, and commercial harbor craft (including tugboats). Additionally, the Updated HRA analysis included emissions associated with ferry activity between Coronado and

Convention Center/Downtown Broadway Pier. Ferry emissions are near the community of Barrio Logan and the District was able to readily obtain ferry-boat operational information because it operates on a regularly scheduled, fixed, short-route service which can be more easily modeled than other emissions sources that include operational characteristics and functions that are complex, intermittent and spatially distant from the communities of concern. Furthermore, MCAS Harbor Craft Objective 2 targets transitioning all short-run ferries to zero emission technologies by January 1, 2026. Estimating and documenting the contribution of ferries have on cancer risk may help ferry operators secure additional State and/or federal funding.

The Districts HRA modeling efforts do not account for other off-tidelands emissions sources (such as freeways and local industrial uses) that contribute emissions to the region. However, the Portside Community's Regional Air Toxics Modeling being conducted by CARB and SDAPCD includes a much broader range of emission sources and looks at regional risk as well as localized risk, and includes activity associated with the District's two marine cargo terminals.

### **Forecasted Health Risk Assuming MCAS Implementation**

Table 2 above forecasts the estimated cancer risk reduction in four nearby residential communities, assuming completion of MCAS goals or objectives in 2026 and 2030. These current goals and objectives do not limit the consideration of additional or new technologies, and/or any other augmented or alternative pathways that may also serve to reduce health risks below 2019 Baseline Risk levels.

The forecasted health risk results estimated cancer risk reduction by assuming full implementation of certain MCAS goals and objectives by the benchmark years of 2026 and 2030. (see Attachment A, slide 13). For example, installation of two shore power plugs at NCMT by 2026 would reduce cancer risk the most in West National City, whereas, replacing 20 pieces of cargo handling equipment with zero emission alternatives at TAMT by 2026 would yield the highest cancer risk reduction in Barrio Logan. The Updated HRA (June 2022) modeling demonstrates the 2019 Baseline Risk can be significantly reduced in all four communities.

It's important to note that several MCAS initiatives are currently in-progress, and some may be operational in advance of the 2026 benchmark years. For example, in January 2022 the Board authorized the purchase of a zero-emission mobile harbor crane, estimated final cost to the District at \$14.2 million, to support TAMT cargo movement operations and is expected to arrive in late 2022 and be fully operational in 2023. Additionally, the country's first all-electric tugboat is currently scheduled to be operational in the Bay in 2023.

In May 2022, the Board approved a public-private partnership agreement with Clean Air Engineering - Maritime, Inc. to design, build, and operate a barge-based emissions control and capture system ("Bonnet") for non-shore powered capable vessels at berth for approximately \$11.5 million-plus delivery costs and sales tax, with \$4.9 million grant-funded from the California Transportation Commission. It should be noted that the Bonnet's air pollution reduction is not part of the Updated HRA.

### **CARB's Regional Air Toxics Modeling Efforts for the AB 617 Portside Community**

MCAS Health Objective 2 states that staff will *"assist the San Diego Air Pollution Control District and*

*the California Air Resources Board with preparing a cumulative or community health risk analysis for the AB 617 Portside Community by providing them with the Port's Health Risk Assessment and other operational related information"* (MCAS Health Objective 2). Similar language is included in the Portside Community's AB 617 CERP, which has not been adopted by the Board. The Districts Updated HRA (June 2022) results will augment the SDAPCD and CARB Regional Air Toxics Risk modeling by providing a location- and operational-specific Health Risk Assessment for the Port's two marine cargo terminals.

The Districts MCAS Team submitted the preliminary HRA Summary Report (December 2021) to CARB and SDAPCD staff and reviewed the preliminary results with them. District staff met regularly with CARB and SDAPCD staff for the past several months to ensure both models were using the best and most accurate information. In addition to soliciting ways to clarify and/or improve the preliminary analysis, the Districts MCAS Team has worked with CARB and SDAPCD staff and provided them with the information related to the District's marine cargo terminal operations and ferry activity. However, due to the additional emission sources included in CARB's Regional Air Toxics Model, as well as the larger geographic region it was modeling, it was necessary to use different modeling methodologies, with different software and data sets. In addition, CARB's Regional Air Toxics Modeling used a population-weighted average based on a 2017 baseline to estimate cancer risk, which is a best practice when modeling large regional areas. This approach differs from the District's Updated Health Risk Assessment that used a 2019 baseline and focused on the maximum residential cancer risk in each of the four communities, which is a best practice when modeling smaller areas. Nevertheless, both modeling efforts are informative and can complement one another as the District and SDAPCD staff continue to collaborate with community residents and stakeholders on emission reduction initiatives.

## **Stakeholder Engagement**

In addition to the regular meetings between the District, SDAPCD and CARB, initial cancer risk estimates from both agency efforts were discussed at the AB 617 CERP/MCAS Implementation Subcommittee on April 28, 2022 and May 12, 2022. The information was generally well received and subcommittee members offered suggestions to agency staff on ways to more clearly communicate and present the modeling results to the larger AB 617 Steering Committee meeting.

Following completion of the AB 617 CERP/MCAS Implementation Subcommittee, SDAPCD and District staff promoted the May 24, 2022 AB 617 Port Community Steering Committee on social media, and District staff distributed flyers at the Barrio Logan Community Planning Group meeting and at key locations within the Portside Community. Approximately 65 people attended the May 24<sup>th</sup> 2022 virtual AB 617 Portside Community Steering Committee to learn about CARB's Regional Air Toxics Modeling results, as well as the District's Updated HRA.

At the meeting, CARB's Regional Air Toxics Risk Model Summary Slide noted that total DPM emissions resulted in a greater than 700 per million population weighted average risk in the Portside Community, and that slightly more 200 per million of that risk can be attributed to emissions within the Portside Community's geographic boundary (Attachment C - CARB Regional and Portside Community Modeling Presentation, Slide 10). According to CARB's analysis, the total risk and source apportionment of emission sources within the Portside Community indicates DPM to be slightly more than 72% of the cancer risk, whereas DPM represents 84% of the risk when considering all regional emissions sources. It also estimated that at the census block centroid, cancer risk was

greater than 500 per million and highest levels of DPM-related cancer risk appeared to be emanating from Interstate 5 (Attachment D - CARB Regional and Portside Community Modeling Presentation, Slide 16) The full presentation can be viewed on the SDAPCD website at: III. CARB SD Portside Risk Modeling\_Eng.pdf (sdapcd.org) (English) and III. CARB SD Portside Modelado de Riesgo\_Esp.pdf (sdapcd.org) (Spanish).

Likewise, District staff presented its Updated 2019 Baseline Cancer Risk, as well as forecasted cancer risk estimates in 2026 and 2030, assuming completion of MCAS-related goals and objectives. District staff concluded the presentation by highlighting several of the MCAS objectives that are currently underway.

## **Next Steps**

The District's Updated HRA Report (July 2022) is a useful tool for establishing the existing 2019 Baseline Risk based on 2019 marine cargo terminal operations and ferry activity. The HRA analysis shows (Table 1 above) that the maximum residential cancer risk (2019 Baseline Risk) ranges from a high of 20.6 per million in National City followed by Barrio Logan at 19.7. The Updated HRA analysis also forecasts potential cancer risk reductions assuming completion of some of the key MCAS goals and objectives. Cancer risk reductions are forecasted to range between 13% and 52% by 2030, based on the specific MCAS goals and objectives identified and indicate a downward trend in health risk from the District marine terminals may be anticipated.

The results of the Updated HRA analysis are another tool to help the District guide and prioritize emission reduction projects and to inform future updates to the MCAS. Staff will continue to work with its partners to advance transition to zero emission technologies and will continue to explore private-public partnerships.

In July, staff will post the Updated HRA on the District's website for 30 days, then will subsequently finalize the HRA and transmit the final report to the Board. Staff will remain engaged with CARB and SDAPCD as they complete the final Regional Air Toxics Risk Modeling report for the AB 617 Portside Community.

Finally, staff will continue to diligently implement the MCAS's goals and objectives for all maritime emission sources. As implementation of the MCAS continues, staff will continue to explore and identify any new strategies, partnerships, and/or projects to fulfil the MCAS vision of "Health Equity for All".

## **General Counsel's Comments:**

The General Counsel's Office has reviewed the agenda sheet and attachments, as presented to it, and approves them as to form and legality.

## **Environmental Review:**

This Board item does not constitute an "approval" or a "project" under the definitions set forth in California Environmental Quality Act (CEQA) Guidelines Sections 15352 and 15378 because no direct or indirect changes to the physical environment would occur. CEQA requires that the District adequately assess the environmental impacts of its projects and reasonably foreseeable activities



that may result from projects prior to the approval of the same. Any project approval resulting in a physical change to the environment will be analyzed in accordance with CEQA prior to such approval. CEQA review may result in the District, in its sole and absolute discretion, requiring implementation of mitigation measures, adopting an alternative, including without limitation, a “no project alternative” or adopting a Statement of Overriding Consideration, if required. The current Board direction in no way limits the exercise of this discretion. Therefore, no further CEQA review is required.

In addition, this Board item complies with Section 87 of the Port Act, which allows for the establishment, improvement, and conduct of a harbor, and for the construction, reconstruction, repair, maintenance, and operation of wharves, docks, piers, slips, quays, and all other works, buildings, facilities, utilities, structures, and appliances incidental, necessary, or convenient, for the promotion and accommodation of commerce and navigation. The Port Act was enacted by the California Legislature and is consistent with the Public Trust Doctrine. Consequently, this presentation is consistent with the Public Trust Doctrine.

Finally, this Board item does not allow for “development,” as defined in Section 30106 of the California Coastal Act, or “new development,” pursuant to Section 1.a. of the District’s Coastal Development Permit (CDP) Regulations because it will not result in, without limitation, a physical change, change in use or increase the intensity of uses. Therefore, issuance of a Coastal Development Permit or exclusion is not required. However, development within the District requires processing under the District’s CDP Regulations. Future development, as defined in Section 30106 of the Coastal Act, will remain subject to its own independent review pursuant to the Districts certified CDP Regulations, PMP, and Chapters 3 and 8 of the Coastal Act. The Board’s direction in no way limits the exercise of the District’s discretion under the District’s CDP Regulations.

### **Diversity, Equity, and Inclusion Program:**

This agenda sheet has no direct DEI impact on District workforce or contract reporting at this time.

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### **Attachment(s):**

Attachment A: Draft Presentation: Updated Health Risk Assessment for District Marine Terminals

Attachment B: CARB Regional and Portside Community Modeling Presentation, Slide 14.

Attachment C: CARB Regional and Portside Community Modeling Presentation, May 24, 2022, Slide 10

Attachment D: CARB Regional and Portside Community Modeling Presentation, May 24, 2022, Slide 16

<sup>1</sup> The AB 617 Portside Environmental Justice Neighborhoods (Portside Community) Community Emission Reduction Plan (CERP), Phase II July 2021, identifies similar goals. See CERP Goals #5 and #6 on page 9 and 10: <https://www.sdapcd.org/content/dam/sdapcd/documents/capp/cerp/Portside-Environmental-Justice-CERP-July-2021.pdf>

<sup>2</sup> Air Toxics Risk Modeling - Regional Modeling from a Community Perspective (sdapcd.org)

<sup>3</sup> Maximum residential cancer risk is also referred to as Maximally Exposed Individual Resident (MEIR), which are typically defined as existing off-site residence(s) (i.e., house, apartment or other dwelling) with the highest cancer health impact. OEHHA recommends that a 30-year exposure duration be used as the basis for estimating cancer risk at the maximum exposed individual resident (MEIR). For more information, please see <https://oehha.ca.gov/media/downloads/crn/2015guidancemanual.pdf>

<sup>4</sup> Please note Commuter Ferries are not associated with terminal activities but were included in the HRA because of their adjacency to the Tenth Avenue Marine Terminal and because the MCAS Harbor Craft Objective 2 seeks to electrify all short-run ferries by January 1, 2026.

<sup>5</sup> <<https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health>>

<sup>6</sup> Health Risk Assessment means a detailed comprehensive analysis prepared pursuant to Section 44361 of the California Health and Safety Code to evaluate and predict the dispersion of hazardous substances in the environment and the potential for exposure of human populations and to assess and quantify both the individual and population wide health risk associated with those levels of exposure (SDAPCD Rule 1210. Toxic Air Contaminant Health Risks - Public Notification and Risk Reduction).

<sup>7</sup> San Diego County Air Pollution Control District 2021 Air Toxic “Hot Spots” Annual Report (2022): <https://www.sdapcd.org/content/dam/sdapcd/documents/permits/air-toxics/California-Air-Toxics-Hot-Spots-Annual-Report-2021-DRAFT.pdf>